

SUPREME COURT OF THE UNITED STATES
No. 142, Original

STATE OF FLORIDA,)
Plaintiff,)
V.)
STATE OF GEORGIA)
Defendants.)

VOLUME XII

TRANSCRIPT OF PROCEEDINGS

The above-entitled matter came on for HEARING before SPECIAL MASTER RALPH I. LANCASTER, held in the U. S. Bankruptcy Court, at 537 Congress Street, Portland, Maine, on November 18, 2016, commencing at 8:55 a.m., before Claudette G. Mason, RMR, CRR, a Notary Public in and for the State of Maine.

APPEARANCES:

For the State of Florida: PHILIP J. PERRY, ESQ.
JAMIE L. WINE, ESQ.
ABID R. QURESHI, ESQ.
BENJAMIN M. LAWLESS, ESQ.
GEORGE C. CHIPEV, ESQ.

For the State of Georgia: CRAIG S. PRIMIS, ESQ.
CHRISTOPHER J. MANER, ESQ.
KAREN McCARTAN DeSANTIS, ESQ.
EMILY K. MERKI, ESQ.

Also Present: JOSHUA D. DUNLAP, ESQ.

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1 PROCEEDINGS
2 SPECIAL MASTER LANCASTER: Good morning,
3 counsel.
4 MR. PRIMIS: Good morning, your Honor.
5 MR. PERRY: Good morning.
6 SPECIAL MASTER LANCASTER: Good morning,
7 Claudette.
8 THE REPORTER: Good morning.
9 MR. PRIMIS: Your Honor, Craig Primis
10 for the State of Georgia. Florida has put on
11 its last witness, so Georgia is going to
12 begin its case now.
13 And I figured, like Mr. Perry has been
14 doing, I will give the game plan for the next
15 several days.
16 SPECIAL MASTER LANCASTER: Thank you.
17 MR. PRIMIS: Today Georgia will call two
18 former directors of the Environmental
19 Protection Division. First, Jud Turner; and
20 then when he's done, Ms. Carol Couch. And I
21 think we can get through both witnesses today
22 based on the estimates from Florida.
23 Then Monday, we will call Dr. Wei Zeng,
24 whose name you have heard several times.
25 He's the State of Georgia chief hydrologist.

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1 And Katie Kirkpatrick, who is the vice chair
2 of the Metropolitan North Georgia Water
3 Planning District. And she's going to talk
4 about M & I, municipal and industrial. And
5 then Tuesday, which is our last day before
6 the holiday break, we plan to call Peter
7 Mayer, our expert on M & I, and Mark Masters,
8 who works at the Water Policy Center at
9 Albany State which is interested in
10 agricultural water use.
11 We believe we can get through all those
12 witnesses based on our negotiations and
13 mutual estimates. It is possible on Tuesday
14 before the Thanksgiving break that if we
15 finish early, what -- that we could finish
16 early. We don't know for sure. But we
17 believe it's probably best to have Mark
18 Masters as the defined last witness so that
19 Dr. Panday, who is coming after him and all
20 of the people on both teams who are preparing
21 for Dr. Panday don't have to stay here
22 instead of going home to see their families
23 when he very well likely will not go on.
24 So that would be the plan. And then we
25 will start right after the holiday break with

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1 Dr. Panday.
 2 SPECIAL MASTER LANCASTER: Thank you.
 3 MR. PRIMIS: Thank you, your Honor.
 4 Right now the State of Georgia would
 5 like to call Judson Turner to the stand.
 6 THE CLERK: Please raise your right
 7 hand.
 8 Do you solemnly swear that the testimony
 9 you shall give in the cause now in hearing
 10 shall be the truth, the whole truth, and
 11 nothing but the truth, so help you God?
 12 THE WITNESS: I do.
 13 THE CLERK: Please be seated.
 14 Pull yourself right up to the microphone
 15 and please state your name and spell your
 16 last name.
 17 THE WITNESS: Judson Turner, J U D S O N,
 18 T U R N E R.
 19 DIRECT EXAMINATION
 20 BY MR. PRIMIS:
 21 Q. Good morning, Mr. Turner.
 22 A. **Good morning.**
 23 Q. A few tips before we begin. Make sure you speak
 24 into the microphone today. And also, if you can
 25 speak slowly so the court reporter gets

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1 everything you say, that would be terrific.
 2 Now, Mr. Turner, I have handed you a copy of
 3 your written direct testimony. And, sir, do you
 4 adopt that as your sworn testimony in this case?
 5 A. **Yes.**
 6 MR. PERRY: Good morning, your Honor.
 7 SPECIAL MASTER LANCASTER: Good morning,
 8 Mr. Perry.
 9 CROSS-EXAMINATION
 10 BY MR. PERRY:
 11 Q. Good morning, Mr. Turner.
 12 A. **Good morning.**
 13 MR. PERRY: Your Honor, we had a series
 14 of video clips we already played for
 15 Mr. Turner. We played video clips for
 16 Mr. Turner earlier in this proceeding; and I
 17 am not going to cover the exact same ground
 18 as in those video clips. The parties will
 19 provide all of the video clips and deposition
 20 designations at the end; but for the Court's
 21 convenience, we have a binder of those video
 22 clips for Mr. Turner that we already played.
 23 And I would like to hand those up, if I
 24 might.
 25 SPECIAL MASTER LANCASTER: Please.

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1 MR. PERRY: Now, your Honor, in addition
 2 to those binders, we actually have the
 3 material that we would like to conduct our
 4 examination with today. So with your
 5 permission I would like to --
 6 SPECIAL MASTER LANCASTER: Please.
 7 MR. PRIMIS: Thank you.
 8 MR. PERRY: Your Honor, the binder may
 9 seem a little heavy that I just handed out;
 10 but it has some big documents. And I don't
 11 think that we will be here, at least in my
 12 examination, for more than two hours,
 13 probably fewer than two hours.
 14 BY MR. PERRY:
 15 Q. So good morning. Shall I call you Director
 16 Turner or Mr. Turner?
 17 A. **Well, I'm no longer a director; so mister would**
 18 **be fine.**
 19 Q. Sometimes you still call people by their former
 20 title, so --
 21 A. **Sometimes.**
 22 Q. All right, sir. You have a hydrology modeling
 23 unit that you oversaw for about four years while
 24 you were director; is that right?
 25 A. **That's correct.**

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1 Q. And it was your intent in overseeing that
 2 hydrology modeling unit, that the work be as
 3 accurate as possible. Right?
 4 A. **Absolutely. Sure.**
 5 Q. And Mr. Zeng was head of the hydrology modeling
 6 unit while you were director?
 7 A. **That's correct.**
 8 Q. Okay. So I would like you to turn with me,
 9 please, to tab 1 of the large binder we just
 10 handed out, which is Florida Exhibit 534. And
 11 the exhibit is titled Unimpaired Flow Assessment
 12 for the Apalachicola-Chattahoochee-Flint River
 13 Basin. Do you see that, sir?
 14 A. **I do.**
 15 Q. And it says there, developed by the Georgia Water
 16 Resources Institute. Do you know what that
 17 entity is?
 18 A. **I do. I know that they're at Georgia Tech; but**
 19 **that's -- I couldn't tell you exactly all of**
 20 **their work. But I'm aware of them.**
 21 Q. Might you turn to the second page, please, of
 22 Florida Exhibit 534.
 23 A. **Yes.**
 24 Q. Do you see the name A. P. Georgakakos in about
 25 the middle of that page, the second page of

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1 Florida Exhibit 534?

2 **A. Yes.**

3 **Q.** And do you know that gentleman?

4 **A. I do know Dr. Georgakakos.**

5 **Q.** And you worked with him from time to time while

6 you were director?

7 **A. I don't know that I would describe that I have**

8 **worked with him. We had occasion -- and, really,**

9 **all the contact with Dr. Georgakakos came through**

10 **Dr. Zeng. So to the extent we had overlap in my**

11 **tenure, it would have been through Dr. Zeng, not**

12 **directly.**

13 **Q.** Okay. If you can look at the third page of

14 Florida Exhibit 534, please, at tab 1 of your

15 binder. And there you will find the word

16 acknowledgments and some text. Do you see that?

17 **A. I do.**

18 **Q.** The third paragraph there, do you see a reference

19 to Dr. Zeng?

20 **A. Yes.**

21 **Q.** And do you see in the first paragraph a sentence

22 indicating that this study by Dr. Georgakakos was

23 funded in part by ACF Stakeholders?

24 **A. I do see that.**

25 **Q.** Okay. Now, there are a few things in the study

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1 that I would like to ask you about. And in

2 particular I want to ask you in this context.

3 You were director. You had responsibility for

4 the modeling unit. I want to understand if you

5 were aware of the information in this

6 Dr. Georgakakos study. Okay?

7 So could you please turn with me to the page

8 titled Executive Summary, which is on Roman IV.

9 It's just the next page after acknowledgments.

10 **A. Yes.**

11 **Q.** And do you see at the top of the page where it

12 says unimpaired flows?

13 **A. Yes.**

14 **Q.** And then later in the next paragraph it says

15 UIF's -- that's an abbreviation for unimpaired

16 flows. Right?

17 **A. Correct.**

18 **Q.** UIF's for the ACF River Basin have been developed

19 by the Army Corps and by Georgia Environmental

20 Protection Division. Do you see that, sir?

21 **A. I do see that.**

22 **Q.** And you understand, don't you, that Georgia's

23 Environmental Protection Division for which you

24 were director submits its estimated consumption

25 data for the ACF to the Army Corps. Right?

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1 **A. I think that's right.**

2 **Q.** Okay. So if you read with me just two paragraphs

3 down, the first sentence says, the assessment

4 demonstrates that the UIF series has both random

5 and systematic errors. Do you see that, sir?

6 **A. I do see that.**

7 **Q.** Okay. And then two paragraphs after that there's

8 a paragraph beginning with the overarching study.

9 Could you read that to yourself, please; and then

10 I'll have a couple questions.

11 **A. Okay.**

12 **Q.** Now, you recognize here in this paragraph there

13 are concerns addressed about the quality of the

14 UIF data. Right?

15 **A. It looks to me from a first read that they're**

16 **concerned about the -- the UIF's as they relate**

17 **to daily results, what they show on a daily time**

18 **scale.**

19 **Q.** And, sir, do you see the sentence about three

20 sentences down that says, these errors undermine

21 the results of ResSim and other river basin

22 simulation models. Do you see that?

23 **A. I see that sentence; but I also see the end of**

24 **the sentence, which says on daily time steps.**

25 **Q.** Right. And daily time steps would be important

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1 to understand the amount of flow on a daily

2 basis; would it not?

3 **A. I think if you're trying to get a measurement of**

4 **daily estimates, that's -- that would be**

5 **relevant.**

6 **Q.** All right. And you also see where

7 Dr. Georgakakos and GWRI recommend that a project

8 be put in place to remedy the systematic and

9 random errors; don't you?

10 **A. Yes. They're recommending some further work be**

11 **done on that.**

12 **Q.** Now, that further work was never done; was it?

13 **A. Do you mean -- I'm not aware of the further work**

14 **being done.**

15 **Q.** All right. And you note in the paragraph I asked

16 you to read, it indicates that such improvements

17 are particularly critical, and then indicates

18 that river flow and reservoir release errors

19 frequently exceed 7,000 cfs on a daily basis. Do

20 you see that?

21 **A. I see that.**

22 **Q.** All right. Could you turn with me, please, to

23 the section in particular on consumption from

24 agricultural withdrawals, which, again, is in

25 Florida Exhibit 534. And this time it's on

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1 page 9.

2 **A. Sorry. Where are the pages in this?**

3 **Q.** So there's a box at the bottom that says

4 November 13 --

5 **A. Right.**

6 **Q.** -- 2012.

7 **A. Right.**

8 **Q.** And the page number is --

9 **A. All right. I have got you.**

10 **Q.** Okay.

11 **A. Okay.**

12 **Q.** Now, I would like to focus with you, sir, for a

13 moment on this section 2.4 which says

14 agricultural withdrawals. And in particular on

15 the next page, page 10, there is a subsection

16 titled Uncertainty Sources. Do you see that?

17 **A. I do see that.**

18 **Q.** And there there's an indication in the first

19 sentence -- and you can follow along with me if

20 you can, sir -- that a variety of uncertainties

21 and potential error sources arise during the

22 estimation of agricultural withdrawals. Do you

23 see that?

24 **A. I see that sentence, yes.**

25 **Q.** Did Dr. Zeng ever identify this particular

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1 document to you and apprise you of its findings?

2 **A. No.**

3 **Q.** The second paragraph down, the last sentence

4 contains the following point: The results show

5 that crop demands can vary significantly over

6 time.

7 Do you see that?

8 **A. Yes.**

9 **Q.** And then towards the end of the sentence, the

10 associated error can be up to 70 percent of the

11 actual crop water requirement.

12 Do you see that, sir?

13 **A. I do.**

14 **Q.** Did Dr. Zeng ever apprise you of that?

15 **A. Well, he didn't; but I'm not sure this document**

16 **was public.**

17 **Q.** Do you know Katherine Zitsch?

18 **A. I do know Katherine Zitsch.**

19 **Q.** And she is affiliated with the Atlanta Regional

20 Commission of Local Governments; is that right?

21 **A. She is.**

22 **Q.** Do you know that her position was that this

23 document should never be disseminated?

24 **A. No.**

25 **Q.** All right. Sir, can you turn with me, please, to

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1 Exhibit -- well, tab, in your book, 4. And there

2 you will find Florida Exhibit 54. And you

3 recognize Florida Exhibit 54; don't you?

4 **A. I do.**

5 **Q.** This is a briefing paper you created for a

6 meeting with the Governor's chief of staff in

7 2013; isn't it?

8 **A. That's right.**

9 **Q.** All right. Now, I would like to spend a little

10 bit of time on this document, if I might, because

11 I would like to understand with a little more

12 clarity how you, as director, and the

13 Environmental Protection Division balanced

14 economic issues against environmental issues in

15 your decision making. Okay?

16 **A. Okay.**

17 **Q.** Now, you recall, don't you, that this document

18 was prepared so that you could present your views

19 about that balance to the Governor's chief of

20 staff; is that right?

21 **A. I think that's one of the -- of the reasons to do**

22 **that; right. But it was to really give him a**

23 **status on where things were.**

24 **Q.** And do you recall stating, as it indicates in

25 section 1a that you had a firmly-held belief that

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1 the Environmental Protection Division is a

2 critical link in the economic development chain

3 for the State of Georgia?

4 **A. Sure. Yes.**

5 **Q.** And that EPD, as you call the Environmental

6 Protection Division, could have adverse impacts

7 upon the economy if it weren't managed correctly.

8 Is that your view?

9 **A. Sure. The EPD is the environmental protection --**

10 **the chief environmental protection regulatory**

11 **agency and issues all the permits that businesses**

12 **require and the public needs. So that needs to**

13 **be done according to the law, foremost; but it**

14 **needs to be done well or it could have impacts.**

15 **Q.** And your view is also that it would be an unwise

16 abrogation of EPD's responsibilities if it

17 allowed the federal government to enforce

18 environmental law in the state; is that fair?

19 **A. Repeat your question.**

20 **Q.** Sure. Let me just rephrase it in light of the

21 text that I'm referring to --

22 **A. Okay.**

23 **Q.** -- sir.

24 In 1b I would invite you to read to yourself

25 the sentence that you have there.

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1 **A. Yes.**

2 **Q.** Is it fair to say you meant by that sentence that

3 it would be unwise to allow federal authorities

4 to come in and enforce programs where the State

5 was already in a role through cooperative

6 federalism to do so?

7 **A. As a -- the chief environmental regulator for the**

8 **State of Georgia that took his responsibilities**

9 **seriously, yes, I thought that was my job to do.**

10 **Q.** And, indeed, your view was that a misdirected

11 Environmental Protection Division would impose a

12 direct threat to Georgia's economic health.

13 Right?

14 **A. Right.**

15 **Q.** Now, I would like to focus for a minute on the

16 specific applications of those principles to

17 sectors of Georgia's economy. And, first, I

18 would like to focus on the Ag sector,

19 particularly in the ACF. It was your view,

20 wasn't it, that the role of the director of EPD

21 was to protect against external and internal

22 threats to agricultural water use. Right?

23 **A. Right. I used those terms before.**

24 **Q.** Okay. So let's talk about external threats to

25 agricultural water use. So I imagine your view

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1 is that litigation with Florida is one of those

2 external threats; is that fair to say?

3 **A. That might be fair to say.**

4 **I think when I said those statements,**

5 **principally I thought about the Endangered**

6 **Species Act concerns we were managing in Georgia.**

7 **So we -- we -- so I really think litigation in**

8 **general was more the comment.**

9 **Q.** Okay. So an external threat might be, for

10 example, U.S. Fish and Wildlife enforcing the

11 Endangered Species Act in Georgia?

12 **A. If you used that terminology, yes. That's what**

13 **we were talking about.**

14 **Q.** Okay. So I will have several other questions as

15 we go through about what was an external and what

16 was an internal threat to agricultural water use;

17 but let me ask you just now as an initial matter

18 what types of things were internal threats that

19 you were concerned about to agricultural water

20 use?

21 **A. I don't recall specifically what I may have meant**

22 **by internal. But certainly within the state and**

23 **within our own borders, we -- we have various**

24 **stakeholders that take issue with the balance we**

25 **try to strike in environmental protection. And**

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1 **so I think I was largely just grouping sort of**

2 **internal Georgia-related interests that might --**

3 **that might suggest a different way to balance**

4 **environmental regulation in the state.**

5 **Q.** So would the Flint riverkeeper be an internal

6 threat to agricultural water use?

7 **A. Again, I don't recall exactly. They are a**

8 **stakeholder that often disagrees with management**

9 **decisions. They have a specific role to play;**

10 **and they do -- they do that advocacy very**

11 **passionately. And so they often disagree with**

12 **the balance the State tries to strike under its**

13 **statutory obligations.**

14 **Q.** How about your old Wildlife Resources Division,

15 would they be an internal threat to agricultural

16 water use?

17 **A. Oh, I don't -- I don't think I have ever thought**

18 **of them as an internal threat to agricultural**

19 **water use. I think the Wildlife Resources**

20 **Division does have a more tailored responsibility**

21 **than the EPD does; and, therefore, they tend to**

22 **advocate certain positions, like other**

23 **stakeholder groups that are more tailored in**

24 **their responsibilities.**

25 **Q.** So help me understand then what you mean when you

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1 say internal threats to agricultural water use.

2 **A. I don't think I have a good answer for you**

3 **specifically what I meant back when those words**

4 **may have been used. I don't -- I have given you**

5 **what I have today.**

6 **Q.** All right. So slightly different topic now.

7 It's true, isn't it, that for coastal Georgia

8 near the Atlantic that the State of Georgia has

9 mandated reductions in groundwater withdrawals.

10 Right?

11 **A. Are you talking about where we did the red and**

12 **yellow zones on the coast?**

13 **Q.** I am. And in particular for the Floridan

14 Aquifer. You have mandated reductions in

15 withdrawals for the Floridan Aquifer to deal with

16 the potential encroachment of saltwater into that

17 aquifer. Right?

18 **A. We have. But they were municipal and industrial**

19 **withdrawals.**

20 **Q.** Sure. And that was part of an agreement or a

21 negotiation you had with South Carolina. Right?

22 **A. No, sir. I think what we did there was we did a**

23 **study to determine what we were seeing with**

24 **saltwater intrusion into the aquifer. And what**

25 **we had there was a cone of depression from**

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1 **municipal and industrial use in the aquifer that**
 2 **was depressing the aquifer. And so that salt**
 3 **wedge that was coming in -- and it was showing up**
 4 **in South Carolina and was headed toward -- the**
 5 **center of the cone of depression -- into**
 6 **Savannah. And we, as a regulatory action -- the**
 7 **directors before me, but then ultimately me, we**
 8 **took action under the regulatory authority of the**
 9 **director to do that.**

10 **We talked to South Carolina about it. It was**
 11 **not a negotiated settlement or a negotiation that**
 12 **led to that.**

13 **Q.** I understand, sir. Can you turn, please, to the
 14 page that's marked on the bottom Florida
 15 Exhibit 54, GA 478438.

16 **A. Yes.**

17 **Q.** And in particular under C1, do you see where it
 18 says, evaluate and implement next stage of
 19 reductions in groundwater withdrawals?

20 **A. I do.**

21 **Q.** And do you see the bracketed material there,
 22 negotiation with South Carolina?

23 **A. Sure. That was going on at that time.**

24 **Q.** Okay. And do you -- were you here in the
 25 courtroom when we played the deposition

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1 designations for Mr. Napoleon Caldwell?

2 **A. I was.**

3 **Q.** And you recall he addressed this topic, too?

4 **A. I recall that he addressed it; and I think the**
 5 **one thought I had was is it's the M & I point I**
 6 **made to you, that these were reductions in M & I.**

7 **Q.** Could you read with me just a bit down the page.
 8 And I'm going to try to follow the outline form
 9 to indicate where I am; but it's -- it appears to
 10 be C1b, little I, meaning one in Roman terms. Do
 11 you see that text?

12 **A. I do.**

13 **Q.** Protect against pushing too aggressively on
 14 industry, i.e., International Paper?

15 **A. I do.**

16 **Q.** You wrote that, sir?

17 **A. I did.**

18 **Q.** Did that reflect the type of balance that you
 19 struck between economic and environmental
 20 interests as director?

21 **A. I think it illustrates that when we -- the way I**
 22 **tried to do environmental protection in the state**
 23 **is to start with what are the regulatory and**
 24 **legal requirements. What do we need to do to be**
 25 **protective. And once we figured that out, which**

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1 **is often the hardest part, we then look at the**
 2 **suite of options available to us to be protective**
 3 **of the environment. And my statutory charge from**
 4 **the State of Georgia is to do that in a balanced**
 5 **way.**

6 **And so this is a very short sentence; but**
 7 **what I would say is it evidences, once we figured**
 8 **out, for instance, that we needed to do**
 9 **reductions, that we would do it in a way that did**
 10 **not go just to International Paper and shut them**
 11 **down. So we tried to do that in a balanced way.**

12 **But, again, the starting point is always**
 13 **what's protective of the environment as best we**
 14 **know from science.**

15 **Q.** And that's a similar balance that you strike when
 16 in the past you have said, protect against
 17 external and internal threats to agricultural
 18 water use?

19 **A. Again, I don't know that I talked about those two**
 20 **things together like that.**

21 **I systematically tried to approach**
 22 **environmental protection the way I described. If**
 23 **you do that well, I think you have a -- you have**
 24 **a better chance to sort of do what I think is**
 25 **important for the people of Georgia, which is to**

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1 **manage and protect the environment in a balanced**
 2 **way.**

3 **Q.** Yes. Let me just make sure I understand. You're
 4 not suggesting in your last answer that you
 5 haven't said or written, protect against external
 6 and internal threats to agricultural water use?

7 **A. No, I'm not saying that.**

8 **Q.** Okay. Sir, can you turn with me to Joint
 9 Exhibit 154, please.

10 **A. Where is that?**

11 **Q.** That's at tab 5.

12 **A. Tab 5.**

13 **Q.** Sorry. I should have said that.

14 **A. I don't have the joint exhibits quite memorized,**
 15 **sir.**

16 **Q.** By the end we might.
 17 All right, sir. So this Joint Exhibit 154
 18 has been the subject matter of some discussion in
 19 this proceeding, including yesterday. But it's
 20 titled Georgia Environmental Protection Division
 21 Drought Protection in the Lower Flint Basin,
 22 Stakeholder Meeting Summary. Have you seen this
 23 document before?

24 **A. I have.**

25 **Q.** All right. So I would like to focus on a

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1 particular series of paragraphs, if I might, sir.

2 But first let me ask; this was prepared as a

3 meeting summary by Dr. Gail Cowie. Right?

4 **A. That's right.**

5 **Q.** And you saw a draft and edited it before this

6 version was finalized. Right?

7 **A. I believe I did see a draft and provided comment.**

8 **I don't know that I edited it, but yes.**

9 **Q.** Okay. So -- and you don't have any qualms about

10 the fairness of this summary of this meeting; do

11 you?

12 **A. I don't. I'm not aware of anything that I have**

13 **issues with.**

14 **Q.** All right. So in the last paragraph on the first

15 page Dr. Cowie summarizes a couple things. And,

16 sir, I would appreciate if you could read that to

17 yourself, including the sentence that carries

18 over to the start of the next page.

19 **A. Yes.**

20 **Q.** All right, sir. Let me first focus on the term

21 modest steps in the second line of the text you

22 just read. Those are your words; aren't they?

23 **A. Those were -- those were my words based on the --**

24 **particularly the augmentation piece of those**

25 **amendments we did in the Flint River Drought**

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1 **Protection Act and passed in 2014.**

2 **Q.** All right. So let's talk about the 2014

3 amendments. They had a few pieces to them;

4 didn't they?

5 **A. They did.**

6 **Q.** First, they changed the word will to may for the

7 Flint River Drought Protection Act auction; isn't

8 that right?

9 **A. For -- that's right. For the declaration of**

10 **severe drought, which would lead to the auction**

11 **under the statute.**

12 **Q.** Right. And that's not just in the -- in the --

13 whether you have to perform at a drought

14 prediction; it's what are the consequences of

15 performing the drought prediction. Right?

16 **A. Right. It was an attempt to clarify what we have**

17 **been seeing, which was the discretion involved in**

18 **the triggering of the Act by prior directors.**

19 **Q.** So what happened as a result of the change we

20 just discussed is that the language in the Act

21 that was mandatory became discretionary; is that

22 fair?

23 **A. I think that was the confusion that the**

24 **legislature sought to address is that it had this**

25 **mandatory language. But it's a complex process,**

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1 **and directors were always challenged to use their**

2 **discretion to see if it would work.**

3 **There's a lot of expenditure that would go**

4 **into trying to make the Act work by doing the**

5 **auction. And I know we can talk about these**

6 **things, but over the history of that period of**

7 **time, the Act, after its initial use in 2001 and**

8 **2002, had not been invoked for different reasons.**

9 **And all of that was due to the best judgment**

10 **based on science and predictions and the**

11 **director's decision.**

12 **So there was some confusion about that. And**

13 **the legislature corrected that by being explicit**

14 **in those changes.**

15 **Q.** Well, sir, just so we can make sure we're on the

16 same page here, could you please turn to tab 6

17 where we have Senate Bill 213, which is Joint

18 Exhibit 105, please.

19 **A. Yes.**

20 **Q.** All right. Now, I would like to invite your

21 attention, if I might, to section 4, which is on

22 page 3 of Senate Bill 213. And, again, we spoke

23 with Dr. Cowie about this just a couple days ago.

24 So I would like to focus your attention, if I

25 might, on line 84 on page 3 of Joint Exhibit 105.

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1 Do you see the change from will to may there?

2 **A. I do.**

3 **Q.** And then again down on line 93, there is another

4 change from will to may. Right?

5 **A. Correct.**

6 **Q.** Okay. So I'm still focusing on your statement

7 "modest steps" from JX-154. And that modest step

8 phrase referred to all the changes in this SB 213

9 legislation. Right?

10 **A. I think it was a general statement about the**

11 **whole Act knowing we wanted to do more. But**

12 **obviously that doesn't say that we don't think**

13 **that the changes we did in 2014 didn't have real**

14 **value.**

15 **Q.** Okay. That -- that's what I want to explore now.

16 I want to understand what were those modest steps

17 in a little more detail. And I would invite your

18 attention to section 5, if I might, which is on

19 page 4. And in particular on page 4 and 5 there

20 are a series of new measures, one of which

21 addresses whether the director can require 80

22 percent or greater irrigation efficiency. Do you

23 see that?

24 It's on the top of page 5.

25 **A. Right. The irrigation efficiency requirements.**

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1 Q. And that you recorded as a modest step. Right?

2 A. **Well, I regarded it as modest. I think I put it**

3 **in this grouping of descriptions. But I think it**

4 **is one that has real long-term impact and value.**

5 Q. But although it -- the authority says that it can

6 be 80 percent or greater, you're aware, aren't

7 you, that nobody at EPD has required anything

8 more than 80 percent at this point. Right?

9 A. **Right. We see 80 percent efficiency as a pretty**

10 **good efficiency requirement.**

11 Q. Isn't it true that most irrigators wouldn't have

12 to make major changes from the status quo to get

13 to 80?

14 A. **It is true that we have been doing a lot of work**

15 **before we made these changes, a lot of work on**

16 **cost-share to get efficiency equipment in place**

17 **already. So Georgia had a very good efficiency**

18 **adoption rate, something we were proud of, before**

19 **we made these changes.**

20 **But like any regulatory program, there are**

21 **often late adopters. And we wanted to make it**

22 **law so that what we were seeing in the adoption**

23 **rate was 100 percent and not in the 90's, like we**

24 **were seeing.**

25 Q. Now, now all irrigators aren't required to be 80.

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1 Right? Some could be 60; isn't that right?

2 A. **That's correct. We -- we -- the center-pivot**

3 **systems, which we have had pictures of here and**

4 **are very obvious from the sky, the 80 percent**

5 **applies to. But irregular-shaped fields and some**

6 **of the older traveler linked systems were -- are**

7 **not as efficient; and they were given a different**

8 **efficiency requirement to -- relative to the**

9 **infrastructure that those represent.**

10 Q. Sir, are you aware that Florida in its part of

11 the basin requires greater than 80 percent for

12 new systems?

13 A. **I'm not aware of that.**

14 Q. Are you aware, sir, of best management practice

15 publications by Georgia going back 10 years that

16 suggest that 80 percent is a baseline and that

17 more efficiency, higher efficiency can be

18 reached?

19 A. **I'm not aware of those publications.**

20 Q. All right, sir. Back to Joint Exhibit 154, if I

21 might. And there we're at tab 5.

22 A. **Yes.**

23 Q. Focusing, again, on modest steps, are you with me

24 at the bottom of the page?

25 A. **Yes.**

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1 Q. It's true also that you said more is needed to

2 provide long-term solutions for low flows in the

3 Flint River Basin. Right?

4 A. **That's right. At this meeting in particular,**

5 **late 2014, we were -- we had passed these changes**

6 **in the legislative session in February or April;**

7 **and we were focused on what might be next. And**

8 **so, yes, we were very much focused on other**

9 **items.**

10 Q. And, in fact, if you just continue with me on the

11 first page of Joint Exhibit 154 at the bottom,

12 you make a reference there to this action, the

13 one we're participating in right now, being a

14 challenge. Right? Do you see that?

15 A. **I see that.**

16 Q. Okay. And then -- and then on the next page you

17 phrase it as overwhelming and suggest, don't you,

18 that the State of Georgia should take steps today

19 rather than freezing to see what happens. Is

20 that your language?

21 A. **Well, I said seem overwhelming. I think what we**

22 **were -- this was maybe two weeks after the**

23 **Supreme Court had granted leave to Florida to**

24 **file a complaint; so it was very much on**

25 **everybody's mind. The meeting was set before**

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1 **that result came out. And so my main message was**

2 **simply, look, I know this case is going to the**

3 **Supreme Court now officially. And there is a lot**

4 **of interest in it, but we have got work to do.**

5 **We had a big drought that was multi-year, and**

6 **we think we need to work on this. And so I know**

7 **that seems overwhelming, but let's keep working.**

8 Q. Okay. And this was November 21, 2014?

9 A. **That's right.**

10 Q. So two years ago basically?

11 A. **That's right.**

12 Q. Okay. Now, I want to follow down the second page

13 of Joint Exhibit 154, if I might, because I want

14 to look at the very specific measures that you

15 were evaluating and expressing or identifying for

16 this group of stakeholders in November of 2014.

17 So follow with me down to, please, the bullet

18 points or the lines with indications in the

19 middle of the page of a number of particular

20 options. Do you see those, sir?

21 A. **I do.**

22 Q. Now, we talked about a number of these options

23 yesterday with Dr. Sunding. But I want to see

24 what, if any, progress has been made in the last

25 two years of study.

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1 So let me start with transferring water users
 2 to deeper aquifers. That would be a process,
 3 would it not, of moving surface water withdrawals
 4 and certain Floridan Aquifer users in the Lower
 5 Flint to deeper aquifers that had less impact on
 6 river flow. Right?
 7 **A. Right. And specifically -- and I did hear**
 8 **Dr. Sunding's testimony about some of Florida's**
 9 **ideas about how to move down. What we were**
 10 **looking at and are looking at is moving surface**
 11 **water folks and folks in close proximity to the**
 12 **major stems of the creeks down, not having crops**
 13 **all over the region.**
 14 **And the issue with moving them down that's**
 15 **important is how much yield is in those lower**
 16 **aquifers. And so the study that we have been**
 17 **doing since then is to really confirm that. It's**
 18 **not an unlimited resource down there. This**
 19 **doesn't -- it doesn't recharge like the Floridan,**
 20 **which recharges really easily with rain. These**
 21 **are sand aquifers, several confining units down.**
 22 **The good news is they don't impact with**
 23 **streamflow like the Floridan does. So we do have**
 24 **a source down there, but we have to be careful.**
 25 **And how much we can move down there is really**
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1 **what we need to confirm before we move it.**
 2 **Q.** You didn't just start studying that particular
 3 issue in 2014; did you?
 4 You studied it for years before that; didn't
 5 you?
 6 **A. I think we started looking at it at the end of**
 7 **2012 when I came in. So years beyond 2014 I**
 8 **think is -- might be technically true at**
 9 **one-and-a-half.**
 10 **Q.** Now, sir, you have seen the Lower Flint Regional
 11 Water Plan; haven't you?
 12 **A. Yes.**
 13 **Q.** All right. And you have seen the Upper Flint
 14 Regional Water Plan, too. Right?
 15 **A. I have seen them generally. High-level review,**
 16 **yes.**
 17 **Q.** And you recall from those, don't you, that this
 18 particular idea was one of the high priority
 19 items in both of those 2011 plans. Right?
 20 **A. I don't know that I would have -- I don't dispute**
 21 **that. I think they may have had a suggestion as**
 22 **a planning tool that we ought to look at this.**
 23 **Q.** All right. Can you turn with me, please, to
 24 tab 7 in your binder.
 25 **A. Sure. Thanks.**
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1 **Q.** It's Florida Exhibit 56.
 2 **A. Got it.**
 3 **Q.** Now, this is a document prepared for you by
 4 Dr. Cowie; isn't it?
 5 **A. That's right.**
 6 **Q.** And it's dated at the top November 16 -- or,
 7 excuse me, November 6, 2012. Right?
 8 **A. That's right.**
 9 **Q.** And you recall this -- I think you just testified
 10 you may have been considering this since 2012.
 11 Is this the document to which you were referring?
 12 **A. It -- well, it -- we were considering it. I**
 13 **wasn't really referring to this document. But,**
 14 **yes, at that time in 2012 we had gone through**
 15 **that drought experience; and we were looking at**
 16 **what we might do. And so in that late 2012**
 17 **season, we were thinking about whatever we could.**
 18 **And so this is -- this document is dated during**
 19 **that time.**
 20 **Q.** Now, do you see on the first page here it says in
 21 the bullet, low flows are getting lower due in
 22 part to irrigation withdrawals. And then it has
 23 a comparison of 1954 flows to 2011 flows. Right?
 24 **A. I see that.**
 25 **Q.** Okay. Now, could you please turn with me to
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1 page 10 in this document. And I would like, if I
 2 might, to focus -- this is, again, Florida
 3 Exhibit 56, page 10 -- on option 2B. Do you see
 4 that there, sir?
 5 **A. I do.**
 6 **Q.** All right. Now, option 2B indicates that --
 7 actions to support flows for endangered species
 8 and basin contributions to state line flows. Do
 9 you see that?
 10 **A. I see that.**
 11 **Q.** State line flows is flows to Florida. Right?
 12 **A. I think it's to flow that will be in Seminole,**
 13 **and that would go to Florida at the state line.**
 14 **Q.** Lake Seminole, which would feed the Apalachicola
 15 River?
 16 **A. That's correct.**
 17 **Q.** Now, this chart here identifies irrigation
 18 systems within a 4-mile corridor in certain areas
 19 in the Lower Flint. Right?
 20 **A. Right. In certain areas, correct.**
 21 **Q.** And the idea there was that those are the users,
 22 either Floridan groundwater or surface water
 23 users, that would be transferred to lower
 24 aquifers. Right?
 25 **A. That was the concept. I was just the first time**
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1 really wrestling with this as a director. I kind
 2 of drew this out on the back of a napkin and
 3 said, can you give me an idea, Gail, of what our
 4 present knowledge is? If we were to move people,
 5 how many acres and what sort of benefit would we
 6 get?

7 So we drew these different bands. And there
 8 is a different option that has a shorter band.
 9 But this one is the 4-mile corridor. And we got
 10 these results from -- again, very preliminary and
 11 back of napkin kinds of thing, just to see, okay,
 12 what's involved in this.

13 Q. Now, Dr. Cowie or perhaps others told you, didn't
 14 they, that shifting withdrawals from surface
 15 water or Floridan Aquifer to alternate
 16 groundwater sources would, indeed, provide
 17 long-term mitigation of irrigation impacts.
 18 Right?

19 A. I don't recall talking about it being a
 20 mitigation of irrigation impact. What I recall
 21 is that we are seeing these impacts in the -- in
 22 the streams during this multi-year drought, which
 23 is -- so the causation issue is a combination of
 24 principally-driven rainfall, but also irrigation
 25 is from these sources. So can we move folks

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1 A. I'm aware through preparation for this matter
 2 that he had done some work back then. At the
 3 time I think I couldn't have told you what work
 4 he had done on that.

5 Q. Now, there are a number of other items on that
 6 list. Aquifer storage and recovery is the next.
 7 You know, don't you, that the State of Florida
 8 uses aquifer storage and recovery in multiple
 9 areas. Right?

10 A. Absolutely.

11 Q. And then the next is acquiring easements for
 12 permit removal. That would be buying irrigation
 13 rights from farmers?

14 A. Yes. We say it a little differently, I think, in
 15 a kind of regulated riparian world where the --
 16 you just have a -- that right to use it; but I
 17 think we talk about it in terms of conservation
 18 easements. And you're not -- you're buying --
 19 you're incentivizing to put the land in a
 20 conservation use, which has this condition of not
 21 irrigating.

22 Q. All right, sir. And then the last one is
 23 temporary removal, which at least is one form of
 24 what the Flint River Drought Protection Act was
 25 intended to do. Right?

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1 down?
 2 And that I totally agree was an idea for
 3 long-term benefit because you move them down, and
 4 you don't have to do that auction every year.

5 Q. Sir, on the next page do you see the bullet under
 6 item IV, Roman IV, second bullet down that refers
 7 to long-term mitigation of irrigation impacts on
 8 streamflows?

9 A. I see that.

10 Q. Okay. I would like to go back to the -- I'm
 11 sorry, sir. Am I interrupting you?

12 A. No.

13 Q. I apologize.

14 I would like to go back to tab 5 again, which
 15 is Joint Exhibit 154. And we're on the second
 16 page still.

17 A. Okay.

18 Q. Now, we just talked about transferring water
 19 users to deeper aquifers. The second item there
 20 is augmenting streamflow from groundwater. All
 21 right. Do you see that?

22 A. Yes.

23 Q. And you're aware, aren't you, that the state
 24 geologist at the time, Dr. Kennedy, had studied
 25 that issue as early as 2011. Right?

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1 A. Right. We were still looking at how we might
 2 improve that function, too.

3 Q. By the way, it's a stage 2 drought right now in
 4 the Atlanta metro area. Right?

5 A. Drought level 2, I think is what we call it.

6 Q. Drought level 2.

7 A. Okay.

8 Q. And it's still drought level 1 in the Lower
 9 Flint. Right?

10 A. I think that was just bumped up, yes.

11 Q. Okay. And do you know of a University of Georgia
 12 climatologist named Pamela Knox?

13 A. Yes.

14 Q. And have you heard or seen her view that 2017 is
 15 likely to be a terrible drought?

16 A. I have not seen her view of that.

17 Q. Okay. We'll come back to that, sir.

18 A. Okay.

19 Q. All right. Now, I would like, if I could, to
 20 turn to your prefiled direct testimony. And now,
 21 I would ask -- do you remember Mr. Primis gave
 22 you that?

23 A. Got it.

24 Q. I would ask you to turn to paragraph 125 on
 25 page 37.

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1 **A. Yes.**
 2 **Q.** And we discussed this issue with Dr. Cowie for a
 3 bit the other day. But paragraph 125 describes,
 4 doesn't it, the situation that occurred this
 5 August where the State of Florida notified the
 6 State of Georgia of potential noncompliance with
 7 Georgia's agricultural permits. Right?
 8 **A. That's right.**
 9 **Q.** And that noncompliance was up to 90,000 irrigated
 10 acres in the Flint Basin. Right?
 11 **A. I think that was the number that Florida shared**
 12 **with us.**
 13 **Q.** Okay. And, in fact, three months after that
 14 notice, the State of Georgia -- the Governor
 15 himself created a special task force. Right?
 16 **A. That's right.**
 17 **Q.** All right. So let's talk about that for just a
 18 few minutes.
 19 I would invite your attention now to tab 9,
 20 which is Florida Exhibit 708.
 21 **A. Okay.**
 22 **Q.** And there, sir, you will find a list of -- a
 23 56-page list of 2,500 permits that tallies up the
 24 unpermitted irrigated acres. Have you seen this
 25 before?

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1 **A. I have not seen this; but I see that it -- I can**
 2 **tell from the front that it is a comparison of**
 3 **those databases.**
 4 **Q.** Okay. And this is -- do you know, sir, if this
 5 is the information that the special task force
 6 formed by the Governor has evaluated?
 7 **A. Yes. Generally I think what they are evaluating**
 8 **is to just confirm whether the apparent**
 9 **unpermitted acres are, indeed, unpermitted.**
 10 **Q.** All right. And so far in the last three months,
 11 there have been 30 notices of violation issued;
 12 is that right?
 13 **A. I am aware of an initial 30 that have been**
 14 **issued.**
 15 **Q.** And that's just a little bit more than 1 percent.
 16 Right?
 17 **A. Right. I think they are prioritizing it and**
 18 **looking at the bigger parcels and the parcels in**
 19 **the critical use areas -- capacity use areas. So**
 20 **there is some prioritization to that.**
 21 **But, yes, if you just take the raw numbers, I**
 22 **think it would -- I trust your math in that.**
 23 **Q.** All right, sir. So what you just said is what I
 24 want to focus on for a minute, and it's how these
 25 are being prioritized. And you write in

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1 paragraph 127 that the initial stages of this
 2 task force enforcement effort will focus on acres
 3 that have the greatest impact on streamflows. Do
 4 you see that?
 5 **A. I do.**
 6 **Q.** And by that you mean, don't you, that ceasing
 7 irrigation on these acres will have an impact on
 8 how much water is in the rivers flowing down to
 9 Florida. Correct?
 10 **A. Well, not on what's flowing to Florida. This is**
 11 **a -- I don't want to get us off on a tangent here**
 12 **about whether the water saved on the Flint arm**
 13 **will actually go to Florida. But as we have**
 14 **maintained, that's all due to the Corps operation**
 15 **where any savings would pass.**
 16 **But if what you mean by your question is that**
 17 **the State takes this seriously and wants to look**
 18 **first at where science has told us irrigation**
 19 **will be most impactful of baseflow in streams and**
 20 **start there.**
 21 **Q.** All right. So let me rephrase my question. I
 22 recognize you have a legal position in the case.
 23 I don't need you to concede your legal position.
 24 **A. Good.**
 25 **Q.** But what you mean by greatest impact on

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1 streamflow is streamflow to Lake Seminole?
 2 **A. Right. Streamflow in the stretches of the creeks**
 3 **and tributaries in Georgia that will go to**
 4 **Seminole. That's right.**
 5 **Q.** So let's talk a little bit more about the
 6 priority setting for this task force, if we
 7 might.
 8 **A. Okay.**
 9 **Q.** And we have prepared what counsel call a
 10 demonstrative. I suspect you have tried cases,
 11 and you have done this yourself many times.
 12 At tab 10.
 13 **A. Okay.**
 14 **Q.** Can you turn with me to tab 10.
 15 **A. Okay.**
 16 **Q.** Now, sir, what we have done here is list the 20
 17 highest acreage amounts that appear to us to be
 18 violations of the permit because they exceed the
 19 permitted acreage. And I would like to just ask
 20 you -- sorry, 200. If I said 20, I meant 200 --
 21 ask you to follow along with me, if you might,
 22 please, sir.
 23 **A. Okay.**
 24 **Q.** Do you see the column -- second vertical column
 25 over that says acres permitted?

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1 **A. I do.**
 2 **Q.** And then that's associated with a permit number?
 3 **A. Yes.**
 4 **Q.** All right. And you know, don't you, that permit
 5 numbers that precede basically 1992 are likely
 6 grandfathered permits. Right?
 7 **A. Right. That's right.**
 8 **Q.** And grandfathered permits have very few
 9 restrictions, if any. Right?
 10 **A. Grandfathered permits have less restrictions than**
 11 **the latter-issued permits.**
 12 **Q.** All right. So for the first permit where it says
 13 A91-47, acres permitted 280; but actual acres
 14 irrigated are near 700. Do you see that?
 15 **A. I see that.**
 16 **Q.** You would agree with me, wouldn't you, that the
 17 Environmental Protection Division didn't
 18 understand that there were nearly 420 acres that
 19 were illegally being irrigated under that permit?
 20 **A. So, no, they didn't understand that. But they**
 21 **still may not understand it because I think we**
 22 **have got to make sure that every field irrigated**
 23 **that's shown in that wetted acre database doesn't**
 24 **have a supplemental permit or some other**
 25 **modification that's in-house.**

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1 **The permitted database is -- is a database**
 2 **that has some human error in it. It's an old**
 3 **database with input errors. So those things need**
 4 **to be confirmed.**
 5 **But, yes, from that line with that one permit**
 6 **there appears to be that kind of noncompliance.**
 7 **Q.** So that's a very interesting point. Let me just
 8 explore that with you. If there were other
 9 permits that weren't in the permit database, that
 10 would mean that there's additional acreage out
 11 there that Georgia doesn't know about and that
 12 Georgia's experts haven't necessarily considered
 13 in this case. Right?
 14 **A. I think the amount of that would be small; but,**
 15 **sure, that possibility is there.**
 16 **Q.** Okay. All right. I would invite your attention
 17 down another two lines.
 18 **A. Okay.**
 19 **Q.** A00-46-0385, and the acres permitted are 20.
 20 Acres irrigated, 384. You would agree with me
 21 that's a pretty sizeable difference; wouldn't
 22 you?
 23 **A. Yes. I just -- what I don't know -- and I**
 24 **appreciate your demonstrative. I have no reason**
 25 **to question it. I just, in a compliance**

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1 **standpoint, haven't done compliance for**
 2 **four-and-a-half years. We have got to make sure**
 3 **that every field in that wetted acres database**
 4 **that's being assigned to this permit is correct.**
 5 **This was a planning database. So the water**
 6 **use in the -- in the -- that Florida's experts**
 7 **have had is captured. It's just a matter of**
 8 **whether we have cross-walked it correctly to the**
 9 **permits that provide authority to irrigate those**
 10 **acres.**
 11 **Q.** All right, sir. We'll talk about the other
 12 databases in a minute. And we have been through
 13 and done that cross-walk.
 14 **A. Okay.**
 15 **Q.** Okay. So I could go down this list, but let me
 16 just do one more. Do you see the permit that's
 17 numbered A91-049-0390 for 40 acres. And there
 18 the acres irrigated are 369.
 19 **A. Yes, I see that on this.**
 20 **Q.** That's a pretty significant difference; wouldn't
 21 you agree?
 22 **A. Yes.**
 23 **Q.** And wouldn't you expect that a reasonably-staffed
 24 regulatory system would know if someone had that
 25 many excessive acres?

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1 **A. I think that the system we had was one to**
 2 **check -- to check on complaints; and I think**
 3 **that's what this task force is really about. I'm**
 4 **not sure it's a resource issue as much as it is**
 5 **an understanding what we need in terms of**
 6 **reporting to get a better handle on it.**
 7 **So I just don't know if it's resource, but**
 8 **that's what that Governor's task force has really**
 9 **been asked to look at.**
 10 **Q.** Now, I believe that Dr. Cowie indicated the task
 11 force may be headed by Mr. Allen Barnes; is that
 12 correct?
 13 **A. That's correct.**
 14 **Q.** And Mr. Barnes is -- was formerly a lawyer
 15 representing Georgia in litigation against
 16 Florida or the Corps or both?
 17 **A. I don't think that's right. I think he was EPD**
 18 **director previously. He is a lawyer. He did not**
 19 **represent the state. He was the EPD director.**
 20 **Q.** All right. I know he was EPD director roughly
 21 from 2009 to 2011. Is that right?
 22 **A. That's right.**
 23 **Q.** And before that, my understanding is that he was
 24 with King & Spalding representing the State. Is
 25 that incorrect?

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1 **A. That's incorrect.**
 2 **Q.** Okay. My fault. My mistake on that.
 3 So he is, indeed, the director that chose not
 4 to exercise the Flint River Drought Protection
 5 Act in 2011; is that right?
 6 **A. That is correct.**
 7 **Q.** Now, on that specific point, if I might, I would
 8 like to -- because your prefiled direct addresses
 9 2011 and what happened during that year --
 10 **A. Sure.**
 11 **Q.** -- I would like to invite your attention to
 12 tab 14, please.
 13 **A. Okay. Okay.**
 14 **Q.** And there you will find Florida Exhibit 77. And
 15 do you see the first page is an e-mail, and then
 16 the second page is another e-mail from Allen
 17 Barnes. Do you see that?
 18 **A. Yes.**
 19 **Q.** And in the To: line on Florida Exhibit 77 there
 20 is an indication for Linda McGregor and Dr. Zeng.
 21 Do you see that?
 22 **A. I do.**
 23 **Q.** Okay. Now, let's turn one more page in Florida
 24 Exhibit 77 to see what they're forwarding there,
 25 if I might.

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1 **A. Okay.**
 2 **Q.** Can you tell me who Richard Royal is, please?
 3 **A. Yes. Richard has a couple of hats. He had been**
 4 **in the legislature for a long time from Camilla,**
 5 **Georgia, down in Mitchell County in the basin.**
 6 **But he also serves and continues to serve on that**
 7 **Lower Flint Regional Water Council.**
 8 **Q.** Now, drawing your eyes down the page, do you see
 9 the name Woody Hicks. Right?
 10 **A. I do, yes.**
 11 **Q.** And you're aware that Woody Hicks was one of the
 12 experts on Georgia's technical advisory committee
 13 in connection with the 2006 conservation plan for
 14 the Flint River Basin. Right?
 15 **A. I'm aware of that, yes.**
 16 **Q.** Joint Exhibit 21 that we have looked at several
 17 times in this case.
 18 But if you will read down to the bottom of
 19 the page in the Woody Hicks e-mail to Richard
 20 Royal and Mark Masters, the next to last
 21 paragraph -- if you can read that to yourself, I
 22 would appreciate it.
 23 **A. Okay.**
 24 **Q.** Now, during your time as director, did you rely
 25 on the NOAA climate predictor?

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1 **A. I think that was definitely one of the inputs**
 2 **that staff that prepared sort of the status gave**
 3 **me.**
 4 **Q.** And have you talked to former Director Barnes
 5 about whether or not he was aware of the results
 6 of the NOAA climate predictor when he decided not
 7 to declare a drought under the Flint River
 8 Drought Protection Act in 2011?
 9 **A. No. I did not talk to him about -- about what**
 10 **the NOAA prediction.**
 11 **Q.** All right. Now, let me ask just generally, if I
 12 could, about the Flint River Drought Protection
 13 Act. It goes back in time to 2000. Right?
 14 **A. Right.**
 15 **Q.** And you were a 30(b)(6) witness on that
 16 particular issue. Right?
 17 **A. Correct.**
 18 **Q.** And you know, don't you, that Director Reheis
 19 regarded passage of the Flint River Drought
 20 Protection Act as an act of good faith to ensure
 21 that Florida flows -- flows to Florida would be
 22 protected in drought years. Right?
 23 **A. I knew he thought of it. It was very much a good**
 24 **faith effort to manage issues in the basin,**
 25 **particularly drought. I know he thought that was**

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1 **a good thing.**
 2 **Q.** And in your 30(b)(6) capacity, you have looked at
 3 some of the memoranda and perhaps the testimony
 4 of former Director Reheis; and you will agree
 5 with me, won't you, that his view was that the
 6 Flint River Drought Protection Act was a way to
 7 make a commitment to Florida in order to get the
 8 ACF Compact to work. Right?
 9 **A. I don't know that I can speak to all of that. I**
 10 **think when I did my 30(b)(6) history and work, we**
 11 **looked at the different invocation of the Act. I**
 12 **don't know as much about during that Compact era**
 13 **what he -- what he thought this role played for**
 14 **anything, really.**
 15 **Q.** So I won't go back and replay your deposition
 16 designations because we have already played that
 17 for the Court. So I will, however, focus on --
 18 for a moment now on whether it is, indeed,
 19 feasible to predict drought under the Flint River
 20 Drought Protection Act.
 21 And were you here for the testimony that we
 22 had from former Director Reheis?
 23 **A. I was not here for Reheis's testimony.**
 24 **Q.** All right. So you don't know -- I have his
 25 transcript here; but you don't know that he

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1 testified, yes, I believe that, which is why that
 2 language got into the Act?
 3 **A. Are you referring to drought prediction --**
 4 **Q.** Yes.
 5 **A. -- that it's feasible?**
 6 **Q.** I'm sorry. I should have clarified. Yes, I am
 7 referring to exactly that.
 8 **A. Yes. I think Harold really did his best effort**
 9 **to work with the legislature to put a tool in**
 10 **place back then. And the bedrock of that tool**
 11 **was that you could predict drought fairly**
 12 **successfully.**
 13 **Q.** And you're aware, aren't you, that the director,
 14 either you or your predecessors or maybe your
 15 successor, has authority to change the way the
 16 drought protection mechanism works under the
 17 Flint River Drought Protection Act. Right?
 18 **A. I take it when you say mechanism, you mean the --**
 19 **what you look at in the considerations for**
 20 **drought?**
 21 **Q.** Yes.
 22 **A. Is that -- yes.**
 23 **Q.** And, in fact, there was a memorandum in 2011 from
 24 the state geologist suggesting that a revised
 25 protocol for predicting drought would be

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1 appropriate. Right?
 2 **A. I know there were -- I think that Dr. Kennedy**
 3 **has -- has made some suggestions. I wouldn't be**
 4 **able to tell you when; but his thought about --**
 5 **staff are always trying to think about how to do**
 6 **this better.**
 7 **Q.** You know also, don't you, that as part of the ACF
 8 Stakeholder's process, Dr. Georgakakos of the
 9 Georgia Water Resources Institute and Georgia
 10 Tech wrote an entire paper explaining how drought
 11 can feasibly be predicted months in advance?
 12 **A. I couldn't have told you that, no.**
 13 **Q.** Sir, can you turn with me to tab 18, please.
 14 **A. Okay.**
 15 **Q.** And have you seen the document that's marked
 16 Florida Exhibit 232 before?
 17 **A. I have not.**
 18 **Q.** So you haven't been apprised of this particular
 19 study by your staff when you were director?
 20 **A. Oh, absolutely not. I think -- I don't know -- I**
 21 **don't see a date. Again, I think we have talked**
 22 **about that or this has been before the Court; but**
 23 **the ACF Stakeholders process occurred with Gail**
 24 **Cowie's participation on my staff that I**
 25 **certainly blessed until the time that those**

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1 **stakeholders got together and said we want to**
 2 **talk without the states.**
 3 **And so I wasn't principally apprised of sort**
 4 **of the product coming out of the ACF**
 5 **Stakeholders. So I certainly didn't review this,**
 6 **and this wasn't shared with me.**
 7 **I don't know the date, but --**
 8 **Q.** I mentioned Katherine Zitsch before of the
 9 Atlanta Regional Commission of Governments. Did
 10 you have occasion to speak with her about the ACF
 11 Stakeholders process?
 12 **A. Sure.**
 13 **Q.** And did she tell you about her concerns
 14 representing the Atlanta Regional Commission of
 15 Governments about Dr. Georgakakos's work?
 16 **A. I don't know that I can recall specific**
 17 **conversations about Dr. Georgakakos's work. I**
 18 **think maybe, if anything, around UIF, but just**
 19 **generally.**
 20 **Q.** And we discussed UIF at the outset.
 21 **A. Right.**
 22 **Q.** Now, at this point if we could, sir, I would like
 23 to focus for a moment back to our other topics
 24 about how you, as director, balanced economic and
 25 environmental issues.

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1 **A. Okay.**
 2 **Q.** So I would invite your attention to tab 19,
 3 please.
 4 **A. Okay.**
 5 **Q.** And here, sir, I'm focusing on the Flint River
 6 Drought Protection Act process in 2012.
 7 **A. Okay.**
 8 **Q.** And you started in early January of 2012; didn't
 9 you?
 10 **A. Right. January 1.**
 11 **Q.** So this was one of the first things you had to
 12 deal with; wasn't it?
 13 **A. That's right.**
 14 **Q.** All right. So at tab 19, Florida Exhibit 536,
 15 there is a document titled Wei's Modifications.
 16 Do you see that, sir?
 17 **A. I do see that.**
 18 **Q.** And Wei Zeng is, indeed, the head of the modeling
 19 unit -- hydrological modeling in Georgia EPD.
 20 Correct?
 21 **A. That's correct.**
 22 **Q.** And he was throughout the time that you were
 23 director?
 24 **A. That's right.**
 25 **Q.** So under the title Wei's Modifications, in the

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1 first paragraph there is a discussion of whether
 2 severe drought conditions can be expected. Would
 3 you mind, please, taking a look at the first
 4 paragraph there; and let me know when you're
 5 done.

6 **A. Yes.**

7 **Q.** Now, do you see in that paragraph, don't you,
 8 that severe drought conditions were indeed
 9 expected; but at least in this draft of the press
 10 release, EPD made a determination not to
 11 implement the auction?

12 **A. Yes. I mean, in this draft and in what we said**
 13 **in public and what I told everybody at the time,**
 14 **there was no question by this point in 2012 that**
 15 **we were in the middle of a severe drought. The**
 16 **issue was whether the Act would be effective. So**
 17 **I did not declare the drought, but not because**
 18 **there was any question about drought at that**
 19 **time.**

20 **Q.** So what you're putting your finger on is what I
 21 want to talk about exactly, and that is whether
 22 the use of the Flint River Drought Protection Act
 23 would have been effective in alleviating
 24 environmental harm in 2012. And, again, I said
 25 what I'm attempting to do in this short

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1 discussion is identify the types of balances you
 2 struck between economic and environmental issues.

3 So let's look, if we can, at the fourth
 4 paragraph. And there I would invite your
 5 attention first to the first sentence which
 6 reads, there are indeed flow benefits associated
 7 with suspending irrigation.

8 Then it's got a parenthetical that says,
 9 e.g., Ichawaynochaway Creek. Do you see that,
 10 sir?

11 **A. I see that.**

12 **Q.** Now, sir, Ichawaynochaway Creek is a sensitive
 13 area for endangered mussels, among other things;
 14 isn't it?

15 **A. It is a -- it is. It's a major trib of the Flint**
 16 **and very -- a wonderful resource with lots of**
 17 **ecological benefit and species.**

18 **Q.** And, in fact, one of the concerns at this time in
 19 2012 was that it might cost, due to commodity
 20 prices, between 300 and \$700 an acre to halt
 21 irrigation in Ichawaynochaway Creek and the
 22 surrounding area. Right?

23 **A. I mean, when we were looking at this -- and,**
 24 **again, I just need to say that -- I think I told**
 25 **you this in the deposition. I had not -- I had**

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3001

1 **never seen the Wei's Modifications document. And**
 2 **I was -- and I know we can talk about what we**
 3 **publicly put out; but this -- this issue of -- of**
 4 **commodity prices and the use of the Act was one**
 5 **of the things in the consideration process. The**
 6 **principal one was whether there would be any**
 7 **benefit.**

8 **And then on top of the benefit question was,**
 9 **okay, if we could -- if we thought invoking the**
 10 **Act would benefit, what's it going -- what's**
 11 **it -- are we going -- it's a voluntary auction;**
 12 **so we have to have farmers participate. And**
 13 **given what commodity prices were -- I couldn't**
 14 **have told you these numbers because, again, I**
 15 **didn't see this; but I just knew that they were**
 16 **in -- for certain row crops they were**
 17 **historically high during that period.**

18 **Q.** Let me ask you a couple questions about what you
 19 did know at the time. So you met fairly
 20 frequently during those first couple months of
 21 your tenure with Mr. Zeng; didn't you?

22 **A. Sure.**

23 **Q.** And you also met with the state geologist from
 24 time to time?

25 **A. I did.**

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3002

1 **Q.** And his name is Dr. Kennedy?

2 **A. He is. Yes, Dr. Kennedy.**

3 **Q.** Can you turn to the second page of this Florida
 4 Exhibit 536.

5 **A. Yes, I'm there.**

6 **Q.** And there in the fourth paragraph, do you see the
 7 same statement, there are indeed flow benefits
 8 associated with suspending irrigation? Do you
 9 see that, sir?

10 **A. I see those words on this document.**

11 **Q.** Okay.

12 **A. I didn't --**

13 **Q.** And do you see the reference to acreage in 300 to
 14 \$700 range. Right?

15 **A. Right.**

16 **Q.** Okay. Now, there is also a parenthetical on both
 17 of these pages that -- that says, in part, there
 18 is likely to be legitimate questions why EPD does
 19 not suspend irrigation water use. And then it
 20 refers to involuntary suspension. Do you see
 21 that?

22 **A. Yes. I see that.**

23 **Q.** And you know, don't you, that the Flint River
 24 Drought Protection Act had a provision that
 25 allowed the director to involuntarily suspend

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3003

1 water use. Right?

2 **A. Right. I think this is one of the other**

3 **well-intended pieces of the statute that didn't**

4 **work very well in reality because you had to**

5 **first go through a voluntary auction and then not**

6 **receive sufficient acreage, and then turn around**

7 **and do the -- force the involuntary. And with**

8 **the clock ticking in each growing season, it's**

9 **just -- it's not workable in my estimation to do**

10 **all of that and get acreage out where you need**

11 **it.**

12 **Q.** So the voluntary auctions were conducted in 2001

13 and 2002. Right?

14 **A. They were.**

15 **Q.** But if you had conducted a voluntary auction in

16 2012 and perhaps didn't get the type of voluntary

17 takers that you wanted, you could have done an

18 involuntary auction right thereafter. Right?

19 **A. We could have. But if we had -- if we had done a**

20 **voluntary auction like Harold did in 2001 and**

21 **2002 and we had gotten a scatter plot of parcels**

22 **all over the basin like Dr. Reheis got, which**

23 **wouldn't have had any impact, and spent that**

24 **money, and then we turned around and went to**

25 **target it and tried to get more, which -- it**

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3005

1 **A. I'm sorry. I lost you. Is it the map you're**

2 **looking at?**

3 **Q.** Let me describe this again so we make sure that

4 we're talking about the same thing.

5 **A. Yes.**

6 **Q.** All right. So FX-97 --

7 **A. Right.**

8 **Q.** -- at tab 21 is a multi-page document. It's got

9 e-mails among Mr. Wisniewski, Nap Caldwell,

10 Dr. Cowie, and others. And about five pages in

11 is a page titled Critical Stream Reaches in the

12 Lower Flint Basin.

13 **A. I have got it now.**

14 **Q.** Okay. And I'm asking you for -- first, to go to

15 the second page of that document. And do you see

16 the indication No. 3 for Ichawaynochaway Creek,

17 which is -- has been the subject matter of our

18 discussion just moments ago. Do you see that?

19 **A. I do.**

20 **Q.** Okay. Then do you see in the last sentence there

21 the statement that the reach represents habitat

22 that may be critical to the recovery of the

23 listed species?

24 **A. I do see that sentence.**

25 **Q.** And listed species means endangered species

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3004

1 **would have been problematic. I just did not see**

2 **that as a functional way to do it.**

3 **Q.** And your decision was not to try. Right?

4 **A. That is correct.**

5 **Q.** Okay. Now, sir, if I can invite your attention,

6 just to put this in further context, to tab 21,

7 please.

8 **A. Yes.**

9 **Q.** And there I would invite your attention to the

10 page particularly about Ichawaynochaway Creek

11 which is GA 45746. It's several pages in.

12 **A. Okay.**

13 **Q.** Now, just to --

14 MR. PERRY: Mr. Walton, could you please

15 take that down.

16 Thank you.

17 BY MR. PERRY:

18 **Q.** The reason I just took that down is because we

19 redacted the numbers for GPS coordinates on the

20 page to protect the sensitive location of

21 endangered mussels and the like.

22 Let me, if I might, ask you to look at the

23 first of these two pages which is titled Critical

24 Stream Reaches. So it is GA 45745, one page in

25 advance of what I just referred you to.

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3006

1 listed by the U.S. Fish and Wildlife Service?

2 **A. That's what I understand that to mean, yes.**

3 **Q.** And, in fact, there are some species that are

4 listed under state law by the Wildlife Resources

5 Division; is that correct?

6 **A. I don't know about whether they have a separate**

7 **listing. They may have a -- I know, for**

8 **instance, certain species that have been**

9 **petitioned to Fish and Wildlife are listed that**

10 **our WRD pays close attention to. I don't know if**

11 **that's the kind of list you're talking about.**

12 **Q.** Now, sir, when you were being briefed by staff a

13 couple months after you arrived, when you were

14 making your decision weighing economic and

15 environmental benefits and costs and the like,

16 were you informed about the potential impact on

17 listed endangered species in Ichawaynochaway

18 Creek?

19 **A. Well, sir, the first thing is when we were doing**

20 **this balance thing, we weren't, as you describe**

21 **it, weighing economic. We were trying to figure**

22 **out under the existing statute -- we had a**

23 **drought; that was clear -- could we invoke the**

24 **Act in a way that would help?**

25 **I don't remember being briefed on a**

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1 **particular mussel species in a particular stretch**
 2 **in Ichaway. I just remember asking if we go do**
 3 **this and I go get money from the legislature and**
 4 **we spend the kind of money it's going to take**
 5 **with commodity prices, am I going to be able to**
 6 **go out to Ichawaynochaway Creek or Spring Creek**
 7 **and see water that would otherwise not be there?**
 8 **And the answer consistently from our staff**
 9 **was, we cannot tell you that given the condition**
 10 **of the resource, that you're going to see that.**
 11 **Q.** Well, let's see what the water looked like later
 12 in 2012 after the Flint River Drought Protection
 13 Act wasn't invoked. And there I would ask you to
 14 turn with me to tab 23, Florida Exhibit 50. And
 15 I'm going to focus here, if I might, on figure 3,
 16 which is on page 3.
 17 But, sir, there's a blowup just at the end --
 18 blowup meaning larger picture so I can see it.
 19 **A. Okay.**
 20 **Q.** You can see it on the screen.
 21 And there do you see the first picture that
 22 says 116 cfs for pre-irrigation minimum flows?
 23 **A. I see that.**
 24 **Q.** Do you see the second picture which is 9 cfs for
 25 irrigation era minimum flows?

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1 two things. And they're both on page 4 of this
 2 document.
 3 And we talked about this document at some
 4 length with Dr. Cowie, so I won't go through it
 5 in detail.
 6 But do you see under Conclusions --
 7 **A. Yes.**
 8 **Q.** -- observations of the minimum one-day flow of
 9 record in all history at Ichawaynochaway Creek in
 10 July of 2012?
 11 **A. Yes.**
 12 **Q.** Do you see that?
 13 **A. I see that.**
 14 **Q.** And do you see the impact graph for both
 15 Ichawaynochaway Creek and Spring Creek in
 16 figure 2 for mussel abundance?
 17 **A. I see that.**
 18 **Q.** All right, sir. Can you turn back with me to
 19 your actual press release on the Flint River
 20 Drought Protection Act for March 1. It's at
 21 tab 22, Joint Exhibit 69.
 22 **A. Yes.**
 23 **Q.** And there you do not see on that actual press
 24 release any mention of Ichawaynochaway Creek. Do
 25 you?

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1 **A. I certainly see that.**
 2 **Q.** All right. And that's an indication of what
 3 happened on July 12 of 2012. Do you see that?
 4 **A. Right. But as you remember, you showed me the**
 5 **document that I was -- that was being prepared.**
 6 **I think we were seeing some very low flows in**
 7 **Ichaway back in the spring before the growing**
 8 **season.**
 9 **Q.** Well, sir, let's turn, if we might then, to
 10 tab 24, which is Florida Exhibit 51.
 11 **A. Okay.**
 12 **Q.** And you're familiar with the water resources
 13 conference that's every two years sponsored by
 14 Georgia EPD?
 15 **A. I am aware of it, yes.**
 16 **Q.** And --
 17 **A. Sponsored by EPD, I think you said?**
 18 **Q.** I believe it is. Do you think I have that wrong?
 19 **A. No. I just think sponsorship -- I mean, I think**
 20 **we participate and help to present.**
 21 **Q.** So that --
 22 **A. I don't know if there's any financial -- I'm**
 23 **sorry.**
 24 **Q.** That's my fault. I interrupted you.
 25 So there, I would invite your attention to

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3010

1 **A. Right.**
 2 **Q.** You do see an indication in the third paragraph
 3 towards the bottom that there are no funds
 4 currently appropriated to use the Flint River
 5 Drought Protection Act. Right?
 6 **A. That is noted in the phrase, yes.**
 7 **Q.** And then later you're quoted, aren't you, saying
 8 that there's currently no viable management tool
 9 to deal with the Flint River Basin?
 10 **A. Correct.**
 11 **Q.** And today, although you have taken some modest
 12 steps, it's true, isn't it, there is still no
 13 viable management tool to deal with low flows in
 14 the Flint River Basin?
 15 **A. I think the -- that we are still in need of some**
 16 **further improvements to deal -- not really with**
 17 **low flows. I know that we may have said that**
 18 **here. Certainly, that was your question, but to**
 19 **deal with these ever-increasing droughts in**
 20 **the -- in severity.**
 21 **So it's a moving target, and I think we need**
 22 **further improvement in our tools.**
 23 **MR. PERRY:** Your Honor, it's about
 24 10:20. Is a break appropriate now?
 25 **SPECIAL MASTER LANCASTER:** How much

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1 longer do you think you have with this
 2 witness, Mr. Perry?
 3 MR. PERRY: Maybe 40, maybe 30 minutes.
 4 SPECIAL MASTER LANCASTER: We'll break.
 5 (Time Noted: 10:20 a.m.)
 6 (Recess Called)
 7 (Time Noted: 10:33 a.m.)
 8 SPECIAL MASTER LANCASTER: Mr. Perry, I
 9 have old ears; and you're very soft-spoken.
 10 So if you could, get closer to the
 11 microphone.
 12 MR. PERRY: Sure.
 13 SPECIAL MASTER LANCASTER: I would
 14 appreciate it. I think she would, too.
 15 Thank you.
 16 MR. PERRY: How is this?
 17 SPECIAL MASTER LANCASTER: Great.
 18 MR. PERRY: Thank you for reminding me,
 19 your Honor.
 20 BY MR. PERRY:
 21 Q. Good morning again --
 22 A. Yes.
 23 Q. -- Mr. Turner.
 24 MR. PERRY: Your Honor, if I might,
 25 there is one exhibit that was too big to put

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3012

1 in the binder. I'll only refer to one page
 2 though, maybe two. If I might distribute it
 3 now, I would appreciate it.
 4 SPECIAL MASTER LANCASTER: Fine.
 5 BY MR. PERRY:
 6 Q. Now, sir, I would like to invite your attention
 7 to Florida Exhibit 879, please.
 8 A. Okay.
 9 Q. And let me ask you, first. Wildlife Resources
 10 Division was a sister agency to EPD when you were
 11 the EPD director?
 12 A. That's right. We have a bit of a strange
 13 arrangement among the metro resource agencies in
 14 Georgia. EPD is a division of DNR as is Wildlife
 15 Resources Division. But the EPD is really an
 16 agency within an agency. It does its own hiring,
 17 firing. Its director reports to the Board, not
 18 to the DNR Commissioner. So it's a strange
 19 animal, but it's a sister agency.
 20 You said that well. They're really two
 21 different agencies.
 22 Q. All right, sir. So what I have handed you is
 23 titled State Wildlife Action Plan from 2015 from
 24 the Wildlife Resources Division. And I would
 25 like, again focusing on Ichawaynochaway and

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3013

1 Spring Creek for a minute, to invite your
 2 attention to page 153, please.
 3 A. I'm there.
 4 Q. And do you see the title of the representation
 5 there on page 153 -- and this is Florida
 6 Exhibit 879 -- where it's titled High Priority.
 7 Do you see that, sir?
 8 A. I do.
 9 Q. And then in the bottom text for what's called
 10 figure 18, it's titled High Priority Watersheds?
 11 A. I see that.
 12 Q. Now, there's also a legend on the larger map
 13 there that has indications that are color coded
 14 for highest global significance, high global
 15 significance. Do you see that?
 16 A. I do.
 17 Q. And if I can invite you to read the text at the
 18 bottom of this particular page following the
 19 figure 18 to yourself, please.
 20 A. Okay.
 21 Q. And do you see it says that global significance
 22 is based on rarity and the number of
 23 high-priority aquatic species in each watershed?
 24 A. Yes.
 25 Q. Now, we have been talking about Ichawaynochaway.

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3014

1 Do you see Ichawaynochaway on this map?
 2 A. I think I do, although, you know, it doesn't
 3 superimpose the creeks very clearly. So I'm
 4 not -- I know generally where it is.
 5 Q. Is it in map No. 291?
 6 A. I think it -- I think that's about right.
 7 Q. And that's affiliated with high global
 8 significance for aquatic species?
 9 A. Oh, yes. Yes.
 10 Q. Okay. And do you see highest global significance
 11 in map No. 296?
 12 A. Yes.
 13 Q. And that's Spring Creek; isn't it?
 14 A. That looks like -- again, I couldn't -- having
 15 never -- I haven't reviewed this before; but
 16 that's right around where Spring Creek is. I
 17 think it would be Spring Creek.
 18 Q. And it's true, isn't it, that these watersheds
 19 are designated as high, highest, or moderate
 20 global significance based on the habitat for
 21 federally-listed migratory or other important
 22 species. Right?
 23 A. Right.
 24 Q. Okay. Now, sir, putting that exhibit aside for a
 25 minute --

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3015

1 **A. Okay.**
 2 **Q.** -- I would like you to turn to tab 31, please.
 3 **A. Okay.**
 4 **Q.** And here, I'll have some questions about whether
 5 your staff advised you about certain things. But
 6 do you see the report there at FX-49g titled
 7 Indicators of Long-Term Hydrologic Change in the
 8 Flint River?
 9 **A. I do see that.**
 10 **Q.** And those gentlemen who are listed as authors
 11 were the experts from the -- from Georgia's 2006
 12 plan. Correct?
 13 **A. I think as we talked about before, they were**
 14 **technical advisers on the plan.**
 15 **Q.** Okay.
 16 **A. On the -- not the only ones.**
 17 **Q.** And we can look back and -- at the language
 18 describing them. But, again, this is a reference
 19 to the Georgia water resources conference, this
 20 time in 2013. Do you see that?
 21 **A. Okay.**
 22 **Q.** Now, there is an abstract there, which we walked
 23 through with Dr. Cowie just the other day. But
 24 the attachment to this is Florida Exhibit 49h.
 25 And do you see that in this same tab?
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1 **A. I do.**
 2 **Q.** Okay. Have you ever seen the PowerPoint before
 3 at FX-49h?
 4 **A. I have not.**
 5 **Q.** All right. I would like to ask you if your
 6 staff -- and I believe Dr. Cowie said she
 7 attended the 2013 conference where this was
 8 presented -- has ever shown you or described for
 9 you the pages identified here at the -- or the
 10 PowerPoint presentation identified here on
 11 page 10 of Florida Exhibit 49h at the bottom?
 12 **A. You're asking about not only the overall, but**
 13 **that specific?**
 14 **Q.** The specific slide at the bottom. Do you see
 15 Palmer drought severity, and then it's got a mark
 16 for 1954 drought of record?
 17 **A. I see that.**
 18 **I think your question was whether I had ever**
 19 **been shown that.**
 20 **Q.** That's correct.
 21 **A. No, I have not seen that.**
 22 **Q.** And, likewise, have you ever been shown the
 23 PowerPoint slide at the top of the next page,
 24 page 11 of Florida Exhibit 49h?
 25 **A. I certainly -- I know this is a -- I have seen**
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1 **some USGS stuff before; but I don't recall this**
 2 **particular screen shot or this particular record.**
 3 **Q.** Sir, were you here in the courtroom for the
 4 testimony of Florida's expert Dennis Lettenmaier?
 5 **A. No, sir.**
 6 **Q.** All right. Have you also seen the briefing
 7 prepared by Mr. Woody Hicks and delivered at the
 8 November 2014 stakeholders meeting you attended?
 9 **A. I have -- I was there for that; and I have seen**
 10 **that PowerPoint, yes.**
 11 **Q.** Could you turn to page -- to tab 34 with me,
 12 please.
 13 **A. Okay.**
 14 **Q.** And in particular, since we spent a lot of time
 15 in your deposition designations which we played
 16 by video on certain portions of this, I would
 17 like to turn to the very last slide here in
 18 Exhibit FX-49b of tab 34, which Mr. Hicks
 19 presented.
 20 **A. Okay.**
 21 **Q.** And you recall, don't you, Mr. Hicks presenting
 22 his conclusions labeled 4, 5, and 6; don't you?
 23 **A. I remember the presentation. I know this sort of**
 24 **was at the end; but I don't specific -- couldn't**
 25 **have told you how he -- he kind of just presented**
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1 **it quickly and sat down. So, no, I don't**
 2 **remember specifically.**
 3 **Of course, I have since reviewed it.**
 4 **Q.** Well, sir, let's talk about a slightly different
 5 topic because I don't want to repeat everything
 6 we did --
 7 **A. Sure.**
 8 **Q.** -- in our deposition --
 9 **A. Sure.**
 10 **Q.** -- designations for you.
 11 **A. Sure.**
 12 **Q.** And there I would ask you to turn to tab 36 for
 13 just a moment with me.
 14 **A. Okay. Okay. I'm there. Tab 36.**
 15 **Q.** Now, we have talked quite a bit about this
 16 document so far in this trial, EPA and U.S. Fish
 17 and Wildlife Interim Flow Guidelines. And I just
 18 wanted to refer to this because I'm going to ask
 19 you about a particular slide that's at tab 37,
 20 which is an excerpt from this document at tab 36.
 21 **A. Okay.**
 22 **Q.** So tab 36 is FX-599. And I'm going to ask you
 23 now to turn to tab 37, which is an excerpt from
 24 Appendix A of Florida Exhibit 599 at page 14.
 25 So, sir, are you with me in tab 37?
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1 **A. I am, yes.**

2 **Q.** Now, there we have a representation, an excerpt

3 of one-day minimum flows exceeded in all years,

4 of one-day minimum exceeded in 3 of 4 years, and

5 of one-day minimums exceeded in 1 of 2 years for

6 the Apalachicola River at the Chattahoochee Gage.

7 Do you see that, sir?

8 **A. I do.**

9 **Q.** Now, this is -- this question is going to be a

10 little different than what we have talked about

11 so far today. Part of your prefiled direct

12 testimony mentions past settlement negotiations.

13 And I can't, because of our agreement with

14 Georgia, talk about settlement negotiations in

15 2015 or 2016. That's our agreement, and we are

16 happy to continue to observe that agreement.

17 But what I want to talk to you about is

18 settlement negotiations prior to 2015.

19 **A. Okay.**

20 **Q.** When you look at these minimum flows identified

21 on this graph on this excerpt from Florida

22 Exhibit 599 from EPA and U.S. Fish and Wildlife

23 for the Apalachicola River, it's true, is it not,

24 that Georgia prior to 2015 never offered any

25 settlement to Florida that would have achieved

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1 the flows identified on this page?

2 **A. Well, I don't know -- I'm not as familiar with**

3 **the -- this flow metric, monthly one-day minimum.**

4 **I'm very familiar with the Corps operation and**

5 **the state line minimum and what we offered in the**

6 **context of the state line minimum which would**

7 **have increased flows to Florida. But I just -- I**

8 **can't answer -- I know Dr. Zeng or someone would**

9 **be able to help you with that; but that metric is**

10 **just not a -- a monthly, daily minimum like that**

11 **over all years, we're -- I think we're talking a**

12 **little apples and oranges there.**

13 **Q.** All right, sir. So could you turn with me,

14 please, to tab 38, which is Florida Exhibit 67.

15 And here, sir, we're back to the summer of 2014.

16 **A. Yes.**

17 **Q.** Do you see your name in the To: line of the

18 e-mail in Florida Exhibit 67 from James Capp?

19 **A. I do.**

20 **Q.** James Capp worked for you; is that right?

21 **A. Yes.**

22 **Q.** In what capacity?

23 **A. He was and still is the water branch chief. So**

24 **he's in the water branch.**

25 **Q.** And do you see in the preceding e-mail the

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1 From: line contains Gail Cowie -- Dr. Gail Cowie?

2 **A. I do.**

3 **Q.** All right. And she refers to an outline of

4 activities for a 2016 legislative package?

5 **A. I see that, yes.**

6 **Q.** Okay. So I would like to ask you to turn to the

7 next page, please, with the outline.

8 Now, there have been no legislative

9 activities in 2016; have there?

10 **A. That -- that is correct.**

11 **Q.** And although we're in a -- a growing drought

12 period now, you don't anticipate any legislative

13 activities through the rest of 2016; do you?

14 **A. I do not.**

15 **Q.** All right. Let's look at the second page of

16 Florida Exhibit 67. And do you see under

17 messages in the text the word impetus?

18 **A. Okay. Yeah.**

19 **I'm sorry. I was one page beyond.**

20 **I do see that, yes.**

21 **Q.** And then it reads, extreme low flows observed in

22 recent years, unlike those observed in previous

23 drought periods. Do you see that, sir?

24 **A. I do.**

25 **Q.** All right. Here is my question. In the next

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1 subsection, the third bullet down, there is a

2 mention of Florida. Do you see that?

3 **A. Right. I see that.**

4 **Q.** And it's true, isn't it, that a portion of this

5 activity here, the subject matter of this

6 particular outline and the meetings that followed

7 was to increase low flows in streams that flow

8 into Florida. Right?

9 **A. Well, I think, again, this is an e-mail from**

10 **laying out an outline. And I don't -- I think**

11 **Dr. Cowie used that terminology. I don't think**

12 **there is any dispute that all these streams we're**

13 **talking about flow into Lake Seminole. And then**

14 **the water that flows from these streams is all**

15 **going to come one way, which is at Apalachicola**

16 **at the dam.**

17 **Q.** Okay. So if you could turn with me to the text

18 page. And there I'm interested in the first

19 bullet. It's got two sentences. And it reads in

20 the first bullet, potential streamflow benefits

21 from irrigation removals. Do you see that, sir?

22 **A. I do.**

23 **Q.** But then in the next sentence it reads, note,

24 this could be termed to causes of streamflow

25 declines, therefore delete, with a question mark.

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1 Do you see that?

2 **A. I see it, yes.**

3 **Q.** Were you presented with this paper and briefed on

4 it?

5 **A. I mean, what I -- I mean, I'm copied on this**

6 **e-mail. What I remember is that we were trying**

7 **to put this together. And they were asking about**

8 **things like should we have a facilitator and what**

9 **should be the topics?**

10 **And there was always a concern about how we**

11 **present things and did we overstate impacts and**

12 **those sorts of things. So I don't remember**

13 **focusing on this. I don't remember talking to**

14 **anybody about that question mark.**

15 **But, yes, this -- I was copied on this; and I**

16 **do remember generally we were trying to figure**

17 **out how we wanted to structure this meeting that**

18 **ultimately happened in November.**

19 **Q.** All right, sir. Do you know a Mr. McClatchey?

20 **A. I think I do.**

21 **Q.** Do you know if a Mr. McClatchey was associated

22 with the ACF Stakeholders?

23 **A. Okay. I think -- I think I know that, yes.**

24 **Q.** Can you -- are we -- I'm not sure we're talking

25 about the same person.

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1 **A. Right.**

2 **Q.** I think we might be. Is that individual from

3 Atlanta?

4 **A. Okay. Yeah. My remembrance of Mr. McClatchey is**

5 **he was from -- not from this region of the ACF**

6 **world, but part of that ACF Stakeholders Group.**

7 **And I believe I have met with him a time or two.**

8 **Q.** Now, sir, could you turn with me to tab 40.

9 **A. Okay.**

10 **Q.** And I'm, frankly, not sure if you have seen this

11 document; and so I would like to -- this is a

12 document created by Dr. Cowie. But my particular

13 focus is on the statements that she testified

14 were derived from Mr. McClatchey.

15 **A. Okay.**

16 **Q.** All right. And those you will find on GA 671506,

17 which is the fourth page of this document.

18 **A. Okay.**

19 **Q.** And I would invite you, if you could, to read to

20 yourself the statements that begin with

21 McClatchey's suggestions and continue until the

22 top of the next page.

23 **A. How far did you want me to go?**

24 **Q.** To h on the next page.

25 **A. Okay. Got it.**

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1 **Okay.**

2 **Q.** Did Mr. McClatchey discuss those views with you?

3 **A. No. I have never heard of any of that.**

4 **Q.** Do you know whether he was or wasn't the chair of

5 the ACF Stakeholder process for a period of time?

6 **A. I don't -- I couldn't tell you whether he was**

7 **chair or on the executive committee in some**

8 **capacity. But he was certainly in some**

9 **leadership capacity because that's the only**

10 **occasion I had to meet with him is he -- there**

11 **was a time, I think, they came in after the --**

12 **after they put out their plan and really wanted**

13 **to make sure that Governor Deal was aware of it.**

14 **That's all I remember from Mr. McClatchey.**

15 **Q.** And do you recall a meeting between

16 Mr. McClatchey and Governor Deal on this specific

17 topic?

18 **A. Oh, no. I don't think they ever met.**

19 **Q.** Okay. Now, sir, I started a couple hours ago.

20 And among my first questions was a question about

21 the current drought.

22 **A. Yes.**

23 **Q.** And now, I would like to ask you what, if

24 anything, the State of Georgia is prepared to do

25 if we see another terrible drought in 2017?

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1 **A. Well, I can -- I can tell you that on -- with**

2 **respect to metro Atlanta, because this drought is**

3 **centered in the northwest Georgia portion of the**

4 **state, northeast Alabama portion, we have moved**

5 **to drought level 2, which restricts outdoor**

6 **watering to two days a week. And I think the**

7 **state is -- if conditions persist over the**

8 **winter, they will make a decision to go to**

9 **drought level 3 before outdoor watering would**

10 **start again.**

11 **So that's the -- I feel strongly that that's**

12 **in the works. Again, they will do that, I think,**

13 **before February because they're going to need to**

14 **do it before any outdoor watering would start.**

15 **Q.** And you mean by that, outdoor watering

16 restriction?

17 **A. Sure. Outdoor ban, like we did in '07 and '08.**

18 **But it would be -- the EPD will have to look at**

19 **those conditions and figure out how broad that**

20 **footprint is.**

21 **But right now they're at drought level 2 in**

22 **52 counties, which is sort of before the fall**

23 **line in Georgia. We have got a lot of counties**

24 **in Georgia; so 52 of them, it's about, I don't**

25 **know, a third of the state, that northern sort**

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1 **of half -- the state gets smaller, but that**
 2 **northern kind of half of the state.**
 3 **Q.** Is anything currently being planned to restrict
 4 agricultural irrigation in the event of a
 5 terrible drought in 2017?
 6 **A. I think -- I don't know -- again, that drought**
 7 **level 1 is down now in the southwest part of the**
 8 **state. From what I have looked at, EPD has put**
 9 **out some -- on its website has sort of given the**
 10 **condition of the basin now; and the streamflows**
 11 **are concerning. But the groundwater levels are**
 12 **at the mean still.**
 13 **So I think they're going to need to look at**
 14 **the Flint River Drought Protection Act again. I**
 15 **don't know -- I know they are, because they're**
 16 **putting out those data, the well -- the health of**
 17 **the aquifer.**
 18 **And it just shows you that we have -- we did**
 19 **have a very wet winter and very wet spring.**
 20 **That's what is really concerning about this**
 21 **drought is it came on very, very quickly. But**
 22 **the groundwater condition is fairly healthy**
 23 **still.**
 24 **So they're going to need to look at that in**
 25 **the context of streamflows and the state of the**

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1 **aquifer.**
 2 **Q.** Will surface water and groundwater users be moved
 3 to lower aquifers before the summer of 2017?
 4 **A. No. I don't think there is any way to make a**
 5 **final determination on that and get those actions**
 6 **taken.**
 7 **Q.** Still studying?
 8 **A. I think that's right. Studying -- I mean, when**
 9 **we talk about studying, just for the Court's**
 10 **benefit, it's not like there is a bunch of data**
 11 **sitting on a shelf; and we just need to go look**
 12 **at it. These involve test wells in those lower**
 13 **aquifers to see what the properties are. And it**
 14 **does take some time to get those in the places**
 15 **you want scientifically to really have a grasp**
 16 **for the productivity of that lower aquifer.**
 17 **Q.** Will ASR wells be in place by the summer of 2017?
 18 **A. No, sir.**
 19 **Q.** Will permanent easements withdrawing land from
 20 irrigation be in place by the summer of 2017?
 21 **A. I doubt it.**
 22 **Q.** And you think there's some possibility that there
 23 might be temporary removal of irrigation land by
 24 the summer of 2017?
 25 **A. I do. Flint River Drought Protection Act is on**

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1 **the books; and I -- the director will, I'm**
 2 **confident, do his job to look at the conditions**
 3 **in the basin and explore triggering the Act by**
 4 **the required March 1 date.**
 5 **Q.** All right. Thank you, sir.
 6 MR. PRIMIS: Good morning, your Honor.
 7 REDIRECT EXAMINATION
 8 BY MR. PRIMIS:
 9 **Q.** Mr. Turner, are you all set?
 10 **A. I am.**
 11 **Q.** I see you're getting some water.
 12 Mr. Turner, before -- before we get started,
 13 I just want to ask you quickly about a document
 14 that Mr. Perry had shown you at the beginning of
 15 your examination. It's FX-534. It's the
 16 Dr. Georgakakos report. I think it was --
 17 MR. PRIMIS: Was it tab 1?
 18 MR. PERRY: Yes.
 19 BY MR. PRIMIS:
 20 **Q.** I believe it was tab 1.
 21 **A. Yes. Okay.**
 22 **Q.** Now, Mr. Turner, did you say documents like this
 23 were kept confidential by the Stakeholder Group?
 24 **A. It is my understanding that they were**
 25 **confidential.**

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1 **Q.** Can you look at the date on this particular
 2 document. What does that say?
 3 **A. October 2012, I guess, on the document; and then**
 4 **there's a sub-box that says November 13, 2012.**
 5 **Q.** Okay. And when did the ACFS plan ultimately get
 6 published?
 7 **A. I think it was around May of 2015.**
 8 **Q.** So the document Mr. Perry showed you here,
 9 FX-534, was two-and-a-half to three years
 10 earlier?
 11 **A. It does appear that way.**
 12 **Q.** You mentioned that there was a box --
 13 MR. PRIMIS: And, your Honor, I'm just
 14 on the cover of the document right now.
 15 BY MR. PRIMIS:
 16 **Q.** You mentioned there's a box at the bottom of
 17 FX-534 on the cover page. What does that say?
 18 **A. It says, working copy, not for general release.**
 19 **Content may not reflect the opinion of ACFS**
 20 **membership.**
 21 **Q.** Can you turn to the third page of this document.
 22 It's called acknowledgments. Do you see that?
 23 **A. I do.**
 24 **Q.** I think you looked at this one on your
 25 cross-examination. What does it say on the

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1 header of this page -- and it's repeated on every
 2 single page of this document. What does that
 3 say?
 4 **A. Well, there's the draft -- it says draft; but it**
 5 **also appears to say may not reflect ACFS views.**
 6 **Q.** And further down the page there's a section
 7 called Disclaimer. Do you see that?
 8 **A. I do.**
 9 **Q.** What does that disclaimer say?
 10 **A. The views expressed in this report are those of**
 11 **the authors and do not necessarily reflect the**
 12 **views of the ACFS or ACF Stakeholders or any**
 13 **other organization.**
 14 **Q.** Now, I want to show you the document that was the
 15 final product of the ACF Stakeholders. Are
 16 you -- you have seen that before?
 17 **A. I have.**
 18 **Q.** And the Court has asked numerous witnesses
 19 questions about it, so I figured we might as well
 20 put it on the table.
 21 It's -- we have marked it as GX-1325.
 22 MR. PRIMIS: And may I approach?
 23 BY MR. PRIMIS:
 24 **Q.** And before I turn to GX-1325, Mr. Turner, I
 25 believe you were asked some questions about the

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1 unimpaired flow dataset or the UIF's that were
 2 being discussed at FX-534.
 3 **A. Yes.**
 4 **Q.** Now, I don't want to have a technical discussion
 5 about UIF's. I have had too many of those in
 6 this case.
 7 **A. Good.**
 8 **Q.** But just to set the table, what modeling exercise
 9 are UIF's used in?
 10 **A. Well, again, from a technical standpoint, I'm not**
 11 **the best to answer that. But I just know -- I**
 12 **think that it's a dataset that the Corps uses to**
 13 **see what consumptive use is so that it can best**
 14 **manage the system with the right data on**
 15 **consumptive use.**
 16 **Q.** Does the Corps have a particular model that
 17 relies on these unimpaired flow datasets?
 18 **A. I think that model is ResSim.**
 19 **Q.** Now, let's go to GX-1325, the ACF Stakeholders
 20 Sustainable Water Management Plan. And can you
 21 turn there to page 2.
 22 **A. Okay.**
 23 **Q.** And you said you read this when it was published?
 24 **A. I certainly read parts of it and the executive**
 25 **summary of it and discussed it. But, yes.**

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1 **Q.** And we're in the executive summary here on
 2 page 2. Correct?
 3 **A. Okay. Yes.**
 4 **Q.** Do you see in the second paragraph development of
 5 the plan?
 6 **A. I do.**
 7 **Q.** And read it to yourself; but it's -- the sentence
 8 starts, modelers used ResSim, developed by the
 9 USACE. Do you see that?
 10 **A. I do.**
 11 **Q.** Is that the model you were just talking about
 12 that relies on the unimpaired flow dataset?
 13 **A. Yes.**
 14 **Q.** Is it your understanding that the UIF's were used
 15 by ACFS to conduct this study?
 16 **A. I think they -- yes. I think that's right, based**
 17 **on what they tell me here.**
 18 **Q.** Now, can you go in the second paragraph of The
 19 Audience there at the top of the page?
 20 **A. Yes.**
 21 **Q.** There is a section that starts with USACE has a
 22 large influence in how water moves within the ACF
 23 Basin. Do you see that?
 24 **A. I do.**
 25 **Q.** Can you read the first few lines of that

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1 paragraph to yourself, and then I have a question
 2 for you.
 3 **A. Yes.**
 4 **Q.** Mr. Turner, what is your understanding of the
 5 role of the Army Corps in the package of
 6 recommendations that the ACF Stakeholders
 7 published in this plan?
 8 **A. Well, I think they -- they set a group of**
 9 **recommendations to -- that had to be taken**
 10 **together. They were very clear about that when**
 11 **they came to talk to me in person; but it's also**
 12 **very clear in the plan itself. Those**
 13 **recommendations, again, work together and had to**
 14 **be taken together. And they all involved -- the**
 15 **actions suggested involved changes in the Corps**
 16 **operations for the basin.**
 17 **Q.** Mr. Turner, I want to take a step back now and
 18 turn to your period as director.
 19 **A. Okay.**
 20 **Q.** And can you just remind the Court when did you
 21 become director of Georgia's Environmental
 22 Protection Division?
 23 **A. January 1, 2012.**
 24 **Q.** How long did you serve as director?
 25 **A. About four-and-a-half years until June 1 of this**

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1 **year, 2016.**

2 **Q.** Now, as it relates to the issues in this case,

3 what were the key areas you focused on when you

4 were at EPD?

5 **A.** As it relates to this case, there were really two

6 **big buckets. The first was the work that related**

7 **to interfacing with the Corps of Engineers in its**

8 **various capacities to work on water supply issues**

9 **for metro Atlanta. So those -- those involved**

10 **updated water supply requests to the Corps,**

11 **suggested operations, changes, commenting on**

12 **their things.**

13 **And the other bucket was related to**

14 **agricultural issues and drought management and**

15 **sort of figuring out how to manage our various**

16 **drought challenges in the agricultural region of**

17 **the state.**

18 **Q.** Mr. Turner, I'm going to come to both M & I and

19 agriculture separately; and we'll discuss them in

20 a bit more detail. But just to set the stage, on

21 the M & I front, what were your principal areas

22 of focus?

23 **A.** On the M & I front, we were principally involved

24 in the data collection issues necessary to get to

25 the Corps to help them with the job they had to

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1 **do, which was to update the operating system for**

2 **all those federal reservoirs on the Chattahoochee**

3 **arm. We also worked on the various conservation**

4 **issues in the basin, and there were several rule**

5 **makings that we did to follow onto some statutory**

6 **changes in the metro area. Those were the**

7 **principal things.**

8 **Q.** And what were the key issues you worked on in the

9 agricultural sector?

10 **A.** So in the agricultural sector, we were clearly

11 **confronted with that right out of the gate, as we**

12 **just talked about with Mr. Perry. So we managed**

13 **really in those droughts and dealt both with the**

14 **Flint River Drought Protection Act as it existed**

15 **at the time; and then I was heavily involved in**

16 **the passage and the amendments to that statute,**

17 **which happened in 2014.**

18 **And all through that, which I would -- I**

19 **would describe as potential changes to the Act,**

20 **but just options that we might -- that we might**

21 **engage in to manage, we were looking at these**

22 **other things we might do to help manage our way**

23 **through these droughts in the southwest portion**

24 **of the state.**

25 **Q.** Mr. Turner, did you focus on state water issues

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1 before you became director of EPD?

2 **A. I did. I was executive counsel to Governor**

3 **Perdue at that first big drought that I dealt**

4 **with, which was in the '07-'08 time frame. And**

5 **at that point we were -- obviously, all states**

6 **were, A, involved in litigation with the Corps**

7 **over operational changes; and each state was**

8 **trying to get the Corps to do different things.**

9 **But we were also trying to get the Corps in**

10 **consultation with Fish and Wildlife to initiate a**

11 **drought operation for the basin.**

12 **And so that was my Baptism by fire in '07 and**

13 **'08, and I have stayed involved since. I was,**

14 **after my time with Governor Perdue, in private**

15 **practice, but was special executive counsel to**

16 **the Governor, and during that whole period sort**

17 **of learned water from the back end down, and then**

18 **was special counsel to Governor Deal when he came**

19 **in and, throughout that period, became kind of**

20 **the chief negotiator for Georgia in our -- some**

21 **of our settlement discussions with Georgia and**

22 **Alabama.**

23 **Q.** Mr. Turner, I want to turn now to your role in

24 connection with M & I, municipal and industrial

25 water use. I may have missed it, but I don't

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1 think you were asked any questions about your

2 role in the M & I space. Were you?

3 **A. Not that I recall.**

4 **Q.** And that relates to the water use in metro

5 Atlanta. Correct?

6 **A. That's right.**

7 **Q.** Okay. So you mentioned the water supply request

8 and the Army Corps, and I think it's an important

9 aspect of the role of water management for the

10 State. So can you please explain to the Court

11 what you mean when you talk about this water

12 supply request.

13 **A. Sure. It's -- as part of the Corps of Engineers'**

14 **job, they have to balance multiple**

15 **federally-authorized purposes. And one of those**

16 **is water supply. So what we did a lot of work**

17 **with the Corps on was not just to give them the**

18 **raw data; here is what we need -- and, of course,**

19 **we did that. We did that by giving them the**

20 **latest on our population and our per capita use**

21 **and the projections as we saw them to what we**

22 **were going to need out over a planning horizon.**

23 **But we also did a great deal of work to take the**

24 **need on the M & I side and analyze the impact of**

25 **that need on the resource and provide those data**

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1 **to the Corps so they could look at balancing the**
 2 **multiple purposes, and they could look at the**
 3 **impact of our request.**
 4 **Q.** Mr. Turner, you mentioned water supply. And I
 5 think it's obvious to those of us who have been
 6 involved in the case for a long time, but can you
 7 explain what water supply is and how it relates
 8 to the other project purposes.
 9 **A. Sure. So there are several -- depending on**
 10 **the -- the lake in question in Georgia, they all**
 11 **have original authorizing legislation; so that**
 12 **this does vary slightly by -- by lake. But**
 13 **generally, the other authorized purpose, the big**
 14 **one, was flood control, water supply, as we have**
 15 **mentioned, hydropower, navigation and**
 16 **recreational interests; and then to a lesser**
 17 **extent there are some water quality concerns that**
 18 **the Corps manages as well. And because of other**
 19 **federal -- other federal statutes, the Endangered**
 20 **Species Act issues related to ecological flows**
 21 **are always part of their obligation to consider.**
 22 **Q.** And so when you say water supply, what are you
 23 talking about? What does the Corps do?
 24 **A. When I say water supply, the Corps -- there are**
 25 **two ways that's applicable to -- for the way the**

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1 **Corps operates the system. The first, how much**
 2 **water do you need out of the lake itself? How**
 3 **much storage needs to be dedicated in the lake to**
 4 **water supply?**
 5 **And then, secondly, as the Corps operates the**
 6 **dams to release water downstream, how much do**
 7 **you -- how much does the region need to take out**
 8 **of the river below? And so the Corps needs to**
 9 **look at can it operate the dams such to give that**
 10 **flow downstream sufficient to meet the projected**
 11 **needs of the region.**
 12 **So it's really -- it's a withdrawal request;**
 13 **but it's storage in the lakes, but it's dam**
 14 **operation to allow the water to come out below**
 15 **the dam.**
 16 **Q.** And I'm going to keep asking it until you say it.
 17 When you get water supply, what is it used for?
 18 **A. It -- oh, it's used for municipal and industrial**
 19 **use, which is for residential use and the faucet**
 20 **we turn on here; but also industrial uses for all**
 21 **the companies that use water in their processing**
 22 **procedures.**
 23 **Q.** Now, when the metro Atlanta area needs water
 24 supply for showers and cooking and all the other
 25 things you use water for, can it just withdraw

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1 that from Lake Lanier without going through the
 2 Corps?
 3 **A. No. The Corps controls the facility itself. EPD**
 4 **controls withdrawal permits, but the ability to**
 5 **get that amount of withdrawal out of the lake**
 6 **requires the Corps' consent and an easement to do**
 7 **it. And so it's not a decision by the State.**
 8 **Q.** So how do you go about getting that approval from
 9 the Corps to get water for, say, metro Atlanta?
 10 **A. So the first thing the Corps needs is, as I**
 11 **mentioned before, they need accurate information**
 12 **on what population, what M & I amount of**
 13 **withdrawal you need. But they also need the**
 14 **other important component of that, which is the**
 15 **return of that water.**
 16 **So on the -- in the M & I world we return a**
 17 **great deal of that water. We treat it and put it**
 18 **back in either the lake or the river. And all of**
 19 **those return rates impact the actual consumptive**
 20 **use. And that net impact of withdrawals is what**
 21 **the Corps needs to know in order to model our**
 22 **request and determine whether they can, indeed,**
 23 **give Georgia what Georgia has asked for or not.**
 24 **Q.** Does the Corps just give you -- give the State
 25 what Georgia asked for, or is there some sort of

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1 review process?
 2 **A. I would say it's a rigorous review process. And**
 3 **we have not just gotten what we asked for, not**
 4 **yet anyway.**
 5 **Q.** What happens if Georgia submitted projections
 6 the Corps didn't agree with or thought were
 7 unreasonable?
 8 **A. Well, I think it's -- it's very clear they**
 9 **wouldn't just grant them. They would -- they**
 10 **rejected a water supply request based on improper**
 11 **reading of their authority, but they have already**
 12 **rejected a water supply request from Georgia**
 13 **before. And then in the drought years, they**
 14 **pretty much gave us less than what we had asked**
 15 **for originally.**
 16 **But we have since reduced our request because**
 17 **we're seeing some good conservation numbers. So,**
 18 **actually, what they thought they could provide**
 19 **for us in this draft is more than we needed**
 20 **slightly. So -- but they don't just give it to**
 21 **you. It's a rigorous process to check our**
 22 **numbers.**
 23 **Q.** Mr. Turner, have you personally been involved in
 24 formulating Georgia's water supply request to the
 25 Army Corps?

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1 **A. I have personally been involved in the last two**
 2 **occasions in which we did that.**
 3 **Q.** And what was your involvement? How did you get
 4 involved?
 5 **A. I got involved because we -- when I first got to**
 6 **the job in 2012, we had had a lot of developments**
 7 **in those -- in those court cases that had been**
 8 **filed against the Corps. And the 11th Circuit**
 9 **had -- had ruled in the summer of 2011 correcting**
 10 **the Corps of Engineers' understanding of its**
 11 **authority. And the reason that's relevant is**
 12 **they told the Corps to go back and look at what I**
 13 **just mentioned, the water supply request from**
 14 **2000 that had been denied, and go back and look**
 15 **at that request based on us correcting you of**
 16 **your authority, Corps of Engineers.**
 17 **So what the Corps did is they went back -- it**
 18 **took them a year. The Court gave them a year.**
 19 **And the Corps came back and said, we can grant**
 20 **this request; but we need -- now, as a matter of**
 21 **law, we can grant this request; but we still need**
 22 **accurate and new information from Georgia. And**
 23 **they asked Georgia to renew its request. It had**
 24 **been 12 or 13 years.**
 25 **So in 2013 after they said that in mid-2012,**
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1 **for about six months we had to really update our**
 2 **request. And we did that in January of 2013.**
 3 **Q.** And when you submitted that updated request in
 4 January of 2013, can you describe the process
 5 that EPD went through and who was involved?
 6 **A. Sure. So it's a pretty big staff, and a lot of**
 7 **that effort was done in coordination with the**
 8 **chief hydrologist, Wei Zeng, other -- Gail Cowie,**
 9 **who you have heard from here; and then we used --**
 10 **we coordinated with our planning region,**
 11 **particularly the Metro Planning District, to get**
 12 **some of the data on current water use and**
 13 **population projection growth in order to then**
 14 **take those data and model what impacts our use**
 15 **would have on the system.**
 16 **So we get that raw information from our**
 17 **planning district, but then our team does a good**
 18 **deal of work analyzing that data and providing**
 19 **that analysis to the Corps.**
 20 **Q.** Mr. Turner, is there a written document that
 21 submits the State of Georgia's request for
 22 January 2013?
 23 **A. There is.**
 24 MR. PRIMIS: Your Honor, can I approach?
 25 We have JX-86.
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1 BY MR. PRIMIS:
 2 **Q.** Mr. Turner, could you identify JX-86 for the
 3 Court.
 4 **A. Yes. This is that 2013 water supply request we**
 5 **just mentioned. It's a -- it's composed of a**
 6 **cover letter from the Governor and then an**
 7 **affidavit from me and then a technical memo from**
 8 **Wei Zeng. That composed the request.**
 9 **Q.** How much water did Georgia request in 2013 from
 10 the Army Corps?
 11 **A. We asked for withdrawals in the amount of 705 mgd**
 12 **from the lake and the river.**
 13 **Q.** Was that different or the same from the earlier
 14 2000 request?
 15 **A. It ended up being the same as we asked for in**
 16 **2000, even though 12 years had gone by. And the**
 17 **reason it stayed same is we were -- even though**
 18 **we projected out that same 30-plus years planning**
 19 **horizon to 2040 to 2045, we had seen some real**
 20 **conservation benefits in the -- and some changes**
 21 **in population projections. And so in essence we**
 22 **were able to ask for the same amount of water,**
 23 **but it was going to take us out another decade**
 24 **beyond where we thought before.**
 25 **Q.** Mr. Turner, just so the Court can have an
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1 appreciation of how the water supply request is
 2 structured, JX-86, can you just by page just
 3 point us to the key documents here. We won't go
 4 through them in great detail, but just so we can
 5 see how it's constructed.
 6 **A. So, sure. That first page is the Governor's sort**
 7 **of cover letter that went to the assistant**
 8 **Secretary of the Army containing the request.**
 9 **The second document is my affidavit, which is the**
 10 **real meat of the request. But then the third key**
 11 **document, this sort of sums up the results of our**
 12 **work; but then the technical support for what I**
 13 **said was contained in attachments to that**
 14 **document. The one I'm thinking of the most is**
 15 **the technical memo from Wei Zeng.**
 16 **Q.** Mr. Turner, I think you said that between 2000
 17 and 2013 the population had gone up
 18 significantly; but the request stayed roughly the
 19 same. Is that correct?
 20 **A. That's right.**
 21 **Q.** And can you turn to page 3 of your letter, your
 22 affidavit, there is a section called Water
 23 Conservation. And I just wanted to ask you if
 24 you could comment on that.
 25 **A. I think we were just noting at that point we had**
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1 used a different gallons per capita estimate in
 2 2000. It was higher, 148. And by this point in
 3 time, we -- we had -- given the various measures
 4 that had been put in place by Georgia and some
 5 changes in population, we thought that number was
 6 going to go down to 135. Of course, it's gone
 7 down much more than that; but at that time we
 8 thought 135.

9 So we were -- we're recounting that for the
 10 Corps. That's what we see in the data.

11 Q. And is this also where you outline the District's
 12 water conservation measures?

13 A. We do that, yes. We talk about that.

14 Q. You said that you revised the State of Georgia's
 15 request to the Army Corps in 2015. Correct?

16 A. We did.

17 Q. Why did you do that?

18 A. There were two reasons. We -- our planning
 19 process was occurring. And so the Metro District
 20 was engaged in its normal course of planning and
 21 updating its plan. The plan we had relied on
 22 in -- and the projections we had relied on in the
 23 2013 water supply request were for Atlanta. And
 24 we had looked at some new population before 2013,
 25 but the actual work of the District was '09.

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1 In 2015 in August in part of their planning
 2 process, the Metro District provided to me an
 3 update of the needs -- the water supply needs for
 4 the metro area. And that number came down
 5 significantly. And we felt that we needed to
 6 give that information to the Corps because we
 7 needed less water through 2040.

8 And the reason that was urgent was that the
 9 Corps was engaged in updating the Water Control
 10 Manual and a draft was due out soon. So we made
 11 an effort to, first, tell the Corps of those --
 12 of those data and what we were seeing; and then
 13 we formalized all that in a fully updated request
 14 in 2015.

15 Q. Is there a document that indicates Georgia's
 16 updated request?

17 A. Yes. I think it's December 2015.

18 MR. PRIMIS: Your Honor, may I approach?
 19 SPECIAL MASTER LANCASTER: Please.
 20 BY MR. PRIMIS:
 21 Q. Mr. Turner, I'm handing you JX-126. Can you
 22 identify JX-126 for the Court, please.
 23 A. Yes. I believe this is when we were able to work
 24 through all the new needs projections and the
 25 update of different projections on return flows

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1 and update our request to the Corps in 2015.

2 Q. Mr. Turner, I think you said that the State of
 3 Georgia's volume of water requested for the metro
 4 Atlanta region went down in the 2015 request from
 5 the 2013 request. Did I get that right?

6 A. You did. It went down.

7 Q. Can you tell the Court by how much Georgia
 8 reduced its water request in the update?

9 A. The request now has a range in it because there's
 10 some issue of how much water would be needed from
 11 the river below the lake due to one of the big
 12 counties and where they would be withdrawing.
 13 But the delta now went down from between at a
 14 minimum about 84-85 million gallons a day to as
 15 much as 108 million gallons a day.

16 Q. Was that a significant reduction in your view?

17 A. Yes.

18 Q. And can you make clear why did the request go
 19 down? What caused the demand to be reduced?

20 A. The biggest driver was in my estimation those
 21 gallons per capita. The conservation work we
 22 have been doing in the region, what we're seeing
 23 in terms of actual consumptive use on the M & I
 24 side per capita had really dropped significantly.
 25 We did updates on population numbers, but the

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1 combination of those two things projected a
 2 significantly less amount of water needed out
 3 through 2045 by the region.

4 Q. Mr. Turner, you mentioned conservation efforts.
 5 And we have a witness coming next week, Ms. Katie
 6 Kirkpatrick; and she's with the Metro North Water
 7 District. So we'll get the detail on that. But
 8 since you were director, I just want to get from
 9 your perspective what were some of the key
 10 conservation measures that caused water use to
 11 decline so much in the Atlanta metro region?

12 A. Well, these -- many of these measures take time
 13 to mature. And so I -- as I -- there again, I
 14 think you're going to hear from Ms. Kirkpatrick
 15 that will give you a lot of the detail. But from
 16 my perspective, the work that was done by the
 17 Metro District even before some of the state
 18 statutory changes, particularly around
 19 conservation pricing, I think have had a real
 20 impact on water use. And then the big mover for
 21 me was the Stewardship Act that was passed by the
 22 State in 2010 that had elements that I think have
 23 really started to produce fruit.

24 And the big one that sticks out to me is that
 25 outdoor -- the change in the outdoor watering

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1 **policy. So now, in Georgia, whether there's a**
 2 **drought or not, you're not to water -- outdoor**
 3 **water your lawns between 10 a.m. and 4 p.m. So**
 4 **it doesn't matter whether we're in a drought or**
 5 **not; we're not watering in that period of time**
 6 **all the time.**
 7 **Q.** Now, Mr. Perry pointed out that there's signs
 8 that there's drought now. Right?
 9 Does -- during your tenure at EPD, did you do
 10 anything to address outdoor water use in the
 11 Atlanta metro area that relates to the drought
 12 management rules?
 13 **A. So once the Stewardship Act passed -- and the**
 14 **biggest change was the one I mentioned in terms**
 15 **of the drought rule. We had a previous drought**
 16 **rule that was effective. We had to use it during**
 17 **the 2007-2008 drought. But it was outdated**
 18 **because it didn't sync with the new changes on**
 19 **outdoor watering in particular that were in the**
 20 **Stewardship Act.**
 21 **So we did pass two regulations at EPD when I**
 22 **was director. One was an updated drought rule,**
 23 **and one was an updated what we call efficiency**
 24 **rule, which picked up on another key piece of the**
 25 **Stewardship Act which dealt with water loss**

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1 **from infrastructure -- in water providers'**
 2 **infrastructure.**
 3 **Q.** Now, on these drought management rules that were
 4 updated, you mentioned there's three levels.
 5 Correct?
 6 **A. That's correct.**
 7 **Q.** Can you describe for the Court how that works.
 8 **A. So the EPD, in consultation with a number of**
 9 **experts, is supposed to be monitoring -- and they**
 10 **are -- the conditions. And as things dry out,**
 11 **the rule calls for a series of progressive**
 12 **drought levels to be declared. And so they**
 13 **declare drought level 1. So we have drought**
 14 **level 1, which is a really -- is designed to be**
 15 **very -- to encourage transparency and getting out**
 16 **to the public that, hey, things are drying out.**
 17 **But there is no regulatory action that kicks in**
 18 **in drought level 1.**
 19 **Drought level 2, outdoor watering is**
 20 **restricted to two days a week; and those**
 21 **alternate based on the different set of rules.**
 22 **And then the drought level 3 is the -- is**
 23 **the -- the final level in which, based on the**
 24 **geography that the director sets for the drought**
 25 **level 3, it's a total outdoor watering ban during**

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1 **that period.**
 2 **Q.** And did you say the State is now at drought
 3 level 2?
 4 **A. The state is at drought level 2.**
 5 **Q.** Okay. I want to shift gears now and talk about
 6 the drought in 2012 and how that affected
 7 agriculture.
 8 MR. PRIMIS: Your Honor, I think I could
 9 go for another 15, 20 minutes and then have a
 10 natural breaking point, if that makes sense?
 11 SPECIAL MASTER LANCASTER: Sure.
 12 MR. PRIMIS: Thank you.
 13 BY MR. PRIMIS:
 14 **Q.** So you said when you came in in January of 2012
 15 you were greeted by a drought. Correct?
 16 **A. I was, yes.**
 17 **Q.** And before we get to that, you were asked a
 18 question about Director Barnes and whether he had
 19 to declare a drought under the Flint River
 20 Drought Protection Act in 2011. Do you recall
 21 that?
 22 **A. I do.**
 23 **Q.** I'm not sure; I don't think you were asked if you
 24 understood why Director Barnes didn't declare a
 25 drought under the Act. Can you explain that.

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1 **A. So it's my understanding -- and looking at the**
 2 **documentation you can see this -- that in**
 3 **January, it was, indeed, troubling and some**
 4 **projections were troubling; and that was what**
 5 **Mr. Perry asked me about.**
 6 **Q.** January of 2011?
 7 **A. January of 2011.**
 8 **However, that determination is made before**
 9 **March 1. And as is typical, those directors are**
 10 **pretty engaged in looking at the data and the**
 11 **conditions, conditions which can change on a**
 12 **dime, as we saw this year. And Director Barnes**
 13 **was looking at all that, and there's some**
 14 **documentation to this effect. And it did --**
 15 **there were a couple of really wet weeks, it**
 16 **looked like. And based on that, he made the**
 17 **decision not to declare a drought.**
 18 **Q.** Now, did those indications that the drought might
 19 be ending -- did that persist through the rest of
 20 2011 and into 2012?
 21 **A. No. I mean, he was -- they went -- it went right**
 22 **back to that bad condition after the period of**
 23 **the drought declaration passed. So it didn't dry**
 24 **out in 2011.**
 25 **Q.** Okay. So what were you confronted with when you

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1 got there in 2012?

2 **A. I was confronted with the situation where it was**

3 **not -- I mean, that really -- the question of**

4 **whether we were in a drought was pretty clear to**

5 **me. I mean, we had a very dry winter. So it's**

6 **one thing to have a dry summer; it's another**

7 **thing to have a dry recharge period. And we had**

8 **that.**

9 **Q.** Can you pause and just explain why that's

10 important. What happens in winter with the

11 Floridan Aquifer in a normal year?

12 **A. Sure. The Floridan is a really great resource**

13 **for water for everybody. And the Floridan**

14 **extends under the State of Florida, too. It**

15 **recharges like very few aquifers I know of in the**

16 **country and the world. And so in the winter when**

17 **you get normal rains or even a tropical storm in**

18 **the summer or in the spring, it can really have a**

19 **significant impact on the aquifer. Because of**

20 **the deep sandy soils in Georgia that water passes**

21 **through quickly and recharges the aquifer.**

22 **So why you want rain in the winter to fill up**

23 **reservoirs -- like we think of in north Georgia,**

24 **you want rain in the winter to fill up the**

25 **aquifer in south Georgia.**

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1 **Q.** And what happened in the winter of 2011 leading

2 into 2012?

3 **A. Right. So that was a very dry winter, and we did**

4 **not see that level of recharge.**

5 **Q.** How did you go about deciding whether or not to

6 declare a drought under the Flint River Drought

7 Protection Act when you arrived in 2012?

8 **A. Well, they -- first, we had the normal course**

9 **where the staff provided me sort of resource**

10 **assessments. And they gave me that information**

11 **in the normal course. And that really just**

12 **confirmed what I knew to be the conditions. So**

13 **it became very little about was it going to get**

14 **better, was it going to be the end of the**

15 **drought; and it was wholly about how does this**

16 **Act work? If we trigger this, is it going to**

17 **produce a benefit?**

18 **And that became my focus.**

19 **Q.** But what did you ultimately decide to do?

20 **A. I ultimately decided not to trigger the Act. And**

21 **I did that because I -- the consensus of staff**

22 **was for two different reasons that the Act wasn't**

23 **going to have the desired effect on streamflows.**

24 **One was because of the depletion of the aquifer,**

25 **and the other because streamflows were so low**

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1 **already that there wasn't going to be a lot of**

2 **surface water irrigation anyway.**

3 **Q.** Florida has suggested that you didn't declare a

4 drought because you didn't have the funding, and

5 it was too expensive. Is that your take,

6 Mr. Turner?

7 **A. No. It is true that we didn't have the funding,**

8 **and it is true that we were open about that. But**

9 **the cause for not having the funding is not**

10 **having any confidence that it would work. I**

11 **could have gone and gotten -- I mean, I don't**

12 **want to overspeak here. I have a role. And the**

13 **legislature appropriates funds. I could have**

14 **gone over there and really sought to receive**

15 **those funds. But the key was going to be, is**

16 **this going to work?**

17 **And it was known by that point that some of**

18 **the deficiencies in the Act, the nonability to**

19 **target the -- some of the things that -- and the**

20 **conditions that I was talking about, I would have**

21 **really had to have shown the appropriators that**

22 **it was going to work. And I couldn't do that.**

23 **Q.** Now, Mr. Turner, did you do anything else to

24 address the 2012 drought?

25 **A. I did. In fact, you know, I think we forecasted**

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1 **that in that press release because I knew when we**

2 **didn't declare a drought, I didn't want anybody**

3 **to think things were good in the basin. So we**

4 **told everybody why we weren't declaring the**

5 **drought.**

6 **And then the first big thing I did was**

7 **suspend new applications for farm -- for**

8 **agricultural withdrawals in a large portion of**

9 **the Lower Flint Basin.**

10 **Q.** Was that the moratorium?

11 **A. Yes.**

12 **Q.** Before we do that, I also want to ask you this

13 question. Mr. Turner, there's been a suggestion

14 that you weren't transparent in your press

15 release announcing that you weren't going to

16 declare the drought. Do you have a response to

17 that?

18 **A. Yes. I mean, I -- I took that press release very**

19 **seriously and wrote much of it myself. And I**

20 **thought I was transparent both to the conditions**

21 **were dry, that this -- the reason we weren't**

22 **declaring was not a hydrologic condition; it was**

23 **a challenge with the tool as it existed. I think**

24 **I told them about the financial situation and**

25 **explained as best I could tightly why we weren't**

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1 **doing it. And so I think we were quite**
 2 **transparent.**
 3 **Q.** Mr. Turner, I want to turn to the moratorium and
 4 show you a document. It's JX-73.
 5 MR. PRIMIS: May I approach?
 6 BY MR. PRIMIS:
 7 **Q.** Can you please identify JX-73 for the Court.
 8 **A. Yes. This is the document in which I announced**
 9 **the suspension of any consideration of new**
 10 **applications filed after this date.**
 11 **Q.** Can you explain how the moratorium worked.
 12 And for the record, what date -- this was
 13 July 30, 2012?
 14 **A. That's right.**
 15 **Q.** Okay. What -- what were you doing in this memo?
 16 How did it work?
 17 **A. It worked by basically announcing that the**
 18 **regulatory action was not to consider new**
 19 **permits. Everybody that was already -- had an**
 20 **application in-house had certain -- and several**
 21 **of those applications were well along in the**
 22 **process, and resources had been expended through**
 23 **the letter of concurrence process to get the**
 24 **properties of wells. So you had -- you had**
 25 **applications in various stages in-house, so that**

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1 **A. It is.**
 2 **Q.** And in your view as the EPD director who adopted
 3 this, did it have beneficial effects?
 4 **A. I think it absolutely has beneficial effects. I**
 5 **think what we have now is essentially -- from a**
 6 **permanent acres standpoint, we have really capped**
 7 **acreage in the basin.**
 8 **Q.** Mr. Turner, turning to the Flint River Drought
 9 Protection Act amendments, you were asked about
 10 that on cross. You didn't declare a drought
 11 under the Act in 2012 for the reasons you have
 12 explained. But did you take any steps to address
 13 what you identified as some shortcomings in the
 14 Act?
 15 **A. Yes. So that was very much a large part of 2012**
 16 **was to say, okay, since this statute didn't --**
 17 **wasn't employable in the way I thought, what can**
 18 **we do.**
 19 **So we worked not only on this suspension, but**
 20 **we looked at amendments -- we looked at some**
 21 **bigger, some more longer-term things that**
 22 **Mr. Perry asked me about as well. But we also**
 23 **looked at what we could do to amend the statute**
 24 **in the next session, which would have been --**
 25 **which was the 2013 session.**

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1 **this action suspended anything filed with the**
 2 **State after that date.**
 3 **And it had two principal regions where it**
 4 **applied, a groundwater geographic region and a**
 5 **surface water area that extended a little beyond**
 6 **the groundwater area because it extended to some**
 7 **stretches that didn't have the Floridan under it.**
 8 **The groundwater suspension was where it --**
 9 **largely where the Floridan Aquifer is.**
 10 **Q.** Are the regions you targeted identified on the
 11 second page of this document?
 12 **A. They are.**
 13 **Q.** And can you describe that map?
 14 I think the Court may be looking at it.
 15 **A. Yes. This is a graphical -- a geographical**
 16 **depiction of the area of the suspension. And so**
 17 **the lighter -- the lighter-shaded region is where**
 18 **both surface water and groundwater applications**
 19 **are suspended. And then the darker-shaded in the**
 20 **sort of the left-hand -- upper left part is just**
 21 **where surface water was suspended because there's**
 22 **not a Floridan Aquifer that's interacting with**
 23 **surface water there.**
 24 **Q.** Is this moratorium on new permits still in place,
 25 Mr. Turner?

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1 **Q.** And what steps -- what were the amendments that
 2 were adopted?
 3 **A. There were three basic amendments. One we talked**
 4 **about earlier, the shall to may. And we talked**
 5 **about the irrigation efficiencies as the second.**
 6 **The one we didn't touch on was we made clear how**
 7 **it would work if the State managed through the --**
 8 **helped manage through the drought by augmenting**
 9 **water like we do in the Spring Creek pilot.**
 10 **If we need to talk about that, we can. But**
 11 **we have this pilot project with Fish and Wildlife**
 12 **where we do some groundwater augmentation in**
 13 **Spring Creek. I was thinking at the time what if**
 14 **we need to do this in a number of places, in a**
 15 **number of stretches in the basin? And if we do**
 16 **that, we need to be clear that when the State**
 17 **puts some water in the river for protected**
 18 **mussels, let's say, that nobody that has a**
 19 **pre-existing withdrawal permit could take that**
 20 **water.**
 21 **So it was -- that's really what I mean by**
 22 **modest. That was an effort to help manage in**
 23 **that drought.**
 24 **Now, we ultimately didn't pass these until**
 25 **2014. It started raining again. But that tool**

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1 **is in place today that will also need to be**
 2 **looked at by a director should there need to be**
 3 **some augmentation done to manage in the coming**
 4 **months.**
 5 **Q.** Mr. Turner, Florida has made the assertion here
 6 that this switch of will to may in the language
 7 of the Act -- and I think it was up on the
 8 screen -- was the death blow to the FRDPA.
 9 That's how they described it in their brief.
 10 What's your view on whether the amendments
 11 you proposed were a death blow to the Act?
 12 **A.** **I think not amending the Act, not working on the**
 13 **Act would make it less effective, more like a**
 14 **death blow. I think these were improvements to**
 15 **the statute that -- the shall to may was just a**
 16 **clarification thing related to how the Act was**
 17 **already being implemented by directors before.**
 18 **So I think it was just a clarification. And the**
 19 **other two things we described are nice**
 20 **amendments.**
 21 **And then there are future amendments**
 22 **potentially; but, no, not a death blow to the**
 23 **Act.**
 24 **Q.** And those other things that you identified as
 25 nice amendments, can you just make clear what you
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1 were talking about.
 2 **A.** **The irrigation efficiency, I think, is a very**
 3 **good, long-term impact. And, again, we had good**
 4 **adoption -- good adoption in the basin. And not**
 5 **only in the basin, in those critical -- in those**
 6 **capacity use areas where our previous plan -- '06**
 7 **plan showed us were important interactive regions**
 8 **between groundwater and surface water.**
 9 **And the other piece was the augmentation**
 10 **piece. It's a -- again, it's not going to be the**
 11 **kind of flows that would produce big numbers to**
 12 **Seminole. But these are the kind of things that**
 13 **a director may need to look at for the very**
 14 **mussel species in this Wildlife Action Plan we**
 15 **just talked about. There could be key stretches**
 16 **where the State needs to do some groundwater work**
 17 **like we did in Spring Creek.**
 18 **Q.** Thank you, Mr. Turner.
 19 MR. PRIMIS: Your Honor, this is
 20 probably a good point to take a break. I
 21 wouldn't be much longer after lunch, but I
 22 think it's wise to break now.
 23 MR. PERRY: That's fine with us, your
 24 Honor.
 25 SPECIAL MASTER LANCASTER: Thank you.
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1 (Time Noted: 11:50 a.m.)
 2 (Recess Called)
 3 (Time Noted: 12:44 p.m.)
 4 BY MR. PRIMIS:
 5 **Q.** Good afternoon, Mr. Turner.
 6 **A.** **Good afternoon.**
 7 **Q.** Before the break, we were talking about the
 8 amendments to the Flint River Drought Protection
 9 Act. And now, I want to turn to the additional
 10 management tools that you evaluated in addition
 11 to amending the Act. Can you summarize what
 12 those are.
 13 **A.** **Sure. We were -- while we were looking at those**
 14 **amendments and what we could accomplish in the**
 15 **short term in terms of changing the statute, we**
 16 **started looking at this idea of moving users down**
 17 **to the lower aquifers. And that has an -- had**
 18 **and has a lot of promise. And we -- we looked at**
 19 **how many could go down there. That's really the**
 20 **question.**
 21 **It's, I think, fairly clear our understanding**
 22 **of these aquifers has really grown over the**
 23 **years; and we now have a pretty good feel for the**
 24 **fact that those lower aquifers are separate and**
 25 **would be a good source. But it's really a**
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1 **question of how much is down there.**
 2 **So we started there. We were looking at**
 3 **that. And at the same time, we looked at**
 4 **augmentation. So one side is sort of moving**
 5 **people from a -- which would have the effect of**
 6 **less utilization on those surface and Floridan**
 7 **resources; and then we also looked at could we**
 8 **augment flows into the streams during droughts?**
 9 **Could we pull it out?**
 10 **And we did look at ASR and are still looking**
 11 **at that as well as direct groundwater**
 12 **augmentation.**
 13 **Q.** And ASR, just briefly -- we have heard it before,
 14 but just to make sure we're clear?
 15 **A.** **ASR, aquifer storage and recovery. And you take**
 16 **a source water -- and what we were thinking here**
 17 **would be Floridan water -- when it's wet, when**
 18 **it's not as needed and it's full, and inject it**
 19 **into those lower aquifers where it won't drift**
 20 **off very fast because they're in tight sand**
 21 **aquifers. And then you would pull it back out in**
 22 **a drought and potentially augment a stream -- we**
 23 **use the word augment, but put it in a stream for**
 24 **flow.**
 25 **Or you might also move irrigators from a**
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1 **Floridan or surface water to that ASR field and**
 2 **let them irrigate out of the lower aquifers.**
 3 **Q.** Mr. Turner, are these maneuvers or options like
 4 moving to a lower aquifer or ASR, are those
 5 simple to do; or are they complex?
 6 **A.** **They are complex. These are -- again, I**
 7 **mentioned a little bit that our knowledge about**
 8 **these lower aquifers has grown. There was a**
 9 **time, I think in the Director Reheis era, when we**
 10 **didn't think there was any safe yield down there**
 11 **to speak of. But we do think there's some, but**
 12 **we need to be careful.**
 13 **And so we have been putting in test wells**
 14 **around. And what we're learning is that the**
 15 **lower aquifers aren't uniform. So you might put**
 16 **in one test well, and as close as 9 miles apart**
 17 **get totally different productivity. So all of**
 18 **that goes to yield. All of that goes to safe**
 19 **yield, what we can put down there.**
 20 **So it's complex, and we have got to study it.**
 21 **We have to get it right before we move on it.**
 22 **Q.** Mr. Turner, you were here in court for
 23 Dr. Sunding's testimony; is that right?
 24 **A.** **I was.**
 25 **Q.** And as he laid out the options for -- options
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1 similar to what you're discussing, did you see
 2 him do that?
 3 **A.** **I did.**
 4 **Q.** And did you have a reaction to his assertion that
 5 there were significant benefits at low cost from
 6 the items that you have discussed?
 7 **A.** **My reaction to some of his discussion,**
 8 **particularly even around this particular one,**
 9 **moving people around, is both -- that he's**
 10 **underestimating the cost of those. These -- the**
 11 **deeper you go -- this makes some common sense.**
 12 **The deeper you go, the more expensive it is. So**
 13 **moving people down is expensive.**
 14 **The other thing is just the benefits. We --**
 15 **as important as these options are, the things I**
 16 **have seen have been -- even that document we --**
 17 **Mr. Perry asked me about showed some streamflow**
 18 **benefits to moving down the number of people we**
 19 **were looking at or number of permittees we were**
 20 **looking at; but these are maximum months in the**
 21 **130 cfs category. So these are a lot smaller**
 22 **benefits than what Dr. Sunding was projecting.**
 23 **Q.** Mr. Turner, I want to shift gears now and ask you
 24 about the time when you were working for Governor
 25 Perdue. Okay?
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1 **A.** **Okay.**
 2 **Q.** And you mentioned that you assisted Governor
 3 Perdue in monitoring litigation between Florida,
 4 Georgia, Alabama, and the U. S. Army Corps; is
 5 that right?
 6 **A.** **That's right.**
 7 **Q.** What was your involvement in that litigation?
 8 **A.** **Well, as executive counsel to Governor Perdue and**
 9 **Georgia, at any rate, the Governor has a couple**
 10 **of lawyers typically in his office. And I was**
 11 **the executive counsel. And so even though I**
 12 **wasn't counsel of record in these matters, I**
 13 **worked fairly closely with outside counsel,**
 14 **particularly as the drought came on, because not**
 15 **only were we involved in the litigation as it was**
 16 **progressing, but negotiations with the Army**
 17 **Corps, Fish and Wildlife over drought operations,**
 18 **and also discussions with our sister states about**
 19 **settlement, but also on just about what to do.**
 20 **Q.** Mr. Turner, do you have an understanding of the
 21 key issues in that prior litigation between the
 22 States and the Corps?
 23 **A.** **I do.**
 24 **Q.** And can you just -- at a very high level, but
 25 just kind of lay out a roadmap of how that
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1 litigation unfolded for the Court so they can
 2 understand where we have been.
 3 **A.** **Sure. By this point, again, I know you have**
 4 **heard some testimony about the -- what started**
 5 **all of the tri-state litigation way back in 1990**
 6 **and how the Compact developed and how some of the**
 7 **issues that were involved in those -- in that**
 8 **era. But if you get to about '06 -- 2006, '7,**
 9 **and '8, we -- by that point we had multiple**
 10 **lawsuits filed by the different states against**
 11 **the Army Corps of Engineers in different federal**
 12 **courts. So we had a lot of litigation about both**
 13 **what Lake Lanier was authorized to provide when**
 14 **Congress passed that authorizing legislation in**
 15 **1946, and then it had a whole -- we had a whole**
 16 **separate set of cases relating to the Endangered**
 17 **Species Act issues that were -- that, again, all**
 18 **these were directed at the Corps to change**
 19 **operations or to accommodate in one way or the**
 20 **other related to those legal issues.**
 21 **Q.** Mr. Turner, when you were back working for
 22 Governor Perdue and then Governor Deal in that
 23 executive capacity, did you become aware of the
 24 positions that the parties were taking in those
 25 cases?
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1 **A. I did.**
 2 **Q.** Have you summarized that in your written direct
 3 testimony?
 4 **A. I have. I tried to do that in a -- I think in my**
 5 **written direct on page 5, starting with**
 6 **paragraphs 22, really through about paragraphs**
 7 **40, I think.**
 8 **Yes, through paragraphs 40.**
 9 **Q.** So I want to focus you in particular around
 10 paragraph 32. And the Court has it obviously,
 11 and it was provided here, Mr. Turner, so I don't
 12 want you to go through it all chapter and verse.
 13 But while you're here live, can you just
 14 summarize your recollection of what Florida was
 15 telling the federal courts about what harm it was
 16 experiencing and who was responsible for that.
 17 MR. PERRY: Objection, calls for
 18 hearsay.
 19 **A. Well, sure. I think the -- the principal legal**
 20 **issues involved were -- because this was -- these**
 21 **were lawsuits against the Corps, Florida wanted**
 22 **changes in operations that would produce more**
 23 **flow. And they certainly took positions about**
 24 **Georgia's consumption during that time. But what**
 25 **is significant is not only did they talk about**

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1 **the species we're dealing with today, all of**
 2 **those were at issue and were referenced in these**
 3 **cases, but the remedies sought by Florida during**
 4 **those cases was for the Corps not just to release**
 5 **more water -- I think this is significant --**
 6 **their complaint was that -- that the Corps was**
 7 **storing too much water. It was an operational**
 8 **issue. And they certainly wanted more water,**
 9 **which they claimed would alleviate harm; but it**
 10 **was all based on the fact that the way the Corps**
 11 **operates in the summer and in droughts, it's**
 12 **storing too much water up in the basin. And it's**
 13 **doing it improperly. That was -- that was their**
 14 **claim.**
 15 **Q.** Mr. Turner, did the State of Florida make that
 16 type of argument to the U.S. Supreme Court?
 17 **A. They did. They -- I know they -- when they**
 18 **appealed the 11th Circuit's decision, they made**
 19 **much the same argument to the Supreme Court.**
 20 **Q.** Can you turn to paragraph 34 of your testimony --
 21 and give the Court a moment to catch up -- and
 22 take a look and read paragraph 34, if you can,
 23 Mr. Turner. And then I'm going to ask you some
 24 questions about it.
 25 **A. Okay.**

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1 **Q.** Why did you select this legal argument from
 2 Florida to include in your direct testimony as an
 3 example of what Florida was arguing? What are
 4 they saying here?
 5 **A. This one sort of encapsulates it all because we**
 6 **had all these different stages of litigations.**
 7 **Sometimes it was embedded in -- and you can**
 8 **find the same argument embedded in phase 1 and**
 9 **phase 2, the different stages of the litigation**
 10 **that we had before Judge Magnuson when all the**
 11 **federal cases were consolidated through the MDL.**
 12 **But this one really demonstrates that the**
 13 **claims Florida was making back then were about**
 14 **everything we're dealing with in this case.**
 15 **There's not a group of species or ecological harm**
 16 **that they weren't complaining about then. And**
 17 **that includes river and bay. Even though the bay**
 18 **didn't have the sort of Endangered Species Act**
 19 **issues that the river did, they -- all of that**
 20 **was before the Court. And they were saying --**
 21 **you know, and the main quote here is the**
 22 **resulting low flow conditions lead to devastating**
 23 **consequences for the ecology and species of the**
 24 **Apalachicola River and the Bay.**
 25 **Q.** And, Mr. Turner, what remedy was Florida trying

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1 to obtain from the Corps for that harm, those
 2 devastating consequences that they were telling
 3 the U.S. Supreme Court about?
 4 **A. The remedy they wanted was a change in the Corps'**
 5 **operation to give them more flows. And**
 6 **particularly, they didn't like aspects of the**
 7 **storage regime, storage procedures that the Corps**
 8 **uses in its operating plan.**
 9 **Q.** Mr. Turner, a final topic. Mr. Perry asked you
 10 about prior efforts to resolve the disputes
 11 between the states. Do you recall that?
 12 **A. I do.**
 13 **Q.** And I have the same ground rule he did, 2015,
 14 2016 is off limits; we're not going to talk about
 15 that. But you were involved in negotiations in
 16 2012. Correct?
 17 **A. I was.**
 18 **Q.** And can you describe how the role of the Corps
 19 played into the negotiations you were involved in
 20 in 2012?
 21 **A. Yes. And I would say the role of the Corps is**
 22 **similar in every time I have been involved in**
 23 **negotiations over the last 10 years. But it --**
 24 **and specifically in 2012, which I think was as**
 25 **close as we have gotten in my opinion -- in my 10**

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1 **years we were -- we were talking to each other**
 2 **about state line flows.**
 3 **Q.** Who is the we you just referenced?
 4 **A.** **Very good.**
 5 **The State of Georgia and the negotiators on**
 6 **behalf of the State of Georgia and the**
 7 **negotiators on behalf of the State of Florida**
 8 **were negotiating on a platform that was the**
 9 **change in Corps operations. So everything we**
 10 **negotiated on was based on what changes to the**
 11 **Revised Interim Operating Plan of the Corps could**
 12 **we agree to to then turn, as both states in**
 13 **agreement, and go to the Corps and say, okay, if**
 14 **you can do the following things, we can raise the**
 15 **minimum flow at the state line and get what would**
 16 **have the -- what would have the effect of getting**
 17 **Florida more water during certain times of the**
 18 **year.**
 19 **Because this whole thing -- you understand**
 20 **the way the system works. It's not about the**
 21 **volume of water. In the winter when it's raining**
 22 **and we're in flood control operation in the**
 23 **reservoirs in a wet winter, it's doing down and**
 24 **into the Gulf of Mexico. And we're just trying**
 25 **to express the water. It's about timing and**
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1 **flow. And so these negotiations were all about**
 2 **can we raise the minimum, is the only way,**
 3 **through the Corps to guarantee Florida increased**
 4 **flows in drought in the summer.**
 5 **And we were negotiating on that chassis of**
 6 **the RIOP, the Corps' operations.**
 7 **Q.** Was there an amount that Georgia was willing to
 8 go with Florida to the Corps to advocate for to
 9 increase minimum flow?
 10 **A.** **There was. We -- we proposed a series of steps**
 11 **phased in over a 12-year period that would give**
 12 **Florida at the end of that phase-in -- now, to be**
 13 **clear, it was conditioned on changes in the way**
 14 **the Corps did things, but those -- those changes,**
 15 **once they were brought -- came on line, would**
 16 **trigger periodic increases.**
 17 **And so we proposed to get Florida ultimately,**
 18 **when it was all phased in, an increase from that**
 19 **5,000 minimum flow number we talked about, to 6.**
 20 **Q.** Did Georgia make that offer?
 21 **A.** **We did.**
 22 **Q.** Did Florida respond to it?
 23 **A.** **They did not.**
 24 **Q.** In this case, I think you're aware if you saw
 25 Dr. Sunding, there are various measures proposing
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1 to get a thousand to 2,000 cfs additional
 2 streamflow at peak summer months from Georgia.
 3 Right? You heard that?
 4 **A.** **I did.**
 5 **Q.** Mr. Turner, given your decade of experience in
 6 dealing with these water issues and the prior
 7 negotiations, what's your view on whether what
 8 Dr. Sunding was talking about is feasible without
 9 the support and involvement of the U.S. Army
 10 Corps?
 11 **A.** **I don't think it's feasible. I don't think it's**
 12 **possible without the Corps. You know, a thousand**
 13 **cfs like we were talking about was totally**
 14 **contingent on the Corps changing operations.**
 15 **We looked at this ACFS Stakeholders plan.**
 16 **Those 50-some-odd stakeholders that worked on**
 17 **this said the only way to do this is to change**
 18 **Corps operations to give some more water. And**
 19 **so any notion that we would have these cuts**
 20 **that would produce flows that would eventually**
 21 **get to Florida, that won't happen unless**
 22 **there's a change in the Corps operations to**
 23 **do that.**
 24 **Q.** Thank you, Mr. Turner.
 25 MR. PERRY: Good afternoon, your Honor.
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1 SPECIAL MASTER LANCASTER: Good
 2 afternoon, Mr. Perry.
 3 RECROSS-EXAMINATION
 4 BY MR. PERRY:
 5 **Q.** Mr. Turner.
 6 **A.** **Mr. Perry.**
 7 **Q.** In your binder could you please turn back to tab 22.
 8 **A.** **Yes.**
 9 **Q.** Now, I believe you just testified a few -- maybe
 10 it was about an hour ago, before lunch, that it
 11 was your intent to be completely transparent when
 12 you put this document together that is JX-69 --
 13 it's the press release -- right?
 14 **A.** **That's correct. Yes.**
 15 **Q.** And you write, don't you, that EPD has analyzed
 16 data on streamflows and has determined that a
 17 reduction in irrigation that might be achievable
 18 would have a negligible impact on surface water
 19 flows this year.
 20 **A.** **Yes.**
 21 MR. PERRY: Your Honor, if I might
 22 approach to hand out an exhibit?
 23 SPECIAL MASTER LANCASTER: Please.
 24 BY MR. PERRY:
 25 **Q.** Now, sir, I would like to focus on Florida
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1 Exhibit 904 for a little bit here, if I
 2 could. And let's just start with the To: and
 3 From: lines, please.
 4 Nap Caldwell, who sent this exhibit, is
 5 Napoleon Caldwell; is that right?
 6 **A. That's right.**
 7 **Q.** And Napoleon Caldwell wrote a memo that we
 8 discussed in this case, Florida Exhibit 85, I
 9 believe it was. But I think you remember it was
 10 called the fodder document?
 11 **A. I remember us talking about that in my**
 12 **deposition.**
 13 **Q.** And Mr. Caldwell's advice was to be forthright.
 14 Do you remember that?
 15 **A. He talked about being forthright in that internal**
 16 **document, yes.**
 17 **Q.** Okay. And Linda McGregor in the To: line is also
 18 employed by EPD; is that right?
 19 **A. She was. At the time she was the water branch**
 20 **chief. She's since moved in her career to**
 21 **another -- she's not with the State anymore.**
 22 **Q.** And then Mr. Chambers and Dr. Gail Cowie were at
 23 EPD when you were director; is that right?
 24 **A. That's correct.**
 25 **Q.** I would like, if you could, to please focus on
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1 the third paragraph of this letter. And in
 2 particular I'm interested in the sentence that
 3 contains the text, we cannot conclude that there
 4 is little or no flow benefit to suspending
 5 irrigation elsewhere within the Lower Flint. So
 6 Chambers is wondering (as Jud is likely to)
 7 whether our narrative is now on thinner ice.
 8 Do you see that, sir?
 9 **A. I have seen it.**
 10 **Q.** All right. Could you read to yourself the whole
 11 third paragraph of this e-mail, please.
 12 **A. Okay. I have read it.**
 13 **Q.** Now, I would like to focus on the sentence in the
 14 middle of that paragraph that begins with the
 15 word also. It's about five or six lines down.
 16 **A. I see that.**
 17 **Q.** Now, the name Wei appears there. Is that Wei
 18 Zeng?
 19 **A. Yes.**
 20 **Q.** He was the head modeler; is that right?
 21 **A. Right.**
 22 **Q.** And Menghong?
 23 **A. Menghong.**
 24 **Q.** I'm sorry. I made some pronunciation errors.
 25 **A. I'm not sure I did that right either.**
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1 **Q.** For whom does that person work?
 2 **A. Works for Wei.**
 3 **Q.** Okay. So they would have been doing modeling
 4 work. Right?
 5 **A. Right. Dr. Kennedy did work and our hydrological**
 6 **unit did work. So how they worked together, they**
 7 **would have been involved with it. Exactly who**
 8 **did what I wouldn't be able to tell you.**
 9 **Q.** Did you see here in this paragraph that their
 10 work could only justify a conclusion that you
 11 would not have streamflow benefits from
 12 suspending irrigation in Spring Creek?
 13 **A. I see that this note says that. It's the first**
 14 **time I have seen this. But I see that it says**
 15 **that.**
 16 **Q.** And, of course, Spring Creek is only a sub-basin
 17 in the Lower Flint; isn't it?
 18 **A. Right. It's a tributary.**
 19 **Q.** But your carefully-drafted press release is much
 20 broader than that; isn't it?
 21 **A. Yes.**
 22 **Q.** And if you read the sentence after what I just
 23 referred to, it says, we cannot make a similar
 24 assertion elsewhere in the Flint because we do
 25 not have the data, and the data we do have do not
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1 support this conclusion.
 2 Do you see that, sir?
 3 **A. I see that this e-mail says that.**
 4 **Q.** And, yet, you did make that assertion; didn't
 5 you?
 6 **A. I did. Because the consensus of my staff when I**
 7 **asked, if we do this, can you tell me if we have**
 8 **any confidence, because of everything you're**
 9 **telling me, that we go spend \$10 million, go get**
 10 **the legislature to appropriate this, and we're**
 11 **going to go out to the river and we're going to**
 12 **see -- can you tell me we're going to see an inch**
 13 **difference in any of these tributaries?**
 14 **And the consensus of my staff -- I certainly**
 15 **never saw this -- was, no, director, we cannot.**
 16 **Q.** What's Kevin Chambers's job?
 17 **A. He is the press guy, the guy that kind of -- so**
 18 **he was involved, I think, in putting together the**
 19 **press release.**
 20 **Q.** And Nap Caldwell had specific responsibility over
 21 Ag permitting; is that correct?
 22 **A. He did.**
 23 **Q.** And Dr. Gail Cowie also had responsibility for
 24 the ACF Basin; is that right?
 25 **A. She was the assistant branch chief and had**
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1 **specific responsibilities over sort of policy,**
 2 **planning, in particular in the basin.**
 3 **Q.** Do you recall any of those individuals, including
 4 Nap Caldwell, advising you to be forthright?
 5 **A. No. Because the memo you're talking about I have**
 6 **only come to learn after the fact. Nobody that I**
 7 **recall said be forthright. That's -- that's what**
 8 **we try to do every day; so I don't think that was**
 9 **advice given to me.**
 10 **You have talked about that line from that**
 11 **memo. And I hadn't seen that memo before we**
 12 **prepared for this. But I think we were**
 13 **forthright in that press release.**
 14 **Q.** All right, sir. Could you turn to tab 1 in your
 15 binder, please. Now, you recall, don't you,
 16 that this is the unimpaired flow assessment by
 17 Dr. Georgakakos and the Georgia Water Resources
 18 Institute?
 19 **A. I recall that, yes.**
 20 **Q.** And Mr. Primis asked you about the Sustainable
 21 Water Management Plan. Do you remember that?
 22 **A. I do.**
 23 **Q.** Okay. Now, you know, don't you, that the
 24 Sustainable Water Management Plan had a certain
 25 amount of budget. Right?

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1 **A. What's that now?**
 2 **Q.** The Sustainable Water Management Plan from ACF
 3 Stakeholders only had a certain amount of
 4 budgetary funds available. Right?
 5 **A. I don't know anyplace that doesn't have a limited**
 6 **budget, so -- but I wouldn't know anything about**
 7 **their budgetary --**
 8 **Q.** All right. Mr. Primis handed you GX-1325. Can
 9 you sort through your materials and see if you
 10 have that, sir.
 11 **A. Oh, yes. I have got it.**
 12 **Q.** Now, if I could, sir, I would like to refer you
 13 to page 15 of Exhibit GX-1325.
 14 **A. Okay.**
 15 **Q.** Now, there do you see that subtitle Review of
 16 Unimpaired Dataflow Sets?
 17 **A. I see that.**
 18 **Q.** And you recall, don't you, your testimony earlier
 19 that the unimpaired flow datasets include
 20 Georgia's own estimates of their consumptive use.
 21 Right?
 22 **A. Right.**
 23 **Q.** All right. Now, if you go down to the second
 24 paragraph on page 15 of GX-1325 that begins with
 25 after reviewing, could you read that paragraph to

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1 yourself, sir.
 2 **A. I see that.**
 3 **Q.** All right, sir. Do you see the text in the
 4 middle of the first sentence that reads, ACFS
 5 considered undertaking the effort to improve the
 6 UIF dataset.
 7 **A. I see that.**
 8 **Q.** And you know, don't you, that Dr. Georgakakos was
 9 receiving his funding in part from ACFS. Right?
 10 **A. I would assume so.**
 11 **Q.** And then later it says, just after what I read,
 12 however, given the time and monetary commitment
 13 to support this effort, and the time needed to
 14 coordinate with the three states, ACFS decided to
 15 proceed without improving that dataset; didn't
 16 they?
 17 **A. They must have had to determine what was most**
 18 **important, so they went forward with that --**
 19 **doing that work.**
 20 **Q.** All right. But you know, don't you, that
 21 Dr. Zeng had the UIF assessment report from
 22 Dr. Georgakakos on his desk as of 2013?
 23 **A. I don't know that. I didn't know that.**
 24 **Q.** All right. And nobody advised you of
 25 Dr. Georgakakos's proposal that funding be

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1 made available to improve and fix the dataset?
 2 **A. I -- no. I don't recall a proposal specifically**
 3 **for more money to fix the dataset.**
 4 **Q.** Now, Mr. Primis supplied you with two different
 5 submissions to the U.S. Army Corps; didn't he?
 6 **A. Yes.**
 7 **Q.** And one of them was at Joint Exhibit 86.
 8 **A. Yes.**
 9 **Q.** Now, I'm still talking about the UIF dataset
 10 that included Georgia's consumptive use
 11 estimates; but I would like you to turn to
 12 page 1. It's actually the third page, but it's
 13 labeled 1 of JX-86.
 14 **A. Yes.**
 15 **Q.** And do you see your affidavit there?
 16 **A. I do.**
 17 **Q.** Now, this is a January 2013 submission; isn't it?
 18 **A. Yes.**
 19 **Q.** And you rely in this submission upon work done by
 20 Dr. Zeng; don't you?
 21 **A. Yes.**
 22 **Q.** And Dr. Zeng would have known at this time that
 23 the UIF dataset and Georgia's consumptive use had
 24 been criticized by Dr. Georgakakos. Right?
 25 **A. Oh, I'm sure Wei knew about the criticism and had**

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1 **firm opinions about whether it was valid.**

2 **Q.** But wouldn't you, as the director of Georgia EPD

3 signing an affidavit, want to get to the bottom

4 of this issue before you sent this material to

5 the U. S. Government?

6 **A. Look, I think that what I did in this affidavit**

7 **was rely on somebody I had a lot -- and still**

8 **do -- a lot of confidence in, Dr. Zeng.**

9 **And I know that you -- I know generally, as I**

10 **mentioned before in my earlier testimony, that**

11 **the UIF issue was a very technically-detailed**

12 **thing that Dr. Zeng had a firm opinion on. And**

13 **his advice I did, indeed, rely upon and still**

14 **would.**

15 **Q.** And that's true also with respect to Joint

16 Exhibit 126, which Mr. Primis gave you, which is

17 a -- another letter from Georgia EPD to the Army

18 Corps; isn't it?

19 **A. Yes.**

20 **Q.** And by the time of this second letter that

21 Mr. Primis gave you to the Army Corps, there

22 still hadn't been work to correct the systematic

23 and random errors in the UIF dataset in Georgia's

24 consumptive use information. Right?

25 **A. There had not been work to correct that. Whether**

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1 **Q.** All right. I believe you referred to this as

2 your moratorium document in 2012. Is that right?

3 **A. I think I first said suspension. And we have**

4 **called it moratorium for short a number of times,**

5 **yes.**

6 **Q.** All right. That's fair. Let's go to the third

7 paragraph from the bottom of the page, please.

8 **A. Yes.**

9 **Q.** If you could read that paragraph to yourself, I

10 would appreciate it.

11 **A. Okay.**

12 **Q.** That's true, isn't it, that your suspension did

13 not apply to applications that had already been

14 received as of 2012. Right?

15 **A. That's right.**

16 **Q.** And a great number of applications were received

17 in 2011 and 2012. Right?

18 **A. I don't know the number. I have since looked at**

19 **some -- some numbers; and there were several**

20 **applications. Great number I don't -- I don't**

21 **know what you qualify it as.**

22 **Q.** It's true, isn't it, that in the Lower Flint

23 Basin, the Environmental Protection Division

24 granted permits totalling 70,000 new acres since

25 the date of your suspension or moratorium.

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1 **it needed to be done for purposes of this**

2 **submission is a wholly different issue.**

3 **Q.** All right, sir. You remember earlier when I was

4 first up we talked about the agricultural

5 withdrawal section of FX-534, the UIF report, on

6 pages 9 through 10; don't you?

7 **A. I remember that.**

8 **Q.** All right. And I'm not taking your testimony to

9 mean that you don't have concerns about

10 inaccuracies in Georgia's estimate of

11 agricultural water use. Those things do

12 genuinely concern you; don't they?

13 **A. I -- we have always wanted to do the best to**

14 **improve our datasets. That is a story on the**

15 **agricultural side of Georgia's management from**

16 **the metering database that we put in place all**

17 **the way through the studies that we're doing**

18 **today. So, no; accurate data is very, very**

19 **important.**

20 **Q.** Are you considering now funding Dr. Georgakakos's

21 study proposal here?

22 **A. Not that I'm aware of.**

23 **Q.** Let's turn to Joint Exhibit 73, which Mr. Primis

24 also handed you.

25 **A. Got it.**

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1 Right?

2 **A. I don't know the number of acres. But when we**

3 **did this, and my testimony throughout this has**

4 **been that the suspension applied prospectively on**

5 **applications received after that date.**

6 **Q.** And there are quite a number of applications

7 received before that date that are still pending.

8 Right?

9 **A. I don't know how many are still pending. I would**

10 **think that number is coming down because most of**

11 **them have been processed. I don't know that I --**

12 **I don't know about most.**

13 **Q.** Are you --

14 **A. At this point I would think most have been.**

15 **Q.** Okay. I'm sorry for interrupting you, sir.

16 Are you aware of statements by Georgia in

17 this case that it reviews whether or not to lift

18 the suspension or moratorium every year in

19 November?

20 **A. I know that when we first did this -- and I think**

21 **it's probably in this document -- yes, that is**

22 **what we said we would do is review it every year.**

23 **I also know that we have been asked about it a**

24 **number of times. And as we have wrestled with**

25 **this, we have really been clear that we're not**

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1 **lifting it until we know if there's anyplace that**
 2 **it could be.**
 3 **Q.** Now, sir, let's go back to the ACF Stakeholders
 4 process one more time. And I asked you earlier
 5 today about Ms. Katherine Zitsch who works with
 6 the Atlanta Regional Commission of Atlanta --
 7 Metro Atlanta Governments. Do you remember that?
 8 **A. Yes.**
 9 **Q.** All right. Now, you're aware, aren't you, that
 10 the ACF Stakeholders process is a consensus
 11 process. Right?
 12 **A. I am aware that that is the way they govern**
 13 **themselves.**
 14 **Q.** So if Ms. Zitsch opposed a particular
 15 recommendation, there would be no consensus;
 16 would there?
 17 **A. I see what you're asking.**
 18 **I think the way it works is they would have**
 19 **to compromise with each other. They were very**
 20 **proud that the only way to go forward was**
 21 **consensus. So you might -- there was a lot of**
 22 **opposition, I suspect, in the room. But, yes,**
 23 **they wouldn't make a formal recommendation**
 24 **without everybody's vote.**
 25 **Q.** And that is the -- the formal recommendation is
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1 what actually gets published. Right?
 2 **A. That is correct.**
 3 **Q.** And you know that there are records of some of
 4 those deliberations and Ms. Zitsch's opinion on
 5 whether or not to disseminate certain information
 6 from that process. Don't you?
 7 **A. I haven't reviewed any records of which you**
 8 **speak.**
 9 **Q.** All right. But you're also aware that the
 10 consensus that was reached even with Ms. Zitsch
 11 on board was that the Apalachicola River and
 12 Apalachicola Bay should receive more water.
 13 Right?
 14 **A. I think -- and this is what was made very clear**
 15 **to me when they reported out after the period of**
 16 **confidentiality and told me what this was --**
 17 **they, as a compromise matter, proposed a number**
 18 **of changes; and one of the changes was pulse**
 19 **flow, two weeks in May, two weeks in July, they**
 20 **provided more water to Florida.**
 21 **Q.** Approximately 9,000 cfs at least during those
 22 periods. Right?
 23 **A. For two weeks in May and two weeks in July.**
 24 **Q.** And if you were to parcel that same amount of
 25 water out across the 2012 summer, that would be
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1 more than a thousand cfs every week in the
 2 summer; wouldn't it?
 3 **A. I have no -- no idea about that. I have not done**
 4 **that math.**
 5 **Q.** All right, sir. Thank you.
 6 MR. PRIMIS: No further questions, your
 7 Honor.
 8 SPECIAL MASTER LANCASTER: Mr. Director --
 9 I'll call you Mr. and Director.
 10 THE WITNESS: Fair enough.
 11 SPECIAL MASTER LANCASTER: I'm not sure
 12 whether you were here or not when I explained
 13 that I have to speak into this microphone,
 14 and so I won't be looking at you.
 15 THE WITNESS: No problem.
 16 SPECIAL MASTER LANCASTER: I'm not
 17 trying to be rude.
 18 You just were asked some questions about
 19 the ACF Sustainable Water Management Plan.
 20 Can you tell me whether you approve or
 21 disapprove of that plan?
 22 THE WITNESS: Yes, your Honor. We --
 23 there are some things in that plan that we
 24 have been talking about for a long time that
 25 we think are real commonsense changes to the
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1 way the Corps operates. I cannot say that I
 2 have ever seen any scientific data to support
 3 the 9,000 pulse flows. But if you're going
 4 to compromise and if you're going to do that,
 5 you have got to change -- there are some
 6 commonsense things to do with the Corps
 7 operation to make for more storage. And so
 8 as a whole, there are some things in that
 9 plan that make some sense.
 10 The reason -- there is a missing piece
 11 of the plan, having negotiated these issues
 12 for 10 years; and that's -- and I think in
 13 the plan they're clear on this. There's not
 14 a drought trigger. There is not a what do we
 15 do when we reach a drought worse than
 16 history?
 17 And when I saw that, when I first got
 18 the plan, I said, well, that's the part to
 19 negotiate.
 20 So the plan has got some really good
 21 things in it, but I think it's incomplete.
 22 And I think they think it's incomplete
 23 because they said that we still needed to do
 24 a drought trigger.
 25 SPECIAL MASTER LANCASTER: Apart from
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1 the last comment, is there anything else that
 2 you think needs to be put into the plan?
 3 THE WITNESS: That was the big thing I
 4 recall, your Honor.
 5 SPECIAL MASTER LANCASTER: Your answer
 6 is, no, there is nothing else?
 7 THE WITNESS: Nothing else that I can
 8 think of right now; yes, sir.
 9 SPECIAL MASTER LANCASTER: Are you
 10 familiar with the Compact?
 11 THE WITNESS: I am familiar with the
 12 Compact that we had in Georgia and Alabama
 13 and Florida.
 14 SPECIAL MASTER LANCASTER: Tri-state
 15 Compact, Alabama, Florida, Georgia?
 16 THE WITNESS: Yes, sir.
 17 SPECIAL MASTER LANCASTER: Do you think
 18 that was a good thing?
 19 THE WITNESS: Oh, sure. I think that
 20 we -- that meeting together and working on
 21 trying to decide how to share the basin was a
 22 good thing.
 23 SPECIAL MASTER LANCASTER: So you -- if
 24 I understand you, what you're saying is it
 25 would be a good thing if the three states got

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1 together again and tried to agree?
 2 THE WITNESS: Your Honor, I think
 3 that's -- we have always welcomed that
 4 discussion and would continue to do so; yes,
 5 sir.
 6 SPECIAL MASTER LANCASTER: Your answer
 7 is yes?
 8 THE WITNESS: Yes.
 9 SPECIAL MASTER LANCASTER: Thank you.
 10 Now, you testified about some limits --
 11 some limits on days and limits of hours of
 12 watering. Was that just Atlanta?
 13 THE WITNESS: No, sir. The change that
 14 we did in the Stewardship Act that prohibited
 15 outdoor watering between 10 a.m. and 4:00 is
 16 statewide. The drought levels that we're
 17 moving into that reduce you to two days a
 18 week that we're in now are the 52 counties in
 19 the northern half of the state, really.
 20 SPECIAL MASTER LANCASTER: And most of
 21 the agriculture is in the southern part of
 22 the state?
 23 THE WITNESS: Yes, sir. That southwest
 24 corner in particular.
 25 SPECIAL MASTER LANCASTER: And why did

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1 that limit not apply to the agricultural
 2 part?
 3 THE WITNESS: Two reasons, your Honor.
 4 The agricultural limit wouldn't apply to
 5 agriculture because the outdoor watering --
 6 although the name outdoor watering is
 7 confusing, it applies to the outdoor watering
 8 of lawns, not agricultural watering. So
 9 the -- so that's one reason.
 10 The other reason is it's just a drought
 11 level 1 in the southwest part of the state.
 12 So it applies -- like in Albany, for
 13 instance, where there would be some M & I
 14 watering, those restrictions aren't up yet
 15 because it's drought level 1 down there right
 16 now.
 17 SPECIAL MASTER LANCASTER: In your
 18 opinion, should there be more restrictions on
 19 the agricultural use of water?
 20 THE WITNESS: Your Honor, my -- I don't
 21 think that we have needed more restrictions
 22 on the existing permittees. My view has been
 23 we need to look at the acreage under
 24 irrigation.
 25 I think we're using water very

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1 efficiently. And so what can we do to shift
 2 some existing users and take some acreage
 3 out. But I don't think we need further
 4 restrictions because I don't think we have a
 5 wasteful use of Ag irrigation water going on
 6 in the state as a whole.
 7 SPECIAL MASTER LANCASTER: Have you done
 8 any analysis or modeling to justify that
 9 conclusion?
 10 THE WITNESS: I think we have done a
 11 fair bit of work to look at the adoption
 12 rates of that efficiency. We have -- and
 13 you're going to hear, your Honor, from some
 14 people that can speak to this even more than
 15 me, Mark Masters in particular. But we have
 16 absolutely done the kind of estimating work
 17 through the water planning process to see the
 18 sum of that agricultural water use and -- and
 19 what impacts those are having.
 20 So I think we have done -- there's
 21 always more work to do; but I think -- we
 22 think we have got a pretty efficient system.
 23 It's a lot of water use, but it's efficient
 24 and put to good use and not wasteful.
 25 SPECIAL MASTER LANCASTER: And can you

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1 refer me to the results of that work?
 2 THE WITNESS: I cannot refer you to -- I
 3 know we had some testimony that will -- I
 4 think Mark Master's testimony is probably the
 5 best place to see our work in this area. And
 6 he will be forthcoming to visit.
 7 SPECIAL MASTER LANCASTER: Now, you
 8 testified in your both cross and direct on
 9 the Corps involvement. Are you familiar with
 10 the Corps' Draft Environmental Impact
 11 Statement updated to 2016 that was originally
 12 done in October 2015?
 13 THE WITNESS: I am familiar with the
 14 draft, yes, sir.
 15 SPECIAL MASTER LANCASTER: And that has
 16 a 2016 drought contingency plan; does it not?
 17 THE WITNESS: The draft EIS in the Water
 18 Control Manual does have a drought procedure
 19 in it.
 20 SPECIAL MASTER LANCASTER: And it also
 21 has the 2016 environmental impact structure
 22 statement; does it not?
 23 THE WITNESS: I'm aware of the -- your
 24 Honor, I don't know about the '16 date. I
 25 know that there's a biological opinion where
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1 Fish and Wildlife is studying what the Corps
 2 is proposing and has issued a 2016 biological
 3 opinion on that. And we are waiting on the
 4 final EIS, which is due, we think, within a
 5 month.
 6 SPECIAL MASTER LANCASTER: This one I'm
 7 looking at is February 1958 revised 2016.
 8 THE WITNESS: The -- I'm aware of the
 9 draft EIS that came out in late 2015 and that
 10 we filed comments on in February of 2016, and
 11 that the final EIS, not the draft, is due out
 12 the end of this year.
 13 SPECIAL MASTER LANCASTER: You're not
 14 familiar with the updated 2016 version of the
 15 October 2015 version?
 16 THE WITNESS: What I'm aware of is
 17 that -- that the Corps has been updating that
 18 draft and sharing some of what they plan to
 19 do with their coordinating -- under their
 20 coordinating responsibilities, so with U.S.
 21 Fish and Wildlife. I wasn't aware that we
 22 had an updated draft of the EIS out in 2016.
 23 SPECIAL MASTER LANCASTER: Then I won't
 24 ask you any questions about it.
 25 THE WITNESS: Okay. Thank you.
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1 SPECIAL MASTER LANCASTER: If you were
 2 to disengage the Upper and Lower Flint, how
 3 would you effect that instruction?
 4 THE WITNESS: Your Honor, I heard you
 5 ask this question yesterday; and I want to
 6 try to make sure I understand your question.
 7 Do you mean if you looked at the basin just
 8 as the upper portion and then just as the
 9 lower portion?
 10 SPECIAL MASTER LANCASTER: Yes, sir.
 11 THE WITNESS: I think the upper portion
 12 of the Flint in particular is a very
 13 different river than the Lower Flint.
 14 SPECIAL MASTER LANCASTER: That's my
 15 point.
 16 THE WITNESS: And whatever issues there
 17 may be in the Upper Flint -- and there are
 18 allegations that there are issues with
 19 interbasin transfers -- legacy interbasin
 20 transfers and municipal -- and M & I pumping
 21 off of the river -- that would be one set of
 22 issues.
 23 It is true that the Lower Flint has a
 24 very different set of management challenges.
 25 And, thus, it -- it does make sense that
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1 whatever -- whatever one would look at from
 2 a management -- whatever I looked at from a
 3 management standpoint very much broke at that
 4 upper limit. So we treated them almost as
 5 two different rivers.
 6 SPECIAL MASTER LANCASTER: And if I had
 7 the authority and you had the responsibility
 8 to disengage the two sections, how would you
 9 go about it?
 10 And if your answer is I don't know,
 11 that's fine, too.
 12 THE WITNESS: Your Honor, I think that
 13 what I can say is along the lines of just
 14 what we have been looking at is that we would
 15 look at those acreages in the Lower Flint;
 16 but that -- that assumes -- and, again, we
 17 sort of capped that acreage. That's my
 18 position; it's basically capped. And we
 19 think that the management tools for there are
 20 related to acreage as opposed to restrictions
 21 on actual individual permittees.
 22 SPECIAL MASTER LANCASTER: If you could
 23 disengage the upper and lower, what would be
 24 the effect in your opinion?
 25 THE WITNESS: Well, your Honor, as it
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<p>3103</p> <p>1 relates to flows into Florida, I'm not sure 2 there would be an impact that would be 3 certain. If we disengage the Flint and the 4 Upper Flint and the Lower Flint, there might 5 be -- if some restriction was placed, there 6 may be some flow differences that enter the 7 lake -- Lake Seminole. 8 But without a change in the Corps 9 operation, that's not going to produce a flow 10 that -- there's not a translation of that 11 flow benefit downstream. 12 SPECIAL MASTER LANCASTER: So do I 13 correctly understand your testimony to be 14 that the Corps is the key to the end result 15 of this case? 16 THE WITNESS: Yes, sir. 17 SPECIAL MASTER LANCASTER: Mr. Primis? 18 Mr. Perry? 19 MR. PERRY: Nothing further, your Honor. 20 MR. PRIMIS: Nothing further. 21 SPECIAL MASTER LANCASTER: Thank you. 22 THE WITNESS: Thank you, sir. 23 MR. PRIMIS: Your Honor, we're going to 24 just take a moment to switch teams. 25 I want to thank Chris Maner, who THE REPORTING GROUP Mason & Lockhart</p>	<p>3105</p> <p>1 approach the witness? 2 DIRECT EXAMINATION 3 BY MS. DeSANTIS: 4 Q. Dr. Couch, I have placed in front of you your 5 written direct examination testimony in this 6 case. Do you adopt that testimony as your sworn 7 testimony for this matter? 8 A. Yes. 9 MS. DeSANTIS: Georgia will tender the 10 witness. 11 SPECIAL MASTER LANCASTER: Thank you. 12 Mr. Perry? 13 MR. PERRY: I'm afraid, your Honor, I 14 can't pass the baton as Georgia has. But I 15 would like to introduce George Chihev, who 16 has been helping me. 17 MR. CHIPEV: Good afternoon, your Honor. 18 SPECIAL MASTER LANCASTER: Good 19 afternoon. 20 MR. PERRY: And I have a fleet of other 21 people that at the opportune time, maybe in 22 the next week, that I would like to introduce 23 as well. 24 If -- may I approach to pass out the 25 binders, your Honor? THE REPORTING GROUP Mason & Lockhart</p>
<p>3104</p> <p>1 assisted me with Mr. Turner. And I will be 2 passing the baton to Ms. DeSantis. 3 MS. DeSANTIS: Good afternoon, your 4 Honor. 5 SPECIAL MASTER LANCASTER: Good 6 afternoon. 7 MS. DeSANTIS: Your Honor, Georgia is 8 calling Dr. Carol Couch as its next witness. 9 And I would like to introduce briefly 10 for the court Emily Merki who will be 11 assisting me with Dr. Couch today. 12 THE CLERK: Please raise your right 13 hand. 14 Do you solemnly swear that the testimony 15 you shall give in the cause now in hearing 16 shall be the truth, the whole truth, and 17 nothing but the truth, so help you God? 18 THE WITNESS: I do. 19 THE CLERK: Please be seated. 20 Pull yourself right up to the microphone 21 and please state your name and spell your 22 last name. 23 THE WITNESS: Carol Couch, C A R O L, 24 last name is spelled C O U C H. 25 MS. DeSANTIS: Your Honor, may I THE REPORTING GROUP Mason & Lockhart</p>	<p>3106</p> <p>1 SPECIAL MASTER LANCASTER: Please. 2 CROSS-EXAMINATION 3 BY MR. PERRY: 4 Q. Good afternoon. Would it be better for me to 5 call you Dr. Couch or Director Couch? 6 A. Doctor, I think, would be a little easier to say. 7 Q. Okay. I would appreciate it very much if we 8 could start today by talking about the period 9 before the 2006 plan was actually put into place. 10 So that's 2004, 2005, 2006, if that's okay with 11 you. 12 And I would invite your attention, first, to 13 the document which is FX-901 at tab 1, please. 14 Now, have you seen this document previously? 15 A. I don't have a specific recollection. 16 Q. All right. And you know Rob McDowell; don't you? 17 A. I do. 18 Q. All right. Do you see under introduction a 19 reference to Rob McDowell? 20 A. I see a reference, yes. 21 Q. And do you see a note there to the Stakeholder 22 Advisory Committee and the Technical Advisory 23 Committee? 24 A. I'm sorry. Would you say that again? 25 Q. Sure. And we can -- I don't want to make it hard THE REPORTING GROUP Mason & Lockhart</p>

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1 for you. We can walk through the document as
 2 slowly as I need to to make sure that I'm not
 3 being confusing.

4 So if you look at introduction, it says the
 5 Stakeholder Advisory Committee and Technical
 6 Advisory Committee, under introduction?

7 **A. I see.**

8 **Q.** Okay. Can you explain to the Court what those
 9 two committees were and what they did in the 2006
 10 plan process.

11 **A. Yes. In order to progress the development of the**
 12 **Lower Flint River Basin Conservation Plan, we**
 13 **established two committees to help advise on**
 14 **options and a range of policies that might be**
 15 **included in such a plan. The Stakeholder**
 16 **Advisory Committee was focused -- was a diverse**
 17 **group of individuals that came from different**
 18 **sectors of interest. Economic and environmental,**
 19 **agricultural, municipal as well as industrial**
 20 **concerns were represented. Their basic function**
 21 **was to receive information, to help advise on**
 22 **alternative policies that might be crafted.**

23 The Technical Advisory Committee, in
 24 contrast, also had individuals that had some
 25 familiarity with that area of the state, but

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1 whose particular focus, however, was in helping
 2 to assemble and translate basic underlying
 3 hydrologic and environmental information so that
 4 the Stakeholder Advisory Committee could be
 5 informed.

6 **Q.** And you followed pretty closely the work of Rob
 7 McDowell in focusing the debate of those two
 8 groups. Right?

9 **A. Well, I followed closely Rob's work in the sense**
 10 **that I was periodically briefed. I wouldn't**
 11 **characterize him as focusing debate of the group,**
 12 **however.**

13 **Q.** All right. So what I want to ask you about in
 14 this document is whether Rob McDowell briefed you
 15 on some of the information here, if I could.

16 Now --

17 **A. Pardon me.**

18 **Q.** If I interrupt you, please let me know. I don't
 19 mean to.

20 So let's turn to the second page. And I
 21 would like to in particular focus on paragraph 7
 22 which reads, what is being done with continued
 23 permitting in adjoining states. Do you see that?

24 **A. Yes, I see the title. Yes.**

25 **Q.** Okay. And then there is a discussion of Alabama,

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1 and then there is a discussion of the Northwest
 2 Florida Management District in Florida. Do you
 3 see that, doctor?

4 **A. I see the paragraph heading with that -- those**
 5 **phrases, yes.**

6 **Q.** Are you familiar with the permitting system in
 7 the Northwest Florida Water Management District?

8 **A. I might have been at some point in time. I don't**
 9 **have a lingering familiarity with it.**

10 **Q.** Are you aware that in that part of Florida,
 11 farmers have specific limits on how much
 12 irrigation water they can apply per acre?

13 **A. I don't have awareness of that.**

14 **Q.** And are you aware that farmers in that part of
 15 Florida, which is part of the ACF Basin, in
 16 general are also required to report the amount of
 17 water they draw from the ground or from surface
 18 water?

19 **A. I'm not aware of that.**

20 Are you speaking in terms of 10 years ago or
 21 now or what context?

22 **Q.** Now.

23 **A. I don't know the current framework. And whether**
 24 **or not I understood that to be the case 10 years**
 25 **ago, again, I don't have a lingering familiarity**

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1 with it.

2 **Q.** Well, it's true, isn't it, that Georgia has never
 3 had in the ACF Basin a requirement that farmers
 4 only irrigate a particular limited amount per
 5 acre. Right?

6 **A. That is not the nature of how our agricultural**
 7 **permit is constructed.**

8 **Q.** And, in fact, for groundwater permits -- pardon
 9 me, for grandfathered permits, there are
 10 virtually no limitations on what farmers can do.
 11 Right?

12 **A. A grandfathered permit would reflect the**
 13 **groundwater rules and regulations as of, I**
 14 **believe, about 1991.**

15 **Q.** Were there any limits in 1991 on how much water a
 16 grandfathered permittee could pump out of the
 17 ground?

18 **A. There was a -- there was a -- not an upper limit,**
 19 **no.**

20 **Q.** Okay. Now, if I could invite your attention,
 21 please, to tab 2, which is Florida Exhibit 46. I
 22 take it, Dr. Couch, that you're familiar with
 23 this exhibit?

24 **A. I have not -- I don't have a familiarity with it,**
 25 **no.**

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1 **Q.** You were with EPD as the director in 2006.
 2 Right?
 3 **A.** **That is correct.**
 4 **Q.** And did you have occasion during that time period
 5 to speak with U.S. Fish and Wildlife about the
 6 draft 2006 plan?
 7 **A.** **I don't recall that I had a specific meeting with**
 8 **the Fish and Wildlife regarding the plan, no.**
 9 **Q.** And were you aware that U.S. Fish and Wildlife
 10 actually commented on the draft 2006 plan?
 11 **A.** **In a written communication from the field**
 12 **supervisor of Georgia, this not being the letter**
 13 **because it wasn't addressed to me, I became aware**
 14 **of those concerns. Yes.**
 15 **Q.** And if I could invite your attention to page 4 of
 16 this document, please. And I would like, if I
 17 might, to focus on the second recommendation on
 18 that page. And it's the second recommendation on
 19 that page from U.S. Fish and Wildlife. Could you
 20 read that text to yourself, please, No. 2.
 21 **A.** **I see that.**
 22 **Q.** Do you recall your staff advising you that U.S.
 23 Fish and Wildlife's position was that current
 24 permits must be modified to eliminate
 25 overallocation of water in the Flint River Basin?

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1 **A.** **I don't recall that. Also, the context of this**
 2 **seems interesting from the point of view of the**
 3 **presumption of overallocation along with the**
 4 **presumption of a take of mussels in the context**
 5 **of how to sustain.**
 6 **Q.** You never read this letter before?
 7 **A.** **No.**
 8 **Q.** I would invite you to read it; but in the
 9 interest of time, let's go to the summary
 10 comments, if we might, which are at page 7 near
 11 the end.
 12 And before I invite you to read that, it's
 13 true, isn't it, that under your time as the
 14 director of EPD, you did not accept the
 15 recommendation we just looked at?
 16 **A.** **I'm sorry. This recommendation was not presented**
 17 **to me. I mean, reading it out of a letter, that**
 18 **was not the basis of something being presented**
 19 **such that I could make a decision on it or not.**
 20 **Q.** So your staff would have summarized this for you
 21 in some other context; is that what your
 22 testimony is?
 23 **A.** **More likely this would have been one of probably**
 24 **a large variety of public input and input from**
 25 **others agencies that we received. So how this**

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1 **specifically was poised to be considered in final**
 2 **draft is something that's reflected in this**
 3 **letter.**
 4 **Q.** You don't recall what the United States Fish and
 5 Wildlife Service's view was on the 2006 plan?
 6 **A.** **Well, I recall that I received a letter directly**
 7 **from the field supervisor in regard to the plan.**
 8 **Q.** Okay. We can talk about that, but let's first
 9 talk about --
 10 **A.** **Which would be a better basis for, I think, your**
 11 **question than this particular letter.**
 12 **Q.** Well, if I had that letter, I would be glad to
 13 talk about it. But this is the letter that we
 14 have been talking about through trial. It was
 15 produced by the State of Georgia to us. And it
 16 made a number of recommendations that I would
 17 like to focus on now, if I could.
 18 And so I would invite your attention to
 19 summary comments, please.
 20 **A.** **Yes. That's page 7?**
 21 **Q.** That is. And I would invite you to read that
 22 paragraph onto the next page, please.
 23 **A.** **Okay.**
 24 **Q.** Thank you for doing that. If I could invite your
 25 attention to the third line, I'll have a question

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1 about your understanding at the time. The text
 2 reads, current level of agricultural water
 3 withdrawals made the drought significantly
 4 deeper.
 5 Do you see that in the text?
 6 **A.** **I do.**
 7 **Q.** Was it your view that the current level of
 8 drought withdrawals between 1998 and 2002 made
 9 those droughts significantly worse?
 10 **A.** **No.**
 11 **Q.** So you disagreed with the statements of U.S. Fish
 12 and Wildlife?
 13 **A.** **I have no basis to understand why they're making**
 14 **this particular claim.**
 15 **Q.** Okay. Did you know Director Reheis?
 16 **A.** **I did.**
 17 **Q.** Were you here for his testimony?
 18 **A.** **No.**
 19 **Q.** Have you read his deposition?
 20 **A.** **No.**
 21 **Q.** Have you watched or read the testimony of
 22 Mr. Napoleon Caldwell?
 23 **A.** **No.**
 24 **Q.** Can you turn to the next page, the last section
 25 of this particular paragraph. And there are a

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1 couple sentences, but I just ask you to indicate
 2 whether you agree or disagree with the statements
 3 of the United States Fish and Wildlife on those
 4 topics?
 5 **A. Again, I would -- I see what Ms. Tucker is**
 6 **writing here. I don't believe I have ever seen**
 7 **the basis or scientific understanding that would**
 8 **inform their particular views of the nature of**
 9 **overallocation, much less its connection in the**
 10 **period that we're talking about to mortality of**
 11 **mussels.**
 12 **Q.** Now, could I ask you to turn in your prefiled
 13 direct testimony to paragraph 18, please. And in
 14 particular I'm focused on the last line of that
 15 paragraph when you get there.
 16 Doctor, if you could let me know when you get
 17 there, I would appreciate it.
 18 **A. This would be on page 7 of the document, just to**
 19 **be clear?**
 20 **Q.** I think that's right, doctor.
 21 Okay. Now there, is it fair to say that your
 22 primary goal at what is stated with respect to
 23 the 2006 plan, JX-21, to achieve a plan that all
 24 Stakeholder Advisory Committee members could
 25 support?

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1 **A. Yes. Consistent with Georgia regulation and law.**
 2 **Q.** Now, let's see what the recommendations were of
 3 the stakeholders, if we could. And I would ask
 4 you to turn to tab 4 in your binder, and in
 5 particular pages 55 and 56.
 6 **A. I'm there.**
 7 **Q.** Do you see page 55, item 2.9, Stakeholder
 8 Recommendations?
 9 **A. I do.**
 10 **Q.** Now, if you can turn to page 56 with me, I would
 11 like you to focus on item 4. If you could read
 12 it to yourself, I would appreciate it.
 13 **A. I have read it.**
 14 **Q.** Do you recall the stakeholders making this
 15 particular recommendation?
 16 **A. Not specifically. But I'll -- I see it written**
 17 **here.**
 18 **Q.** Were you involved in the budgetary process for
 19 the Department of Natural Resources for EPD?
 20 **A. Yes.**
 21 **Q.** Did you make recommendations up the chain as to
 22 the budgets for the Flint River Drought
 23 Protection Act?
 24 **A. No. That was not a part of the budget framework**
 25 **that we worked within.**

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1 **Q.** Are you aware of any entity ever proposing to the
 2 Governor's office that Flint River Drought
 3 Protection Act funding be expanded and assured
 4 beyond its current limits during the time you
 5 were director?
 6 **A. No. That question was not posed.**
 7 **And I would like to clarify that it wasn't a**
 8 **matter of -- it wouldn't -- had it been, it was**
 9 **not a matter of a budgetary process but, rather,**
 10 **legislative action.**
 11 **Q.** Were you aware of any legislative proposal to
 12 expand the funding for the Flint River Drought
 13 Protection Act beyond its current level when you
 14 were director?
 15 **A. No.**
 16 **Q.** Now, I would invite your attention to item 10 on
 17 that same page, please. And there there is a
 18 reference to pump capacity. Do you see that?
 19 **A. I do.**
 20 **Q.** Are you aware of any alternatives to limiting the
 21 amount of water that could be pumped in the Lower
 22 Flint Basin being proposed to the legislature or
 23 anybody else?
 24 **A. There was no action that I'm aware of with the**
 25 **legislature to change the underlying content or**

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1 **requirements regarding agricultural permits.**
 2 **Q.** Now, after the 2006 plan was put in place, there
 3 was a terrible drought in 2007; wasn't there?
 4 **A. There was a -- 2007 was a drought year, yes.**
 5 **Q.** Is it your testimony that it wasn't a significant
 6 drought?
 7 **A. Well, significant would have to have some context**
 8 **around it. It was a year of drought and a year**
 9 **of concern, as management actions that we took**
 10 **would indicate.**
 11 **Q.** Now, could I ask you to turn to tab 6; and could
 12 I invite your attention to FX-47. Do you see
 13 that?
 14 **A. I do.**
 15 **Q.** Do you remember this letter?
 16 **A. I do.**
 17 **Q.** All right. And do you see in the first line the
 18 U.S. Fish and Wildlife statement that it has
 19 concerns regarding the lack of implementation
 20 regarding the 2006 plan?
 21 **A. I'm sorry. Could you draw my attention to**
 22 **specifically where those phrases are?**
 23 **Q.** Sure. I'm very happy to. Thanks for asking.
 24 The first line of the letter, Dear Dr. Couch.
 25 The Fish and Wildlife Service has concerns.

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1 **A. Oh, got it. I see that written, yes.**

2 **Q.** Okay. And could you turn with me to the last

3 paragraph of the letter. And I would like to

4 focus your attention, if I might, to the sentence

5 beginning more fundamentally, however, which is

6 about six lines down in the last paragraph.

7 **A. Yes. I see it.**

8 **Q.** What, if any, action did you take in response to

9 this letter?

10 **A. Very difficult to take a specific action in**

11 **response to this letter in that a number of**

12 **concerns are raised without any data, evidence,**

13 **or other scientific information that would**

14 **support a way to frame specific beliefs that have**

15 **been raised in this letter.**

16 **Q.** You're not aware of U.S. Fish and Wildlife work

17 with the IHA model?

18 **A. Yes, I am.**

19 **Q.** Could you turn, please, to tab 7.

20 **A. I'm there.**

21 **Q.** All right. Napoleon Caldwell worked for you,

22 didn't he, when you were director?

23 **A. Napoleon Caldwell was a member of the staff of**

24 **EPD, yes.**

25 **Q.** And he was actually in your director's office

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1 staff; is that correct?

2 **A. That's correct.**

3 **Q.** Now, here we're looking at Florida Exhibit 65 at

4 tab 7. And the first line refers to a state

5 advisory committee. Can you explain what that

6 is, please.

7 **A. I can only surmise from the membership and**

8 **context of this that this would be the state**

9 **advisory committee formed under the statewide**

10 **water planning process.**

11 **Q.** Now, just to cut to the chase, can you take a

12 look at the third page where your name appears,

13 please. It's about two-thirds of the way down.

14 **A. I do.**

15 **Q.** Do you recall addressing a state advisory

16 committee group regarding consumptive use budget

17 concepts?

18 **A. Not specifically, but if these minutes are**

19 **accurate, then it would indicate that I did.**

20 **Q.** And do you see the sentence there which reads,

21 Dr. Carol Couch then addressed the group

22 regarding a consumptive use budget?

23 **A. I see the sentence, yes.**

24 **Q.** You don't remember -- you don't have any

25 recollection of this, I take it, from your last

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1 answer?

2 **A. Well, you would have to give me a minute to read**

3 **this. As these are minutes, at best it's a**

4 **paraphrase of something I might have said that**

5 **day.**

6 **Q.** As always, I would invite you to take as much

7 time as you like to read any document we're

8 looking at. So please do.

9 **A. I have read the paragraph.**

10 **Q.** Do you have any further recollection of the

11 question that I asked?

12 **A. Could you restate the question, please.**

13 **Q.** Do you now remember this particular meeting and

14 addressing the consumptive use budget concept

15 with the committee?

16 **A. What reading this refreshes my recollection about**

17 **is the nature of the consumptive use budget and**

18 **policy context in which we were having**

19 **discussions both within this committee and**

20 **otherwise.**

21 **Q.** And do you see the reference in that line to a

22 set of limitations Florida has in place?

23 **A. Yes. There's reference to local sources first.**

24 **Q.** And you worked with Mr. Napoleon Caldwell during

25 your time as director on a consumptive use budget

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1 framework for the State of Georgia; didn't you?

2 **A. I would characterize that to say we worked within**

3 **a broader policy team around the notion of**

4 **consumptive use budgeting and how that would be**

5 **incorporated into our guidance framework for**

6 **original planning.**

7 **Q.** Who was on that team?

8 **A. There were probably four or five individuals.**

9 **Certainly Nap Caldwell would have been one of**

10 **them. Alice Miller-Kise would have been another**

11 **one, Gail Cowie, an individual whose name escapes**

12 **me at the moment, Linda McGregor.**

13 **One of the individuals I'm having a hard time**

14 **recollecting at this point in time.**

15 **Q.** Can you remind me if Linda McGregor was a branch

16 chief on EPD?

17 **A. She became branch chief at some point during my**

18 **tenure, yes.**

19 **Q.** And Dr. Gail Cowie was a contractor working with

20 you at that time?

21 **A. I think initially Gail worked in a contract**

22 **context; and at some point -- I'm not remembering**

23 **exactly when -- she became employed -- actually**

24 **employed by EPD.**

25 **Q.** Now, if I can invite your attention to the prior

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1 page at the top; and there is a paragraph there
 2 that talks about the proposed policy framework
 3 known as the consumptive use budget. Really, the
 4 first full paragraph on that page. Can you read
 5 that to yourself, please.
 6 **A. Which numbered page are you referring to?**
 7 **Q.** It's on page 2.
 8 **A. Page 2. Proposed policy framework, okay.**
 9 **Yes.**
 10 **Q.** Does that accurately summarize the concept of a
 11 consumptive use budget?
 12 **A. I think it does characterize two important -- two**
 13 **important elements specifically in this**
 14 **paragraph. One is that a -- the nature of the**
 15 **consumptive use budget would be crafted to the**
 16 **specific nature of the conditions within the**
 17 **watershed and that it provided a tool to**
 18 **understand and put in context present and future**
 19 **uses.**
 20 **Q.** So, for example, in a metropolitan context a
 21 consumptive use budget would evaluate the amount
 22 of water use in that particular municipal area.
 23 Is that fair?
 24 **A. On a watershed-specific basis, yes.**
 25 **Q.** And in the Lower Flint, a consumptive use budget

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1 would analyze and address the amount of
 2 agricultural water use. Right?
 3 **A. Regardless of watershed, the budget would take in**
 4 **consideration municipal, industrial, as well as**
 5 **agricultural uses of water which understandably**
 6 **vary depending on where you are in the state.**
 7 **Q.** And the idea would be, wouldn't it, that there
 8 would be some limits placed on the amount of
 9 consumption by all users within the watershed.
 10 Right?
 11 **A. No.**
 12 **Q.** All right. Well, let's turn then to page
 13 GA 12657 of Florida Exhibit 65, please. It's a
 14 PowerPoint presentation from that meeting.
 15 I'm sorry. It's in the same tab, tab 7.
 16 **A. Okay.**
 17 **Q.** And let me explain, because I confused you; and
 18 I'm sorry. When I say GA, it's the bottom number
 19 on the right-hand side of the page.
 20 **A. I see those numbers.**
 21 **Q.** Okay. Now, I'm attempting to invite your
 22 attention to a document called A Draft Policy
 23 Recommendation on Water Quantity Management in
 24 Georgia presented to the Water Council on June 7,
 25 2006. Do you see that?

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1 **A. And what GA number should I be referring to?**
 2 **Q.** I will now tell you.
 3 GA 126756.
 4 **A. 756.**
 5 **Q.** Do you remember this presentation, Dr. Couch?
 6 **A. Not specifically. But it does appear to be the**
 7 **nature of a presentation that would have been**
 8 **prepared for the Water Council. And since I**
 9 **chaired that council, I --**
 10 **Q.** Would this have been presented by Mr. Napoleon
 11 Caldwell to the best of your recollection?
 12 **A. I don't have a specific recollection of the**
 13 **agenda of June 7, 2006, and whether he or another**
 14 **staff person presented this.**
 15 **Q.** Could I ask you to turn with me to the page
 16 that's numbered GA 126761 in Florida Exhibit 65.
 17 **A. I'm there.**
 18 **Q.** Do you see the bullets there ending with, in all
 19 caps, consumptive use matters, exclamation point,
 20 exclamation point?
 21 **A. Yes.**
 22 **Q.** All right. Now, the next slide, which is
 23 GA 126762 has a photograph. Do you see that?
 24 **A. Yes. It's hard to make out what that is, but**
 25 **there is something that appears to be a**

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1 **photograph.**
 2 **Q.** Can you tell whether that is or is not irrigation
 3 equipment?
 4 **A. Looks like I'm seeing the arm of a center-pivot,**
 5 **but the remainder of it is hard to say.**
 6 **Q.** Okay. Rather than going through this
 7 painstakingly, I invite your attention actually
 8 to the next tab, which is an article titled
 9 Ensuring Sustainable Water Use Supplies Into the
 10 Future, Perspectives on Managing Consumptive Use,
 11 Florida Exhibit 109. Do you see that?
 12 **A. Under tab 8, yes.**
 13 **Q.** Tab 8. And do you see the name Nap Caldwell
 14 there?
 15 **A. I do.**
 16 **Q.** And he worked for you during this period of time;
 17 did he not?
 18 **A. The date of this is 2007, so yes.**
 19 **Q.** Have you ever seen this article before?
 20 **A. I don't have a recollection, but I probably did**
 21 **at the time.**
 22 **Q.** Now, I would like, if I could, to refer you to
 23 page 2.
 24 MR. PERRY: And, Mr. Walton, if you
 25 could blow up the title at the bottom of the

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1 first column for just a moment.
 2 And, now, go to the first paragraph,
 3 please, on the next column.
 4 BY MR. PERRY:
 5 Q. So, Dr. Couch, could you read to yourself that
 6 first paragraph on the second column on page 2 of
 7 this article.
 8 A. Okay.
 9 Q. Now, I would like you, please, to -- about
 10 two-thirds of the way down that paragraph focus
 11 on the sentence that begins with for surface
 12 water, for surface water the approach would limit
 13 the amount of water that can be consumed.
 14 Do you see that?
 15 A. I see it.
 16 Q. And it goes on to say, to quantities that would
 17 not significantly alter the character of a set of
 18 adopted flow regimes.
 19 Do you see that?
 20 A. I do.
 21 Q. Okay. Is that a fair summary of the idea of a
 22 consumptive use budget in the State of Georgia at
 23 the time you were a director?
 24 A. **First of all, this wasn't an ongoing policy**
 25 **discussion; so I couldn't characterize that there**
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1 **was a settled policy in the state when this paper**
 2 **was being presented at a conference, No. 1.**
 3 **No. 2, I would say that the ongoing policy**
 4 **context around consumptive use budgets and**
 5 **ultimately what was settled into state policy in**
 6 **our state water plan would have been different**
 7 **than what you see here.**
 8 Q. So you think Mr. Caldwell wasn't fairly
 9 summarizing what you had in mind for consumptive
 10 use budgets?
 11 A. **Well, my role was to chair a policy council. I**
 12 **might have had a personal opinion; but this**
 13 **wasn't reflecting -- there is nothing about this**
 14 **that should be taken as being my personal view.**
 15 Q. Was your personal --
 16 A. **The important point I would like to make about**
 17 **this is this is an active policy discussion, and**
 18 **it's incomplete.**
 19 Q. Now, your personal opinion was for or against
 20 consumptive use budgets in this period of time?
 21 A. **A personal opinion that I think resonates**
 22 **throughout some of the minutes that you have just**
 23 **reflected and maybe other documents is that**
 24 **modern water resource management needs to**
 25 **incorporate a complete understanding of water**
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1 **budgeting, which includes the consumptive**
 2 **elements.**
 3 Q. So as a policy matter, your testimony is that
 4 you're -- at least your opinion at the time was
 5 that it was possible to impose a consumptive use
 6 budget regime in the ACF Basin?
 7 A. **No. That was not the intent of consumptive use**
 8 **budgeting. The consumptive use budgets were**
 9 **provided as a framework and a guideline to**
 10 **understand that each region of the state**
 11 **developed its understanding of current and future**
 12 **budgets for water use wherein the element of**
 13 **water use was current consumption and how would**
 14 **that consumption need to be managed in**
 15 **relationships to all the other elements of water**
 16 **use taken together such that the appropriate**
 17 **policies for a particular area would be done.**
 18 Q. What --
 19 A. **So this was a guideline. It was a flexible**
 20 **guideline. It was an approach that we used that**
 21 **was then integrated within modeling to help -- to**
 22 **help each region understand its consumptive use**
 23 **and to develop in the context of its own**
 24 **deliberations an understanding of its current and**
 25 **future water uses, and one of many water**
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1 **management tools that would need to be -- come to**
 2 **bear to what degree and how much emphasis would**
 3 **be placed on consumptive use.**
 4 **Every element of water planning or water**
 5 **resource has an inherent cost. In some areas of**
 6 **the state consumptive use might be the higher**
 7 **priority in the immediate 5-to-10-year period;**
 8 **and in other areas of the state it might not be**
 9 **completely relevant at this point in time.**
 10 Q. So your view at the time was consumptive use
 11 budgeting was a helpful tool, but it would be up
 12 to the specific region to determine how to use
 13 it?
 14 A. **Each region would need to come up with a**
 15 **recommendation of the tool of water management**
 16 **approaches, including consumptive use. So it**
 17 **wasn't left up to the region. Ultimately, the**
 18 **director of EPD would need to approve the**
 19 **specific plans.**
 20 Q. And was it your opinion at the time that a
 21 structure similar to what you're describing
 22 should be put in place?
 23 A. **What I am overviewing for you today I believe you**
 24 **will see as the policy framework adopted by our**
 25 **General Assembly when it approved the state water**
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1 **plan in 2008 setting forth the process of**
 2 **developing the regional plans that I'm referring**
 3 **to.**
 4 **Q.** And you weren't here to see Nap Caldwell's
 5 deposition designations, his testimony by video
 6 on that question. Right?
 7 **A. I was not.**
 8 **Q.** And is it your understanding that the
 9 sustainability limits in the regional water plans
 10 are, indeed, what occurred as a result of the
 11 consumptive use budgeting discussion?
 12 **A. Since I left the position in 2009, I have no**
 13 **knowledge of what finally were the content --**
 14 **approved content of the original plans.**
 15 **Q.** Let me see, if I might, if you agree with
 16 something from Director Reheis's testimony. And
 17 if you could turn to tab 10, please. And I would
 18 like to invite your attention in the prefiled
 19 direct testimony of former Director Reheis to
 20 paragraph 51. And I would ask, Dr. Couch, if you
 21 could read that, please.
 22 **A. I have read it.**
 23 **Q.** And you're familiar with the Flint River Drought
 24 Protection Act; aren't you?
 25 **A. I am.**

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1 **Q.** Now, do you see the reference there to a reverse
 2 irrigation auction at the end of the first
 3 sentence to that paragraph?
 4 **A. I do.**
 5 **Q.** Okay. Is it your view, as Director Reheis
 6 testifies here, that the Flint River Drought
 7 Protection Act, quote, made it much less likely
 8 that farmers would irrigate when they should not?
 9 **A. I don't have any experience to -- to judge**
 10 **whether I would agree with that statement or not.**
 11 **Q.** All right. Well, let's go back to your testimony
 12 then; and I would ask you to focus on paragraph 23.
 13 **A. I'm there.**
 14 **Q.** And do you see the reference in paragraph 23 to
 15 backlogged permits in the 2006 plan. It's about
 16 8 lines down, 10 lines down or something.
 17 **A. There are several references to backlogged --**
 18 **several sentences with references to backlogged**
 19 **permits. Is there a particular one?**
 20 **Q.** Well, there it says, under the 2006 plan the
 21 backlogged permits issued in capacity use areas
 22 were required -- do you see where I'm reading?
 23 About 10 lines down.
 24 **A. I do.**
 25 **Q.** And do you see it says, to have end-gun shutoff

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1 switches installed to prevent irrigation leaks?
 2 **A. Uh-huh.**
 3 **Q.** Now, yesterday Mr. Primis showed a photograph or
 4 two; and I'll do the same now.
 5 I'm interested in particular in capacity use
 6 areas and end-gun shutoff switches. And I would
 7 ask you to turn to tab 15 with me, please.
 8 MR. PERRY: Actually, can we advance to
 9 the next picture at tab 15, please, which I
 10 believe is the next picture, please.
 11 I'm looking at Florida Exhibit 115,
 12 please.
 13 There it is.
 14 BY MR. PERRY:
 15 **Q.** Now, Dr. Couch, I'm not sure if you know much
 16 about irrigation equipment. I'm just drawing on
 17 the statement in your testimony; so if you don't
 18 know the answer, please tell me.
 19 This is a photograph taken on July 15, 2016,
 20 in the Spring Creek sub-basin, which is, I
 21 believe, a capacity use area. Is that right?
 22 **A. Portions of Spring Creek would be in a capacity**
 23 **use area, yes. The specific location of this**
 24 **photograph I would have no way of knowing.**
 25 **Q.** It's near Colquitt.

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1 Do you see --
 2 **A. You're on -- this is FX-115?**
 3 **Q.** It is.
 4 **A. I don't have 115 in my book. I'm sorry.**
 5 **Yes, here it is. It's out of order. Found**
 6 **it.**
 7 **Q.** Yes. Thank you. It took me a minute to get the
 8 picture up on the screen. That's probably why it
 9 took you a second to find it.
 10 So tell me; are you able to identify whether
 11 or not there's an end-gun shutoff on this piece
 12 of equipment in this capacity use area?
 13 **A. I am not. I am not able to identify whether**
 14 **there is one present, and I'm not able to**
 15 **identify this occurring in a capacity use area.**
 16 **Q.** So it's not fair to ask you a question like that
 17 because that's not your area of expertise?
 18 **A. No.**
 19 **Q.** Okay.
 20 MR. PERRY: Your Honor, it's about 2:30.
 21 And I would be pleased to take a break, if
 22 it's okay with the Court.
 23 SPECIAL MASTER LANCASTER: How much
 24 longer do you think you'll be?
 25 MR. PERRY: Not much longer if we take a

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1 break.

2 SPECIAL MASTER LANCASTER: We'll take a

3 break.

4 (Time Noted: 2:28 p.m.)

5 (Recess Called)

6 (Time Noted: 2:40 p.m.)

7 SPECIAL MASTER LANCASTER: Mr. Perry?

8 MR. PERRY: No further questions, your

9 Honor.

10 MS. DeSANTIS: Good afternoon, your

11 Honor, again.

12 REDIRECT EXAMINATION

13 BY MS. DeSANTIS:

14 Q. Good afternoon, Dr. Couch.

15 A. Good afternoon.

16 Q. Dr. Couch, I would like for us to begin with just

17 some brief background about you to assist the

18 Court in placing you in context with some other

19 EPD directors that have already testified in

20 court.

21 When did you begin your tenure as director of

22 the Environmental Protection Division?

23 A. In October of 2003.

24 Q. And how long did you work in that position?

25 A. Six years.

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1 Q. And who was your predecessor?

2 A. Harold Reheis.

3 Q. And who was your immediate successor?

4 A. Allen Barnes.

5 Q. And then Mr. Turner, from whom the Court heard

6 today, did he succeed Mr. Barnes?

7 A. Correct.

8 Q. All right. So, doctor, you have not worked for

9 the State of Georgia since 2009; is that right?

10 A. That's correct.

11 Q. And where are you currently employed?

12 A. I'm employed at the Phinizy Center in Augusta,

13 Georgia.

14 Q. And what does the Phinizy Center do?

15 A. We have a three-part mission. We do

16 environmental education for kindergarten through

17 12 and adult learning including ornithology,

18 birding, and so forth. We also operate a nature

19 park, and we also operate the Phinizy Center for

20 Water Sciences focusing on research in the

21 Savannah River Basin.

22 Q. Doctor, how long have you lived in the State of

23 Georgia?

24 A. Off and on for about 24 years.

25 Q. So Mr. Perry was questioning you today about the

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1 Flint Conservation Plan?

2 A. Yes.

3 Q. Which is JX-21. And I specifically would like to

4 ask you about that plan. What was the purpose of

5 the Flint Conservation Plan?

6 A. The purpose of the Flint Conservation Plan was to

7 bring into policy and implementation the results

8 of about six or seven years of scientific

9 investigation. It started under my predecessor,

10 Harold Reheis, the so-called Sound Science Study.

11 That study characterized a number of unknown

12 attributes of water use throughout -- through

13 that region, including better characterization of

14 the very nature of how streams and aquifers were

15 connected. We had no scientific models that were

16 valid, so we developed them. We also developed

17 new databases regarding the extent of irrigated

18 acreage as well as water use.

19 All of this information and data then

20 supported the development of the Flint River

21 Conservation Plan which was oriented toward

22 putting in place region-specific and appropriate

23 conservation measures.

24 Q. All right. So the results of the Sound Science

25 Study were then incorporated in the plan?

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1 A. Absolutely. They were foundational to the plan.

2 Q. And after the Flint plan was authorized, did you

3 make the decision as director of EPD to authorize

4 new permits in the basin?

5 A. Yes. In relation to the findings of the plan

6 what we did is develop a series of areas that

7 were located in that region which were specially

8 crafted around an understanding of where there

9 was little or no risk to streamflow from

10 agricultural irrigation, other areas where we

11 needed to put caution in place, and other areas

12 that we had to essentially cap.

13 But in all areas we put in new restrictions

14 or measures for conservation.

15 Q. To assist your testimony on this, Dr. Couch, I

16 would like to ask Mr. Smith to please put up

17 page 25 of JX-21. And we'll distribute copies

18 just so we can see a map showing these various

19 areas that you're discussing.

20 So using this map which has been put up on

21 the screen --

22 MS. DeSANTIS: Which is on page 25 of JX-21,

23 tab 4 in the binder, your Honor.

24 BY MS. DeSANTIS:

25 Q. So looking at the map on page 25, Dr. Couch, can

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1 you explain to us the framework under which new
 2 permits were issued under the Flint Conservation
 3 Plan?
 4 **A. Yes. Anything shown in the lighter green color
 5 would be watersheds in the Lower Flint Basin that
 6 were determined not to be in contact with
 7 Floridan Aquifer such that there would be an
 8 interaction between groundwater use and
 9 streamflow rise. Those in red were identified as
 10 having -- having some connection, but the amount
 11 of use, if managed through conservation measures,
 12 would be -- would be at a level that would be
 13 acceptable given the analyses that we had done.
 14 Those that are in the pinkish or reddish color
 15 were prescribed as capacity use areas, wherein we
 16 would stay in place essentially a moratorium on
 17 the issuance of new permits and require
 18 conservation measures in all areas.**
 19 **Q.** All right. And during your tenure, Dr. Couch,
 20 were all new permits that were issued pursuant to
 21 the requirements of the plan?
 22 **A. That's correct. They were.**
 23 **Q.** Did you accept any new applications or permits in
 24 capacity use areas?
 25 **A. No.**

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1 **Q.** Did you issue any backlogged permits in capacity
 2 use areas?
 3 **A. Yes.**
 4 **Q.** And were there conservation requirements for the
 5 backlogged permits that were issued?
 6 **A. Yes, there were.**
 7 **Q.** Did all newly-issued permits in the conservation
 8 areas that you have identified on this map have
 9 conservation requirements?
 10 **A. They did.**
 11 **Q.** Doctor, I would like to turn now to talk about
 12 drought management during your tenure. During
 13 your tenure, was it within the authority of the
 14 director of EPD to manage drought?
 15 **A. Yes.**
 16 **Q.** And under what authority did you have the
 17 prerogative to manage drought?
 18 **A. There were two authorities. One under the
 19 Drought Management Plan in the State of Georgia
 20 that was focused on managing municipal and
 21 industrial water uses under drought conditions;
 22 and the second under the Flint River Conservation
 23 Act, which is the Act that would be related to
 24 managing drought and conservation measures in the
 25 Lower Flint.**

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1 **Q.** All right. Doctor, to assist your testimony
 2 about these two particular Acts/Plans we would
 3 like, with the Court's permission, to publish a
 4 demonstrative and to distribute copies.
 5 Doctor, the demonstrative that we have put up
 6 on the screen and that we are distributing to the
 7 Court shows both the Drought Management Plan
 8 2003, and the Flint River Drought Protection Act.
 9 Can you please describe these plans and any
 10 differences between them.
 11 **A. Well, as I have already mentioned, the Drought
 12 Management Plan is focused on conservation
 13 measures applied for municipal and industrial
 14 water use, potentially applicable statewide. The
 15 Flint River Drought Protection Act is focused on
 16 agricultural water use and would be -- would be
 17 applied within the Lower Flint region.
 18 Both have a series of very prescribed
 19 processes that the director needs to engage in
 20 before making a decision about declaring drought
 21 or triggering management or conservation actions
 22 under each of these. And one includes, really, a
 23 series of progressive and stringent conservation
 24 measures under the Drought Management Plan. I
 25 think the Court has already heard regarding**

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1 **levels 1 through 4 in the context by other -- by
 2 other witnesses and my successor, Mr. Turner.
 3 The criteria that are used and considered in
 4 each are somewhat similar, but also somewhat
 5 different in terms of how they -- the sum total
 6 of information, evidence, and input is distilled
 7 to make a decision regarding the declaration of
 8 drought.
 9 But I'll say that each include a series of
 10 prescribed criteria that help summarize existing
 11 understanding from the meteorological conditions,
 12 but also consultations with state climatologists,
 13 other federal agencies, and just real-world
 14 considerations that come to bear when none of
 15 these things take in consideration the very
 16 nature about which weather can change
 17 dramatically in a short period time.**
 18 **Q.** During your tenure as director of EPD, did you
 19 have occasion to declare a drought under the
 20 Drought Management Plan, which is shown on the
 21 left side of this demonstrative?
 22 **A. I did.**
 23 **Q.** And what years did you declare a drought under
 24 this plan?
 25 **A. I think the first time I did that was in 2006.**

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1 **And then we increased the level of drought in**
 2 **2007.**
 3 **Q.** Do you recall the levels of drought that you
 4 declared in each of those two years?
 5 **A. I believe we were at level 2, and then we went to**
 6 **level 4. Only in portions of the state, however.**
 7 **Q.** Now, let's turn to the Flint River Drought
 8 Protection Act, which is shown on the right side
 9 of this demonstrative. During your tenure, did
 10 you ever declare a drought under the Flint River
 11 Drought Protection Act?
 12 **A. No, I didn't. The sum total of all the criteria**
 13 **and information and input and other**
 14 **considerations were such that the declaration was**
 15 **required to be made by March the 1st. It was not**
 16 **one that I thought would be effectively**
 17 **implemented.**
 18 **Q.** Now, if you had decided during your tenure that
 19 drought needed to be declared under the Flint
 20 River Drought Protection Act, would the funding
 21 necessary to implement the declaration have been
 22 available to you?
 23 **A. I believe that to be the case. And when it had**
 24 **been declared under my predecessor, it was made**
 25 **available.**

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1 **Q.** Dr. Couch, I now want to turn to correspondence
 2 with the U.S. Fish and Wildlife Service. And
 3 Mr. Perry has brought up some of this
 4 correspondence with EPD in the course of his
 5 examination of you.
 6 In the course of correspondence that you had
 7 with U.S. Fish and Wildlife Service during your
 8 tenure, did you ever have any scientific evidence
 9 that Georgia's management of water resources was
 10 having impact on any endangered or other species
 11 in the basin?
 12 **A. No.**
 13 **Q.** Did USFWS -- U.S. Fish and Wildlife Service -- in
 14 particular ever provide you with any scientific
 15 evidence that Georgia's management of water
 16 resources was having an impact on any endangered
 17 or other species in the basin?
 18 **A. Well, I would just note in my prior testimony**
 19 **with Mr. Perry that the belief of the Fish and**
 20 **Wildlife Service is expressed in a direct letter**
 21 **to me. But that belief was never paired with any**
 22 **solid scientific evidence, studies, or research**
 23 **indicating a linkage between our levels of water**
 24 **use and the concerns regarding mussel mortality**
 25 **in particular in the Spring Creek Basin which, of**

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1 **course, is fully within Georgia.**
 2 **Q.** Dr. Couch, during the years of 2003 to 2009 while
 3 you served as director of Georgia's EPD, how
 4 would you characterize Georgia's conservation and
 5 stewardship efforts with respect to water use?
 6 **A. Well, I -- I guess the way I would summarize it**
 7 **is that from 2003 through 2009 the ball was**
 8 **passed to me. And we continued with the**
 9 **development of scientifically-informed**
 10 **conservation measures, implementing them within**
 11 **the plan of the Flint River Basin, but also using**
 12 **that information within our statewide water**
 13 **planning process. The development of -- and**
 14 **institution of these conservation measures, I**
 15 **think if you look at the Eastern Seaboard context**
 16 **of reasonable use water law, is among the best**
 17 **that are out there.**
 18 **We have a unique situation, I think, in the**
 19 **context of our conservation measures there. Our**
 20 **state water plan, which was developed and put in**
 21 **the -- approved in 2009 which resulted in the**
 22 **culmination of regional plans that were developed**
 23 **wall to wall in the State of Georgia after my**
 24 **tenure, again, reflecting continued intent of**
 25 **developing and progressing well-informed water**

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1 **management practices has been used as a model in**
 2 **other states, particularly in our neighboring**
 3 **states of South Carolina and Alabama as they're**
 4 **considering how to structure water planning in**
 5 **their own states.**
 6 **Q.** Doctor, specifically what do you mean when you
 7 say wall-to-wall efforts?
 8 **A. All areas of the State of Georgia are now covered**
 9 **with regional plans that incorporate a variety of**
 10 **ways that water users and the general public in**
 11 **each of those regions now think about their**
 12 **current and future uses of water and ways to make**
 13 **choices in implementation of conservation**
 14 **measures and other practical things that need to**
 15 **be in place to address future economic as well as**
 16 **environmental uses of water. So it's wall to**
 17 **wall in that sense.**
 18 **One thing I would say, while the Court would**
 19 **be very well aware of the north and south**
 20 **trending nature of the ACF Basin, all rivers in**
 21 **Georgia are trending generally in a north and**
 22 **south direction. So there is no river basin in**
 23 **Georgia where somebody isn't living downstream of**
 24 **somebody else. So the nature of transparency,**
 25 **equitable use, common understanding in a database**

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1 **is inherent in how we have approached the state**
 2 **plan and I believe was bedded down in processes**
 3 **that developed original plans.**
 4 **Q.** Looking specifically at the ACF Basin, in the
 5 course of your tenure as EPD director, were you
 6 in dialogue with representatives of the State of
 7 Florida about water conservation in the basin?
 8 **A. I was.**
 9 **Q.** Did you have conversations with representatives
 10 of the State of Florida regarding Georgia's water
 11 use and any effects on the ecology in the
 12 Apalachicola Bay or floodplain?
 13 **A. Yes.**
 14 **Q.** Did you ever ask any representative of the State
 15 of Florida to identify a level of flow that would
 16 be necessary to protect the ecology of the
 17 Apalachicola Bay or floodplain?
 18 **A. Repeatedly and in repeated contexts, yes.**
 19 **Q.** Okay. And what were you told?
 20 **A. I never received an answer.**
 21 MS. DeSANTIS: I have no further
 22 questions.
 23 RE-CROSS-EXAMINATION
 24 BY MR. PERRY:
 25 **Q.** I'll be very brief, Dr. Couch.
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1 I may not have heard you correctly, but --
 2 I'm sorry. Can you hear me?
 3 **A. I can hear you. Thank you.**
 4 **Q.** I need to speak close to the microphone.
 5 So I may not have heard you correctly, but I
 6 thought maybe you said something like you never
 7 had any scientific evidence that farming
 8 activities in Spring Creek affected aquatic
 9 species there. Did you actually say that?
 10 **A. That's not what I said.**
 11 **Q.** Okay. You agree that farming activities in
 12 Spring Creek have, indeed, had impacts on aquatic
 13 species in that area. Right?
 14 **A. No.**
 15 **Q.** Okay. Can you turn to the 2006 plan at tab 4.
 16 **A. The distinction -- I think it's an important**
 17 **distinction if you ask the question in that**
 18 **manner. We were looking at the interconnection**
 19 **of water use that could be translated through**
 20 **irrigation and streamflow. And at the point in**
 21 **time that I was being questioned about my**
 22 **understanding, that evidence had not emerged in**
 23 **any kind of a scientific manner.**
 24 **Q.** Okay. So you were director in 2006; were you
 25 not?
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1 **A. Yes, I was.**
 2 **Q.** All right. Can you turn, please, at tab 4, Joint
 3 Exhibit 21 --
 4 **A. Uh-huh.**
 5 **Q.** -- to page 22, which is the technical findings
 6 summary.
 7 **A. 22?**
 8 **Q.** 22.
 9 **A. I'm on page 22.**
 10 **Q.** All right. Item 4 there, can you read that to
 11 yourself, please.
 12 **A. I see that.**
 13 **Q.** And you would agree with me that even as of 2006,
 14 Spring Creek had a -- exceeded its safe yield in
 15 terms of farm use withdrawals?
 16 **A. I think one -- one thing that you need to bear in**
 17 **mind in terms of this, this is a summary of a**
 18 **technical finding. The technical finding of**
 19 **Spring Creek is that that guidance that we were**
 20 **using from the Fish and Wildlife that we had**
 21 **evaluated in this document were found not to be**
 22 **useful in terms of understanding the relationship**
 23 **in Spring Creek. In fact, the statistical**
 24 **studies of stream discharge and biological**
 25 **studies indicate that there is an exceeded safe**
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1 **yield in terms of farm use withdrawals. That**
 2 **statement is made, but you have to take a look at**
 3 **how the statistical indicators, the IHA**
 4 **statistics that I referred to earlier, are of use**
 5 **or not of use in Spring Creek.**
 6 **Q.** I'm --
 7 **A. So --**
 8 **Q.** I'm sorry. I interrupted you. I apologize.
 9 **A. Well, I'm just making the point here that the**
 10 **Spring Creek Basin, while we attempted to apply**
 11 **guidance provided by the Fish and Wildlife**
 12 **Service in the application of these three**
 13 **statistics, they demonstrated that in Spring**
 14 **Creek we were finding that these -- the**
 15 **relationship inherent between the presumed**
 16 **ecological benefit and the statistical summaries**
 17 **were not very strong or were not evident.**
 18 **Q.** Are you familiar with Dr. Golladay and Mr. Hicks?
 19 **A. I am.**
 20 **Q.** And they were both on your Technical Advisory
 21 Committee here in 2006?
 22 **A. They were members of the Technical Advisory**
 23 **Committee.**
 24 **Q.** Have you read their work --
 25 **A. I have not.**
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1 **Q.** -- since 2006?
 2 Okay. All right. Now, Ms. DeSantis showed
 3 you a particular demonstrative, Georgia Drought
 4 Management. And it had a number of criteria for
 5 drought prediction and declaration. Do you
 6 remember that?
 7 **A. Yes. I believe it's this one that I have in my**
 8 **hand.**
 9 **Q.** This is just a small point I might make here.
 10 Listed at the bottom of this is real-world
 11 considerations. Do you see that?
 12 **A. Uh-huh.**
 13 **Q.** I'm not sure what those are. But then two or
 14 three bullets up it says soil moisture.
 15 **A. I see that.**
 16 **Q.** Do you remember considering soil moisture as part
 17 of the process of evaluating drought under the
 18 Flint River Drought Protection Act?
 19 **A. There is a statistical indicator of soil moisture**
 20 **included within so-called criteria metrics.**
 21 **Q.** Have you seen lately those criteria matrices that
 22 were provided to you by staff at EPD?
 23 **A. I have looked at them, yes.**
 24 **Q.** Have you seen the criteria for 2008 where a
 25 drought declaration was recommended?

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1 **A. I don't recall a drought declaration being**
 2 **recommended, but --**
 3 **Q.** Not in January of 2008?
 4 **A. No.**
 5 **Q.** You don't recall?
 6 **A. No.**
 7 **Q.** Okay.
 8 MR. PERRY: Thank you, your Honor.
 9 MS. DeSANTIS: No further questions,
 10 your Honor.
 11 SPECIAL MASTER LANCASTER: Dr. Director,
 12 you were here, I think, when Director Turner
 13 testified?
 14 THE WITNESS: For part of his time, yes,
 15 sir.
 16 SPECIAL MASTER LANCASTER: Well, then
 17 you -- did you hear me apologize for not
 18 looking at the witness?
 19 THE WITNESS: I did.
 20 SPECIAL MASTER LANCASTER: So you will
 21 understand?
 22 THE WITNESS: Yes.
 23 SPECIAL MASTER LANCASTER: Now, Director
 24 Turner testified -- well, excuse me.
 25 Mr. Director Turner testified that -- let me

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1 see if I can get this correct now -- that in
 2 the Atlanta area there were certain
 3 restrictions put on the number of hours and
 4 the number of days that lawns could be
 5 irrigated. Do you recall that?
 6 THE WITNESS: I do.
 7 SPECIAL MASTER LANCASTER: And would
 8 that, in your opinion, reduce the water
 9 consumption level if there were those
 10 restrictions in place?
 11 THE WITNESS: Yes, it would.
 12 SPECIAL MASTER LANCASTER: How would
 13 those restrictions be enforced?
 14 THE WITNESS: The restrictions --
 15 SPECIAL MASTER LANCASTER: Number of
 16 days and the number of hours.
 17 THE WITNESS: The enforcement of
 18 restrictions fall to the utilities, of which
 19 there are a number within the region. There
 20 are mechanisms through the -- both the
 21 education, but also the identification of --
 22 of individuals that may not be following
 23 those restrictions. Local ordinances are in
 24 place that have monetary penalties and fees
 25 that can be assessed.

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1 SPECIAL MASTER LANCASTER: I understand
 2 that there are penalties. But suppose I'm in
 3 Atlanta, and I'm running my water 24-seven.
 4 How do you know that?
 5 THE WITNESS: Well, if you're in a
 6 homeowner situation, that water is metered.
 7 And so you're -- if you're above a certain
 8 benchmark of use for a house of your size or
 9 an average use, your statistics are known.
 10 And they can be used as a way of identifying
 11 those that might be on the abnormal water use
 12 or abnormal rate of water use.
 13 SPECIAL MASTER LANCASTER: And I
 14 appreciate that Mr. Turner was director long
 15 after you had gone; but are you aware of any
 16 apportionment that was done in the Atlanta
 17 area?
 18 THE WITNESS: I can't speak to the time
 19 after my tenure, of course; but I can say
 20 that during my tenure we did have enforcement
 21 take place at such time that I declared a
 22 level 4 drought within the state.
 23 SPECIAL MASTER LANCASTER: You had
 24 enforcement processes, but not for the Turner
 25 restrictions?

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1 THE WITNESS: This was during my tenure,
 2 sir, we declared a level 4 drought requiring
 3 the elimination of all outdoor water use.
 4 And in that context, there was a high degree
 5 of enforcement brought to bear by the
 6 utilities that were the -- within the
 7 geographic area.
 8 SPECIAL MASTER LANCASTER: This will
 9 simply indicate how I think as a layman. But
 10 if I'm not allowed to irrigate, whether it's
 11 municipal, industrial, or residential,
 12 there's going to be less water wasted; isn't
 13 there?
 14 THE WITNESS: Without consideration of
 15 the manner in which water is applied and
 16 whether it's efficient in and of itself in
 17 the first instance, yes, that could be the
 18 case. But we were also looking at the
 19 efficiency and development of proper outdoor
 20 watering use so that whatever was used was
 21 being done in an efficient manner.
 22 SPECIAL MASTER LANCASTER: I understand
 23 that. My question is a layman's question,
 24 pure and simple. If I'm not irrigating, I'm
 25 not using water. Correct?

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1 THE WITNESS: That would be correct.
 2 SPECIAL MASTER LANCASTER: Now, if the
 3 Supreme Court were to somehow order the
 4 north -- the Upper and Lower Flint be
 5 disengaged, what would the effect of that be?
 6 THE WITNESS: I'm not certain as to what
 7 you mean by disengaged, but let me offer
 8 this.
 9 SPECIAL MASTER LANCASTER: Sure.
 10 THE WITNESS: The Flint River has little
 11 or no storage on it. There -- it's true that
 12 the upper river has certain -- there are
 13 different characteristics both in an
 14 environmental setting as well as in economic
 15 use.
 16 But the disengagement of the river, I
 17 believe conceptually your meaning to be --
 18 correct me if I'm wrong -- is that we would
 19 have two different ways of thinking about the
 20 management of that river.
 21 SPECIAL MASTER LANCASTER: Right.
 22 THE WITNESS: I don't see how
 23 practically you can do that because the upper
 24 river and lower river is one continuous
 25 system.

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1 I can see where you could craft
 2 region-specific water management; but
 3 ultimately, whatever is flowing from the
 4 upper part of the basin into the lower basin
 5 needs to be considered in its entirety,
 6 particularly if we're thinking about
 7 ultimately the Flint's contribution to the
 8 lower ACF flows.
 9 So I can see a disengagement in terms of
 10 how each region is treated. And by the way,
 11 that's inherent in the nature of how we
 12 designed our regional water plans to make
 13 the -- if you will, the menu of choices we
 14 would make, because each of them are
 15 associated with a cost, correct in the
 16 context of the predictive or known benefit
 17 that would be received, both economic and
 18 environmental.
 19 So if the disengagement was in terms of
 20 recognizing the need to craft two different
 21 solutions for water management, the ultimate
 22 effect of those needs to be taken together
 23 because one does support the other.
 24 SPECIAL MASTER LANCASTER: So what
 25 you're saying is that if the Supreme Court

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1 were to order disengagement, it should be
 2 specific insofar as it identified what it
 3 meant by disengagement and also specifically
 4 planned for each area?
 5 THE WITNESS: Well, I could see a
 6 specific plan for each area; but my point is
 7 that the lower -- the support flows that come
 8 out or might be conserved in the upper basin
 9 or consumed in the upper basin have bearing
 10 on the nature and extent of management that
 11 might happen in the lower basin.
 12 If the overall intent is to identify or
 13 target a flow at the mouth of the basin into
 14 Woodruff, the two have to be designed
 15 together. They function together. It would
 16 be a little bit like, oh, I don't know,
 17 saying, well, I'm -- I have got a problem
 18 going on with me physically; and I'm going to
 19 do some different treatment for my liver than
 20 I'm going to do for my heart. The two work
 21 together.
 22 The upper part of the basin and the
 23 lower part of the basin are inseparable in
 24 terms of how they function hydrologically.
 25 But from a management point of view, what

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1 we -- what might be instituted in each area
 2 would need to be evaluated in the context of
 3 the whole basin.
 4 SPECIAL MASTER LANCASTER: And if they
 5 were managed differently, could that affect
 6 a -- ultimately the low water level?
 7 THE WITNESS: If there were a low flow
 8 level that was desired to be attained, yes,
 9 the two -- the way each parts of the basin
 10 were functioning with respect to delivery or
 11 supporting that low flow would need to be
 12 considered.
 13 SPECIAL MASTER LANCASTER: Counsel?
 14 MR. PERRY: Nothing further, your Honor.
 15 MS. DeSANTIS: Nothing further, your
 16 Honor.
 17 SPECIAL MASTER LANCASTER: Thank you
 18 very much.
 19 THE WITNESS: Thank you.
 20 MR. PRIMIS: Your Honor, as I mentioned
 21 this morning, our plan is to resume Monday
 22 morning with Dr. Wei Zeng.
 23 SPECIAL MASTER LANCASTER: So you're
 24 suggesting we recess?
 25 MR. PRIMIS: I would join Mr. Perry,
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1 CERTIFICATE
 2 I, Claudette G. Mason, a Notary Public
 3 in and for the State of Maine, hereby certify
 4 that the foregoing pages are a correct
 5 transcript of my stenographic notes of the
 6 Proceedings.
 7 I further certify that I am a
 8 disinterested person in the event or outcome
 9 of the above-named cause of action.
 10 IN WITNESS WHEREOF, I subscribe my hand
 11 this 10th day of December, 2016.
 12
 13
 14 /s/ Claudette G. Mason
 15 Claudette G. Mason, RMR, CRR
 16 Court Reporter
 17 My Commission Expires
 June 9, 2019.
 18
 19
 20
 21
 22
 23
 24
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1 hopefully, in jointly suggesting a recess on
 2 Friday afternoon.
 3 MR. PERRY: I concur.
 4 SPECIAL MASTER LANCASTER: Thank you.
 5 Let me just say for the record that the
 6 weather, when I went home yesterday, was in
 7 the high 50's. It's predicted to go as high
 8 as 60 today. From my lay opinion, this is
 9 something of a trend. I simply can't comment
 10 on whether it is significantly --
 11 MR. PRIMIS: Statistically significant?
 12 SPECIAL MASTER LANCASTER: Yes, exactly.
 13 MR. PRIMIS: We'll meet and confer and
 14 let you know on Monday.
 15 SPECIAL MASTER LANCASTER: Thank you.
 16 MR. PERRY: Thank you, your Honor.
 17 (Time Noted: 3:15 p.m.)
 18 (Proceeding adjourned to Monday,
 19 November 21, 2016, at 9:00 a.m.)
 20 (End of day)
 21 - - - - -
 22
 23
 24
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