	2945
	1 PROCEEDINGS
	2 SPECIAL MASTER LANCASTER: Good morning
2943	3 counsel.
SUPREME COURT OF THE UNITED STATES No. 142, Original	4 MR. PRIMIS: Good morning, your Honor.
	5 MR. PERRY: Good morning.
STATE OF FLORIDA, )	6 SPECIAL MASTER LANCASTER: Good morning
Plaintiff, ) ) V. VOLUME XII	7 Claudette.
STATE OF GEORGIA	8 THE REPORTER: Good morning.
Defendants. )	9 MR. PRIMIS: Your Honor, Craig Primis
TRANSCRIPT OF PROCEEDINGS	10 for the State of Georgia. Florida has put on
The above-entitled matter came on for ${\tt HEARING}$	11 its last witness, so Georgia is going to
before SPECIAL MASTER RALPH I. LANCASTER, held in the	12 begin its case now.
U. S. Bankruptcy Court, at 537 Congress Street, Portland, Maine, on November 18, 2016, commencing at	13 And I figured, like Mr. Perry has been
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.	17 MR. PRIMIS: Today Georgia will call two
For the State of Georgia: CRAIG S. PRIMIS, ESQ.	18 former directors of the Environmental
CHRISTOPHER J. MANER, ESQ. KAREN MCCARTAN DESANTIS, ESQ.	19 Protection Division. First, Jud Turner; and
EMILY K. MERKI, ESQ.	then when he's done, Ms. Carol Couch. And I
Also Present: JOSHUA D. DUNLAP, ESQ.	think we can get through both witnesses today
	22 based on the estimates from Florida.
THE REPORTING GROUP  Mason & Lockhart	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.
	THE REPORTING GROUP
2944	Mason & Lockhart
INDEX	2946
Witness <u>Direct Cross</u> <u>Redirect Recross</u>	1 And Katie Kirkpatrick, who is the vice chair
Judson Turner 2947 2948 3029 3078	2 of the Metropolitan North Georgia Water
	3 Planning District. And she's going to talk
Carol Couch, Ph.D. 3105 3106 3135 3147	4 about M & I, municipal and industrial. And
	5 then Tuesday, which is our last day before
<u>EXHIBITS</u>	6 the holiday break, we plan to call Peter
Number Page Referenced JX-21 3115, 3137, 3149	7 Mayer, our expert on M & I, and Mark Masters,
JX-69 3009, 3078 JX-73 3059, 3088	8 who works at the Water Policy Center at
JX-86 3045, 3086	9 Albany State which is interested in
JX-105 2969 JX-126 3048, 3087	10 agricultural water use.
JX-154 2966	11 We believe we can get through all those
FX-46 3110 FX-47 3118	12 witnesses based on our negotiations and
FX-49b 3017 FX-49g 3015	13 mutual estimates. It is possible on Tuesday
FX-49h 3016 FX-50 3007	14 before the Thanksgiving break that if we
FX-51 3008	15 finish early, what that we could finish
FX-54 2957 FX-56 2977	16 early. We don't know for sure. But we
FX-65 3120 FX-67 3020	17 believe it's probably best to have Mark
FX-77 2991 FX-85 3079	18 Masters as the defined last witness so that
FX-97 3005 FX-109 3126	19 Dr. Panday, who is coming after him and all
FX-115 3133 FX-232 2996	20 of the people on both teams who are preparing
FX-534 2950, 3029, 3088	21 for Dr. Panday don't have to stay here
FX-536 2998 FX-599 3018	22 instead of going home to see their families
FX-708 2983 FX-879 3012	23 when he very well likely will not go on.
FX-901 3106 FX-904 3079	24 So that would be the plan. And then we
GX-1325 3031, 3084	25 will start right after the holiday break with
THE REPORTING GROUP	THE REPORTING GROUP
Mason & Lockhart	Mason & Lockhart  to 2946 of 3193  The Reporting Group (207) 797-6

2947 1 Dr. Panday. 2 SPECLAL 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. 5 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 WITINESS: 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 WITINESS: Judson Turner, J U D S O N, 18 DIRCCT EXAMINATION 20 BY MR. PRIMIS: 21 Q. Good morning, Mr. Turner. 22 A. Good morning, Mr. Turner. 22 A. Good morning, Mr. Turner. 23 Q. A few tips before we begin. Make sure you speak into the microphone today. And also, if you can speak slowly so the court reporter gets THE REPORTING GROUP Mason & Lockhart  2948 1 everything you say, that would be terrific. Now, Mr. Turner, I have handed you a copy of you 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, Mr. Turner. 2 A. Good morning, Mr. Turner. 2 A. Good morning, Mr. Turner. 3 MR. PERRY: Sold of morning, Your Honor. 5 MR. PERRY: Sold of morning, Your Honor. 6 MR. PERRY: Sold of morning, Your Honor. 7 SPECIAL MASTER LANCASTER: Good morning, Your Honor. 8 MR. PERRY: Sold of morning, Your Honor. 9 MR. PERRY: Sold would like to be searched. 10 Q. And it was your intent in overseeing that hydrology modeling unit while you were director? 1 A. Absolutely. Sure. 1 Q. Good morning, Mr. Turner. 2 A. Good morning. 3 MR. PERRY: Your Honor, we had a series of video clips we already played for Mr. Turner earlier in this proceeding; and I am not going to cover the exact same ground as an intose video clips. The parties will provide all of the video clips and deposition designations at the end; but for the Court's corvenience, we have a binder of those wideo clips for Mr. Turner earlier in t		TRIAL - Novembe	r 18, 2	J16 (\	, , , , , , , , , , , , , , , , , , ,
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23 And I would like to hand those up, if I 23 A. Yes.	22		22		
	23	And I would like to hand those up, if I	23	A.	Yes.
24 might. 24 Q. Do you see the name A. P. Georgakakos in about	24		24	Q.	Do you see the name A. P. Georgakakos in about
25 SPECIAL MASTER LANCASTER: Please. 25 the middle of that page, the second page of	25	SPECIAL MASTER LANCASTER: Please.	25		
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		TRIAL - November	r 18, 2	016 (\	/ol. XII) Florida v. Georg
		2951			2953
1		Florida Exhibit 534?	1	A.	I think that's right.
2	A.	Yes.	2	Q.	Okay. So if you read with me just two paragraphs
3	Q.	And do you know that gentleman?	3		down, the first sentence says, the assessment
4	A.	I do know Dr. Georgakakos.	4		demonstrates that the UIF series has both random
5	Q.	And you worked with him from time to time while	5		and systematic errors. Do you see that, sir?
6		you were director?	6	A.	I do see that.
7	A.	I don't know that I would describe that I have	7	Q.	Okay. And then two paragraphs after that there's
8		worked with him. We had occasion and, really,	8		a paragraph beginning with the overarching study.
9		all the contact with Dr. Georgakakos came through	9		Could you read that to yourself, please; and then
10		Dr. Zeng. So to the extent we had overlap in my	10		I'll have a couple questions.
11		tenure, it would have been through Dr. Zeng, not	11	Α.	Okay.
12		directly.	12		Now, you recognize here in this paragraph there
13	Q.	Okay. If you can look at the third page of	13		are concerns addressed about the quality of the
14	٠.	Florida Exhibit 534, please, at tab 1 of your	14		UIF data. Right?
15		binder. And there you will find the word	15	Δ	It looks to me from a first read that they're
16		acknowledgments and some text. Do you see that?	16	Λ.	concerned about the the UIF's as they relate
17	۸	I do.	17		to daily results, what they show on a daily time
18			18		scale.
	Q.	The third paragraph there, do you see a reference	19	^	
19		to Dr. Zeng?	-	Q.	And, sir, do you see the sentence about three
20	_	Yes.	20		sentences down that says, these errors undermine
21	Q.	And do you see in the first paragraph a sentence	21		the results of ResSim and other river basin
22		indicating that this study by Dr. Georgakakos was	22		simulation models. Do you see that?
23		funded in part by ACF Stakeholders?	23	A.	I see that sentence; but I also see the end of
24		I do see that.	24	_	the sentence, which says on daily time steps.
25	Q.	Okay. Now, there are a few things in the study	25	Q.	Right. And daily time steps would be important
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		2952			2954
1		that I would like to ask you about. And in	1		to understand the amount of flow on a daily
2		particular I want to ask you in this context.	2	_	basis; would it not?
3		You were director. You had responsibility for	3	Α.	I think if you're trying to get a measurement of
4		the modeling unit. I want to understand if you	4		daily estimates, that's that would be
5		were aware of the information in this	5		relevant.
6		Dr. Georgakakos study. Okay?	6	Q.	All right. And you also see where
7		So could you please turn with me to the page	7		Dr. Georgakakos and GWRI recommend that a project
8		titled Executive Summary, which is on Roman IV.	8		be put in place to remedy the systematic and
9		It's just the next page after acknowledgments.	9		random errors; don't you?
10	A.	Yes.	10	A.	Yes. They're recommending some further work be $ \\$
11	Q.	And do you see at the top of the page where it	11		done on that.
12		says unimpaired flows?	12	Q.	Now, that further work was never done; was it?
13	A.	Yes.	13	A.	Do you mean I'm not aware of the further work
14	Q.	And then later in the next paragraph it says	14		being done.
15		UIF's that's an abbreviation for unimpaired	15	Q.	All right. And you note in the paragraph I asked
16		flows. Right?	16		you to read, it indicates that such improvements
17	A.	Correct.	17		are particularly critical, and then indicates
18	Q.	UIF's for the ACF River Basin have been developed	18		that river flow and reservoir release errors
19		by the Army Corps and by Georgia Environmental	19		frequently exceed 7,000 cfs on a daily basis. Do
20		Protection Division. Do you see that, sir?	20		you see that?
21	A.	I do see that.	21	A.	I see that.
22	Q.	And you understand, don't you, that Georgia's	22	Q.	All right. Could you turn with me, please, to
23		Environmental Protection Division for which you	23		the section in particular on consumption from
24		were director submits its estimated consumption	24		agricultural withdrawals, which, again, is in
25		data for the ACF to the Army Corps. Right?	25		Florida Exhibit 534. And this time it's on
1		THE REPORTING GROUP			THE REPORTING GROUP
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		TRIAL - November	18, 2	J16 (V	ol. XII) Florida v. Georgia
		2955			2957
1		page 9.	1		Exhibit well, tab, in your book, 4. And there
2	A.	Sorry. Where are the pages in this?	2		you will find Florida Exhibit 54. And you
3	Q.	So there's a box at the bottom that says	3		recognize Florida Exhibit 54; don't you?
4		November 13	4	A.	I do.
5	A.	Right.	5	_	This is a briefing paper you created for a
6	_	2012.	6		meeting with the Governor's chief of staff in
7		Right.	7		2013; isn't it?
8		And the page number is	8	Δ	That's right.
9		All right. I have got you.	9	_	All right. Now, I would like to spend a little
	_		10	⋖.	bit of time on this document, if I might, because
10		Okay.			, , ,
11	_	Okay.	11		I would like to understand with a little more
12	Ų.	Now, I would like to focus with you, sir, for a	12		clarity how you, as director, and the
13		moment on this section 2.4 which says	13		Environmental Protection Division balanced
14		agricultural withdrawals. And in particular on	14		economic issues against environmental issues in
15		the next page, page 10, there is a subsection	15		your decision making. Okay?
16		titled Uncertainty Sources. Do you see that?	16	A.	Okay.
17	A.	I do see that.	17	Q.	Now, you recall, don't you, that this document
18	Q.	And there there's an indication in the first	18		was prepared so that you could present your views
19		sentence and you can follow along with me if	19		about that balance to the Governor's chief of
20		you can, sir that a variety of uncertainties	20		staff; is that right?
21		and potential error sources arise during the	21	A.	I think that's one of the of the reasons to do
22		estimation of agricultural withdrawals. Do you	22		that; right. But it was to really give him a
23		see that?	23		status on where things were.
24	Α.	I see that sentence, yes.	24	Q.	And do you recall stating, as it indicates in
25	_	Did Dr. Zeng ever identify this particular	25	٠.	section 1a that you had a firmly-held belief that
23	⋖.	THE REPORTING GROUP			THE REPORTING GROUP
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_		2956	_		
1		document to you and apprise you of its findings?	1		the Environmental Protection Division is a
2	_	No.	2		critical link in the economic development chain
3	Q.	The second paragraph down, the last sentence	3	_	for the State of Georgia?
4		contains the following point: The results show	4	_	Sure. Yes.
5		that crop demands can vary significantly over	5	Q.	And that EPD, as you call the Environmental
6		time.	6		Protection Division, could have adverse impacts
7		Do you see that?	7		upon the economy if it weren't managed correctly.
8	A.	Yes.	8		Is that your view?
9	Q.	And then towards the end of the sentence, the	9	A.	Sure. The EPD is the environmental protection
10		associated error can be up to 70 percent of the	10		the chief environmental protection regulatory
11		actual crop water requirement.	11		agency and issues all the permits that businesses
12		Do you see that, sir?	12		require and the public needs. So that needs to
13	A.	I do.	13		be done according to the law, foremost; but it
14	Q.	Did Dr. Zeng ever apprise you of that?	14		needs to be done well or it could have impacts.
15		Well, he didn't; but I'm not sure this document	15	Q.	And your view is also that it would be an unwise
16		was public.	16	•	abrogation of EPD's responsibilities if it
17	Q.	Do you know Katherine Zitsch?	17		allowed the federal government to enforce
18		I do know Katherine Zitsch.	18		environmental law in the state; is that fair?
19	_	And she is affiliated with the Atlanta Regional	19	Δ	Repeat your question.
20	⋖.	Commission of Local Governments; is that right?	20		Sure. Let me just rephrase it in light of the
	Λ			⋖.	
21	_	She is.	21	A	text that I'm referring to
22	Ų.	Do you know that her position was that this	22		Okay.
23	_	document should never be disseminated?	23	Q.	sir.
24		No.	24		In 1b I would invite you to read to yourself
25	Q.	All right. Sir, can you turn with me, please, to	25		the sentence that you have there.
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2959 1 A. Yes. 1 so I think I was largely just grouping sort of 2 2 **Q.** Is it fair to say you meant by that sentence that internal Georgia-related interests that might --3 it would be unwise to allow federal authorities 3 that might suggest a different way to balance 4 to come in and enforce programs where the State environmental regulation in the state. 5 was already in a role through cooperative Q. So would the Flint riverkeeper be an internal 6 federalism to do so? 6 threat to agricultural water use? 7 A. As a -- the chief environmental regulator for the 7 Again, I don't recall exactly. They are a 8 State of Georgia that took his responsibilities 8 stakeholder that often disagrees with management 9 seriously, yes, I thought that was my job to do. 9 decisions. They have a specific role to play; 10 Q. And, indeed, your view was that a misdirected 10 and they do -- they do that advocacy very 11 Environmental Protection Division would impose a 11 passionately. And so they often disagree with 12 direct threat to Georgia's economic health. 12 the balance the State tries to strike under its 13 Right? 13 statutory obligations. 14 A. Right. 14 Q. How about your old Wildlife Resources Division, 15 Q. Now, I would like to focus for a minute on the 15 would they be an internal threat to agricultural 16 16 specific applications of those principles to water use? 17 sectors of Georgia's economy. And, first, I 17 Α. Oh, I don't -- I don't think I have ever thought 18 18 would like to focus on the Ag sector, of them as an internal threat to agricultural 19 particularly in the ACF. It was your view, 19 water use. I think the Wildlife Resources 20 20 wasn't it, that the role of the director of EPD Division does have a more tailored responsibility 21 21 was to protect against external and internal than the EPD does; and, therefore, they tend to 22 22 threats to agricultural water use. Right? advocate certain positions, like other 23 A. Right. I used those terms before. 23 stakeholder groups that are more tailored in 24 24 Q. Okay. So let's talk about external threats to their responsibilities. 25 25 Q. agricultural water use. So I imagine your view So help me understand then what you mean when you THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 2960 2962 1 is that litigation with Florida is one of those 1 say internal threats to agricultural water use. 2 external threats; is that fair to say? 2 A. I don't think I have a good answer for you 3 3 A. That might be fair to say. specifically what I meant back when those words 4 4 I think when I said those statements, may have been used. I don't -- I have given you 5 5 principally I thought about the Endangered what I have today. 6 **Q.** All right. So slightly different topic now. Species Act concerns we were managing in Georgia. 6 7 7 So we -- we -- so I really think litigation in It's true, isn't it, that for coastal Georgia 8 8 general was more the comment. near the Atlantic that the State of Georgia has 9 Q. Okay. So an external threat might be, for 9 mandated reductions in groundwater withdrawals. 10 10 Right? example, U.S. Fish and Wildlife enforcing the 11 11 Endangered Species Act in Georgia? Α. Are you talking about where we did the red and 12 12 A. If you used that terminology, yes. That's what yellow zones on the coast? 13 13 Q. I am. And in particular for the Floridan we were talking about. Aquifer. You have mandated reductions in 14 Q. Okay. So I will have several other questions as 14 15 15 withdrawals for the Floridan Aquifer to deal with we go through about what was an external and what was an internal threat to agricultural water use; 16 16 the potential encroachment of saltwater into that 17 17 aguifer. Right? but let me ask you just now as an initial matter 18 what types of things were internal threats that 18 Α. We have. But they were municipal and industrial 19 you were concerned about to agricultural water 19 withdrawals. 20 20 Sure. And that was part of an agreement or a 21 21 A. I don't recall specifically what I may have meant negotiation you had with South Carolina. Right? 22 22 by internal. But certainly within the state and Α. No, sir. I think what we did there was we did a 23 23 within our own borders, we -- we have various study to determine what we were seeing with 24 stakeholders that take issue with the balance we 24 saltwater intrusion into the aquifer. And what 25 try to strike in environmental protection. And 25 we had there was a cone of depression from THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

TRIAL - November 18, 2016 (Vol. XII) Florida v. Georgia 2965 1 municipal and industrial use in the aquifer that 1 is often the hardest part, we then look at the 2 2 was depressing the aquifer. And so that salt suite of options available to us to be protective 3 wedge that was coming in -- and it was showing up 3 of the environment. And my statutory charge from 4 in South Carolina and was headed toward -- the 4 the State of Georgia is to do that in a balanced 5 center of the cone of depression -- into 5 6 Savannah. And we, as a regulatory action -- the 6 And so this is a very short sentence; but 7 directors before me, but then ultimately me, we 7 what I would say is it evidences, once we figured 8 took action under the regulatory authority of the 8 out, for instance, that we needed to do 9 director to do that. 9 reductions, that we would do it in a way that did 10 We talked to South Carolina about it. It was 10 not go just to International Paper and shut them 11 not a negotiated settlement or a negotiation that 11 down. So we tried to do that in a balanced way. 12 led to that. 12 But, again, the starting point is always 13 Q. I understand, sir. Can you turn, please, to the 13 what's protective of the environment as best we 14 page that's marked on the bottom Florida 14 know from science. 15 Exhibit 54, GA 478438. 15 And that's a similar balance that you strike when A. Yes. 16 16 in the past you have said, protect against 17 17 Q. And in particular under C1, do you see where it external and internal threats to agricultural 18 18 says, evaluate and implement next stage of water use? 19 reductions in groundwater withdrawals? 19 Again, I don't know that I talked about those two 20 20 A. I do. things together like that. 21 Q. And do you see the bracketed material there, 21 I systematically tried to approach 22 22 negotiation with South Carolina? environmental protection the way I described. If 23 23 you do that well, I think you have a -- you have A. Sure. That was going on at that time. 24 Q. Okay. And do you -- were you here in the 24 a better chance to sort of do what I think is 25 25 courtroom when we played the deposition important for the people of Georgia, which is to THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 2964 2966 1 designations for Mr. Napoleon Caldwell? 1 manage and protect the environment in a balanced 2 2 A. I was. way. 3 3 **Q.** And you recall he addressed this topic, too? **Q.** Yes. Let me just make sure I understand. You're 4 A. I recall that he addressed it; and I think the 4 not suggesting in your last answer that you 5 5 one thought I had was is it's the M & I point I haven't said or written, protect against external 6 6 made to you, that these were reductions in M & I. and internal threats to agricultural water use? 7 **Q.** Could you read with me just a bit down the page. 7 Α. No, I'm not saying that. 8 8 And I'm going to try to follow the outline form Q. Okay. Sir, can you turn with me to Joint 9 9 Exhibit 154, please. to indicate where I am; but it's -- it appears to 10 A. Where is that? 10 be C1b, little I, meaning one in Roman terms. Do 11 you see that text? 11 Q. That's at tab 5. 12 A. I do. 12 Α. Tab 5. 13 13 **Q.** Protect against pushing too aggressively on Sorry. I should have said that. 14 industry, i.e., International Paper? 14 A. I don't have the joint exhibits quite memorized, 15 A. I do. 15 sir. 16 **Q.** You wrote that, sir? 16 **Q.** By the end we might. 17 A. I did. 17 All right, sir. So this Joint Exhibit 154 18 **Q.** Did that reflect the type of balance that you 18 has been the subject matter of some discussion in 19 struck between economic and environmental 19 this proceeding, including yesterday. But it's 20 interests as director? 20 titled Georgia Environmental Protection Division 21 A. I think it illustrates that when we -- the way I 21 Drought Protection in the Lower Flint Basin,

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tried to do environmental protection in the state

legal requirements. What do we need to do to be

protective. And once we figured that out, which

is to start with what are the regulatory and

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A. I have.

Q. All right. So I would like to focus on a THE REPORTING GROUP

document before?

Stakeholder Meeting Summary. Have you seen this

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2967 2969 1 particular series of paragraphs, if I might, sir. 1 and directors were always challenged to use their 2 2 But first let me ask; this was prepared as a discretion to see if it would work. 3 meeting summary by Dr. Gail Cowie. Right? 3 There's a lot of expenditure that would go 4 A. That's right. into trying to make the Act work by doing the 5 Q. And you saw a draft and edited it before this 5 auction. And I know we can talk about these 6 version was finalized. Right? 6 things, but over the history of that period of 7 A. I believe I did see a draft and provided comment. 7 time, the Act, after its initial use in 2001 and 8 I don't know that I edited it, but yes. 8 2002, had not been invoked for different reasons. 9 Q. Okay. So -- and you don't have any qualms about 9 And all of that was due to the best judgment 10 the fairness of this summary of this meeting; do 10 based on science and predictions and the 11 11 director's decision. 12 A. I don't. I'm not aware of anything that I have 12 So there was some confusion about that. And 13 issues with. 13 the legislature corrected that by being explicit 14 **Q.** All right. So in the last paragraph on the first 14 in those changes. 15 page Dr. Cowie summarizes a couple things. And, 15 Q. Well, sir, just so we can make sure we're on the 16 16 sir, I would appreciate if you could read that to same page here, could you please turn to tab 6 17 17 yourself, including the sentence that carries where we have Senate Bill 213, which is Joint 18 18 Exhibit 105, please. over to the start of the next page. 19 A. Yes. 19 Α. Yes. 20 20 Q. All right, sir. Let me first focus on the term Q. All right. Now, I would like to invite your 21 21 modest steps in the second line of the text you attention, if I might, to section 4, which is on 22 22 page 3 of Senate Bill 213. And, again, we spoke just read. Those are your words; aren't they? 23 A. Those were -- those were my words based on the --23 with Dr. Cowie about this just a couple days ago. 24 particularly the augmentation piece of those 24 So I would like to focus your attention, if I 25 amendments we did in the Flint River Drought 25 might, on line 84 on page 3 of Joint Exhibit 105. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 2968 2970 1 Protection Act and passed in 2014. 1 Do you see the change from will to may there? A. I do. 2 Q. All right. So let's talk about the 2014 2 3 3 Q. And then again down on line 93, there is another amendments. They had a few pieces to them; change from will to may. Right? 4 didn't they? 5 5 A. Correct. A. They did. 6 **Q.** First, they changed the word will to may for the 6 Q. Okay. So I'm still focusing on your statement 7 Flint River Drought Protection Act auction; isn't 7 "modest steps" from JX-154. And that modest step 8 8 that right? phrase referred to all the changes in this SB 213 9 A. For -- that's right. For the declaration of 9 legislation. Right? 10 severe drought, which would lead to the auction 10 A. I think it was a general statement about the 11 11 under the statute. whole Act knowing we wanted to do more. But 12 Q. Right. And that's not just in the -- in the --12 obviously that doesn't say that we don't think 13 13 whether you have to perform at a drought that the changes we did in 2014 didn't have real 14 prediction; it's what are the consequences of 14 value. 15 15 Q. Okay. That -- that's what I want to explore now. performing the drought prediction. Right? 16 A. Right. It was an attempt to clarify what we have 16 I want to understand what were those modest steps 17 been seeing, which was the discretion involved in 17 in a little more detail. And I would invite your 18 the triggering of the Act by prior directors. 18 attention to section 5, if I might, which is on 19 **Q.** So what happened as a result of the change we 19 page 4. And in particular on page 4 and 5 there 20 just discussed is that the language in the Act 20 are a series of new measures, one of which 21 that was mandatory became discretionary; is that 21 addresses whether the director can require 80 22 22 percent or greater irrigation efficiency. Do you 23 A. I think that was the confusion that the 23 see that? 24 legislature sought to address is that it had this 24 It's on the top of page 5. 25 mandatory language. But it's a complex process, 25 Right. The irrigation efficiency requirements. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

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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?

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- 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.
  - But like any regulatory program, there are often late adopters. And we wanted to make it law so that what we were seeing in the adoption 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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- Q. It's true also that you said more is needed to
- 2 provide long-term solutions for low flows in the
  - Flint River Basin. Right?
- A. That's right. At this meeting in particular, 4
- 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
- 10 Q. And, in fact, if you just continue with me on the
  - first page of Joint Exhibit 154 at the bottom,
- 12 you make a reference there to this action, the
  - one we're participating in right now, being a
- 14 challenge. Right? Do you see that?
- 15 Α. 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 Α. 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
  - file a complaint; so it was very much on
- 25 everybody's mind. The meeting was set before

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2972

- 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.
- Q. Are you aware, sir, of best management practice 14
- 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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- that result came out. And so my main message was 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 we think we need to work on this. And so I know
  - that seems overwhelming, but let's keep working.
- Q. 8 Okay. And this was November 21, 2014?
- 9 Α. That's right.
- 10 So two years ago basically? Q.
- 11 Α. That's right.
- 12 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 Α. I do.
- 22 Now, we talked about a number of these options
  - 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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2977 1 So let me start with transferring water users Q. It's Florida Exhibit 56. 2 to deeper aguifers. That would be a process, 2 Α. Got it. 3 would it not, of moving surface water withdrawals 3 Now, this is a document prepared for you by 4 and certain Floridan Aquifer users in the Lower Dr. Cowie; isn't it? 5 Flint to deeper aquifers that had less impact on 5 A. That's right. 6 river flow. Right? 6 Q. And it's dated at the top November 16 -- or, 7 A. Right. And specifically -- and I did hear 7 excuse me, November 6, 2012. Right? 8 Dr. Sunding's testimony about some of Florida's 8 A. That's right. 9 ideas about how to move down. What we were 9 Q. And you recall this -- I think you just testified 10 looking at and are looking at is moving surface 10 you may have been considering this since 2012. 11 water folks and folks in close proximity to the 11 Is this the document to which you were referring? 12 major stems of the creeks down, not having crops 12 A. It -- well, it -- we were considering it. I 13 all over the region. 13 wasn't really referring to this document. But, 14 And the issue with moving them down that's 14 yes, at that time in 2012 we had gone through 15 important is how much yield is in those lower 15 that drought experience; and we were looking at 16 aguifers. And so the study that we have been 16 what we might do. And so in that late 2012 17 doing since then is to really confirm that. It's 17 season, we were thinking about whatever we could. 18 18 not an unlimited resource down there. This And so this is -- this document is dated during 19 doesn't -- it doesn't recharge like the Floridan, 19 that time. 20 20 which recharges really easily with rain. These Q. Now, do you see on the first page here it says in 21 21 are sand aquifers, several confining units down. the bullet, low flows are getter lower due in 22 22 The good news is they don't impact with part to irrigation withdrawals. And then it has 23 streamflow like the Floridan does. So we do have 23 a comparison of 1954 flows to 2011 flows. Right? A. I see that. 24 a source down there, but we have to be careful. 24 25 25 Q. Okay. Now, could you please turn with me to And how much we can move down there is really THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 2976 2978 1 what we need to confirm before we move it. 1 page 10 in this document. And I would like, if I 2 Q. You didn't just start studying that particular 2 might, to focus -- this is, again, Florida 3 3 issue in 2014; did you? Exhibit 56, page 10 -- on option 2B. Do you see 4 You studied it for years before that; didn't that there, sir? 5 5 A. I do. vou? 6 6 Q. All right. Now, option 2B indicates that --A. I think we started looking at it at the end of 7 2012 when I came in. So years beyond 2014 I 7 actions to support flows for endangered species 8 think is -- might be technically true at 8 and basin contributions to state line flows. Do 9 9 you see that? one-and-a-half. **Q.** Now, sir, you have seen the Lower Flint Regional 10 10 A. I see that. 11 Q. State line flows is flows to Florida. Right? 11 Water Plan; haven't you? 12 12 A. Yes. A. I think it's to flow that will be in Seminole, 13 13 and that would go to Florida at the state line. Q. All right. And you have seen the Upper Flint 14 Regional Water Plan, too. Right? 14 Q. Lake Seminole, which would feed the Apalachicola 15 15 River? A. I have seen them generally. High-level review, 16 16 Α. That's correct. ves. 17 Q. And you recall from those, don't you, that this 17 Q. Now, this chart here identifies irrigation 18 particular idea was one of the high priority 18 systems within a 4-mile corridor in certain areas 19 items in both of those 2011 plans. Right? 19 in the Lower Flint. Right? 20 A. I don't know that I would have -- I don't dispute 20 Α. Right. In certain areas, correct. 21 21 that. I think they may have had a suggestion as **Q.** And the idea there was that those are the users, 22 22 a planning tool that we ought to look at this. either Floridan groundwater or surface water 23 23 Q. All right. Can you turn with me, please, to users, that would be transferred to lower 24 24 tab 7 in your binder. aquifers. Right? 25 That was the concept. I was just the first time 25 Sure. Thanks. THE REPORTING GROUP THE REPORTING GROUP

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really wrestling with this as a director. I kind of drew this out on the back of a napkin and said, can you give me an idea, Gail, of what our present knowledge is? If we were to move people, how many acres and what sort of benefit would we aet?

So we drew these different bands. And there is a different option that has a shorter band. But this one is the 4-mile corridor. And we got these results from -- again, very preliminary and 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 Riaht?

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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A. I'm aware through preparation for this matter

2 that he had done some work back then. At the

time I think I couldn't have told you what work

he had done on that.

5 Q. Now, there are a number of other items on that

6 list. Aguifer storage and recovery is the next.

7 You know, don't you, that the State of Florida

8 uses aguifer storage and recovery in multiple

9 areas. Right?

10 Absolutely.

11 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 --

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

irrigating.

22 Q. All right, sir. And then the last one is

23 temporary removal, which at least is one form of

what the Flint River Drought Protection Act was

25 intended to do. Right?

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2980

down?

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

4 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.

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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. Okav.

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.

25

23 Q. And you're aware, aren't you, that the state

24 geologist at the time, Dr. Kennedy, had studied that issue as early as 2011. Right?

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

6 **Q.** Drought level 2.

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

13 A. Yes.

14 And have you heard or seen her view that 2017 is 15

likely to be a terrible drought? 16 I have not seen her view of that.

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

18 Α. 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 Α. Got it.

24 I would ask you to turn to paragraph 125 on

25 page 37.

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		TRIAL - November	r 18, 2	016 (\	/ol. XII) Florida v. Georgia
		2983			2985
1	A.	Yes.	1		paragraph 127 that the initial stages of this
2	Q.	And we discussed this issue with Dr. Cowie for a	2		task force enforcement effort will focus on acres
3	-	bit the other day. But paragraph 125 describes,	3		that have the greatest impact on streamflows. Do
4		doesn't it, the situation that occurred this	4		you see that?
5		August where the State of Florida notified the	5	Δ.	I do.
6		State of Georgia of potential noncompliance with	6	_	And by that you mean, don't you, that ceasing
7		Georgia's agricultural permits. Right?	7	۷.	irrigation on these acres will have an impact on
8	۸	That's right.	8		how much water is in the rivers flowing down to
9		And that noncompliance was up to 90,000 irrigated	9		Florida. Correct?
-	Q.			^	
10 11	^	acres in the Flint Basin. Right?  I think that was the number that Florida shared	10	Α.	Well, not on what's flowing to Florida. This is
	Α.		11		a I don't want to get us off on a tangent here
12	_	with us.	12		about whether the water saved on the Flint arm
13	Q.	Okay. And, in fact, three months after that	13		will actually go to Florida. But as we have
14		notice, the State of Georgia the Governor	14		maintained, that's all due to the Corps operation
15	_	himself created a special task force. Right?	15		where any savings would pass.
16	_	That's right.	16		But if what you mean by your question is that
17	Q.	All right. So let's talk about that for just a	17		the State takes this seriously and wants to look
18		few minutes.	18		first at where science has told us irrigation
19		I would invite your attention now to tab 9,	19		will be most impactful of baseflow in streams and
20		which is Florida Exhibit 708.	20		start there.
21		Okay.	21	Q.	All right. So let me rephrase my question. I
22	Q.	And there, sir, you will find a list of a	22		recognize you have a legal position in the case.
23		56-page list of 2,500 permits that tallies up the	23		I don't need you to concede your legal position.
24		unpermitted irrigated acres. Have you seen this	24	A.	Good.
25		before?	25	Q.	But what you mean by greatest impact on
		THE REPORTING GROUP			THE REPORTING GROUP
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					0000
		2984			2986
1	A.	2984  I have not seen this; but I see that it I can	1		streamflow is streamflow to Lake Seminole?
1 2	A.		1 2	Α.	
	A.	I have not seen this; but I see that it I can		A.	streamflow is streamflow to Lake Seminole?
2		I have not seen this; but I see that it I can tell from the front that it is a comparison of	2	A.	streamflow is streamflow to Lake Seminole?  Right. Streamflow in the stretches of the creeks
2		I have not seen this; but I see that it I can tell from the front that it is a comparison of those databases.	2		streamflow is streamflow to Lake Seminole?  Right. Streamflow in the stretches of the creeks and tributaries in Georgia that will go to
2 3 4		I have not seen this; but I see that it I can tell from the front that it is a comparison of those databases.  Okay. And this is do you know, sir, if this	2 3 4		streamflow is streamflow to Lake Seminole?  Right. Streamflow in the stretches of the creeks and tributaries in Georgia that will go to Seminole. That's right.
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TRIAL - November 18, 2016 (Vol. XII) Florida v. Georgia 2989 1 A. I do. 1 standpoint, haven't done compliance for **Q.** And then that's associated with a permit number? 2 2 four-and-a-half years. We have got to make sure 3 3 that every field in that wetted acres database 4 that's being assigned to this permit is correct. Q. All right. And you know, don't you, that permit numbers that precede basically 1992 are likely 5 This was a planning database. So the water 6 grandfathered permits. Right? 6 use in the -- in the -- that Florida's experts 7 A. Right. That's right. 7 have had is captured. It's just a matter of 8 **Q.** And grandfathered permits have very few 8 whether we have cross-walked it correctly to the 9 restrictions, if any. Right? 9 permits that provide authority to irrigate those 10 A. Grandfathered permits have less restrictions than 10 11 the latter-issued permits. 11 **Q.** All right, sir. We'll talk about the other 12 12 **Q.** All right. So for the first permit where it says databases in a minute. And we have been through 13 A91-47, acres permitted 280; but actual acres 13 and done that cross-walk. 14 irrigated are near 700. Do you see that? 14 A. Okay. 15 A. I see that. 15 Q. Okay. So I could go down this list, but let me 16 **Q.** You would agree with me, wouldn't you, that the 16 just do one more. Do you see the permit that's 17 17 Environmental Protection Division didn't numbered A91-049-0390 for 40 acres. And there 18 18 understand that there were nearly 420 acres that the acres irrigated are 369. 19 were illegally being irrigated under that permit? 19 A. Yes, I see that on this. 20 20 A. So, no, they didn't understand that. But they Q. That's a pretty significant difference; wouldn't 21 still may not understand it because I think we 21 you agree? 22 22 A. Yes. have got to make sure that every field irrigated 23 that's shown in that wetted acre database doesn't 23 **Q.** And wouldn't you expect that a reasonably-staffed regulatory system would know if someone had that 24 have a supplemental permit or some other 24 25 modification that's in-house. 25 many excessive acres? THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 2988 2990 1 The permitted database is -- is a database A. I think that the system we had was one to 2 2 that has some human error in it. It's an old check -- to check on complaints; and I think 3 database with input errors. So those things need 3 that's what this task force is really about. I'm 4 to be confirmed. 4 not sure it's a resource issue as much as it is 5 5 But, yes, from that line with that one permit an understanding what we need in terms of 6 there appears to be that kind of noncompliance. 6 reporting to get a better handle on it. 7 **Q.** So that's a very interesting point. Let me just 7 So I just don't know if it's resource, but 8 8 explore that with you. If there were other that's what that Governor's task force has really 9 9 been asked to look at. permits that weren't in the permit database, that 10 10 would mean that there's additional acreage out Q. Now, I believe that Dr. Cowie indicated the task 11 11 there that Georgia doesn't know about and that force may be headed by Mr. Allen Barnes; is that Georgia's experts haven't necessarily considered 12 12 correct? 13 13 A. That's correct. in this case. Right? 14 A. I think the amount of that would be small; but, 14 Q. And Mr. Barnes is -- was formerly a lawyer 15 sure, that possibility is there. 15 representing Georgia in litigation against 16 **Q.** Okay. All right. I would invite your attention 16 Florida or the Corps or both? 17 down another two lines. 17 A. I don't think that's right. I think he was EPD 18 18 A. Okay. director previously. He is a lawyer. He did not 19 **Q.** A00-46-0385, and the acres permitted are 20. 19 represent the state. He was the EPD director. 20 20 Acres irrigated, 384. You would agree with me Q. All right. I know he was EPD director roughly 21 21 that's a pretty sizeable difference; wouldn't from 2009 to 2011. Is that right? 22 22 vou? A. That's right.

to question it. I just, in a compliance THE REPORTING GROUP Mason & Lockhart

appreciate your demonstrative. I have no reason

A. Yes. I just -- what I don't know -- and I

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**Q.** And before that, my understanding is that he was

with King & Spalding representing the State. Is

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2991 1 A. That's incorrect. A. I think that was definitely one of the inputs 2 2 Q. Okay. My fault. My mistake on that. that staff that prepared sort of the status gave 3 So he is, indeed, the director that chose not 3 to exercise the Flint River Drought Protection Q. And have you talked to former Director Barnes 4 4 5 Act in 2011; is that right? 5 about whether or not he was aware of the results 6 A. That is correct. 6 of the NOAA climate predictor when he decided not 7 Q. Now, on that specific point, if I might, I would 7 to declare a drought under the Flint River 8 like to -- because your prefiled direct addresses 8 Drought Protection Act in 2011? 9 2011 and what happened during that year --9 No. I did not talk to him about -- about what 10 A. Sure. 10 the NOAA prediction. 11 Q. -- I would like to invite your attention to 11 Q. All right. Now, let me ask just generally, if I 12 tab 14, please. 12 could, about the Flint River Drought Protection 13 A. Okay. Okay. 13 Act. It goes back in time to 2000. Right? 14 Q. And there you will find Florida Exhibit 77. And 14 A. Right. 15 do you see the first page is an e-mail, and then 15 Q. And you were a 30(b)(6) witness on that 16 16 the second page is another e-mail from Allen particular issue. Right? 17 Barnes. Do you see that? 17 Α. Correct. 18 Q. And you know, don't you, that Director Reheis 18 A. Yes. 19 Q. And in the To: line on Florida Exhibit 77 there 19 regarded passage of the Flint River Drought 20 20 is an indication for Linda McGregor and Dr. Zeng. Protection Act as an act of good faith to ensure 21 21 that Florida flows -- flows to Florida would be Do you see that? A. I do. 22 22 protected in drought years. Right? 23 Q. Okay. Now, let's turn one more page in Florida 23 I knew he thought of it. It was very much a good 24 24 Exhibit 77 to see what they're forwarding there, faith effort to manage issues in the basin, 25 if I might. 25 particularly drought. I know he thought that was THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 2992 2994 A. Okay. 1 a good thing. **Q.** Can you tell me who Richard Royal is, please? 2 Q. And in your 30(b)(6) capacity, you have looked at 3 3 A. Yes. Richard has a couple of hats. He had been some of the memoranda and perhaps the testimony 4 in the legislature for a long time from Camilla, 4 of former Director Reheis; and you will agree 5 5 Georgia, down in Mitchell County in the basin. with me, won't you, that his view was that the 6 6 But he also serves and continues to serve on that Flint River Drought Protection Act was a way to 7 Lower Flint Regional Water Council. 7 make a commitment to Florida in order to get the 8 8 Q. Now, drawing your eyes down the page, do you see ACF Compact to work. Right? 9 the name Woody Hicks. Right? 9 A. I don't know that I can speak to all of that. I 10 10 A. I do, yes. think when I did my 30(b)(6) history and work, we 11 Q. And you're aware that Woody Hicks was one of the 11 looked at the different invocation of the Act. I 12 12 don't know as much about during that Compact era experts on Georgia's technical advisory committee 13 in connection with the 2006 conservation plan for 13 what he -- what he thought this role played for 14 the Flint River Basin. Right? 14 anything, really. 15 A. I'm aware of that, yes. 15 Q. So I won't go back and replay your deposition 16 **Q.** Joint Exhibit 21 that we have looked at several 16 designations because we have already played that 17 times in this case. 17 for the Court. So I will, however, focus on --18 But if you will read down to the bottom of 18 for a moment now on whether it is, indeed, 19 the page in the Woody Hicks e-mail to Richard 19 feasible to predict drought under the Flint River 20 Royal and Mark Masters, the next to last 20 Drought Protection Act. 21 21 paragraph -- if you can read that to yourself, I And were you here for the testimony that we 22 would appreciate it. 22 had from former Director Reheis? 23 23 A. Okay. I was not here for Reheis's testimony. 24 Q. Now, during your time as director, did you rely 24 All right. So you don't know -- I have his 25 on the NOAA climate predictor? 25 transcript here; but you don't know that he THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

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		2995			2997
1		testified, yes, I believe that, which is why that	1		stakeholders got together and said we want to
2		language got into the Act?	2		talk without the states.
3	A.	Are you referring to drought prediction	3		And so I wasn't principally apprised of sort
4	Q.	Yes.	4		of the product coming out of the ACF
5	A.	that it's feasible?	5		Stakeholders. So I certainly didn't review this,
6	Q.	I'm sorry. I should have clarified. Yes, I am	6		and this wasn't shared with me.
7		referring to exactly that.	7		I don't know the date, but
8	Α.	Yes. I think Harold really did his best effort	8	Q.	I mentioned Katherine Zitsch before of the
9		to work with the legislature to put a tool in	9	-	Atlanta Regional Commission of Governments. Did
10		place back then. And the bedrock of that tool	10		you have occasion to speak with her about the ACF
11		was that you could predict drought fairly	11		Stakeholders process?
12		successfully.	12	٨	Sure.
	^	•			
13	Q.	And you're aware, aren't you, that the director,	13	Q.	And did she tell you about her concerns
14		either you or your predecessors or maybe your	14		representing the Atlanta Regional Commission of
15		successor, has authority to change the way the	15		Governments about Dr. Georgakakos's work?
16		drought protection mechanism works under the	16	Α.	I don't know that I can recall specific
17		Flint River Drought Protection Act. Right?	17		conversations about Dr. Georgakakos's work. I
18	Α.	I take it when you say mechanism, you mean the	18		think maybe, if anything, around UIF, but just
19		what you look at in the considerations for	19		generally.
20		drought?	20	Q.	And we discussed UIF at the outset.
21	Q.	Yes.	21	A.	Right.
22	A.	Is that yes.	22	Q.	Now, at this point if we could, sir, I would like
23	Q.	And, in fact, there was a memorandum in 2011 from	23		to focus for a moment back to our other topics
24		the state geologist suggesting that a revised	24		about how you, as director, balanced economic and
25		protocol for predicting drought would be	25		environmental issues.
		THE REPORTING GROUP			THE REPORTING GROUP
		Mason & Lockhart			Mason & Lockhart
1		2996	1	Δ	2998
1	Δ	2996 appropriate. Right?	1		2998 <b>Okay.</b>
2	A.	2996 appropriate. Right? I know there were I think that Dr. Kennedy	2		2998  Okay.  So I would invite your attention to tab 19,
3	A.	2996 appropriate. Right? I know there were I think that Dr. Kennedy has has made some suggestions. I wouldn't be	2	Q.	2998  Okay.  So I would invite your attention to tab 19, please.
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2 3 4 5 6		appropriate. Right?  I know there were I think that Dr. Kennedy has has made some suggestions. I wouldn't be able to tell you when; but his thought about staff are always trying to think about how to do this better.	2 3 4 5 6	Q. A. Q.	Okay.  So I would invite your attention to tab 19, please.  Okay.  And here, sir, I'm focusing on the Flint River  Drought Protection Act process in 2012.
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. A. Q. A. Q.	appropriate. Right?  I know there were I think that Dr. Kennedy has has made some suggestions. I wouldn't be able to tell you when; but his thought about staff are always trying to think about how to do this better.  You know also, don't you, that as part of the ACF Stakeholder's process, Dr. Georgakakos of the Georgia Water Resources Institute and Georgia Tech wrote an entire paper explaining how drought can feasibly be predicted months in advance? I couldn't have told you that, no. Sir, can you turn with me to tab 18, please. Okay. And have you seen the document that's marked Florida Exhibit 232 before? I have not. So you haven't been apprised of this particular study by your staff when you were director? Oh, absolutely not. I think I don't know I don't see a date. Again, I think we have talked about that or this has been before the Court; but the ACF Stakeholders process occurred with Gail Cowie's participation on my staff that I	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. A. Q. A. Q. A. Q. A. Q. A. Q. A. Q.	Okay.  So I would invite your attention to tab 19, please. Okay. And here, sir, I'm focusing on the Flint River Drought Protection Act process in 2012. Okay. And you started in early January of 2012; didn't you? Right. January 1. So this was one of the first things you had to deal with; wasn't it? That's right. All right. So at tab 19, Florida Exhibit 536, there is a document titled Wei's Modifications. Do you see that, sir? I do see that. And Wei Zeng is, indeed, the head of the modeling unit hydrological modeling in Georgia EPD. Correct? That's correct. And he was throughout the time that you were director? That's right.
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. A. Q. A. Q.	appropriate. Right?  I know there were I think that Dr. Kennedy has has made some suggestions. I wouldn't be able to tell you when; but his thought about staff are always trying to think about how to do this better.  You know also, don't you, that as part of the ACF Stakeholder's process, Dr. Georgakakos of the Georgia Water Resources Institute and Georgia Tech wrote an entire paper explaining how drought can feasibly be predicted months in advance? I couldn't have told you that, no. Sir, can you turn with me to tab 18, please. Okay. And have you seen the document that's marked Florida Exhibit 232 before? I have not. So you haven't been apprised of this particular study by your staff when you were director? Oh, absolutely not. I think I don't know I don't see a date. Again, I think we have talked about that or this has been before the Court; but the ACF Stakeholders process occurred with Gail Cowie's participation on my staff that I	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. A. Q. A. Q. A. Q. A. Q. A. Q. A. Q.	Okay.  So I would invite your attention to tab 19, please. Okay. And here, sir, I'm focusing on the Flint River Drought Protection Act process in 2012. Okay. And you started in early January of 2012; didn't you? Right. January 1. So this was one of the first things you had to deal with; wasn't it? That's right. All right. So at tab 19, Florida Exhibit 536, there is a document titled Wei's Modifications. Do you see that, sir? I do see that. And Wei Zeng is, indeed, the head of the modeling unit hydrological modeling in Georgia EPD. Correct? That's correct. And he was throughout the time that you were director? That's right.

3001 1 first paragraph there is a discussion of whether 1 never seen the Wei's Modifications document. And 2 2 severe drought conditions can be expected. Would I was -- and I know we can talk about what we 3 you mind, please, taking a look at the first 3 publicly put out; but this -- this issue of -- of 4 paragraph there; and let me know when you're commodity prices and the use of the Act was one 5 5 of the things in the consideration process. The 6 A. Yes. 6 principal one was whether there would be any 7 Q. Now, do you see in that paragraph, don't you, 7 benefit. 8 that severe drought conditions were indeed 8 And then on top of the benefit question was, 9 expected; but at least in this draft of the press 9 okay, if we could -- if we thought invoking the 10 release, EPD made a determination not to 10 Act would benefit, what's it going -- what's 11 implement the auction? 11 it -- are we going -- it's a voluntary auction; 12 A. Yes. I mean, in this draft and in what we said 12 so we have to have farmers participate. And 13 in public and what I told everybody at the time, 13 given what commodity prices were -- I couldn't 14 there was no question by this point in 2012 that 14 have told you these numbers because, again, I 15 we were in the middle of a severe drought. The 15 didn't see this; but I just knew that they were 16 16 issue was whether the Act would be effective. So in -- for certain row crops they were 17 I did not declare the drought, but not because 17 historically high during that period. 18 18 there was any question about drought at that **Q.** Let me ask you a couple questions about what you 19 time. 19 did know at the time. So you met fairly 20 20 Q. So what you're putting your finger on is what I frequently during those first couple months of 21 21 want to talk about exactly, and that is whether your tenure with Mr. Zeng; didn't you? 22 22 the use of the Flint River Drought Protection Act A. Sure. 23 23 Q. And you also met with the state geologist from would have been effective in alleviating 24 environmental harm in 2012. And, again, I said 24 time to time? 25 what I'm attempting to do in this short 25 A. I did. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3000 3002 1 discussion is identify the types of balances you Q. And his name is Dr. Kennedy? 2 struck between economic and environmental issues. He is. Yes, Dr. Kennedy. 3 3 Q. Can you turn to the second page of this Florida So let's look, if we can, at the fourth 4 paragraph. And there I would invite your 4 Exhibit 536. 5 attention first to the first sentence which 5 A. Yes, I'm there. 6 reads, there are indeed flow benefits associated 6 **Q.** And there in the fourth paragraph, do you see the 7 7 with suspending irrigation. same statement, there are indeed flow benefits 8 8 Then it's got a parenthetical that says, associated with suspending irrigation? Do you 9 e.g., Ichawaynochaway Creek. Do you see that, 9 see that, sir? A. I see those words on this document. 10 sir? 10 11 11 Q. Okav. A. I see that. 12 12 A. I didn't --Q. Now, sir, Ichawaynochaway Creek is a sensitive 13 13 area for endangered mussels, among other things; **Q.** And do you see the reference to acreage in 300 to 14 isn't it? 14 \$700 range. Right? 15 A. It is a -- it is. It's a major trib of the Flint 15 Α. Right. 16 and very -- a wonderful resource with lots of 16 Q. Okay. Now, there is also a parenthetical on both 17 ecological benefit and species. 17 of these pages that -- that says, in part, there 18 Q. And, in fact, one of the concerns at this time in 18 is likely to be legitimate questions why EPD does 19 2012 was that it might cost, due to commodity 19 not suspend irrigation water use. And then it 20 prices, between 300 and \$700 an acre to halt 20 refers to involuntary suspension. Do you see 21 irrigation in Ichawaynochaway Creek and the 21 that? 22 22 surrounding area. Right? A. Yes. I see that. 23 23 A. I mean, when we were looking at this -- and, Q. And you know, don't you, that the Flint River 24 again, I just need to say that -- I think I told 24 Drought Protection Act had a provision that 25 you this in the deposition. I had not -- I had 25 allowed the director to involuntarily suspend THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

TRIAL - November 18, 2016 (Vol. XII) Florida v. Georgia 3005 3003 1 water use. Right? A. I'm sorry. I lost you. Is it the map you're A. Right. I think this is one of the other 2 2 looking at? 3 well-intended pieces of the statute that didn't 3 **Q.** Let me describe this again so we make sure that work very well in reality because you had to 4 we're talking about the same thing. 5 first go through a voluntary auction and then not A. Yes. 6 receive sufficient acreage, and then turn around Q. All right. So FX-97 --7 and do the -- force the involuntary. And with 7 Right. 8 the clock ticking in each growing season, it's 8 Q. -- at tab 21 is a multi-page document. It's got 9 just -- it's not workable in my estimation to do 9 e-mails among Mr. Wisniewski, Nap Caldwell, 10 all of that and get acreage out where you need 10 Dr. Cowie, and others. And about five pages in 11 11 is a page titled Critical Stream Reaches in the 12 **Q.** So the voluntary auctions were conducted in 2001 12 Lower Flint Basin. 13 and 2002. Right? 13 A. I have got it now. 14 A. They were. 14 Q. Okay. And I'm asking you for -- first, to go to 15 **Q.** But if you had conducted a voluntary auction in 15 the second page of that document. And do you see 16 16 2012 and perhaps didn't get the type of voluntary the indication No. 3 for Ichawaynochaway Creek, 17 17 takers that you wanted, you could have done an which is -- has been the subject matter of our involuntary auction right thereafter. Right? 18 discussion just moments ago. Do you see that? 18 19 A. We could have. But if we had -- if we had done a 19 A. I do. 20 20 voluntary auction like Harold did in 2001 and **Q.** Okay. Then do you see in the last sentence there 21 21 2002 and we had gotten a scatter plot of parcels the statement that the reach represents habitat 22 22 all over the basin like Dr. Reheis got, which that may be critical to the recovery of the 23 wouldn't have had any impact, and spent that 23 listed species? 24 money, and then we turned around and went to 24 A. I do see that sentence. 25 target it and tried to get more, which -- it 25 Q. And listed species means endangered species THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3004 3006 1 would have been problematic. I just did not see 1 listed by the U.S. Fish and Wildlife Service? 2 that as a functional way to do it. 2 A. That's what I understand that to mean, yes. 3 3 **Q.** And, in fact, there are some species that are **Q.** And your decision was not to try. Right? 4 4 listed under state law by the Wildlife Resources A. That is correct. 5 5 Q. Okay. Now, sir, if I can invite your attention, Division; is that correct? 6 just to put this in further context, to tab 21, 6 A. I don't know about whether they have a separate 7 7 please. listing. They may have a -- I know, for 8 A. Yes. 8 instance, certain species that have been 9 Q. And there I would invite your attention to the 9 petitioned to Fish and Wildlife are listed that 10 10 page particularly about Ichawaynochaway Creek our WRD pays close attention to. I don't know if 11 11 which is GA 45746. It's several pages in. that's the kind of list you're talking about. 12 A. Okay. 12 Q. Now, sir, when you were being briefed by staff a 13 13 Q. Now, just to -couple months after you arrived, when you were 14 MR. PERRY: Mr. Walton, could you please 14 making your decision weighing economic and 15 15 environmental benefits and costs and the like, take that down. 16 Thank you. 16 were you informed about the potential impact on 17 BY MR. PERRY: 17 listed endangered species in Ichawaynochaway 18 **Q.** The reason I just took that down is because we 18 Creek? 19 redacted the numbers for GPS coordinates on the 19 A. Well, sir, the first thing is when we were doing 20 this balance thing, we weren't, as you describe

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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I don't remember being briefed on a THE REPORTING GROUP Mason & Lockhart

Act in a way that would help?

out under the existing statute -- we had a

it, weighing economic. We were trying to figure

drought; that was clear -- could we invoke the

21

22

23

24

3009 1 particular mussel species in a particular stretch 1 two things. And they're both on page 4 of this 2 2 in Ichaway. I just remember asking if we go do 3 this and I go get money from the legislature and 3 And we talked about this document at some 4 we spend the kind of money it's going to take length with Dr. Cowie, so I won't go through it 5 with commodity prices, am I going to be able to 5 6 go out to Ichawaynochaway Creek or Spring Creek 6 But do you see under Conclusions --7 and see water that would otherwise not be there? 7 Α. Yes. 8 And the answer consistently from our staff 8 Q. -- observations of the minimum one-day flow of 9 was, we cannot tell you that given the condition 9 record in all history at Ichawaynochaway Creek in 10 of the resource, that you're going to see that. 10 July of 2012? 11 Q. Well, let's see what the water looked like later 11 A. Yes. 12 in 2012 after the Flint River Drought Protection 12 Q. Do you see that? 13 Act wasn't invoked. And there I would ask you to 13 A. I see that. 14 turn with me to tab 23, Florida Exhibit 50. And 14 **Q.** And do you see the impact graph for both 15 I'm going to focus here, if I might, on figure 3, 15 Ichawaynochaway Creek and Spring Creek in 16 16 figure 2 for mussel abundance? which is on page 3. 17 But, sir, there's a blowup just at the end --17 A. I see that. 18 blowup meaning larger picture so I can see it. 18 **Q.** All right, sir. Can you turn back with me to 19 A. Okay. 19 your actual press release on the Flint River 20 20 **Q.** You can see it on the screen. Drought Protection Act for March 1. It's at 21 21 tab 22, Joint Exhibit 69. And there do you see the first picture that 22 22 A. Yes. says 116 cfs for pre-irrigation minimum flows? 23 A. I see that. 23 **Q.** And there you do not see on that actual press 24 **Q.** Do you see the second picture which is 9 cfs for 24 release any mention of Ichawaynochaway Creek. Do 25 irrigation era minimum flows? 25 you? THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3008 3010 1 A. I certainly see that. A. Right. 2 **Q.** All right. And that's an indication of what 2 **Q.** You do see an indication in the third paragraph 3 happened on July 12 of 2012. Do you see that? 3 towards the bottom that there are no funds currently appropriated to use the Flint River 4 A. Right. But as you remember, you showed me the 4 5 document that I was -- that was being prepared. 5 Drought Protection Act. Right? 6 I think we were seeing some very low flows in 6 A. That is noted in the phrase, yes. 7 Ichaway back in the spring before the growing 7 Q. And then later you're quoted, aren't you, saying 8 8 season. that there's currently no viable management tool 9 Q. Well, sir, let's turn, if we might then, to 9 to deal with the Flint River Basin? 10 10 A. Correct. tab 24, which is Florida Exhibit 51. 11 11 **Q.** And today, although you have taken some modest A. Okay. 12 **Q.** And you're familiar with the water resources 12 steps, it's true, isn't it, there is still no 13 13 conference that's every two years sponsored by viable management tool to deal with low flows in 14 Georgia EPD? 14 the Flint River Basin? 15 15 A. I think the -- that we are still in need of some A. I am aware of it, yes. 16 **Q.** And --16 further improvements to deal -- not really with 17 A. Sponsored by EPD, I think you said? 17 low flows. I know that we may have said that 18 **Q.** I believe it is. Do you think I have that wrong? 18 here. Certainly, that was your question, but to 19 A. No. I just think sponsorship -- I mean, I think 19 deal with these ever-increasing droughts in 20 we participate and help to present. 20 the -- in severity. 21 21 Q. So that --So it's a moving target, and I think we need 22 A. I don't know if there's any financial -- I'm 22 further improvement in our tools. 23 23 MR. PERRY: Your Honor, it's about 24 **Q.** That's my fault. I interrupted you. 24 10:20. Is a break appropriate now? 25 So there, I would invite your attention to 25 SPECIAL MASTER LANCASTER: How much THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

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	3011	_		3013
1	longer do you think you have with this	1		Spring Creek for a minute, to invite your
2	witness, Mr. Perry?	2		attention to page 153, please.
3	MR. PERRY: Maybe 40, maybe 30 minutes.	3	Α.	I'm there.
4	SPECIAL MASTER LANCASTER: We'll break.	4	Q.	And do you see the title of the representation
5	(Time Noted: 10:20 a.m.)	5		there on page 153 and this is Florida
6	(Recess Called)	6		Exhibit 879 where it's titled High Priority.
7	(Time Noted: 10:33 a.m.)	7		Do you see that, sir?
8	SPECIAL MASTER LANCASTER: Mr. Perry, I	8	A.	I do.
9	have old ears; and you're very soft-spoken.	9	Q.	And then in the bottom text for what's called
10	So if you could, get closer to the	10		figure 18, it's titled High Priority Watersheds?
11	microphone.	11	A.	I see that.
12	MR. PERRY: Sure.	12	Q.	Now, there's also a legend on the larger map
13	SPECIAL MASTER LANCASTER: I would	13		there that has indications that are color coded
14	appreciate it. I think she would, too.	14		for highest global significance, high global
15	Thank you.	15		significance. Do you see that?
16	MR. PERRY: How is this?	16	A.	I do.
17	SPECIAL MASTER LANCASTER: Great.	17	Q.	And if I can invite you to read the text at the
18	MR. PERRY: Thank you for reminding me,	18		bottom of this particular page following the
19	your Honor.	19		figure 18 to yourself, please.
20	BY MR. PERRY:	20	Δ.	Okay.
21	Q. Good morning again	21		And do you see it says that global significance
22	A. Yes.	22	Œ.	is based on rarity and the number of
23	Q Mr. Turner.	23		high-priority aquatic species in each watershed?
24	MR. PERRY: Your Honor, if I might,	24	Δ	Yes.
25	, , ,	25	_	
25	there is one exhibit that was too big to put	25	Q.	Now, we have been talking about Ichawaynochaway.
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1	in the binder. I'll only refer to one page	1		Do you see Ichawaynochaway on this map?
	the contract of the trace of Total and the district of the	_		Walted Walter also continued to the continued
2	though, maybe two. If I might distribute it	2	A.	I think I do, although, you know, it doesn't
3	now, I would appreciate it.	3	A.	superimpose the creeks very clearly. So I'm
3 4	now, I would appreciate it.  SPECIAL MASTER LANCASTER: Fine.	3 4		superimpose the creeks very clearly. So I'm not I know generally where it is.
3 4 5	now, I would appreciate it.  SPECIAL MASTER LANCASTER: Fine. BY MR. PERRY:	3 4 5	Q.	superimpose the creeks very clearly. So I'm not I know generally where it is.  Is it in map No. 291?
3 4 5 6	now, I would appreciate it.  SPECIAL MASTER LANCASTER: Fine.  BY MR. PERRY:  Q. Now, sir, I would like to invite your attention	3 4 5 6	Q. A.	superimpose the creeks very clearly. So I'm not I know generally where it is. Is it in map No. 291? I think it I think that's about right.
3 4 5 6 7	now, I would appreciate it.  SPECIAL MASTER LANCASTER: Fine.  BY MR. PERRY:  Q. Now, sir, I would like to invite your attention to Florida Exhibit 879, please.	3 4 5 6 7	Q. A.	superimpose the creeks very clearly. So I'm not I know generally where it is. Is it in map No. 291? I think it I think that's about right. And that's affiliated with high global
3 4 5 6 7 8	now, I would appreciate it.  SPECIAL MASTER LANCASTER: Fine.  BY MR. PERRY:  Q. Now, sir, I would like to invite your attention to Florida Exhibit 879, please.  A. Okay.	3 4 5 6 7 8	Q. A. Q.	superimpose the creeks very clearly. So I'm not I know generally where it is. Is it in map No. 291? I think it I think that's about right. And that's affiliated with high global significance for aquatic species?
3 4 5 6 7 8 9	now, I would appreciate it.  SPECIAL MASTER LANCASTER: Fine.  BY MR. PERRY:  Q. Now, sir, I would like to invite your attention to Florida Exhibit 879, please.	3 4 5 6 7 8 9	Q. A. Q.	superimpose the creeks very clearly. So I'm not I know generally where it is. Is it in map No. 291? I think it I think that's about right. And that's affiliated with high global significance for aquatic species? Oh, yes. Yes.
3 4 5 6 7 8	now, I would appreciate it.  SPECIAL MASTER LANCASTER: Fine.  BY MR. PERRY:  Q. Now, sir, I would like to invite your attention to Florida Exhibit 879, please.  A. Okay.	3 4 5 6 7 8	Q. A. Q.	superimpose the creeks very clearly. So I'm not I know generally where it is. Is it in map No. 291? I think it I think that's about right. And that's affiliated with high global significance for aquatic species?
3 4 5 6 7 8 9	now, I would appreciate it.  SPECIAL MASTER LANCASTER: Fine.  BY MR. PERRY:  Q. Now, sir, I would like to invite your attention to Florida Exhibit 879, please.  A. Okay.  Q. And let me ask you, first. Wildlife Resources	3 4 5 6 7 8 9 10	Q. A. Q.	superimpose the creeks very clearly. So I'm not I know generally where it is. Is it in map No. 291? I think it I think that's about right. And that's affiliated with high global significance for aquatic species? Oh, yes. Yes.
3 4 5 6 7 8 9	now, I would appreciate it.  SPECIAL MASTER LANCASTER: Fine.  BY MR. PERRY:  Q. Now, sir, I would like to invite your attention to Florida Exhibit 879, please.  A. Okay.  Q. And let me ask you, first. Wildlife Resources Division was a sister agency to EPD when you were	3 4 5 6 7 8 9	Q. A. Q. A. Q.	superimpose the creeks very clearly. So I'm not I know generally where it is. Is it in map No. 291? I think it I think that's about right. And that's affiliated with high global significance for aquatic species? Oh, yes. Yes. Okay. And do you see highest global significance
3 4 5 6 7 8 9 10	now, I would appreciate it.  SPECIAL MASTER LANCASTER: Fine.  BY MR. PERRY:  Q. Now, sir, I would like to invite your attention to Florida Exhibit 879, please.  A. Okay.  Q. And let me ask you, first. Wildlife Resources Division was a sister agency to EPD when you were the EPD director?	3 4 5 6 7 8 9 10	Q. A. Q. A.	superimpose the creeks very clearly. So I'm not I know generally where it is. Is it in map No. 291? I think it I think that's about right. And that's affiliated with high global significance for aquatic species? Oh, yes. Yes. Okay. And do you see highest global significance in map No. 296?
3 4 5 6 7 8 9 10 11 12	now, I would appreciate it.  SPECIAL MASTER LANCASTER: Fine.  BY MR. PERRY:  Q. Now, sir, I would like to invite your attention to Florida Exhibit 879, please.  A. Okay.  Q. And let me ask you, first. Wildlife Resources Division was a sister agency to EPD when you were the EPD director?  A. That's right. We have a bit of a strange	3 4 5 6 7 8 9 10 11 12	Q. A. Q. A.	superimpose the creeks very clearly. So I'm not I know generally where it is. Is it in map No. 291? I think it I think that's about right. And that's affiliated with high global significance for aquatic species? Oh, yes. Yes. Okay. And do you see highest global significance in map No. 296? Yes.
3 4 5 6 7 8 9 10 11 12 13	now, I would appreciate it.  SPECIAL MASTER LANCASTER: Fine.  BY MR. PERRY:  Q. Now, sir, I would like to invite your attention to Florida Exhibit 879, please.  A. Okay.  Q. And let me ask you, first. Wildlife Resources Division was a sister agency to EPD when you were the EPD director?  A. That's right. We have a bit of a strange arrangement among the metro resource agencies in	3 4 5 6 7 8 9 10 11 12 13	Q. A. Q. A. Q.	superimpose the creeks very clearly. So I'm not I know generally where it is. Is it in map No. 291? I think it I think that's about right. And that's affiliated with high global significance for aquatic species? Oh, yes. Yes. Okay. And do you see highest global significance in map No. 296? Yes. And that's Spring Creek; isn't it?
3 4 5 6 7 8 9 10 11 12 13	now, I would appreciate it.  SPECIAL MASTER LANCASTER: Fine.  BY MR. PERRY:  Q. Now, sir, I would like to invite your attention to Florida Exhibit 879, please.  A. Okay.  Q. And let me ask you, first. Wildlife Resources Division was a sister agency to EPD when you were the EPD director?  A. That's right. We have a bit of a strange arrangement among the metro resource agencies in Georgia. EPD is a division of DNR as is Wildlife	3 4 5 6 7 8 9 10 11 12 13	Q. A. Q. A. Q.	superimpose the creeks very clearly. So I'm not I know generally where it is.  Is it in map No. 291?  I think it I think that's about right.  And that's affiliated with high global significance for aquatic species?  Oh, yes. Yes.  Okay. And do you see highest global significance in map No. 296?  Yes.  And that's Spring Creek; isn't it?  That looks like again, I couldn't having
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3015 3017 1 A. Okay. 1 some USGS stuff before; but I don't recall this 2 2 **Q.** -- I would like you to turn to tab 31, please. particular screen shot or this particular record. 3 Q. Sir, were you here in the courtroom for the testimony of Florida's expert Dennis Lettenmaier? **Q.** And here, I'll have some questions about whether your staff advised you about certain things. But A. No, sir. 6 do you see the report there at FX-49g titled 6 Q. All right. Have you also seen the briefing 7 Indicators of Long-Term Hydrologic Change in the 7 prepared by Mr. Woody Hicks and delivered at the 8 Flint River? 8 November 2014 stakeholders meeting you attended? 9 A. I do see that. 9 A. I have -- I was there for that; and I have seen 10 **Q.** And those gentlemen who are listed as authors 10 that PowerPoint, yes. 11 were the experts from the -- from Georgia's 2006 11 Q. Could you turn to page -- to tab 34 with me, 12 plan. Correct? 12 please. 13 A. I think as we talked about before, they were 13 A. Okay. 14 technical advisers on the plan. 14 Q. And in particular, since we spent a lot of time 15 Q. Okay. 15 in your deposition designations which we played 16 by video on certain portions of this, I would 16 A. On the -- not the only ones. 17 17 Q. And we can look back and -- at the language like to turn to the very last slide here in 18 18 Exhibit FX-49b of tab 34, which Mr. Hicks describing them. But, again, this is a reference 19 to the Georgia water resources conference, this 19 presented. 20 time in 2013. Do you see that? 20 A. Okay. 21 A. Okay. 21 Q. And you recall, don't you, Mr. Hicks presenting 22 22 **Q.** Now, there is an abstract there, which we walked his conclusions labeled 4, 5, and 6; don't you? 23 through with Dr. Cowie just the other day. But 23 A. I remember the presentation. I know this sort of 24 the attachment to this is Florida Exhibit 49h. 24 was at the end; but I don't specific -- couldn't 25 And do you see that in this same tab? 25 have told you how he -- he kind of just presented THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3016 3018 1 A. I do. 1 it quickly and sat down. So, no, I don't 2 2 **Q.** Okay. Have you ever seen the PowerPoint before remember specifically. 3 at FX-49h? 3 Of course, I have since reviewed it. 4 Q. Well, sir, let's talk about a slightly different 4 A. I have not. 5 5 Q. All right. I would like to ask you if your topic because I don't want to repeat everything we did --6 staff -- and I believe Dr. Cowie said she 6 7 attended the 2013 conference where this was 7 A. Sure. 8 presented -- has ever shown you or described for 8 Q. -- in our deposition --9 you the pages identified here at the -- or the 9 Α. Sure. 10 PowerPoint presentation identified here on 10 **Q.** -- designations for you. 11 page 10 of Florida Exhibit 49h at the bottom? 11 A. Sure. 12 A. You're asking about not only the overall, but 12 Q. And there I would ask you to turn to tab 36 for 13 that specific? 13 just a moment with me. 14 **Q.** The specific slide at the bottom. Do you see 14 A. Okay. Okay. I'm there. Tab 36. 15 Palmer drought severity, and then it's got a mark 15 Q. Now, we have talked quite a bit about this 16 for 1954 drought of record? 16 document so far in this trial, EPA and U.S. Fish 17 A. I see that. 17 and Wildlife Interim Flow Guidelines. And I just 18 I think your question was whether I had ever 18 wanted to refer to this because I'm going to ask been shown that. 19 19 you about a particular slide that's at tab 37, 20 20 Q. That's correct. which is an excerpt from this document at tab 36. 21 21 A. No, I have not seen that. A. Okay. 22 Q. And, likewise, have you ever been shown the 22 Q. So tab 36 is FX-599. And I'm going to ask you 23 23 now to turn to tab 37, which is an excerpt from PowerPoint slide at the top of the next page, 24 page 11 of Florida Exhibit 49h? 24 Appendix A of Florida Exhibit 599 at page 14. 25 A. I certainly -- I know this is a -- I have seen 25 So, sir, are you with me in tab 37? THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3021 1 A. I am, yes. From: line contains Gail Cowie -- Dr. Gail Cowie? 2 A. I do. 2 **Q.** Now, there we have a representation, an excerpt 3 of one-day minimum flows exceeded in all years, 3 Q. All right. And she refers to an outline of activities for a 2016 legislative package? 4 of one-day minimum exceeded in 3 of 4 years, and 5 of one-day minimums exceeded in 1 of 2 years for 5 A. I see that, yes. 6 the Apalachicola River at the Chattahoochee Gage. 6 Q. Okay. So I would like to ask you to turn to the 7 Do you see that, sir? 7 next page, please, with the outline. 8 A. I do. 8 Now, there have been no legislative 9 Q. Now, this is -- this question is going to be a 9 activities in 2016; have there? 10 little different than what we have talked about 10 A. That -- that is correct. 11 so far today. Part of your prefiled direct 11 **Q.** And although we're in a -- a growing drought 12 testimony mentions past settlement negotiations. 12 period now, you don't anticipate any legislative 13 And I can't, because of our agreement with 13 activities through the rest of 2016; do you? 14 Georgia, talk about settlement negotiations in 14 A. I do not. 15 2015 or 2016. That's our agreement, and we are 15 Q. All right. Let's look at the second page of 16 16 happy to continue to observe that agreement. Florida Exhibit 67. And do you see under 17 But what I want to talk to you about is 17 messages in the text the word impetus? 18 18 A. Okay. Yeah. settlement negotiations prior to 2015. 19 A. Okay. 19 I'm sorry. I was one page beyond. 20 20 **Q.** When you look at these minimum flows identified I do see that, yes. 21 21 **Q.** And then it reads, extreme low flows observed in on this graph on this excerpt from Florida 22 22 Exhibit 599 from EPA and U.S. Fish and Wildlife recent years, unlike those observed in previous 23 for the Apalachicola River, it's true, is it not, 23 drought periods. Do you see that, sir? 24 that Georgia prior to 2015 never offered any 24 A. I do. 25 settlement to Florida that would have achieved 25 Q. All right. Here is my question. In the next THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3020 3022 1 the flows identified on this page? 1 subsection, the third bullet down, there is a 2 2 A. Well, I don't know -- I'm not as familiar with mention of Florida. Do you see that? 3 the -- this flow metric, monthly one-day minimum. 3 Α. Right. I see that. I'm very familiar with the Corps operation and 4 4 **Q.** And it's true, isn't it, that a portion of this 5 the state line minimum and what we offered in the 5 activity here, the subject matter of this 6 context of the state line minimum which would 6 particular outline and the meetings that followed 7 have increased flows to Florida. But I just -- I 7 was to increase low flows in streams that flow 8 can't answer -- I know Dr. Zeng or someone would 8 into Florida. Right? 9 9 A. Well, I think, again, this is an e-mail from be able to help you with that; but that metric is 10 10 just not a -- a monthly, daily minimum like that laying out an outline. And I don't -- I think 11 11 over all years, we're -- I think we're talking a Dr. Cowie used that terminology. I don't think 12 12 there is any dispute that all these streams we're little apples and oranges there. 13 Q. All right, sir. So could you turn with me, 13 talking about flow into Lake Seminole. And then 14 please, to tab 38, which is Florida Exhibit 67. 14 the water that flows from these streams is all 15 And here, sir, we're back to the summer of 2014. 15 going to come one way, which is at Apalachicola A. Yes. 16 16 at the dam. 17 Q. Do you see your name in the To: line of the 17 Q. Okay. So if you could turn with me to the text 18 e-mail in Florida Exhibit 67 from James Capp? 18 page. And there I'm interested in the first 19 A. I do. 19 bullet. It's got two sentences. And it reads in 20 Q. James Capp worked for you; is that right? 20 the first bullet, potential streamflow benefits 21 21 A. Yes. from irrigation removals. Do you see that, sir? 22 A. I do. 22 Q. In what capacity? 23 A. He was and still is the water branch chief. So 23 Q. But then in the next sentence it reads, note, 24 he's in the water branch. 24 this could be termed to causes of streamflow 25 Q. And do you see in the preceding e-mail the 25 declines, therefore delete, with a question mark. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

TRIAL - November 18, 2016 (Vol. XII) Florida v. Georgia 3023 3025 1 Do you see that? 1 Okay. 2 A. I see it, yes. 2 Q. Did Mr. McClatchey discuss those views with you? 3 **Q.** Were you presented with this paper and briefed on No. I have never heard of any of that. Do you know whether he was or wasn't the chair of 5 A. I mean, what I -- I mean, I'm copied on this 5 the ACF Stakeholder process for a period of time? 6 e-mail. What I remember is that we were trying 6 A. I don't -- I couldn't tell you whether he was 7 to put this together. And they were asking about 7 chair or on the executive committee in some 8 things like should we have a facilitator and what 8 capacity. But he was certainly in some 9 should be the topics? 9 leadership capacity because that's the only 10 And there was always a concern about how we 10 occasion I had to meet with him is he -- there 11 present things and did we overstate impacts and 11 was a time, I think, they came in after the --12 those sorts of things. So I don't remember 12 after they put out their plan and really wanted 13 focusing on this. I don't remember talking to 13 to make sure that Governor Deal was aware of it. 14 anybody about that question mark. 14 That's all I remember from Mr. McClatchey. 15 But, yes, this -- I was copied on this; and I 15 Q. And do you recall a meeting between 16 16 do remember generally we were trying to figure Mr. McClatchey and Governor Deal on this specific 17 out how we wanted to structure this meeting that 17 topic? 18 18 ultimately happened in November. A. Oh, no. I don't think they ever met. 19 **Q.** All right, sir. Do you know a Mr. McClatchey? 19 Q. Okay. Now, sir, I started a couple hours ago. 20 20 A. I think I do. And among my first questions was a question about 21 Q. Do you know if a Mr. McClatchey was associated 21 the current drought. 22 22 A. Yes. with the ACF Stakeholders? 23 23 Q. And now, I would like to ask you what, if A. Okay. I think -- I think I know that, yes. 24 Q. Can you -- are we -- I'm not sure we're talking 24 anything, the State of Georgia is prepared to do 25 25 if we see another terrible drought in 2017? about the same person. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3024 3026 A. Right. 1 A. Well, I can -- I can tell you that on -- with 2 **Q.** I think we might be. Is that individual from 2 respect to metro Atlanta, because this drought is 3 3 Atlanta? centered in the northwest Georgia portion of the 4 A. Okay. Yeah. My remembrance of Mr. McClatchey is 4 state, northeast Alabama portion, we have moved 5 5 he was from -- not from this region of the ACF to drought level 2, which restricts outdoor 6 world, but part of that ACF Stakeholders Group. 6 watering to two days a week. And I think the 7 And I believe I have met with him a time or two. 7 state is -- if conditions persist over the **Q.** Now, sir, could you turn with me to tab 40. 8 8 winter, they will make a decision to go to 9 A. Okay. 9 drought level 3 before outdoor watering would 10 10 Q. And I'm, frankly, not sure if you have seen this start again. 11 11 document; and so I would like to -- this is a So that's the -- I feel strongly that that's 12 12 document created by Dr. Cowie. But my particular in the works. Again, they will do that, I think, 13 13 focus is on the statements that she testified before February because they're going to need to 14 were derived from Mr. McClatchey. 14 do it before any outdoor watering would start. 15 A. Okay. 15 Q. And you mean by that, outdoor watering 16 Q. All right. And those you will find on GA 671506, 16 restriction? 17 which is the fourth page of this document. 17 Sure. Outdoor ban, like we did in '07 and '08. 18 A. Okay. 18 But it would be -- the EPD will have to look at 19 **Q.** And I would invite you, if you could, to read to 19 those conditions and figure out how broad that 20 yourself the statements that begin with 20 footprint is. 21 McClatchey's suggestions and continue until the 21 But right now they're at drought level 2 in 22 22 top of the next page. 52 counties, which is sort of before the fall 23 23 A. How far did you want me to go? line in Georgia. We have got a lot of counties **Q.** To h on the next page. 24 in Georgia; so 52 of them, it's about, I don't 24 25 know, a third of the state, that northern sort A. Okay. Got it. THE REPORTING GROUP THE REPORTING GROUP

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TRIAL - November 18, 2016 (Vol. XII) 1 of half -- the state gets smaller, but that 1 the books; and I -- the director will, I'm 2 2 northern kind of half of the state. confident, do his job to look at the conditions 3 **Q.** Is anything currently being planned to restrict 3 in the basin and explore triggering the Act by 4 agricultural irrigation in the event of a the required March 1 date. 5 terrible drought in 2017? 5 Q. All right. Thank you, sir. 6 A. I think -- I don't know -- again, that drought 6 MR. PRIMIS: Good morning, your Honor. 7 level 1 is down now in the southwest part of the 7 REDIRECT EXAMINATION 8 state. From what I have looked at, EPD has put 8 BY MR. PRIMIS: 9 out some -- on its website has sort of given the 9 Q. Mr. Turner, are you all set? 10 condition of the basin now; and the streamflows 10 A. Iam. 11 are concerning. But the groundwater levels are 11 **Q.** I see you're getting some water. 12 at the mean still. 12 Mr. Turner, before -- before we get started, 13 So I think they're going to need to look at 13 I just want to ask you quickly about a document 14 the Flint River Drought Protection Act again. I 14 that Mr. Perry had shown you at the beginning of 15 don't know -- I know they are, because they're 15 your examination. It's FX-534. It's the 16 16 putting out those data, the well -- the health of Dr. Georgakakos report. I think it was --17 17 the aquifer. MR. PRIMIS: Was it tab 1? 18 18 MR. PERRY: Yes. And it just shows you that we have -- we did 19 have a very wet winter and very wet spring. 19 BY MR. PRIMIS: 20 20 That's what is really concerning about this **Q.** I believe it was tab 1. 21 21 A. Yes. Okay. drought is it came on very, very quickly. But 22 the groundwater condition is fairly healthy 22 Q. Now, Mr. Turner, did you say documents like this 23 still. 23 were kept confidential by the Stakeholder Group? 24 24 A. It is my understanding that they were So they're going to need to look at that in 25 the context of streamflows and the state of the 25 confidential. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3028 1 aquifer. 1 2 2 **Q.** Will surface water and groundwater users be moved document. What does that say? 3 3 to lower aguifers before the summer of 2017? A. No. I don't think there is any way to make a 4 4 5 final determination on that and get those actions 5 taken. 6 6 published? 7 **Q.** Still studying? 7 8 8 A. I think that's right. Studying -- I mean, when 9 we talk about studying, just for the Court's 9 10 earlier? benefit, it's not like there is a bunch of data 10 11

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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

the summer of 2017? 24

25 A. I do. Flint River Drought Protection Act is on

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Q. Can you look at the date on this particular

A. October 2012, I guess, on the document; and then there's a sub-box that says November 13, 2012.

Q. Okay. And when did the ACFS plan ultimately get

A. I think it was around May of 2015.

**Q.** So the document Mr. Perry showed you here,

FX-534, was two-and-a-half to three years

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.

Q. I think you looked at this one on your 24

25 cross-examination. What does it say on the

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3033 1 header of this page -- and it's repeated on every Q. And we're in the executive summary here on 2 2 single page of this document. What does that page 2. Correct? 3 sav? 3 A. Okay. Yes. 4 A. Well, there's the draft -- it says draft; but it Q. Do you see in the second paragraph development of 5 also appears to say may not reflect ACFS views. 5 the plan? 6 **Q.** And further down the page there's a section 6 A. I do. 7 called Disclaimer. Do you see that? 7 Q. And read it to yourself; but it's -- the sentence 8 A. I do. 8 starts, modelers used ResSim, developed by the 9 Q. What does that disclaimer say? 9 USACE. Do you see that? 10 A. The views expressed in this report are those of 10 A. I do. 11 the authors and do not necessarily reflect the 11 **Q.** Is that the model you were just talking about 12 views of the ACFS or ACF Stakeholders or any 12 that relies on the unimpaired flow dataset? 13 other organization. 13 A. Yes. 14 Q. Now, I want to show you the document that was the 14 **Q.** Is it your understanding that the UIF's were used 15 final product of the ACF Stakeholders. Are 15 by ACFS to conduct this study? 16 16 you -- you have seen that before? A. I think they -- yes. I think that's right, based 17 A. I have. 17 on what they tell me here. 18 18 **Q.** And the Court has asked numerous witnesses **Q.** Now, can you go in the second paragraph of The 19 questions about it, so I figured we might as well 19 Audience there at the top of the page? 20 20 A. Yes. put it on the table. 21 21 Q. There is a section that starts with USACE has a It's -- we have marked it as GX-1325. 22 22 MR. PRIMIS: And may I approach? large influence in how water moves within the ACF 23 23 Basin. Do you see that? BY MR. PRIMIS: 24 24 A. I do. Q. And before I turn to GX-1325, Mr. Turner, I 25 believe you were asked some questions about the 25 **Q.** Can you read the first few lines of that THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3032 3034 1 unimpaired flow dataset or the UIF's that were 1 paragraph to yourself, and then I have a question 2 2 being discussed at FX-534. for you. 3 Α. A. Yes. 3 Yes. 4 Q. Now, I don't want to have a technical discussion 4 **Q.** Mr. Turner, what is your understanding of the 5 about UIF's. I have had too many of those in 5 role of the Army Corps in the package of 6 6 recommendations that the ACF Stakeholders this case. 7 A. Good. 7 published in this plan? 8 8 **Q.** But just to set the table, what modeling exercise A. Well, I think they -- they set a group of 9 are UIF's used in? 9 recommendations to -- that had to be taken 10 10 A. Well, again, from a technical standpoint, I'm not together. They were very clear about that when 11 the best to answer that. But I just know -- I 11 they came to talk to me in person; but it's also 12 think that it's a dataset that the Corps uses to 12 very clear in the plan itself. Those 13 13 see what consumptive use is so that it can best recommendations, again, work together and had to 14 manage the system with the right data on 14 be taken together. And they all involved -- the 15 15 actions suggested involved changes in the Corps consumptive use. 16 **Q.** Does the Corps have a particular model that 16 operations for the basin. 17 relies on these unimpaired flow datasets? 17 Q. Mr. Turner, I want to take a step back now and 18 A. I think that model is ResSim. 18 turn to your period as director. 19 Q. Now, let's go to GX-1325, the ACF Stakeholders 19 Α. Okay. 20 Sustainable Water Management Plan. And can you 20 Q. And can you just remind the Court when did you 21 21 turn there to page 2. become director of Georgia's Environmental 22 22 A. Okay. Protection Division? Q. And you said you read this when it was published? 23 23 A. January 1, 2012. 24 A. I certainly read parts of it and the executive How long did you serve as director? 24 25 summary of it and discussed it. But, yes. 25 About four-and-a-half years until June 1 of this THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 23 of 87 sheets Page 3031 to 3034 of 3193 The Reporting Group (207) 797-6040

TRIAL - November 18, 2016 (Vol. XII) Florida v. Georgia 3035 3037 1 year, 2016. 1 before you became director of EPD? 2 **Q.** Now, as it relates to the issues in this case, 2 Α. I did. I was executive counsel to Governor 3 what were the key areas you focused on when you 3 Perdue at that first big drought that I dealt with, which was in the '07-'08 time frame. And 4 were at FPD? 5 A. As it relates to this case, there were really two 5 at that point we were -- obviously, all states 6 big buckets. The first was the work that related 6 were, A, involved in litigation with the Corps 7 to interfacing with the Corps of Engineers in its 7 over operational changes; and each state was 8 8 trying to get the Corps to do different things. various capacities to work on water supply issues 9 for metro Atlanta. So those -- those involved 9 But we were also trying to get the Corps in 10 10 consultation with Fish and Wildlife to initiate a updated water supply requests to the Corps, 11 suggested operations, changes, commenting on 11 drought operation for the basin. 12 their things. 12 And so that was my Baptism by fire in '07 and 13 And the other bucket was related to 13 '08, and I have stayed involved since. I was, 14 agricultural issues and drought management and 14 after my time with Governor Perdue, in private 15 sort of figuring out how to manage our various 15 practice, but was special executive counsel to 16 drought challenges in the agricultural region of 16 the Governor, and during that whole period sort 17 the state. 17 of learned water from the back end down, and then 18 18 Q. Mr. Turner, I'm going to come to both M & I and was special counsel to Governor Deal when he came 19 agriculture separately; and we'll discuss them in 19 in and, throughout that period, became kind of 20 20 a bit more detail. But just to set the stage, on the chief negotiator for Georgia in our -- some 21 21 the M & I front, what were your principal areas of our settlement discussions with Georgia and 22 22 of focus? Alabama. 23 A. On the M & I front, we were principally involved 23 Q. Mr. Turner, I want to turn now to your role in 24 in the data collection issues necessary to get to 24 connection with M & I, municipal and industrial 25 the Corps to help them with the job they had to 25 water use. I may have missed it, but I don't THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3036 3038 1 do, which was to update the operating system for 1 think you were asked any questions about your 2 2 all those federal reservoirs on the Chattahoochee role in the M & I space. Were you? 3 arm. We also worked on the various conservation 3 Α. Not that I recall. 4 issues in the basin, and there were several rule 4 **Q.** And that relates to the water use in metro 5 5 Atlanta. Correct? makings that we did to follow onto some statutory 6 A. That's right. changes in the metro area. Those were the 6 7 7 principal things. **Q.** Okay. So you mentioned the water supply request 8 **Q.** And what were the key issues you worked on in the 8 and the Army Corps, and I think it's an important 9 9 agricultural sector? aspect of the role of water management for the 10 10 A. So in the agricultural sector, we were clearly State. So can you please explain to the Court 11 confronted with that right out of the gate, as we 11 what you mean when you talk about this water 12 12 just talked about with Mr. Perry. So we managed supply request. 13 13 A. really in those droughts and dealt both with the Sure. It's -- as part of the Corps of Engineers' Flint River Drought Protection Act as it existed 14 14 job, they have to balance multiple 15 at the time; and then I was heavily involved in 15 federally-authorized purposes. And one of those 16 the passage and the amendments to that statute, 16 is water supply. So what we did a lot of work 17 which happened in 2014. 17 with the Corps on was not just to give them the 18 And all through that, which I would -- I 18 raw data; here is what we need -- and, of course, 19 would describe as potential changes to the Act, 19 we did that. We did that by giving them the 20 but just options that we might -- that we might 20 latest on our population and our per capita use 21 engage in to manage, we were looking at these 21 and the projections as we saw them to what we 22 other things we might do to help manage our way 22 were going to need out over a planning horizon.

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through these droughts in the southwest portion

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

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of the state.

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

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

that need on the resource and provide those data

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to the Corps so they could look at balancing the multiple purposes, and they could look at the impact of our request.

- Q. Mr. Turner, you mentioned water supply. And I
  think it's obvious to those of us who have been
  involved in the case for a long time, but can you
  explain what water supply is and how it relates
  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.
- Q. And so when you say water supply, what are youtalking about? What does the Corps do?
- A. When I say water supply, the Corps -- there are
   two ways that's applicable to -- for the way the

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that from Lake Lanier without going through theCorps?

A. No. The Corps controls the facility itself. EPD
 controls withdrawal permits, but the ability to
 get that amount of withdrawal out of the lake
 requires the Corps' consent and an easement to do

it. And so it's not a decision by the State.

8 Q. So how do you go about getting that approval from9 the Corps to get water for, say, metro Atlanta?

A. So the first thing the Corps needs is, as I mentioned before, they need accurate information on what population, what M & I amount of withdrawal you need. But they also need the other important component of that, which is the return of that water.

So on the -- in the M & I world we return a great deal of that water. We treat it and put it back in either the lake or the river. And all of those return rates impact the actual consumptive use. And that net impact of withdrawals is what the Corps needs to know in order to model our request and determine whether they can, indeed, give Georgia what Georgia has asked for or not.

Q. Does the Corps just give you -- give the State
 what Georgia asked for, or is there some sort of
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Corps operates the system. The first, how much water do you need out of the lake itself? How much storage needs to be dedicated in the lake to water supply?

And then, secondly, as the Corps operates the dams to release water downstream, how much do you -- how much does the region need to take out of the river below? And so the Corps needs to look at can it operate the dams such to give that flow downstream sufficient to meet the projected needs of the region.

So it's really -- it's a withdrawal request; but it's storage in the lakes, but it's dam operation to allow the water to come out below 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?
- A. It -- oh, it's used for municipal and industrial
  use, which is for residential use and the faucet
  we turn on here; but also industrial uses for all
  the companies that use water in their processing
  procedures.
- Q. Now, when the metro Atlanta area needs water
   supply for showers and cooking and all the other
   things you use water for, can it just withdraw

THE REPORTING GROUP Mason & Lockhart review process?

A. I would say it's a rigorous review process. And
 we have not just gotten what we asked for, not
 yet anyway.

**Q.** What happens if Georgia submitted projections
the Corps didn't agree with or thought were
unreasonable?

A. Well, I think it's -- it's very clear they wouldn't just grant them. They would -- they rejected a water supply request based on improper reading of their authority, but they have already rejected a water supply request from Georgia before. And then in the drought years, they pretty much gave us less than what we had asked for originally.

But we have since reduced our request because we're seeing some good conservation numbers. So, actually, what they thought they could provide for us in this draft is more than we needed slightly. So -- but they don't just give it to you. It's a rigorous process to check our numbers.

Q. Mr. Turner, have you personally been involved in
 formulating Georgia's water supply request to the
 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 had -- had ruled in the summer of 2011 correcting the Corps of Engineers' understanding of its authority. And the reason that's relevant is

9 10 11 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.

> So what the Corps did is they went back -- it took them a year. The Court gave them a year. And the Corps came back and said, we can grant this request; but we need -- now, as a matter of law, we can grant this request; but we still need accurate and new information from Georgia. And they asked Georgia to renew its request. It had been 12 or 13 years.

So in 2013 after they said that in mid-2012,

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BY MR. PRIMIS:

2 Q. Mr. Turner, could you identify JX-86 for the

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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

Wei Zeng. That composed the request.

9 **Q.** How much water did Georgia request in 2013 from

10 the Army Corps?

11 Α. 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 Α. 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 THE REPORTING GROUP

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for about six months we had to really update our

request. And we did that in January of 2013. **Q.** And when you submitted that updated request in

January of 2013, can you describe the process

5 that EPD went through and who was involved?

A. Sure. So it's a pretty big staff, and a lot of that effort was done in coordination with the chief hydrologist, Wei Zeng, other -- Gail Cowie, who you have heard from here; and then we used -we coordinated with our planning region, particularly the Metro Planning District, to get some of the data on current water use and population projection growth in order to then take those data and model what impacts our use

So we get that raw information from our planning district, but then our team does a good deal of work analyzing that data and providing 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?

would have on the system.

23 A. There is.

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24 MR. PRIMIS: Your Honor, can I approach? 25 We have JX-86.

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1 appreciation of how the water supply request is

2 structured, JX-86, can you just by page just point us to the key documents here. We won't go

3 4 through them in great detail, but just so we can

5 see how it's constructed.

A. So, sure. That first page is the Governor's sort 6 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 Α. That's right.

21 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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3049 1 used a different gallons per capita estimate in 1 and update our request to the Corps in 2015. 2 2000. It was higher, 148. And by this point in 2 Q. Mr. Turner, I think you said that the State of 3 time, we -- we had -- given the various measures 3 Georgia's volume of water requested for the metro 4 that had been put in place by Georgia and some 4 Atlanta region went down in the 2015 request from 5 changes in population, we thought that number was 5 the 2013 request. Did I get that right? 6 going to go down to 135. Of course, it's gone 6 Α. You did. It went down. 7 down much more than that; but at that time we 7 Can you tell the Court by how much Georgia 8 8 thought 135. reduced its water request in the update? 9 So we were -- we're recounting that for the 9 The request now has a range in it because there's 10 10 Corps. That's what we see in the data. some issue of how much water would be needed from 11 Q. And is this also where you outline the District's 11 the river below the lake due to one of the big 12 12 counties and where they would be withdrawing. water conservation measures? 13 A. We do that, yes. We talk about that. 13 But the delta now went down from between at a 14 Q. You said that you revised the State of Georgia's 14 minimum about 84-85 million gallons a day to as 15 request to the Army Corps in 2015. Correct? 15 much as 108 million gallons a day. 16 16 A. We did. **Q.** Was that a significant reduction in your view? 17 Q. Why did you do that? 17 Α. Yes. 18 18 A. There were two reasons. We -- our planning Q. And can you make clear why did the request go 19 process was occurring. And so the Metro District 19 down? What caused the demand to be reduced? 20 20 was engaged in its normal course of planning and Α. The biggest driver was in my estimation those 21 21 updating its plan. The plan we had relied on gallons per capita. The conservation work we 22 22 in -- and the projections we had relied on in the have been doing in the region, what we're seeing 23 23 2013 water supply request were for Atlanta. And in terms of actual consumptive use on the M & I 24 we had looked at some new population before 2013, side per capita had really dropped significantly. 24 25 25 but the actual work of the District was '09. We did updates on population numbers, but the THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3048 3050 1 In 2015 in August in part of their planning 1 combination of those two things projected a 2 2 process, the Metro District provided to me an significantly less amount of water needed out 3 update of the needs -- the water supply needs for 3 through 2045 by the region. Q. Mr. Turner, you mentioned conservation efforts. 4 the metro area. And that number came down 4 5 5 significantly. And we felt that we needed to And we have a witness coming next week, Ms. Katie 6 give that information to the Corps because we 6 Kirkpatrick; and she's with the Metro North Water 7 7 needed less water through 2040. District. So we'll get the detail on that. But 8 And the reason that was urgent was that the 8 since you were director, I just want to get from 9 9 Corps was engaged in updating the Water Control your perspective what were some of the key 10 10 Manual and a draft was due out soon. So we made conservation measures that caused water use to 11 11 an effort to, first, tell the Corps of those -decline so much in the Atlanta metro region? 12 12 of those data and what we were seeing; and then Α. Well, these -- many of these measures take time 13 13 we formalized all that in a fully updated request to mature. And so I -- as I -- there again, I 14 in 2015. 14 think you're going to hear from Ms. Kirkpatrick 15 Q. Is there a document that indicates Georgia's 15 that will give you a lot of the detail. But from 16 16 updated request? my perspective, the work that was done by the 17 17 A. Yes. I think it's December 2015. Metro District even before some of the state 18 MR. PRIMIS: Your Honor, may I approach? 18 statutory changes, particularly around 19 SPECIAL MASTER LANCASTER: Please. 19 conservation pricing, I think have had a real 20 BY MR. PRIMIS: 20 impact on water use. And then the big mover for 21 Q. Mr. Turner, I'm handing you JX-126. Can you 21 me was the Stewardship Act that was passed by the 22 identify JX-126 for the Court, please. 22 State in 2010 that had elements that I think have 23 A. Yes. I believe this is when we were able to work 23 really started to produce fruit. 24 through all the new needs projections and the 24 And the big one that sticks out to me is that 25 25 update of different projections on return flows outdoor -- the change in the outdoor watering THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

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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?

> Does -- during your tenure at EPD, did you do anything to address outdoor water use in the Atlanta metro area that relates to the drought management rules?

A. So once the Stewardship Act passed -- and the biggest change was the one I mentioned in terms of the drought rule. We had a previous drought rule that was effective. We had to use it during the 2007-2008 drought. But it was outdated because it didn't sync with the new changes on outdoor watering in particular that were in the Stewardship Act.

So we did pass two regulations at EPD when I was director. One was an updated drought rule, and one was an updated what we call efficiency rule, which picked up on another key piece of the Stewardship Act which dealt with water loss

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1 that period.

2 Q. And did you say the State is now at drought 3 level 2?

A. The state is at drought level 2. 4

5 Q. Okay. I want to shift gears now and talk about 6 the drought in 2012 and how that affected 7 agriculture.

> MR. PRIMIS: Your Honor, I think I could go for another 15, 20 minutes and then have a natural breaking point, if that makes sense? 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

that?

22 A. I do.

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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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from infrastructure -- in water providers'

3 **Q.** Now, on these drought management rules that were updated, you mentioned there's three levels.

Correct?

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6 A. That's correct.

infrastructure.

7 **Q.** Can you describe for the Court how that works.

A. So the EPD, in consultation with a number of experts, is supposed to be monitoring -- and they are -- the conditions. And as things dry out, the rule calls for a series of progressive drought levels to be declared. And so they declare drought level 1. So we have drought level 1, which is a really -- is designed to be very -- to encourage transparency and getting out to the public that, hey, things are drying out. But there is no regulatory action that kicks in in drought level 1.

Drought level 2, outdoor watering is restricted to two days a week; and those alternate based on the different set of rules.

And then the drought level 3 is the -- is the -- the final level in which, based on the geography that the director sets for the drought level 3, it's a total outdoor watering ban during

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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

projections were troubling; and that was what 4 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 dime, as we saw this year. And Director Barnes 12 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 THE REPORTING GROUP

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TRIAL - November 18, 2016 (Vol. XII) 3055 3057 1 got there in 2012? already that there wasn't going to be a lot of 2 2 A. I was confronted with the situation where it was surface water irrigation anyway. 3 not -- I mean, that really -- the question of 3 Q. Florida has suggested that you didn't declare a 4 whether we were in a drought was pretty clear to drought because you didn't have the funding, and 5 me. I mean, we had a very dry winter. So it's 5 it was too expensive. Is that your take, 6 one thing to have a dry summer; it's another 6 Mr. Turner? 7 thing to have a dry recharge period. And we had 7 No. It is true that we didn't have the funding, 8 8 and it is true that we were open about that. But 9 Q. Can you pause and just explain why that's 9 the cause for not having the funding is not 10 important. What happens in winter with the 10 having any confidence that it would work. I 11 Floridan Aquifer in a normal year? 11 could have gone and gotten -- I mean, I don't 12 A. Sure. The Floridan is a really great resource 12 want to overspeak here. I have a role. And the 13 for water for everybody. And the Floridan 13 legislature appropriates funds. I could have 14 extends under the State of Florida, too. It 14 gone over there and really sought to receive 15 recharges like very few aquifers I know of in the 15 those funds. But the key was going to be, is 16 16 country and the world. And so in the winter when this going to work? 17 you get normal rains or even a tropical storm in 17 And it was known by that point that some of 18 18 the summer or in the spring, it can really have a the deficiencies in the Act, the nonability to 19 significant impact on the aquifer. Because of 19 target the -- some of the things that -- and the 20 20 the deep sandy soils in Georgia that water passes conditions that I was talking about, I would have 21 21 through quickly and recharges the aquifer. really had to have shown the appropriators that 22 22 So why you want rain in the winter to fill up it was going to work. And I couldn't do that. 23 reservoirs -- like we think of in north Georgia, 23 Now, Mr. Turner, did you do anything else to you want rain in the winter to fill up the 24 24 address the 2012 drought? 25 25 aquifer in south Georgia. A. I did. In fact, you know, I think we forecasted THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3056 3058 Q. And what happened in the winter of 2011 leading 1 that in that press release because I knew when we 2 into 2012? 2 didn't declare a drought, I didn't want anybody 3 3 A. Right. So that was a very dry winter, and we did to think things were good in the basin. So we 4 not see that level of recharge. 4 told everybody why we weren't declaring the 5 5 **Q.** How did you go about deciding whether or not to drought. declare a drought under the Flint River Drought 6 6 And then the first big thing I did was 7 7 Protection Act when you arrived in 2012? suspend new applications for farm -- for 8 8 A. Well, they -- first, we had the normal course agricultural withdrawals in a large portion of 9 9 the Lower Flint Basin. where the staff provided me sort of resource 10 Q. Was that the moratorium? 10 assessments. And they gave me that information 11 11 A. Yes. in the normal course. And that really just 12 12 Q. confirmed what I knew to be the conditions. So Before we do that, I also want to ask you this 13 13 it became very little about was it going to get question. Mr. Turner, there's been a suggestion 14 better, was it going to be the end of the 14 that you weren't transparent in your press 15 drought; and it was wholly about how does this 15 release announcing that you weren't going to 16 Act work? If we trigger this, is it going to 16 declare the drought. Do you have a response to 17 produce a benefit? 17 A. Yes. I mean, I -- I took that press release very 18 And that became my focus. 18 19 **Q.** But what did you ultimately decide to do? 19 seriously and wrote much of it myself. And I 20 A. I ultimately decided not to trigger the Act. And 20 thought I was transparent both to the conditions 21 I did that because I -- the consensus of staff 21 were dry, that this -- the reason we weren't 22 was for two different reasons that the Act wasn't 22 declaring was not a hydrologic condition; it was 23 23 going to have the desired effect on streamflows. a challenge with the tool as it existed. I think 24 One was because of the depletion of the aquifer, 24 I told them about the financial situation and 25 and the other because streamflows were so low 25 explained as best I could tightly why we weren't THE REPORTING GROUP THE REPORTING GROUP

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3059 3061 1 doing it. And so I think we were quite A. It is. 2 transparent. 2 Q. And in your view as the EPD director who adopted 3 Q. Mr. Turner, I want to turn to the moratorium and 3 this, did it have beneficial effects? 4 show you a document. It's JX-73. 4 A. I think it absolutely has beneficial effects. I MR. PRIMIS: May I approach? think what we have now is essentially -- from a 6 BY MR. PRIMIS: 6 permanent acres standpoint, we have really capped 7 Q. Can you please identify JX-73 for the Court. 7 acreage in the basin. 8 8 Q. Mr. Turner, turning to the Flint River Drought A. Yes. This is the document in which I announced 9 the suspension of any consideration of new 9 Protection Act amendments, you were asked about 10 applications filed after this date. 10 that on cross. You didn't declare a drought 11 Q. Can you explain how the moratorium worked. 11 under the Act in 2012 for the reasons you have 12 And for the record, what date -- this was 12 explained. But did you take any steps to address 13 July 30, 2012? 13 what you identified as some shortcomings in the 14 A. That's right. 14 Act? 15 Q. Okay. What -- what were you doing in this memo? 15 Α. Yes. So that was very much a large part of 2012 16 16 How did it work? was to say, okay, since this statute didn't --17 A. It worked by basically announcing that the 17 wasn't employable in the way I thought, what can 18 18 regulatory action was not to consider new we do. 19 permits. Everybody that was already -- had an 19 So we worked not only on this suspension, but 20 20 application in-house had certain -- and several we looked at amendments -- we looked at some 21 21 of those applications were well along in the bigger, some more longer-term things that 22 22 Mr. Perry asked me about as well. But we also process, and resources had been expended through 23 23 the letter of concurrence process to get the looked at what we could do to amend the statute in the next session, which would have been --24 24 properties of wells. So you had -- you had 25 25 which was the 2013 session. applications in various stages in-house, so that THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3060 3062 1 this action suspended anything filed with the 1 Q. And what steps -- what were the amendments that 2 State after that date. 2 were adopted? 3 And it had two principal regions where it 3 Α. There were three basic amendments. One we talked 4 applied, a groundwater geographic region and a 4 about earlier, the shall to may. And we talked 5 5 surface water area that extended a little beyond about the irrigation efficiencies as the second. 6 the groundwater area because it extended to some 6 The one we didn't touch on was we made clear how 7 7 stretches that didn't have the Floridan under it. it would work if the State managed through the --8 The groundwater suspension was where it --8 helped manage through the drought by augmenting 9 9 largely where the Floridan Aquifer is. water like we do in the Spring Creek pilot. 10 10 **Q.** Are the regions you targeted identified on the If we need to talk about that, we can. But 11 11 second page of this document? we have this pilot project with Fish and Wildlife 12 12 A. They are. where we do some groundwater augmentation in 13 13 **Q.** And can you describe that map? Spring Creek. I was thinking at the time what if 14 I think the Court may be looking at it. 14 we need to do this in a number of places, in a 15 15 number of stretches in the basin? And if we do A. Yes. This is a graphical -- a geographical 16 depiction of the area of the suspension. And so 16 that, we need to be clear that when the State 17 the lighter -- the lighter-shaded region is where 17 puts some water in the river for protected 18 both surface water and groundwater applications 18 mussels, let's say, that nobody that has a 19 are suspended. And then the darker-shaded in the 19 pre-existing withdrawal permit could take that 20 sort of the left-hand -- upper left part is just 20 21 where surface water was suspended because there's 21 So it was -- that's really what I mean by 22 22 not a Floridan Aquifer that's interacting with modest. That was an effort to help manage in 23 23 surface water there. that drought. 24 24 **Q.** Is this moratorium on new permits still in place, Now, we ultimately didn't pass these until 25 25 Mr. Turner? 2014. It started raining again. But that tool THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3063 3065 1 is in place today that will also need to be (Time Noted: 11:50 a.m.) 2 2 looked at by a director should there need to be (Recess Called) 3 some augmentation done to manage in the coming (Time Noted: 12:44 p.m.) months. BY MR. PRIMIS: 5 Q. Mr. Turner, Florida has made the assertion here 5 Q. Good afternoon, Mr. Turner. 6 that this switch of will to may in the language 6 Α. Good afternoon. 7 of the Act -- and I think it was up on the 7 Before the break, we were talking about the 8 8 screen -- was the death blow to the FRDPA. amendments to the Flint River Drought Protection 9 That's how they described it in their brief. 9 Act. And now, I want to turn to the additional 10 10 What's your view on whether the amendments management tools that you evaluated in addition 11 you proposed were a death blow to the Act? 11 to amending the Act. Can you summarize what 12 A. I think not amending the Act, not working on the 12 those are. 13 Act would make it less effective, more like a 13 Α. Sure. We were -- while we were looking at those 14 death blow. I think these were improvements to 14 amendments and what we could accomplish in the 15 the statute that -- the shall to may was just a 15 short term in terms of changing the statute, we 16 clarification thing related to how the Act was 16 started looking at this idea of moving users down 17 already being implemented by directors before. 17 to the lower aquifers. And that has an -- had 18 So I think it was just a clarification. And the 18 and has a lot of promise. And we -- we looked at 19 other two things we described are nice 19 how many could go down there. That's really the 20 20 amendments. question. 21 21 And then there are future amendments It's, I think, fairly clear our understanding 22 22 potentially; but, no, not a death blow to the of these aquifers has really grown over the 23 23 Act. years; and we now have a pretty good feel for the 24 Q. And those other things that you identified as 24 fact that those lower aquifers are separate and 25 25 nice amendments, can you just make clear what you would be a good source. But it's really a THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3064 3066 1 were talking about. 1 question of how much is down there. 2 A. The irrigation efficiency, I think, is a very 2 So we started there. We were looking at 3 good, long-term impact. And, again, we had good 3 that. And at the same time, we looked at 4 adoption -- good adoption in the basin. And not 4 augmentation. So one side is sort of moving 5 5 only in the basin, in those critical -- in those people from a -- which would have the effect of 6 less utilization on those surface and Floridan capacity use areas where our previous plan -- '06 6 7 7 plan showed us were important interactive regions resources; and then we also looked at could we 8 between groundwater and surface water. 8 augment flows into the streams during droughts? 9 9 Could we pull it out? And the other piece was the augmentation 10 10 piece. It's a -- again, it's not going to be the And we did look at ASR and are still looking 11 11 kind of flows that would produce big numbers to at that as well as direct groundwater 12 12 Seminole. But these are the kind of things that augmentation. 13 13 a director may need to look at for the very Q. And ASR, just briefly -- we have heard it before, 14 mussel species in this Wildlife Action Plan we 14 but just to make sure we're clear? 15 15 just talked about. There could be key stretches Α. ASR, aquifer storage and recovery. And you take where the State needs to do some groundwater work 16 16 a source water -- and what we were thinking here 17 17 would be Floridan water -- when it's wet, when like we did in Spring Creek. 18 Q. Thank you, Mr. Turner. 18 it's not as needed and it's full, and inject it 19 MR. PRIMIS: Your Honor, this is 19 into those lower aguifers where it won't drift 20 probably a good point to take a break. I 20 off very fast because they're in tight sand 21 wouldn't be much longer after lunch, but I 21 aguifers. And then you would pull it back out in 22 think it's wise to break now. 22 a drought and potentially augment a stream -- we 23 23 MR. PERRY: That's fine with us, your use the word augment, but put it in a stream for 24 Honor. 24 25 SPECIAL MASTER LANCASTER: Thank you. 25 Or you might also move irrigators from a THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3069 1 Floridan or surface water to that ASR field and 1 Α. Okay. 2 let them irrigate out of the lower aquifers. 2 Q. And you mentioned that you assisted Governor 3 Q. Mr. Turner, are these maneuvers or options like 3 Perdue in monitoring litigation between Florida, 4 moving to a lower aguifer or ASR, are those Georgia, Alabama, and the U. S. Army Corps; is 5 simple to do; or are they complex? 5 that right? 6 A. They are complex. These are -- again, I 6 Α. That's right. 7 mentioned a little bit that our knowledge about 7 What was your involvement in that litigation? 8 8 these lower aquifers has grown. There was a Well, as executive counsel to Governor Perdue and 9 time, I think in the Director Reheis era, when we 9 Georgia, at any rate, the Governor has a couple 10 10 didn't think there was any safe yield down there of lawyers typically in his office. And I was 11 to speak of. But we do think there's some, but 11 the executive counsel. And so even though I 12 we need to be careful. 12 wasn't counsel of record in these matters, I 13 And so we have been putting in test wells 13 worked fairly closely with outside counsel, 14 around. And what we're learning is that the 14 particularly as the drought came on, because not 15 lower aquifers aren't uniform. So you might put 15 only were we involved in the litigation as it was 16 in one test well, and as close as 9 miles apart 16 progressing, but negotiations with the Army 17 get totally different productivity. So all of 17 Corps, Fish and Wildlife over drought operations, 18 18 that goes to yield. All of that goes to safe and also discussions with our sister states about 19 yield, what we can put down there. 19 settlement, but also on just about what to do. 20 20 Q. Mr. Turner, do you have an understanding of the So it's complex, and we have got to study it. 21 21 We have to get it right before we move on it. key issues in that prior litigation between the 22 22 States and the Corps? Q. Mr. Turner, you were here in court for 23 23 Dr. Sunding's testimony; is that right? Α. I do. 24 24 Q. And can you just -- at a very high level, but A. I was. 25 **Q.** And as he laid out the options for -- options 25 just kind of lay out a roadmap of how that THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3068 3070 1 similar to what you're discussing, did you see 1 litigation unfolded for the Court so they can 2 2 him do that? understand where we have been. 3 3 A. I did. Α. Sure. By this point, again, I know you have 4 Q. And did you have a reaction to his assertion that 4 heard some testimony about the -- what started 5 5 there were significant benefits at low cost from all of the tri-state litigation way back in 1990 6 6 and how the Compact developed and how some of the the items that you have discussed? 7 7 A. My reaction to some of his discussion, issues that were involved in those -- in that 8 particularly even around this particular one, 8 era. But if you get to about '06 -- 2006, '7, 9 9 moving people around, is both -- that he's and '8, we -- by that point we had multiple 10 10 underestimating the cost of those. These -- the lawsuits filed by the different states against 11 11 deeper you go -- this makes some common sense. the Army Corps of Engineers in different federal 12 12 courts. So we had a lot of litigation about both The deeper you go, the more expensive it is. So 13 13 what Lake Lanier was authorized to provide when moving people down is expensive. 14 The other thing is just the benefits. We --14 Congress passed that authorizing legislation in 15 15 as important as these options are, the things I 1946, and then it had a whole -- we had a whole 16 16 have seen have been -- even that document we -separate set of cases relating to the Endangered 17 17 Mr. Perry asked me about showed some streamflow Species Act issues that were -- that, again, all 18 benefits to moving down the number of people we 18 these were directed at the Corps to change 19 were looking at or number of permittees we were 19 operations or to accommodate in one way or the 20 looking at; but these are maximum months in the 20 other related to those legal issues. 21 130 cfs category. So these are a lot smaller 21 Q. Mr. Turner, when you were back working for 22 22 benefits than what Dr. Sunding was projecting. Governor Perdue and then Governor Deal in that 23 23 Q. Mr. Turner, I want to shift gears now and ask you executive capacity, did you become aware of the 24 about the time when you were working for Governor 24 positions that the parties were taking in those 25 25 Perdue. Okay? cases? THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3071 3073 1 A. I did. Q. Why did you select this legal argument from 2 2 **Q.** Have you summarized that in your written direct Florida to include in your direct testimony as an 3 testimony? 3 example of what Florida was arguing? What are 4 A. I have. I tried to do that in a -- I think in my 4 they saying here? 5 written direct on page 5, starting with 5 Α. This one sort of encapsulates it all because we 6 paragraphs 22, really through about paragraphs 6 had all these different stages of litigations. 7 40, I think. 7 Sometimes it was embedded in -- and you can 8 8 find the same argument embedded in phase 1 and Yes, through paragraphs 40. 9 Q. So I want to focus you in particular around 9 phase 2, the different stages of the litigation 10 paragraph 32. And the Court has it obviously, 10 that we had before Judge Magnuson when all the 11 and it was provided here, Mr. Turner, so I don't 11 federal cases were consolidated through the MDL. 12 want you to go through it all chapter and verse. 12 But this one really demonstrates that the 13 But while you're here live, can you just 13 claims Florida was making back then were about 14 summarize your recollection of what Florida was 14 everything we're dealing with in this case. 15 telling the federal courts about what harm it was 15 There's not a group of species or ecological harm 16 experiencing and who was responsible for that. 16 that they weren't complaining about then. And 17 MR. PERRY: Objection, calls for 17 that includes river and bay. Even though the bay 18 hearsay. 18 didn't have the sort of Endangered Species Act 19 A. Well, sure. I think the -- the principal legal 19 issues that the river did, they -- all of that 20 20 issues involved were -- because this was -- these was before the Court. And they were saying --21 21 were lawsuits against the Corps, Florida wanted you know, and the main quote here is the 22 22 changes in operations that would produce more resulting low flow conditions lead to devastating 23 23 flow. And they certainly took positions about consequences for the ecology and species of the 24 24 Georgia's consumption during that time. But what Apalachicola River and the Bay. 25 is significant is not only did they talk about 25 Q. And, Mr. Turner, what remedy was Florida trying THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3072 3074 1 the species we're dealing with today, all of 1 to obtain from the Corps for that harm, those 2 2 those were at issue and were referenced in these devastating consequences that they were telling 3 cases, but the remedies sought by Florida during 3 the U.S. Supreme Court about? 4 A. The remedy they wanted was a change in the Corps' those cases was for the Corps not just to release 4 5 5 more water -- I think this is significant -operation to give them more flows. And 6 6 their complaint was that -- that the Corps was particularly, they didn't like aspects of the 7 7 storing too much water. It was an operational storage regime, storage procedures that the Corps 8 issue. And they certainly wanted more water, 8 uses in its operating plan. 9 9 Q. Mr. Turner, a final topic. Mr. Perry asked you which they claimed would alleviate harm; but it 10 10 was all based on the fact that the way the Corps about prior efforts to resolve the disputes 11 11 operates in the summer and in droughts, it's between the states. Do you recall that? 12 12 A. I do. storing too much water up in the basin. And it's 13 13 doing it improperly. That was -- that was their Q. And I have the same ground rule he did, 2015, 14 claim. 14 2016 is off limits; we're not going to talk about 15 Q. Mr. Turner, did the State of Florida make that 15 that. But you were involved in negotiations in 16 type of argument to the U.S. Supreme Court? 16 2012. Correct? 17 A. They did. They -- I know they -- when they 17 A. I was. 18 appealed the 11th Circuit's decision, they made 18 Q. And can you describe how the role of the Corps 19 much the same argument to the Supreme Court. 19 played into the negotiations you were involved in 20 Q. Can you turn to paragraph 34 of your testimony --20 21 and give the Court a moment to catch up -- and 21 A. Yes. And I would say the role of the Corps is 22 22 take a look and read paragraph 34, if you can, similar in every time I have been involved in 23 23 Mr. Turner. And then I'm going to ask you some negotiations over the last 10 years. But it --24 questions about it. 24 and specifically in 2012, which I think was as 25 25 A. Okay. close as we have gotten in my opinion -- in my 10 THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3077 1 years we were -- we were talking to each other 1 to get a thousand to 2,000 cfs additional 2 2 about state line flows. streamflow at peak summer months from Georgia. **Q.** Who is the we you just referenced? 3 3 Right? You heard that? 4 A. Very good. A. I did. The State of Georgia and the negotiators on 5 Q. Mr. Turner, given your decade of experience in 6 behalf of the State of Georgia and the 6 dealing with these water issues and the prior 7 negotiators on behalf of the State of Florida 7 negotiations, what's your view on whether what 8 were negotiating on a platform that was the 8 Dr. Sunding was talking about is feasible without 9 change in Corps operations. So everything we 9 the support and involvement of the U.S. Army 10 negotiated on was based on what changes to the 10 11 Revised Interim Operating Plan of the Corps could 11 Α. I don't think it's feasible. I don't think it's 12 we agree to to then turn, as both states in 12 possible without the Corps. You know, a thousand 13 agreement, and go to the Corps and say, okay, if 13 cfs like we were talking about was totally 14 you can do the following things, we can raise the 14 contingent on the Corps changing operations. 15 minimum flow at the state line and get what would 15 We looked at this ACFS Stakeholders plan. 16 have the -- what would have the effect of getting 16 Those 50-some-odd stakeholders that worked on 17 Florida more water during certain times of the 17 this said the only way to do this is to change 18 year. 18 Corps operations to give some more water. And 19 Because this whole thing -- you understand 19 so any notion that we would have these cuts 20 20 the way the system works. It's not about the that would produce flows that would eventually 21 volume of water. In the winter when it's raining 21 get to Florida, that won't happen unless 22 22 and we're in flood control operation in the there's a change in the Corps operations to 23 23 reservoirs in a wet winter, it's doing down and do that. Q. Thank you, Mr. Turner. 24 24 into the Gulf of Mexico. And we're just trying 25 to express the water. It's about timing and 25 MR. PERRY: Good afternoon, your Honor. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3076 3078 1 flow. And so these negotiations were all about 1 SPECIAL MASTER LANCASTER: Good 2 can we raise the minimum, is the only way, 2 afternoon, Mr. Perry. 3 through the Corps to guarantee Florida increased 3 **RECROSS-EXAMINATION** 4 flows in drought in the summer. 4 BY MR. PERRY: 5 5 Q. Mr. Turner. And we were negotiating on that chassis of 6 the RIOP, the Corps' operations. 6 A. Mr. Perry. 7 Q. Was there an amount that Georgia was willing to 7 **Q.** In your binder could you please turn back to tab 22. 8 go with Florida to the Corps to advocate for to 8 Α. Yes. 9 9  ${\bf Q.}\;\;$  Now, I believe you just testified a few -- maybe increase minimum flow? 10 10 A. There was. We -- we proposed a series of steps it was about an hour ago, before lunch, that it 11 11 phased in over a 12-year period that would give was your intent to be completely transparent when 12 12 Florida at the end of that phase-in -- now, to be you put this document together that is JX-69 --13 13 clear, it was conditioned on changes in the way it's the press release -- right? 14 the Corps did things, but those -- those changes, 14 A. That's correct. Yes. 15 once they were brought -- came on line, would 15 Q. And you write, don't you, that EPD has analyzed 16 trigger periodic increases. 16 data on streamflows and has determined that a 17 And so we proposed to get Florida ultimately, 17 reduction in irrigation that might be achievable 18 when it was all phased in, an increase from that 18 would have a negligible impact on surface water 19 5,000 minimum flow number we talked about, to 6. 19 flows this year. 20 Q. Did Georgia make that offer? 20 A. Yes. 21 21 A. We did. MR. PERRY: Your Honor, if I might 22 Q. Did Florida respond to it? 22 approach to hand out an exhibit? 23 SPECIAL MASTER LANCASTER: Please. 23 A. They did not. 24 BY MR. PERRY: Q. In this case, I think you're aware if you saw 24 25 25 Q. Now, sir, I would like to focus on Florida Dr. Sunding, there are various measures proposing THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3081 3079 1 Exhibit 904 for a little bit here, if I **Q.** For whom does that person work? 2 could. And let's just start with the To: and 2 Α. Works for Wei. 3 From: lines, please. 3 Okay. So they would have been doing modeling 4 Nap Caldwell, who sent this exhibit, is work. Right? 5 Napoleon Caldwell; is that right? 5 Right. Dr. Kennedy did work and our hydrological 6 A. That's right. 6 unit did work. So how they worked together, they 7 Q. And Napoleon Caldwell wrote a memo that we 7 would have been involved with it. Exactly who 8 discussed in this case, Florida Exhibit 85, I 8 did what I wouldn't be able to tell you. 9 believe it was. But I think you remember it was 9 Q. Did you see here in this paragraph that their 10 called the fodder document? 10 work could only justify a conclusion that you 11 A. I remember us talking about that in my 11 would not have streamflow benefits from 12 deposition. 12 suspending irrigation in Spring Creek? 13 **Q.** And Mr. Caldwell's advice was to be forthright. 13 A. I see that this note says that. It's the first 14 Do you remember that? 14 time I have seen this. But I see that it says 15 A. He talked about being forthright in that internal 15 that. 16 **Q.** And, of course, Spring Creek is only a sub-basin 16 document, yes. 17 17 **Q.** Okay. And Linda McGregor in the To: line is also in the Lower Flint; isn't it? 18 18 employed by EPD; is that right? Right. It's a tributary. 19 A. She was. At the time she was the water branch 19 But your carefully-drafted press release is much 20 20 chief. She's since moved in her career to broader than that; isn't it? 21 21 A. Yes. another -- she's not with the State anymore. 22 22 Q. And then Mr. Chambers and Dr. Gail Cowie were at **Q.** And if you read the sentence after what I just 23 EPD when you were director; is that right? 23 referred to, it says, we cannot make a similar 24 A. That's correct. 24 assertion elsewhere in the Flint because we do 25 Q. I would like, if you could, to please focus on 25 not have the data, and the data we do have do not THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3080 3082 1 the third paragraph of this letter. And in 1 support this conclusion. 2 2 particular I'm interested in the sentence that Do you see that, sir? 3 contains the text, we cannot conclude that there 3 A. I see that this e-mail says that. 4 is little or no flow benefit to suspending 4 **Q.** And, yet, you did make that assertion; didn't 5 5 irrigation elsewhere within the Lower Flint. So you? 6 Chambers is wondering (as Jud is likely to) 6 A. I did. Because the consensus of my staff when I 7 7 asked, if we do this, can you tell me if we have whether our narrative is now on thinner ice. 8 Do you see that, sir? 8 any confidence, because of everything you're 9 A. I have seen it. 9 telling me, that we go spend \$10 million, go get 10 **Q.** All right. Could you read to yourself the whole 10 the legislature to appropriate this, and we're 11 third paragraph of this e-mail, please. 11 going to go out to the river and we're going to 12 12 A. Okay. I have read it. see -- can you tell me we're going to see an inch 13 Q. Now, I would like to focus on the sentence in the 13 difference in any of these tributaries? 14 middle of that paragraph that begins with the 14 And the consensus of my staff -- I certainly 15 word also. It's about five or six lines down. 15 never saw this -- was, no, director, we cannot. 16 A. I see that. 16 Q. What's Kevin Chambers's job? 17 Q. Now, the name Wei appears there. Is that Wei 17 He is the press guy, the guy that kind of -- so 18 18 Zeng? he was involved, I think, in putting together the 19 A. Yes. 19 press release. 20 **Q.** He was the head modeler; is that right? 20 Q. And Nap Caldwell had specific responsibility over 21 21 A. Right. Ag permitting; is that correct? 22 22 **Q.** And Menghong? He did. 23 23 A. Menghong. **Q.** And Dr. Gail Cowie also had responsibility for **Q.** I'm sorry. I made some pronunciation errors. 24 the ACF Basin; is that right? A. I'm not sure I did that right either. 25 She was the assistant branch chief and had THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3085 1 specific responsibilities over sort of policy, 1 yourself, sir. 2 planning, in particular in the basin. 2 A. I see that. 3 **Q.** Do you recall any of those individuals, including Q. All right, sir. Do you see the text in the 4 Nap Caldwell, advising you to be forthright? middle of the first sentence that reads, ACFS 5 A. No. Because the memo you're talking about I have 5 considered undertaking the effort to improve the 6 only come to learn after the fact. Nobody that I UIF dataset. 7 recall said be forthright. That's -- that's what 7 Α. I see that. 8 we try to do every day; so I don't think that was 8 Q. And you know, don't you, that Dr. Georgakakos was 9 advice given to me. 9 receiving his funding in part from ACFS. Right? 10 You have talked about that line from that 10 A. I would assume so. 11 memo. And I hadn't seen that memo before we 11 Q. And then later it says, just after what I read, 12 prepared for this. But I think we were 12 however, given the time and monetary commitment 13 forthright in that press release. 13 to support this effort, and the time needed to 14 Q. All right, sir. Could you turn to tab 1 in your 14 coordinate with the three states, ACFS decided to 15 binder, please. Now, you recall, don't you, 15 proceed without improving that dataset; didn't 16 16 that this is the unimpaired flow assessment by 17 Dr. Georgakakos and the Georgia Water Resources 17 They must have had to determine what was most 18 Institute? 18 important, so they went forward with that --19 A. I recall that, yes. 19 doing that work. 20 20 Q. And Mr. Primis asked you about the Sustainable Q. All right. But you know, don't you, that 21 Water Management Plan. Do you remember that? 21 Dr. Zeng had the UIF assessment report from 22 A. I do. 22 Dr. Georgakakos on his desk as of 2013? 23 Q. Okay. Now, you know, don't you, that the 23 A. I don't know that. I didn't know that. 24 Sustainable Water Management Plan had a certain 24 Q. All right. And nobody advised you of 25 amount of budget. Right? 25 Dr. Georgakakos's proposal that funding be THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3084 3086 A. What's that now? 1 made available to improve and fix the dataset? 2 Q. The Sustainable Water Management Plan from ACF 2 A. I -- no. I don't recall a proposal specifically 3 Stakeholders only had a certain amount of 3 for more money to fix the dataset. budgetary funds available. Right? 4 Q. Now, Mr. Primis supplied you with two different 4 5 5 A. I don't know anyplace that doesn't have a limited submissions to the U.S. Army Corps; didn't he? Α. 6 budget, so -- but I wouldn't know anything about 6 7 7 Q. And one of them was at Joint Exhibit 86. their budgetary --8 Q. All right. Mr. Primis handed you GX-1325. Can Α. 8 Yes. 9 you sort through your materials and see if you 9 **Q.** Now, I'm still talking about the UIF dataset 10 10 have that, sir. that included Georgia's consumptive use 11 11 estimates; but I would like you to turn to A. Oh, yes. I have got it. 12 Q. Now, if I could, sir, I would like to refer you 12 page 1. It's actually the third page, but it's 13 13 labeled 1 of JX-86. to page 15 of Exhibit GX-1325. 14 A. Okav. 14 A. Yes. 15 Q. Now, there do you see that subtitle Review of 15 **Q.** And do you see your affidavit there? 16 Unimpaired Dataflow Sets? 16 Α. 17 A. I see that. 17 Q. Now, this is a January 2013 submission; isn't it? 18 Q. And you recall, don't you, your testimony earlier 18 Α. 19 that the unimpaired flow datasets include 19 And you rely in this submission upon work done by 20 20 Georgia's own estimates of their consumptive use. Dr. Zeng; don't you? 21 Right? 21 Α. Yes. 22 22 Q. And Dr. Zeng would have known at this time that A. Right. 23 23 the UIF dataset and Georgia's consumptive use had Q. All right. Now, if you go down to the second 24 paragraph on page 15 of GX-1325 that begins with been criticized by Dr. Georgakakos. Right? 24 25 after reviewing, could you read that paragraph to 25 Oh, I'm sure Wei knew about the criticism and had THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3089 1 firm opinions about whether it was valid. Q. All right. I believe you referred to this as 2 2 Q. But wouldn't you, as the director of Georgia EPD your moratorium document in 2012. Is that right? 3 signing an affidavit, want to get to the bottom 3 A. I think I first said suspension. And we have 4 of this issue before you sent this material to called it moratorium for short a number of times, 5 the U. S. Government? 5 6 A. Look, I think that what I did in this affidavit 6 Q. All right. That's fair. Let's go to the third 7 was rely on somebody I had a lot -- and still 7 paragraph from the bottom of the page, please. A. Yes. 8 do -- a lot of confidence in, Dr. Zeng. 8 9 And I know that you -- I know generally, as I 9 Q. If you could read that paragraph to yourself, I 10 mentioned before in my earlier testimony, that 10 would appreciate it. 11 the UIF issue was a very technically-detailed 11 Α. Okay. 12 thing that Dr. Zeng had a firm opinion on. And 12 Q. That's true, isn't it, that your suspension did 13 his advice I did, indeed, rely upon and still 13 not apply to applications that had already been 14 would. 14 received as of 2012. Right? 15 Q. And that's true also with respect to Joint 15 That's right. 16 16 Exhibit 126, which Mr. Primis gave you, which is **Q.** And a great number of applications were received 17 a -- another letter from Georgia EPD to the Army 17 in 2011 and 2012. Right? 18 Corps; isn't it? 18 A. I don't know the number. I have since looked at 19 A. Yes. 19 some -- some numbers; and there were several 20 20 **Q.** And by the time of this second letter that applications. Great number I don't -- I don't 21 21 Mr. Primis gave you to the Army Corps, there know what you qualify it as. 22 22 still hadn't been work to correct the systematic **Q.** It's true, isn't it, that in the Lower Flint 23 and random errors in the UIF dataset in Georgia's 23 Basin, the Environmental Protection Division granted permits totalling 70,000 new acres since 24 24 consumptive use information. Right? 25 A. There had not been work to correct that. Whether 25 the date of your suspension or moratorium. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3088 3090 1 it needed to be done for purposes of this 1 Right? 2 submission is a wholly different issue. 2 A. I don't know the number of acres. But when we 3 Q. All right, sir. You remember earlier when I was 3 did this, and my testimony throughout this has 4 first up we talked about the agricultural been that the suspension applied prospectively on 5 5 withdrawal section of FX-534, the UIF report, on applications received after that date. 6 6 **Q.** And there are quite a number of applications pages 9 through 10; don't you? 7 7 A. I remember that. received before that date that are still pending. 8 8 Q. All right. And I'm not taking your testimony to Right? 9 9 A. I don't know how many are still pending. I would mean that you don't have concerns about 10 10 think that number is coming down because most of inaccuracies in Georgia's estimate of 11 11 agricultural water use. Those things do them have been processed. I don't know that I --12 12 genuinely concern you; don't they? I don't know about most. 13 13 Q. Are you --A. I -- we have always wanted to do the best to 14 improve our datasets. That is a story on the 14 Α. At this point I would think most have been. 15 agricultural side of Georgia's management from 15 Q. Okay. I'm sorry for interrupting you, sir. 16 the metering database that we put in place all 16 Are you aware of statements by Georgia in 17 the way through the studies that we're doing 17 this case that it reviews whether or not to lift 18 today. So, no; accurate data is very, very 18 the suspension or moratorium every year in 19 important. 19 November? 20 Q. Are you considering now funding Dr. Georgakakos's 20 A. I know that when we first did this -- and I think 21 21 study proposal here? it's probably in this document -- yes, that is 22 22 A. Not that I'm aware of. what we said we would do is review it every year. 23 23 Q. Let's turn to Joint Exhibit 73, which Mr. Primis I also know that we have been asked about it a 24 24 number of times. And as we have wrestled with also handed you. 25 A. Got it. 25 this, we have really been clear that we're not THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3093 1 lifting it until we know if there's anyplace that 1 more than a thousand cfs every week in the 2 2 it could be. summer; wouldn't it? 3 **Q.** Now, sir, let's go back to the ACF Stakeholders 3 A. I have no -- no idea about that. I have not done 4 process one more time. And I asked you earlier that math. 5 today about Ms. Katherine Zitsch who works with 5 Q. All right, sir. Thank you. 6 the Atlanta Regional Commission of Atlanta --6 MR. PRIMIS: No further questions, your 7 Metro Atlanta Governments. Do you remember that? 7 Honor. 8 A. Yes. 8 SPECIAL MASTER LANCASTER: Mr. Director --9 Q. All right. Now, you're aware, aren't you, that 9 I'll call you Mr. and Director. 10 the ACF Stakeholders process is a consensus 10 THE WITNESS: Fair enough. 11 process. Right? 11 SPECIAL MASTER LANCASTER: I'm not sure 12 A. I am aware that that is the way they govern 12 whether you were here or not when I explained 13 themselves. 13 that I have to speak into this microphone, 14 **Q.** So if Ms. Zitsch opposed a particular 14 and so I won't be looking at you. 15 recommendation, there would be no consensus; 15 THE WITNESS: No problem. would there? 16 SPECIAL MASTER LANCASTER: I'm not 16 17 A. I see what you're asking. 17 trying to be rude. 18 18 I think the way it works is they would have You just were asked some questions about 19 to compromise with each other. They were very 19 the ACF Sustainable Water Management Plan. 20 20 proud that the only way to go forward was Can you tell me whether you approve or 21 21 disapprove of that plan? consensus. So you might -- there was a lot of 22 22 THE WITNESS: Yes, your Honor. We -opposition, I suspect, in the room. But, yes, 23 they wouldn't make a formal recommendation 23 there are some things in that plan that we 24 24 have been talking about for a long time that without everybody's vote. 25 **Q.** And that is the -- the formal recommendation is 25 we think are real commonsense changes to the THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3092 3094 1 what actually gets published. Right? 1 way the Corps operates. I cannot say that I 2 2 A. That is correct. have ever seen any scientific data to support 3 **Q.** And you know that there are records of some of 3 the 9,000 pulse flows. But if you're going those deliberations and Ms. Zitsch's opinion on to compromise and if you're going to do that, 4 4 5 5 whether or not to disseminate certain information you have got to change -- there are some 6 from that process. Don't you? 6 commonsense things to do with the Corps 7 A. I haven't reviewed any records of which you 7 operation to make for more storage. And so 8 8 speak. as a whole, there are some things in that 9 Q. All right. But you're also aware that the 9 plan that make some sense. 10 10 The reason -- there is a missing piece consensus that was reached even with Ms. Zitsch 11 on board was that the Apalachicola River and 11 of the plan, having negotiated these issues for 10 years; and that's -- and I think in 12 Apalachicola Bay should receive more water. 12 13 Right? 13 the plan they're clear on this. There's not 14 A. I think -- and this is what was made very clear 14 a drought trigger. There is not a what do we 15 to me when they reported out after the period of 15 do when we reach a drought worse than 16 confidentiality and told me what this was --16 history? 17 they, as a compromise matter, proposed a number 17 And when I saw that, when I first got 18 of changes; and one of the changes was pulse 18 the plan, I said, well, that's the part to 19 flow, two weeks in May, two weeks in July, they 19 negotiate. 20 20 provided more water to Florida. So the plan has got some really good 21 21 Q. Approximately 9,000 cfs at least during those things in it, but I think it's incomplete. 22 22 And I think they think it's incomplete periods. Right? 23 A. For two weeks in May and two weeks in July. 23 because they said that we still needed to do 24 **Q.** And if you were to parcel that same amount of 24 a drought trigger. 25 water out across the 2012 summer, that would be 25 SPECIAL MASTER LANCASTER: Apart from THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3095

the last comment, is there anything else that

you think needs to be put into the plan? 2

3 THE WITNESS: That was the big thing I recall, your Honor. 4

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

Compact that we had in Georgia and Alabama 12

13 and Florida.

SPECIAL MASTER LANCASTER: Tri-state 14

15 Compact, Alabama, Florida, Georgia?

THE WITNESS: Yes, sir. 16

17 SPECIAL MASTER LANCASTER: Do you think

that was a good thing? 18

19 THE WITNESS: Oh, sure. I think that

we -- that meeting together and working on 20

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

would be a good thing if the three states got

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3096

together again and tried to agree?

2 THE WITNESS: Your Honor, I think

that's -- we have always welcomed that

discussion and would continue to do so; yes, 4

5 sir.

SPECIAL MASTER LANCASTER: Your answer 6

7 is yes?

THE WITNESS: Yes. 8

9 SPECIAL MASTER LANCASTER: Thank you.

10 Now, you testified about some limits --

some limits on days and limits of hours of 11

12 watering. Was that just Atlanta?

13 THE WITNESS: No, sir. The change that

we did in the Stewardship Act that prohibited 14

15 outdoor watering between 10 a.m. and 4:00 is

statewide. The drought levels that we're 16

17 moving into that reduce you to two days a

week that we're in now are the 52 counties in 18

the northern half of the state, really. 19

SPECIAL MASTER LANCASTER: And most of 20

the agriculture is in the southern part of 21

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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that limit not apply to the agricultural

2

3 THE WITNESS: Two reasons, your Honor.

The agricultural limit wouldn't apply to

agriculture because the outdoor watering --

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.

The other reason is it's just a drought 10

11 level 1 in the southwest part of the state.

So it applies -- like in Albany, for 12

13 instance, where there would be some M & I

watering, those restrictions aren't up yet 14

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

irrigation. 24

25

I think we're using water very THE REPORTING GROUP

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3098 efficiently. And so what can we do to shift

some existing users and take some acreage

out. But I don't think we need further

restrictions because I don't think we have a

wasteful use of Ag irrigation water going on 5

in the state as a whole. 6

7 SPECIAL MASTER LANCASTER: Have you done

any analysis or modeling to justify that 8

9 conclusion?

THE WITNESS: I think we have done a 10

fair bit of work to look at the adoption 11

rates of that efficiency. We have -- and 12

13 you're going to hear, your Honor, from some

people that can speak to this even more than 14

15 me, Mark Masters in particular. But we have

absolutely done the kind of estimating work 16

17 through the water planning process to see the

sum of that agricultural water use and -- and 18

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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Page 3095 to 3098 of 3193 The Reporting Group (207) 797-6040 3099

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

done in October 2015?

13 THE WITNESS: I am familiar with the

14 draft, yes, sir.

15 SPECIAL MASTER LANCASTER: And that has

a 2016 drought contingency plan; does it not?

THE WITNESS: The draft EIS in the Water

18 Control Manual does have a drought procedure

**19** in it.

17

22

20 SPECIAL MASTER LANCASTER: And it also

21 has the 2016 environmental impact structure

statement; does it not?

THE WITNESS: I'm aware of the -- your

24 Honor, I don't know about the '16 date. I

know that there's a biological opinion where

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3100

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.

13

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

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.

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.

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

would you effect that instruction?

4 THE WITNESS: Your Honor, I heard you

s 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?

SPECIAL MASTER LANCASTER: Yes, sir.

THE WITNESS: I think the upper portion

of the Flint in particular is a very

13 different river than the Lower Flint.

14 SPECIAL MASTER LANCASTER: That's my

15 point.

10

11

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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whatever -- whatever one would look at from

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

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.

SPECIAL MASTER LANCASTER: If you could disengage the upper and lower, what would be

24 the effect in your opinion?

THE WITNESS: Well, your Honor, as it THE REPORTING GROUP

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3102

3105 3103 1 relates to flows into Florida, I'm not sure 1 approach the witness? 2 there would be an impact that would be 2 **DIRECT EXAMINATION** 3 certain. If we disengage the Flint and the 3 BY MS. DeSANTIS: 4 Upper Flint and the Lower Flint, there might Q. Dr. Couch, I have placed in front of you your 4 5 be -- if some restriction was placed, there written direct examination testimony in this 6 may be some flow differences that enter the 6 case. Do you adopt that testimony as your sworn 7 lake -- Lake Seminole. 7 testimony for this matter? 8 But without a change in the Corps 8 A. Yes. 9 operation, that's not going to produce a flow 9 MS. DeSANTIS: Georgia will tender the 10 that -- there's not a translation of that 10 witness. 11 flow benefit downstream. 11 SPECIAL MASTER LANCASTER: Thank you. SPECIAL MASTER LANCASTER: So do I 12 12 Mr. Perry? 13 correctly understand your testimony to be 13 MR. PERRY: I'm afraid, your Honor, I 14 that the Corps is the key to the end result 14 can't pass the baton as Georgia has. But I 15 of this case? 15 would like to introduce George Chipev, who 16 THE WITNESS: Yes, sir. has been helping me. 16 17 SPECIAL MASTER LANCASTER: Mr. Primis? 17 MR. CHIPEV: Good afternoon, your Honor. Mr. Perry? SPECIAL MASTER LANCASTER: Good 18 18 19 MR. PERRY: Nothing further, your Honor. 19 afternoon. 20 MR. PERRY: And I have a fleet of other MR. PRIMIS: Nothing further. 20 21 SPECIAL MASTER LANCASTER: Thank you. 21 people that at the opportune time, maybe in 22 THE WITNESS: Thank you, sir. 22 the next week, that I would like to introduce 23 MR. PRIMIS: Your Honor, we're going to 23 as well. 24 just take a moment to switch teams. 24 If -- may I approach to pass out the 25 I want to thank Chris Maner, who 25 binders, your Honor? THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3104 3106 1 assisted me with Mr. Turner. And I will be 1 SPECIAL MASTER LANCASTER: Please. 2 **CROSS-EXAMINATION** 2 passing the baton to Ms. DeSantis. 3 MS. DeSANTIS: Good afternoon, your 3 BY MR. PERRY: 4 **Q.** Good afternoon. Would it be better for me to Honor. 5 SPECIAL MASTER LANCASTER: Good 5 call you Dr. Couch or Director Couch? 6 afternoon. 6 A. Doctor, I think, would be a little easier to say. 7 MS. DeSANTIS: Your Honor, Georgia is 7 Q. Okay. I would appreciate it very much if we 8 could start today by talking about the period calling Dr. Carol Couch as its next witness. 8 9 And I would like to introduce briefly 9 before the 2006 plan was actually put into place. 10 for the court Emily Merki who will be So that's 2004, 2005, 2006, if that's okay with 10 11 assisting me with Dr. Couch today. 11 VOII. 12 THE CLERK: Please raise your right 12 And I would invite your attention, first, to 13 hand. 13 the document which is FX-901 at tab 1, please. 14 Do you solemnly swear that the testimony 14 Now, have you seen this document previously? 15 you shall give in the cause now in hearing 15 A. I don't have a specific recollection. 16 shall be the truth, the whole truth, and 16 **Q.** All right. And you know Rob McDowell; don't you? 17 nothing but the truth, so help you God? 17 18 THE WITNESS: I do. 18 **Q.** All right. Do you see under introduction a reference to Rob McDowell? 19 THE CLERK: Please be seated. 19 Pull yourself right up to the microphone 20 20 A. I see a reference, yes. 21 and please state your name and spell your **Q.** And do you see a note there to the Stakeholder 21 22 22 Advisory Committee and the Technical Advisory last name. 23 THE WITNESS: Carol Couch, C A R O L, 23 Committee? 24 last name is spelled C O U C H. 24 A. I'm sorry. Would you say that again? 25 MS. DeSANTIS: Your Honor, may I 25 Q. Sure. And we can -- I don't want to make it hard THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3109 1 for you. We can walk through the document as 1 and then there is a discussion of the Northwest 2 2 slowly as I need to to make sure that I'm not Florida Management District in Florida. Do you 3 being confusing. 3 see that, doctor? 4 So if you look at introduction, it says the A. I see the paragraph heading with that -- those 5 Stakeholder Advisory Committee and Technical 5 phrases, yes. 6 Advisory Committee, under introduction? 6 **Q.** Are you familiar with the permitting system in 7 7 the Northwest Florida Water Management District? 8 Q. Okay. Can you explain to the Court what those 8 A. I might have been at some point in time. I don't 9 two committees were and what they did in the 2006 9 have a lingering familiarity with it. 10 10 Q. Are you aware that in that part of Florida, 11 A. Yes. In order to progress the development of the 11 farmers have specific limits on how much 12 Lower Flint River Basin Conservation Plan, we 12 irrigation water they can apply per acre? 13 established two committees to help advise on 13 A. I don't have awareness of that. 14 options and a range of policies that might be 14 Q. And are you aware that farmers in that part of 15 included in such a plan. The Stakeholder 15 Florida, which is part of the ACF Basin, in 16 16 Advisory Committee was focused -- was a diverse general are also required to report the amount of 17 17 group of individuals that came from different water they draw from the ground or from surface 18 18 sectors of interest. Economic and environmental, water? 19 agricultural, municipal as well as industrial 19 A. I'm not aware of that. 20 20 concerns were represented. Their basic function Are you speaking in terms of 10 years ago or 21 21 was to receive information, to help advise on now or what context? Q. Now. 22 22 alternative policies that might be crafted. 23 The Technical Advisory Committee, in 23 A. I don't know the current framework. And whether 24 contrast, also had individuals that had some 24 or not I understood that to be the case 10 years 25 familiarity with that area of the state, but 25 ago, again, I don't have a lingering familiarity THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3108 3110 1 whose particular focus, however, was in helping 1 with it. 2 to assemble and translate basic underlying 2 **Q.** Well, it's true, isn't it, that Georgia has never 3 3 hydrologic and environmental information so that had in the ACF Basin a requirement that farmers 4 the Stakeholder Advisory Committee could be 4 only irrigate a particular limited amount per 5 5 acre. Right? informed. 6 **Q.** And you followed pretty closely the work of Rob 6 A. That is not the nature of how our agricultural 7 McDowell in focusing the debate of those two 7 permit is constructed. 8 **Q.** And, in fact, for groundwater permits -- pardon 8 groups. Right? 9 A. Well, I followed closely Rob's work in the sense 9 me, for grandfathered permits, there are 10 10 that I was periodically briefed. I wouldn't virtually no limitations on what farmers can do. 11 Right? 11 characterize him as focusing debate of the group, 12 12 Α. however. A grandfathered permit would reflect the 13 Q. All right. So what I want to ask you about in 13 groundwater rules and regulations as of, I this document is whether Rob McDowell briefed you 14 14 believe, about 1991. 15 on some of the information here, if I could. 15 Q. Were there any limits in 1991 on how much water a 16 16 Now -grandfathered permittee could pump out of the 17 A. Pardon me. 17 18 Q. If I interrupt you, please let me know. I don't 18 A. There was a -- there was a -- not an upper limit, 19 mean to. 19 20 20 So let's turn to the second page. And I Okay. Now, if I could invite your attention, 21 21 would like to in particular focus on paragraph 7 please, to tab 2, which is Florida Exhibit 46. I 22 22 which reads, what is being done with continued take it, Dr. Couch, that you're familiar with 23 23 this exhibit? permitting in adjoining states. Do you see that? 24 A. Yes, I see the title. Yes. 24 I have not -- I don't have a familiarity with it, 25 Q. Okay. And then there is a discussion of Alabama, 25 THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

		TRIAL - November	118, 2	016 (	Vol. XII) Florida v. Georgi
		3111			3113
1	Q.	You were with EPD as the director in 2006.	1		specifically was poised to be considered in final
2		Right?	2		draft is something that's reflected in this
3	A.	That is correct.	3		letter.
4	Q.	And did you have occasion during that time period	4	Q.	You don't recall what the United States Fish and
5		to speak with U.S. Fish and Wildlife about the	5		Wildlife Service's view was on the 2006 plan?
6		draft 2006 plan?	6	A.	Well, I recall that I received a letter directly
7	A.	I don't recall that I had a specific meeting with	7		from the field supervisor in regard to the plan.
8		the Fish and Wildlife regarding the plan, no.	8	Q.	Okay. We can talk about that, but let's first
9	Q.	And were you aware that U.S. Fish and Wildlife	9		talk about
10		actually commented on the draft 2006 plan?	10	A.	Which would be a better basis for, I think, your
11	A.	In a written communication from the field	11		question than this particular letter.
12		supervisor of Georgia, this not being the letter	12	Q.	Well, if I had that letter, I would be glad to
13		because it wasn't addressed to me, I became aware	13		talk about it. But this is the letter that we
14		of those concerns. Yes.	14		have been talking about through trial. It was
15	Q.	And if I could invite your attention to page 4 of	15		produced by the State of Georgia to us. And it
16		this document, please. And I would like, if I	16		made a number of recommendations that I would
17		might, to focus on the second recommendation on	17		like to focus on now, if I could.
18		that page. And it's the second recommendation on	18		And so I would invite your attention to
19		that page from U.S. Fish and Wildlife. Could you	19		summary comments, please.
20		read that text to yourself, please, No. 2.	20	A.	Yes. That's page 7?
21	A.	I see that.	21	Q.	That is. And I would invite you to read that
22	Q.	Do you recall your staff advising you that U.S.	22		paragraph onto the next page, please.
23		Fish and Wildlife's position was that current	23	Α.	Okay.
24		permits must be modified to eliminate	24	Q.	Thank you for doing that. If I could invite your
25		overallocation of water in the Flint River Basin?	25		attention to the third line, I'll have a question
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		Mason & Lockhart			Mason & Lockhart
		3112			3114
1	A.	I don't recall that. Also, the context of this	1		about your understanding at the time. The text
2		seems interesting from the point of view of the	2		reads, current level of agricultural water
3		presumption of overallocation along with the	3		withdrawals made the drought significantly
4		presumption of a take of mussels in the context	4		deeper.
5		of how to sustain.	5		Do you see that in the text?
6	Q.	You never read this letter before?	6	A.	I do.
7	A.	No.	7	Q.	Was it your view that the current level of
8	Q.	I would invite you to read it; but in the	8		drought withdrawals between 1998 and 2002 made
9		interest of time, let's go to the summary	9		those droughts significantly worse?
10		comments, if we might, which are at page 7 near	10	A.	No.
11		the end.	11	Q.	So you disagreed with the statements of U.S. Fish
12		And before I invite you to read that, it's	12		and Wildlife?
13		true, isn't it, that under your time as the	13	A.	I have no basis to understand why they're making
14		director of EPD, you did not accept the	14		this particular claim.
15		recommendation we just looked at?	15	Q.	Okay. Did you know Director Reheis?
16	A.	I'm sorry. This recommendation was not presented	16	A.	I did.
17		to me. I mean, reading it out of a letter, that	17	Q.	Were you here for his testimony?
18		was not the basis of something being presented	18	_	No.
19		such that I could make a decision on it or not.	19		Have you read his deposition?
20	Q.	So your staff would have summarized this for you	20	A.	
21	<b></b> -	in some other context; is that what your	21	_	Have you watched or read the testimony of
22		testimony is?	22		Mr. Napoleon Caldwell?
23	A.	More likely this would have been one of probably	23	Δ	No.
24	,	a large variety of public input and input from	24	Q.	
25		others agencies that we received. So how this	25	⋖.	of this particular paragraph. And there are a
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<u></u>		heets Page 3111 to	2114		

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2115

- 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.

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- **12 Q.** Now, could I ask you to turn in your prefiled
- 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.
- Doctor, if you could let me know when you getthere, I would appreciate it.
- 18 A. This would be on page 7 of the document, just to be clear?
- 20 Q. I think that's right, doctor.

support?

- Okay. Now there, is it fair to say that your primary goal at what is stated with respect to the 2006 plan, JX-21, to achieve a plan that all Stakeholder Advisory Committee members could
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- 1 Q. Are you aware of any entity ever proposing to the
- **2** Governor's office that Flint River Drought
  - Protection Act funding be expanded and assured
- **4** beyond its current limits during the time you
  - 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
  - reference to pump capacity. Do you see that?
- 19 A. I do.

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- **20 Q.** Are you aware of any alternatives to limiting the
  - 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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3116

- A. Yes. Consistent with Georgia regulation and law.
- 2 Q. Now, let's see what the recommendations were of
- 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
- 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.
- ${\bf 21} \quad {\bf Q.} \quad {\rm Did \ you \ make \ recommendations \ up \ the \ chain \ as \ to}$
- 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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- requirements regarding agricultural permits.
- **Q.** Now, after the 2006 plan was put in place, there
- 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.

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- 17 Q. All right. And do you see in the first line the
  - U.S. Fish and Wildlife statement that it has
- 19 concerns regarding the lack of implementation
- 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.
- The first line of the letter, Dear Dr. Couch.
- 25 The Fish and Wildlife Service has concerns.

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3118

3119 3121 1 A. Oh, got it. I see that written, yes. 1 answer? 2 Q. Okay. And could you turn with me to the last 2 Α. Well, you would have to give me a minute to read 3 paragraph of the letter. And I would like to 3 this. As these are minutes, at best it's a 4 focus your attention, if I might, to the sentence paraphrase of something I might have said that 5 beginning more fundamentally, however, which is 5 6 about six lines down in the last paragraph. 6 Q. As always, I would invite you to take as much 7 A. Yes. I see it. 7 time as you like to read any document we're 8 **Q.** What, if any, action did you take in response to 8 looking at. So please do. 9 this letter? 9 A. I have read the paragraph. 10 A. Very difficult to take a specific action in 10 Q. Do you have any further recollection of the 11 response to this letter in that a number of 11 question that I asked? 12 concerns are raised without any data, evidence, 12 Α. Could you restate the question, please. 13 or other scientific information that would 13 Do you now remember this particular meeting and 14 support a way to frame specific beliefs that have 14 addressing the consumptive use budget concept 15 been raised in this letter. 15 with the committee? 16 Q. You're not aware of U.S. Fish and Wildlife work 16 A. What reading this refreshes my recollection about 17 17 with the IHA model? is the nature of the consumptive use budget and A. Yes, I am. 18 18 policy context in which we were having 19 **Q.** Could you turn, please, to tab 7. 19 discussions both within this committee and 20 20 A. I'm there. otherwise. 21 Q. All right. Napoleon Caldwell worked for you, 21 Q. And do you see the reference in that line to a 22 22 didn't he, when you were director? set of limitations Florida has in place? 23 A. Napoleon Caldwell was a member of the staff of 23 Yes. There's reference to local sources first. 24 24 Q. And you worked with Mr. Napoleon Caldwell during EPD, yes. 25 Q. And he was actually in your director's office 25 your time as director on a consumptive use budget THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3120 3122 1 staff; is that correct? 1 framework for the State of Georgia; didn't you? 2 A. That's correct. 2 A. I would characterize that to say we worked within 3 Q. Now, here we're looking at Florida Exhibit 65 at 3 a broader policy team around the notion of tab 7. And the first line refers to a state 4 4 consumptive use budgeting and how that would be 5 5 advisory committee. Can you explain what that incorporated into our guidance framework for 6 6 is, please. original planning. 7 7 **Q.** Who was on that team? A. I can only surmise from the membership and 8 8 context of this that this would be the state A. There were probably four or five individuals. 9 advisory committee formed under the statewide 9 Certainly Nap Caldwell would have been one of 10 10 them. Alice Miller-Kise would have been another water planning process. 11 11 Q. Now, just to cut to the chase, can you take a one, Gail Cowie, an individual whose name escapes 12 12 look at the third page where your name appears, me at the moment, Linda McGregor. 13 13 please. It's about two-thirds of the way down. One of the individuals I'm having a hard time 14 A. I do. 14 recollecting at this point in time. 15 Q. Do you recall addressing a state advisory 15 Q. Can you remind me if Linda McGregor was a branch 16 committee group regarding consumptive use budget 16 chief on EPD? 17 17 Α. She became branch chief at some point during my concepts? 18 A. Not specifically, but if these minutes are 18 tenure, yes. 19 accurate, then it would indicate that I did. 19 Q. And Dr. Gail Cowie was a contractor working with 20 **Q.** And do you see the sentence there which reads, 20 you at that time? 21 21 Dr. Carol Couch then addressed the group A. I think initially Gail worked in a contract 22 22 regarding a consumptive use budget? context; and at some point -- I'm not remembering 23 23 A. I see the sentence, yes. exactly when -- she became employed -- actually 24 employed by EPD. **Q.** You don't remember -- you don't have any 24 25 recollection of this, I take it, from your last 25 Now, if I can invite your attention to the prior THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

TRIAL - November 18, 2016 (Vol. XII) Florida v. Georgia 3125 1 page at the top; and there is a paragraph there A. And what GA number should I be referring to? 2 2 that talks about the proposed policy framework Q. I will now tell you. 3 known as the consumptive use budget. Really, the 3 GA 126756. 4 A. first full paragraph on that page. Can you read 756. 5 that to yourself, please. Q. Do you remember this presentation, Dr. Couch? 6 A. Which numbered page are you referring to? 6 Not specifically. But it does appear to be the 7 Q. It's on page 2. 7 nature of a presentation that would have been 8 A. Page 2. Proposed policy framework, okay. 8 prepared for the Water Council. And since I 9 9 chaired that council, I --10 **Q.** Does that accurately summarize the concept of a 10 Q. Would this have been presented by Mr. Napoleon 11 consumptive use budget? 11 Caldwell to the best of your recollection? 12 A. I think it does characterize two important -- two 12 A. I don't have a specific recollection of the 13 important elements specifically in this 13 agenda of June 7, 2006, and whether he or another 14 paragraph. One is that a -- the nature of the 14 staff person presented this. 15 consumptive use budget would be crafted to the 15 Q. Could I ask you to turn with me to the page 16 16 that's numbered GA 126761 in Florida Exhibit 65. specific nature of the conditions within the 17 watershed and that it provided a tool to 17 A. I'm there. 18 18 understand and put in context present and future **Q.** Do you see the bullets there ending with, in all 19 uses. 19 caps, consumptive use matters, exclamation point, 20 20 Q. So, for example, in a metropolitan context a exclamation point? 21 21 A. Yes. consumptive use budget would evaluate the amount 22 22 of water use in that particular municipal area. Q. All right. Now, the next slide, which is 23 Is that fair? 23 GA 126762 has a photograph. Do you see that? 24 24 A. On a watershed-specific basis, yes. A. Yes. It's hard to make out what that is, but 25 **Q.** And in the Lower Flint, a consumptive use budget 25 there is something that appears to be a THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3124 3126 1 would analyze and address the amount of 1 photograph. 2 2 agricultural water use. Right? **Q.** Can you tell whether that is or is not irrigation 3 3 A. Regardless of watershed, the budget would take in equipment? consideration municipal, industrial, as well as 4 A. Looks like I'm seeing the arm of a center-pivot, 4 5 5 agricultural uses of water which understandably but the remainder of it is hard to say. 6 vary depending on where you are in the state. 6 Q. Okay. Rather than going through this 7 Q. And the idea would be, wouldn't it, that there 7 painstakingly, I invite your attention actually 8 8 would be some limits placed on the amount of to the next tab, which is an article titled 9 consumption by all users within the watershed. 9 Ensuring Sustainable Water Use Supplies Into the 10 10 Right? Future, Perspectives on Managing Consumptive Use, 11 A. No. 11 Florida Exhibit 109. Do you see that? 12 Q. All right. Well, let's turn then to page 12 A. Under tab 8, yes. 13 13 Q. Tab 8. And do you see the name Nap Caldwell GA 12657 of Florida Exhibit 65, please. It's a 14 PowerPoint presentation from that meeting. 14 there? 15 I'm sorry. It's in the same tab, tab 7. 15 A. I do. 16 A. Okav. 16 And he worked for you during this period of time; 17 Q. And let me explain, because I confused you; and 17 did he not? 18 I'm sorry. When I say GA, it's the bottom number 18 A. The date of this is 2007, so yes. 19 on the right-hand side of the page. 19 **Q.** Have you ever seen this article before? 20 20 A. I see those numbers. A. I don't have a recollection, but I probably did 21 21 Q. Okay. Now, I'm attempting to invite your at the time. 22 22 Q. Now, I would like, if I could, to refer you to attention to a document called A Draft Policy 23 23 Recommendation on Water Quantity Management in page 2. 24 Georgia presented to the Water Council on June 7, 24 MR. PERRY: And, Mr. Walton, if you 25 25 could blow up the title at the bottom of the 2006. Do you see that?

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3127 3129 1 first column for just a moment. 1 budgeting, which includes the consumptive 2 2 And, now, go to the first paragraph, 3 please, on the next column. 3 Q. So as a policy matter, your testimony is that 4 BY MR. PERRY: you're -- at least your opinion at the time was 5 Q. So, Dr. Couch, could you read to yourself that that it was possible to impose a consumptive use 6 first paragraph on the second column on page 2 of 6 budget regime in the ACF Basin? 7 this article. 7 No. That was not the intent of consumptive use 8 A. Okav. 8 budgeting. The consumptive use budgets were 9 Q. Now, I would like you, please, to -- about 9 provided as a framework and a guideline to 10 two-thirds of the way down that paragraph focus 10 understand that each region of the state 11 on the sentence that begins with for surface 11 developed its understanding of current and future 12 water, for surface water the approach would limit 12 budgets for water use wherein the element of 13 the amount of water that can be consumed. 13 water use was current consumption and how would 14 Do you see that? 14 that consumption need to be managed in 15 A. I see it. 15 relationships to all the other elements of water 16 16 **Q.** And it goes on to say, to quantities that would use taken together such that the appropriate 17 not significantly alter the character of a set of 17 policies for a particular area would be done. 18 18 **Q.** What -adopted flow regimes. 19 Do you see that? 19 A. So this was a guideline. It was a flexible 20 20 A. I do. guideline. It was an approach that we used that 21 Q. Okay. Is that a fair summary of the idea of a 21 was then integrated within modeling to help -- to 22 22 consumptive use budget in the State of Georgia at help each region understand its consumptive use 23 23 the time you were a director? and to develop in the context of its own 24 A. First of all, this wasn't an ongoing policy 24 deliberations an understanding of its current and 25 25 discussion; so I couldn't characterize that there future water uses, and one of many water THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3128 3130 1 was a settled policy in the state when this paper 1 management tools that would need to be -- come to 2 was being presented at a conference, No. 1. 2 bear to what degree and how much emphasis would 3 3 No. 2, I would say that the ongoing policy be placed on consumptive use. 4 context around consumptive use budgets and 4 Every element of water planning or water 5 5 ultimately what was settled into state policy in resource has an inherent cost. In some areas of 6 6 the state consumptive use might be the higher our state water plan would have been different 7 7 than what you see here. priority in the immediate 5-to-10-year period; 8 8 Q. So you think Mr. Caldwell wasn't fairly and in other areas of the state it might not be 9 summarizing what you had in mind for consumptive 9 completely relevant at this point in time. 10 10 **Q.** So your view at the time was consumptive use use budgets? 11 11 A. Well, my role was to chair a policy council. I budgeting was a helpful tool, but it would be up 12 12 might have had a personal opinion; but this to the specific region to determine how to use 13 13 it? wasn't reflecting -- there is nothing about this A. Each region would need to come up with a 14 that should be taken as being my personal view. 14 15 Q. Was your personal --15 recommendation of the tool of water management 16 A. The important point I would like to make about 16 approaches, including consumptive use. So it 17 this is this is an active policy discussion, and 17 wasn't left up to the region. Ultimately, the 18 it's incomplete. 18 director of EPD would need to approve the 19 Q. Now, your personal opinion was for or against 19 specific plans. 20 consumptive use budgets in this period of time? 20 And was it your opinion at the time that a 21 21 A. A personal opinion that I think resonates structure similar to what you're describing 22 throughout some of the minutes that you have just 22 should be put in place? 23 23 reflected and maybe other documents is that Α. What I am overviewing for you today I believe you 24 24 modern water resource management needs to will see as the policy framework adopted by our 25 incorporate a complete understanding of water 25 General Assembly when it approved the state water THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

TRIAL - November 18, 2016 (Vol. XII) Florida v. Georgia 3133 1 plan in 2008 setting forth the process of 1 switches installed to prevent irrigation leaks? 2 2 developing the regional plans that I'm referring A. Uh-huh. 3 3 Q. Now, yesterday Mr. Primis showed a photograph or 4 Q. And you weren't here to see Nap Caldwell's 4 two; and I'll do the same now. 5 deposition designations, his testimony by video 5 I'm interested in particular in capacity use 6 on that question. Right? 6 areas and end-gun shutoff switches. And I would 7 A. I was not. 7 ask you to turn to tab 15 with me, please. 8 **Q.** And is it your understanding that the 8 MR. PERRY: Actually, can we advance to 9 sustainability limits in the regional water plans 9 the next picture at tab 15, please, which I 10 are, indeed, what occurred as a result of the 10 believe is the next picture, please. 11 consumptive use budgeting discussion? 11 I'm looking at Florida Exhibit 115, 12 A. Since I left the position in 2009, I have no 12 please. 13 knowledge of what finally were the content --13 There it is. 14 approved content of the original plans. 14 BY MR. PERRY: 15 Q. Let me see, if I might, if you agree with 15 Q. Now, Dr. Couch, I'm not sure if you know much 16 16 something from Director Reheis's testimony. And about irrigation equipment. I'm just drawing on 17 if you could turn to tab 10, please. And I would 17 the statement in your testimony; so if you don't 18 18 like to invite your attention in the prefiled know the answer, please tell me. 19 direct testimony of former Director Reheis to 19 This is a photograph taken on July 15, 2016, 20 20 paragraph 51. And I would ask, Dr. Couch, if you in the Spring Creek sub-basin, which is, I 21 could read that, please. 21 believe, a capacity use area. Is that right? 22 22 A. I have read it. A. Portions of Spring Creek would be in a capacity 23 **Q.** And you're familiar with the Flint River Drought 23 use area, yes. The specific location of this 24 Protection Act; aren't you? 24 photograph I would have no way of knowing. 25 A. I am. 25 Q. It's near Colquitt. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3132 3134 1 Q. Now, do you see the reference there to a reverse 1 Do you see --2 irrigation auction at the end of the first 2 A. You're on -- this is FX-115? 3 3 Q. It is. sentence to that paragraph? 4 A. I don't have 115 in my book. I'm sorry. 4 A. I do. 5 5 Q. Okay. Is it your view, as Director Reheis Yes, here it is. It's out of order. Found testifies here, that the Flint River Drought 6 6 it. 7 7 Q. Yes. Thank you. It took me a minute to get the Protection Act, quote, made it much less likely 8 8 that farmers would irrigate when they should not? picture up on the screen. That's probably why it 9 A. I don't have any experience to -- to judge 9 took you a second to find it. 10 whether I would agree with that statement or not. 10 So tell me; are you able to identify whether 11 11 or not there's an end-gun shutoff on this piece Q. All right. Well, let's go back to your testimony 12 then; and I would ask you to focus on paragraph 23. 12 of equipment in this capacity use area? 13 13 A. I'm there. A. I am not. I am not able to identify whether **Q.** And do you see the reference in paragraph 23 to 14 14 there is one present, and I'm not able to 15 backlogged permits in the 2006 plan. It's about 15 identify this occurring in a capacity use area. 16 8 lines down, 10 lines down or something. 16 So it's not fair to ask you a question like that 17 A. There are several references to backlogged --17 because that's not your area of expertise? 18 several sentences with references to backlogged 18 A. No. 19 permits. Is there a particular one? 19 Q. Okay. 20 20 Q. Well, there it says, under the 2006 plan the MR. PERRY: Your Honor, it's about 2:30. 21 21 backlogged permits issued in capacity use areas And I would be pleased to take a break, if 22 22 were required -- do you see where I'm reading? it's okay with the Court. 23 23 SPECIAL MASTER LANCASTER: How much About 10 lines down. A. I do. 24 longer do you think you'll be?

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Q. And do you see it says, to have end-gun shutoff

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MR. PERRY: Not much longer if we take a

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3135 3137 1 break. Flint Conservation Plan? 2 SPECIAL MASTER LANCASTER: We'll take a 2 Α. 3 break. 3 Which is JX-21. And I specifically would like to ask you about that plan. What was the purpose of 4 (Time Noted: 2:28 p.m.) 5 (Recess Called) 5 the Flint Conservation Plan? 6 (Time Noted: 2:40 p.m.) 6 A. The purpose of the Flint Conservation Plan was to 7 SPECIAL MASTER LANCASTER: Mr. Perry? 7 bring into policy and implementation the results 8 8 of about six or seven years of scientific MR. PERRY: No further questions, your 9 Honor. 9 investigation. It started under my predecessor, 10 MS. DeSANTIS: Good afternoon, your 10 Harold Reheis, the so-called Sound Science Study. 11 Honor, again. 11 That study characterized a number of unknown 12 REDIRECT EXAMINATION 12 attributes of water use throughout -- through 13 BY MS. DeSANTIS: 13 that region, including better characterization of 14 Q. Good afternoon, Dr. Couch. 14 the very nature of how streams and aquifers were 15 A. Good afternoon. 15 connected. We had no scientific models that were valid, so we developed them. We also developed 16 **Q.** Dr. Couch, I would like for us to begin with just 16 17 some brief background about you to assist the 17 new databases regarding the extent of irrigated 18 Court in placing you in context with some other 18 acreage as well as water use. 19 EPD directors that have already testified in 19 All of this information and data then 20 20 supported the development of the Flint River court. 21 21 When did you begin your tenure as director of Conservation Plan which was oriented toward 22 22 the Environmental Protection Division? putting in place region-specific and appropriate 23 A. In October of 2003. 23 conservation measures. 24 Q. And how long did you work in that position? 24 **Q.** All right. So the results of the Sound Science 25 25 Study were then incorporated in the plan? A. Six years. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3138 3136 **Q.** And who was your predecessor? 1 A. Absolutely. They were foundational to the plan. 2 A. Harold Reheis. Q. And after the Flint plan was authorized, did you 3 make the decision as director of EPD to authorize 3 **Q.** And who was your immediate successor? A. Allen Barnes. new permits in the basin? 5 Q. And then Mr. Turner, from whom the Court heard 5 A. Yes. In relation to the findings of the plan today, did he succeed Mr. Barnes? 6 6 what we did is develop a series of areas that 7 A. Correct. 7 were located in that region which were specially 8 Q. All right. So, doctor, you have not worked for 8 crafted around an understanding of where there 9 the State of Georgia since 2009; is that right? 9 was little or no risk to streamflow from 10 A. That's correct. 10 agricultural irrigation, other areas where we 11 11 **Q.** And where are you currently employed? needed to put caution in place, and other areas 12 A. I'm employed at the Phinizy Center in Augusta, 12 that we had to essentially cap. 13 13 Georgia. But in all areas we put in new restrictions 14 Q. And what does the Phinizy Center do? 14 or measures for conservation. 15 A. We have a three-part mission. We do 15 Q. To assist your testimony on this, Dr. Couch, I 16 environmental education for kindergarten through 16 would like to ask Mr. Smith to please put up 17 12 and adult learning including ornithology, 17 page 25 of JX-21. And we'll distribute copies 18 birding, and so forth. We also operate a nature 18 just so we can see a map showing these various 19 park, and we also operate the Phinizy Center for 19 areas that you're discussing. 20 Water Sciences focusing on research in the 20 So using this map which has been put up on 21 21 Savannah River Basin. the screen --22 22 MS. DeSANTIS: Which is on page 25 of JX-21, **Q.** Doctor, how long have you lived in the State of 23 23 Georgia? tab 4 in the binder, your Honor. BY MS. DeSANTIS: A. Off and on for about 24 years. 24 24 Q. So Mr. Perry was questioning you today about the 25 Q. So looking at the map on page 25, Dr. Couch, can 25 THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3141 1 you explain to us the framework under which new Q. All right. Doctor, to assist your testimony 2 2 permits were issued under the Flint Conservation about these two particular Acts/Plans we would 3 3 like, with the Court's permission, to publish a 4 A. Yes. Anything shown in the lighter green color 4 demonstrative and to distribute copies. 5 would be watersheds in the Lower Flint Basin that 5 Doctor, the demonstrative that we have put up 6 were determined not to be in contact with 6 on the screen and that we are distributing to the 7 Floridan Aquifer such that there would be an 7 Court shows both the Drought Management Plan 8 8 2003, and the Flint River Drought Protection Act. interaction between groundwater use and 9 streamflow rise. Those in red were identified as 9 Can you please describe these plans and any 10 10 differences between them. having -- having some connection, but the amount 11 of use, if managed through conservation measures, 11 Α. Well, as I have already mentioned, the Drought 12 would be -- would be at a level that would be 12 Management Plan is focused on conservation 13 acceptable given the analyses that we had done. 13 measures applied for municipal and industrial 14 Those that are in the pinkish or reddish color 14 water use, potentially applicable statewide. The 15 were prescribed as capacity use areas, wherein we 15 Flint River Drought Protection Act is focused on 16 would stay in place essentially a moratorium on 16 agricultural water use and would be -- would be 17 the issuance of new permits and require 17 applied within the Lower Flint region. 18 18 conservation measures in all areas. Both have a series of very prescribed 19 Q. All right. And during your tenure, Dr. Couch, 19 processes that the director needs to engage in 20 were all new permits that were issued pursuant to 20 before making a decision about declaring drought 21 21 the requirements of the plan? or triggering management or conservation actions 22 22 A. That's correct. They were. under each of these. And one includes, really, a 23 Q. Did you accept any new applications or permits in 23 series of progressive and stringent conservation 24 24 capacity use areas? measures under the Drought Management Plan. I 25 Α. 25 No. think the Court has already heard regarding THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3140 3142 Q. Did you issue any backlogged permits in capacity 1 levels 1 through 4 in the context by other -- by 2 2 use areas? other witnesses and my successor, Mr. Turner. 3 3 A. Yes. The criteria that are used and considered in 4 **Q.** And were there conservation requirements for the 4 each are somewhat similar, but also somewhat 5 5 backlogged permits that were issued? different in terms of how they -- the sum total 6 A. Yes, there were. 6 of information, evidence, and input is distilled 7 **Q.** Did all newly-issued permits in the conservation 7 to make a decision regarding the declaration of 8 areas that you have identified on this map have 8 drought. 9 9 conservation requirements? But I'll say that each include a series of 10 10 A. They did. prescribed criteria that help summarize existing 11 Q. Doctor, I would like to turn now to talk about 11 understanding from the meteorological conditions, 12 12 drought management during your tenure. During but also consultations with state climatologists, 13 13 your tenure, was it within the authority of the other federal agencies, and just real-world 14 director of EPD to manage drought? 14 considerations that come to bear when none of 15 A. Yes. 15 these things take in consideration the very 16 Q. And under what authority did you have the 16 nature about which weather can change 17 17 prerogative to manage drought? dramatically in a short period time. 18 A. There were two authorities. One under the 18 Q. During your tenure as director of EPD, did you 19 Drought Management Plan in the State of Georgia 19 have occasion to declare a drought under the 20 20 that was focused on managing municipal and Drought Management Plan, which is shown on the 21 21 industrial water uses under drought conditions; left side of this demonstrative? 22 22 and the second under the Flint River Conservation Α. 23 23 Act, which is the Act that would be related to And what years did you declare a drought under 24 24 managing drought and conservation measures in the this plan? 25 25 A. I think the first time I did that was in 2006. Lower Flint. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3145 1 And then we increased the level of drought in 1 course, is fully within Georgia. 2 Q. 2 Dr. Couch, during the years of 2003 to 2009 while 3 **Q.** Do you recall the levels of drought that you 3 you served as director of Georgia's EPD, how 4 declared in each of those two years? would you characterize Georgia's conservation and 5 A. I believe we were at level 2, and then we went to 5 stewardship efforts with respect to water use? 6 level 4. Only in portions of the state, however. 6 A. Well, I -- I guess the way I would summarize it 7 Q. Now, let's turn to the Flint River Drought 7 is that from 2003 through 2009 the ball was 8 8 Protection Act, which is shown on the right side passed to me. And we continued with the 9 of this demonstrative. During your tenure, did 9 development of scientifically-informed 10 you ever declare a drought under the Flint River 10 conservation measures, implementing them within 11 Drought Protection Act? 11 the plan of the Flint River Basin, but also using 12 A. No, I didn't. The sum total of all the criteria 12 that information within our statewide water 13 and information and input and other 13 planning process. The development of -- and 14 considerations were such that the declaration was 14 institution of these conservation measures, I 15 required to be made by March the 1st. It was not 15 think if you look at the Eastern Seaboard context 16 16 one that I thought would be effectively of reasonable use water law, is among the best 17 implemented. 17 that are out there. **Q.** Now, if you had decided during your tenure that 18 18 We have a unique situation, I think, in the 19 drought needed to be declared under the Flint 19 context of our conservation measures there. Our 20 20 River Drought Protection Act, would the funding state water plan, which was developed and put in 21 21 necessary to implement the declaration have been the -- approved in 2009 which resulted in the 22 22 available to you? culmination of regional plans that were developed 23 A. I believe that to be the case. And when it had 23 wall to wall in the State of Georgia after my 24 24 been declared under my predecessor, it was made tenure, again, reflecting continued intent of 25 25 developing and progressing well-informed water available. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3144 3146 Q. Dr. Couch, I now want to turn to correspondence 1 management practices has been used as a model in 2 2 with the U.S. Fish and Wildlife Service. And other states, particularly in our neighboring 3 3 Mr. Perry has brought up some of this states of South Carolina and Alabama as they're 4 correspondence with EPD in the course of his considering how to structure water planning in 5 5 examination of you. their own states. 6 6 **Q.** Doctor, specifically what do you mean when you In the course of correspondence that you had 7 7 with U.S. Fish and Wildlife Service during your say wall-to-wall efforts? 8 8 tenure, did you ever have any scientific evidence All areas of the State of Georgia are now covered 9 9 that Georgia's management of water resources was with regional plans that incorporate a variety of 10 10 having impact on any endangered or other species ways that water users and the general public in 11 in the basin? 11 each of those regions now think about their 12 A. No. 12 current and future uses of water and ways to make 13 Q. Did USFWS -- U.S. Fish and Wildlife Service -- in 13 choices in implementation of conservation 14 particular ever provide you with any scientific 14 measures and other practical things that need to 15 15 be in place to address future economic as well as evidence that Georgia's management of water 16 resources was having an impact on any endangered 16 environmental uses of water. So it's wall to 17 or other species in the basin? 17 wall in that sense. 18 A. Well, I would just note in my prior testimony 18 One thing I would say, while the Court would 19 with Mr. Perry that the belief of the Fish and 19 be very well aware of the north and south 20 Wildlife Service is expressed in a direct letter 20 trending nature of the ACF Basin, all rivers in 21 to me. But that belief was never paired with any 21 Georgia are trending generally in a north and 22 22 solid scientific evidence, studies, or research south direction. So there is no river basin in 23 23 indicating a linkage between our levels of water Georgia where somebody isn't living downstream of 24 use and the concerns regarding mussel mortality 24 somebody else. So the nature of transparency, 25 25 equitable use, common understanding in a database in particular in the Spring Creek Basin which, of THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3149 1 is inherent in how we have approached the state A. Yes, I was. 2 plan and I believe was bedded down in processes 2 Q. All right. Can you turn, please, at tab 4, Joint 3 that developed original plans. 3 Exhibit 21 --Q. Looking specifically at the ACF Basin, in the A. Uh-huh. 4 5 course of your tenure as EPD director, were you Q. -- to page 22, which is the technical findings 6 in dialogue with representatives of the State of 6 summary. 7 Florida about water conservation in the basin? 7 Α. 22? **Q.** 22. 8 A. I was. 8 9 **Q.** Did you have conversations with representatives 9 A. I'm on page 22. 10 of the State of Florida regarding Georgia's water 10 Q. All right. Item 4 there, can you read that to 11 use and any effects on the ecology in the 11 yourself, please. 12 Apalachicola Bay or floodplain? 12 A. I see that. 13 A. Yes. 13 **Q.** And you would agree with me that even as of 2006, 14 **Q.** Did you ever ask any representative of the State 14 Spring Creek had a -- exceeded its safe yield in 15 of Florida to identify a level of flow that would 15 terms of farm use withdrawals? 16 16 A. I think one -- one thing that you need to bear in be necessary to protect the ecology of the 17 Apalachicola Bay or floodplain? 17 mind in terms of this, this is a summary of a 18 technical finding. The technical finding of 18 A. Repeatedly and in repeated contexts, yes. 19 **Q.** Okay. And what were you told? 19 Spring Creek is that that guidance that we were using from the Fish and Wildlife that we had 20 20 A. I never received an answer. 21 MS. DeSANTIS: I have no further 21 evaluated in this document were found not to be 22 22 questions. useful in terms of understanding the relationship 23 **RECROSS-EXAMINATION** 23 in Spring Creek. In fact, the statistical BY MR. PERRY: 24 24 studies of stream discharge and biological 25 Q. I'll be very brief, Dr. Couch. 25 studies indicate that there is an exceeded safe THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3150 3148 1 I may not have heard you correctly, but --1 yield in terms of farm use withdrawals. That 2 2 I'm sorry. Can you hear me? statement is made, but you have to take a look at A. I can hear you. Thank you. 3 how the statistical indicators, the IHA 3 4 statistics that I referred to earlier, are of use **Q.** I need to speak close to the microphone. 5 5 So I may not have heard you correctly, but I or not of use in Spring Creek. Q. I'm --6 thought maybe you said something like you never 6 7 7 A. So -had any scientific evidence that farming 8 activities in Spring Creek affected aquatic 8 **Q.** I'm sorry. I interrupted you. I apologize. 9 species there. Did you actually say that? 9 A. Well, I'm just making the point here that the 10 10 A. That's not what I said. Spring Creek Basin, while we attempted to apply 11 **Q.** Okay. You agree that farming activities in 11 guidance provided by the Fish and Wildlife 12 Spring Creek have, indeed, had impacts on aquatic 12 Service in the application of these three 13 species in that area. Right? 13 statistics, they demonstrated that in Spring 14 A. No. 14 Creek we were finding that these -- the 15 Q. Okay. Can you turn to the 2006 plan at tab 4. 15 relationship inherent between the presumed 16 A. The distinction -- I think it's an important 16 ecological benefit and the statistical summaries 17 distinction if you ask the question in that 17 were not very strong or were not evident. 18 manner. We were looking at the interconnection 18 **Q.** Are you familiar with Dr. Golladay and Mr. Hicks? 19 of water use that could be translated through 19 A. I am. 20 20 irrigation and streamflow. And at the point in **Q.** And they were both on your Technical Advisory 21 21 time that I was being questioned about my Committee here in 2006? 22 22 A. They were members of the Technical Advisory understanding, that evidence had not emerged in 23 any kind of a scientific manner. 23 Committee. 24 Q. Okay. So you were director in 2006; were you 24 Q. Have you read their work --25 25 A. I have not. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3153 **Q.** -- since 2006? 1 see if I can get this correct now -- that in 2 Okay. All right. Now, Ms. DeSantis showed 2 the Atlanta area there were certain 3 you a particular demonstrative, Georgia Drought 3 restrictions put on the number of hours and 4 Management. And it had a number of criteria for 4 the number of days that lawns could be 5 drought prediction and declaration. Do you 5 irrigated. Do you recall that? 6 remember that? 6 THE WITNESS: I do. 7 A. Yes. I believe it's this one that I have in my 7 SPECIAL MASTER LANCASTER: And would 8 hand. 8 that, in your opinion, reduce the water 9 **Q.** This is just a small point I might make here. 9 consumption level if there were those 10 Listed at the bottom of this is real-world 10 restrictions in place? 11 considerations. Do you see that? 11 THE WITNESS: Yes, it would. A. Uh-huh. SPECIAL MASTER LANCASTER: How would 12 12 13 Q. I'm not sure what those are. But then two or 13 those restrictions be enforced? three bullets up it says soil moisture. 14 14 THE WITNESS: The restrictions --15 A. I see that. 15 SPECIAL MASTER LANCASTER: Number of 16 **Q.** Do you remember considering soil moisture as part 16 days and the number of hours. 17 THE WITNESS: The enforcement of of the process of evaluating drought under the 17 18 Flint River Drought Protection Act? 18 restrictions fall to the utilities, of which 19 A. There is a statistical indicator of soil moisture 19 there are a number within the region. There 20 included within so-called criteria metrics. 20 are mechanisms through the -- both the 21 **Q.** Have you seen lately those criteria matrices that 21 education, but also the identification of --22 were provided to you by staff at EPD? 22 of individuals that may not be following 23 A. I have looked at them, yes. 23 those restrictions. Local ordinances are in 24 **Q.** Have you seen the criteria for 2008 where a 24 place that have monetary penalties and fees 25 25 drought declaration was recommended? that can be assessed. THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3152 3154 1 A. I don't recall a drought declaration being 1 SPECIAL MASTER LANCASTER: I understand 2 recommended, but --2 that there are penalties. But suppose I'm in Q. Not in January of 2008? 3 Atlanta, and I'm running my water 24-seven. A. No. How do you know that? 4 Q. You don't recall? 5 THE WITNESS: Well, if you're in a A. No. 6 6 homeowner situation, that water is metered. 7 Q. Okay. 7 And so you're -- if you're above a certain 8 MR. PERRY: Thank you, your Honor. 8 benchmark of use for a house of your size or 9 MS. DeSANTIS: No further questions, 9 an average use, your statistics are known. 10 10 And they can be used as a way of identifying your Honor. 11 SPECIAL MASTER LANCASTER: Dr. Director, 11 those that might be on the abnormal water use 12 you were here, I think, when Director Turner 12 or abnormal rate of water use. 13 testified? 13 SPECIAL MASTER LANCASTER: And I 14 THE WITNESS: For part of his time, yes, 14 appreciate that Mr. Turner was director long 15 sir. 15 after you had gone; but are you aware of any SPECIAL MASTER LANCASTER: Well, then 16 16 apportionment that was done in the Atlanta 17 you -- did you hear me apologize for not 17 area? THE WITNESS: I can't speak to the time 18 looking at the witness? 18 19 THE WITNESS: I did. 19 after my tenure, of course; but I can say 20 SPECIAL MASTER LANCASTER: So you will that during my tenure we did have enforcement 20 21 21 take place at such time that I declared a understand? 22 THE WITNESS: Yes. 22 level 4 drought within the state. 23 SPECIAL MASTER LANCASTER: Now, Director 23 SPECIAL MASTER LANCASTER: You had 24 Turner testified -- well, excuse me. 24 enforcement processes, but not for the Turner 25 Mr. Director Turner testified that -- let me 25 restrictions? THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart

3155

- THE WITNESS: This was during my tenure, 1
- 2 sir, we declared a level 4 drought requiring
- 3 the elimination of all outdoor water use.
- And in that context, there was a high degree
- of enforcement brought to bear by the
- utilities that were the -- within the
- geographic area. 7

SPECIAL MASTER LANCASTER: This will 8

- 9 simply indicate how I think as a layman. But
- if I'm not allowed to irrigate, whether it's 10
- 11 municipal, industrial, or residential,
- 12 there's going to be less water wasted; isn't
- there? 13

THE WITNESS: Without consideration of 14

- 15 the manner in which water is applied and
- whether it's efficient in and of itself in
- 17 the first instance, yes, that could be the
- case. But we were also looking at the 18
- efficiency and development of proper outdoor 19
- watering use so that whatever was used was 20
- being done in an efficient manner. 21

22 SPECIAL MASTER LANCASTER: I understand

- 23 that. My question is a layman's question,
- pure and simple. If I'm not irrigating, I'm
- 25 not using water. Correct?

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3156

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- THE WITNESS: That would be correct.
- SPECIAL MASTER LANCASTER: Now, if the
- 3 Supreme Court were to somehow order the
- north -- the Upper and Lower Flint be 4
- 5 disengaged, what would the effect of that be?
- THE WITNESS: I'm not certain as to what 6
- 7 you mean by disengaged, but let me offer
- this. 8

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- 9 SPECIAL MASTER LANCASTER: Sure.
- THE WITNESS: The Flint River has little 10
- 11 or no storage on it. There -- it's true that
- the upper river has certain -- there are 12
- 13 different characteristics both in an
- environmental setting as well as in economic 14
- 15 use.
- But the disengagement of the river, I 16
- 17 believe conceptually your meaning to be --
- correct me if I'm wrong -- is that we would 18
- have two different ways of thinking about the 19
- 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
- system.

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- 1 I can see where you could craft
- 2 region-specific water management; but
- ultimately, whatever is flowing from the 3
- upper part of the basin into the lower basin
- needs to be considered in its entirety,
- particularly if we're thinking about
- 7 ultimately the Flint's contribution to the
- lower ACF flows. 8

9 So I can see a disengagement in terms of

- how each region is treated. And by the way, 10
- that's inherent in the nature of how we 11
- designed our regional water plans to make 12
- the -- if you will, the menu of choices we 13
- would make, because each of them are 14
- associated with a cost, correct in the 15
- context of the predictive or known benefit 16
- 17 that would be received, both economic and
- environmental. 18

So if the disengagement was in terms of 19

- recognizing the need to craft two different 20 21
- solutions for water management, the ultimate
- 22 effect of those needs to be taken together
- 23 because one does support the other.
  - SPECIAL MASTER LANCASTER: So what
- you're saying is that if the Supreme Court 25

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3158

- were to order disengagement, it should be
  - specific insofar as it identified what it
  - meant by disengagement and also specifically
  - planned for each area?
    - THE WITNESS: Well, I could see a
  - specific plan for each area; but my point is 6
  - 7 that the lower -- the support flows that come
  - out or might be conserved in the upper basin 8
  - 9 or consumed in the upper basin have bearing
  - on the nature and extent of management that 10
  - 11 might happen in the lower basin.
  - If the overall intent is to identify or 12
  - 13 target a flow at the mouth of the basin into
  - Woodruff, the two have to be designed 14
  - 15 together. They function together. It would
  - be a little bit like, oh, I don't know, 16
  - 17 saying, well, I'm -- I have got a problem
  - going on with me physically; and I'm going to 18
  - do some different treatment for my liver than 19
  - I'm going to do for my heart. The two work 20
  - 21 together.
  - 22 The upper part of the basin and the
    - lower part of the basin are inseparable in
  - terms of how they function hydrologically. 24
  - But from a management point of view, what THE REPORTING GROUP

Mason & Lockhart

23

TRIAL - November 18, 2016 (Vol. XII) Florida v. Georgia 3161 **CERTIFICATE** 1 1 we -- what might be instituted in each area 2 I, Claudette G. Mason, a Notary Public 2 would need to be evaluated in the context of 3 in and for the State of Maine, hereby certify the whole basin. 3 that the foregoing pages are a correct 4 4 SPECIAL MASTER LANCASTER: And if they 5 transcript of my stenographic notes of the 5 were managed differently, could that affect Proceedings. 6 6 a -- ultimately the low water level? 7 I further certify that I am a 7 THE WITNESS: If there were a low flow 8 disinterested person in the event or outcome 8 level that was desired to be attained, yes, of the above-named cause of action. 9 IN WITNESS WHEREOF, I subscribe my hand 9 the two -- the way each parts of the basin 10 11 this 10th day of December, 2016. 10 were functioning with respect to delivery or 12 11 supporting that low flow would need to be 13 considered. 12 14 13 SPECIAL MASTER LANCASTER: Counsel? 15 /s/ Claudette G. Mason 14 MR. PERRY: Nothing further, your Honor. Claudette G. Mason, RMR, CRR 15 MS. DeSANTIS: Nothing further, your 16 Court Reporter 16 Honor. 17 SPECIAL MASTER LANCASTER: Thank you My Commission Expires 17 June 9, 2019. 18 very much. 18 19 THE WITNESS: Thank you. 19 20 MR. PRIMIS: Your Honor, as I mentioned 20 21 this morning, our plan is to resume Monday 21 22 morning with Dr. Wei Zeng. 22 23 SPECIAL MASTER LANCASTER: So you're 23 24 suggesting we recess? 24 25 MR. PRIMIS: I would join Mr. Perry, 25 THE REPORTING GROUP THE REPORTING GROUP Mason & Lockhart Mason & Lockhart 3160 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 weather, when I went home yesterday, was in 6 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.) (Proceeding adjourned to Monday, 18 November 21, 2016, at 9:00 a.m.) 19 (End of day) 20 21 22 23 24 25 THE REPORTING GROUP

Mason & Lockhart

55 of 87 sheets

Florida v. Georgia

\$	<b>11:50</b> [1] - 3065:1	3033:2, 3052:19,	3054:24, 3056:1,	<b>2040</b> [2] - 3045:19,
<u> </u>	<b>11th</b> [2] - 3043:8,	3053:3, 3053:4,	3089:17	3048:7
<b>\$10</b> [1] - 3082:9	3072:18	3073:9, 3110:21,	<b>2012</b> [36] - 2955:6,	<b>2045</b> [2] - 3045:19,
<b>\$700</b> [2] - 3000:20,	<b>12</b> [4] - 3008:3,	3111:20, 3123:7,	2976:7, 2977:7,	3050:3
3002:14	3043:24, 3045:16,	3123:8, 3126:23,	2977:10, 2977:14,	<b>21</b> [6] - 2974:8,
	3136:17	3127:6, 3128:3,	2977:16, 2998:6,	2992:16, 3004:6,
•	<b>12-year</b> [1] - 3076:11	3143:5	2998:8, 2999:14,	3005:8, 3149:3,
	<b>125</b> [2] - 2982:24,	<b>2,000</b> [1] - 3077:1	2999:24, 3000:19,	3160:19
<b>'06</b> [2] - 3064:6,	2983:3	<b>2,500</b> [1] - 2983:23	3003:16, 3007:12,	<b>213</b> [3] - 2969:17,
3070:8	<b>126</b> [1] - 3087:16	<b>2.4</b> [1] - 2955:13	3008:3, 3009:10,	2969:22, 2970:8
<b>'07</b> [2] - 3026:17,		<b>2.9</b> [1] - 3116:7	3030:3, 3030:4,	<b>22</b> [7] - 3009:21,
3037:12	<b>12657</b> [1] - 3124:13	<b>20</b> [4] - 2986:16,	3034:23, 3043:6,	3071:6, 3078:7,
<b>'07-'08</b> [1] - 3037:4	<b>126756</b> [1] - 3125:3	2986:20, 2988:19,	3053:6, 3053:14,	3149:5, 3149:7,
<b>'08</b> [2] - 3026:17,	<b>126761</b> [1] - 3125:16		3054:20, 3055:1,	
3037:13	<b>126762</b> [1] - 3125:23	3053:9	3056:2, 3056:7,	3149:8, 3149:9
<b>'09</b> [1] - 3047:25	<b>127</b> [1] - 2985:1	<b>200</b> [2] - 2986:20		<b>23</b> [3] - 3007:14,
<b>'16</b> [1] - 3099:24	<b>12:44</b> [1] - 3065:3	<b>2000</b> [6] - 2993:13,	3057:24, 3059:13,	3132:12, 3132:14
	<b>13</b> [3] - 2955:4,	3043:14, 3045:14,	3061:11, 3061:15,	<b>232</b> [1] - 2996:16
1	3030:4, 3043:24	3045:16, 3046:16,	3074:16, 3074:20,	<b>24</b> [2] - 3008:10,
<u>'</u>	<b>130</b> [1] - 3068:21	3047:2	3074:24, 3089:2,	3136:24
<b>'s</b> [1] - 3161:15	<b>135</b> [2] - 3047:6,	<b>2001</b> [3] - 2969:7,	3089:14, 3089:17,	24-seven [1] - 3154:3
	3047:8	3003:12, 3003:20	3092:25	<b>25</b> [3] - 3138:17,
1	<b>14</b> [2] - 2991:12,	<b>2002</b> [4] - 2969:8,	<b>2013</b> [16] - 2957:7,	3138:22, 3138:25
	3018:24	3003:13, 3003:21,	3015:20, 3016:7,	<b>280</b> [1] - 2987:13
<b>1</b> [26] - <b>295</b> 0:9,		3114:8	3043:25, 3044:2,	<b>291</b> [1] - 3014:5
2951:14, 2982:8,	<b>142</b> [1] - 2943:1	<b>2003</b> [4] - 3135:23,	3044:4, 3044:22,	<b>2947</b> [1] - 2944:3
2984:15, 2998:10,	<b>148</b> [1] - 3047:2	3141:8, 3145:2,	3045:4, 3045:9,	
3009:20, 3019:5,	<b>15</b> [6] - 3053:9,	3145:7	3046:17, 3047:23,	<b>2948</b> [1] - 2944:3
3027:7, 3029:4,	3084:13, 3084:24,		3047:24, 3049:5,	<b>2950</b> [1] - 2944:20
3029:17, 3029:20,	3133:7, 3133:9,	<b>2004</b> [1] - 3106:10	3061:25, 3085:22,	<b>2957</b> [1] - 2944:15
3034:23, 3034:25,	3133:19	<b>2005</b> [1] - 3106:10	3086:17	<b>296</b> [1] - 3014:11
3052:13, 3052:14,	<b>153</b> [2] - 3013:2,	<b>2006</b> [23] - 2992:13,		<b>2966</b> [1] - 2944:11
3052:18, 3054:9,	3013:5	3015:11, 3070:8,	<b>2014</b> [12] - 2968:1,	<b>2969</b> [1] - 2944:10
	<b>154</b> [6] - 2966:9,	3106:9, 3106:10,	2968:2, 2970:13,	<b>2977</b> [1] - 2944:16
3073:8, 3083:14,	2966:17, 2972:20,	3107:9, 3111:1,	2973:5, 2974:8,	<b>2983</b> [1] - 2944:22
3086:12, 3086:13,	2973:11, 2974:13,	3111:6, 3111:10,	2974:16, 2976:3,	<b>2991</b> [1] - 2944:17
3097:11, 3097:15,	2980:15	3113:5, 3115:23,	2976:7, 3017:8,	<b>2996</b> [1] - 2944:20
3106:13, 3128:2,	<b>16</b> [1] - 2977:6	3118:2, 3118:20,	3020:15, 3036:17,	<b>2998</b> [1] - 2944:21
3142:1	<b>18</b> [5] - 2943:13,	3124:25, 3125:13,	3062:25	<b>2:28</b> [1] - 3135:4
<b>10</b> [19] - 2955:15,	2996:13, 3013:10,	3132:15, 3132:20,	<b>2015</b> [15] - 3012:23,	
2972:15, 2978:1,	3013:19, 3115:13	3142:25, 3148:15,	3019:15, 3019:18,	<b>2:30</b> [1] - 3134:20
2978:3, 2986:12,		3148:24, 3149:13,	3019:24, 3030:7,	<b>2:40</b> [1] - 3135:6
2986:14, 3016:11,	<b>19</b> [2] - 2998:2,	3150:21, 3151:1	3047:15, 3048:1,	<b>2B</b> [2] - 2978:3, 2978:
3051:3, 3074:23,	2998:14	<b>2007</b> [4] - 3118:3,	3048:14, 3048:17,	
3074:25, 3088:6,	<b>1946</b> [1] - 3070:15	3118:4, 3126:18,	3049:1, 3049:4,	3
3094:12, 3096:15,	<b>1954</b> [2] - 2977:23,	3143:2	3074:13, 3099:12,	<b>3</b> [40] 2060-22
3109:20, 3109:24,	3016:16		3100:9, 3100:15	<b>3</b> [10] - 2969:22,
3117:16, 3131:17,	<b>1958</b> [1] - 3100:7	<b>2007-2008</b> [1] -	<b>2016</b> [18] - 2943:13,	2969:25, 3005:16,
3132:16, 3132:23	<b>1990</b> [1] - 3070:5	3051:17	3019:15, 3021:4,	3007:15, 3007:16,
100 [1] - 2971:23	<b>1991</b> [2] - 3110:14,	<b>2008</b> [3] - 3131:1,	3021:9, 3021:13,	3019:4, 3026:9,
105 [2] - 2969:18,	3110:15	3151:24, 3152:3	3035:1, 3074:14,	3046:21, 3052:22,
2969:25	<b>1992</b> [1] - 2987:5	<b>2009</b> [6] - 2990:21,		3052:25
	<b>1998</b> [1] - 3114:8	3131:12, 3136:9,	3099:11, 3099:16,	<b>30</b> [4] - 2984:11,
108 [1] - 3049:15	<b>1a</b> [1] - 2957:25	3145:2, 3145:7,	3099:21, 3100:2,	2984:13, 3011:3,
109 [1] - 3126:11	<b>1b</b> [1] - 2958:24	3145:21	3100:7, 3100:10,	3059:13
<b>10:20</b> [2] - 3010:24,		<b>2010</b> [1] - 3050:22	3100:14, 3100:22,	<b>30(b)(6</b> [3] - 2993:15,
3011:5	<b>1st</b> [1] - 3143:15	<b>2011</b> [16] - 2976:19,	3133:19, 3160:19,	2994:2, 2994:10
<b>10:33</b> [1] - 3011:7		2977:23, 2980:25,	3161:11	<b>30-plus</b> [1] - 3045:18
10th [1] - 3161:11	2	2990:21, 2991:5,	<b>2017</b> [7] - 2982:14,	<b>300</b> [2] - 3000:20,
<b>11</b> [1] - 3016:24	<b>2</b> [21] - 2982:3, 2982:5,	2990.21, 2991.3,	3025:25, 3027:5,	300 [2] - 3000.20, 3002:13
11[1] - 3010.24	■ Z 1211 = ZMOZ 3 ZMOZ 3	∠ฮฮ i .ฮ, ∠ฮฮ3.0,	2020-2 2020-17	3002.13
		2005.23 3043.0	3028:3, 3028:17,	2005 (4) 2044-40
<b>115</b> [2] - 3133:11,	2982:6, 3009:16,	2995:23, 3043:9,	3028:20, 3028:24	<b>3005</b> [1] - 2944:18
		3053:20 3054:6		<b>3005</b> [1] - 2944:18 <b>3007</b> [1] - 2944:14 <b>3008</b> [1] - 2944:15

3163

		1	1	T
<b>3009</b> [1] - 2944:8	3148:15, 3149:2,	<b>671506</b> [1] - 3024:16	2988:19	3031:12, 3033:15,
<b>3012</b> [1] - 2944:22	3149:10, 3154:22,	<b>69</b> [1] - 3009:21	<b>A91-049-0390</b> [1] -	3077:15, 3085:4,
<b>3015</b> [1] - 2944:13	3155:2	<b>66</b> [1] 6666.21	2989:17	3085:9, 3085:14
<b>3016</b> [1] - 2944:14	<b>4-mile</b> [2] - 2978:18,	7	<b>A91-47</b> [1] - 2987:13	achievable [1] -
<b>3017</b> [1] - 2944:13	2979:9		abbreviation [1] -	3078:17
<b>3018</b> [1] - 2944:21	<b>40</b> [5] - 2989:17,	<b>7</b> [11] - 2976:24,	2952:15	achieve [1] - 3115:23
<b>3020</b> [1] - 2944:17	3011:3, 3024:8,	3070:8, 3108:21,	<b>ABID</b> [1] - 2943:18	achieved [1] - 3019:25
<b>3029</b> [2] - 2944:3,	3071:7, 3071:8	3112:10, 3113:20,	ability [1] - 3041:4	acknowledgments [3]
2944:20	<b>420</b> [1] - 2987:18	3115:18, 3119:19,	able [9] - 2996:4,	- 2951:16, 2952:9,
<b>3031</b> [1] - 2944:24	<b>45745</b> [1] - 3004:24	3120:4, 3124:15,	3007:5, 3020:9,	3030:22
<b>3045</b> [1] - 2944:9	<b>45746</b> [1] - 3004:11	3124:24, 3125:13	3045:22, 3048:23,	acquiring [1] -
<b>3048</b> [1] - 2944:10	<b>46</b> [1] - 3110:21	<b>7,000</b> [1] - 2954:19	3081:8, 3134:10,	2981:11
<b>3059</b> [1] - 2944:9	<b>478438</b> [1] - 2963:15	<b>70</b> [1] - 2956:10	3134:13, 3134:14	acre [4] - 2987:23,
<b>3078</b> [2] - 2944:3,	<b>49h</b> [3] - 3015:24,	<b>70,000</b> [1] - 3089:24	abnormal [2] -	3000:20, 3109:12,
2944:8	3016:11, 3016:24	<b>700</b> [1] - 2987:14	3154:11, 3154:12	3110:5
<b>3079</b> [2] - 2944:18,	<b>4:00</b> [1] - 3096:15	<b>705</b> [1] - 3045:11	above-entitled [1] -	acreage [12] -
2944:23		<b>708</b> [1] - 2983:20	2943:10	2986:17, 2986:19,
<b>3084</b> [1] - 2944:24	5	<b>73</b> [1] - 3088:23	above-named [1] -	2988:10, 3002:13,
<b>3086</b> [1] - 2944:9		<b>756</b> [1] - 3125:4	3161:9	3003:6, 3003:10,
<b>3087</b> [1] - 2944:10	<b>5</b> [9] - 2966:11,	<b>77</b> [3] - 2991:14,	abrogation [1] -	3061:7, 3097:23,
<b>3088</b> [2] - 2944:9,	2966:12, 2970:18,	2991:19, 2991:24	2958:16	3098:2, 3102:17,
2944:20	2970:19, 2970:24,		absolutely [6] -	3102:20, 3137:18
<b>31</b> [1] - 3015:2	2972:21, 2980:14,	8	2950:4, 2981:10,	acreages [1] - 3102:15
<b>3105</b> [1] - 2944:4	3017:22, 3071:5	<b>8</b> [4] - 3070:9,	2996:20, 3061:4,	acres [20] - 2979:5,
<b>3106</b> [2] - 2944:4,	<b>5,000</b> [1] - 3076:19	3126:12, 3126:13,	3098:16, 3138:1	2983:10, 2983:24,
2944:23	5-to-10-year [1] -	3132:16	abstract [1] - 3015:22	2984:9, 2985:2,
<b>3110</b> [1] - 2944:12	3130:7	<b>80</b> [9] - 2970:21,	abundance [1] -	2985:7, 2986:25,
<b>3115</b> [1] - 2944:8	<b>50</b> [1] - 3007:14	2971:6, 2971:8,	3009:16	2987:13, 2987:18,
<b>3118</b> [1] - 2944:12	<b>50's</b> [1] - 3160:7	2971:0, 2971:0,	accept [2] - 3112:14,	2988:19, 2988:20,
<b>3120</b> [1] - 2944:16	<b>50-some-odd</b> [1] -	2971:25, 2972:4,	3139:23	2989:3, 2989:10,
<b>3126</b> [1] - 2944:19	3077:16	2972:11, 2972:16	acceptable [1] -	2989:17, 2989:18,
<b>3133</b> [1] - 2944:19	<b>51</b> [2] - 3008:10,	<b>84</b> [1] - 2969:25	3139:13	2989:25, 3061:6,
<b>3135</b> [1] - 2944:19	3131:20	<b>84-85</b> [1] - 3049:14	accommodate [1] -	3089:24, 3090:2
<b>3137</b> [1] - 2944:8	<b>52</b> [3] - 3026:22,	<b>85</b> [1] - 3079:8	3070:19	<b>Act</b> [73] - 2960:6,
<b>3147</b> [1] - 2944:4	3026:24, 3096:18	<b>86</b> [1] - 3086:7	accomplish [1] -	2960:11, 2968:1,
<b>3149</b> [1] - 2944:8	<b>534</b> [5] - 2950:10,	<b>879</b> [2] - 3012:7,	3065:14	2968:7, 2968:18,
<b>32</b> [1] - 3071:10	2950:22, 2951:1,	3013:6	according [1] -	2968:20, 2969:4,
<b>34</b> [4] - 3017:11,	2951:14, 2954:25	<b>8:55</b> [1] - 2943:14	2958:13	2969:7, 2970:11,
3017:18, 3072:20,	<b>536</b> [2] - 2998:14,	<b>0.00</b> [1] - 2040.14	accurate [5] - 2950:3,	2981:24, 2991:5,
3077:10, 3072.20,	3002:4	9	3041:11, 3043:22,	2993:8, 2993:13,
<b>36</b> [4] - 3018:12,	<b>537</b> [1] - 2943:12	3	3088:18, 3120:19	2993:20, 2994:6,
3018:14, 3018:20,	<b>54</b> [3] - 2957:2,	<b>9</b> [6] - 2955:1,	accurately [1] -	2994:11, 2994:20,
3018:22	2957:3, 2963:15	2983:19, 3007:24,	3123:10	2995:2, 2995:17,
<b>369</b> [1] - 2989:18	<b>55</b> [2] - 3116:5, 3116:7	3067:16, 3088:6,	<b>ACF</b> [29] - 2951:23,	2998:6, 2999:16,
<b>37</b> [4] - 2982:25,	<b>56</b> [4] - 2977:1,	3161:17	2952:18, 2952:25,	2999:22, 3001:4,
3018:19, 3018:23,	2978:3, 3116:5,	<b>9,000</b> [2] - 3092:21,	2959:19, 2994:8,	3001:10, 3002:24,
3018:25	3116:10	3094:3	2996:7, 2996:23,	3006:24, 3007:13,
<b>38</b> [1] - 3020:14	<b>56-page</b> [1] - 2983:23	<b>90's</b> [1] - 2971:23	2997:4, 2997:10,	3009:20, 3010:5,
<b>384</b> [1] - 2988:20	<b>599</b> [2] - 3018:24,	<b>90,000</b> [1] - 2983:9	3023:22, 3024:5,	3027:14, 3028:25,
<b>3:15</b> [1] - 3160:17	3019:22	<b>904</b> [1] - 3079:1	3024:6, 3025:5,	3029:3, 3036:14,
		<b>93</b> [1] - 2970:3	3031:12, 3031:15,	3036:19, 3039:20, 3050:21, 3051:13,
4	6	<b>9:00</b> [1] - 3160:19	3032:19, 3033:22,	3050:21, 3051:15, 3051:25,
	<b>6</b> [5] - 2969:16,		3034:6, 3082:24,	3053:20, 3053:25,
<b>4</b> [19] - 2957:1,	2977:7, 3017:22,	Α	3084:2, 3091:3,	3056:7, 3056:16,
2969:21, 2970:19,	3076:19, 3118:11	<b>a.m</b> [7] - 2943:14,	3091:10, 3093:19,	3056:20, 3056:22,
3009:1, 3017:22,	<b>60</b> [2] - 2972:1, 3160:8	3011:5, 3011:7,	3109:15, 3110:3,	3057:18, 3061:9,
3019:4, 3051:3,	<b>65</b> [3] - 3120:3,	3051:3, 3065:1,	3129:6, 3146:20,	3061:11, 3061:14,
3111:15, 3116:4,	3124:13, 3125:16	3096:15, 3160:19	3147:4, 3157:8	3063:7, 3063:11,
3116:11, 3138:23,	<b>67</b> (3) - 3020:14		ACFS [9] - 3030:5,	3063:12, 3063:13,
3142:1, 3143:6,	3020:18, 3021:1 TH	E REPORTING G	GROUP :19, 3031:5,	3555, 5555,
		Iason & Lockh	art	
7 of 87 sheets	<u></u>	. age stos to stos of sts	TL.	e Reporting Group (207) 797-60

3063:16, 3063:23, adopters [1] - 2971:21 2974:10, 3005:18, alternative [1] apart [2] - 3067:16, 3025:19, 3078:10, 3065:9, 3065:11, adoption [5] -3107:22 3094:25 3070:17, 3073:18, 3109:20, 3109:25 alternatives [1] -2971:18, 2971:22, apologize [3] -3096:14, 3116:23, agree [13] - 2980:2, 3117:20 3064:4, 3098:11 2980:13, 3150:8, 3117:3, 3117:13, adult [1] - 3136:17 2987:16, 2988:20, amend [1] - 3061:23 3152:17 3131:24, 3132:7, 2989:21, 2994:4, advance [3] - 2996:11, amending [2] apparent [1] - 2984:8 3140:23, 3141:8, 3042:6. 3075:12. 3004:25, 3133:8 3063:12, 3065:11 appealed [1] -3141:15, 3143:8, adverse [1] - 2958:6 3096:1, 3115:2, amendments [13] -3072:18 3143:11, 3143:20, 3131:15, 3132:10, advice [3] - 3079:13, 2967:25, 2968:3, appear [3] - 2986:17, 3151:18 3148:11, 3149:13 3083:9, 3087:13 3036:16, 3061:9, 3030:11, 3125:6 act [1] - 2993:20 agreement [5] -3061:20, 3062:1, APPEARANCES [1] advise [2] - 3107:13, Action [2] - 3012:23, 2962:20, 3019:13, 3062:3, 3063:10, 2943:16 3107:21 3064:14 3019:15, 3019:16, 3063:20, 3063:21, advised [2] - 3015:5, Appendix [1] action [11] - 2963:6, 3075:13 3063:25, 3065:8, 3018:24 3085:24 2963:8, 2973:12, agricultural [37] -3065:14 advisers [1] - 3015:14 apples [1] - 3020:12 3052:17, 3059:18, 2946:10, 2954:24, amount [19] - 2954:1, advising [2] - 3083:4, applicable [2] -3060:1, 3117:10, 2955:14, 2955:22, 2988:14, 3041:5, 3039:25, 3141:14 3111:22 3117:24, 3119:8, 2959:22, 2959:25, 3041:12, 3045:11, application [2] -Advisory [10] -3119:10, 3161:9 2960:16, 2960:19, 3045:22, 3050:2, 3106:22, 3107:5, 3059:20, 3150:12 2961:6, 2961:15, actions [5] - 2978:7, 3076:7, 3083:25, 3107:6, 3107:16, applications [12] -3028:5, 3034:15, 2961:18, 2962:1, 3084:3, 3092:24, 2959:16, 3058:7, 3107:23, 3108:4, 3118:9, 3141:21 2965:17, 2966:6, 3109:16, 3110:4, 3115:24, 3150:20, 3059:10, 3059:21, 2983:7, 3027:4, active [1] - 3128:17 3117:21, 3123:21, 3150:22 3059:25, 3060:18, 3035:14, 3035:16, activities [5] - 3021:4, 3124:1, 3124:8, advisory [4] -3089:13, 3089:16, 3036:9, 3036:10, 3021:9, 3021:13, 3127:13, 3139:10 2992:12, 3120:5, 3089:20, 3090:5, 3058:8, 3088:4, 3148:8, 3148:11 amounts [1] - 2986:17 3120:9, 3120:15 3090:6, 3139:23 3088:11, 3088:15, activity [1] - 3022:5 analyses [1] - 3139:13 advocacy [1] applied [5] - 3060:4, 3097:1, 3097:4, Acts/Plans [1] analysis [2] - 3044:19, 2961:10 3090:4, 3141:13, 3097:8, 3097:19, 3141:2 3098:8 3141:17, 3155:15 advocate [2] -3098:18, 3107:19, actual [8] - 2956:11. analyze [2] - 3038:24, 2961:22, 3076:8 applies [3] - 2972:5, 3110:6, 3114:2, 2987:13, 3009:19, 3124:1 3097:7, 3097:12 affect [1] - 3159:5 3118:1, 3124:2, 3009:23, 3041:19, analyzed [1] - 3078:15 apply [5] - 3089:13, affected [2] - 3053:6, 3124:5, 3138:10, 3047:25, 3049:23, analyzing [1] -3097:1, 3097:4, 3148:8 3141:16 3102:21 3044:18 3109:12, 3150:10 affidavit [6] - 3045:7, agriculture [4] addition [2] - 2949:1, animal [1] - 3012:19 apportionment [1] -3046:9, 3046:22, 3035:19, 3053:7, 3065:10 announced [1] -3154:16 3086:15, 3087:3, 3096:21. 3097:5 additional [3] -3059:8 3087:6 appreciate [10] -**Alabama** [7] - 3026:4, 2988:10, 3065:9, affiliated [2] announcing [2] -2967:16, 2988:24, 3037:22, 3069:4, 3077:1 3058:15, 3059:17 2992:22, 3011:14, 2956:19, 3014:7 3095:12, 3095:15, address [6] - 2968:24, answer [11] - 2962:2, 3012:3, 3089:10, afraid [1] - 3105:13 3108:25, 3146:3 3051:10, 3057:24, 2966:4, 3007:8, 3106:7, 3115:17, afternoon [13] -Albany [2] - 2946:9, 3061:12, 3124:1, 3020:8, 3032:11, 3116:12, 3154:14 3065:5. 3065:6. 3097:12 3146:15 3095:5, 3096:6, appreciation [1] -3077:25, 3078:2, Alice [1] - 3122:10 addressed [5] -3102:10, 3121:1, 3046:1 3104:3, 3104:6, allegations [1] -2953:13, 2964:3, 3133:18, 3147:20 apprise [2] - 2956:1, 3105:17, 3105:19, 3101:18 2964:4, 3111:13, anticipate [1] -2956:14 3106:4, 3135:10, Allen [2] - 2990:11, 3120:21 3021:12 3135:14, 3135:15, apprised [2] -2991:16 addresses [2] anyplace [2] - 3084:5, 2996:18, 2997:3 3160:2 allen [1] - 3136:4 2970:21, 2991:8 3091:1 Ag [3] - 2959:18, approach [10] alleviate [1] - 3072:9 addressing [2] -3082:21, 3098:5 anyway [2] - 3042:4, 2965:21, 3031:22, alleviating [1] -3120:15, 3121:14 3057:2 3044:24, 3048:18, agencies [4] -2999:23 adjoining [1] -3012:13, 3012:21, Apalachicola [10] -3059:5, 3078:22, allow [2] - 2959:3, 3108:23 3112:25, 3142:13 2950:12, 2978:14, 3105:1, 3105:24, 3040:14 adjourned [1] -3019:6, 3019:23, 3127:12, 3129:20 agency [5] - 2958:11, allowed [3] - 2958:17, 3160:18 3022:15, 3073:24, 3012:10, 3012:16, approached [1] -3002:25, 3155:10 adopt [2] - 2948:4, 3092:11, 3092:12, 3147:1 3012:19 3105:6 almost [1] - 3102:4 3147:12, 3147:17 agenda [1] - 3125:13 approaches [1] adopted [4] - 3061:2, alter [1] - 3127:17 Apalachicola-3130:16 aggressively [1] -3062:2, 3127:18, alternate [2] -Chattahoocheeappropriate [5] -2964:13 3130:24 THE REPORTING GROUP [1] - 2950:12 2996:1, 3010:24, ago [7] - 2969:23,

3082:10, 3129:16, 3132:21, 3133:6, 2956:10, 2987:2, 3063:3, 3064:9, 2960:24, 2961:3, 3137:22 3138:6, 3138:10, 3000:6, 3002:8, 3066:4, 3066:12 2961:12, 2964:18, 3138:11, 3138:13, augmenting [2] -2965:15, 3006:20, appropriated [1] -3023:21, 3157:15 2980:20, 3062:8 3038:14 3010:4 3138:19, 3139:15, assume [1] - 3085:10 3139:18, 3139:24, assumes [1] - 3102:16 August [2] - 2983:5, balanced [5] appropriates [1] -3140:2, 3140:8, assured [1] - 3117:3 3048:1 2957:13, 2965:4, 3057:13 3146:8 2965:11, 2966:1, Atlanta [21] - 2956:19, Augusta [1] - 3136:12 appropriators [1] -3057:21 **arguing** [1] - 3073:3 2982:4, 2997:9, authorities [2] -2997:24 approval [1] - 3041:8 argument [4] -2997:14, 3024:3, 2959:3, 3140:18 **balances** [1] - 3000:1 3072:16, 3072:19, 3026:2, 3035:9, balancing [1] - 3039:1 authority [10] approve [2] - 3093:20, 3073:1, 3073:8 ball [1] - 3145:7 3038:5, 3040:23, 3130:18 2963:8, 2971:5, arise [1] - 2955:21 3041:9, 3047:23, 2989:9, 2995:15, ban [2] - 3026:17, approved [3] arm [3] - 2985:12, 3049:4, 3050:11, 3052:25 3130:25, 3131:14, 3042:11, 3043:11, 3036:3, 3126:4 3051:11, 3091:6, 3043:16, 3102:7, band [1] - 2979:8 3145:21 3091:7, 3096:12, Army [15] - 2952:19, 3140:13, 3140:16 bands [1] - 2979:7 **April** [1] - 2973:6 3153:2, 3154:3, aquatic [4] - 3013:23, 2952:25, 3034:5, authorize [1] - 3138:3 Bankruptcy [1] -3038:8, 3042:25, 3154:16 3014:8, 3148:8, authorized [4] -2943:12 3045:10, 3046:8, Atlantic [1] - 2962:8 3038:15, 3039:13, 3148:12 **Baptism** [1] - 3037:12 3047:15, 3069:4, attachment [1] -Aquifer [8] - 2962:14, 3070:13, 3138:2 Barnes [9] - 2990:11, 3069:16, 3070:11, 3015:24 authorizing [2] -2962:15, 2975:4, 2990:14, 2991:17, 3077:9, 3086:5, 2979:15, 3055:11, attachments [1] -3039:11, 3070:14 2993:4, 3053:18, 3087:17, 3087:21 3046:13 authors [2] - 3015:10, 3060:9, 3060:22, 3053:24, 3054:12, arrangement [1] attained [1] - 3159:8 3139:7 3031:11 3136:4, 3136:6 3012:13 attempt [1] - 2968:16 aguifer [15] - 2962:17, available [5] - 2965:2, based [14] - 2945:22, arrived [2] - 3006:13, 2962:24, 2963:1, attempted [1] -3084:4, 3086:1, 2946:12, 2967:23, 3056:7 2963:2, 2981:6, 3150:10 3143:22, 3143:25 2969:10, 3013:22, article [3] - 3126:8, 2981:8, 3027:17, attempting [2] average [1] - 3154:9 3014:20, 3033:16, 3028:1, 3028:16, 3126:19, 3127:7 3042:10, 3043:15, 2999:25, 3124:21 aware [41] - 2950:20, aside [1] - 3014:24 3055:19, 3055:21, attended [2] - 3016:7, 2952:5, 2954:13, 3052:21, 3052:23, aspect [1] - 3038:9 3055:25, 3056:24, 2967:12, 2971:6, 3054:16, 3072:10, 3017:8 3066:15, 3067:4 3075:10 aspects [1] - 3074:6 attention [27] -2972:10, 2972:13, aquifers [18] - 2975:2, baseflow [1] - 2985:19 **ASR** [6] - 3028:17, 2969:21, 2969:24, 2972:14, 2972:19, 2975:5, 2975:16, 3066:10, 3066:13, 2980:23, 2981:1, baseline [1] - 2972:16 2970:18, 2983:19, 2975:21, 2978:24, 3066:15, 3067:1, 2984:13, 2992:11, 2988:16, 2991:11, basic [3] - 3062:3, 2980:19, 3028:3, 3067:4 2998:2, 3000:5, 2992:15, 2993:5, 3107:20, 3108:2 3028:13, 3055:15, 2995:13, 3008:15, assemble [1] - 3108:2 3004:5, 3004:9, Basin [26] - 2950:13, 3065:17, 3065:22, 3006:10, 3008:25, 3025:13, 3070:23, 2952:18, 2966:21, Assembly [1] -3065:24, 3066:19, 3076:24, 3088:22, 3012:6, 3013:2, 3130:25 2973:3, 2983:10, 3066:21, 3067:2, 3090:16, 3091:9, assertion [4] - 3063:5, 3106:12, 3110:20, 2992:14, 3005:12, 3067:8, 3067:15, 3091:12, 3092:9, 3068:4, 3081:24, 3111:15, 3113:18, 3010:9, 3010:14, 3137:14 3113:25, 3117:16, 3099:23, 3100:8, 3082:4 3033:23, 3058:9, area [26] - 2982:4, 3118:12, 3118:21, 3100:16, 3100:21, assessed [1] -3082:24, 3089:23, 3000:13, 3000:22, 3109:10, 3109:14, 3153:25 3119:4, 3122:25, 3107:12, 3109:15, 3036:6, 3040:23, 3124:22, 3126:7, 3109:19, 3111:9, assessment [3] -3110:3, 3111:25, 3048:4, 3051:11, 3131:18 3111:13, 3117:1, 3117:22, 3129:6, 2953:3, 3083:16, 3060:5, 3060:6, attributes [1] -3117:11, 3117:20, 3136:21, 3139:5, 3085:21 3060:16, 3099:5, 3137:12 3117:24, 3119:16, Assessment [1] -3144:25, 3145:11, 3107:25, 3123:22, auction [11] - 2968:7, 3146:19, 3154:15 3146:20, 3147:4, 2950:11 3129:17, 3133:21, 2968:10. 2969:5. awareness [1] -3150:10 assessments [1] -3133:23, 3134:12, 2980:4, 2999:11, 3109:13 basin [37] - 2953:21, 3056:10 3134:15, 3134:17, assigned [1] - 2989:4 3001:11, 3003:5, 2972:11, 2978:8, 3148:13, 3153:2, assist [3] - 3135:17, 3003:15, 3003:18, В 2992:5, 2993:24, 3154:17, 3155:7, 3003:20, 3132:2 3003:22, 3027:10, 3138:15, 3141:1 background [1] -3158:4, 3158:6, auctions [1] - 3003:12 3029:3, 3034:16, assistant [2] - 3046:7, 3135:17 3159:1 Audience [1] -3036:4, 3037:11, 3082:25 backlogged [6] areas [23] - 2978:18, 3033:19 3058:3, 3061:7, assisted [2] - 3069:2, 3132:15, 3132:17, 2978:20, 2981:9, augment [3] - 3066:8, 3062:15, 3064:4, 3104:1 3132:18, 3132:21, 2984:19, 3035:3, 3066:22, 3066:23 3064:5, 3072:12, assisting [1] -3140:1, 3140:5 3035:21, 3064:6, augmentation [6] -3081:16, 3083:2, 3104:11 ·· - 3054:22 3130:5, 3130:8, THE REPORTING GROUP 3095:21, 3101:7,

**:e** [8] - 2957:19,

associated [6] -

3079:1, 3098:11,

3133:20, 3138:4, 3144:11, 3144:17, 3146:22, 3147:7, 3157:4, 3158:8, 3158:9, 3158:11, 3158:13, 3158:22, 3158:23, 3159:3, 3159:9 basis [7] - 2954:2, 2954:19, 3112:18, 3113:10, 3114:13, 3115:7, 3123:24 baton [2] - 3104:2, 3105:14 **bay** [2] - 3073:17 Bay [4] - 3073:24, 3092:12, 3147:12, 3147:17 bear [4] - 3130:2, 3142:14, 3149:16, 3155:5 bearing [1] - 3158:9 became [8] - 2968:21, 3037:1, 3037:19, 3056:13, 3056:18, 3111:13, 3122:17, 3122:23 become [2] - 3034:21, 3070:23 **bedded** [1] - 3147:2 bedrock [1] - 2995:10 begin [5] - 2945:12, 2947:23, 3024:20, 3135:16, 3135:21 beginning [3] -2953:8, 3029:14, 3119:5 begins [3] - 3080:14, 3084:24, 3127:11 behalf [2] - 3075:6, 3075:7 belief [3] - 2957:25, 3144:19, 3144:21 beliefs [1] - 3119:14 **below** [3] - 3040:8, 3040:14, 3049:11 benchmark [1] -3154:8 beneficial [2] -3061:3, 3061:4 benefit [12] - 2979:5, 2980:3, 3000:17, 3001:7, 3001:8, 3001:10, 3028:10, 3056:17, 3080:4, 3103:11, 3150:16, 3157:16 benefits [10] - 3000:6, 3002:7, 3006:15, 3022:20, 3045:20,

3068:5, 3068:14, 3068:18, 3068:22, 3081:11 BENJAMIN [1] -2943:18 best [13] - 2946:17, 2965:13, 2969:9, 2972:14, 2995:8, 3032:11, 3032:13, 3058:25, 3088:13, 3099:5, 3121:3, 3125:11, 3145:16 better [7] - 2965:24, 2990:6, 2996:6, 3056:14, 3106:4, 3113:10, 3137:13 between [17] -2964:19, 3000:2, 3000:20, 3025:15, 3046:16, 3049:13, 3051:3, 3064:8, 3069:3, 3069:21, 3074:11, 3096:15, 3114:8, 3139:8, 3141:10, 3144:23, 3150:15 beyond [6] - 2976:7, 3021:19, 3045:24, 3060:5, 3117:4, 3117:13 **big** [13] - 2949:10, 2974:5, 3011:25, 3035:6, 3037:3, 3039:13, 3044:6, 3049:11, 3050:20, 3050:24, 3058:6, 3064:11, 3095:3 bigger [2] - 2984:18, 3061:21 biggest [2] - 3049:20, 3051:14 **Bill** [2] - 2969:17, 2969:22 binder [10] - 2948:21, 2949:8, 2950:9, 2951:15, 2976:24, 3012:1, 3078:7, 3083:15, 3116:4, 3138:23 binders [2] - 2949:2, 3105:25 biological [3] -3099:25, 3100:2, 3149:24 birding [1] - 3136:18 **bit** [12] - 2957:10, 2964:7, 2983:3, 2984:15, 2986:5, 3012:12. 3018:15. 3035:20, 3067:7

3158:16 blessed [1] - 2996:25 **blow** [5] - 3063:8, 3063:11, 3063:14, 3063:22, 3126:25 **blowup** [2] - 3007:17, 3007:18 board [1] - 3092:11 Board [1] - 3012:17 book [2] - 2957:1, 3134:4 books [1] - 3029:1 borders [1] - 2960:23 bottom [16] - 2955:3, 2963:14, 2972:24, 2973:11, 2992:18, 3010:3, 3013:9, 3013:18, 3016:11, 3016:14, 3030:16, 3087:3, 3089:7, 3124:18, 3126:25, 3151:10 box [4] - 2955:3, 3030:4, 3030:12, 3030:16 bracketed [1] -2963:21 branch [6] - 3020:23, 3020:24, 3079:19, 3082:25, 3122:15, 3122:17 break [11] - 2946:6, 2946:14, 2946:25, 3010:24, 3011:4, 3064:20, 3064:22, 3065:7, 3134:21, 3135:1, 3135:3 breaking [1] - 3053:10 brief [3] - 3063:9, 3135:17, 3147:25 **briefed** [5] - 3006:12, 3006:25, 3023:3, 3108:10, 3108:14 briefing [2] - 2957:5, 3017:6 briefly [2] - 3066:13, 3104:9 **bring** [1] - 3137:7 **broad** [1] - 3026:19 broader [2] - 3081:20, 3122:3 broke [1] - 3102:3 brought [3] - 3076:15, 3144:3, 3155:5 bucket [1] - 3035:13 buckets [1] - 3035:6 budget [16] - 3083:25, 3084:6. 3116:24. THE REPORTING GROUP :3, 3001.20, :15, 3094:1,

3121:14, 3121:17, 3121:25, 3123:3, 3123:11, 3123:15, 3123:21, 3123:25, 3124:3, 3127:22, 3129:6 budgetary [4] -3084:4, 3084:7, 3116:18, 3117:9 budgeting [5] -3122:4, 3129:1, 3129:8, 3130:11, 3131:11 budgets [6] - 3116:22, 3128:4, 3128:10, 3128:20, 3129:8, 3129:12 bullet [7] - 2974:17, 2977:21, 2980:5, 2980:6, 3022:1, 3022:19, 3022:20 bullets [2] - 3125:18, 3151:14 bumped [1] - 2982:10 **bunch** [1] - 3028:10 businesses [1] -2958:11 buying [2] - 2981:12, 2981:18 **BY** [24] - 2947:20, 2948:10, 2949:14, 3004:17, 3011:20, 3012:5, 3029:8, 3029:19, 3030:15, 3031:23, 3045:1, 3048:20, 3053:13, 3059:6, 3065:4, 3078:4, 3078:24, 3105:3, 3106:3, 3127:4, 3133:14, 3135:13, 3138:24, 3147:24 C

C1 [1] - 2963:17 C1b [1] - 2964:10 Caldwell [15] - 2964:1, 3005:9, 3079:4, 3079:5, 3079:7, 3082:20, 3083:4, 3114:22, 3119:21, 3119:23, 3121:24, 3122:9, 3125:11, 3126:13, 3128:8 Caldwell's [2] -3079:13, 3131:4 Camilla [1] - 2992:4 cannot [6] - 3007:9, 2000:3, 3081:23,

3099:2 cap [1] - 3138:12 **capacities** [1] - 3035:8 capacity [17] -2984:19, 2994:2, 3020:22, 3025:8, 3025:9, 3064:6, 3070:23, 3117:18, 3132:21, 3133:5, 3133:21, 3133:22, 3134:12, 3134:15, 3139:15, 3139:24, 3140:1 capita [4] - 3038:20, 3047:1, 3049:21, 3049:24 Capp [2] - 3020:18, 3020:20 capped [3] - 3061:6, 3102:17, 3102:18 caps [1] - 3125:19 captured [1] - 2989:7 career [1] - 3079:20 careful [2] - 2975:24, 3067:12 carefully [1] - 3081:19 carefully-drafted [1] -3081:19 Carol [5] - 2944:4, 2945:20, 3104:8, 3104:23, 3120:21 Carolina [5] - 2962:21, 2963:4, 2963:10, 2963:22, 3146:3 carries [1] - 2967:17 case [19] - 2945:12, 2948:4, 2974:2, 2985:22, 2988:13, 2992:17, 3032:6, 3035:2, 3035:5, 3039:6, 3073:14, 3076:24, 3079:8, 3090:17, 3103:15, 3105:6, 3109:24, 3143:23, 3155:18 cases [7] - 2986:10, 3043:7, 3070:16, 3070:25, 3072:3, 3072:4, 3073:11 catch [1] - 3072:21 category [1] - 3068:21 causation [1] -2979:23 caused [2] - 3049:19, 3050:10 causes [1] - 3022:24 caution [1] - 3138:11 ceasing [1] - 2985:6 center [3] - 2963:5,

2972:2, 3126:4

	<del></del>		1	•
Center [4] - 2946:8,	changed [1] - 2968:6	3063:16, 3063:18	3095:1, 3160:9	2988:25, 2989:1
3136:12, 3136:14,	changes [23] -	clarified [1] - 2995:6	commented [1] -	component [1] -
3136:19	2969:14, 2970:8,	clarify [2] - 2968:16,	3111:10	3041:14
		_		
center-pivot [2] -	2970:13, 2971:12,	3117:7	commenting [1] -	composed [2] -
2972:2, 3126:4	2971:15, 2971:19,	clarity [1] - 2957:12	3035:11	3045:5, 3045:8
centered [1] - 3026:3	2973:5, 3034:15,	Claudette [5] -	comments [3] -	compromise [3] -
certain [18] - 2961:22,	3035:11, 3036:6,	2943:14, 2945:7,	3100:10, 3112:10,	3091:19, 3092:17,
2975:4, 2978:18,	3036:19, 3037:7,	3161:2, 3161:15,	3113:19	3094:4
2978:20, 3001:16,	3045:20, 3047:5,	3161:15	Commission [5] -	<b>concede</b> [1] - 2985:23
3006:8, 3015:5,	3050:18, 3051:18,	<b>clear</b> [16] - 3006:23,	2956:20, 2997:9,	concept [3] - 2978:25,
3017:16, 3059:20,	3071:22, 3075:10,	3034:10, 3034:12,	2997:14, 3091:6,	3121:14, 3123:10
3075:17, 3083:24,	3076:13, 3076:14,	3042:8, 3049:18,	3161:17	concepts [1] -
3084:3, 3092:5,	3092:18, 3093:25	3055:4, 3062:6,	Commissioner [1] -	3120:17
3103:3, 3153:2,	changing [2] -	3062:16, 3063:25,	3012:18	conceptually [1] -
3154:7, 3156:6,	3065:15, 3077:14	3065:21, 3066:14,	commitment [2] -	3156:17
3156:12	chapter [1] - 3071:12	3076:13, 3090:25,	2994:7, 3085:12	concern [3] - 3023:10,
certainly [12] -	character [1] -	3092:14, 3094:13,	Committee [10] -	3088:12, 3118:9
2960:22, 2996:25,	3127:17	3115:19	3106:22, 3106:23,	concerned [2] -
2997:5, 3008:1,	characteristics [1] -	clearly [2] - 3014:3,	3107:5, 3107:6,	2953:16, 2960:19
3010:18, 3016:25,	3156:13	3036:10	3107:16, 3107:23,	concerning [2] -
3025:8, 3032:24,	characterization [1] -	CLERK [4] - 2947:6,	3108:4, 3115:24,	3027:11, 3027:20
3071:23, 3072:8,	3137:13	2947:13, 3104:12,	3150:21, 3150:23	concerns [12] -
3082:14, 3122:9	characterize [5] -	3104:19	committee [7] -	2953:13, 2960:6,
CERTIFICATE [1] -	3108:11, 3122:2,	climate [2] - 2992:25,	2992:12, 3025:7,	2997:13, 3000:18,
3161:1	3123:12, 3127:25,	2993:6	3120:5, 3120:9,	3039:17, 3088:9,
<b>certify</b> [2] - 3161:3,	3145:4	climatologist [1] -	3120:16, 3121:15,	, , ,
3161:7	characterized [1] -	2982:12	3120:10, 3121:13,	3107:20, 3111:14,
<b>cfs</b> [8] - 2954:19,	3137:11		committees [2] -	3118:19, 3118:25,
3007:22, 3007:24,		climatologists [1] - 3142:12		3119:12, 3144:24
3068:21, 3077:1,	charge [1] - 2965:3		3107:9, 3107:13	<b>conclude</b> [1] - 3080:3
	chart [1] - 2978:17	clips [5] - 2948:14,	commodity [4] -	conclusion [3] -
3077:13, 3092:21,	chase [1] - 3120:11	2948:15, 2948:18,	3000:19, 3001:4,	3081:10, 3082:1,
3093:1	<b>chassis</b> [1] - 3076:5	2948:19, 2948:22	3001:13, 3007:5	3098:9
<b>chain</b> [2] - 2958:2,	Chattahoochee [3] -	clock [1] - 3003:8	common [2] -	Conclusions [1] -
3116:21	2950:12, 3019:6,	close [5] - 2975:11,	3068:11, 3146:25	3009:6
<b>chair</b> [4] - 2946:1,	3036:2	3006:10, 3067:16,	commonsense [2] -	conclusions [1] -
3025:4, 3025:7,	<b>check</b> [3] - 2990:2,	3074:25, 3148:4	3093:25, 3094:6	3017:22
3128:11	3042:21	<b>closely</b> [3] - 3069:13,	communication [1] -	concur [1] - 3160:3
<b>chaired</b> [1] - 3125:9	<b>chief</b> [12] - 2945:25,	3108:6, 3108:9	3111:11	concurrence [1] -
challenge [2] -	2957:6, 2957:19,	closer [1] - 3011:10	Compact [6] - 2994:8,	3059:23
2973:14, 3058:23	2958:10, 2959:7,	coast [1] - 2962:12	2994:12, 3070:6,	condition [6] -
challenged [1] -	3020:23, 3037:20,	coastal [1] - 2962:7	3095:10, 3095:12,	2981:20, 3007:9,
2969:1	3044:8, 3079:20,	coded [1] - 3013:13	3095:15	3027:10, 3027:22,
challenges [2] -	3082:25, 3122:16,	collection [1] -	companies [1] -	3054:22, 3058:22
3035:16, 3101:24	3122:17	3035:24	3040:21	conditioned [1] -
chambers [1] -	Chipev [1] - 3105:15	color [3] - 3013:13,	comparison [2] -	3076:13
3079:22	CHIPEV [2] - 2943:19,	3139:4, 3139:14	2977:23, 2984:2	conditions [15] -
<b>Chambers</b> [1] - 3080:6	3105:17	Colquitt [1] - 3133:25	complaining [1] -	2999:2, 2999:8,
Chambers's [1] -	choices [2] - 3146:13,	column [5] - 2986:24,	3073:16	3026:7, 3026:19,
3082:16	3157:13	3127:1, 3127:3,	complaint [2] -	3029:2, 3052:10,
chance [1] - 2965:24	<b>chose</b> [1] - 2991:3	3127:6	2973:24, 3072:6	3054:11, 3056:12,
Change [1] - 3015:7	Chris [1] - 3103:25	combination [2] -	complaints [1] -	3057:20, 3058:20,
change [17] - 2968:19,	CHRISTOPHER [1] -	2979:23, 3050:1	2990:2	3073:22, 3123:16,
2970:1, 2970:4,	2943:21	coming [6] - 2946:19,	complete [1] -	3140:21, 3142:11
2995:15, 3050:25,	Circuit [1] - 3043:8	2963:3, 2997:4,	3128:25	conduct [2] - 2949:3,
3051:14, 3054:11,	Circuit's [1] - 3072:18	3050:5, 3063:3,	completely [2] -	3033:15
3070:18, 3074:4,	claim [2] - 3072:14,	3090:10	3078:11, 3130:9	conducted [2] -
3075:9, 3077:17,	3114:14	commencing [1] -	complex [4] -	3003:12, 3003:15
3077:22, 3094:5,		2943:13	2968:25, 3067:5,	cone [2] - 2962:25,
3096:13, 3103:8,	claimed [1] - 3072:9	comment 151 - 2960:8.	3067:6, 3067:20	2963:5
3117:25, 3142:16	claims [1] - 3073:13		ROUP <b>iance</b> [2] -	confer [1] - 3160:13
320, 31, 12.10			INOUT IAIICE [2] -	Comer [ij - 0100.10

conference [4] -
3008:13, 3015:19, 3016:7, 3128:2
confidence [3] -
3057:10, 3082:8, 3087:8
confident [1] - 3029:2
confidential [2] - 3029:23, 3029:25
confidentiality [1] -
3092:16
confining [1] - 2975:21
<b>confirm</b> [3] - 2975:17,
2976:1, 2984:8 confirmed [2] -
2988:4, 3056:12
<b>confronted</b> [3] - 3036:11, 3054:25,
3055:2
confused [1] - 3124:17
confusing [2] -
3097:7, 3107:3
confusion [2] - 2968:23, 2969:12
Congress [2] -
2943:12, 3070:14 connected [1] -
3137:15
connection [4] - 2992:13, 3037:24,
3115:9, 3139:10
<b>consensus</b> [7] - 3056:21, 3082:6,
3082:14, 3091:10,
3091:15, 3091:21,
3092:10 consent [1] - 3041:6
consequences [3] -
2968:14, 3073:23, 3074:2
conservation [28] -
2981:17, 2981:20, 2992:13, 3036:3,
3042:17, 3045:20,
3047:12, 3049:21, 3050:4, 3050:10,
3050:19, 3137:23,
3138:14, 3139:11, 3139:18, 3140:4,
3140:7, 3140:9,
3140:24, 3141:12,
3141:21, 3141:23, 3145:4, 3145:10,
3145:14, 3145:19,
3146:13, 3147:7 Conservation [8] -
3046:23, 3107:12,
3137:1, 3137:5,

3137:6, 3137:21, 3139:2, 3140:22 conserved [1] -3158:8 consider [2] -3039:21, 3059:18 consideration [5] -3001:5, 3059:9, 3124:4, 3142:15, 3155:14 considerations [4] -2995:19, 3142:14, 3143:14, 3151:11 considered [6] -2988:12, 3085:5, 3113:1, 3142:3, 3157:5, 3159:12 considering [5] -2977:10, 2977:12, 3088:20, 3146:4, 3151:16 consistent [1] -3116:1 consistently [1] -3007:8 consolidated [1] -3073:11 constructed [2] -3046:5, 3110:7 consultation [2] -3037:10, 3052:8 consultations [1] -3142:12 consumed [2] -3127:13, 3158:9 consumption [7] -2952:24, 2954:23, 3071:24, 3124:9, 3129:13, 3129:14, 3153:9 consumptive [34] -3032:13, 3032:15, 3041:19, 3049:23, 3084:20, 3086:10, 3086:23, 3087:24, 3120:16, 3120:22, 3121:14, 3121:17, 3121:25, 3122:4, 3123:3. 3123:11. 3123:15, 3123:21, 3123:25, 3125:19, 3127:22, 3128:4, 3128:9, 3128:20, 3129:1, 3129:5, 3129:7, 3129:8, 3129:22, 3130:3, 3130:6, 3130:10, 3130:16, 3131:11 Consumptive [1] -

3126:10

contact [2] - 2951:9, 3139:6 contained [1] -3046:13 containing [1] -3046:8 contains [3] - 2956:4, 3021:1, 3080:3 content [4] - 3030:19, 3117:25, 3131:13, 3131:14 context [23] - 2952:2, 3004:6, 3020:6, 3027:25, 3109:21, 3112:1, 3112:4, 3112:21, 3118:7, 3120:8, 3121:18, 3122:22, 3123:18, 3123:20, 3128:4, 3129:23, 3135:18, 3142:1, 3145:15, 3145:19, 3155:4, 3157:16, 3159:2 contexts [1] - 3147:18 contingency [1] -3099:16 contingent [1] -3077:14 continue [4] -2973:10, 3019:16, 3024:21, 3096:4 continued [3] -3108:22, 3145:8, 3145:24 continues [1] - 2992:6 continuous [1] -3156:24 contract [1] - 3122:21 contractor [1] -3122:19 contrast [1] - 3107:24 contribution [1] -3157:7 contributions [1] -2978:8 control [2] - 3039:14, 3075:22 Control [2] - 3048:9, 3099:18 controls [2] - 3041:3, 3041:4 convenience [1] -2948:21 conversations [2] -2997:17, 3147:9 cooking [1] - 3040:24 cooperative [1] -2959:5

TRIAL - November 18, 2016 (Vol. XII)

coordinated [1] -3044:10 coordinates [1] -3004:19 coordinating [2] -3100:19, 3100:20 coordination [1] -3044:7 copied [2] - 3023:5, 3023:15 copies [2] - 3138:17, 3141:4 copy [2] - 2948:2, 3030:18 corner [1] - 3096:24 Corps [81] - 2952:19, 2952:25, 2985:14, 2990:16, 3020:4, 3032:12, 3032:16, 3034:5, 3034:15, 3035:7, 3035:10, 3035:25, 3037:6, 3037:8, 3037:9, 3038:8, 3038:13, 3038:17, 3039:1, 3039:18, 3039:23, 3039:24, 3040:1, 3040:5, 3040:8, 3041:2, 3041:3, 3041:9, 3041:10, 3041:21, 3041:24, 3042:6, 3042:25, 3043:8, 3043:10, 3043:12, 3043:16, 3043:17, 3043:19, 3044:19, 3045:10, 3047:10, 3047:15, 3048:6, 3048:9, 3048:11, 3049:1, 3069:4, 3069:17, 3069:22, 3070:11, 3070:18, 3071:21, 3072:4, 3072:6, 3072:10, 3074:1, 3074:7, 3074:18, 3074:21, 3075:9, 3075:11, 3075:13, 3076:3, 3076:8, 3076:14, 3077:10, 3077:12, 3077:14, 3077:18, 3077:22, 3086:5, 3087:18, 3087:21, 3094:1, 3094:6, 3099:9, 3100:1, 3100:17, 3103:8, 3103:14 Corps' [4] - 3041:6, 3074:4, 3076:6, 3099:10 THE REPORTING GROUP 1 [47] - 2949:25,

2950:7, 2952:17, 2970:5, 2972:2, 2978:16, 2978:20, 2985:9, 2989:4, 2990:12, 2990:13, 2991:6, 2993:17, 2998:20, 2998:21, 3004:4, 3006:5, 3010:10, 3015:12, 3016:20, 3021:10, 3033:2, 3038:5, 3046:19, 3047:15, 3052:5, 3052:6, 3053:15, 3074:16, 3078:14, 3079:24, 3082:21, 3087:22, 3087:25, 3092:2, 3111:3, 3120:1, 3120:2, 3136:7, 3136:10, 3139:22, 3153:1, 3155:25, 3156:1, 3156:18, 3157:15, 3161:4 corrected [1] -2969:13 correcting [2] -3043:9, 3043:15 correctly [5] - 2958:7, 2989:8, 3103:13, 3148:1, 3148:5 correspondence [3] -3144:1, 3144:4, 3144:6 corridor [2] - 2978:18, 2979:9 cost [6] - 2971:16, 3000:19, 3068:5, 3068:10, 3130:5, 3157:15 cost-share [1] -2971:16 costs [1] - 3006:15 Couch [23] - 2944:4, 2945:20, 3104:8, 3104:11, 3104:23, 3105:4, 3106:5, 3110:22, 3118:24, 3120:21, 3125:5, 3127:5, 3131:20, 3133:15, 3135:14, 3135:16, 3138:15, 3138:25, 3139:19, 3144:1, 3145:2, 3147:25 council [2] - 3125:9, 3128:11 Council [3] - 2992:7, 3124:24, 3125:8 counsel [10] - 2945:3,

coordinate [1] -

2986:9, 3037:2,

3037:15, 3037:18, 3024:12, 3044:8, 2989:8 3090:7, 3099:24, 3143:19, 3143:24, 3069:8, 3069:11, 3079:22, 3082:23, CRR [2] - 2943:14, 3126:18 3154:21, 3155:2 3069:12, 3069:13, 3161:15 dated [2] - 2977:6, declaring [3] - 3058:4, 3122:11, 3122:19 3159:13 Cowie's [1] - 2996:24 2977:18 3058:22, 3141:20 culmination [1] counties [4] craft [2] - 3157:1, 3145:22 days [8] - 2945:15, decline [1] - 3050:11 3026:22, 3026:23, 3157:20 current [12] - 3025:21, 2969:23, 3026:6, **declines** [1] - 3022:25 3049:12, 3096:18 3052:20, 3096:11, crafted [3] - 3107:22, 3044:12, 3109:23, dedicated [1] - 3040:3 country [1] - 3055:16 3123:15, 3138:8 3111:23, 3114:2, 3096:17, 3153:4, deep[1] - 3055:20 County [1] - 2992:5 Craig [1] - 2945:9 3114:7, 3117:4, 3153:16 deeper [6] - 2975:2, couple [11] - 2953:10, 3117:13, 3129:11, Deal [4] - 3025:13, CRAIG [1] - 2943:20 2975:5, 2980:19, 2967:15, 2969:23, 3129:13, 3129:24, 3025:16, 3037:18, created [3] - 2957:5, 3068:11, 3068:12, 2992:3, 3001:18, 2983:15, 3024:12 3146:12 3070:22 3114:4 3001:20, 3006:13, cut [1] - 3120:11 deal [9] - 2962:15, Creek [32] - 3000:9, Defendants [1] -3025:19, 3054:15, 3000:12, 3000:21, cuts [1] - 3077:19 2998:12, 3010:9, 2943:7 3069:9, 3115:1 3010:13, 3010:16, 3004:10, 3005:16, deficiencies [1] -3010:19, 3038:23, course [12] - 3018:3, 3006:18, 3007:6, D 3057:18 3038:18, 3047:6, 3041:17, 3044:18 3009:9, 3009:15, defined [1] - 2946:18 daily [8] - 2953:17, 3047:20, 3056:8, 3009:24, 3013:1, dealing [3] - 3072:1, definitely [1] - 2993:1 2953:24, 2953:25, 3056:11, 3081:16, 3073:14, 3077:6 3014:13, 3014:16, degree [2] - 3130:2, 2954:1. 2954:4. dealt [3] - 3036:13, 3144:4, 3144:6, 3014:17, 3062:9, 3155:4 2954:19, 3020:10 3145:1, 3147:5, 3037:3, 3051:25 3062:13, 3064:17, delete [1] - 3022:25 dam [3] - 3022:16, 3154:19 3081:12, 3081:16, Dear [1] - 3118:24 deliberations [2] -3040:13, 3040:15 COURT [1] - 2943:1 3133:20, 3133:22, death [4] - 3063:8, 3092:4, 3129:24 dams [2] - 3040:6, court [5] - 2947:25, 3144:25, 3148:8, 3063:11, 3063:14, delivered [1] - 3017:7 3040:9 3043:7, 3067:22, 3148:12, 3149:14, 3063:22 delivery [1] - 3159:10 darker [1] - 3060:19 3104:10. 3135:20 3149:19, 3149:23, debate [2] - 3108:7, delta [1] - 3049:13 darker-shaded [1] -Court [33] - 2943:12, 3150:5, 3150:10, 3108:11 **demand** [1] - 3049:19 3060:19 3150:14 2973:23, 2974:3, decade [2] - 3045:23, **demands** [1] - 2956:5 data [21] - 2952:25, 2994:17, 2996:22, creeks [3] - 2975:12, 3077:5 demonstrated [1] -2953:14, 3027:16, 3031:18, 3034:20, 2986:2, 3014:3 December [2] -3150:13 3028:10, 3032:14, 3038:10, 3043:18, criteria [7] - 3142:3, 3048:17, 3161:11 demonstrates [2] -3035:24, 3038:18, 3045:3, 3045:25, 3142:10, 3143:12, decide [2] - 3056:19, 2953:4, 3073:12 3038:25, 3044:12, 3048:22, 3049:7, 3151:4, 3151:20, 3095:21 demonstrative [7] -3044:14, 3044:18, 3052:7, 3059:7, 3151:21, 3151:24 decided [4] - 2993:6, 2986:10, 2988:24, 3047:10, 3048:12, 3060:14, 3070:1, critical [5] - 2954:17, 3056:20, 3085:14, 3141:4, 3141:5, 3054:10, 3078:16, 3071:10, 3072:16, 2958:2, 2984:19, 3143:18 3142:21, 3143:9, 3081:25, 3088:18, 3072:19, 3072:21, 3005:22, 3064:5 **deciding** [1] - 3056:5 3151:3 3094:2, 3119:12, 3073:20, 3074:3, Critical [2] - 3004:23, decision [12] denied [1] - 3043:14 3137:19 3107:8, 3134:22, 3005:11 2957:15, 2969:11, **Dennis** [1] - 3017:4 database [9] -3135:18, 3136:5, criticism [1] - 3086:25 3004:3, 3006:14, Department [1] -2987:23, 2988:1, 3141:7, 3141:25, criticized [1] -3026:8, 3041:7, 3116:19 2988:3, 2988:9, 3146:18, 3156:3, 3086:24 3054:17, 3072:18, depiction [1] -2989:3, 2989:5, 3157:25, 3161:16 crop [2] - 2956:5, 3112:19, 3138:3, 3060:16 3088:16, 3146:25 Court's [3] - 2948:20, 2956:11 3141:20, 3142:7 depletion [1] databases [3] -3028:9, 3141:3 crops [2] - 2975:12, decisions [1] - 2961:9 3056:24 2984:3, 2989:12, courtroom [2] -3001:16 declaration [8] deposition [9] -3137:17 2963:25, 3017:3 Cross [1] - 2944:2 2968:9, 3054:23, 2948:19, 2963:25, **Dataflow** [1] - 3084:16 courts [2] - 3070:12, CROSS [2] - 2948:9, 3142:7, 3143:14, 2994:15, 3000:25, dataset [10] - 3032:1, 3071:15 3106:2 3143:21, 3151:5, 3017:15, 3018:8, 3032:12, 3033:12, cover [5] - 2948:17, cross [5] - 2989:8, 3151:25, 3152:1 3079:12, 3114:19, 3085:6, 3085:15, 3030:14, 3030:17, 2989:13, 3030:25, declare [14] - 2993:7, 3131:5 3086:1, 3086:3, 3045:6, 3046:7 3061:10, 3099:8 2999:17, 3052:13, depressing [1] -3086:9, 3086:23, covered [1] - 3146:8 3053:19, 3053:24, cross-examination [1] 2963:2 3087:23 Cowie [20] - 2967:3, 3054:17, 3056:6, - 3030:25 depression [2] datasets [3] - 3032:17, 2967:15, 2969:23, **CROSS-**3057:3, 3058:2, 2962:25, 2963:5 3084:19, 3088:14 2977:4, 2979:13, **EXAMINATION** [2] -3058:16, 3061:10, derived [1] - 3024:14 date [12] - 2996:21, 2983:2, 2990:10, 3142:19, 3142:23, 2948:9, 3106:2 DeSantis [15] -2997:7, 3029:4, 3005:10, 3009:4, 3143:10 cross-walk [1] -2943:21, 3104:2, 3030:1, 3059:10, 3015:23, 3016:6, declared [6] -2989:13 3104:3. 3104:7. 3021:1, 3022:11, cross-walked [1] - THE REPORTING GROUP:12, 3143:4, 3104:25, 3105:3,

3170

0405 0 0405 40
3105:9, 3135:10,
3135:13, 3138:22,
3138:24, 3147:21,
3151:2, 3152:9,
3159:15
describe [9] - 2951:7,
3005:3, 3006:20,
3036:19, 3044:4,
3052:7, 3060:13,
3074:18, 3141:9
described [4] -
2965:22, 3016:8,
3063:9, 3063:19
describes [1] - 2983:3
describing [2] -
3015:18, 3130:21
descriptions [1] -
2971:3
designated [1] -
3014:19
designations [6] -
2948:20, 2964:1,
2994:16, 3017:15,
3018:10, 3131:5
designed [3] -
3052:14, 3157:12,
3158:14
desired [2] - 3056:23,
3159:8
desk [1] - 3085:22
detail [6] - 2970:17,
3009:5, 3035:20,
3046:4, 3050:7,
3046:4, 3050:7,
3046:4, 3050:7, 3050:15
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] -
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] - 2999:10, 3028:5,
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] - 2999:10, 3028:5, 3054:8
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] - 2999:10, 3028:5, 3054:8 determine [4] -
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] - 2999:10, 3028:5, 3054:8 determine [4] - 2962:23, 3041:22,
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] - 2999:10, 3028:5, 3054:8 determine [4] -
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] - 2999:10, 3028:5, 3054:8 determine [4] - 2962:23, 3041:22,
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] - 2999:10, 3028:5, 3054:8 determine [4] - 2962:23, 3041:22, 3085:17, 3130:12 determined [2] -
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] - 2999:10, 3028:5, 3054:8 determine [4] - 2962:23, 3041:22, 3085:17, 3130:12 determined [2] - 3078:16, 3139:6
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] - 2999:10, 3028:5, 3054:8 determine [4] - 2962:23, 3041:22, 3085:17, 3130:12 determined [2] - 3078:16, 3139:6 devastating [2] -
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] - 2999:10, 3028:5, 3054:8 determine [4] - 2962:23, 3041:22, 3085:17, 3130:12 determined [2] - 3078:16, 3139:6 devastating [2] - 3073:22, 3074:2
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] - 2999:10, 3028:5, 3054:8 determine [4] - 2962:23, 3041:22, 3085:17, 3130:12 determined [2] - 3078:16, 3139:6 devastating [2] - 3073:22, 3074:2 develop [2] - 3129:23,
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] - 2999:10, 3028:5, 3054:8 determine [4] - 2962:23, 3041:22, 3085:17, 3130:12 determined [2] - 3078:16, 3139:6 devastating [2] - 3073:22, 3074:2 develop [2] - 3129:23, 3138:6
3046:4, 3050:7, 3050:15  detailed [1] - 3087:11  determination [3] - 2999:10, 3028:5, 3054:8  determine [4] - 2962:23, 3041:22, 3085:17, 3130:12  determined [2] - 3078:16, 3139:6  devastating [2] - 3073:22, 3074:2  develop [2] - 3129:23, 3138:6  developed [10] -
3046:4, 3050:7, 3050:15 detailed [1] - 3087:11 determination [3] - 2999:10, 3028:5, 3054:8 determine [4] - 2962:23, 3041:22, 3085:17, 3130:12 determined [2] - 3078:16, 3139:6 devastating [2] - 3073:22, 3074:2 develop [2] - 3129:23, 3138:6
3046:4, 3050:7, 3050:15  detailed [1] - 3087:11  determination [3] - 2999:10, 3028:5, 3054:8  determine [4] - 2962:23, 3041:22, 3085:17, 3130:12  determined [2] - 3078:16, 3139:6  devastating [2] - 3073:22, 3074:2  develop [2] - 3129:23, 3138:6  developed [10] -
3046:4, 3050:7, 3050:15  detailed [1] - 3087:11  determination [3] - 2999:10, 3028:5, 3054:8  determine [4] - 2962:23, 3041:22, 3085:17, 3130:12  determined [2] - 3078:16, 3139:6  devastating [2] - 3073:22, 3074:2  develop [2] - 3129:23, 3138:6  developed [10] - 2950:15, 2952:18, 3033:8, 3070:6,
3046:4, 3050:7, 3050:15  detailed [1] - 3087:11  determination [3] - 2999:10, 3028:5, 3054:8  determine [4] - 2962:23, 3041:22, 3085:17, 3130:12  determined [2] - 3078:16, 3139:6  devastating [2] - 3073:22, 3074:2  develop [2] - 3129:23, 3138:6  developed [10] - 2950:15, 2952:18, 3033:8, 3070:6, 3129:11, 3137:16,
3046:4, 3050:7, 3050:15  detailed [1] - 3087:11  determination [3] - 2999:10, 3028:5, 3054:8  determine [4] - 2962:23, 3041:22, 3085:17, 3130:12  determined [2] - 3078:16, 3139:6  devastating [2] - 3073:22, 3074:2  develop [2] - 3129:23, 3138:6  developed [10] - 2950:15, 2952:18, 3033:8, 3070:6, 3129:11, 3137:16, 3145:20, 3145:22,
3046:4, 3050:7, 3050:15  detailed [1] - 3087:11  determination [3] - 2999:10, 3028:5, 3054:8  determine [4] - 2962:23, 3041:22, 3085:17, 3130:12  determined [2] - 3078:16, 3139:6  devastating [2] - 3073:22, 3074:2  develop [2] - 3129:23, 3138:6  developed [10] - 2950:15, 2952:18, 3033:8, 3070:6, 3129:11, 3137:16, 3145:20, 3145:22, 3147:3
3046:4, 3050:7, 3050:15  detailed [1] - 3087:11  determination [3] - 2999:10, 3028:5, 3054:8  determine [4] - 2962:23, 3041:22, 3085:17, 3130:12  determined [2] - 3078:16, 3139:6  devastating [2] - 3073:22, 3074:2  develop [2] - 3129:23, 3138:6  developed [10] - 2950:15, 2952:18, 3033:8, 3070:6, 3129:11, 3137:16, 3145:20, 3145:22, 3147:3  developing [2] -
3046:4, 3050:7, 3050:15  detailed [1] - 3087:11  determination [3] - 2999:10, 3028:5, 3054:8  determine [4] - 2962:23, 3041:22, 3085:17, 3130:12  determined [2] - 3078:16, 3139:6  devastating [2] - 3073:22, 3074:2  develop [2] - 3129:23, 3138:6  developed [10] - 2950:15, 2952:18, 3033:8, 3070:6, 3129:11, 3137:16, 3145:20, 3145:22, 3147:3  developing [2] - 3131:2, 3145:25
3046:4, 3050:7, 3050:15  detailed [1] - 3087:11  determination [3] - 2999:10, 3028:5, 3054:8  determine [4] - 2962:23, 3041:22, 3085:17, 3130:12  determined [2] - 3078:16, 3139:6  devastating [2] - 3073:22, 3074:2  develop [2] - 3129:23, 3138:6  developed [10] - 2950:15, 2952:18, 3033:8, 3070:6, 3129:11, 3137:16, 3145:20, 3145:22, 3147:3  developing [2] - 3131:2, 3145:25  development [7] -
3046:4, 3050:7, 3050:15  detailed [1] - 3087:11  determination [3] - 2999:10, 3028:5, 3054:8  determine [4] - 2962:23, 3041:22, 3085:17, 3130:12  determined [2] - 3078:16, 3139:6  devastating [2] - 3073:22, 3074:2  develop [2] - 3129:23, 3138:6  developed [10] - 2950:15, 2952:18, 3033:8, 3070:6, 3129:11, 3137:16, 3145:20, 3145:22, 3147:3  developing [2] - 3131:2, 3145:25
3046:4, 3050:7, 3050:15  detailed [1] - 3087:11  determination [3] - 2999:10, 3028:5, 3054:8  determine [4] - 2962:23, 3041:22, 3085:17, 3130:12  determined [2] - 3078:16, 3139:6  devastating [2] - 3073:22, 3074:2  develop [2] - 3129:23, 3138:6  developed [10] - 2950:15, 2952:18, 3033:8, 3070:6, 3129:11, 3137:16, 3145:20, 3145:22, 3147:3  developing [2] - 3131:2, 3145:25  development [7] - 2958:2, 3033:4,
3046:4, 3050:7, 3050:15  detailed [1] - 3087:11  determination [3] - 2999:10, 3028:5, 3054:8  determine [4] - 2962:23, 3041:22, 3085:17, 3130:12  determined [2] - 3078:16, 3139:6  devastating [2] - 3073:22, 3074:2  develop [2] - 3129:23, 3138:6  developed [10] - 2950:15, 2952:18, 3033:8, 3070:6, 3129:11, 3137:16, 3145:20, 3145:22, 3147:3  developing [2] - 3131:2, 3145:25  development [7] - 2958:2, 3033:4, 3107:11, 3137:20,
3046:4, 3050:7, 3050:15  detailed [1] - 3087:11  determination [3] - 2999:10, 3028:5, 3054:8  determine [4] - 2962:23, 3041:22, 3085:17, 3130:12  determined [2] - 3078:16, 3139:6  devastating [2] - 3073:22, 3074:2  develop [2] - 3129:23, 3138:6  developed [10] - 2950:15, 2952:18, 3033:8, 3070:6, 3129:11, 3137:16, 3145:20, 3145:22, 3147:3  developing [2] - 3131:2, 3145:25  development [7] - 2958:2, 3033:4,

```
developments [1] -
 3043:6
dialogue [1] - 3147:6
difference [3] -
 2988:21, 2989:20,
 3082:13
differences [2] -
 3103:6, 3141:10
different [33] - 2961:3,
 2962:6, 2969:8,
 2972:7, 2979:7,
 2979:8, 2994:11,
 3012:21, 3018:4,
 3019:10, 3037:8,
 3045:13, 3047:1,
 3048:25, 3052:21,
 3056:22, 3067:17,
 3070:10, 3070:11,
 3073:6, 3073:9,
 3086:4, 3088:2,
 3101:13, 3101:24,
 3102:5, 3107:17,
 3128:6, 3142:5,
 3156:13, 3156:19,
 3157:20, 3158:19
differently [2] -
 2981:14, 3159:5
difficult [1] - 3119:10
dime [1] - 3054:12
Direct [1] - 2944:2
DIRECT [2] - 2947:19,
 3105:2
direct [14] - 2948:3,
 2959:12, 2982:20,
 2991:8, 3019:11,
 3066:11, 3071:2,
 3071:5, 3073:2,
 3099:8, 3105:5,
 3115:13, 3131:19,
 3144:20
directed [1] - 3070:18
direction [1] - 3146:22
directly [2] - 2951:12,
 3113:6
Director [19] -
 2949:15, 2993:4,
 2993:18, 2994:4,
 2994:22, 3053:18,
 3053:24, 3054:12,
 3067:9, 3093:9,
 3106:5, 3114:15,
 3131:16, 3131:19,
 3132:5, 3152:11,
 3152:12, 3152:23,
 3152:25
director [56] -
 2949:17, 2949:24,
 2950:6, 2951:6,
 2952:3, 2952:24,
```

```
2963:9, 2964:20,
 2970:21, 2979:1,
 2990:18, 2990:19,
 2990:20, 2991:3,
 2992:24, 2995:13,
 2996:19, 2997:24,
 2998:23, 3002:25,
 3012:11, 3012:17,
 3029:1, 3034:18,
 3034:21, 3034:24,
 3037:1, 3050:8,
 3051:22, 3052:24,
 3061:2, 3063:2,
 3064:13, 3079:23,
 3082:15, 3087:2,
 3093:8, 3111:1,
 3112:14, 3117:5,
 3117:14, 3119:22,
 3121:25, 3127:23,
 3130:18, 3135:21,
 3138:3, 3140:14,
 3141:19, 3142:18,
 3145:3, 3147:5,
 3148:24, 3154:14
director's [2] -
 2969:11, 3119:25
directors [7] -
 2945:18, 2963:7,
 2968:18, 2969:1,
 3054:9, 3063:17,
 3135:19
disagree [2] -
 2961:11, 3115:2
disagreed [1] -
 3114:11
disagrees [1] - 2961:8
disapprove [1] -
 3093:21
discharge [1] -
 3149:24
Disclaimer [1] -
 3031:7
disclaimer [1] -
 3031:9
discretion [2] -
 2968:17, 2969:2
discretionary [1] -
 2968:21
discuss [2] - 3025:2,
 3035:19
discussed [7] -
 2968:20, 2983:2,
 2997:20, 3032:2,
 3032:25, 3068:6,
 3079:8
discussing [2] -
 3068:1, 3138:19
discussion [12] -
 2966:18, 2999:1,
```

```
3032:4, 3068:7,
                                                   3096:4, 3108:25,
                                                   3109:1, 3127:25,
                                                   3128:17, 3131:11
                                                  discussions [3] -
                                                   3037:21, 3069:18,
                                                   3121:19
                                                  disengage [4] -
                                                   3101:2, 3102:8,
                                                   3102:23, 3103:3
                                                  disengaged [2] -
                                                   3156:5, 3156:7
                                                  disengagement [5] -
                                                   3156:16, 3157:9,
                                                   3157:19, 3158:1,
                                                   3158:3
                                                  disinterested [1] -
                                                   3161:8
                                                  dispute [2] - 2976:20,
                                                   3022:12
                                                  disputes [1] - 3074:10
                                                  disseminate [1] -
                                                   3092:5
                                                  disseminated [1] -
                                                   2956:23
                                                  distilled [1] - 3142:6
                                                  distinction [2] -
                                                   3148:16, 3148:17
                                                  distribute [3] - 3012:2,
                                                   3138:17, 3141:4
                                                  distributing [1] -
                                                   3141:6
                                                  district [1] - 3044:17
                                                  District [9] - 2946:3,
                                                   3044:11, 3047:19,
                                                   3047:25, 3048:2,
                                                   3050:7, 3050:17,
                                                   3109:2, 3109:7
                                                  District's [1] - 3047:11
                                                  diverse [1] - 3107:16
                                                  Division [18] -
                                                   2945:19, 2952:20,
                                                   2952:23. 2957:13.
                                                   2958:1, 2958:6,
                                                   2959:11, 2961:14,
                                                   2961:20, 2966:20,
                                                   2987:17, 3006:5,
                                                   3012:10, 3012:15,
                                                   3012:24, 3034:22,
                                                   3089:23, 3135:22
                                                  division [1] - 3012:14
                                                  DNR [2] - 3012:14,
                                                   3012:18
                                                  doctor [10] - 3106:6,
                                                   3109:3, 3115:16,
                                                   3115:20, 3136:8,
                                                   3136:22, 3140:11,
                                                   3141:1, 3141:5,
                                                   3146:6
2957:12, 2959:2 THE REPORTING GROUP 1ent [56] -
```

```
2956:1, 2956:15,
 2956:23, 2957:10,
 2957:17, 2966:23,
 2977:3, 2977:11,
 2977:13, 2977:18,
 2978:1, 2996:15,
 2998:15, 3001:1,
 3002:10, 3005:8,
 3005:15, 3008:5,
 3009:2, 3009:3,
 3018:16, 3018:20,
 3024:11, 3024:12,
 3024:17, 3029:13,
 3030:2, 3030:3,
 3030:8, 3030:14,
 3030:21, 3031:2,
 3031:14, 3044:20,
 3046:9, 3046:11,
 3046:14, 3048:15,
 3059:4, 3059:8,
 3060:11, 3068:16,
 3078:12, 3079:10,
 3079:16, 3089:2,
 3090:21, 3106:13,
 3106:14, 3107:1,
 3108:14, 3111:16,
 3115:18, 3121:7,
 3124:22, 3149:21
documentation [2] -
 3054:2, 3054:14
documents [4] -
 2949:10, 3029:22,
 3046:3, 3128:23
done [31] - 2945:20,
 2954:11, 2954:12,
 2954:14, 2958:13,
 2958:14, 2981:2,
 2981:4, 2986:11,
 2986:16, 2989:1,
 2989:13, 2999:5,
 3003:17, 3003:19,
 3044:7, 3050:16,
 3063:3, 3086:19,
 3088:1, 3093:3,
 3098:7, 3098:10,
 3098:16, 3098:20,
 3099:12, 3108:22,
 3129:17, 3139:13,
 3154:16, 3155:21
doubt [1] - 3028:21
down [57] - 2953:3,
 2953:20, 2956:3,
 2964:7, 2965:11,
 2970:3, 2974:12,
 2974:17, 2975:9,
 2975:12, 2975:14,
 2975:18, 2975:21,
 2975:24, 2975:25,
 2980:1, 2980:3,
 2980:6, 2985:8,
```

2988:17, 2989:15,	3145:2, 3147:25,	2996:10, 2999:2,	3100:11	31
2992:5, 2992:8,	3150:18, 3152:11,	2999:8, 2999:15,	<b>DUNLAP</b> [1] - 2943:23	31
2992:18, 3004:15,	3159:22	2999:17, 2999:18,	during [32] - 2955:21,	effe
3004:18, 3018:1,	Draft [2] - 3099:10,	3006:23, 3016:15,	2977:18, 2979:22,	29
3022:1, 3027:7,	3124:22	3016:16, 3021:11,	2991:9, 2992:24,	30
3031:6, 3037:17,	draft [17] - 2967:5,	3021:23, 3025:21,	2994:12, 3001:17,	effe
3047:6, 3047:7,	2967:7, 2999:9,	3025:25, 3026:2,	3001:20, 3037:16,	31
3048:4, 3049:4,	2999:12, 3031:4,	3026:5, 3026:9,	3051:9, 3051:16,	effe
3049:6, 3049:13,	3042:19, 3048:10,	3026:21, 3027:5,	3052:25, 3066:8,	30
3049:19, 3065:16,	3099:14, 3099:17,	3027:6, 3027:21,	3071:24, 3072:3,	effic
3065:19, 3066:1,	3100:9, 3100:11,	3035:14, 3035:16,	3075:17, 3092:21,	30
3067:10, 3067:19,	3100:18, 3100:22,	3037:3, 3037:11,	3111:4, 3117:4,	effic
3068:13, 3068:18,	3111:6, 3111:10,	3042:13, 3051:2,	3121:24, 3122:17,	29
3075:23, 3080:15,	3113:2	3051:4, 3051:8,	3126:16, 3139:19,	29
3084:23, 3090:10,	drafted [1] - 3081:19	3051:11, 3051:15,	3140:12, 3142:18,	29
3097:15, 3119:6,	dramatically [1] -	3051:17, 3051:22,	3143:9, 3143:18,	29
3120:13, 3127:10,	3142:17	3052:3, 3052:12,	3144:7, 3145:2,	30
3132:16, 3132:23,	draw [2] - 3109:17,	3052:13, 3052:18,	3154:20, 3155:1	30
3147:2	3118:21	3052:19, 3052:22,		effic
downstream [4] -	drawing [2] - 2992:8,	3052:24, 3053:2,	E	30
3040:6, 3040:10,	3133:16	3053:4, 3053:6,		31
3103:11, 3146:23	drew [2] - 2979:2,	3053:15, 3053:19,	<b>e-mail</b> [9] - 2991:15,	effic
<b>Dr</b> [82] - 2945:23,	2979:7	3053:25, 3054:17,	2991:16, 2992:19,	effo
2946:19, 2946:21,	drift [1] - 3066:19	3054:18, 3054:23,	3020:18, 3020:25,	29
2947:1, 2951:4,	driven [1] - 2979:24	3055:4, 3056:6,	3022:9, 3023:6,	30
2951:9, 2951:10,	driver [1] - 3049:20	3056:15, 3057:4,	3080:11, 3082:3	30
2951:11, 2951:19,	dropped [1] - 3049:24	3057:24, 3058:2,	<b>e-mails</b> [1] - 3005:9 <b>e.g</b> [1] - 3000:9	30
2951:22, 2952:6,	Drought [41] -	3058:5, 3058:16,		effo
2954:7, 2955:25,	2966:21, 2967:25,	3061:10, 3062:8,	<b>early</b> [4] - 2946:15, 2946:16, 2980:25,	30
2956:14, 2967:3,	2968:7, 2981:24,	3062:23, 3066:22,	2998:8	31
2967:15, 2969:23,	2991:4, 2993:8,	3069:14, 3069:17,	ears [1] - 3011:9	EIS
2974:23, 2975:8,	2993:12, 2993:19,	3076:4, 3094:14,	easement [1] - 3041:6	31
2977:4, 2979:13,	2994:6, 2994:20,	3094:15, 3094:24,	easements [3] -	31
2980:24, 2983:2,	2995:17, 2998:6,	3096:16, 3097:10,	2981:11, 2981:18,	eith
2990:10, 2991:20,	2999:22, 3002:24,	3097:15, 3099:16,	3028:19	29
2996:2, 2996:8,	3007:12, 3009:20,	3099:18, 3114:3, 3114:8, 3118:3,	easier [1] - 3106:6	30
2997:15, 2997:17,	3010:5, 3027:14,	3118:4, 3118:6,	easily [1] - 2975:20	eler
3002:1, 3002:2, 3003:22, 3005:10,	3028:25, 3036:14,	3118:8, 3140:12,	Eastern [1] - 3145:15	31
3009:4, 3015:23,	3053:20, 3056:6,	3140:14, 3140:17,	ecological [4] -	eler
3016:6, 3020:8,	3061:8, 3065:8,	3140:21, 3140:24,	3000:17, 3039:20,	30
3021:1, 3022:11,	3116:22, 3117:2,	3141:20, 3142:8,	3073:15, 3150:16	31
3024:12, 3029:16,	3117:12, 3131:23,	3142:19, 3142:23,	ecology [3] - 3073:23,	elim
3067:23, 3068:22,	3132:6, 3140:19, 3141:7, 3141:8,	3143:1, 3143:3,	3147:11, 3147:16	31
3076:25, 3077:8,	3141:11, 3141:15,	3143:10, 3143:19,	economic [12] -	elin
3079:22, 3081:5,	3141:24, 3142:20,	3151:5, 3151:17,	2957:14, 2958:2,	31
3082:23, 3083:17,	3143:7, 3143:11,	3151:25, 3152:1,	2959:12, 2964:19,	else 30
3085:8, 3085:21,	3143:20, 3151:3,	3154:22, 3155:2	2997:24, 3000:2,	emi
3085:22, 3085:25,	3151:18	droughts [6] -	3006:14, 3006:21,	30
3086:20, 3086:22,	drought [118] -	3010:19, 3036:13,	3107:18, 3146:15,	eme
3086:24, 3087:8,	2968:10, 2968:13,	3036:23, 3066:8,	3156:14, 3157:17	EMI
3087:12, 3088:20,	2968:15, 2974:5,	3072:11, 3114:9	economy [2] - 2958:7,	Emi
3104:8, 3104:11,	2977:15, 2979:22,	<b>dry</b> [7] - 3052:10,	2959:17	em
3105:4, 3106:5,	2982:3, 2982:5,	3054:23, 3055:5,	edited [2] - 2967:5,	· ·
3110:22, 3118:24,	2982:6, 2982:8,	3055:6, 3055:7,	2967:8	<b>em</b> 30
3120:21, 3122:19,	2982:15, 2993:7,	3056:3, 3058:21	education [2] -	em
3125:5, 3127:5,	2993:22, 2993:25,	drying [1] - 3052:16	3136:16, 3153:21	30
3131:20, 3133:15,	2994:19, 2995:3,	<b>due</b> [8] - 2969:9,	effect [8] - 3054:14,	31
3135:14, 3135:16,	2995:11, 2995:16,	2977:21, 2985:14,	3056:23, 3066:5,	31
3138:15, 3138:25,	2995:20, 2995:2 <sub>THI</sub>	E REPORTING G	ROUP :16, 3101:3,	enc
3139:19, 3144:1,		•	- I	l <b>-</b>

3102:24, 3156:5, 3157:22 fective [4] - 2999:16, 999:23, 3051:16, 3063:13 fectively [1] -3143:16 fects [3] - 3061:3, 3061:4, 3147:11 ficiencies [1] -8062:5 ficiency [13] -970:22, 2970:25, 971:9, 2971:10, 971:16, 2971:17, 2972:8, 2972:17, 3051:23, 3064:2, 098:12, 3155:19 ficient [5] - 2972:7, 3098:22, 3098:23, 3155:16, 3155:21 ficiently [1] - 3098:1 fort [8] - 2985:2, 2993:24, 2995:8, 8044:7, 3048:11, 3062:22, 3085:5, 8085:13 forts [4] - 3050:4, 8074:10, 3145:5, 3146:7 **S** [5] - 3099:17, 3100:4, 3100:9, 3100:11, 3100:22 ther [4] - 2978:22, 995:14, 3041:18, 8080:25 ement [2] - 3129:12, 3130:4 ements [4] -3050:22, 3123:13, 3129:2, 3129:15 minate [1] -3111:24 mination [1] -155:3 sewhere [2] -8080:5, 3081:24 nbedded [2] -3073:7, 3073:8 nerged [1] - 3148:22 **/IILY** [1] - 2943:22 nily [1] - 3104:10 nphasis [1] - 3130:2 nployable [1] -8061:17 nployed [5] -3079:18, 3122:23, 3122:24, 3136:11, 3136:12 capsulates [1] -

			1	1
3073:5	2957:14, 2958:9,	escapes [1] - 3122:11	3105:5, 3144:5	3058:23
encourage [1] -	2958:10, 2958:18,	<b>ESQ</b> [10] - 2943:17,	<b>example</b> [3] - 2960:10,	existing [5] - 3006:22,
3052:15	2959:7, 2960:25,	2943:17, 2943:18,	3073:3, 3123:20	3062:19, 3097:22,
encroachment [1] -	2961:4, 2964:19,	2943:18, 2943:19,	<b>exceed</b> [2] - 2954:19,	3098:2, 3142:10
2962:16	2964:22, 2965:22,	2943:20, 2943:21,	2986:18	expand [1] - 3117:12
End [1] - 3160:20	2997:25, 2999:24,	2943:21, 2943:22,	exceeded [5] - 3019:3,	expanded [1] - 3117:3
end [17] - 2948:20,	3000:2, 3006:15,	2943:23	3019:4, 3019:5,	expect [1] - 2989:23
2953:23, 2956:9,	3099:21, 3107:18,	essence [1] - 3045:21	3149:14, 3149:25	expected [2] - 2999:2,
2966:16, 2976:6,	3108:3, 3136:16,	essentially [3] -	excerpt [4] - 3018:20,	2999:9
3007:17, 3017:24,	3146:16, 3156:14,	3061:5, 3138:12,	3018:23, 3019:2,	
3037:17, 3056:14,	3157:18	3139:16	3019:21	<b>expended</b> [1] - 3059:22
3076:12, 3100:12,	Environmental [13] -	established [1] -	excessive [1] -	
3103:14, 3112:11,	2945:18, 2952:19,	3107:13	2989:25	<b>expenditure</b> [1] - 2969:3
3132:2, 3132:25,	2952:23, 2957:13,	estimate [2] - 3047:1,	exclamation [2] -	
3133:6, 3134:11	2958:1, 2958:5,	3088:10	3125:19, 3125:20	expensive [3] -
end-gun [3] - 3132:25,	2959:11, 2966:20,			3057:5, 3068:12,
3133:6, 3134:11	2987:17, 3034:21,	estimated [1] -	<b>excuse</b> [2] - 2977:7, 3152:24	3068:13
Endangered [5] -	3089:23, 3099:10,	2952:24		experience [3] -
•	3135:22	estimates [5] -	executive [8] - 3025:7,	2977:15, 3077:5,
2960:5, 2960:11,	<b>EPA</b> [2] - 3018:16,	2945:22, 2946:13,	3032:24, 3033:1,	3132:9
3039:19, 3070:16, 3073:18	3019:22	2954:4, 3084:20,	3037:2, 3037:15,	experiencing [1] -
	<b>EPD</b> [47] - 2958:5,	3086:11	3069:8, 3069:11,	3071:16
endangered [7] -	2958:9, 2959:20,	estimating [1] - 3098:16	3070:23	expert [2] - 2946:7,
2978:7, 3000:13,	2961:21, 2971:7,		Executive [1] - 2952:8	3017:4
3004:21, 3005:25,	2990:17, 2990:19,	estimation [3] -	exercise [2] - 2991:4,	expertise [1] -
3006:17, 3144:10,	2990:17, 2990:19, 2990:20, 2998:19,	2955:22, 3003:9,	3032:8	3134:17
3144:16	2999:10, 3002:18,	3049:20	<b>Exhibit</b> [54] - 2950:10,	<b>experts</b> [5] - 2988:12,
ended [1] - 3045:15	3008:14, 3008:17,	evaluate [2] - 2963:18,	2950:22, 2951:1,	2989:6, 2992:12,
ending [2] - 3054:19,	3012:10, 3012:11,	3123:21	2951:14, 2954:25,	3015:11, 3052:9
3125:18	3012:14, 3012:15,	evaluated [4] - 2984:6,	2957:1, 2957:2,	<b>Expires</b> [1] - 3161:17
enforce [2] - 2958:17,	3026:18, 3027:8,	3065:10, 3149:21,	2957:3, 2963:15,	<b>explain</b> [9] - 3038:10,
2959:4	3035:4, 3037:1,	3159:2	2966:9, 2966:17,	3039:7, 3053:25,
enforced [1] - 3153:13	3041:3, 3044:5,	evaluating [3] -	2969:18, 2969:25,	3055:9, 3059:11,
enforcement [5] -	3051:9, 3051:21,	2974:15, 2984:7,	2972:20, 2973:11,	3107:8, 3120:5,
2985:2, 3153:17,	3052:8, 3061:2,	3151:17	2974:13, 2977:1,	3124:17, 3139:1
3154:20, 3154:24,	3078:15, 3079:18,	event [2] - 3027:4,	2978:3, 2980:15,	explained [3] -
3155:5	3079:23, 3087:2,	3161:8	2983:20, 2991:14,	3058:25, 3061:12,
enforcing [1] -	3087:17, 3111:1,	eventually [1] -	2991:19, 2991:24, 2992:16, 2996:16,	3093:12
2960:10	3112:14, 3116:19,	3077:20	, , , , , , , , , , , , , , , , , , , ,	explaining [1] -
engage [2] - 3036:21,	3119:24, 3122:16,	ever-increasing [1] -	2998:14, 3002:4,	2996:10
3141:19	3122:24, 3130:18,	3010:19	3007:14, 3008:10,	explicit [1] - 2969:13
engaged [3] -	3135:19, 3138:3,	evidence [7] -	3009:21, 3012:7, 3013:6, 3015:24,	<b>explore</b> [3] - 2970:15,
3047:20, 3048:9,	3140:14, 3142:18,	3119:12, 3142:6,		2988:8, 3029:3
3054:10	3144:4, 3145:3,	3144:8, 3144:15,	3016:11, 3016:24,	<b>express</b> [1] - 3075:25
Engineers [3] -	3147:5, 3151:22	3144:22, 3148:7,	3017:18, 3018:24, 3019:22, 3020:14,	expressed [2] -
3035:7, 3043:16,	<b>EPD's</b> [1] - 2958:16	3148:22	3020:18, 3021:16,	3031:10, 3144:20
3070:11	equipment [4] -	evidences [1] - 2965:7	3079:1, 3079:8,	expressing [1] -
Engineers' [2] -	2971:16, 3126:3,	evident [1] - 3150:17	3084:13, 3086:7,	2974:15
3038:13, 3043:10	3133:16, 3134:12	exact [1] - 2948:17	3087:16, 3088:23,	<b>extended</b> [2] - 3060:5,
ensure [1] - 2993:20	equitable [1] -	<b>exactly</b> [7] - 2950:19,	3110:21, 3120:3,	3060:6
Ensuring [1] - 3126:9	3146:25	2961:7, 2995:7,	3124:13, 3125:16,	extends [1] - 3055:14
enter [1] - 3103:6	era [4] - 2994:12,	2999:21, 3081:7,	3126:11, 3133:11,	extent [4] - 2951:10,
entire [1] - 2996:10	3007:25, 3067:9,	3122:23, 3160:12	3149:3	3039:17, 3137:17,
entirety [1] - 3157:5	3070:8	EXAMINATION [8] -	exhibit [6] - 2950:11,	3158:10
entitled [1] - 2943:10	error [3] - 2955:21,	2947:19, 2948:9,	3011:25, 3014:24,	external [7] - 2959:21,
entity [2] - 2950:17,	2956:10, 2988:2	3029:7, 3078:3,	3078:22, 3079:4,	2959:24, 2960:2,
3117:1	errors [7] - 2953:5,	3105:2, 3106:2,	3110:23	2960:9, 2960:15,
environment [3] -	2953:20, 2954:9,	3135:12, 3147:23	exhibits [1] - 2966:14	2965:17, 2966:5
2965:3, 2965:13,	2954:18, 2988:3,	examination [6] -	<b>EXHIBITS</b> [1] - 2944:6	extreme [1] - 3021:21
2966:1		2949:4, 2949:12,	ROUP d [2] - 3036:14,	<b>eyes</b> [1] - 2992:8
environmental [21] -	3080:24, 3087:2 <sub>THI</sub>		ROUP # [2] - 3030.14,	
Ī			•	

F	2959:3, 3036:2,	2957:25	2993:7, 2993:12,	3018:24, 3019:21,
	3039:19, 3070:11,	first [61] - 2945:19,	2993:19, 2994:6,	3019:25, 3020:7,
facilitator [1] - 3023:8	3071:15, 3073:11,	2951:21, 2953:3,	2994:19, 2995:17,	3020:14, 3020:18,
facility [1] - 3041:3	3142:13	2953:15, 2955:18,	2998:5, 2999:22,	3021:16, 3022:2,
fact [11] - 2973:10,	federalism [1] -	2959:17, 2967:2,	3000:15, 3002:23,	3022:8, 3055:14,
2983:13, 2995:23,	2959:6	2967:14, 2967:20,	3005:12, 3007:12,	3057:3, 3063:5,
3000:18, 3006:3,	federally [2] -	2968:6, 2973:11,	3009:19, 3010:4,	3069:3, 3071:14,
3057:25, 3065:24,	3014:21, 3038:15	2977:20, 2978:25,	3010:9, 3010:14,	3071:21, 3072:3,
3072:10, 3083:6,	federally-authorized	2985:18, 2987:12,	3015:8, 3027:14,	3072:15, 3073:2,
3110:8, 3149:23	[1] - 3038:15	2991:15, 2998:11,	3028:25, 3036:14,	3073:3, 3073:13,
fair [12] - 2958:18,	federally-listed [1] -	2999:1, 2999:3,	3053:19, 3056:6,	3073:25, 3075:7,
2959:2, 2960:2,	3014:21	3000:5, 3001:20,	3058:9, 3061:8,	3075:17, 3076:3,
2960:3, 2968:22,	feed [1] - 2978:14	3003:5, 3004:23,	3065:8, 3080:5,	3076:8, 3076:12,
3089:6, 3093:10,	fees [1] - 3153:24	3005:14, 3006:19,	3081:17, 3081:24,	3076:17, 3076:22,
3098:11, 3115:21,	felt [1] - 3048:5	3007:21, 3012:9,	3089:22, 3101:2,	3077:21, 3078:25,
3123:23, 3127:21,	few [8] - 2947:23,	3022:18, 3022:20,	3101:12, 3101:13,	3079:8, 3092:20,
3134:16	2951:25, 2968:3,	3025:20, 3033:25,	3101:17, 3101:23,	3095:13, 3095:15,
fairly [6] - 2995:11,	2983:18, 2987:8,	3035:6, 3037:3,	3102:15, 3103:3,	3103:1, 3109:2,
3001:19, 3027:22,	3033:25, 3055:15,	3040:1, 3041:10,	3103:4, 3107:12,	3109:7, 3109:10,
3065:21, 3069:13,	3078:9	3043:5, 3046:6,	3111:25, 3116:22,	3109:15, 3110:21,
3128:8	fewer [1] - 2949:13	3048:11, 3056:8,	3117:2, 3117:12,	3120:3, 3121:22,
fairness [1] - 2967:10	field [5] - 2987:22,	3058:6, 3081:13,	3117:22, 3123:25,	3124:13, 3125:16,
faith [2] - 2993:20,	2989:3, 3067:1,	3085:4, 3088:4,	3131:23, 3132:6,	3126:11, 3133:11,
2993:24	3111:11, 3113:7	3089:3, 3090:20,	3137:1, 3137:5,	3147:7, 3147:10,
<b>fall</b> [2] - 3026:22,	fields [1] - 2972:5	3094:17, 3106:12,	3137:6, 3137:20,	3147:15
3153:18	figure [7] - 3006:21,	3113:8, 3118:17,	3138:2, 3139:2,	Florida's [3] - 2975:8,
familiar [12] - 3008:12,	3007:15, 3009:16,	3118:24, 3120:4,	3139:5, 3140:22,	2989:6, 3017:4
3020:2, 3020:4,	3013:10, 3013:19,	3121:23, 3123:4,	3140:25, 3141:8,	Floridan [17] -
3095:10, 3095:11,	3023:16, 3026:19	3127:1, 3127:2,	3141:15, 3141:17,	2962:13, 2962:15,
3099:9, 3099:13,	figured [4] - 2945:13,	3127:6, 3127:24, 3132:2, 3142:25,	3143:7, 3143:10, 3143:19, 3145:11,	2975:4, 2975:19,
3100:14, 3109:6,	2964:25, 2965:7,	3155:17	3151:18, 3156:4,	2975:23, 2978:22, 2979:15, 3055:11,
3110:22, 3131:23, 3150:18	3031:19	Fish [27] - 2960:10,	3156:10	3055:12, 3055:13,
familiarity [4] -	figuring [1] - 3035:15	3006:1, 3006:9,	Flint's [1] - 3157:7	3060:7, 3060:9,
3107:25, 3109:9,	file [1] - 2973:24	3018:16, 3019:22,	flood [2] - 3039:14,	3060:22, 3066:6,
3109:25, 3110:24	filed [5] - 3043:8,	3037:10, 3062:11,	3075:22	3066:17, 3067:1,
families [1] - 2946:22	3059:10, 3060:1,	3069:17, 3100:1,	floodplain [2] -	3139:7
far [4] - 2984:10,	3070:10, 3100:10	3100:21, 3111:5,	3147:12, 3147:17	Flow [2] - 2950:11,
3018:16, 3019:11,	fill [2] - 3055:22,	3111:8, 3111:9,	<b>FLORIDA</b> [1] - 2943:3	3018:17
3024:23	3055:24	3111:19, 3111:23,	Florida [92] - 2943:17,	flow [33] - 2954:1,
farm [3] - 3058:7,	<b>final</b> [7] - 3028:5, 3031:15, 3052:23,	3113:4, 3114:11,	2945:10, 2945:22,	2954:18, 2975:6,
3149:15, 3150:1		3115:3, 3118:18,	2950:10, 2950:22,	2978:12, 3000:6,
farmers [7] - 2981:13,	3074:9, 3100:4, 3100:11, 3113:1	3118:25, 3119:16,	2951:1, 2951:14,	3002:7, 3009:8,
3001:12, 3109:11,	finalized [1] - 2967:6	3144:2, 3144:7,	2954:25, 2957:2,	3020:3, 3022:7,
3109:14, 3110:3,	finally [1] - 3131:13	3144:13, 3144:19,	2957:3, 2960:1,	3022:13, 3032:1,
3110:10, 3132:8	financial [2] -	3149:20, 3150:11	2963:14, 2972:10,	3032:17, 3033:12,
farming [2] - 3148:7,	3008:22, 3058:24	five [3] - 3005:10,	2973:23, 2977:1,	3040:10, 3066:24,
3148:11	findings [3] - 2956:1,	3080:15, 3122:8	2978:2, 2978:11,	3071:23, 3073:22,
fast [1] - 3066:20	3138:5, 3149:5	<b>fix</b> [2] - 3086:1, 3086:3	2978:13, 2981:7,	3075:15, 3076:1,
faucet [1] - 3040:19	fine [4] - 2949:18,	fleet [1] - 3105:20	2983:5, 2983:11,	3076:9, 3076:19,
fault [2] - 2991:2,	3012:4, 3064:23,	flexible [1] - 3129:19	2983:20, 2985:9,	3080:4, 3083:16,
3008:24	3102:11	Flint [83] - 2950:12,	2985:10, 2985:13,	3084:19, 3092:19,
<b>feasible</b> [4] - 2994:19,	finger [1] - 2999:20	2961:5, 2966:21,	2990:16, 2991:14,	3103:6, 3103:9,
2995:5, 3077:8,	finish [2] - 2946:15	2967:25, 2968:7,	2991:19, 2991:23,	3103:11, 3127:18, 3147:15, 3158:13
3077:11	fire [1] - 3037:12	2973:3, 2975:5,	2993:21, 2994:7, 2996:16, 2998:14,	3147:15, 3158:13, 3159:7, 3159:11
feasibly [1] - 2996:11	firing [1] - 3012:17	2976:10, 2976:13,	3002:3, 3007:14,	flowing [3] - 2985:8,
February [4] - 2973:6,	<b>firm</b> [2] - 3087:1,	2978:19, 2981:24,	3002.3, 3007.14, 3008:10, 3012:7,	2985:10, 3157:3
3026:13, 3100:7,	3087:12	2982:9, 2983:10, 2985:12, 2991:4,	3013:5, 3015:24,	flows [37] - 2952:12,
3100:10	firmly [1] - 2957:25	2000.12, 2001.4,	ROUP:11, 3016:24,	2952:16, 2973:2,
<b>federal</b> [9] - 2958:17,	firmly-held [1] - $^{ m THI}$			,
Ī	I			Ī

2977:21, 2977:23,	3057:25	3145:1		<b>GEORGIA</b> [1] - 2943:6
2978:7, 2978:8,	foregoing [1] - 3161:4	function [4] - 2982:2,	G	Georgia [92] -
2978:11, 2993:21,	foremost [1] - 2958:13	3107:20, 3158:15,	<b>GA</b> [10] - 2963:15,	2943:20, 2945:10,
3007:22, 3007:25,	form [2] - 2964:8,	3158:24	3004:11, 3004:24,	2945:11, 2945:17,
3008:6, 3010:13,	2981:23	functional [1] - 3004:2	3024:16, 3124:13,	2945:25, 2946:2,
3010:17, 3019:3,	formal [2] - 3091:23,	functioning [1] -	3124:18, 3125:1,	2947:4, 2950:15,
3019:20, 3020:1,	3091:25	3159:10	3125:3, 3125:16,	2950:18, 2952:19,
3020:7, 3021:21,	formalized [1] -	fundamentally [1] -	3125:23	2958:3, 2959:8,
3022:7, 3022:14,	3048:13	3119:5	Gage [1] - 3019:6	2960:6, 2960:11,
3039:20, 3048:25,		funded [1] - 2951:23	<b>Gail</b> [11] - 2967:3,	2961:2, 2962:7,
3064:11, 3066:8,	formed [2] - 2984:6,		2979:3, 2996:23,	2962:8, 2965:4,
3074:5, 3075:2,	3120:9	funding [9] - 3057:4,	3021:1, 3044:8,	2965:25, 2966:20,
3076:4, 3077:20,	former [6] - 2945:18,	3057:7, 3057:9,	3079:22, 3082:23,	2971:17, 2972:15,
3078:19, 3094:3,	2949:19, 2993:4,	3085:9, 3085:25,	3122:11, 3122:19,	2973:18, 2982:11,
3103:1, 3157:8,	2994:4, 2994:22,	3088:20, 3117:3,	3122:21	2983:6, 2983:14,
3158:7	3131:19	3117:12, 3143:20	gallons [4] - 3047:1,	2986:3, 2988:11,
focus [28] - 2955:12,	formerly [1] - 2990:14	funds [4] - 3010:3,	3049:14, 3049:15,	2990:15, 2992:5,
2959:15, 2959:18,	formulating [1] -	3057:13, 3057:15,	3049:21	2996:9, 2998:19,
2966:25, 2967:20,	3042:24	3084:4	game [1] - 2945:14	3008:14, 3012:14,
2969:24, 2978:2,	forth [2] - 3131:1,	future [6] - 3063:21,	gate [1] - 3036:11	,
2984:24, 2985:2,	3136:18	3123:18, 3129:11,	gears [2] - 3053:5,	3015:19, 3019:14, 3019:24, 3025:24,
2904.24, 2905.2, 2994:17, 2997:23,	forthcoming [1] -	3129:25, 3146:12,	3068:23	
3007:15, 3024:13,	3099:6	3146:15		3026:3, 3026:23,
3035:22, 3036:25,	forthright [5] -	Future [1] - 3126:10	general [5] - 2960:8,	3026:24, 3037:20,
3056:18, 3071:9,	3079:13, 3079:15,	<b>FX-109</b> [1] - 2944:19	2970:10, 3030:18,	3037:21, 3039:10,
	3083:4, 3083:7,	<b>FX-115</b> [2] - 2944:19,	3109:16, 3146:10	3041:23, 3041:25,
3078:25, 3079:25,	3083:13	3134:2	General [1] - 3130:25	3042:5, 3042:12,
3080:13, 3108:1,	forward [2] - 3085:18,	<b>FX-232</b> [1] - 2944:20	generally [9] -	3043:22, 3043:23,
3108:21, 3111:17,	3091:20	<b>FX-46</b> [1] - 2944:12	2976:15, 2984:7,	3045:9, 3047:4,
3113:17, 3116:11,	forwarding [1] -	<b>FX-47</b> [2] - 2944:12,	2993:11, 2997:19,	3049:7, 3051:1,
3119:4, 3127:10, 3132:12	2991:24	3118:12	3014:4, 3023:16,	3055:20, 3055:23,
	foundational [1] -	<b>FX-49b</b> [2] - 2944:13,	3039:13, 3087:9,	3055:25, 3069:4,
focused [8] - 2973:7,	3138:1	3017:18	3146:21	3069:9, 3075:5,
2973:8, 3035:3, 3107:16, 3115:14,	four [4] - 2949:23,	<b>FX-49g</b> [2] - 2944:13,	gentleman [1] -	3075:6, 3076:7, 3076:20, 3077:2,
3140:20, 3141:12,	2989:2, 3034:25,	3015:6	2951:3	
3140.20, 3141.12,	3122:8	<b>FX-49h</b> [2] - 2944:14,	gentlemen [1] -	3083:17, 3087:2,
	four-and-a-half [2] -	3016:3	3015:10	3087:17, 3090:16, 3095:12, 3095:15,
focusing [8] - 2970:6,	2989:2, 3034:25	<b>FX-50</b> [1] - 2944:14	genuinely [1] -	
2972:23, 2998:5,	fourth [3] - 3000:3,	<b>FX-51</b> [1] - 2944:15	3088:12	3104:7, 3105:9, 3105:14, 3110:2,
3012:25, 3023:13,	3002:6, 3024:17	<b>FX-534</b> [6] - 2944:20,	geographic [2] -	3105.14, 3110.2, 3111:12, 3113:15,
3108:7, 3108:11,	frame [2] - 3037:4,	3029:15, 3030:9,	3060:4, 3155:7	3116:1, 3122:1,
3136:20	3119:14	3030:17, 3032:2,	geographical [1] -	, ,
fodder [1] - 3079:10	framework [9] -	3088:5	3060:15	3124:24, 3127:22, 3136:9, 3136:13,
folks [3] - 2975:11,	3109:23, 3116:24,	FX-536 [1] - 2944:21	geography [1] -	,
2979:25	3122:1, 3122:5,	<b>FX-54</b> [1] - 2944:15	3052:24	3136:23, 3140:19, 3145:1, 3145:23,
follow [6] - 2955:19,	3123:2, 3123:8,	<b>FX-56</b> [1] - 2944:16	geologist [3] -	
2964:8, 2974:12,	3129:9, 3130:24,	<b>FX-599</b> [2] - 2944:21,	2980:24, 2995:24,	3146:8, 3146:21,
2974:17, 2986:21,	3139:1	3018:22	3001:23	3146:23, 3151:3
3036:5	frankly [1] - 3024:10	<b>FX-65</b> [1] - 2944:16	Georgakakos [12] -	Georgia's [25] -
followed [3] - 3022:6,	FRDPA [1] - 3063:8	<b>FX-67</b> [1] - 2944:17	2950:24, 2951:4,	2952:22, 2959:12,
3108:6, 3108:9	freezing [1] - 2973:19	<b>FX-708</b> [1] - 2944:22	2951:9, 2951:22,	2959:17, 2983:7,
following [4] - 2956:4,	frequently [2] -	<b>FX-77</b> [1] - 2944:17	2952:6, 2954:7,	2988:12, 2992:12,
3013:18, 3075:14,	2954:19, 3001:20	<b>FX-85</b> [1] - 2944:18	2996:8, 3029:16,	3015:11, 3034:21,
3153:22	Friday [1] - 3160:2	<b>FX-879</b> [1] - 2944:22	3083:17, 3085:8,	3042:24, 3044:21,
footprint [1] - 3026:20	front [4] - 2984:2,	<b>FX-901</b> [2] - 2944:23,	3085:22, 3086:24	3047:14, 3048:15,
<b>force</b> [8] - 2983:15,	3035:21, 3035:23,	3106:13	Georgakakos's [4] -	3049:3, 3071:24,
2984:5, 2985:2,	3105:4	<b>FX-904</b> [1] - 2944:23	2997:15, 2997:17,	3084:20, 3086:10,
2986:6, 2990:3,	fruit [1] - 3050:23	<b>FX-97</b> [2] - 2944:18,	3085:25, 3088:20	3086:23, 3087:23,
2990:8, 2990:11,	full [2] - 3066:18,	3005:6	George [1] - 3105:15	3088:10, 3088:15,
3003:7	3123:4	3003.0	GEORGE [1] -	3144:9, 3144:15,
forecasted [1] -		E REPORTING G	ROUP :19	3145:3, 3145:4,
	1 y [2] 0070.10, = ===		1	3147:10

Georgia-related [1] - 2961:2	
getter [1] - 2977:21	
given [10] - 2962:4,	
2972:7, 3001:13,	
3007:9, 3027:9,	
3047:3, 3077:5,	
3083:9, 3085:12,	
3139:13	
glad [1] - 3113:12	
global [6] - 3013:14,	
3013:21, 3014:7,	
3013:21, 3014:7,	
goal [1] - 3115:22	
God [2] - 2947:11,	
3104:17	_
Golladay [1] - 3150:18	В
govern [1] - 3091:12	
government [1] -	
2958:17	
Government [1] -	
3087:5	
Governments [4] -	
2956:20, 2997:9,	
2997:15, 3091:7	
Governor [15] -	
2983:14, 2984:6,	
3025:13, 3025:16,	
3037:2, 3037:14,	
3037:16, 3037:18,	
3045:6, 3068:24,	
3069:2, 3069:8,	
3069:9, 3070:22	
Governor's [5] -	
2957:6, 2957:19,	
2990:8, 3046:6,	
3117:2	
<b>GPS</b> [1] - 3004:19	
grandfathered [6] -	
2987:6, 2987:8,	
2987:10, 3110:9,	
3110:12, 3110:16	
grant [3] - 3042:9,	
3043:19, 3043:21	
granted [2] - 2973:23,	
3089:24	
graph [2] - 3009:14,	
3019:21	
graphical [1] -	
3060:15	
grasp [1] - 3028:15	
great [7] - 3011:17,	
3038:23, 3041:17,	
3046:4, 3055:12,	
3089:16, 3089:20	
greater [3] - 2970:22,	
2971:6, 2972:11	
greatest [2] - 2985:3,	
2985:25	
green [1] - 3139:4	

greeted [1] - 3053:15 2948:23, 3060:20, ground [4] - 2948:17, 3074:13, 3109:17, 3110:17 groundwater [19] -2962:9, 2963:19, 2978:22, 2979:16, 2980:20, 3027:11, 3027:22, 3028:2, 3060:4, 3060:6, 3060:8, 3060:18, 3062:12, 3064:8, 3064:16, 3066:11, 3110:8, 3110:13, 3139:8 Group [2] - 3024:6, 3029:23 group [7] - 2974:16, 3034:8, 3073:15, 3107:17, 3108:11, 3120:16, 3120:21 grouping [2] - 2961:1, 2971:3 groups [2] - 2961:23, 3108:8 growing [3] - 3003:8, 3008:7, 3021:11 grown [2] - 3065:22, 3067:8 growth [1] - 3044:13 **guarantee** [1] - 3076:3 guess [2] - 3030:3, 3145:6 guidance [3] - 3122:5, 3149:19, 3150:11 guideline [3] - 3129:9, 3129:19, 3129:20 Guidelines [1] -3018:17 Gulf [1] - 3075:24 gun [3] - 3132:25, 3133:6, 3134:11 guy [2] - 3082:17 **GWRI** [1] - 2954:7 **GX-1325** [6] - 3031:21, 3031:24, 3032:19, 3084:8, 3084:13, 3084:24 gX-1325[1] - 2944:24 Н habitat [2] - 3005:21, 3014:20 half [7] - 2976:9, 2989:2, 3027:1, 3027:2, 3030:9, 3034:25, 3096:19

halt [1] - 3000:20

hand [8] - 2947:7,

3078:22, 3104:13, 3124:19, 3151:8, helpful [1] - 3130:11 3161:10 helping [2] - 3105:16, handed [6] - 2948:2, 3108:1 2949:9, 2950:10, hereby [1] - 3161:3 3012:22, 3084:8, Hicks [7] - 2992:9, 3088:24 2992:11, 2992:19, handing [1] - 3048:21 3017:7, 3017:18, handle [1] - 2990:6 3017:21, 3150:18 happy [2] - 3019:16, high [11] - 2976:15, 3118:23 2976:18, 3001:17, hard [4] - 3106:25, 3013:14, 3013:23, 3122:13, 3125:24, 3014:7, 3014:19, 3126:5 3069:24, 3155:4, hardest [1] - 2965:1 3160:7 harm [5] - 2999:24, High [2] - 3013:6, 3013:10 3071:15, 3072:9, 3073:15, 3074:1 high-level [1] -Harold [4] - 2995:8, 2976:15 3003:20, 3136:2, high-priority [1] -3137:10 3013:23 hats [1] - 2992:3 higher [3] - 2972:17, head [3] - 2950:5, 3047:2, 3130:6 2998:18, 3080:20 highest [4] - 2986:17, headed [2] - 2963:4, 3013:14, 3014:10, 2990:11 3014:19 header [1] - 3031:1 himself [1] - 2983:15 heading [1] - 3109:4 hiring [1] - 3012:16 health [2] - 2959:12, historically [1] -3027:16 3001:17 healthy [1] - 3027:22 history [4] - 2969:6, 2994:10, 3009:9, hear [6] - 2975:7, 3050:14, 3098:13, 3094:16 3148:2, 3148:3, holiday [2] - 2946:6, 3152:17 2946:25 heard [12] - 2945:24, home [2] - 2946:22, 3160:6 2982:14, 3025:3, 3044:9, 3066:13, homeowner [1] -3070:4, 3077:3, 3154:6 3101:4, 3136:5, Honor [48] - 2945:4, 3141:25, 3148:1, 2945:9, 2947:3, 3148:5 2948:6, 2948:13, hearing [2] - 2947:9, 2949:1, 2949:8, 3104:15 3010:23, 3011:19, HEARING [1] -3011:24, 3029:6, 2943:10 3030:13, 3044:24, hearsay [1] - 3071:18 3048:18, 3053:8, heart [1] - 3158:20 3064:19, 3064:24, heavily [1] - 3036:15 3077:25, 3078:21, 3093:7, 3093:22, heavy [1] - 2949:9 3095:4, 3096:2, held [2] - 2943:11, 3097:3, 3097:20, 2957:25 3098:13, 3099:24, help [14] - 2947:11, 3101:4, 3102:12, 2961:25, 3006:24, 3102:25, 3103:19, 3008:20, 3020:9, 3103:23, 3104:4, 3035:25, 3036:22, 3104:7, 3104:25, 3062:22, 3104:17, 3105:13, 3105:17, 3107:13, 3107:21,

3142:10 3135:9, 3135:11, helped [1] - 3062:8 3138:23, 3152:8, 3152:10, 3159:14, 3159:16, 3159:20, 3160:16 hopefully [1] - 3160:1 horizon [2] - 3038:22, 3045:19 hour [1] - 3078:10 hours [6] - 2949:12, 2949:13, 3025:19, 3096:11, 3153:3, 3153:16 house [4] - 2987:25, 3059:20, 3059:25, 3154:8 human [1] - 2988:2 hydrologic [2] -3058:22, 3108:3 Hydrologic [1] -3015:7 hydrological [2] -2998:19, 3081:5 hydrologically [1] -3158:24 hydrologist [2] -2945:25, 3044:8 hydrology [3] -2949:22, 2950:2, 2950:5 hydropower [1] -3039:15 ı i.e [1] - 2964:14 ice [1] - 3080:7 3008:7 [13] - 3000:9,

Ichaway [2] - 3007:2, Ichawaynochaway 3000:12, 3000:21, 3004:10, 3005:16, 3006:17, 3007:6, 3009:9, 3009:15, 3009:24, 3012:25, 3013:25, 3014:1 idea [8] - 2976:18, 2978:21, 2979:3, 2980:2, 3065:16, 3093:3, 3124:7, 3127:21 ideas [1] - 2975:9 identification [1] -3153:21 identified [10] -3016:9, 3016:10, 3019:20, 3020:1, 3060:10, 3061:13, 3063:24, 3139:9,

THE REPORTING GROUP:25, 3134:20,

Florida v. Georgia

3140:8, 3158:2 3129:5 3148:12 3157:11 2965:17, 2966:6, initial [4] - 2960:17, 3079:15 identifies [1] improper [1] - 3042:10 INDEX [1] - 2944:1 2978:17 2969:7, 2984:13, International [2] improperly [1] indicate [6] - 2964:9, 2985:1 identify [10] - 2955:25, 2964:14, 2965:10 3072:13 3115:1, 3118:10, 3000:1, 3045:2, improve [4] - 2982:2, 3120:19, 3149:25, initiate [1] - 3037:10 interrupt [1] - 3108:18 3048:22, 3059:7, 3085:5. 3086:1. 3155:9 inject [1] - 3066:18 interrupted [2] -3134:10, 3134:13, 3088:14 indicated [1] input [5] - 2988:3, 3008:24, 3150:8 3134:15, 3147:15, improvement [1] -2990:10 3112:24, 3142:6, interrupting [2] -3158:12 3010:22 indicates [5] -3143:13 2980:11, 3090:15 identifying [2] -2954:16, 2954:17, improvements [3] inputs [1] - 2993:1 introduce [3] - 3104:9, 2974:15, 3154:10 2954:16, 3010:16, 2957:24, 2978:6, inseparable [1] -3105:15, 3105:22 **IHA** [2] - 3119:17, 3063:14 3048:15 3158:23 introduction [3] -3150:3 improving [1] indicating [2] insofar [1] - 3158:2 3106:18, 3107:4, illegally [1] - 2987:19 2951:22, 3144:23 3107:6 3085:15 installed [1] - 3133:1 illustrates [1] indication [5] -**IN** [1] - 3161:10 instance [4] - 2965:8, intrusion [1] - 2962:24 2964:21 2955:18, 2991:20, 3006:8, 3097:13, investigation [1] in-house [3] imagine [1] - 2959:25 2987:25, 3059:20, 3005:16, 3008:2, 3155:17 3137:9 3010:2 immediate [2] -3059:25 invite [30] - 2958:24, instead [1] - 2946:22 indications [3] -3130:7, 3136:3 inaccuracies [1] -Institute [3] - 2950:16, 2969:20, 2970:17, impact [22] - 2971:4, 3088:10 2974:18, 3013:13, 2983:19, 2988:16, 2996:9, 3083:18 2975:5, 2975:22, 3054:18 2991:11, 2998:2, incentivizing [1] instituted [1] - 3159:1 3000:4, 3004:5, indicator [1] - 3151:19 2979:20, 2985:3, 2981:19 institution [1] -3004:9, 3008:25, 2985:7, 2985:25, inch [1] - 3082:12 Indicators [1] - 3015:7 3145:14 3003:23, 3006:16, 3012:6, 3013:1, include [3] - 3073:2, indicators [1] - 3150:3 instruction [1] -3009:14. 3038:24. 3013:17. 3024:19. 3084:19, 3142:9 individual [3] -3101:3 3039:3, 3041:19, 3106:12, 3110:20, included [3] -3024:2, 3102:21, integrated [1] -3041:20, 3050:20, 3111:15, 3112:8, 3086:10, 3107:15, 3122:11 3129:21 3055:19, 3064:3, individuals [6] -3112:12, 3113:18, 3151:20 intended [2] -3078:18, 3099:21, 3083:3, 3107:17, 3113:21, 3113:24, includes [3] -2981:25, 3003:3 3103:2. 3144:10. 3117:16, 3118:12, 3107:24, 3122:8, 3073:17, 3129:1, intent [5] - 2950:1, 3144:16 3121:6, 3122:25, 3122:13, 3153:22 3141:22 3078:11, 3129:7, Impact [1] - 3099:10 including [6] -3124:21, 3126:7, industrial [11] -3145:24, 3158:12 impactful [1] -2946:4, 2962:18, 3131:18 2966:19, 2967:17, interacting [1] -2985:19 invocation [1] -2963:1, 3037:24, 3083:3, 3130:16, 3060:22 impacts [9] - 2958:6, 2994:11 3040:18, 3040:20, 3136:17, 3137:13 interaction [1] -2958:14, 2979:17, invoke [1] - 3006:23 incomplete [3] -3107:19, 3124:4, 3139:8 2979:21, 2980:7, 3140:21, 3141:13, invoked [2] - 2969:8, 3094:21, 3094:22, interactive [1] -3023:11, 3044:14, 3155:11 3007:13 3128:18 3064:7 3098:19, 3148:12 industry [1] - 2964:14 invoking [1] - 3001:9 incorporate [2] interbasin [2] impetus [1] - 3021:17 involuntarily [1] influence [1] -3128:25, 3146:9 3101:19 implement [3] -3033:22 3002:25 incorporated [2] interconnection [1] -2963:18, 2999:11, inform [1] - 3115:8 involuntary [3] -3122:5, 3137:25 3148:18 3143:21 information [17] -3002:20, 3003:7, incorrect [2] interest [3] - 2974:4, implementation [3] -3003:18 2952:5, 2984:5, 2990:25, 2991:1 3107:18, 3112:9 3118:19, 3137:7, involve [1] - 3028:12 3041:11, 3043:22, increase [3] - 3022:7, interested [4] -3146:13 3044:16, 3048:6, involved [24] -3076:9, 3076:18 2946:9, 3022:18, implemented [2] -3056:10, 3087:24, 2968:17, 2979:12, increased [3] -3080:2, 3133:5 3063:17, 3143:17 3092:5. 3107:21. 3034:14. 3034:15. 3020:7, 3076:3, interesting [2] implementing [1] -3035:9, 3035:23, 3108:3, 3108:15, 3143:1 2988:7, 3112:2 3145:10 increases [1] -3036:15, 3037:6, 3119:13, 3137:19, interests [3] - 2961:2, important [15] -3142:6, 3143:13, 3037:13, 3039:6, 3076:16 2964:20, 3039:16 3145:12 3042:23, 3043:1, 2953:25, 2965:25, increasing [1] interfacing [1] -2975:15, 3014:21, 3043:4. 3043:5. informed [4] -3010:19 3035:7 3038:8, 3041:14, 3006:16, 3108:5, 3044:5, 3069:15, indeed [14] - 2959:10, Interim [2] - 3018:17, 3055:10, 3064:7, 3145:9, 3145:25 3070:7, 3071:20, 2979:16, 2984:9, 3075:11 3068:15, 3085:18, infrastructure [3] -3074:15, 3074:19, 2991:3, 2994:18, internal [12] - 2959:21, 3088:19, 3123:12, 2972:9, 3052:1, 3074:22, 3081:7, 2998:18, 2999:8, 2960:16, 2960:18, 3123:13, 3128:16, 3052:2 3082:18, 3116:18 3000:6, 3002:7, 2960:22, 2961:2, 3148:16 inherent [4] - 3130:5, involvement [4] -3041:22, 3054:3, 2961:5, 2961:15, impose [2] - 2959:11, 3087:13, 3131:1 THE REPORTING GROUP:18, 2962:1, 3043:3, 3069:7,

3077:9, 3099:9 3070:20, 3071:20, **JX-105** [1] - 2944:10 **known** [5] - 3057:17, 3160:15 JX-126 [3] - 2944:10, irregular [1] - 2972:5 3073:19, 3077:6, 3086:22. 3123:3. land [3] - 2981:19, 3094:11, 3101:16, irregular-shaped [1] -3154:9, 3157:16 3028:19, 3028:23 3048:21, 3048:22 2972:5 3101:18, 3101:22 JX-154 [2] - 2944:11, **Knox** [1] - 2982:12 language [6] irrigate [5] - 2989:9, item [6] - 2980:6, 2968:20, 2968:25, 2970:7 3067:2. 3110:4. 2980:19, 3116:7, 2973:20, 2995:2, **JX-21** [5] - 2944:8, L 3116:11. 3117:16. 3132:8, 3155:10 3015:17, 3063:6 3115:23, 3137:3, labeled [2] - 3017:22, irrigated [9] - 2983:9, 3149:10 3138:17, 3138:22 Lanier [2] - 3041:1, 3086:13 2983:24, 2987:14, items [4] - 2973:9, JX-69 [2] - 2944:8, 3070:13 lack [1] - 3118:19 2987:19, 2987:22, 2976:19, 2981:5, 3078:12 large [5] - 2950:9, laid [1] - 3067:25 3068:6 2988:20, 2989:18, 3033:22, 3058:8, JX-73 [3] - 2944:9, Lake [6] - 2978:14, itself [4] - 3034:12, 3137:17, 3153:5 3059:4, 3059:7 3061:15, 3112:24 2986:1, 3022:13, 3040:2, 3041:3, irrigating [2] -JX-86 [5] - 2944:9, largely [2] - 2961:1, 3041:1, 3070:13, 2981:21, 3155:24 3155:16 3060:9 3044:25, 3045:2, 3103:7 IV [3] - 2952:8, 2980:6 irrigation [36] larger [2] - 3007:18, 3046:2, 3086:13 lake [9] - 3039:10, 2970:22, 2970:25, 3013:12 3039:12, 3040:2, 2977:22, 2978:17, J last [23] - 2945:11, K 3040:3, 3041:5, 2979:17, 2979:20, 2946:5, 2946:18, James [2] - 3020:18, KAREN [1] - 2943:21 3041:18, 3045:12, 2979:24, 2980:7, 2947:16, 2956:3, 3020:20 3049:11, 3103:7 Katherine [4] -2981:12, 2985:7, 2966:4, 2967:14, **JAMIE** [1] - 2943:17 2956:17, 2956:18, lakes [1] - 3040:13 2985:18, 3000:7, 2974:24, 2981:22, January [12] - 2998:8, 2997:8, 3091:5 LANCASTER [79] -3000:21, 3002:8, 2984:10, 2992:20, 2998:10, 3034:23, Katie [2] - 2946:1, 2943:11, 2945:2, 3002:19, 3007:22, 3005:20, 3017:17, 3044:2. 3044:4. 3050:5 2945:6, 2945:16, 3007:25, 3022:21, 3043:1, 3074:23, 3044:22, 3053:14, keep [2] - 2974:7, 2947:2, 2948:7, 3027:4, 3028:20, 3095:1, 3104:22, 3054:3, 3054:6, 2948:25, 2949:6, 3040:16 3028:23, 3057:2, 3104:24, 3114:24, 3054:7, 3086:17, 3010:25, 3011:4, Kennedy [5] -3062:5, 3064:2, 3115:14, 3119:2, 3152:3 3011:8, 3011:13, 2980:24, 2996:2, 3078:17, 3080:5, 3119:6, 3120:25 **job** [6] - 2959:9, 3011:17, 3012:4, 3002:1, 3002:2, 3081:12, 3097:24, late [4] - 2971:21, 3029:2, 3035:25, 3048:19, 3053:11, 3081:5 3098:5, 3109:12, 2973:5, 2977:16, 3038:14, 3043:6, kept [1] - 3029:23 3064:25, 3078:1, 3126:2. 3132:2. 3100:9 3082:16 3078:23, 3093:8, Kevin [1] - 3082:16 3133:1, 3133:16, lately [1] - 3151:21 join [1] - 3159:25 3093:11, 3093:16, key [10] - 3035:3, 3138:10, 3148:20 latest [1] - 3038:20 Joint [13] - 2966:8, 3094:25, 3095:5, 3036:8, 3046:3, irrigators [3] latter [1] - 2987:11 2966:17, 2969:17, 3095:9, 3095:14, 3046:10, 3050:9, 2971:11, 2971:25, latter-issued [1] -2969:25, 2972:20, 3095:17, 3095:23, 3051:24, 3057:15, 3066:25 2987:11 3096:6, 3096:9, 2973:11, 2974:13, 3064:15, 3069:21, issuance [1] - 3139:17 law [7] - 2958:13, 3096:20, 3096:25, 2980:15, 3009:21, 3103:14 issue [17] - 2960:24, 2958:18, 2971:22, 3097:17, 3098:7, 3086:7, 3087:15, kicks [1] - 3052:17 2975:14, 2976:3, 3006:4, 3043:21, 3098:25, 3099:7, 3088:23, 3149:2 kind [14] - 2979:1, 2979:23, 2980:25, 3116:1, 3145:16 3099:15, 3099:20, joint [2] - 2966:14, 2981:15, 2988:6, 2983:2, 2990:4, LAWLESS [1] -3100:6, 3100:13, 2992:16 3006:11, 3007:4, 2993:16, 2999:16, 2943:18 3100:23, 3101:1, jointly [1] - 3160:1 3017:25, 3027:2, 3001:3, 3049:10, lawns [3] - 3051:3, 3101:10, 3101:14, **JOSHUA** [1] - 2943:23 3037:19, 3064:11, 3072:2, 3072:8, 3097:8, 3153:4 3102:6, 3102:22, Jud [2] - 2945:19, 3064:12, 3069:25, 3087:4, 3087:11, lawsuits [2] - 3070:10, 3103:12, 3103:17, 3080:6 3082:17, 3098:16, 3088:2, 3140:1 3071:21 3103:21, 3104:5, judge [1] - 3132:9 3148:23 issued [9] - 2984:11, lawyer [2] - 2990:14, 3105:11, 3105:18, Judge [1] - 3073:10 kindergarten [1] -2984:14, 2987:11, 2990:18 3106:1, 3134:23, judgment [1] - 2969:9 3136:16 3100:2, 3132:21, lawyers [1] - 3069:10 3135:2, 3135:7, Judson [3] - 2944:3, kinds [1] - 2979:11 3139:2, 3139:20, lay [2] - 3069:25, 3152:11, 3152:16, 2947:5, 2947:17 King [1] - 2990:24 3140:5, 3140:7 3160:8 3152:20, 3152:23, July [6] - 3008:3, issues [26] - 2957:14, Kirkpatrick [3] laying [1] - 3022:10 3153:7, 3153:12, 3009:10, 3059:13, 2946:1, 3050:6, 2958:11, 2967:13, layman [1] - 3155:9 3153:15, 3154:1, 3092:19, 3092:23, 3050:14 2993:24, 2997:25, layman's [1] - 3155:23 3154:13. 3154:23. 3133:19 3000:2, 3035:2, Kise [1] - 3122:10 lead [2] - 2968:10, 3155:8, 3155:22, June [4] - 3034:25, 3035:8, 3035:14, knowing [2] -3073:22 3156:2, 3156:9, 3124:24, 3125:13, 2970:11, 3133:24 3035:24, 3036:4, leadership [1] -3156:21, 3157:24, 3161:17 knowledge [3] -3036:8, 3036:25, 3025:9 3159:4, 3159:13, justify [2] - 3081:10, 3039:20, 3069:21, 2979:4, 3067:7, leading [1] - 3056:1 3159:17, 3159:23, 3098:8 3070:7, 3070:17, THE REPORTING GROUP 4. 3160:12, leaks [1] - 3133:1

learn [1] - 3083:6 learned [1] - 3037:17 learning [2] - 3067:14, 3136:17 least [5] - 2949:11, 2981:23, 2999:9, 3092:21, 3129:4 leave [1] - 2973:23 led [1] - 2963:12 left [5] - 3060:20, 3130:17, 3131:12, 3142:21 left-hand [1] - 3060:20 legacy [1] - 3101:19 legal [6] - 2964:24, 2985:22, 2985:23, 3070:20, 3071:19, 3073:1 legend [1] - 3013:12 legislation [3] -2970:9, 3039:11, 3070:14 legislative [6] -2973:6, 3021:4, 3021:8, 3021:12, 3117:10, 3117:11 legislature 191 -2968:24, 2969:13, 2992:4, 2995:9, 3007:3, 3057:13, 3082:10, 3117:22, 3117:25 legitimate [1] -3002:18 length [1] - 3009:4 less [10] - 2975:5, 2987:10, 3042:14, 3048:7, 3050:2, 3063:13, 3066:6, 3115:9, 3132:7, 3155:12 lesser [1] - 3039:16 Lettenmaier [1] -3017:4 letter [22] - 3045:6, 3046:7, 3046:21, 3059:23, 3080:1, 3087:17, 3087:20, 3111:12, 3112:6, 3112:17, 3113:3, 3113:6, 3113:11, 3113:12, 3113:13, 3118:15, 3118:24, 3119:3, 3119:9, 3119:11, 3119:15, 3144:20 level [34] - 2976:15, 2982:5, 2982:6, 2982:8, 3026:5, 3026:9, 3026:21,

3027:7, 3052:13, 3052:14, 3052:18, 3052:19, 3052:22, 3052:23, 3052:25, 3053:3, 3053:4, 3056:4, 3069:24, 3097:11. 3097:15. 3114:2, 3114:7, 3117:13, 3139:12, 3143:1, 3143:5, 3143:6, 3147:15, 3153:9, 3154:22, 3155:2, 3159:6, 3159:8 levels [7] - 3027:11, 3052:4, 3052:12, 3096:16, 3142:1, 3143:3, 3144:23 lift [1] - 3090:17 lifting [1] - 3091:1 light [1] - 2958:20 lighter [3] - 3060:17, 3139:4 lighter-shaded [1] -3060:17 likely [7] - 2946:23, 2982:15. 2987:5. 3002:18, 3080:6, 3112:23, 3132:7 likewise [1] - 3016:22 limit [5] - 3097:1, 3097:4, 3102:4, 3110:18, 3127:12 limitations [2] -3110:10, 3121:22 limited [2] - 3084:5, 3110:4 limiting [1] - 3117:20 limits [9] - 3074:14, 3096:10, 3096:11, 3109:11, 3110:15, 3117:4, 3124:8, 3131:9 Linda [4] - 2991:20, 3079:17, 3122:12, 3122:15 line [24] - 2967:21, 2969:25, 2970:3, 2978:8. 2978:11. 2978:13, 2988:5, 2991:19, 3020:5, 3020:6, 3020:17, 3021:1, 3026:23, 3075:2. 3075:15. 3076:15, 3079:17, 3083:10, 3113:25, 3115:14, 3118:17, 3118:24, 3120:4, 3121:21

2988:17, 3033:25, 3079:3, 3080:15, 3102:13, 3119:6, 3132:16, 3132:23 lingering [2] - 3109:9, 3109:25 link [1] - 2958:2 linkage [1] - 3144:23 linked [1] - 2972:6 list [6] - 2981:6, 2983:22, 2983:23, 2986:16, 2989:15, 3006:11 listed [9] - 3005:23, 3005:25, 3006:1, 3006:4, 3006:9, 3006:17, 3014:21, 3015:10, 3151:10 listing [1] - 3006:7 litigation [12] -2960:1, 2960:7, 2990:15, 3037:6, 3069:3, 3069:7, 3069:15, 3069:21, 3070:1, 3070:5, 3070:12, 3073:9 **litigations** [1] - 3073:6 live [1] - 3071:13 lived [1] - 3136:22 liver [1] - 3158:19 living [1] - 3146:23 local [2] - 3121:23, 3153:23 Local [1] - 2956:20 located [1] - 3138:7 location [2] - 3004:20, 3133:23 long-term [6] -2971:4, 2973:2, 2979:17, 2980:3, 2980:7, 3064:3 Long-Term [1] -3015:7 longer-term [1] -3061:21 look [37] - 2951:13, 2965:1, 2974:2, 2974:14, 2976:22, 2985:17, 2990:9, 2995:19, 2999:3, 3000:3, 3004:22, 3015:17, 3019:20, 3021:15, 3026:18, 3027:13, 3027:24, 3028:11, 3029:2, 3030:1, 3039:1, 3039:2, 3040:9, 3043:12, 3043:14, 3064:13, 3066:10, lines [10] - 2974:11 THE REPORTING GROUP: 8, 3067:15,

3107:4, 3120:12, 3145:15, 3150:2 looked [21] - 2992:16, 2994:2, 2994:11, 3007:11. 3027:8. 3030:24, 3047:24, 3054:16, 3061:20, 3061:23, 3063:2, 3065:18, 3066:3, 3066:7, 3077:15, 3089:18, 3101:7, 3102:2, 3112:15, 3151:23 looking [30] - 2975:10, 2976:6, 2977:15, 2982:1, 2984:18, 3000:23, 3005:2, 3036:21, 3054:1, 3054:10, 3054:13, 3060:14, 3065:13, 3065:16, 3066:2, 3066:10, 3068:19, 3068:20, 3093:14, 3100:7, 3102:14, 3120:3, 3121:8, 3133:11, 3138:25, 3147:4, 3148:18, 3152:18, 3155:18 looks [3] - 2953:15, 3014:14, 3126:4 loss [1] - 3051:25 lost [1] - 3005:1 low [13] - 2973:2, 2977:21, 3008:6, 3010:13, 3010:17, 3021:21, 3022:7, 3056:25, 3068:5, 3073:22, 3159:6, 3159:7, 3159:11 Lower [23] - 2966:21, 2975:4, 2976:10, 2978:19, 2982:8, 2992:7, 3005:12, 3058:9, 3080:5, 3081:17, 3089:22, 3101:2, 3101:13, 3101:23, 3102:15, 3103:4, 3107:12, 3117:21, 3123:25, 3139:5, 3140:25, 3141:17, 3156:4 lower [21] - 2975:15, 2977:21, 2978:23, 3028:3, 3028:12, 3028:16, 3065:17, 3065:24, 3066:19, 3067:2, 3067:4,

3097:23, 3098:11,

3102:1, 3102:15,

3101:9, 3102:23, 3156:24, 3157:4, 3157:8, 3158:7, 3158:11, 3158:23 lunch [2] - 3064:21, 3078:10

## М

Magnuson [1] -3073:10 mail [9] - 2991:15, 2991:16, 2992:19, 3020:18, 3020:25, 3022:9, 3023:6, 3080:11, 3082:3 mails [1] - 3005:9 main [2] - 2974:1, 3073:21 Maine [3] - 2943:13, 2943:15, 3161:3 maintained [1] -2985:14 major [3] - 2971:12, 2975:12, 3000:15 makings [1] - 3036:5 manage [11] - 2966:1, 2993:24, 3032:14, 3035:15, 3036:21, 3036:22, 3062:8, 3062:22, 3063:3, 3140:14, 3140:17 managed [6] - 2958:7, 3036:12, 3062:7, 3129:14, 3139:11, 3159:5 management [28] -2961:8, 2972:14, 3010:8, 3010:13, 3035:14, 3038:9, 3051:12, 3052:3, 3065:10, 3088:15, 3101:24, 3102:2, 3102:3, 3102:19, 3118:9, 3128:24, 3130:1, 3130:15, 3140:12, 3141:21, 3144:9, 3144:15, 3146:1, 3156:20, 3157:2, 3157:21, 3158:10, 3158:25 Management [14] -3032:20, 3083:21, 3083:24, 3084:2, 3093:19, 3109:2, 3109:7, 3124:23, 3140:19, 3141:7, 3141:12, 3141:24, 3142:20, 3151:4 manages [1] - 3039:18 managing [3] -

2960:6, 3140:20,	3103:12, 3103:17,	2988:10, 2995:18,	memorized [1] -	2950:21, 2957:10,
3140:24	3103:21, 3104:5,	2999:12, 3000:23,	2966:14	2960:3, 2960:9,
Managing [1] -	3105:11, 3105:18,	3006:2, 3008:19,	Menghong [2] -	2961:2, 2961:3,
3126:10	3106:1, 3134:23,	3023:5, 3026:15,	3080:22, 3080:23	2966:16, 2967:1,
mandated [2] -	3135:2, 3135:7,	3027:12, 3028:8,	mention [2] - 3009:24,	2969:21, 2969:25,
2962:9, 2962:14	3152:11, 3152:16,	3038:11, 3054:21,	3022:2	2970:18, 2972:21,
mandatory [2] -	3152:20, 3152:23,	3055:3, 3055:5,		2973:7, 2974:13,
2968:21, 2968:25	3153:7, 3153:12,	3057:11, 3058:18,	mentioned [17] - 2997:8, 3030:12,	2976:8, 2977:16,
Maner [1] - 3103:25	3153:15, 3154:1,	3062:21, 3088:9,	3030:16, 3038:7,	2978:2, 2982:1,
MANER [1] - 2943:21	3154:13, 3154:23,	3101:7, 3108:19,	3039:4, 3039:15,	2986:7, 2986:21,
	3155:8, 3155:22,	3112:17, 3146:6,	3041:11, 3043:13,	2991:7, 2991:25,
<b>maneuvers</b> [1] - 3067:3	3156:2, 3156:9,	3156:7	3045:5, 3050:4,	3000:19, 3004:22,
	3156:21, 3157:24,	meaning [3] -	3051:14, 3052:4,	3007:15, 3008:9,
manner [4] - 3148:18, 3148:23, 3155:15,	3159:4, 3159:13,	2964:10, 3007:18,	3067:7, 3069:2,	3011:24, 3012:2,
3146.23, 3155.15,	3159:17, 3159:23,	3156:17	3087:10, 3141:11,	3024:2, 3028:23,
<b>Manual</b> [2] - 3048:10,	3160:4, 3160:12,	means [1] - 3005:25	3159:20	3031:19, 3036:20,
3099:18	3160:15	meant [5] - 2959:2,	mentions [1] -	3036:22, 3054:18,
	Master's [1] - 3099:4	2960:21, 2962:3,	3019:12	3066:25, 3067:15,
map [10] - 3005:1,	Masters [4] - 2946:7,	2986:20, 3158:3	menu [1] - 3157:13	3078:17, 3078:21,
3013:12, 3014:1,	2946:18, 2992:20,	measurement [1] -	Merki [1] - 3104:10	3091:21, 3103:4,
3014:5, 3014:11,	3098:15	2954:3	MERKI [1] - 2943:22	3107:14, 3107:22,
3060:13, 3138:18,	material [3] - 2949:3,	measures [18] -	message [1] - 2974:1	3109:8, 3111:17,
3138:20, 3138:25, 3140:8	2963:21, 3087:4	2970:20, 2974:14,	•	3112:10, 3119:4,
March [4] - 3009:20,	materials [1] - 3084:9	3047:3, 3047:12,	messages [1] - 3021:17	3121:4, 3128:12,
	math [2] - 2984:22,	3050:10, 3050:12,		3130:6, 3130:8,
3029:4, 3054:9, 3143:15	3093:4	3076:25, 3137:23,	met [4] - 3001:19,	3131:15, 3151:9,
Mark [5] - 2946:7,	matrices [1] - 3151:21	3138:14, 3139:11,	3001:23, 3024:7, 3025:18	3154:11, 3158:8,
2946:17, 2992:20,	matter [14] - 2943:10,	3139:18, 3140:24,		3158:11, 3159:1
3098:15, 3099:4	2960:17, 2966:18,	3141:13, 3141:24,	meteorological [1] - 3142:11	migratory [1] -
mark [3] - 3016:15,	2981:1, 2989:7,	3145:10, 3145:14,	metered [1] - 3154:6	3014:21
3022:25, 3023:14	3005:17, 3022:5,	3145:19, 3146:14	• •	miles [1] - 3067:16
*	3043:20, 3051:4,	meat [1] - 3046:10	metering [1] - 3088:16	Miller [1] - 3122:10
marked [3] - 2963:14,	3092:17, 3105:7,	mechanism [2] -	metric [2] - 3020:3,	Miller-Kise [1] -
2996:15, 3031:21 <b>Mason</b> [4] - 2943:14,	3117:8, 3117:9,	2995:16, 2995:18	3020:9	3122:10
	3129:3	mechanisms [1] -	metrics [1] - 3151:20	
				<b>I</b> million [3] - 3049:14.
3161:2, 3161:15,			metro [12] - 2982:4,	<b>million</b> [3] - 3049:14, 3049:15, 3082:9
3161:15	matters [2] - 3069:12,	3153:20	3012:13, 3026:2,	3049:15, 3082:9
3161:15 MASTER [79] -	<b>matters</b> [2] - 3069:12, 3125:19	3153:20 <b>meet</b> [3] - 3025:10,	3012:13, 3026:2, 3035:9, 3036:6,	3049:15, 3082:9 <b>mind</b> [4] - 2973:25,
3161:15 <b>MASTER</b> [79] - 2943:11, 2945:2,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13	3153:20 meet [3] - 3025:10, 3040:10, 3160:13	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23,	3049:15, 3082:9
3161:15 <b>MASTER</b> [79] - 2943:11, 2945:2, 2945:6, 2945:16,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] -	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6,	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4,	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17
3161:15 <b>MASTER</b> [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10,	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11,	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] -
3161:15 MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25,	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17,	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 <b>Metro</b> [6] - 3044:11,	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25,
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25,	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 <b>Metro</b> [6] - 3044:11, 3047:19, 3048:2,	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3,
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] -	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20,	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 <b>Metro</b> [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17,	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20,
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13,	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 <b>Metro</b> [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5,
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21,	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7 metropolitan [1] -	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10,
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1, 3078:23, 3093:8,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21, 3024:4, 3024:14,	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14 Meeting [1] - 2966:22	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7 metropolitan [1] - 3123:20	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10, 3049:14, 3075:15,
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21, 3024:4, 3024:14, 3025:2, 3025:14,	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14 Meeting [1] - 2966:22 meetings [1] - 3022:6	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7 metropolitan [1] - 3123:20 Metropolitan [1] -	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10, 3049:14, 3075:15, 3076:2, 3076:9,
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1, 3078:23, 3093:8, 3093:11, 3093:16, 3094:25, 3095:5,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21, 3024:4, 3024:14, 3025:2, 3025:14, 3025:16	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14 Meeting [1] - 2966:22 meetings [1] - 3022:6 member [1] - 3119:23 members [2] -	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7 metropolitan [1] - 3123:20 Metropolitan [1] - 2946:2	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10, 3049:14, 3075:15, 3076:2, 3076:9, 3076:19
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1, 3078:23, 3093:8, 3093:11, 3093:16,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21, 3024:4, 3024:14, 3025:2, 3025:14, 3025:16 McClatchey's [1] -	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14 Meeting [1] - 2966:22 meetings [1] - 3022:6 member [1] - 3119:23	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7 metropolitan [1] - 3123:20 Metropolitan [1] - 2946:2 Mexico [1] - 3075:24	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10, 3049:14, 3075:15, 3076:2, 3076:9, 3076:19 minimums [1] -
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1, 3078:23, 3093:8, 3093:11, 3093:16, 3094:25, 3095:5, 3095:9, 3095:14,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21, 3024:4, 3024:14, 3025:2, 3025:14, 3025:16 McClatchey's [1] - 3024:21	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14 Meeting [1] - 2966:22 meetings [1] - 3022:6 member [1] - 3119:23 members [2] - 3115:24, 3150:22	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7 metropolitan [1] - 3123:20 Metropolitan [1] - 2946:2 Mexico [1] - 3075:24 mgd [1] - 3045:11	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10, 3049:14, 3075:15, 3076:2, 3076:9, 3076:19 minimums [1] - 3019:5
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1, 3078:23, 3093:8, 3093:11, 3093:16, 3094:25, 3095:5, 3095:9, 3095:14, 3095:17, 3095:23,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21, 3024:4, 3024:14, 3025:2, 3025:14, 3025:16 McClatchey's [1] - 3024:21 McDowell [4] -	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14 Meeting [1] - 2966:22 meetings [1] - 3022:6 member [1] - 3119:23 members [2] - 3115:24, 3150:22 membership [2] -	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7 metropolitan [1] - 3123:20 Metropolitan [1] - 2946:2 Mexico [1] - 3075:24 mgd [1] - 3045:11 microphone [6] -	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10, 3049:14, 3075:15, 3076:2, 3076:9, 3076:19 minimums [1] - 3019:5 minute [7] - 2959:15,
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1, 3078:23, 3093:8, 3093:11, 3093:16, 3094:25, 3095:5, 3095:9, 3095:14, 3095:17, 3095:23, 3096:6, 3096:9,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21, 3024:4, 3024:14, 3025:2, 3025:14, 3025:16 McClatchey's [1] - 3024:21 McDowell [4] - 3106:16, 3106:19,	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14 Meeting [1] - 2966:22 meetings [1] - 3022:6 member [1] - 3119:23 members [2] - 3115:24, 3150:22 membership [2] - 3030:20, 3120:7	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7 metropolitan [1] - 3123:20 Metropolitan [1] - 2946:2 Mexico [1] - 3075:24 mgd [1] - 3045:11 microphone [6] - 2947:14, 2947:24,	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10, 3049:14, 3075:15, 3076:2, 3076:9, 3076:19 minimums [1] - 3019:5 minute [7] - 2959:15, 2984:24, 2989:12,
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1, 3078:23, 3093:8, 3093:11, 3093:16, 3094:25, 3095:5, 3095:9, 3095:14, 3095:17, 3095:23, 3096:6, 3096:9, 3096:20, 3096:25,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21, 3024:4, 3024:14, 3025:2, 3025:14, 3025:16 McClatchey's [1] - 3024:21 McDowell [4] - 3106:16, 3106:19, 3108:7, 3108:14	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14 Meeting [1] - 2966:22 meetings [1] - 3022:6 member [1] - 3119:23 members [2] - 3115:24, 3150:22 membership [2] - 3030:20, 3120:7 memo [7] - 3045:7,	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7 metropolitan [1] - 3123:20 Metropolitan [1] - 2946:2 Mexico [1] - 3075:24 mgd [1] - 3045:11 microphone [6] - 2947:14, 2947:24, 3011:11, 3093:13,	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10, 3049:14, 3075:15, 3076:2, 3076:9, 3076:19 minimums [1] - 3019:5 minute [7] - 2959:15, 2984:24, 2989:12, 3013:1, 3014:25,
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1, 3078:23, 3093:8, 3093:11, 3093:16, 3094:25, 3095:5, 3095:9, 3095:14, 3095:17, 3095:23, 3096:6, 3096:9, 3096:20, 3096:25, 3097:17, 3098:7,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21, 3024:4, 3024:14, 3025:2, 3025:14, 3025:16 McClatchey's [1] - 3024:21 McDowell [4] - 3106:16, 3106:19, 3108:7, 3108:14 McGregor [4] -	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14 Meeting [1] - 2966:22 meetings [1] - 3022:6 member [1] - 3119:23 members [2] - 3115:24, 3150:22 membership [2] - 3030:20, 3120:7 memo [7] - 3045:7, 3046:15, 3059:15,	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11 Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7 metropolitan [1] - 3123:20 Metropolitan [1] - 2946:2 Mexico [1] - 3075:24 mgd [1] - 3045:11 microphone [6] - 2947:14, 2947:24, 3011:11, 3093:13, 3104:20, 3148:4	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10, 3049:14, 3075:15, 3076:2, 3076:9, 3076:19 minimums [1] - 3019:5 minute [7] - 2959:15, 2984:24, 2989:12, 3013:1, 3014:25, 3121:2, 3134:7
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1, 3078:23, 3093:8, 3093:11, 3093:16, 3094:25, 3095:5, 3095:9, 3095:14, 3095:17, 3095:23, 3096:6, 3096:9, 3096:20, 3096:25, 3097:17, 3098:7, 3098:25, 3099:7,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21, 3024:4, 3024:14, 3025:2, 3025:14, 3025:16 McClatchey's [1] - 3024:21 McDowell [4] - 3106:16, 3106:19, 3108:7, 3108:14 McGregor [4] - 2991:20, 3079:17,	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14 Meeting [1] - 2966:22 meetings [1] - 3022:6 member [1] - 3119:23 members [2] - 3115:24, 3150:22 membership [2] - 3030:20, 3120:7 memo [7] - 3045:7, 3046:15, 3059:15, 3079:7, 3083:5,	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11  Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7  metropolitan [1] - 3123:20  Metropolitan [1] - 2946:2  Mexico [1] - 3075:24  mgd [1] - 3045:11  microphone [6] - 2947:14, 2947:24, 3011:11, 3093:13, 3104:20, 3148:4  mid-2012 [1] - 3043:25	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10, 3049:14, 3075:15, 3076:2, 3076:9, 3076:19 minimums [1] - 3019:5 minute [7] - 2959:15, 2984:24, 2989:12, 3013:1, 3014:25, 3121:2, 3134:7 minutes [6] - 2983:18,
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1, 3078:23, 3093:8, 3093:11, 3093:16, 3094:25, 3095:5, 3095:9, 3095:14, 3095:17, 3095:23, 3096:6, 3096:9, 3096:20, 3096:25, 3097:17, 3098:7, 3098:25, 3099:7, 3099:15, 3099:20,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21, 3024:4, 3024:14, 3025:2, 3025:14, 3025:16 McClatchey's [1] - 3024:21 McDowell [4] - 3106:16, 3106:19, 3108:7, 3108:14 McGregor [4] - 2991:20, 3079:17, 3122:12, 3122:15	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14 Meeting [1] - 2966:22 meetings [1] - 3022:6 member [1] - 3119:23 members [2] - 3115:24, 3150:22 membership [2] - 3030:20, 3120:7 memo [7] - 3045:7, 3046:15, 3059:15, 3079:7, 3083:5, 3083:11	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11  Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7  metropolitan [1] - 3123:20  Metropolitan [1] - 2946:2  Mexico [1] - 3075:24  mgd [1] - 3045:11  microphone [6] - 2947:14, 2947:24, 3011:11, 3093:13, 3104:20, 3148:4  mid-2012 [1] - 3043:25  middle [5] - 2950:25,	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10, 3049:14, 3075:15, 3076:2, 3076:9, 3076:19 minimums [1] - 3019:5 minute [7] - 2959:15, 2984:24, 2989:12, 3013:1, 3014:25, 3121:2, 3134:7 minutes [6] - 2983:18, 3011:3, 3053:9,
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1, 3078:23, 3093:8, 3093:11, 3093:16, 3094:25, 3095:5, 3095:9, 3095:14, 3095:17, 3095:23, 3096:6, 3096:9, 3096:20, 3096:25, 3097:17, 3098:7, 3098:25, 3099:7, 3099:15, 3099:20, 3100:6, 3100:13,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21, 3024:4, 3024:14, 3025:2, 3025:14, 3025:16 McClatchey's [1] - 3024:21 McDowell [4] - 3106:16, 3106:19, 3108:7, 3108:14 McGregor [4] - 2991:20, 3079:17, 3122:12, 3122:15 MDL [1] - 3073:11	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14 Meeting [1] - 2966:22 meetings [1] - 3022:6 member [1] - 3119:23 members [2] - 3115:24, 3150:22 membership [2] - 3030:20, 3120:7 memo [7] - 3045:7, 3046:15, 3059:15, 3079:7, 3083:5, 3083:11 memoranda [1] -	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11  Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7  metropolitan [1] - 3123:20  Metropolitan [1] - 2946:2  Mexico [1] - 3075:24  mgd [1] - 3045:11  microphone [6] - 2947:14, 2947:24, 3011:11, 3093:13, 3104:20, 3148:4  mid-2012 [1] - 3043:25  middle [5] - 2950:25, 2974:19, 2999:15,	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10, 3049:14, 3075:15, 3076:2, 3076:9, 3076:19 minimums [1] - 3019:5 minute [7] - 2959:15, 2984:24, 2989:12, 3013:1, 3014:25, 3121:2, 3134:7 minutes [6] - 2983:18, 3011:3, 3053:9, 3120:18, 3121:3, 3128:22 misdirected [1] -
3161:15  MASTER [79] - 2943:11, 2945:2, 2945:6, 2945:16, 2947:2, 2948:7, 2948:25, 2949:6, 3010:25, 3011:4, 3011:8, 3011:13, 3011:17, 3012:4, 3048:19, 3053:11, 3064:25, 3078:1, 3078:23, 3093:8, 3093:11, 3093:16, 3094:25, 3095:5, 3095:9, 3095:14, 3096:17, 3095:23, 3096:6, 3096:9, 3096:20, 3096:25, 3097:17, 3098:7, 3098:25, 3099:7, 3099:15, 3099:20, 3100:6, 3100:13, 3100:23, 3101:1,	matters [2] - 3069:12, 3125:19 mature [1] - 3050:13 maximum [1] - 3068:20 Mayer [1] - 2946:7 McCARTAN [1] - 2943:21 McClatchey [7] - 3023:19, 3023:21, 3024:4, 3024:14, 3025:2, 3025:14, 3025:16 McClatchey's [1] - 3024:21 McDowell [4] - 3106:16, 3106:19, 3108:7, 3108:14 McGregor [4] - 2991:20, 3079:17, 3122:12, 3122:15 MDL [1] - 3073:11 mean [29] - 2954:13, 2961:25, 2985:6,	3153:20 meet [3] - 3025:10, 3040:10, 3160:13 meeting [12] - 2957:6, 2967:3, 2967:10, 2973:4, 2973:25, 3017:8, 3023:17, 3025:15, 3095:20, 3111:7, 3121:13, 3124:14 Meeting [1] - 2966:22 meetings [1] - 3022:6 member [1] - 3119:23 members [2] - 3115:24, 3150:22 membership [2] - 3030:20, 3120:7 memo [7] - 3045:7, 3046:15, 3059:15, 3079:7, 3083:5, 3083:11 memoranda [1] - 2994:3 memorandum [1] -	3012:13, 3026:2, 3035:9, 3036:6, 3038:4, 3040:23, 3041:9, 3048:4, 3049:3, 3050:11, 3051:11  Metro [6] - 3044:11, 3047:19, 3048:2, 3050:6, 3050:17, 3091:7  metropolitan [1] - 3123:20  Metropolitan [1] - 2946:2  Mexico [1] - 3075:24  mgd [1] - 3045:11  microphone [6] - 2947:14, 2947:24, 3011:11, 3093:13, 3104:20, 3148:4  mid-2012 [1] - 3043:25  middle [5] - 2950:25,	3049:15, 3082:9 mind [4] - 2973:25, 2999:3, 3128:9, 3149:17 minimum [15] - 3007:22, 3007:25, 3009:8, 3019:3, 3019:4, 3019:20, 3020:3, 3020:5, 3020:6, 3020:10, 3049:14, 3075:15, 3076:2, 3076:9, 3076:19 minimums [1] - 3019:5 minute [7] - 2959:15, 2984:24, 2989:12, 3013:1, 3014:25, 3121:2, 3134:7 minutes [6] - 2983:18, 3011:3, 3053:9, 3120:18, 3121:3, 3128:22

missed [1] - 3037:25 missing [1] - 3094:10 mission [1] - 3136:15 mistake [1] - 2991:2 mister [1] - 2949:17 Mitchell [1] - 2992:5 mitigation [3] -2979:17, 2979:20, 2980:7 model [7] - 3032:16, 3032:18, 3033:11, 3041:21, 3044:14, 3119:17, 3146:1 modeler [1] - 3080:20 modelers [1] - 3033:8 modeling [10] -2949:22, 2950:2, 2950:5, 2952:4, 2998:18, 2998:19, 3032:8, 3081:3, 3098:8, 3129:21 models [2] - 2953:22, 3137:15 moderate [1] -3014:19 modern [1] - 3128:24 modest [9] - 2967:21, 2970:7, 2970:16, 2971:1, 2971:2, 2972:23, 3010:11, 3062:22 modification [1] -2987:25 Modifications [3] -2998:15, 2998:25, 3001:1 modified [1] - 3111:24 moisture [3] -3151:14, 3151:16, 3151:19 moment [8] - 2955:13, 2994:18, 2997:23, 3018:13, 3072:21, 3103:24, 3122:12, 3127:1 moments [1] -3005:18 Monday [4] - 2945:23, 3159:21, 3160:14, 3160:18 monetary [2] -3085:12, 3153:24 money [4] - 3003:24, 3007:3, 3007:4, 3086:3 monitoring [2] -3052:9, 3069:3 month [1] - 3100:5 monthly [2] - 3020:3, 3020:10

months [9] - 2983:13, 2984:10. 2996:11. 3001:20, 3006:13, 3044:1, 3063:4, 3068:20, 3077:2 moratorium [9] -3058:10, 3059:3, 3059:11, 3060:24, 3089:2, 3089:4, 3089:25, 3090:18, 3139:16 morning [16] - 2945:2, 2945:4, 2945:5, 2945:6, 2945:8, 2947:21, 2947:22, 2948:6, 2948:7, 2948:11, 2948:12, 2949:15, 3011:21, 3029:6, 3159:21, 3159:22 mortality [2] -3115:10, 3144:24 most [8] - 2971:11, 2985:19, 3046:14, 3085:17, 3090:10, 3090:12, 3090:14, 3096:20 mouth [1] - 3158:13 move [8] - 2975:9, 2975:25, 2976:1, 2979:4. 2979:25. 2980:3, 3066:25, 3067:21 moved [3] - 3026:4, 3028:2, 3079:20 mover [1] - 3050:20 moves [1] - 3033:22 moving [11] - 2975:3, 2975:10, 2975:14, 3010:21, 3065:16, 3066:4, 3067:4, 3068:9, 3068:13, 3068:18, 3096:17 **MR** [73] - 2945:4, 2945:5, 2945:9, 2945:17, 2947:3, 2947:20, 2948:6, 2948:10, 2948:13, 2949:1, 2949:7, 2949:8, 2949:14, 3004:14, 3004:17, 3010:23, 3011:3, 3011:12, 3011:16, 3011:18, 3011:20, 3011:24, 3012:5, 3029:6, 3029:8, 3029:17, 3029:18, 3029:19, 3030:13, 3030:15, 3031:22,

3031:23, 3044:2

3045:1, 3048:18, 3048:20, 3053:8, 3053:12, 3053:13, 3059:5, 3059:6, 3064:19, 3064:23, 3065:4, 3071:17, 3077:25, 3078:4. 3078:21, 3078:24, 3093:6, 3103:19, 3103:20, 3103:23, 3105:13, 3105:17, 3105:20, 3106:3, 3126:24, 3127:4, 3133:8, 3133:14, 3134:20, 3134:25, 3135:8, 3147:24, 3152:8, 3159:14, 3159:20, 3159:25, 3160:3, 3160:11, 3160:13, 3160:16 MS [12] - 3104:3, 3104:7, 3104:25, 3105:3, 3105:9, 3135:10, 3135:13, 3138:22, 3138:24, 3147:21, 3152:9, 3159:15 multi [3] - 2974:5, 2979:22, 3005:8 multi-page [1] -3005:8 multi-year [2] -2974:5, 2979:22 multiple [4] - 2981:8, 3038:14, 3039:2, 3070:9 municipal [12] -2946:4, 2962:18, 2963:1, 3037:24, 3040:18, 3101:20, 3107:19, 3123:22, 3124:4, 3140:20, 3141:13, 3155:11 mussel [4] - 3007:1, 3009:16, 3064:14, 3144:24 mussels [5] - 3000:13, 3004:21, 3062:18, 3112:4, 3115:11 must [2] - 3085:17, 3111:24 mutual [1] - 2946:13 Ν

named [2] - 2982:12, 3161:9 Nap [6] - 3005:9, 3082:20, 3083:4. 3122:9, 3126:13, 3131:4 nap [1] - 3079:4 napkin [2] - 2979:2, 2979:11 Napoleon [8] - 2964:1, 3079:5, 3079:7, 3114:22, 3119:21, 3119:23, 3121:24, 3125:10 narrative [1] - 3080:7 Natural [1] - 3116:19 **natural** [1] - 3053:10 nature [13] - 3110:6, 3115:8, 3121:17, 3123:14, 3123:16, 3125:7, 3136:18, 3137:14, 3142:16, 3146:20, 3146:24, 3157:11, 3158:10 navigation [1] -3039:15 near [4] - 2962:8, 2987:14, 3112:10, 3133:25 nearly [1] - 2987:18 necessarily [2] -2988:12, 3031:11 necessary [3] -3035:24, 3143:21, 3147:16 need [45] - 2964:24, 2974:6, 2976:1, 2985:23, 2988:3, 2990:5, 3000:24, 3003:10, 3010:15, 3010:21, 3026:13, 3027:13, 3027:24, 3028:11, 3038:18, 3038:22, 3038:24, 3038:25, 3040:2, 3040:7, 3041:11, 3041:13. 3043:20. 3043:21, 3062:10, 3062:14, 3062:16, 3063:1, 3063:2, 3064:13, 3067:12, 3097:23, 3098:3, 3107:2, 3129:14, 3130:1, 3130:14, 3130:18, 3146:14, 3148:4, 3149:16, 3157:20, 3159:2,

3104:24, 3120:12,

3122:11, 3126:13

needed [14] - 2965:8, 2973:1, 3042:19, 3048:5, 3048:7, 3049:10, 3050:2, 3066:18, 3085:13, 3088:1, 3094:23, 3097:21, 3138:11, 3143:19 needs [18] - 2958:12, 2958:14, 3040:3, 3040:8. 3040:11. 3040:23, 3041:10, 3041:21, 3048:3, 3048:24, 3064:16, 3095:2, 3128:24, 3141:19, 3157:5, 3157:22 negligible [1] -3078:18 negotiate [1] -3094:19 negotiated [3] -2963:11, 3075:10, 3094:11 negotiating [2] -3075:8, 3076:5 negotiation [3] -2962:21, 2963:11, 2963:22 negotiations [10] -2946:12, 3019:12, 3019:14, 3019:18, 3069:16, 3074:15, 3074:19, 3074:23, 3076:1, 3077:7 negotiator [1] -3037:20 negotiators [2] -3075:5, 3075:7 neighboring [1] -3146:2 net [1] - 3041:20 never [12] - 2954:12, 2956:23, 3001:1, 3014:15, 3019:24, 3025:3, 3082:15, 3110:2, 3112:6, 3144:21, 3147:20, 3148:6 new [18] - 2970:20, 2972:12, 3043:22, 3047:24, 3048:24, 3051:18, 3058:7, 3059:9, 3059:18, 3060:24, 3089:24, 3137:17, 3138:4, 3138:13, 3139:1, 3139:17, 3139:20, 3139:23 newly [1] - 3140:7

name [15] - 2945:24,

2947:15, 2947:16,

2950:24, 2992:9,

3002:1, 3020:17,

newly-issued [1] -3104:17, 3128:13, obvious [2] - 2972:4, 3067:16, 3068:8, 3091:22 3070:19, 3073:5, 3140:7 3159:14, 3159:15 3039:5 option [3] - 2978:3, notice [1] - 2983:14 obviously [3] -3073:12, 3086:7, news [1] - 2975:22 3091:4, 3092:18, next [29] - 2945:14, notices [1] - 2984:11 2970:12, 3037:5, **notified** [1] - 2983:5 3071:10 3097:9, 3100:6, 2952:9, 2952:14, 3101:21, 3102:1, 2955:15, 2963:18, noting [1] - 3046:25 occasion [5] - 2951:8, 3112:23, 3122:9, 2967:18, 2973:7, 2997:10, 3025:10, notion [2] - 3077:19, 3122:11, 3122:13, 2973:16, 2980:5, 3122:3 3111:4, 3142:19 3123:14, 3129:25, 2981:6, 2981:11, November [11] occasions [1] -2992:20, 3016:23, 3043:2 3132:19, 3134:14, 2943:13, 2955:4, 3021:7, 3021:25, 3140:18, 3141:22, occurred [3] - 2983:4, 2974:8, 2974:16, 3143:16, 3146:18, 3022:23, 3024:22, 2977:6, 2977:7, 2996:23, 3131:10 3024:24, 3050:5, 3149:16, 3151:7, 3017:8, 3023:18, occurring [2] -3061:24, 3104:8, 3156:24, 3157:23 3030:4, 3090:19, 3047:19, 3134:15 3105:22, 3113:22, one-and-a-half [1] -3160:19 October [4] - 3030:3, 2976:9 3114:24, 3125:22, Number [1] - 2944:7 3099:12, 3100:15, 3126:8, 3127:3, one-day [5] - 3009:8, number [35] - 2955:8, 3135:23 3133:9, 3133:10 3019:3, 3019:4, 2974:19, 2974:22, **OF** [4] - 2943:1, 3019:5, 3020:3 nice [2] - 3063:19, 2981:5, 2983:11, 2943:3, 2943:6, ones [1] - 3015:16 3063:25 2987:2, 3013:22, 2943:9 **NOAA** [3] - 2992:25, ongoing [2] - 3127:24, 3047:5, 3048:4, offer [2] - 3076:20, 2993:6, 2993:10 3128:3 3052:8, 3062:14, 3156:7 nobody [4] - 2971:7, open [1] - 3057:8 3062:15, 3068:18, offered [2] - 3019:24, 3062:18, 3083:6, operate [3] - 3040:9, 3068:19, 3076:19, 3020:5 3085:24 3136:18, 3136:19 3089:4, 3089:16, office [3] - 3069:10, nonability [1] -3089:18, 3089:20, operates [4] - 3040:1, 3117:2, 3119:25 3057:18 3090:2, 3090:6, 3040:5, 3072:11, officially [1] - 2974:3 3094:1 noncompliance [3] -3090:10, 3090:24, often [4] - 2961:8, 2983:6, 2983:9, 3092:17, 3113:16, operating [2] - 3036:1, 2961:11, 2965:1, 2988:6 3119:11, 3124:18, 3074:8 2971:21 3125:1, 3137:11, **none** [1] - 3142:14 Operating [1] old [3] - 2961:14, normal [5] - 3047:20, 3151:4, 3153:3, 3075:11 2988:2, 3011:9 3055:11, 3055:17, 3153:4, 3153:15, operation [8] older [1] - 2972:6 3056:8, 3056:11 3153:16, 3153:19 2985:14, 3020:4, once [4] - 2964:25, North [2] - 2946:2, numbered [3] -3037:11, 3040:14, 2965:7, 3051:13, 3050:6 2989:17, 3123:6, 3074:5, 3075:22, 3076:15 north [4] - 3055:23, 3125:16 3094:7, 3103:9 one [76] - 2957:21, 3146:19, 3146:21, numbers [10] operational [2] -2960:1, 2964:5, 2984:21, 2987:5, 3156:4 3037:7, 3072:7 2964:10, 2970:20, 3001:14, 3004:19, northeast [1] - 3026:4 2971:4, 2973:13, operations [10] northern [3] -3042:17, 3042:22, 3034:16, 3035:11, 2976:9, 2976:18, 3049:25, 3064:11, 3069:17, 3070:19, 3026:25, 3027:2, 2979:9, 2981:22, 3089:19, 3124:20 3071:22, 3075:9, 3096:19 2981:23, 2988:5, numerous [1] -3076:6, 3077:14, northwest [1] - 3026:3 2989:16, 2990:1, 3031:18 2991:23, 2992:11, 3077:18, 3077:22 Northwest [2] opinion [15] -3109:1, 3109:7 2993:1, 2998:11, 0 3030:19, 3074:25, Notary [2] - 2943:15, 3000:18, 3001:4, 3087:12, 3092:4, 3161:2 3001:6. 3003:2. objection [1] -3097:18, 3099:25, note [5] - 2954:15, 3004:24, 3009:8, 3071:17 3100:3, 3102:24, 3022:23, 3081:13, 3011:25, 3012:1, obligation [1] -3128:12, 3128:19, 3106:21, 3144:18 3019:3, 3019:4, 3039:21 3019:5, 3020:3, 3128:21, 3129:4, noted [1] - 3010:6 obligations [1] -3021:19, 3022:15, 3130:20, 3153:8, Noted [7] - 3011:5, 2961:13 3030:24, 3038:15, 3160:8 3011:7, 3065:1, observations [1] -3039:14, 3046:14, opinions [1] - 3087:1 3065:3, 3135:4, 3009:8 3049:11, 3050:24, opportune [1] -3135:6, 3160:17 **observe** [1] - 3019:16 3051:14, 3051:22, 3105:21 notes [1] - 3161:5 observed [2] -3051:23, 3055:6, opposed [2] nothing [9] - 2947:11, 3021:21, 3021:22 3056:24, 3062:3, 3091:14, 3102:20 3095:6, 3095:7,

2978:6, 2979:8 options [9] - 2965:2, 2974:20, 2974:22, 3036:20, 3067:3. 3067:25, 3068:15, 3107:14 oranges [1] - 3020:12 order [7] - 2994:7, 3041:21, 3044:13, 3107:11, 3134:5, 3156:3, 3158:1 ordinances [1] -3153:23 organization [1] -3031:13 oriented [1] - 3137:21 original [4] - 3039:11, 3122:6, 3131:14, 3147:3 Original [1] - 2943:1 originally [2] -3042:15, 3099:11 ornithology [1] -3136:17 otherwise [2] -3007:7, 3121:20 ought [1] - 2976:22 outcome [1] - 3161:8 outdated [1] - 3051:17 outdoor [18] - 3026:5, 3026:9, 3026:14, 3026:15, 3026:17, 3050:25, 3051:2, 3051:10, 3051:19, 3052:19, 3052:25, 3096:15, 3097:5, 3097:6, 3097:7, 3155:3, 3155:19 outline [6] - 2964:8, 3021:3, 3021:7, 3022:6, 3022:10, 3047:11 outset [1] - 2997:20 outside [1] - 3069:13 overall [2] - 3016:12, 3158:12 overallocation [3] -3111:25, 3112:3, 3115:9 overarching [1] -2953:8 overlap [1] - 2951:10 oversaw [1] - 2949:23 overseeing [1] -2950:1 overspeak [1] -3057:12 overstate [1] -

3103:19, 3103:20,

THE REPORTING GROUP ition[1]-

obtain [1] - 3074:1

3023:11 3116:10, 3117:17, parcel [1] - 3092:24 3004:10, 3044:11, 3054:22, 3055:7, overviewing [1] -3120:12, 3123:1, parcels [3] - 2984:18, 3050:18, 3068:8, 3076:11, 3092:15, 3123:4, 3123:6, 3130:23 3003:21 3069:14, 3074:6, 3106:8, 3111:4, 3123:7, 3123:8, overwhelming [3] pardon [2] - 3108:17, 3146:2, 3157:6 3115:10, 3126:16, 2973:17, 2973:21, 3124:12, 3124:19, parties [2] - 2948:18, 3128:20, 3130:7, 3110:8 2974:7 3125:15, 3126:23, 3070:24 3142:17 parenthetical [2] -3127:6, 3138:17, **periodic** [1] - 3076:16 own [5] - 2960:23, parts [2] - 3032:24, 3000:8, 3002:16 3138:22, 3138:25, 3012:16, 3084:20, park [1] - 3136:19 3159:9 periodically [1] -3129:23, 3146:5 3149:5, 3149:9 part [30] - 2951:23, pass [5] - 2985:15, 3108:10 Page [1] - 2944:7 3051:21, 3062:24, periods [2] - 3021:23, 2962:20, 2965:1, pages [9] - 2955:2, 3105:14, 3105:24 3092:22 Ρ 2972:10, 2977:22, 3002:17, 3004:11, 2996:7, 3002:17, passage [2] - 2993:19, permanent [2] p.m [5] - 3051:3, 3004:23, 3005:10, 3036:16 3028:19, 3061:6 3019:11, 3024:6, 3065:3, 3135:4, 3016:9, 3088:6, passed [7] - 2968:1, 3027:7, 3038:13, permission [2] -3135:6, 3160:17 3116:5, 3161:4 2973:5, 3050:21, 2949:5, 3141:3 3039:21, 3048:1, package [2] - 3021:4, painstakingly [1] -3060:20, 3061:15, 3051:13, 3054:23, permit [14] - 2981:12, 3034:5 3126:7 3085:9, 3094:18, 3070:14, 3145:8 2986:18, 2987:2, page [109] - 2950:21, paired [1] - 3144:21 passes [1] - 3055:20 2987:4, 2987:12, 3096:21, 3097:2, 2950:25, 2951:13, Palmer [1] - 3016:15 3097:11, 3109:10, passing [1] - 3104:2 2987:19, 2987:24, 2952:7. 2952:9. Pamela [1] - 2982:12 3109:14, 3109:15, 2988:5, 2988:9, passionately [1] -2952:11, 2955:1, 3116:24, 3136:15, 2989:4, 2989:16, Panday [3] - 2946:19, 2961:11 2955:8, 2955:15, 2946:21, 2947:1 3151:16, 3152:14, past [2] - 2965:16, 3062:19, 3110:7, 2963:14, 2964:7, 3157:4, 3158:22, 3110:12 Paper [2] - 2964:14, 3019:12 2967:15, 2967:18, 2965:10 3158:23 permits [28] - 2958:11, pause [1] - 3055:9 2969:16, 2969:22, 2983:7, 2983:23, paper [4] - 2957:5, participate [2] pays [1] - 3006:10 2969:25, 2970:19, 2996:10, 3023:3, 3001:12, 3008:20 2987:6. 2987:8. peak [1] - 3077:2 2970:24, 2972:24, 2987:10, 2987:11, participating [1] -3128:1 penalties [2] -2973:11, 2973:16, 2988:9, 2989:9, paragraph [51] -2973:13 3153:24, 3154:2 2974:12, 2974:19, 3041:4, 3059:19, 2951:18, 2951:21, participation [1] pending [2] - 3090:7, 2977:20, 2978:1, 2996:24 3060:24, 3089:24, 2952:14, 2953:8, 3090:9 2978:3, 2980:5, 3110:8. 3110:9. 2953:12, 2954:15, particular [53] people [10] - 2946:20, 2980:16, 2982:25, 2956:3, 2967:14, 2952:2, 2954:23, 3111:24, 3118:1, 2949:19, 2965:25, 2991:15, 2991:16, 2982:24, 2983:3, 2955:14, 2955:25, 3132:15, 3132:19, 2979:4, 3066:5, 2991:23, 2992:8, 2985:1, 2992:21, 2962:13, 2963:17, 3132:21, 3138:4, 3068:9, 3068:13, 2992:19, 3002:3, 2999:1, 2999:4, 2967:1, 2970:19, 3139:2, 3139:17, 3068:18, 3098:14, 3004:10, 3004:20, 2999:7, 3000:4, 2973:4, 2974:19, 3139:20, 3139:23, 3105:21 3004:24, 3005:8, 3002:6, 3010:2, 2976:2, 2976:18, 3140:1, 3140:5, **per** [6] - 3038:20, 3005:11, 3005:15, 3140:7 3033:4, 3033:18, 2993:16, 2996:18, 3047:1, 3049:21, 3007:16, 3009:1, 3007:1, 3013:18, permitted [5] -3034:1, 3071:10, 3049:24, 3109:12, 3012:1, 3013:2, 2986:19, 2986:25, 3072:20, 3072:22, 3017:2, 3017:14, 3110:4 3013:5, 3013:18, 2987:13, 2988:1, 3080:1, 3080:11, 3018:19, 3022:6, percent [10] - 2956:10, 3016:11, 3016:23, 2988:19 3080:14, 3081:9, 3024:12, 3030:1, 2970:22, 2971:6, 3016:24, 3017:11, 3084:24, 3084:25, 3032:16, 3051:19, permittee [1] -2971:8, 2971:9, 3018:24, 3020:1, 3110:16 3089:7, 3089:9, 3068:8, 3071:9, 2971:23, 2972:4, 3021:7, 3021:15, 3108:21, 3109:4, 3080:2, 3083:2, permittees [3] -2972:11, 2972:16, 3021:19, 3022:18, 3113:22, 3114:25, 3091:14, 3096:24, 3068:19, 3097:22, 2984:15 3024:17, 3024:22, 3115:13, 3115:15, 3098:15, 3101:12, 3102:21 **Perdue** [6] - 3037:3, 3024:24, 3030:17, 3119:3, 3119:6, 3108:1, 3108:21, permitting [3] -3037:14, 3068:25, 3030:21, 3031:1, 3121:9, 3123:1, 3110:4, 3113:11, 3082:21, 3108:23, 3069:3, 3069:8, 3031:2, 3031:6, 3123:4, 3123:14, 3114:14, 3114:25, 3109:6 3070:22 3032:21, 3033:2, 3127:2, 3127:6, 3115:8, 3115:14, **PERRY** [41] - 2943:17, perform [1] - 2968:13 3033:19, 3046:2, 3127:10, 3131:20, 3116:5, 3116:15, 2945:5, 2948:6, performing [1] -3046:6, 3046:21, 3132:3, 3132:12, 3121:13, 3123:22, 2948:10, 2948:13, 2968:15 3060:11, 3071:5, 3132:14 3129:17, 3132:19, 2949:1, 2949:8, perhaps [3] - 2979:13, 3084:13, 3084:24, 3133:5, 3141:2, paragraphs [6] -2949:14, 3004:14, 2994:3, 3003:16 3086:12, 3089:7, 2953:2, 2953:7, 3144:14, 3144:25, 3004:17, 3010:23, period [20] - 2969:6, 3108:20, 3111:15, 2967:1, 3071:6, 3151:3 3011:3, 3011:12, 3001:17, 3021:12, 3111:18, 3111:19, 3071:8 particularly [12] -3011:16, 3011:18, 3025:5, 3034:18, 3112:10, 3113:20, 2954:17, 2959:19, 3011:20, 3011:24, paraphrase [1] -3037:16, 3037:19,

3012:5, 3029:18,

THE REPORTING GROUP:5, 3053:1,

3113:22, 3114:24,

3115:18, 3116:7,

3121:4

3064:23, 3071:17,	3007:21, 3007:24,	3159:21	policies [3] - 3107:14,	3007:22
3077:25, 3078:4,	3133:9, 3133:10,	Plan [21] - 2976:11,	3107:22, 3129:17	
3078:21, 3078:24,	3134:8	2976:14, 3012:23,	Policy [2] - 2946:8,	precede [1] - 2987:5 preceding [1] -
3103:19, 3105:13,	pictures [1] - 2972:3	3032:20, 3064:14,	3124:22	3020:25
3105:20, 3106:3,	piece [6] - 2967:24,	3075:11, 3083:21,	policy [15] - 3051:1,	predecessor [3] -
3126:24, 3127:4,	3051:24, 3064:9,	3083:24, 3084:2,	3083:1, 3121:18,	3136:1, 3137:9,
3133:8, 3133:14,	3064:10, 3094:10,	3093:19, 3107:12,	3122:3, 3123:2,	3143:24
3134:20, 3134:25,	3134:11	3137:1, 3137:5,	3123:8, 3127:24,	predecessors [1] -
3135:8, 3147:24,	pieces [2] - 2968:3,	3137:6, 3137:21,	3128:1, 3128:3,	2995:14
3152:8, 3159:14,	3003:3	3139:3, 3140:19,	3128:5, 3128:11,	predict [2] - 2994:19,
3160:3, 3160:16	pilot [2] - 3062:9,	3141:7, 3141:12,	3128:17, 3129:3,	2995:11
<b>Perry</b> [21] - 2945:13,	3062:11	3141:24, 3142:20	3130:24, 3137:7	predicted [2] -
2948:8, 3011:2,	pinkish [1] - 3139:14	planned [2] - 3027:3,	population [8] -	2996:11, 3160:7
3011:8, 3029:14,	pivot [2] - 2972:2,	3158:4	3038:20, 3041:12,	predicting [1] -
3030:8, 3036:12,	3126:4	planning [16] -	3044:13, 3045:21,	2995:25
3051:7, 3054:5,	place [21] - 2954:8,	2976:22, 2989:5,	3046:17, 3047:5,	prediction [5] -
3061:22, 3068:17,	2971:16, 2995:10,	3038:22, 3044:10,	3047:24, 3049:25	2968:14, 2968:15,
3074:9, 3078:2,	3028:17, 3028:20,	3044:17, 3045:18,	portion [8] - 3022:4,	2993:10, 2995:3,
3078:6, 3103:18,	3047:4, 3060:24,	3047:18, 3047:20,	3026:3, 3026:4,	3151:5
3105:12, 3135:7,	3063:1, 3088:16,	3048:1, 3083:2,	3036:23, 3058:8,	predictions [1] -
3136:25, 3144:3,	3099:5, 3106:9,	3098:17, 3120:10,	3101:8, 3101:9,	2969:10
3144:19, 3159:25	3118:2, 3121:22,	3122:6, 3130:4,	3101:11	predictive [1] -
persist [2] - 3026:7,	3130:22, 3137:22,	3145:13, 3146:4	portions [3] - 3017:16,	3157:16
3054:19	3138:11, 3139:16,	Planning [2] - 2946:3,	3133:22, 3143:6	predictor [2] -
person [5] - 3023:25,	3146:15, 3153:10,	3044:11	Portland [1] - 2943:13	2992:25, 2993:6
3034:11, 3081:1,	3153:24, 3154:21	plans [10] - 2976:19,	posed [1] - 3117:6	prefiled [5] - 2982:20,
3125:14, 3161:8	placed [4] - 3103:5,	3130:19, 3131:2,	position [7] - 2956:22,	2991:8, 3019:11,
personal [5] -	3105:4, 3124:8,	3131:9, 3131:14,	2985:22, 2985:23,	3115:12, 3131:18
3128:12, 3128:14,	3130:3	3141:9, 3145:22,	3102:18, 3111:23,	preliminary [1] -
3128:15, 3128:19,	places [2] - 3028:14,	3146:9, 3147:3,	3131:12, 3135:24	2979:10
3128:21	3062:14	3157:12	positions [3] -	preparation [1] -
personally [2] -	placing [1] - 3135:18	platform [1] - 3075:8	2961:22, 3070:24,	2981:1
3042:23, 3043:1	Plaintiff [1] - 2943:4	<b>play</b> [1] - 2961:9	3071:23	prepared [10] -
perspective [2] -	plan [56] - 2945:14,	played [8] - 2948:14,	possibility [2] -	2957:18, 2967:2,
3050:9, 3050:16	2946:6, 2946:24,	2948:15, 2948:22,	2988:15, 3028:22	2977:3, 2986:9,
Perspectives [1] -	2992:13, 3015:12,	2963:25, 2994:13,	possible [4] -	2993:2, 3008:5,
3126:10	3015:14, 3025:12,	2994:16, 3017:15,	2946:13, 2950:3,	3017:7, 3025:24,
<b>Peter</b> [1] - 2946:6	3030:5, 3033:5,	3074:19	3077:12, 3129:5	3083:12, 3125:8
<b>petitioned</b> [1] - 3006:9	3034:7, 3034:12,	pleased [1] - 3134:21	potential [6] -	preparing [1] -
<b>Ph.D</b> [1] - 2944:4	3047:21, 3064:6,	<b>plot</b> [1] - 3003:21	2955:21, 2962:16,	2946:20
<b>phase</b> [3] - 3073:8,	3064:7, 3074:8,	point [33] - 2956:4,	2983:6, 3006:16,	prerogative [1] -
3073:9, 3076:12	3077:15, 3093:21,	2964:5, 2965:12,	3022:20, 3036:19	3140:17
<b>phase-in</b> [1] - 3076:12	3093:23, 3094:9,	2971:8, 2988:7,	potentially [3] -	prescribed [3] -
phased [2] - 3076:11,	3094:11, 3094:13,	2991:7, 2997:22,	3063:22, 3066:22,	3139:15, 3141:18,
3076:18	3094:18, 3094:20,	2999:14, 3037:5,	3141:14	3142:10
<b>PHILIP</b> [1] - 2943:17	3095:2, 3099:16,	3046:3, 3046:25,	PowerPoint [5] -	Present [1] - 2943:23
<b>Phinizy</b> [3] - 3136:12,	3100:18, 3106:9,	3047:2, 3053:10,	3016:2, 3016:10,	present [6] - 2957:18,
3136:14, 3136:19	3107:10, 3107:15,	3057:17, 3064:20,	3016:23, 3017:10,	2979:4, 3008:20,
photograph [5] -	3111:6, 3111:8,	3070:3, 3070:9,	3124:14	3023:11, 3123:18,
3125:23, 3126:1,	3111:10, 3113:5,	3090:14, 3101:15,	practical [1] - 3146:14	3134:14
3133:3, 3133:19,	3113:7, 3115:23,	3109:8, 3112:2,	practically [1] -	presentation [5] -
3133:24	3118:2, 3118:20,	3122:14, 3122:17,	3156:23	3016:10, 3017:23,
phrase [3] - 2970:8,	3128:6, 3131:1,	3122:22, 3125:19,	practice [2] - 2972:14,	3124:14, 3125:5,
2973:17, 3010:6	3132:15, 3132:20,	3125:20, 3128:16,	3037:15	3125:7
phrases [2] - 3109:5,	3137:4, 3137:25,	3130:9, 3148:20,	practices [1] - 3146:1	presented [10] -
3118:22	3138:1, 3138:2,	3150:9, 3151:9,	<b>pre</b> [2] - 3007:22,	3016:8, 3017:19,
physically [1] -	3138:5, 3139:21,	3158:6, 3158:25	3062:19	3017:25, 3023:3,
3158:18	3142:24, 3145:11,	pointed [1] - 3051:7	pre-existing [1] -	3112:16, 3112:18,
picked [1] - 3051:24	3145:20, 3147:2,	points [1] - 2974:18	3062:19	3124:24, 3125:10,
picture [6] - 3007:18,	3148:15, 3158:6 <sub>THI</sub>		ROUP <b>igation</b> [1] -	3125:14, 3128:2
1			1	Ī

TRIAL - November 18, 2016 (Vol. XII)

presenting [1] principles [1] -3031:15 2993:8, 2993:12, 3066:21 2959:16 2993:20, 2994:6, pulse [2] - 3092:18, 3017:21 productivity [2] press [11] - 2999:9, 3028:16, 3067:17 2994:20, 2995:17, 3094:3 prioritization [1] -2998:6, 2999:22, 3009:19, 3009:23, 2984:20 program [1] - 2971:20 pump [2] - 3110:16, 3002:24, 3007:12, 3058:1, 3058:14, prioritized [1] -3117:18 programs [1] - 2959:4 3009:20, 3010:5, 3058:18. 3078:13. 2984:25 pumped [1] - 3117:21 progress [2] -3081:19, 3082:17, 3027:14. 3028:25. prioritizing [1] -2974:24, 3107:11 pumping [1] - 3101:20 3034:22, 3036:14, 3082:19, 3083:13 2984:17 progressing [2] pure [1] - 3155:24 3053:20, 3056:7, presumed [1] -Priority [2] - 3013:6, 3069:16, 3145:25 purpose [3] - 3039:13, 3150:15 3061:9, 3065:8, 3013:10 progressive [2] -3137:4, 3137:6 presumption [2] -3089:23, 3116:23, priority [4] - 2976:18, 3052:11, 3141:23 purposes [4] -3117:3. 3117:13. 3112:3, 3112:4 2986:6, 3013:23, prohibited [1] -3038:15, 3039:2, 3131:24, 3132:7, pretty [10] - 2971:9, 3130:7 3096:14 3039:8, 3088:1 2988:21, 2989:20, 3135:22, 3141:8, private [1] - 3037:14 project [3] - 2954:7, pursuant [1] - 3139:20 3042:14, 3044:6, 3141:15, 3143:8, problem [2] - 3093:15, 3039:8, 3062:11 pushing [1] - 2964:13 3143:11, 3143:20, 3054:10, 3055:4, 3158:17 projected [3] put [32] - 2945:10, 3151:18 3065:23, 3098:22, problematic [1] -3040:10, 3045:18, 2954:8, 2971:2, 3108:6 protection [6] -3004:1 3050:1 2981:19, 2995:9, 2958:9, 2958:10, prevent [1] - 3133:1 procedure [1] projecting [1] -3001:3, 3004:6, 2960:25, 2964:22, previous [3] -3099:18 3068:22 3011:25, 3023:7, 2965:22, 2995:16 3021:22, 3051:15, 3025:12, 3027:8, projection [1] procedures [2] -3064:6 protective [3] -3040:22, 3074:7 3031:20, 3041:17, 3044:13 2964:25, 2965:2, previously [2] -3047:4, 3066:23, proceed [1] - 3085:15 projections [7] -2965:13 2990:18, 3106:14 3038:21, 3042:5, 3067:15, 3067:19, proceeding [2] protocol [1] - 2995:25 prices [4] - 3000:20, 3078:12, 3088:16, 3045:21, 3047:22, 2948:16, 2966:19 3001:4, 3001:13, proud [2] - 2971:18, 3095:2, 3098:24, Proceeding [1] -3048:24, 3048:25, 3091:20 3007:5 3160:18 3054:4 3106:9, 3118:2, provide [8] - 2948:19, pricing [1] - 3050:19 3123:18, 3130:22, promise [1] - 3065:18 PROCEEDINGS [2] -2973:2, 2979:16, **primary** [1] - 3115:22 pronunciation [1] -3138:11, 3138:13, 2943:9, 2945:1 2989:9, 3038:25, PRIMIS [33] - 2943:20, 3138:16, 3138:20, 3080:24 Proceedings [1] -3042:18, 3070:13, 2945:4, 2945:9, 3141:5, 3145:20, 3161:6 proper [1] - 3155:19 3144:14 2945:17, 2947:3, 3153:3 properties [2] process [28] provided [9] - 2967:7, 2947:20, 2949:7, puts [1] - 3062:17 2968:25, 2975:2, 3028:13, 3059:24 3029:6, 3029:8, 3048:2, 3056:9, putting [6] - 2999:20, 2996:8, 2996:23, proposal [4] -3071:11, 3092:20, 3029:17, 3029:19, 3014:24, 3027:16, 2997:11, 2998:6, 3085:25, 3086:2, 3123:17, 3129:9, 3030:13, 3030:15, 3067:13, 3082:18, 3001:5, 3025:5, 3088:21, 3117:11 3150:11, 3151:22 3031:22, 3031:23, 3137:22 3042:1, 3042:2, proposed [7] providers' [1] - 3052:1 3044:24, 3045:1, 3042:21, 3044:4, 3063:11, 3076:10, providing [1] -3048:18, 3048:20, Q 3047:19, 3048:2, 3076:17, 3092:17, 3044:18 3053:8, 3053:12, 3059:22, 3059:23, 3117:22, 3123:2, qualify [1] - 3089:21 3053:13, 3059:5, provision [1] -3091:4, 3091:10, 3123:8 quality [2] - 2953:13, 3002:24 3059:6, 3064:19, 3091:11, 3092:6, proposing [3] -3039:17 proximity [1] -3065:4, 3093:6, 3098:17, 3107:10, 3076:25, 3100:2, qualms [1] - 2967:9 2975:11 3103:20, 3103:23, 3116:18, 3117:9, 3117:1 quantities [1] -3159:20, 3159:25, public [6] - 2956:16, 3120:10, 3131:1, prospectively [1] -3127:16 2958:12, 2999:13, 3160:11, 3160:13 3145:13, 3151:17 3090:4 Quantity [1] - 3124:23 3052:16, 3112:24, Primis [10] - 2945:9, processed [1] protect [7] - 2959:21, questioned [1] -2982:21, 3083:20, 3146:10 3090:11 2964:13, 2965:16, 3148:21 3084:8, 3086:4, Public [2] - 2943:15, processes [3] -2966:1, 2966:5, questioning [1] -3087:16, 3087:21, 3161:2 3141:19, 3147:2, 3004:20, 3147:16 3136:25 publications [2] -3088:23, 3103:17, 3154:24 protected [2] questions [16] -3133:3 processing [1] -2972:15, 2972:19 2993:22, 3062:17 2953:10, 2960:14, principal [5] - 3001:6, **publicly** [1] - 3001:3 3040:21 Protection [47] -3001:18, 3002:18, 3035:21, 3036:7, **publish** [1] - 3141:3 produce [6] - 3050:23, 2945:19, 2952:20, 3015:4, 3025:20, 3060:3, 3071:19 published [4] -3056:17, 3064:11, 2952:23, 2957:13, 3031:19, 3031:25, principally [4] -3071:22, 3077:20, 3030:6, 3032:23, 2958:1, 2958:6, 3038:1, 3072:24, 2960:5, 2979:24, 3034:7, 3092:1 3103:9 2959:11, 2966:20, 3093:6, 3093:18, 2997:3, 3035:23 Pull [2] - 2947:14, produced [1] -2966:21, 2968:1, 3100:24, 3135:8, principally-driven [1] 3104:20 3113:15 2968:7, 2981:24, 3147:22, 3152:9 - 2979:24 product [2] - 2997 THE REPORTING GROUP - 3066:9,

quickly [4] - 3018:1, 3085:11, 3089:9, reasons [6] - 2957:21, recorded [1] - 2971:1 3120:4 3027:21, 3029:13, 3111:20, 3112:6, 2969:8. 3047:18. records [2] - 3092:3, reflect [5] - 2964:18, 3055:21 3112:8, 3112:12, 3056:22, 3061:11, 3030:19, 3031:5, 3092:7 3113:21, 3114:19, 3097:3 quite [4] - 2966:14, recounting [1] -3031:11, 3110:12 3018:15, 3059:1, 3114:21, 3116:11, receive [4] - 3003:6, reflected [2] - 3113:2, 3047:9 3116:13, 3121:2, 3090:6 3057:14. 3092:12. 3128:23 recovery [4] - 2981:6, 3121:7, 3121:9, **quo** [1] - 2971:12 3107:21 2981:8, 3005:22, reflecting [2] -3123:4, 3127:5, quote [2] - 3073:21, received [8] - 3089:14, 3066:15 3128:13, 3145:24 3131:21, 3131:22, 3132:7 3089:16, 3090:5, recreational [1] refreshes [1] -3149:10, 3150:24 3090:7, 3112:25, 3121:16 quoted [1] - 3010:7 3039:16 reading [4] - 3042:11, 3113:6, 3147:20, QURESHI[1] -RECROSS [2] regard [1] - 3113:7 3112:17, 3121:16, 2943:18 3157:17 3078:3, 3147:23 regarded [2] - 2971:2, 3132:22 receiving [1] - 3085:9 2993:19 Recross [1] - 2944:2 reads [8] - 3000:6, recent [1] - 3021:22 R **RECROSS**regarding [11] -3021:21, 3022:19, recess [2] - 3159:24, **EXAMINATION** [2] -3111:8, 3118:1, rain [3] - 2975:20, 3022:23, 3085:4, 3160:1 3118:19, 3118:20, 3078:3, 3147:23 3055:22, 3055:24 3108:22, 3114:2, Recess [3] - 3011:6, 3120:16, 3120:22, red [2] - 2962:11, rainfall [1] - 2979:24 3120:20 3065:2, 3135:5 3137:17, 3141:25, 3139:9 raining [2] - 3062:25, real [8] - 2970:13, recharge [3] redacted [1] - 3004:19 3142:7, 3144:24, 3075:21 2971:4, 3045:19, 2975:19, 3055:7, 3147:10 reddish [1] - 3139:14 rains [1] - 3055:17 3046:10, 3050:19, 3056:4 regardless [1] -REDIRECT [2] raise [4] - 2947:6, 3093:25, 3142:13, 3124:3 recharges [3] -3029:7, 3135:12 3075:14, 3076:2, 3151:10 2975:20, 3055:15, regime [2] - 3074:7, Redirect [1] - 2944:2 3104:12 real-world [2] -3055:21 3129:6 reduce [2] - 3096:17, raised [2] - 3119:12, 3142:13, 3151:10 recognize [3] regimes [1] - 3127:18 3153:8 3119:15 reality [1] - 3003:4 2953:12, 2957:3, region [24] - 2975:13, reduced [3] - 3042:16, RALPH [1] - 2943:11 really [44] - 2951:8, 2985:22 3024:5, 3035:16, 3049:8, 3049:19 random [3] - 2953:4, 2957:22, 2960:7, 3040:7, 3040:11, recognizing [1] reduction [2] -2954:9, 3087:23 2975:17, 2975:20, 3157:20 3044:10, 3049:4, 3049:16, 3078:17 range [3] - 3002:14, 2975:25, 2977:13, recollecting [1] -3049:22, 3050:3, reductions [5] -3049:9, 3107:14 2979:1. 2990:3. 3122:14 3050:11, 3060:4, 2962:9, 2962:14, rarity [1] - 3013:22 2990:8, 2994:14, 3060:17, 3129:10, recollection [8] -2963:19, 2964:6, rate [4] - 2971:18, 2995:8, 3010:16, 3129:22, 3130:12, 3071:14, 3106:15, 2965:9 2971:23, 3069:9, 3012:15, 3012:20, 3130:14, 3130:17, 3120:25, 3121:10, refer [6] - 3012:1, 3154:12 3025:12, 3027:20, 3121:16, 3125:11, 3137:13, 3137:22, 3018:18, 3084:12, rates [2] - 3041:19, 3028:15, 3035:5, 3138:7, 3141:17, 3125:12, 3126:20 3099:1, 3099:2, 3098:12 3036:13, 3040:12, 3153:19, 3157:2, recommend [1] -3126:22 rather [3] - 2973:19, 3044:1, 3049:24, 3157:10 2954:7 reference [11] -3117:9, 3126:6 3050:23, 3052:14, Recommendation [1] region-specific [2] -2951:18, 2973:12, raw [3] - 2984:21, 3054:15, 3055:3, 3137:22, 3157:2 - 3124:23 3002:13, 3015:18, 3055:12, 3055:18, 3038:18, 3044:16 regional [5] - 3131:2, recommendation [9] -3106:19, 3106:20, 3056:11, 3057:14, reach [2] - 3005:21, 3131:9, 3145:22, 3091:15, 3091:23, 3117:18, 3121:21, 3057:21, 3061:6, 3094:15 3146:9, 3157:12 3091:25, 3111:17, 3121:23, 3132:1, 3062:21, 3065:19, reached [2] - 2972:18, Regional [7] -3111:18, 3112:15, 3132:14 3065:22, 3065:25, 3092:10 3112:16, 3116:15, 2956:19, 2976:10, Referenced [1] -3071:6, 3073:12, Reaches [2] -2976:14, 2992:7, 3130:15 2944:7 3090:25, 3094:20, 3004:24, 3005:11 2997:9, 2997:14, recommendations [6] referenced [2] -3096:19, 3123:3, reaction [2] - 3068:4, 3091:6 - 3034:6, 3034:9, 3072:2, 3075:3 3141:22 3068:7 regions [4] - 3060:3, 3034:13, 3113:16, references [2] reason [9] - 2988:24, read [41] - 2953:2, 3060:10, 3064:7, 3116:2, 3116:21 3132:17, 3132:18 3004:18, 3043:11, 2953:9, 2953:15, 3146:11 Recommendations referred [5] - 2970:8, 3045:17, 3048:8, 2954:16, 2958:24, regulated [1] -[1] - 3116:8 3004:25, 3081:23, 3058:21, 3094:10, 2964:7, 2967:16, 2981:15 recommended [2] -3089:1, 3150:4 3097:9, 3097:10 2967:22, 2992:18, 3151:25, 3152:2 regulation [2] referring [8] reasonable [1] -2992:21, 3013:17, recommending [1] -2961:4, 3116:1 2958:21, 2977:11, 3145:16 3024:19, 3032:23, 2954:10 regulations [2] -2977:13, 2995:3, reasonably [1] -3032:24, 3033:7, 3051:21, 3110:13 record [6] - 3009:9, 2995:7, 3123:6, 2989:23 3033:25, 3072:22, regulator [1] - 2959:7 3016:16, 3017:2, 3125:1, 3131:2 reasonably-staffed 3080:10, 3080:12, 3059:12, 3069:12, regulatory [8] refers [4] - 2980:6, [1] - 2989:23 3081:22, 3084:25, THE REPORTING GROUP:20, 3021:3, 2958:10, 2963:6,

2963:8, 2964:23,	3088:7, 3091:7,	3044:3, 3044:21,	response [3] -	3047:14, 3100:7
2971:20, 2989:24,	3118:15, 3120:24,	3045:4, 3045:8,	3058:16, 3119:8,	Richard [3] - 2992:2,
3052:17, 3059:18	3121:13, 3125:5,	3045:9, 3045:14,	3119:11	2992:3, 2992:19
Reheis [10] - 2993:18,	3151:6, 3151:16	3046:1, 3046:8,	responsibilities [5] -	right-hand [1] -
2994:4, 2994:22,	remembering [1] -	3046:10, 3046:18,	2958:16, 2959:8,	3124:19
3003:22, 3067:9,	3122:22	3047:15, 3047:23,	2961:24, 3083:1,	rights [1] - 2981:13
3114:15, 3131:19,	remembrance [1] -	3048:13, 3048:16,	3100:20	rigorous [2] - 3042:2,
3132:5, 3136:2,	3024:4	3049:1, 3049:4,	responsibility [5] -	3042:21
3137:10	remind [2] - 3034:20,	3049:5, 3049:8,	2952:3, 2961:20,	<b>RIOP</b> [1] - 3076:6
Reheis's [2] -	3122:15	3049:9, 3049:18	3082:20, 3082:23,	riparian [1] - 2981:15
2994:23, 3131:16	reminding [1] -	requested [1] - 3049:3	3102:7	rise [1] - 3139:9
rejected [2] - 3042:10,	3011:18	requests [1] - 3035:10	responsible [1] -	risk [1] - 3138:9
3042:12	removal [3] - 2981:12,	require [3] - 2958:12,	3071:16	river [19] - 2953:21,
relate [1] - 2953:16	2981:23, 3028:23	2970:21, 3139:17	ResSim [3] - 2953:21,	2954:18, 2975:6,
related [8] - 2961:2,	removals [1] -	required [6] - 2971:7,	3032:18, 3033:8	3040:8, 3041:18,
3035:6, 3035:13,	3022:21	2971:25, 3029:4,	rest [2] - 3021:13,	3045:12, 3049:11,
3039:20, 3063:16,	renew [1] - 3043:23	3109:16, 3132:22,	3054:19	3062:17, 3073:17,
3070:20, 3102:20,	repeat [2] - 2958:19,	3143:15	restate [1] - 3121:12	3073:19, 3082:11,
3140:23	3018:5	requirement [4] -	restrict [1] - 3027:3	3101:13, 3101:21,
relates [6] - 3035:2,	repeated [2] - 3031:1,	2956:11, 2971:10,	restricted [1] -	3146:22, 3156:12,
3035:5, 3038:4,	3147:18	2972:8, 3110:3	3052:20	3156:16, 3156:20,
3039:7, 3051:11,	repeatedly [1] -	requirements [6] -	restriction [2] -	3156:24
3103:1	3147:18	2964:24, 2970:25,	3026:16, 3103:5	River [53] - 2950:12,
relating [1] - 3070:16	rephrase [2] -	3118:1, 3139:21,	restrictions [15] -	2952:18, 2967:25,
relation [1] - 3138:5	2958:20, 2985:21	3140:4, 3140:9	2987:9, 2987:10,	2968:7, 2973:3,
relationship [2] -	replay [1] - 2994:15	requires [2] - 2972:11,	3097:14, 3097:18,	2978:15, 2981:24,
3149:22, 3150:15	report [6] - 3015:6,	3041:6	3097:21, 3098:4,	2991:4, 2992:14,
relationships [1] -	3029:16, 3031:10,	requiring [1] - 3155:2	3102:20, 3138:13,	2993:7, 2993:12,
3129:15	3085:21, 3088:5,	research [2] -	3153:3, 3153:10,	2993:19, 2994:6,
relative [1] - 2972:8	3109:16	3136:20, 3144:22	3153:13, 3153:14,	2994:19, 2995:17,
release [14] - 2954:18,	reported [1] - 3092:15	reservoir [1] - 2954:18	3153:18, 3153:23,	2998:5, 2999:22,
2999:10, 3009:19,	REPORTER [1] -	reservoirs [3] -	3154:25	3002:23, 3007:12,
3009:24, 3030:18,	2945:8	3036:2, 3055:23,	restricts [1] - 3026:5	3009:19, 3010:4,
3040:6, 3058:1,	Reporter [1] - 3161:16	3075:23	result [4] - 2968:19,	3010:9, 3010:14,
	reporter [i] O101.10			, ,
3058:15, 3058:18,	reporter [1] - 2947:25	residential [2] -	2974:1, 3103:14,	3015:8, 3019:6,
3072:4, 3078:13,		3040:19, 3155:11	2974:1, 3103:14, 3131:10	3015:8, 3019:6, 3019:23, 3027:14,
3072:4, 3078:13, 3081:19, 3082:19,	reporter [1] - 2947:25	3040:19, 3155:11 resolve [1] - 3074:10	3131:10 resulted [1] - 3145:21	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13	reporter [1] - 2947:25 reporting [1] - 2990:6	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] -	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13 relevant [3] - 2954:5,	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17	3040:19, 3155:11 resolve [1] - 3074:10	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22 results [9] - 2953:17,	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13 relevant [3] - 2954:5, 3043:11, 3130:9	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] -	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] -	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22 results [9] - 2953:17, 2953:21, 2956:4,	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13 relevant [3] - 2954:5, 3043:11, 3130:9 relied [2] - 3047:21,	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4,	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22 results [9] - 2953:17, 2953:21, 2956:4, 2979:10, 2993:5,	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13 relevant [3] - 2954:5, 3043:11, 3130:9 relied [2] - 3047:21, 3047:22	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] -	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16,	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22 results [9] - 2953:17, 2953:21, 2956:4, 2979:10, 2993:5, 3046:11, 3099:1,	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13 relevant [3] - 2954:5, 3043:11, 3130:9 relied [2] - 3047:21, 3047:22 relies [2] - 3032:17,	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13,	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22 results [9] - 2953:17, 2953:21, 2956:4, 2979:10, 2993:5, 3046:11, 3099:1, 3137:7, 3137:24	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3131:23,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13 relevant [3] - 2954:5, 3043:11, 3130:9 relied [2] - 3047:21, 3047:22 relies [2] - 3032:17, 3033:12	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] -	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12,	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22 results [9] - 2953:17, 2953:21, 2956:4, 2979:10, 2993:5, 3046:11, 3099:1, 3137:7, 3137:24 resume [1] - 3159:21	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3131:23, 3132:6, 3136:21,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13 relevant [3] - 2954:5, 3043:11, 3130:9 relied [2] - 3047:21, 3047:22 relies [2] - 3032:17, 3033:12 rely [4] - 2992:24,	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24,	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22 results [9] - 2953:17, 2953:21, 2956:4, 2979:10, 2993:5, 3046:11, 3099:1, 3137:7, 3137:24 resume [1] - 3159:21 return [4] - 3041:15,	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3131:23, 3132:6, 3136:21, 3137:20, 3140:22,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13 relevant [3] - 2954:5, 3043:11, 3130:9 relied [2] - 3047:21, 3047:22 relies [2] - 3032:17, 3033:12 rely [4] - 2992:24, 3086:19, 3087:7,	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] -	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22 results [9] - 2953:17, 2953:21, 2956:4, 2979:10, 2993:5, 3046:11, 3099:1, 3137:7, 3137:24 resume [1] - 3159:21 return [4] - 3041:15, 3041:16, 3041:19,	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3131:23, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13 relevant [3] - 2954:5, 3043:11, 3130:9 relied [2] - 3047:21, 3047:22 relies [2] - 3032:17, 3033:12 rely [4] - 2992:24, 3086:19, 3087:7, 3087:13	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] - 3107:20	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5 Resources [10] -	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22 results [9] - 2953:17, 2953:21, 2956:4, 2979:10, 2993:5, 3046:11, 3099:1, 3137:7, 3137:24 resume [1] - 3159:21 return [4] - 3041:15, 3041:16, 3041:19, 3048:25	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3131:23, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15, 3143:7, 3143:10,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13 relevant [3] - 2954:5, 3043:11, 3130:9 relied [2] - 3047:21, 3047:22 relies [2] - 3032:17, 3033:12 rely [4] - 2992:24, 3086:19, 3087:7, 3087:13 remainder [1] - 3126:5	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] - 3107:20 representing [3] -	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5 Resources [10] - 2950:16, 2961:14,	3131:10  resulted [1] - 3145:21  resulting [1] - 3073:22  results [9] - 2953:17,     2953:21, 2956:4,     2979:10, 2993:5,     3046:11, 3099:1,     3137:7, 3137:24  resume [1] - 3159:21  return [4] - 3041:15,     3041:16, 3041:19,     3048:25  reverse [1] - 3132:1	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3131:23, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15, 3143:7, 3143:10, 3143:20, 3145:11,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13  relevant [3] - 2954:5, 3043:11, 3130:9  relied [2] - 3047:21, 3047:22  relies [2] - 3032:17, 3033:12  rely [4] - 2992:24, 3086:19, 3087:7, 3087:13  remainder [1] - 3126:5  remedies [1] - 3072:3	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] - 3107:20 representing [3] - 2990:15, 2990:24,	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5 Resources [10] - 2950:16, 2961:14, 2961:19, 2996:9,	3131:10  resulted [1] - 3145:21  resulting [1] - 3073:22  results [9] - 2953:17,    2953:21, 2956:4,    2979:10, 2993:5,    3046:11, 3099:1,    3137:7, 3137:24  resume [1] - 3159:21  return [4] - 3041:15,    3041:16, 3041:19,    3048:25  reverse [1] - 3132:1  Review [1] - 3084:15	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3131:23, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15, 3143:7, 3143:10,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13  relevant [3] - 2954:5, 3043:11, 3130:9  relied [2] - 3047:21, 3047:22  relies [2] - 3032:17, 3033:12  rely [4] - 2992:24, 3086:19, 3087:7, 3087:13  remainder [1] - 3126:5  remedies [1] - 3072:3  remedy [3] - 2954:8,	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] - 3107:20 representing [3] - 2990:15, 2990:24, 2997:14	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5 Resources [10] - 2950:16, 2961:14, 2961:19, 2996:9, 3006:4, 3012:9,	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22 results [9] - 2953:17, 2953:21, 2956:4, 2979:10, 2993:5, 3046:11, 3099:1, 3137:7, 3137:24 resume [1] - 3159:21 return [4] - 3041:15, 3041:16, 3041:19, 3048:25 reverse [1] - 3132:1 Review [1] - 3084:15 review [5] - 2976:15,	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3131:23, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15, 3143:7, 3143:10, 3143:20, 3145:11, 3151:18, 3156:10
3072:4, 3078:13, 3081:19, 3082:19, 3083:13  relevant [3] - 2954:5, 3043:11, 3130:9  relied [2] - 3047:21, 3047:22  relies [2] - 3032:17, 3033:12  rely [4] - 2992:24, 3086:19, 3087:7, 3087:13  remainder [1] - 3126:5  remedies [1] - 3072:3  remedy [3] - 2954:8, 3073:25, 3074:4	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] - 3107:20 representing [3] - 2990:15, 2990:24, 2997:14 represents [1] -	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5 Resources [10] - 2950:16, 2961:14, 2961:19, 2996:9, 3006:4, 3012:9, 3012:15, 3012:24,	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22 results [9] - 2953:17, 2953:21, 2956:4, 2979:10, 2993:5, 3046:11, 3099:1, 3137:7, 3137:24 resume [1] - 3159:21 return [4] - 3041:15, 3041:16, 3041:19, 3048:25 reverse [1] - 3132:1 Review [1] - 3084:15 review [5] - 2976:15, 2997:5, 3042:1,	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3131:23, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15, 3143:7, 3143:10, 3143:20, 3145:11, 3151:18, 3156:10 riverkeeper [1] -
3072:4, 3078:13, 3081:19, 3082:19, 3083:13  relevant [3] - 2954:5, 3043:11, 3130:9  relied [2] - 3047:21, 3047:22  relies [2] - 3032:17, 3033:12  rely [4] - 2992:24, 3086:19, 3087:7, 3087:13  remainder [1] - 3126:5  remedies [1] - 3072:3  remedy [3] - 2954:8, 3073:25, 3074:4  remember [24] -	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] - 3107:20 representing [3] - 2990:15, 2990:24, 2997:14 represents [1] - 3005:21	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5 Resources [10] - 2950:16, 2961:14, 2961:19, 2996:9, 3006:4, 3012:9, 3012:15, 3012:24, 3083:17, 3116:19	3131:10  resulted [1] - 3145:21  resulting [1] - 3073:22  results [9] - 2953:17,     2953:21, 2956:4,     2979:10, 2993:5,     3046:11, 3099:1,     3137:7, 3137:24  resume [1] - 3159:21  return [4] - 3041:15,     3041:16, 3041:19,     3048:25  reverse [1] - 3132:1  Review [1] - 3084:15  review [5] - 2976:15,     2997:5, 3042:1,     3042:2, 3090:22	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3131:23, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15, 3143:7, 3143:10, 3143:20, 3145:11, 3151:18, 3156:10 riverkeeper [1] - 2961:5
3072:4, 3078:13, 3081:19, 3082:19, 3083:13  relevant [3] - 2954:5, 3043:11, 3130:9  relied [2] - 3047:21, 3047:22  relies [2] - 3032:17, 3033:12  rely [4] - 2992:24, 3086:19, 3087:7, 3087:13  remainder [1] - 3126:5  remedies [1] - 3072:3  remedy [3] - 2954:8, 3073:25, 3074:4  remember [24] - 2982:21, 3006:25,	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] - 3107:20 representing [3] - 2990:15, 2990:24, 2997:14 represents [1] - 3005:21 request [35] - 3038:7,	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5 Resources [10] - 2950:16, 2961:14, 2961:19, 2996:9, 3006:4, 3012:9, 3012:15, 3012:24, 3083:17, 3116:19 resources [6] -	3131:10  resulted [1] - 3145:21  resulting [1] - 3073:22  results [9] - 2953:17,     2953:21, 2956:4,     2979:10, 2993:5,     3046:11, 3099:1,     3137:7, 3137:24  resume [1] - 3159:21  return [4] - 3041:15,     3041:16, 3041:19,     3048:25  reverse [1] - 3132:1  Review [1] - 3084:15  review [5] - 2976:15,     2997:5, 3042:1,     3042:2, 3090:22  reviewed [3] -	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3131:23, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15, 3143:7, 3143:10, 3143:20, 3145:11, 3151:18, 3156:10 riverkeeper [1] - 2961:5 rivers [3] - 2985:8,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13  relevant [3] - 2954:5, 3043:11, 3130:9  relied [2] - 3047:21, 3047:22  relies [2] - 3032:17, 3033:12  rely [4] - 2992:24, 3086:19, 3087:7, 3087:13  remainder [1] - 3126:5  remedies [1] - 3072:3  remedy [3] - 2954:8, 3073:25, 3074:4  remember [24] - 2982:21, 3006:25, 3007:2, 3008:4,	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] - 3107:20 representing [3] - 2990:15, 2990:24, 2997:14 represents [1] - 3005:21 request [35] - 3038:7, 3038:12, 3039:3,	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5 Resources [10] - 2950:16, 2961:14, 2961:19, 2996:9, 3006:4, 3012:9, 3012:15, 3012:24, 3083:17, 3116:19 resources [6] - 3008:12, 3015:19,	3131:10  resulted [1] - 3145:21  resulting [1] - 3073:22  results [9] - 2953:17,     2953:21, 2956:4,     2979:10, 2993:5,     3046:11, 3099:1,     3137:7, 3137:24  resume [1] - 3159:21  return [4] - 3041:15,     3041:16, 3041:19,     3048:25  reverse [1] - 3132:1  Review [1] - 3084:15  review [5] - 2976:15,     2997:5, 3042:1,     3042:2, 3090:22  reviewed [3] -     3014:15, 3018:3,	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3131:23, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15, 3143:7, 3143:10, 3143:20, 3145:11, 3151:18, 3156:10 riverkeeper [1] - 2961:5 rivers [3] - 2985:8, 3102:5, 3146:20
3072:4, 3078:13, 3081:19, 3082:19, 3083:13  relevant [3] - 2954:5, 3043:11, 3130:9  relied [2] - 3047:21, 3047:22  relies [2] - 3032:17, 3033:12  rely [4] - 2992:24, 3086:19, 3087:7, 3087:13  remainder [1] - 3126:5  remedies [1] - 3072:3  remedy [3] - 2954:8, 3073:25, 3074:4  remember [24] - 2982:21, 3006:25, 3007:2, 3008:4, 3017:23, 3018:2,	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] - 3107:20 representing [3] - 2990:15, 2990:24, 2997:14 represents [1] - 3005:21 request [35] - 3038:7, 3038:12, 3039:3, 3040:12, 3041:22,	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5 Resources [10] - 2950:16, 2961:14, 2961:19, 2996:9, 3006:4, 3012:9, 3012:15, 3012:24, 3083:17, 3116:19 resources [6] -	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22 results [9] - 2953:17, 2953:21, 2956:4, 2979:10, 2993:5, 3046:11, 3099:1, 3137:7, 3137:24 resume [1] - 3159:21 return [4] - 3041:15, 3041:16, 3041:19, 3048:25 reverse [1] - 3132:1 Review [1] - 3084:15 review [5] - 2976:15, 2997:5, 3042:1, 3042:2, 3090:22 reviewed [3] - 3014:15, 3018:3, 3092:7	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3137:20, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15, 3143:7, 3143:10, 3143:20, 3145:11, 3151:18, 3156:10 riverkeeper [1] - 2961:5 rivers [3] - 2985:8, 3102:5, 3146:20 RMR [2] - 2943:14,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13  relevant [3] - 2954:5, 3043:11, 3130:9  relied [2] - 3047:21, 3047:22  relies [2] - 3032:17, 3033:12  rely [4] - 2992:24, 3086:19, 3087:7, 3087:13  remainder [1] - 3126:5  remedies [1] - 3072:3  remedy [3] - 2954:8, 3073:25, 3074:4  remember [24] - 2982:21, 3006:25, 3007:2, 3008:4, 3017:23, 3018:2, 3023:6, 3023:12,	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] - 3107:20 representing [3] - 2990:15, 2990:24, 2997:14 represents [1] - 3005:21 request [35] - 3038:7, 3038:12, 3039:3, 3040:12, 3041:22, 3042:10, 3042:12,	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5 Resources [10] - 2950:16, 2961:14, 2961:19, 2996:9, 3006:4, 3012:9, 3012:15, 3012:24, 3083:17, 3116:19 resources [6] - 3008:12, 3015:19, 3059:22, 3066:7,	3131:10 resulted [1] - 3145:21 resulting [1] - 3073:22 results [9] - 2953:17, 2953:21, 2956:4, 2979:10, 2993:5, 3046:11, 3099:1, 3137:7, 3137:24 resume [1] - 3159:21 return [4] - 3041:15, 3041:16, 3041:19, 3048:25 reverse [1] - 3132:1 Review [1] - 3084:15 review [5] - 2976:15, 2997:5, 3042:1, 3042:2, 3090:22 reviewed [3] - 3014:15, 3018:3, 3092:7 reviewing [1] -	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15, 3143:7, 3143:10, 3143:20, 3145:11, 3151:18, 3156:10 riverkeeper [1] - 2961:5 rivers [3] - 2985:8, 3102:5, 3146:20 RMR [2] - 2943:14, 3161:15
3072:4, 3078:13, 3081:19, 3082:19, 3083:13  relevant [3] - 2954:5, 3043:11, 3130:9  relied [2] - 3047:21, 3047:22  relies [2] - 3032:17, 3033:12  rely [4] - 2992:24, 3086:19, 3087:7, 3087:13  remainder [1] - 3126:5  remedies [1] - 3072:3  remedy [3] - 2954:8, 3073:25, 3074:4  remember [24] - 2982:21, 3006:25, 3007:2, 3008:4, 3017:23, 3018:2, 3023:16, 3023:16,	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] - 3107:20 representing [3] - 2990:15, 2990:24, 2997:14 represents [1] - 3005:21 request [35] - 3038:7, 3038:12, 3039:3, 3040:12, 3041:22, 3042:10, 3042:12, 3042:16, 3042:24,	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5 Resources [10] - 2950:16, 2961:14, 2961:19, 2996:9, 3006:4, 3012:9, 3012:15, 3012:24, 3083:17, 3116:19 resources [6] - 3008:12, 3015:19, 3059:22, 3066:7, 3144:9, 3144:16	3131:10  resulted [1] - 3145:21  resulting [1] - 3073:22  results [9] - 2953:17, 2953:21, 2956:4, 2979:10, 2993:5, 3046:11, 3099:1, 3137:7, 3137:24  resume [1] - 3159:21  return [4] - 3041:15, 3041:16, 3041:19, 3048:25  reverse [1] - 3132:1  Review [1] - 3084:15  review [5] - 2976:15, 2997:5, 3042:1, 3042:2, 3090:22  reviewed [3] - 3014:15, 3018:3, 3092:7  reviewing [1] - 3084:25	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15, 3143:7, 3143:10, 3143:20, 3145:11, 3151:18, 3156:10 riverkeeper [1] - 2961:5 rivers [3] - 2985:8, 3102:5, 3146:20 RMR [2] - 2943:14, 3161:15 roadmap [1] - 3069:25
3072:4, 3078:13, 3081:19, 3082:19, 3083:13  relevant [3] - 2954:5, 3043:11, 3130:9  relied [2] - 3047:21, 3047:22  relies [2] - 3032:17, 3033:12  rely [4] - 2992:24, 3086:19, 3087:7, 3087:13  remainder [1] - 3126:5  remedies [1] - 3072:3  remedy [3] - 2954:8, 3073:25, 3074:4  remember [24] - 2982:21, 3006:25, 3007:2, 3008:4, 3017:23, 3018:2, 3023:6, 3023:12,	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] - 3107:20 representing [3] - 2990:15, 2990:24, 2997:14 represents [1] - 3005:21 request [35] - 3038:7, 3038:12, 3039:3, 3040:12, 3041:22, 3042:10, 3042:12, 3042:16, 3042:24, 3043:13, 3043:15,	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5 Resources [10] - 2950:16, 2961:14, 2961:19, 2996:9, 3006:4, 3012:9, 3012:15, 3012:24, 3083:17, 3116:19 resources [6] - 3008:12, 3015:19, 3059:22, 3066:7, 3144:9, 3144:16 respect [5] - 3026:2,	3131:10  resulted [1] - 3145:21  resulting [1] - 3073:22  results [9] - 2953:17,     2953:21, 2956:4,     2979:10, 2993:5,     3046:11, 3099:1,     3137:7, 3137:24  resume [1] - 3159:21  return [4] - 3041:15,     3041:16, 3041:19,     3048:25  reverse [1] - 3132:1  Review [1] - 3084:15  review [5] - 2976:15,     2997:5, 3042:1,     3042:2, 3090:22  reviewed [3] -     3014:15, 3018:3,     3092:7  reviewing [1] -     3084:25  reviews [1] - 3090:17	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15, 3143:7, 3143:10, 3143:20, 3145:11, 3151:18, 3156:10 riverkeeper [1] - 2961:5 rivers [3] - 2985:8, 3102:5, 3146:20 RMR [2] - 2943:14, 3161:15 roadmap [1] - 3069:25 Rob [4] - 3106:16,
3072:4, 3078:13, 3081:19, 3082:19, 3083:13  relevant [3] - 2954:5, 3043:11, 3130:9  relied [2] - 3047:21, 3047:22  relies [2] - 3032:17, 3033:12  rely [4] - 2992:24, 3086:19, 3087:7, 3087:13  remainder [1] - 3126:5  remedies [1] - 3072:3  remedy [3] - 2954:8, 3073:25, 3074:4  remember [24] - 2982:21, 3006:25, 3007:2, 3008:4, 3017:23, 3018:2, 3023:16, 3023:16, 3025:14, 3079:9,	reporter [1] - 2947:25 reporting [1] - 2990:6 reports [1] - 3012:17 represent [2] - 2972:9, 2990:19 representation [2] - 3013:4, 3019:2 representative [1] - 3147:14 representatives [2] - 3147:6, 3147:9 represented [1] - 3107:20 representing [3] - 2990:15, 2990:24, 2997:14 represents [1] - 3005:21 request [35] - 3038:7, 3038:12, 3039:3, 3040:12, 3041:22, 3042:10, 3042:12, 3042:16, 3042:24,	3040:19, 3155:11 resolve [1] - 3074:10 resonates [1] - 3128:21 resource [11] - 2975:18, 2990:4, 2990:7, 3000:16, 3007:10, 3012:13, 3038:25, 3055:12, 3056:9, 3128:24, 3130:5 Resources [10] - 2950:16, 2961:14, 2961:19, 2996:9, 3006:4, 3012:9, 3012:15, 3012:24, 3083:17, 3116:19 resources [6] - 3008:12, 3015:19, 3059:22, 3066:7, 3144:9, 3144:16 respect [5] - 3026:2, 3087:15, 3115:22, 3145:5, 3159:10	3131:10  resulted [1] - 3145:21  resulting [1] - 3073:22  results [9] - 2953:17, 2953:21, 2956:4, 2979:10, 2993:5, 3046:11, 3099:1, 3137:7, 3137:24  resume [1] - 3159:21  return [4] - 3041:15, 3041:16, 3041:19, 3048:25  reverse [1] - 3132:1  Review [1] - 3084:15  review [5] - 2976:15, 2997:5, 3042:1, 3042:2, 3090:22  reviewed [3] - 3014:15, 3018:3, 3092:7  reviewing [1] - 3084:25	3015:8, 3019:6, 3019:23, 3027:14, 3028:25, 3036:14, 3053:19, 3056:6, 3061:8, 3065:8, 3073:24, 3092:11, 3107:12, 3111:25, 3116:22, 3117:2, 3117:12, 3132:6, 3136:21, 3137:20, 3140:22, 3141:8, 3141:15, 3143:7, 3143:10, 3143:20, 3145:11, 3151:18, 3156:10 riverkeeper [1] - 2961:5 rivers [3] - 2985:8, 3102:5, 3146:20 RMR [2] - 2943:14, 3161:15 roadmap [1] - 3069:25 Rob [4] - 3106:16, 3106:19, 3108:6,

role [12] - 2959:5, 2959:20, 2961:9, 2994:13, 3034:5, 3037:23, 3038:2, 3038:9, 3057:12, 3074:18, 3074:21, 3128:11 Roman [3] - 2952:8, 2964:10, 2980:6 room [1] - 3091:22 roughly [2] - 2990:20, 3046:18 row [1] - 3001:16 Royal [2] - 2992:2, 2992:20 rude [1] - 3093:17 rule [7] - 3036:4, 3051:15, 3051:16, 3051:22, 3051:24, 3052:11, 3074:13 ruled [1] - 3043:9 rules [4] - 3051:12, 3052:3, 3052:21, 3110:13 running [1] - 3154:3 S

safe [4] - 3067:10, 3067:18, 3149:14, 3149:25 salt [1] - 2963:2 saltwater [2] -2962:16, 2962:24 sand [2] - 2975:21, 3066:20 sandy [1] - 3055:20 **sat** [1] - 3018:1 Savannah [2] -2963:6, 3136:21 saved [1] - 2985:12 savings [1] - 2985:15 saw [6] - 2967:5, 3038:21, 3054:12, 3076:24, 3082:15, 3094:17 **SB** [1] - 2970:8 scale [1] - 2953:18 scatter [1] - 3003:21 Science [2] - 3137:10, 3137:24 science [3] - 2965:14, 2969:10, 2985:18 Sciences [1] - 3136:20 scientific [10] -3094:2, 3115:7, 3119:13, 3137:8, 3137:15, 3144:8, 3144:14, 3144:22, 3148:7, 3148:23

scientifically [2] -3028:15. 3145:9 scientificallyinformed [1] -3145:9 screen [6] - 3007:20, 3017:2, 3063:8, 3134:8, 3138:21, 3141:6 Seaboard [1] -3145:15 season [3] - 2977:17, 3003:8, 3008:8 seated [2] - 2947:13, 3104:19 second [27] - 2950:21, 2950:25, 2956:3, 2967:21, 2974:12, 2980:6, 2980:15, 2980:19, 2986:24, 2991:16, 3002:3, 3005:15, 3007:24, 3021:15, 3033:4, 3033:18, 3046:9, 3060:11, 3062:5, 3084:23, 3087:20, 3108:20, 3111:17, 3111:18, 3127:6, 3134:9, 3140:22 secondly [1] - 3040:5 **Secretary** [1] - 3046:8 section [10] - 2954:23, 2955:13, 2957:25, 2969:21, 2970:18, 3031:6, 3033:21, 3046:22, 3088:5, 3114:24 sections [1] - 3102:8 sector [3] - 2959:18, 3036:9, 3036:10 sectors [2] - 2959:17, 3107:18 see [201] - 2946:22, 2950:13, 2950:24, 2951:16, 2951:18, 2951:21, 2951:24, 2952:11, 2952:20, 2952:21, 2953:5, 2953:6. 2953:19. 2953:22, 2953:23, 2954:6, 2954:20, 2954:21, 2955:16, 2955:17, 2955:23, 2955:24, 2956:7, 2956:12, 2963:17, 2963:21, 2964:11,

2967:7, 2969:2,

2970:1, 2970:23,

2971:9, 2973:14,

2973:15, 2973:1 THE

2974:20, 2974:23, 2977:20, 2977:24, 2978:3, 2978:9, 2978:10, 2979:11, 2980:5, 2980:9, 2980:21, 2984:1, 2985:4. 2986:24. 2987:14, 2987:15, 2989:16, 2989:19, 2991:15, 2991:17, 2991:21, 2991:24, 2992:8, 2996:21, 2998:16, 2998:17, 2999:7, 3000:9, 3000:11, 3001:15, 3002:6, 3002:9, 3002:10, 3002:13, 3002:20, 3002:22, 3004:1, 3005:15, 3005:18, 3005:20, 3005:24, 3007:7, 3007:10, 3007:11, 3007:18, 3007:20, 3007:21, 3007:23, 3007:24, 3008:1, 3008:3, 3009:6, 3009:12, 3009:13, 3009:14, 3009:17, 3009:23, 3010:2, 3013:4, 3013:7, 3013:11, 3013:15, 3013:21, 3014:1, 3014:10, 3015:6, 3015:9, 3015:20, 3015:25, 3016:14, 3016:17, 3019:7, 3020:17, 3020:25, 3021:5, 3021:16, 3021:20, 3021:23, 3022:2, 3022:3, 3022:21, 3023:1, 3023:2, 3025:25, 3028:13, 3029:11, 3030:22, 3031:7, 3032:13, 3033:4, 3033:9, 3033:23, 3046:5, 3047:10, 3054:2, 3056:4, 3068:1, 3080:8, 3080:16, 3081:9, 3081:13, 3081:14, 3082:2, 3082:3, 3082:12, 3084:9, 3084:15, 3084:17, 3085:2, 3085:3, 3085:7, 3086:15, 3091:17, 3098:17, 3099:5, 3106:18, 3106:20, 3106:21, 2107.7 2100.22

3109:4, 3111:21, 3114:5, 3115:5, 3116:2, 3116:7, 3116:16, 3117:18, 3118:12, 3118:17, 3119:1, 3119:7, 3120:20, 3120:23, 3121:21, 3124:20, 3124:25, 3125:18, 3125:23, 3126:11, 3126:13, 3127:14, 3127:15, 3127:19, 3128:7, 3130:24, 3131:4, 3131:15, 3132:1, 3132:14, 3132:22, 3132:25, 3134:1, 3138:18, 3149:12, 3151:11, 3151:15, 3153:1, 3156:22, 3157:1, 3157:9, 3158:5 seeing [10] - 2962:23, 2968:17, 2971:22, 2971:24, 2979:21, 3008:6, 3042:17, 3048:12, 3049:22, 3126:4 seem [2] - 2949:9, 2973:21 select [1] - 3073:1 Seminole [7] -2978:12, 2978:14, 2986:1, 2986:4, 3022:13, 3064:12, 3103:7 Senate [2] - 2969:17, 2969:22 sense [6] - 3053:10, 3068:11, 3094:9, 3101:25, 3108:9, 3146:17 sensitive [2] -3000:12, 3004:20 sent [2] - 3079:4, 3087:4 sentence [27] -2951:21, 2953:3, 2953:19, 2953:23, 2953:24, 2955:19, 2955:24, 2956:3, 2956:9, 2958:25, 2959:2, 2965:6, 2967:17, 3000:5, 3005:20, 3005:24, 3022:23, 3033:7, 3080:2, 3080:13, 3081:22, 3085:4, 3119:4, 3120:20, 3120:23, 3127:11,

sentences [4] -2953:20, 3022:19, 3115:1, 3132:18 separate [3] - 3006:6, 3065:24, 3070:16 separately [1] -3035:19 series [10] - 2948:13, 2953:4, 2967:1, 2970:20, 3052:11, 3076:10, 3138:6, 3141:18, 3141:23, 3142:9 seriously [3] - 2959:9, 2985:17, 3058:19 serve [2] - 2992:6, 3034:24 served [1] - 3145:3 serves [1] - 2992:6 **Service** [7] - 3006:1, 3118:25, 3144:2, 3144:7, 3144:13, 3144:20, 3150:12 Service's [1] - 3113:5 session [3] - 2973:6, 3061:24, 3061:25 set [11] - 2973:25, 3029:9, 3032:8, 3034:8, 3035:20, 3052:21, 3070:16, 3101:21, 3101:24, 3121:22, 3127:17 sets [1] - 3052:24 Sets [1] - 3084:16 setting [3] - 2986:6, 3131:1, 3156:14 settled [2] - 3128:1, 3128:5 settlement [7] -2963:11, 3019:12, 3019:14, 3019:18, 3019:25, 3037:21, 3069:19 seven [1] - 3137:8 **several** [12] - 2945:15, 2945:24, 2960:14, 2975:21, 2992:16, 3004:11, 3036:4, 3039:9, 3059:20, 3089:19, 3132:17, 3132:18 severe [4] - 2968:10, 2999:2, 2999:8, 2999:15 severity [2] - 3010:20, 3016:15 shaded [2] - 3060:17, 3060:19 **shall** [7] - 2947:9, 2947:10, 2949:15,

REPORTING GROUP 3

	T	1	1	T
3062:4, 3063:15,	signs [1] - 3051:7	2986:20, 2995:6,	3096:20, 3096:25,	3113:1, 3116:16,
3104:15, 3104:16	similar [6] - 2965:15,	3005:1, 3008:23,	3097:17, 3098:7,	3118:22, 3120:18,
shaped [1] - 2972:5	3068:1, 3074:22,	3021:19, 3080:24,	3098:25, 3099:7,	3123:13, 3125:6,
share [2] - 2971:16,	3081:23, 3130:21,	3090:15, 3106:24,	3099:15, 3099:20,	3137:3, 3146:6,
3095:21	3142:4	3112:16, 3118:21,	3100:6, 3100:13,	3147:4, 3158:3
shared [2] - 2983:11,	simple [2] - 3067:5,	3124:15, 3124:18,	3100:23, 3101:1,	spell [2] - 2947:15,
2997:6	3155:24	3134:4, 3148:2,	3101:10, 3101:14,	3104:21
<b>sharing</b> [1] - 3100:18	simply [3] - 2974:2,	3150:8	3102:6, 3102:22,	spelled [1] - 3104:24
shelf [1] - 3028:11	3155:9, 3160:9	sort [22] - 2961:1,	3103:12, 3103:17,	spend [3] - 2957:9,
shift [3] - 3053:5,	simulation [1] -	2965:24, 2979:5,	3103:21, 3104:5,	3007:4, 3082:9
3068:23, 3098:1	2953:22	2993:2, 2997:3,	3105:11, 3105:18,	spent [2] - 3003:23,
shifting [1] - 2979:14	single [1] - 3031:2	3017:23, 3026:22,	3106:1, 3134:23,	3017:14
short [5] - 2965:6,	sister [3] - 3012:10,	3026:25, 3027:9,	3135:2, 3135:7,	spoken [1] - 3011:9
2999:25, 3065:15,	3012:19, 3069:18	3035:15, 3037:16,	3152:11, 3152:16,	sponsored [2] -
3089:4, 3142:17	sitting [1] - 3028:11	3041:25, 3046:6,	3152:20, 3152:23,	3008:13, 3008:17
shortcomings [1] -	situation [5] - 2983:4,	3046:11, 3056:9,	3153:7, 3153:12,	sponsorship [1] -
3061:13	3055:2, 3058:24,	3060:20, 3066:4,	3153:15, 3154:1,	3008:19
<b>shorter</b> [1] - 2979:8	3145:18, 3154:6	3073:5, 3073:18,	3154:13, 3154:23,	<b>Spring</b> [22] - 3007:6,
shot [1] - 3017:2	<b>six</b> [5] - 3044:1,	3083:1, 3084:9,	3155:8, 3155:22,	3009:15, 3013:1,
<b>show</b> [4] - 2953:17,	3080:15, 3119:6,	3102:17	3156:2, 3156:9,	3014:13, 3014:16,
2956:4, 3031:14,	3135:25, 3137:8	sorts [1] - 3023:12	3156:21, 3157:24,	3014:17, 3062:9,
3059:4	<b>size</b> [1] - 3154:8	sought [3] - 2968:24,	3159:4, 3159:13,	3062:13, 3064:17,
<b>showed</b> [6] - 3008:4,	sizeable [1] - 2988:21	3057:14, 3072:3	3159:17, 3159:23,	3081:12, 3081:16,
3030:8, 3064:7,	<b>sky</b> [1] - 2972:4	<b>Sound</b> [2] - 3137:10,	3160:4, 3160:12,	3133:20, 3133:22,
3068:17, 3133:3,	<b>slide</b> [5] - 3016:14,	3137:24	3160:15	3144:25, 3148:8,
3151:2	3016:23, 3017:17,	<b>source</b> [3] - 2975:24,	<b>special</b> [4] - 2983:15,	3148:12, 3149:14,
<b>showers</b> [1] - 3040:24	3018:19, 3125:22	3065:25, 3066:16	2984:5, 3037:15,	3149:19, 3149:23,
<b>showing</b> [2] - 2963:3,	slightly [4] - 2962:6,	Sources [1] - 2955:16	3037:18	3150:5, 3150:10,
3138:18	3018:4, 3039:12,	sources [4] - 2955:21,	specially [1] - 3138:7 Species [5] - 2960:6,	3150:13
<b>shown</b> [9] - 2987:23,	3042:20	2979:16, 2979:25,	2960:11, 3039:20,	<b>spring</b> [3] - 3008:7,
3016:8, 3016:19,	<b>slowly</b> [2] - 2947:25,	3121:23	3070:17, 3073:18	3027:19, 3055:18
3016:22, 3029:14,	3107:2	south [3] - 3055:25,	species [20] - 2978:7,	<b>staff</b> [21] - 2957:6,
3057:21, 3139:4,	<b>small</b> [2] - 2988:14,	3146:19, 3146:22 South [5] - 2962:21,	3000:17, 3005:23,	2957:20, 2993:2,
3142:20, 3143:8	3151:9	2963:4, 2963:10,	3005:25, 3006:3,	2996:5, 2996:19, 2996:24, 3006:12,
<b>shows</b> [2] - 3027:18,	<b>smaller</b> [2] - 3027:1,	2963:22, 3146:3	3006:8, 3006:17,	3007:8, 3015:5,
3141:7	3068:21	southern [1] - 3096:21	3007:1, 3013:23,	3016:6, 3044:6,
shut [1] - 2965:10	Smith [1] - 3138:16	southwest [4] -	3014:8, 3014:22,	3056:9, 3056:21,
<b>shutoff</b> [3] - 3132:25,	so-called [2] -	3027:7. 3036:23.	3064:14, 3072:1,	3082:6, 3082:14,
3133:6, 3134:11	3137:10, 3151:20	3096:23, 3097:11	3073:15, 3073:23,	3111:22, 3112:20,
<b>side</b> [7] - 3038:24, 3049:24, 3066:4,	soft [1] - 3011:9 soft-spoken [1] -	<b>space</b> [1] - 3038:2	3144:10, 3144:17,	3119:23, 3120:1,
3088:15, 3124:19,	3011:9	Spalding [1] - 2990:24	3148:9, 3148:13	3125:14, 3151:22
3142:21, 3143:8		speaking [1] -	specific [26] -	staffed [1] - 2989:23
significance [6] -	<b>soil</b> [3] - 3151:14, 3151:16, 3151:19	3109:20	2959:16, 2961:9,	stage [3] - 2963:18,
3013:14, 3013:15,	soils [1] - 3055:20	SPECIAL [79] -	2974:14, 2991:7,	2982:3, 3035:20
3013:21, 3014:8,	solemnly [2] - 2947:8,	2943:11, 2945:2,	2997:16, 3016:13,	stages [4] - 2985:1,
3014:10, 3014:20	3104:14	2945:6, 2945:16,	3016:14, 3017:24,	3059:25, 3073:6,
significant [9] -	solid [1] - 3144:22	2947:2, 2948:7,	3025:16, 3082:20,	3073:9
2989:20, 3049:16,	solutions [2] - 2973:2,	2948:25, 2949:6,	3083:1, 3106:15,	stakeholder [2] -
3055:19, 3068:5,	3157:21	3010:25, 3011:4,	3109:11, 3111:7,	2961:8, 2961:23
3071:25, 3072:5,	someone [2] -	3011:8, 3011:13,	3119:10, 3119:14,	Stakeholder [9] -
3118:5, 3118:7,	2989:24, 3020:8	3011:17, 3012:4,	3123:16, 3123:24,	2966:22, 3025:5,
3160:11	sometimes [3] -	3048:19, 3053:11,	3125:12, 3130:12,	3029:23, 3106:21,
significantly [9] -	2949:19, 2949:21,	3064:25, 3078:1,	3130:19, 3133:23,	3107:5, 3107:15,
2956:5, 3046:18,	3073:7	3078:23, 3093:8,	3137:22, 3157:2, 3158:2, 3158:6	3108:4, 3115:24,
3048:5, 3049:24,	somewhat [2] -	3093:11, 3093:16,	specifically [16] -	3116:7
3050:2, 3114:3,	3142:4	3094:25, 3095:5,	2960:21, 2962:3,	Stakeholder's [1] -
3114:9, 3127:17,	soon [1] - 3048:10	3095:9, 3095:14,	2975:7, 3018:2,	2996:8
3160:10	sorry [18] - 2955:2	3095:17, 3095:23,	ROUP :24, 3086:2,	Stakeholders [14] -
<b>signing</b> [1] - 3087:3	2966:13, 2980:1 <sup>TH</sup>	E REPORTING G	KUUP 1, 5555.2,	2951:23, 2996:23,
	l w	Iason & Lockha	rt	

TRIAL - November 18, 2016 (Vol. XII)

2997:5, 2997:11,	2943:6	3150:13, 3154:9	3005:11	3086:17, 3086:19,
3023:22, 3024:6,	<b>State</b> [52] - 2943:15,	status [3] - 2957:23,	streamflow [13] -	3088:2
3031:12, 3031:15,	2943:17, 2943:20,	2971:12, 2993:2	2975:23, 2980:20,	submissions [1] -
3032:19, 3034:6,	2945:10, 2945:25,	statute [8] - 2968:11,	2986:1, 2986:2,	3086:5
3077:15, 3084:3,	2946:9, 2947:4,	3003:3, 3006:22,	3022:20, 3022:24,	submits [2] - 2952:24,
3091:3, 3091:10	2958:3, 2959:4,	3036:16, 3061:16,	3068:17, 3077:2,	3044:21
stakeholders [7] -	2959:8, 2961:12,	3061:23, 3063:15,	3081:11, 3138:9,	submitted [2] -
2960:24, 2974:16,	2962:8, 2965:4,	3065:15	3139:9, 3148:20	• •
2997:1, 3017:8,	2973:18, 2981:7,	statutes [1] - 3039:19	streamflows [7] -	3042:5, 3044:3 subscribe [1] -
3077:16, 3116:3,	2983:5, 2983:6,		2980:8, 2985:3,	3161:10
3116:14	2983:14, 2985:17,	statutory [4] -	3027:10, 3027:25,	subsection [2] -
stand [1] - 2947:5	2990:24, 3012:23,	2961:13, 2965:3,	3056:23, 3056:25,	• • •
standpoint [4] -	3025:24, 3038:10,	3036:5, 3050:18	3078:16	2955:15, 3022:1
2989:1, 3032:10,	3041:7, 3041:24,	<b>stay</b> [2] - 2946:21, 3139:16	streams [7] - 2979:22,	subtitle [1] - 3084:15
3061:6, 3102:3	3044:21, 3047:14,		2985:19, 3022:7,	succeed [1] - 3136:6
start [10] - 2946:25,	3049:2, 3050:22,	<b>stayed</b> [3] - 3037:13, 3045:17, 3046:18	3022:12, 3022:14,	successfully [1] - 2995:12
2964:23, 2967:18,	3053:2, 3055:14,	•	3066:8, 3137:14	
2975:1, 2976:2,	3060:2, 3062:7,	stems [1] - 2975:12 stenographic [1] -	Street [1] - 2943:12	Successor [3] -
2985:20, 3026:10,	3062:16, 3064:16,	3161:5	stretch [1] - 3007:1	2995:15, 3136:3,
3026:14, 3079:2,	3072:15, 3075:5,		stretches [4] - 2986:2,	3142:2
3106:8	3075:6, 3075:7,	<b>step</b> [3] - 2970:7,	3060:7, 3062:15,	sufficient [2] - 3003:6,
started [10] - 2976:6,	3079:21, 3113:15,	2971:1, 3034:17	3064:15	3040:10
2998:8, 3025:19,	3122:1, 3127:22,	steps [11] - 2953:24,	strike [3] - 2960:25,	suggest [3] - 2961:3,
3029:12, 3050:23,	3136:9, 3136:22,	2953:25, 2967:21,		2972:16, 2973:17
3062:25, 3065:16,	3140:19, 3145:23,	2970:7, 2970:16,	2961:12, 2965:15	suggested [3] -
3066:2, 3070:4,	3146:8, 3147:6,	2972:23, 2973:18,	stringent [1] - 3141:23	3034:15, 3035:11,
3137:9	3147:10, 3147:14,	3010:12, 3061:12,	strong [1] - 3150:17	3057:3
starting [2] - 2965:12,	3161:3	3062:1, 3076:10	strongly [1] - 3026:11	suggesting [4] -
3071:5	statement [9] -	stewardship [1] - 3145:5	<b>struck</b> [2] - 2964:19, 3000:2	2966:4, 2995:24,
starts [2] - 3033:8,	2970:6, 2970:10,			3159:24, 3160:1
3033:21	3002:7, 3005:21,	<b>Stewardship</b> [5] - 3050:21, 3051:13,	<b>structure</b> [4] - 3023:17, 3099:21,	suggestion [2] -
<b>state</b> [54] - 2947:15,	3099:22, 3118:18,	3051:20, 3051:25,	3130:21, 3146:4	2976:21, 3058:13
2958:18, 2960:22,	3132:10, 3133:17,	3096:14	structured [1] -	suggestions [2] -
2961:4, 2964:22,	3150:2	sticks [1] - 3050:24	3046:2	2996:3, 3024:21
2978:8, 2978:11,	Statement [1] -	still [22] - 2949:19,	studied [2] - 2976:4,	<b>suite</b> [1] - 2965:2 <b>sum</b> [3] - 3098:18,
2978:13, 2980:23,	3099:11	2970:6, 2980:16,	2980:24	
2990:19, 2995:24,	statements [6] -	2982:1, 2982:8,	studies [4] - 3088:17,	3142:5, 3143:12 summaries [1] -
3001:23, 3006:4,	2960:4, 3024:13,	2987:21, 3010:12,	3144:22, 3149:24,	• •
3020:5, 3020:6,	3024:20, 3090:16,	3010:15, 3020:23,	3149:25	3150:16
3026:4, 3026:7,	3114:11, 3115:2	3027:12, 3027:23,	study [12] - 2951:22,	summarize [5] -
3026:25, 3027:1,	states [12] - 2997:2,	3028:7, 3043:21,	2951:25, 2952:6,	3065:11, 3071:14,
3027:2, 3027:8,	3037:5, 3069:18,	3060:24, 3066:10,	2953:8, 2962:23,	3123:10, 3142:10,
3027:25, 3035:17,	3070:10, 3074:11,	3086:9, 3087:7,	2974:25, 2975:16,	3145:6
3036:24, 3036:25,	3075:12, 3085:14,	3087:13, 3087:22,	2996:19, 3033:15,	summarized [2] - 3071:2, 3112:20
3037:7, 3050:17,	3095:25, 3108:23,	3090:7, 3090:9,	3067:20, 3088:21,	summarizes [1] -
3053:4, 3070:5,	3146:2, 3146:3,	3094:23	3137:11	2967:15
3075:2, 3075:15,	3146:5	storage [9] - 2981:6,	<b>Study</b> [2] - 3137:10,	
3095:14, 3096:19,	<b>STATES</b> [1] - 2943:1	2981:8, 3040:3,	3137:25	<b>summarizing</b> [1] - 3128:9
3096:22, 3097:11,	States [3] - 3069:22,	3040:13, 3066:15,	studying [5] - 2976:2,	
3098:6, 3104:21,	3113:4, 3115:3	3074:7, 3094:7,	3028:7, 3028:8,	<b>Summary</b> [2] - 2952:8, 2966:22
3107:25, 3120:4,	statewide [4] -	3156:11	3028:9, 3100:1	
3120:8, 3120:15,	3096:16, 3120:9,	storing [2] - 3072:7,	stuff [1] - 3017:1	summary [9] - 2967:3,
3124:6, 3128:1,	3141:14, 3145:12	3072:12	<b>sub</b> [3] - 3030:4,	2967:10, 3032:25, 3033:1, 3112:9,
3128:5, 3128:6,	stating [1] - 2957:24	storm [1] - 3055:17	3081:16, 3133:20	3113:19, 3127:21,
3129:10, 3130:6,	statistical [4] -	story [1] - 3088:14	sub-basin [2] -	3149:6, 3149:17
3130:8, 3130:25,	3149:23, 3150:3,	strange [2] - 3012:12,	3081:16, 3133:20	·
3142:12, 3143:6,	3150:16, 3151:19	3012:18	sub-box [1] - 3030:4	<b>summer</b> [13] - 3020:15, 3028:3,
3145:20, 3147:1,	statistically [1] -	stream [3] - 3066:22,	subject [3] - 2966:18,	3028:17, 3028:20,
3154:22	3160:11	3066:23, 3149:24	3005:17, 3022:5	3028:24, 3043:9,
<b>STATE</b> [2] - 2943:3,	statistics [3] - 315 TH		ROUP <b>ssion</b> [3] -	3055:6, 3055:18,
1	1	0 0.		5055.0, 5055.10,

Florida v. Georgia

3072:11, 3076:4, 3091:22 3017:11, 3017:18, 3140:13, 3142:18, 3013:17, 3021:17, 3022:17, 3080:3, 3077:2, 3092:25, suspend 131 -3018:12, 3018:14, 3143:9, 3143:18, 3093:2 3002:19, 3002:25, 3018:19, 3018:20, 3144:8, 3145:24, 3085:3, 3111:20, sums [1] - 3046:11 3058:7 3018:22, 3018:23, 3147:5, 3154:19, 3114:1, 3114:5 Sunding [4] - 2974:23, suspended [3] -3018:25, 3020:14, 3154:20, 3155:1 Thanksgiving [1] -3024:8, 3029:17, term [9] - 2967:20, 3068:22, 3076:25, 3060:1. 3060:19. 2946:14 3029:20. 3078:7. 2971:4. 2973:2. THE [57] - 2943:1, 3077:8 3060:21 3083:14, 3106:13, 2979:17, 2980:3, Sunding's [2] suspending [4] -2945:8, 2947:6, 3110:21, 3116:4, 2975:8, 3067:23 3000:7, 3002:8, 2980:7, 3061:21, 2947:12, 2947:13, 3080:4, 3081:12 3118:11, 3119:19, 3064:3, 3065:15 2947:17, 3093:10, superimpose [1] suspension [10] -3120:4, 3124:15, Term [1] - 3015:7 3093:15, 3093:22, 3014:3 3126:8, 3126:12, termed [1] - 3022:24 3095:3, 3095:7, supervisor [2] -3002:20, 3059:9, 3060:8, 3060:16, 3126:13, 3131:17, terminology [2] -3095:11, 3095:16, 3111:12, 3113:7 3061:19, 3089:3, 3133:7, 3133:9, 2960:12, 3022:11 3095:19, 3096:2, supplemental [1] -3089:12, 3089:25, 3138:23, 3148:15, terms [16] - 2959:23, 3096:8, 3096:13, 2987:24 3149:2 3090:4, 3090:18 3096:23, 3097:3, supplied [1] - 3086:4 2964:10, 2981:17, table [2] - 3031:20, sustain [1] - 3112:5 2990:5, 3049:23, 3097:20, 3098:10, Supplies [1] - 3126:9 sustainability [1] -3032:8 3051:14, 3065:15, 3099:2, 3099:13, **supply** [21] - 3035:8, tailored [2] - 2961:20, 3109:20, 3142:5, 3099:17, 3099:23, 3131:9 3035:10, 3038:7, 2961:23 3100:8, 3100:16, 3038:12, 3038:16, Sustainable [6] -3149:15, 3149:17, takers [1] - 3003:17 3032:20, 3083:20, 3149:22, 3150:1, 3100:25, 3101:4, 3039:4, 3039:7, 3083:24, 3084:2, talks [1] - 3123:2 3157:9, 3157:19, 3101:11, 3101:16, 3039:14, 3039:22, 3102:12, 3102:25, tallies [1] - 2983:23 3158:24 3093:19, 3126:9 3039:24, 3040:4, 3103:16, 3103:22, tangent [1] - 2985:11 terrible [4] - 2982:15, 3040:17, 3040:24, swear [2] - 2947:8, 3104:12, 3104:18, target [4] - 3003:25, 3025:25, 3027:5, 3042:10. 3042:12. 3104:14 3104:19, 3104:23, 3042:24, 3043:13, switch [2] - 3063:6, 3010:21, 3057:19, 3118:3 terrific [1] - 2948:1 3152:14, 3152:19, 3158:13 3045:4, 3046:1, 3103:24 3152:22, 3153:6, 3047:23, 3048:3 switches [2] - 3133:1, targeted [1] - 3060:10 test [3] - 3028:12, 3153:11, 3153:14, task [7] - 2983:15, 3067:13, 3067:16 support [10] - 2978:7, 3133:6 3153:17, 3154:5, 2984:5. 2985:2. testified [10] - 2977:9, 3046:12, 3077:9, sworn [2] - 2948:4, 3154:18, 3155:1, 2995:1, 3024:13, 3082:1, 3085:13, 3105:6 2986:6, 2990:3, 3155:14, 3156:1, 3094:2, 3115:25, 2990:8, 2990:10 3078:9, 3096:10, sync [1] - 3051:18 3156:6, 3156:10, 3119:14, 3157:23, system [10] - 2989:24, team [3] - 3044:17, 3099:8, 3135:19, 3156:22, 3158:5, 3158:7 3122:3, 3122:7 3152:13, 3152:24, 2990:1, 3032:14, 3159:7, 3159:19 teams [2] - 2946:20, 3152:25 supported [1] -3036:1, 3040:1, themselves [1] -3137:20 3103:24 testifies [1] - 3132:6 3044:15, 3075:20, 3091:13 supporting [1] -3098:22, 3109:6, Tech [2] - 2950:18, testimony [40] thereafter [1] -3159:11 2996:10 2947:8, 2948:3, 3156:25 3003:18 2948:4, 2975:8, suppose [1] - 3154:2 systematic [3] technical [10] therefore [2] -2992:12, 3015:14, 2982:20, 2994:3, supposed [1] - 3052:9 2953:5, 2954:8, 2961:21, 3022:25 3087:22 3032:4, 3032:10, 2994:21, 2994:23, Supreme [7] thinking [6] - 2977:17, 3045:7, 3046:12, 3017:4, 3019:12, systematically [1] -2973:23, 2974:3, 3046:14, 3062:13, 3067:23, 3070:4, 3072:16, 3072:19, 2965:21 3046:15, 3149:5, 3066:16, 3156:19, 3149:18 3071:3, 3072:20, 3074:3, 3156:3, systems [4] - 2972:3, 3157:6 2972:6, 2972:12. Technical [5] -3073:2, 3084:18, 3157:25 thinner [1] - 3080:7 3087:10, 3088:8, 3106:22, 3107:5, SUPREME [1] -2978:18 third [13] - 2951:13, 3090:3, 3099:3, 3107:23, 3150:20, 2943:1 3099:4, 3103:13, 2951:18, 3010:2, 3150:22 surface [17] - 2975:3, Т 3022:1, 3026:25, 3104:14, 3105:5, 2975:10, 2978:22, technically [2] tab [55] - 2950:9, 3030:21, 3046:10, 3105:6, 3105:7, 2976:8, 3087:11 2979:14, 3028:2, 2951:14, 2957:1, 3080:1, 3080:11, 3112:22, 3114:17, 3057:2, 3060:5, technically-detailed 2966:11, 2966:12, 3086:12, 3089:6, 3114:21, 3115:13, 3060:18, 3060:21, [1] - 3087:11 2969:16, 2972:21, 3113:25, 3120:12 3118:5, 3129:3, 3060:23, 3064:8, temporary [2] -2976:24, 2980:14, thirds [2] - 3120:13, 3131:5, 3131:16, 3066:6, 3067:1, 2981:23, 3028:23 2983:19, 2986:12, 3131:19, 3132:11, 3127:10 3078:18, 3109:17, tend [1] - 2961:21 2986:14, 2991:12, thousand [3] - 3077:1, 3133:17, 3138:15, 3127:11, 3127:12 tender [1] - 3105:9 2996:13, 2998:2, 3077:12, 3093:1 3141:1, 3144:18 surmise [1] - 3120:7 tenure [17] - 2951:11, 2998:14, 3004:6, threat [6] - 2959:12, text [13] - 2951:16, surrounding [1] -3001:21, 3051:9, 3005:8, 3007:14, 2958:21, 2964:11, 2960:9, 2960:16, 3000:22 3122:18, 3135:21, 3008:10, 3009:21 THE REPORTING GROUP:21, 3013:9, 2961:6, 2961:15, suspect [2] - 2986:10,

3015:2, 3015:25

3030:21, 3031:24,

3032:21, 3034:18,

3037:23, 3040:20, 3046:21, 3059:3,

3065:9, 3072:20,

2061:19
2961:18
threats [7] - 2959:22, 2959:24, 2960:2,
2960:18, 2962:1,
2965:17, 2966:6
three [11] - 2953:19,
2983:13, 2984:10,
3030:9, 3052:4,
3062:3, 3085:14,
3095:25, 3136:15,
3150:12, 3151:14
three-part [1] -
3136:15
throughout [5] -
2998:22, 3037:19,
3090:3, 3128:22,
3137:12
ticking [1] - 3003:8
tight [1] - 3066:20
tightly [1] - 3058:25
timing [1] - 3075:25
tips [1] - 2947:23
title [5] - 2949:20,
2998:25, 3013:4,
3108:24, 3126:25
<b>titled</b> [12] - 2950:11, 2952:8, 2955:16,
2966:20, 2998:15,
3004:23, 3005:11,
3012:23, 3013:6,
3013:10, 3015:6,
3126:8
today [18] - 2945:17,
2945:21, 2947:24,
2949:4, 2962:5,
2973:18, 3010:11,
3019:11, 3063:1,
3072:1, 3088:18,
3091:5, 3104:11,
3106:8, 3130:23,
3136:6, 3136:25,
3160:8
together [16] -
2965:20, 2997:1,
3023:7, 3034:10,
3034:13, 3034:14,
3078:12, 3081:6, 3082:18, 3095:20,
3096:1, 3129:16,
3157:22, 3158:15,
3158:21
took [9] - 2959:8,
2963:8, 3004:18,
3043:18, 3058:18,
3071:23, 3118:9,
3134:7, 3134:9
tool [10] - 2976:22,
2995:9, 2995:10,
3010:8, 3010:13,
3058:23, 3062:25,

3123:17, 3130:11,	trib [1] - 3000:15
3130:15	tributaries [2] -
tools [4] - 3010:22,	2986:3, 3082:13
3065:10, 3102:19,	tributary [1] - 308
3130:1 <b>top</b> [8] - 2952:11,	tried [7] - 2964:22
2970:24, 2977:6,	2965:11, 2965:2 2986:10, 3003:2
3001:8, 3016:23,	3071:4, 3096:1
3024:22, 3033:19,	tries [1] - 2961:12
3123:1	trigger [5] - 3056:
topic [5] - 2962:6,	3056:20, 3076:
2964:3, 3018:5, 3025:17, 3074:9	3094:14, 3094:2
topics [3] - 2997:23,	triggering [3] - 2968:18, 3029:3
3023:9, 3115:4	3141:21
total [3] - 3052:25,	tropical [1] - 3055
3142:5, 3143:12	troubling [2] - 30
totalling [1] - 3089:24	3054:4
totally [3] - 2980:2,	true [18] - 2962:7,
3067:17, 3077:13	2971:11, 2971:
touch [1] - 3062:6 toward [2] - 2963:4,	2973:1, 2976:8, 3010:12, 3014:
3137:21	3019:23, 3022:4
towards [2] - 2956:9,	3057:7, 3057:8,
3010:3	3087:15, 3089:
transcript [2] -	3089:22, 3101:2
2994:25, 3161:5	3110:2, 3112:13
TRANSCRIPT [1] -	3156:11
2943:9 transferred [1] -	trust [1] - 2984:22
2978:23	<b>truth</b> [6] - 2947:10 2947:11, 3104:
transferring [2] -	3104:17
2975:1, 2980:18	try [5] - 2960:25,
transfers [2] -	2964:8, 3004:3,
3101:19, 3101:20	3083:8, 3101:6
translate [1] - 3108:2	trying [12] - 2954:
translated [1] - 3148:19	2969:4, 2996:5, 3006:21, 3023:6
3148:19 <b>translation</b> [1] -	3023:16, 3037:
3103:10	3037:9, 3073:2
transparency [2] -	3075:24, 3093:
3052:15, 3146:24	3095:21
transparent [4] -	tucker [1] - 3115:
3058:14, 3058:20,	Tuesday [2] - 294
3059:2, 3078:11	2946:13 <b>turn</b> [61] - 2950:8,
traveler [1] - 2972:6 treat [1] - 3041:17	2950:21, 2952:3
treated [2] - 3102:4,	2954:22, 2956:2
3157:10	2963:13, 2966:8
treatment [1] -	2969:16, 2976:2
3158:19	2977:25, 2982:2
trend [1] - 3160:9	2982:24, 2986:
trending [2] - 3146:20,	2991:23, 2996: <sup>2</sup> 3002:3, 3003:6,
3146:21	3002:3, 3003:6,
<b>tri</b> [2] - 3070:5,	3009:18, 3015:2
3095:14 <b>tri-state</b> [2] - 3070:5,	3017:11, 3017:
3095:14	3018:12, 3018:
trial [2] - 3018:16,	3020:13, 3021:6
3113:14 THI	E REPORTIN

trib [1] - 3000. 15	
tributaries [2] -	
2986:3, 3082:13	
tributary [1] - 3081:18	
tried [7] - 2964:22,	
2965:11, 2965:21,	
2986:10, 3003:25,	
3071:4, 3096:1	
tries [1] - 2961:12	
<b>trigger</b> [5] - 3056:16, 3056:20, 3076:16,	
3094:14, 3094:24	
triggering [3] - 2968:18, 3029:3,	
3141:21	
tropical [1] - 3055:17	
troubling [2] - 3054:3,	1
3054:4	-
true [18] - 2962:7,	
2971:11, 2971:14,	
2973:1, 2976:8,	
3010:12, 3014:18,	
3019:23, 3022:4,	
3057:7, 3057:8,	
3087:15, 3089:12,	
3089:22, 3101:23,	
3110:2, 3112:13,	
3156:11	
trust [1] - 2984:22	
truth [6] - 2947:10,	
2947:11, 3104:16,	
3104:17	
<b>try</b> [5] - 2960:25,	
2964:8, 3004:3,	
3083:8, 3101:6	
trying [12] - 2954:3,	
2969:4, 2996:5,	
3006:21, 3023:6,	
3023:16, 3037:8,	
3037:9, 3073:25,	
3075:24, 3093:17,	
3095:21	
tucker [1] - 3115:5	
Tuesday [2] - 2946:5,	
2946:13	
turn [61] - 2950:8,	
2950:21, 2952:7,	
2954:22, 2956:25, 2963:13, 2966:8,	1
2969:16, 2976:23,	1
2977:25, 2982:20,	
2982:24, 2986:14,	
2991:23, 2996:13,	
3002:3, 3003:6,	
3007:14, 3008:9,	
3009:18, 3015:2,	
3017:11, 3017:17,	
3018:12, 3018:23,	
3020:13, 3021:6,	
REPORTING	GR
1.11 01(1110	

3075:12, 3078:7, 3083:14, 3086:11, 3088:23, 3108:20, 3114:24, 3115:12, 3116:4, 3116:10, 3118:11, 3119:2, 3119:19, 3124:12, 3125:15, 3131:17, 3133:7, 3140:11, 3143:7, 3144:1, 3148:15, 3149:2 turned [1] - 3003:24 Turner [61] - 2944:3, 2945:19, 2947:5, 2947:17, 2947:21, 2948:2, 2948:11, 2948:15, 2948:16, 2948:22, 2949:16, 3011:23, 3029:9, 3029:12, 3029:22, 3031:24, 3034:4, 3034:17, 3035:18, 3036:25, 3037:23, 3039:4, 3042:23, 3044:20, 3045:2, 3045:25, 3046:16, 3048:21, 3049:2, 3050:4, 3057:6, 3057:23, 3058:13, 3059:3, 3060:25, 3061:8, 3063:5, 3064:18, 3065:5, 3067:3, 3067:22, 3068:23, 3069:20, 3070:21, 3071:11, 3072:15, 3072:23, 3073:25, 3074:9, 3077:5, 3077:24, 3078:5, 3104:1, 3136:5, 3142:2, 3152:12, 3152:24, 3152:25, 3154:14, 3154:24 turning [1] - 3061:8 two [55] - 2945:17, 2949:12, 2949:13, 2953:2, 2953:7, 2965:19, 2973:22, 2974:10, 2974:25, 2988:17, 3004:23, 3008:13, 3009:1, 3012:2, 3012:20, 3022:19, 3024:7, 3026:6, 3030:9, OUP: 5, 3039:25, :1, 3047:18, Mason & Lockhart

3050:1, 3051:21, 3052:20, 3056:22, 3060:3, 3063:19, 3086:4, 3092:19, 3092:23, 3096:17, 3097:3, 3102:5, 3102:8, 3107:9, 3107:13, 3108:7, 3120:13, 3123:12, 3127:10, 3133:4, 3140:18, 3141:2, 3143:4, 3151:13, 3156:19, 3157:20, 3158:14, 3158:20, 3159:9 two-and-a-half [1] -3030:9 two-thirds [2] -3120:13, 3127:10 type [3] - 2964:18, 3003:16, 3072:16 types [2] - 2960:18, 3000:1 **typical** [1] - 3054:9 typically [1] - 3069:10 U

**U.S** [19] - 2960:10, 3006:1, 3018:16, 3019:22, 3072:16, 3074:3, 3077:9, 3086:5, 3100:20, 3111:5, 3111:9, 3111:19, 3111:22, 3114:11, 3118:18, 3119:16, 3144:2, 3144:7, 3144:13 **UIF** [11] - 2953:4, 2953:14, 2997:18, 2997:20, 3085:6, 3085:21, 3086:9, 3086:23, 3087:11, 3087:23, 3088:5 UIF's [7] - 2952:15, 2952:18, 2953:16, 3032:1, 3032:5, 3032:9, 3033:14 ultimate [1] - 3157:21 ultimately [12] -2963:7, 3023:18, 3030:5, 3056:19, 3056:20, 3062:24, 3076:17, 3128:5, 3130:17, 3157:3, 3157:7, 3159:6 uncertainties [1] -2955:20 Uncertainty [1] -2955:16 under [43] - 2961:12,

2963:8, 2963:17,
2968:11, 2980:5,
2987:19, 2993:7,
2994:19, 2995:16,
2998:25, 3006:4, 3006:22, 3009:6,
3006.22, 3009.6, 3021:16, 3053:19,
3053:25, 3055:14,
3056:6, 3060:7,
3061:11, 3097:23,
3100:19, 3106:18,
3107:6, 3112:13,
3120:9, 3126:12,
3132:20, 3137:9,
3139:1, 3139:2, 3140:16, 3140:18,
3140:21, 3140:22,
3141:22, 3141:24,
3142:19, 3142:23,
3143:10, 3143:19,
3143:24, 3151:17
underestimating [1] -
3068:10
underlying [2] - 3108:2, 3117:25
undermine [1] -
2953:20
understandably [1] -
3124:5
understood [2] -
3053:24, 3109:24
undertaking [1] -
3085:5 unfolded [1] - 3070:1
uniform [1] - 3067:15
unimpaired [7] -
2952:12, 2952:15,
3032:1, 3032:17,
3033:12, 3083:16,
3084:19
Unimpaired [2] -
2950:11, 3084:16 unique [1] - 3145:18
unit [6] - 2949:23,
2950:2, 2950:6,
2952:4, 2998:19,
3081:6
<b>UNITED</b> [1] - 2943:1
United [2] - 3113:4,
3115:3
units [1] - 2975:21
<b>University</b> [1] - 2982:11
unknown [1] -
3137:11
unless [1] - 3077:21
unlike [1] - 3021:22
unlimited [1] -
2975:18
unpermitted [3] -

2983:24, 2984:9 unreasonable [1] -3042:7 unwise [2] - 2958:15, 2959:3 **up** [30] - 2947:14, 2948:23, 2956:10, 2963:3, 2982:10, 2983:9, 2983:23, 3045:15, 3046:11, 3046:17, 3051:24, 3055:22, 3055:24, 3063:7, 3072:12, 3072:21, 3088:4, 3097:14, 3104:20, 3116:21, 3126:25, 3130:11, 3130:14, 3130:17, 3134:8, 3138:16, 3138:20, 3141:5, 3144:3, 3151:14 update [6] - 3036:1, 3044:1, 3048:3, 3048:25, 3049:1, 3049:8 updated [10] -3035:10, 3044:3, 3048:13, 3048:16, 3051:22, 3051:23, 3052:4, 3099:11, 3100:14, 3100:22 updates [1] - 3049:25 updating [3] -3047:21, 3048:9, 3100:17 **Upper** [5] - 2976:13, 3101:2, 3101:17, 3103:4, 3156:4 upper[12] - 3060:20, 3101:8, 3101:11, 3102:4, 3102:23, 3110:18, 3156:12, 3156:23, 3157:4, 3158:8. 3158:9. 3158:22 urgent [1] - 3048:8 USACE [2] - 3033:9, 3033:21 useful [1] - 3149:22 users [10] - 2975:1, 2975:4, 2978:21, 2978:23, 2980:19, 3028:2, 3065:16, 3098:2, 3124:9, 3146:10 uses [10] - 2981:8, 3032:12, 3040:20, 3074:8, 3123:19, 3124:5. 3129:25.

3140:21, 3146:1

3146:16 **USFWS** [1] - 3144:13 USGS [1] - 3017:1 utilities [2] - 3153:18, 3155:6 utilization [1] - 3066:6

TRIAL - November 18, 2016 (Vol. XII)

valid [2] - 3087:1, 3137:16 value [2] - 2970:14, 2971:4 variety [3] - 2955:20, 3112:24, 3146:9 various [8] - 2960:23, 3035:8, 3035:15, 3036:3, 3047:3, 3059:25, 3076:25, 3138:18 vary [3] - 2956:5, 3039:12, 3124:6 verse [1] - 3071:12 version [3] - 2967:6, 3100:14, 3100:15 vertical [1] - 2986:24 viable [2] - 3010:8, 3010:13 vice [1] - 2946:1 video [7] - 2948:14, 2948:15, 2948:18, 2948:19, 2948:21, 3017:16, 3131:5 view [20] - 2958:8, 2958:15, 2959:10, 2959:19, 2959:25, 2982:14, 2982:16, 2994:5, 3049:16, 3061:2, 3063:10, 3077:7, 3097:22, 3112:2, 3113:5, 3114:7, 3128:14, 3130:10, 3132:5, 3158:25 views [6] - 2957:18, 3025:2, 3031:5, 3031:10, 3031:12, 3115:8 violation [1] - 2984:11 violations [1] -2986:18 virtually [1] - 3110:10 visit [1] - 3099:6 **volume** [2] - 3049:3, 3075:21 **VOLUME** [1] - 2943:5 voluntary [6] -

vote [1] - 3091:24 W waiting [1] - 3100:3 walk [2] - 2989:13, 3107:1 walked [2] - 2989:8, 3015:22 wall [6] - 3145:23, 3146:7, 3146:16, 3146:17 wall-to-wall [1] -3146:7 Walton [2] - 3004:14, 3126:24 wants [1] - 2985:17 wasted [1] - 3155:12 wasteful [2] - 3098:5, 3098:24 watched [1] - 3114:21 Water [23] - 2946:2, 2946:8, 2950:15, 2976:11, 2976:14, 2992:7, 2996:9, 3032:20, 3046:22, 3048:9, 3050:6, 3083:17, 3083:21, 3083:24, 3084:2, 3093:19, 3099:17, 3109:7, 3124:23, 3124:24, 3125:8, 3126:9, 3136:20 water [179] - 2946:10, 2956:11, 2959:22, 2959:25, 2960:16, 2960:19, 2961:6, 2961:16, 2961:19, 2962:1, 2965:18, 2966:6, 2975:1, 2975:3, 2975:11, 2978:22, 2979:15, 2980:18, 2985:8, 2985:12, 2989:5, 3002:19, 3003:1, 3007:7, 3007:11, 3008:12, 3015:19, 3020:23, 3020:24, 3022:14, 3028:2, 3029:11, 3033:22, 3035:8, 3035:10, 3036:25, 3037:17, 3037:25, 3038:4, 3038:7, 3038:9, 3038:11, 3038:16, 3039:4, 3039:7, 3039:14, 3039:17, 3039:22, 3039:24,

3040:2, 3040:4,

2040:6, 3040:14,

3040:23, 3040:25, 3041:9, 3041:15, 3041:17, 3042:10, 3042:12, 3042:24, 3043:13, 3044:12, 3045:4, 3045:9, 3045:22, 3046:1. 3047:12, 3047:23, 3048:3, 3048:7, 3049:3, 3049:8, 3049:10, 3050:2, 3050:10, 3050:20, 3051:2, 3051:3, 3051:10, 3051:25, 3052:1, 3055:13, 3055:20, 3057:2, 3060:5, 3060:18, 3060:21, 3060:23, 3062:9, 3062:17, 3062:20, 3064:8, 3066:16, 3066:17, 3067:1, 3072:5, 3072:7, 3072:8, 3072:12, 3075:17, 3075:21, 3075:25, 3077:6, 3077:18, 3078:18, 3079:19, 3088:11, 3092:12, 3092:20, 3092:25, 3097:19, 3097:25, 3098:5, 3098:17, 3098:18, 3098:23, 3109:12, 3109:17, 3109:18, 3110:15, 3111:25, 3114:2, 3117:21, 3120:10, 3123:22, 3124:2, 3124:5, 3127:12, 3127:13, 3128:6, 3128:24, 3128:25, 3129:12, 3129:13, 3129:15, 3129:25, 3130:4, 3130:15, 3130:25, 3131:9, 3137:12, 3137:18, 3140:21, 3141:14, 3141:16, 3144:9, 3144:15, 3144:23, 3145:5, 3145:12, 3145:16, 3145:20, 3145:25, 3146:4, 3146:10, 3146:12, 3146:16. 3147:7. 3147:10, 3148:19, 3153:8, 3154:3, 3154:6, 3154:11, 3154:12, 3155:3, 3155:12, 3155:15, 3155:25, 3157:2, 3157:12, 3157:21, 3159:6

THE REPORTING GROUP:17, 3040:21,

3001:11, 3003:5,

3003:12, 3003:15,

watering [17] - 3026:6, 3026:9. 3026:14. 3026:15, 3050:25, 3051:5, 3051:19, 3052:19, 3052:25, 3096:12, 3096:15, 3097:5, 3097:6, 3097:7, 3097:8, 3097:14, 3155:20 watershed [5] -3013:23, 3123:17, 3123:24, 3124:3, 3124:9 watershed-specific [1] - 3123:24 Watersheds [1] -3013:10 watersheds [2] -3014:18, 3139:5 ways [4] - 3039:25, 3146:10, 3146:12, 3156:19 weather [2] - 3142:16, 3160:6 website [1] - 3027:9 wedge [1] - 2963:3 week [6] - 3026:6, 3050:5, 3052:20, 3093:1, 3096:18, 3105:22 weeks [6] - 2973:22, 3054:15, 3092:19, 3092:23 Wei [10] - 2945:23, 2998:18, 3044:8, 3045:8, 3046:15, 3080:17, 3081:2, 3086:25, 3159:22 Wei's [3] - 2998:15, 2998:25, 3001:1 weighing [2] -3006:14, 3006:21 welcomed [1] - 3096:3 well-informed [1] -3145:25 well-intended [1] -3003:3 wells [4] - 3028:12, 3028:17, 3059:24, 3067:13 wet [5] - 3027:19, 3054:15, 3066:17, 3075:23 wetted [2] - 2987:23, 2989:3 wherein [2] - 3129:12, 3139:15 WHEREOF [1] -3161:10 whole [11] - 2947:10,

2970:11, 3037:16, 3070:15, 3075:19, 3080:10, 3094:8, 3098:6, 3104:16, 3159:3 wholly [2] - 3056:15, 3088:2 Wildlife [34] - 2960:10, 2961:14, 2961:19, 3006:1, 3006:4, 3006:9, 3012:9, 3012:14, 3012:23, 3012:24, 3018:17, 3019:22, 3037:10, 3062:11, 3064:14, 3069:17, 3100:1, 3100:21, 3111:5, 3111:8, 3111:9, 3111:19, 3113:5, 3114:12, 3115:3, 3118:18, 3118:25, 3119:16, 3144:2, 3144:7, 3144:13, 3144:20, 3149:20, 3150:11 Wildlife's [1] -3111:23 willing [1] - 3076:7 WINE [1] - 2943:17 winter [11] - 3026:8, 3027:19. 3055:5. 3055:10, 3055:16, 3055:22, 3055:24, 3056:1, 3056:3, 3075:21, 3075:23 wise [1] - 3064:22 Wisniewski [1] -3005:9 withdraw [1] -3040:25 withdrawal [6] -3040:12, 3041:4, 3041:5, 3041:13, 3062:19, 3088:5 withdrawals [17] -2954:24, 2955:14, 2955:22, 2962:9, 2962:15, 2962:19, 2963:19, 2975:3, 2977:22, 2979:14, 3041:20, 3045:11, 3058:8, 3114:3, 3114:8, 3149:15, 3150:1 withdrawing [2] -3028:19, 3049:12 **WITNESS** [52] -2947:12, 2947:17, 3093:10, 3093:15,

3093:22, 3095:3

3095:7, 3095:11, 3095:16, 3095:19, 3096:2, 3096:8, 3096:13, 3096:23, 3097:3, 3097:20, 3098:10, 3099:2, 3099:13. 3099:17. 3099:23, 3100:8, 3100:16, 3100:25, 3101:4, 3101:11, 3101:16, 3102:12, 3102:25, 3103:16, 3103:22, 3104:18, 3104:23, 3152:14, 3152:19, 3152:22, 3153:6, 3153:11, 3153:14, 3153:17, 3154:5, 3154:18, 3155:1, 3155:14, 3156:1, 3156:6, 3156:10, 3156:22, 3158:5, 3159:7, 3159:19, 3161:10 Witness [1] - 2944:2 witness [9] - 2945:11, 2946:18, 2993:15, 3011:2, 3050:5, 3104:8, 3105:1, 3105:10, 3152:18 witnesses [4] -2945:21, 2946:12, 3031:18, 3142:2 wonderful [1] -3000:16 wondering [1] -3080:6 Woodruff [1] -3158:14 Woody [4] - 2992:9, 2992:11, 2992:19, 3017:7 word [5] - 2951:15, 2968:6, 3021:17, 3066:23, 3080:15 words [4] - 2962:3, 2967:22, 2967:23, 3002:10 workable [1] - 3003:9 works [8] - 2946:8, 2995:16, 3026:12, 3052:7, 3075:20, 3081:2, 3091:5, 3091:18 world [6] - 2981:15, 3024:6, 3041:16, 3055:16, 3142:13, 3151:10 worse [2] - 3094:15, 3114:9

wrestled [1] - 3090:24 wrestling [1] - 2979:1 write [2] - 2984:25, 3078:15 writing [1] - 3115:6 written [9] - 2948:3, 2966:5, 3044:20, 3071:2, 3071:5, 3105:5, 3111:11, 3116:16, 3119:1 wrote [4] - 2964:16, 2996:10, 3058:19, 3079:7 X

XII [1] - 2943:5

Υ year [17] - 2974:5, 2979:22, 2980:4, 2991:9, 3035:1, 3043:18, 3054:12, 3055:11, 3075:18, 3078:19, 3090:18, 3090:22, 3100:12, 3118:4, 3118:8 years [32] - 2949:23, 2972:15, 2974:10, 2974:25, 2976:4, 2976:7, 2989:2, 2993:22, 3008:13, 3019:3, 3019:4, 3019:5, 3020:11, 3021:22, 3030:9, 3034:25, 3042:13, 3043:24, 3045:16, 3045:18, 3065:23, 3074:23, 3075:1, 3094:12, 3109:20, 3109:24, 3135:25, 3136:24, 3137:8, 3142:23, 3143:4, 3145:2 **yellow** [1] - 2962:12 yesterday [5] -2966:19, 2974:23, 3101:5, 3133:3, 3160:6 yield [6] - 2975:15, 3067:10, 3067:18, 3067:19, 3149:14, 3150:1 yourself [19] -2947:14, 2953:9, 2958:24, 2967:17, 2986:11, 2992:21, 3013:19, 3024:20, 3033:7, 3034:1, THE REPORTING GROUP:10, 3085:1,

3089:9, 3104:20, 3111:20, 3116:12, 3123:5, 3127:5, 3149:11

## Ζ

Zeng [21] - 2945:23, 2950:5, 2951:10, 2951:11, 2951:19, 2955:25, 2956:14, 2991:20, 2998:18, 3001:21, 3020:8, 3044:8, 3045:8, 3046:15, 3080:18, 3085:21, 3086:20, 3086:22, 3087:8, 3087:12, 3159:22 **Zitsch** [6] - 2956:17, 2956:18, 2997:8, 3091:5, 3091:14, 3092:10 **Zitsch's** [1] - 3092:4 zones [1] - 2962:12