## SUPREME COURT OF THE UNITED STATES

IN THE SUPREME COURT OF THE	UNITED STATES
	_
MISSISSIPPI,	)
Plaintiff,	)
v.	) No. 143, Orig
TENNESSEE, CITY OF MEMPHIS,	)
TENNESSEE, AND MEMPHIS LIGHT,	)
GAS & WATER DIVISION,	)
Defendants.	)

Pages: 1 through 78

Place: Washington, D.C.

Date: October 4, 2021

## HERITAGE REPORTING CORPORATION

Official Reporters
1220 L Street, N.W., Suite 206
Washington, D.C. 20005
(202) 628-4888
www.hrccourtreporters.com

1	IN THE SUPREME COURT OF THE UI	NITED STATES
2		
3	MISSISSIPPI,	)
4	Plaintiff,	)
5	v.	) No. 143, Orig
6	TENNESSEE, CITY OF MEMPHIS,	)
7	TENNESSEE, AND MEMPHIS LIGHT,	)
8	GAS & WATER DIVISION,	)
9	Defendants.	)
10		
11		
12	Washington,	D.C.
13	Monday, October	4, 2021
14		
15	The above-entitled m	matter came on for
16	oral argument before the Supreme	e Court of the
17	United States at 10:00 a.m.	
18		
19		
20		
21		
22		
23		
24		
25		

1	APPEARANCES:
2	
3	JOHN V. COGHLAN, Deputy Solicitor General, Jackson,
4	Mississippi; on behalf of the Plaintiff
5	DAVID C. FREDERICK, ESQUIRE, Washington, D.C.; on
6	behalf of the Defendants
7	FREDERICK LIU, Assistant to the Solicitor General,
8	Department of Justice, Washington, D.C.;
9	for the United States, as amicus curiae, in
10	support of overruling the Plaintiff's exceptions
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

1	CONTENTS	
2	ORAL ARGUMENT OF:	PAGE:
3	JOHN V. COGHLAN, ESQ.	
4	On behalf of the Plaintiff	5
5	ORAL ARGUMENT OF:	
6	DAVID C. FREDERICK, ESQ.	
7	On behalf of the Defendants	35
8	ORAL ARGUMENT OF:	
9	FREDERICK LIU, ESQ.	57
10	For the United States, as amicus	
11	curiae, in support of overruling	
12	the Plaintiff's exceptions	
13	REBUTTAL ARGUMENT OF:	
14	JOHN V. COGHLAN, ESQ.	
15	On behalf of the Plaintiff	74
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

1	PROCEEDINGS
2	(10:00 a.m.)
3	CHIEF JUSTICE ROBERTS: I have the
4	honor to announce on behalf of the Court that
5	the October 2020 term of the Supreme Court of
6	the United States is now closed and the October
7	2021 term is now convened.
8	I'd like to begin by noting that
9	Justice Kavanaugh will be participating in the
10	argument today remotely.
11	Today's orders of the Court have been
12	duly entered and certified and filed with the
13	clerk.
14	I am also pleased to welcome Gail
15	Curley as the new marshal of the Court. Marshal
16	Curley retired from the United States Army this
17	summer, where she held the rank of Colonel, and
18	was most recently Chief of the National Security
19	Law Division of the Judge Advocate General. We
20	wish her well in her service as the Court's 11th
21	marshal, which she commenced on June 21.
22	We will hear argument first this
23	morning in Original Case 143, Mississippi
24	against Tennessee.
25	Mr. Coghlan.

1	ORAL ARGUMENT OF JOHN V. COGHLAN
2	ON BEHALF OF THE PLAINTIFF
3	MR. COGHLAN: Mr. Chief Justice, and
4	may it please the Court:
5	The Court should reject the Special
6	Master's conclusion that equitable apportionment
7	is Mississippi's sole remedy because it's a
8	remedy that redresses the wrong injury.
9	Mississippi does not claim that Defendants are
LO	taking more than their fair share of
L1	groundwater. Rather, Mississippi's case turns
L2	on a different question: Do Defendants have the
L3	right to control groundwater while it is located
L4	within Mississippi's sovereign territory?
L5	And the Court has answered this
L6	question in Tarrant Regional Water District
L7	versus Herrmann. There, in considering an
L8	interstate service river that had already been
L9	apportioned, the Court recognized an injury
20	other than that of an upstream state harming a
21	downstream state by taking too much water.
22	Specifically, the Court recognized that one
23	state may not divert water from another state's
24	sovereign territory absent a waiver of that
5	covereignty

1	And, here, it's undisputed that
2	Tennessee is diverting groundwater from
3	Mississippi without Mississippi's permission,
4	and they do so knowingly. In the 1960s, the
5	U.S. Geological Survey warned them it was
6	happening. But rather than stop, Defendants
7	opened new well fields within three miles of the
8	border and substantially increased their
9	pumping. As of 2014, when Mississippi filed its
10	complaint, they had suctioned more than 400
11	billion gallons of groundwater across the
12	border. They've increased the cost of
13	Mississippi's own groundwater pumping. And by
14	their own admission, Defendants' pumping is
15	draining an overlying surficial aquifer that
16	record evidence indicates is pulling
17	contaminants down into the aquifer at issue in
18	this case.
19	Now the Special Master, in reaching
20	its conclusions, asked whether the Middle
21	Claiborne Aquifer was an interstate resource.
22	This was the wrong question to ask because the
23	answer doesn't matter. Even if the aquifer is
24	an interstate resource, Mississippi still
25	possesses sole and exclusive control over

- 1 groundwater within its sovereign territory, as
- 2 recognized in Tarrant and ensured by the
- 3 Constitution. And Defendants cannot force
- 4 groundwater across the border without violating
- 5 this sovereignty.
- 6 I welcome the Court's questions.
- 7 JUSTICE THOMAS: Well, counsel, you
- 8 seem to complain about Tennessee pumping water
- 9 from Mississippi, but you admit that Tennessee
- 10 does not enter across the border into
- 11 Mississippi, isn't that correct?
- MR. COGHLAN: Well, Justice Thomas, we
- acknowledge that their wells are physically --
- JUSTICE THOMAS: Okay. So -- but the
- 15 case that you cite as an intrusion from -- I
- 16 think it's Tarrant or Tarrant -- wasn't that a
- 17 cross-border situation?
- MR. COGHLAN: Well, yes, Your Honor,
- 19 and we would say that this is a cross-border
- 20 situation too. So we certainly acknowledge that
- 21 their wells are physically located in Tennessee,
- 22 but the pumping is physically crossing the
- border, unnaturally changing the pressure levels
- in this aguifer.
- 25 JUSTICE THOMAS: But isn't that true

- of any well? I mean, let's say it was a lake
- 2 and Tennessee was pumping water on its side of
- 3 the lake. Couldn't you argue that technically
- 4 it was drawing water from Mississippi?
- 5 MR. COGHLAN: I -- I think so, Your
- 6 Honor, and I think the -- the key is where --
- 7 what is the range of the unnatural effect that
- 8 is controlling the water? And so, here, it's --
- 9 it's undisputed that the -- these wells create
- 10 cones of depression that are measurable,
- 11 limited, and controllable and predictable. And
- 12 so Tennessee is exercising control over the
- 13 groundwater within that area.
- JUSTICE THOMAS: But couldn't
- 15 Tennessee make the exact same argument about
- 16 you? Couldn't Tennessee, Arkansas, Missouri all
- make the same argument that whenever you pump
- 18 you're causing similar problems for them?
- 19 MR. COGHLAN: They certainly could,
- and we should be held to the same standard, Your
- 21 Honor. We don't believe that Mississippi is
- 22 pulling any groundwater or exercising control
- over groundwater extraterritorially. Certainly,
- 24 if that was the case, Mississippi should be held
- 25 to the same standard.

1	JUSTICE THOMAS: Lastly, and I'll be
2	done, do you have any cases that suggest that
3	or to support your argument on that point that
4	the mere fact that you draw from the same well
5	without entering another state is actionable?
6	MR. COGHLAN: Well, Your Honor, I I
7	would point back to to Tarrant in this sense
8	that Tarrant doesn't specifically say that there
9	has to be a physical crossing of the border.
LO	Tarrant focuses on the water and who's
L1	exercising control over the water.
L2	And so we would I would contend
L3	that, here, it's Tennessee exercising control
L4	over this water unnaturally while it was within
L5	Mississippi, essentially creating a vacuum and
L6	intentionally putting these vacuums right next
L7	to the border to exercise a limited area of
L8	control over water and pull it out of
L9	Mississippi into Tennessee.
20	JUSTICE THOMAS: All right.
21	CHIEF JUSTICE ROBERTS: Counsel, I
22	think your position comes down to arguing that
23	equitable apportionment is a remedy that should
24	be used only in the case of interstate waters,
2.5	in addition, you know, to the salmon, who kind

- 1 of go with the flow.
- 2 MR. COGHLAN: Mr. Chief Justice,
- 3 that's not our argument, and I think that
- 4 Tarrant makes this point because Tarrant dealt
- 5 with an interstate surface river that had
- 6 already been apportioned. But I think the
- 7 problem is equitable apportionment redresses a
- 8 different type of injury. It addresses a case
- 9 where states are acting entirely within their
- 10 own sovereign borders, the unnatural taking of
- 11 water is occurring entirely within a state's
- 12 sovereign borders.
- This is different because this is a
- 14 state crossing the border, exercising control
- over that resource beyond the border, so that's
- 16 why I say it doesn't matter --
- 17 CHIEF JUSTICE ROBERTS: Well, what
- other cases would you -- putting aside water,
- 19 what other cases would you admit are subject to
- 20 equitable apportionment?
- 21 MR. COGHLAN: Your Honor, I'm not
- 22 sure, and I'm not sure the equitable
- 23 apportionment should or should not apply as a
- 24 concept to groundwater. I think there are
- 25 reasons why, based on the nature of groundwater,

- 1 it might not make sense.
- 2 But I think the Court doesn't need to
- 3 address that question about whether or not
- 4 equitable apportionment should apply to
- 5 groundwater because, as I say, this is a
- 6 different type of injury. This is an injury
- 7 where one state is reaching across the border
- 8 and exercising control --
- 9 CHIEF JUSTICE ROBERTS: Well --
- 10 MR. COGHLAN: -- beyond its sovereign
- 11 territory.
- 12 CHIEF JUSTICE ROBERTS: -- putting
- aside your reaching across the border, I mean,
- in -- in the absence -- you -- you concede,
- don't you, that the aquifer flows from
- 16 Mississippi into Tennessee?
- 17 MR. COGHLAN: We -- we concede that
- 18 there is some water that crosses the border,
- 19 yes.
- 20 CHIEF JUSTICE ROBERTS: Well, I
- 21 suppose then you're -- you're not saying that
- there's no equitable apportionment of that
- 23 water?
- MR. COGHLAN: I think, Your Honor, our
- 25 point is that whether or not aquifers and

- 1 groundwater should be subject to equitable
- apportionment is not the legal issue that we're
- 3 presenting before the Court.
- What we're presenting is does
- 5 Tennessee have the right to control the resource
- 6 beyond Tennessee's sovereign boundaries in
- 7 Mississippi when Mississippi has not waived its
- 8 sovereign right over control of that
- 9 groundwater.
- 10 JUSTICE KAGAN: I'm not sure I
- 11 understand that, Mr. Coghlan. I mean, you're
- 12 not now saying that this is not an interstate
- 13 water. You're conceding that it is an
- interstate water, is that correct?
- MR. COGHLAN: I don't know that we're
- 16 conceding it, Justice Kagan. I --
- 17 JUSTICE KAGAN: You're saying that you
- 18 win even if it is an interstate water --
- MR. COGHLAN: That's --
- 20 JUSTICE KAGAN: -- is that correct?
- 21 MR. COGHLAN: -- that's correct.
- JUSTICE KAGAN: Okay. So you're
- 23 saying it's irrelevant whether it's an
- interstate water or not?
- MR. COGHLAN: That's correct.

1 JUSTICE KAGAN: So let's assume that 2 it is an interstate water. 3 MR. COGHLAN: Okav. JUSTICE KAGAN: And you're saying that 4 the reason you should win is because -- is 5 because what? Because Mississippi is 6 7 essentially doing something unnatural to have access to that interstate water? What --8 9 MR. COGHLAN: I'd say, Your Honor, it's that Tennessee --10 11 JUSTICE KAGAN: Tennessee, excuse me. 12 MR. COGHLAN: That Tennessee is 13 exercising control over groundwater while it is 14 located within Mississippi's sovereign 15 territory. 16 JUSTICE KAGAN: Well, but Tennessee is 17 doing things -- I think you admitted, in -- in -- in one of the questions that Justice Thomas 18 19 put to you, Tennessee is acting entirely within its own borders. It is having effects on 20 Mississippi, but that's the case with respect to 21 22 people using a flowing river, that if there's a 23 -- a flowing river, Tennessee might be taking 24 water from it, which has effects in Mississippi. 25 So why is it any different?

1	MR. COGHLAN: Justice Kagan, where I
2	would disagree with you is that Tennessee is
3	acting entirely within its own borders. Their
4	their wells are physically located in
5	Tennessee, but this pumping is creating a
6	unnatural area of effect that's predictable,
7	measurable, and controllable, and that area of
8	effect is having physical effect, unnatural
9	JUSTICE KAGAN: Well, it's have
LO	MR. COGHLAN: physical effects
L1	JUSTICE KAGAN: it's it's
L2	predictable and measurable and controllable when
L3	an upstream state takes a lot of water from a
L4	river that that will leave the downstream state
L5	with less water. All of that is predictable in
L6	the exact same way that one state is harming
L7	another, and yet we turn to equitable
L8	apportionment to deal with that.
L9	MR. COGHLAN: And I think, Your Honor,
20	the difference as as I in this case is
21	that in all of the Court's equitable
22	apportionment cases, the state who's, you know,
23	unnaturally having an effect on the water by
24	taking and removing water is acting, and the
2.5	effect of that is occurring the direct effect

- of that is occurring entirely within the state's
- 2 sovereign territory and that whether or not the
- 3 water ultimately doesn't reach the downstream
- 4 state because it doesn't flow there is -- is
- 5 incidental, whereas, here, there is a direct
- 6 intentional effect.
- 7 The -- the -- the purpose of pumping
- 8 is to move water. And Tennessee is putting
- 9 these wells next to the border, creating a
- 10 vacuum, and of -- of a measurable area of
- 11 effect, and intentionally pulling the water out
- of Mississippi and exercising control, direct
- 13 control I would say, over that groundwater while
- it is within Mississippi's sovereign territory.
- 15 And I think --
- 16 JUSTICE SOTOMAYOR: Can you please
- 17 explain to me how that's different from a dam,
- if Tennessee built a dam and put it on the
- 19 Tennessee side, it's completely on its side, and
- 20 it's interfering with the natural flow of water
- 21 to Mississippi? So how is that different than
- 22 putting a well that interferes with the natural
- 23 flow of the groundwater?
- 24 MR. COGHLAN: Well, Justice Sotomayor,
- 25 I don't know that it would be appropriate to --

- 1 to dam a water, but the difference I would say
- 2 is -- is this: that creating a dam within your
- 3 own sovereign territory is an action occurring
- 4 within your own sovereign territory. The --
- 5 the -- the physical direct effect of it is
- 6 within Tennessee if that's what's happening.
- 7 Pumping here is exercising control
- 8 over the water while it is physically located in
- 9 Mississippi. And in the example of the dam, the
- 10 physical control of the water is occurring
- 11 entirely within Tennessee.
- 12 Here, it's occurring within
- 13 Mississippi's sovereign territory, where
- 14 Mississippi has the exclusive right to exercise
- 15 control over the groundwater.
- 16 JUSTICE SOTOMAYOR: May I turn your
- 17 attention to an issue you didn't mention, which
- is whether you should be given leave to amend or
- 19 not? That is what your -- the other side is
- 20 pointing to as their exception.
- 21 Could you tell me -- you've been
- 22 litigating this case for over 16 years. You
- 23 started in the Fifth Circuit. You went to the
- 24 district court, you went to the circuit court;
- 25 both courts told you you've got to seek

- 1 equitable apportionment.
- 2 You come here in 2010. We tell you
- 3 the same thing. Now this is the third time
- 4 you've done this. This -- this time you
- 5 explicitly disclaim any claim for equitable
- 6 apportionment.
- When is enough enough? When should
- 8 you be stopped from amending and seeking
- 9 equitable apportionment, assuming you lose? But
- 10 it is a question that's open in this case.
- MR. COGHLAN: Well --
- 12 JUSTICE SOTOMAYOR: It's only an
- assumption I'm working from, but when is enough
- 14 enough?
- MR. COGHLAN: Well, Your Honor, I
- think there's a recognition in equitable
- apportionment cases that it's prospective, and
- it's for future injury, it's not to rectify past
- 19 injury. That's part of the reason why we think
- it's the wrong remedy here.
- 21 We also think it doesn't redress the
- 22 injury over sovereign control of water. But,
- 23 based on the nature of the remedy and that it is
- 24 prospective only, I think there's a recognition
- 25 that states should always have the right to be

- 1 able to pursue that -- that remedy, particularly
- 2 here, where, in the interim, Tennessee continues
- 3 to pull groundwater out of Mississippi.
- I think it would be inequitable to
- 5 prevent us from --
- JUSTICE SOTOMAYOR: Well, why
- 7 shouldn't we just leave that question alone?
- 8 Why should we just not decide this case,
- 9 whatever the decision is, and not decide whether
- 10 to grant -- to grant permission or not, and
- assuming you finally say you're going to amend
- or do amend, let you figure out what's equitable
- 13 at that time or not?
- MR. COGHLAN: Well, I -- I think, Your
- 15 Honor, again, setting aside the fact that we
- think equitable apportionment is the wrong
- 17 remedy for -- for this case --
- JUSTICE SOTOMAYOR: So that goes to my
- 19 -- begs my question, which is, if you think it's
- the wrong remedy, can you plead it, number one?
- 21 Will you plead it, number two?
- 22 MR. COGHLAN: I -- if -- if the Court
- 23 disagrees with us and finds that equitable
- 24 apportionment is the only remedy available to
- 25 Mississippi, we would still want the option

- 1 to -- to pursue that. Even if it's -- we think
- 2 it would be incomplete as a form of relief, we
- 3 would want to obtain whatever relief is possible
- 4 for -- for Mississippi.
- 5 CHIEF JUSTICE ROBERTS: Counsel, you
- 6 emphasized in your -- your answers so far the
- 7 concept of physical control of the aquifers. In
- 8 Mississippi, it's theirs to control.
- 9 You know, in the western states, they
- 10 have these, I don't know, wild horses or wild
- burrows, whatever they are, and they don't obey
- the state lines and they're wandering around and
- 13 they -- let's just say they go from, you know,
- 14 New Mexico to wherever.
- 15 Let's suppose that they're -- I know
- they're pests, I guess, in some places, but
- 17 let's suppose they're a valuable resource. If
- they were in Mississippi and crossed into
- 19 Tennessee and Tennessee seized them at that
- 20 point, would that be damaging Mississippi, or
- 21 could Tennessee say, look, they're on our
- 22 territory, they're under our physical control,
- 23 we can exercise dominion over them, period?
- MR. COGHLAN: Mr. Chief Justice, I
- 25 think, if they're exercising control within

- 1 Tennessee, that is distinct from what's
- 2 happening here, where there's control --
- 3 CHIEF JUSTICE ROBERTS: Well, I don't
- 4 care if it's distinct from what's happening here
- 5 or not. I'm just wondering if -- I would
- 6 suggest that that's at least in some sense an
- 7 interstate resource.
- Normally, under our precedents, those
- 9 are subject to equitable apportionment. But --
- 10 but you would say under your theory that, no,
- 11 Tennessee could take all the value of that
- 12 interstate resource just because it happened to
- 13 be under Tennessee -- in Tennessee under that
- 14 particular point?
- MR. COGHLAN: Mr. Chief Justice, I --
- 16 I -- I don't know the answer to that question,
- 17 but I think the point is this: whatever the
- 18 limits of that sovereign control are -- and
- we're not saying here that Mississippi's
- 20 sovereign control over groundwater is unlimited.
- 21 Certainly, Congress can place limits on it.
- 22 This Court acting appropriately can place limits
- on it. Our point is that Tennessee may not
- limit it in Mississippi by exercising control
- over it while it is within Mississippi.

```
1
                CHIEF JUSTICE ROBERTS: So I -- so it
 2
      sounds to me like you're not going to give me an
      answer on the wild horses?
 3
 4
               MR. COGHLAN: Well, Mr. --
                CHIEF JUSTICE ROBERTS: It's an
 5
 6
      interstate resource that goes back and forth
7
     between two different states. You seem to say
      that if it's in one state, that's theirs. If
8
 9
      it's in the other, you know, it's -- it's that
10
      state's. And I'm positing a resource that
11
     migrates between the two states because some
12
     people might think that's what's at issue here.
               MR. COGHLAN: And, Mr. Chief Justice,
13
14
      I -- I apologize. Your question is whether or
     not Tennessee could take -- capture all the
15
16
     horses --
17
               CHIEF JUSTICE ROBERTS: Yeah.
18
               MR. COGHLAN: -- while --
19
                CHIEF JUSTICE ROBERTS: Whoever -- you
20
     know, in the spring or whenever, they -- they go
21
     to Mississippi, and then, in the fall, they go
22
     to Tennessee, and can Tennessee, say, just grab
23
      -- round them up and say they're ours?
24
               MR. COGHLAN: While they're in
25
      Tennessee?
```

2.2

- 1 CHIEF JUSTICE ROBERTS: While they're
- 2 in Tennessee.
- 3 MR. COGHLAN: I would suggest yes,
- 4 they could. Whether or not they could do so to
- 5 the extent that they would preclude all of those
- 6 horses from going back to --
- 7 CHIEF JUSTICE ROBERTS: Yeah, every
- 8 last one they -- they grab.
- 9 MR. COGHLAN: Your Honor, probably
- 10 not. But I -- I would suggest that the
- 11 difference in the example you're suggesting is
- 12 -- is that which distinguishes equitable -- all
- the Court's equitable apportionment cases from
- 14 -- from that here, which is that in the example
- Your Honor is, you know, suggesting, Tennessee
- is acting entirely within Tennessee's borders.
- 17 It's not acting extra -- extraterritorially.
- 18 And I'd say that is what distinguishes
- 19 the case here from Your Honor's example and --
- and from all the Court's equitable apportionment
- 21 cases.
- 22 JUSTICE BREYER: So what -- I have the
- 23 same kind of question. My understanding -- and
- 24 you have to -- it's very elementary. I mean, I
- 25 think water falls from the sky. Some of it's

- 1 evaporated back. Others of it goes into oceans
- or lakes or streams. A huge amount goes under
- 3 water -- underground. It's groundwater, and it
- 4 runs all over the place. That's why I like the
- 5 wild horses. My idea of that groundwater is
- 6 it's going all over the place.
- 7 MR. COGHLAN: Yes.
- 8 JUSTICE BREYER: So what's the
- 9 standard? Are there any cases? What's the
- 10 standard when one state takes some of that
- 11 running-around groundwater that another state
- 12 says, oh, no, it should stay here?
- 13 It sounds to me -- you know, San
- 14 Francisco has beautiful fog. Suppose somebody
- 15 came by in an airplane and took some of that
- 16 beautiful fog and flew it to Colorado, which has
- 17 its own beautiful water -- air. And somebody
- 18 took it and flew it to Massachusetts or some
- 19 other place.
- I mean, do you understand how I'm
- 21 suddenly seeing this and I'm totally at sea?
- 22 It's that the water runs around. And whose
- 23 water is it? I don't know. So you have a lot
- to explain to me, unfortunately, and I will
- 25 forgive you if you don't.

2.4

```
1
                MR. COGHLAN: Well, Justice Breyer, I
 2
      would say this: We're not claiming here that
 3
      Mississippi owns the water in a sense of
      absolute title to the water. What we're talking
 4
      about is the -- the right to exercise control
 5
      over the resource while it is within the -- the
 6
 7
      sovereign territory and the borders of
 8
      Mississippi.
                And Mississippi is not trying to
 9
      prevent the water from flowing naturally or to
10
11
      go across the border or -- or prevent the wild
12
      horses in the Chief Justice's hypothetical from
13
      going across the border.
14
                What we're saying is Tennessee does
15
      not have a right to exercise any control over
16
      them while -- or over -- control over the
      groundwater while it is within Mississippi.
17
18
                And what -- so what we're proposing is
19
      that states can, you know, withdraw groundwater
20
      from within as long as the physical effects --
21
      and this is something that's measurable and
2.2
      predictable, as I said -- as long as the
23
      physical effects of those pump -- that pumping
      does not encroach and affect the water and
24
25
      control the water outside the -- or in -- in a
```

- 1 sister state.
- 2 JUSTICE KAGAN: You're saying that the
- 3 question is whether there's an extraterritorial
- 4 action. But there has not been a trespass.
- 5 There has not been pumping on Mississippi's
- 6 land. What there has been is actions on
- 7 Tennessee's land that have a measurable and
- 8 predictable effect. That is often true when it
- 9 comes to water, that one can take action in one
- 10 state and have effects in another state. I
- 11 mean, all of our cases in this area are premised
- 12 on that.
- 13 So why is it any more true in this
- 14 case than in any other that there's
- 15 extraterritorial action as opposed to
- 16 extraterritorial effects?
- 17 MR. COGHLAN: Your Honor, because I
- 18 would say that there's -- the intent of pumping
- 19 is to move water and to exercise control over
- 20 the groundwater in this case. And so I come
- 21 back to the fact that it's -- it's measurable
- and predictable because that's the area over
- which states know they're going to be impacting
- and having a direct effect on the groundwater.
- 25 And, you know, what Mississippi --

- 1 what Tennessee and Defendants seem to want to
- 2 say is, well, if there was a pipe that crossed
- 3 the border and that made a physical intrusion of
- 4 space, that Mississippi would win and this case
- 5 would be different when a pipe doesn't actually
- 6 do anything to water. It's the pumping that
- 7 controls the water and causes the water to move
- 8 from one place to another. And so to say that,
- 9 well, you need to have a pipe or some sort of
- 10 physical intrusion of space for this case -- in
- 11 this exercise of control over the water to be
- 12 actionable, we think, would elevate form over
- 13 substance because they don't need a pipe to
- 14 exercise control over this groundwater.
- JUSTICE BARRETT: Okay. I have a
- 16 follow-up on Justice Kagan.
- 17 JUSTICE KAVANAUGH: Mr. Coghlan --
- JUSTICE BARRETT: I think what you're
- 19 asking -- or what she's asking you and pointing
- out is that it wouldn't work this way if we were
- 21 talking about water that was above ground. So
- 22 what is your argument -- and this is kind of
- 23 what Justice Kagan asked you at the beginning.
- 24 What is your argument for treating the
- 25 groundwater differently?

1	I mean, how much of it depends on your
2	assertion that, well, it travels interstate but
3	very slowly, it can take centuries to move from
4	Mississippi into Tennessee? I mean, is it the
5	speed at which the water moves that matters
6	here? And if so, when is it so fast that
7	actually it falls into the the aboveground
8	MR. COGHLAN: Well
9	JUSTICE BARRETT: kind of category?
10	MR. COGHLAN: Well, Your Honor, our
11	view is that this principle would apply equally
12	to groundwater, to surface water, to to other
13	types of resources. And we think that's what
14	the Court recognized in Tarrant when it
15	recognized this concept when dealing with an
16	interstate surface river that had already had
17	the remedy of apportionment applied and
18	recognizing that there was a different type of
19	injury because, in that case, Texas was seeking
20	to divert water and exercise control over it
21	while it was within Oklahoma's sovereign
22	territory.
23	So I I would posit that it does
24	it does not matter that the water here is
25	groundwater in the subsurface. The principle

2.8

- 1 should apply equally and we think the Court has
- 2 found it to apply equally with surface water in
- 3 Tarrant.
- 4 JUSTICE GORSUCH: I'd like to --
- 5 JUSTICE KAVANAUGH: Mr. Coghlan --
- 6 JUSTICE GORSUCH: Oh, go -- go ahead,
- 7 Justice Kavanaugh.
- 8 CHIEF JUSTICE ROBERTS: Justice --
- 9 Justice Kavanaugh.
- 10 JUSTICE KAVANAUGH: The amicus brief
- of eight states says that your position would
- 12 "inject dangerous uncertainty into established
- 13 systems of natural resource management and
- 14 undermine an established process to resolve
- disputes over a natural resource."
- So I just wanted to get your response
- 17 to those states which seem to suggest that your
- 18 position would cause a lot of problems in how to
- 19 manage these resources.
- 20 MR. COGHLAN: Well, Justice Kavanauqh,
- 21 the states' amicus is premised on the notion
- 22 that there is no known duty. And we would posit
- 23 there is a known duty here. The Court has
- 24 recognized it in -- in Tarrant, is that states
- 25 can only exercise control, sovereign control,

1 over a resource within their own borders. 2 So I think what we're asking to do is for the Court to just simply extend the 3 principles recognized in Tarrant to the -- to 4 the case -- which are known duties, to the case 5 6 here. 7 And I think I would respond to the western states by saying, what would happen if 8 9 Tennessee wins? And I think the danger there is 10 -- is what we're already seeing here, where you 11 have both Mississippi and Tennessee pumping on 12 each side of the border, trying to have a tug of 13 war over this groundwater at issue, unnaturally 14 draining the aguifer and damaging it when -- if 15 based on the nature of groundwater, if both 16 states pumped away from the border, neither 17 state would have any impact whatsoever on the groundwater within the -- the neighboring state. 18 19 And I think that's unique about --20 about groundwater. But -- but Tennessee could 21 have gotten all the groundwater and pumped as 2.2 much groundwater as it wanted and had zero 23 effect on the groundwater in Mississippi if it had -- if the cones of depression were not 24 25 crossing the border. And so this is an area

- 1 where it's distinct from surface water because
- 2 there isn't this natural leveling out of water
- 3 when -- when you take it out. There's only a
- 4 limited area of effect when you're pumping
- 5 groundwater outside of which there's no impact
- 6 whatsoever on the rest of the aquifer.
- 7 And I think that's another -- that's a
- 8 reason why, conceptually, equitable
- 9 apportionment may not make sense to apply to
- 10 groundwater, because it's not about the amount
- of groundwater coming out; it's purely about
- 12 where that groundwater is -- is -- is coming
- 13 from.
- But, to -- to answer your
- question directly, Justice Kavanaugh, we do not
- 16 believe that there would be the detrimental
- 17 effects that the western states complain of.
- 18 CHIEF JUSTICE ROBERTS: Counsel, I
- 19 just have one additional question. If you
- 20 prevail, then, presumably, Tennessee could bring
- 21 -- or could bring a counterclaim against you in
- those situations where your wells take water
- 23 from Tennessee, right?
- MR. COGHLAN: That is true, Your
- 25 Honor, but I --

1 CHIEF JUSTICE ROBERTS: Okay. Then --2 then, if they do, presumably, the normal thing 3 would be I'd take whatever you owe -- Tennessee owes you and whatever you owe Tennessee and set 4 it off against the other and that's what would 5 6 happen, right? 7 MR. COGHLAN: I -- it -- it could, Your Honor. I think that it would be a 8 9 motivating factor for states to come and 10 negotiate interstate contact. 11 CHIEF JUSTICE ROBERTS: Okay. So, if 12 it could, that starts to sound a lot like equitable apportionment. How is it different at 13 14 the end of the day? 15 MR. COGHLAN: Well, in the sense that 16 it would motivate states to -- to come and 17 negotiate, we think it would have -- it would have -- be similar to equitable apportionment 18 19 in -- in that respect. 20 CHIEF JUSTICE ROBERTS: Thank you. 21 Justice Thomas? 2.2 JUSTICE THOMAS: I have no further 23 questions. 24 CHIEF JUSTICE ROBERTS: Justice

25

Breyer?

1	Justice Alito? Nothing?
2	Justice Kagan?
3	Justice Gorsuch?
4	JUSTICE GORSUCH: I I do have one
5	quick question just to follow up on Justice
6	Sotomayor's line of questioning to you, counsel.
7	Suppose you fail to prevail here
8	today. I'm I'm wondering what we do next.
9	The Special Master recommended that we grant
10	leave to amend to add an equitable apportionment
11	claim. But we don't actually have a motion for
12	leave to amend before us. And we have a
13	standard that has to be met among other things,
14	whether it's a logical outgrowth of the existing
15	litigation, timeliness, as Justice Sotomayor
16	alluded to, and I'm just wondering what you
17	would have the Court do should you fail to
18	prevail?
19	MR. COGHLAN: We'd ask the Court to
20	to grant us leave to amend, and, of course, the
21	Court could
22	JUSTICE GORSUCH: Have you have you
23	moved? Have you sought to meet the standards?
24	I I I haven't seen that in the papers
25	before us.

1 MR. COGHLAN: We -- we have not yet, 2 Justice Gorsuch. 3 JUSTICE GORSUCH: So, again, what 4 would you have this Court's judgment line look like should you fail to prevail? We wouldn't 5 grant leave to amend because there's no motion 6 7 pending before us. Do we just say, as Justice 8 Sotomayor said, nothing? 9 MR. COGHLAN: Justice Gorsuch, we 10 think the Court could grant leave to amend but 11 certainly reflect the principles you -- you just 12 mentioned, that if Mississippi does not behave 13 timely or -- or does not file a -- a proper 14 motion, that the Court could obviously deny 15 that. 16 JUSTICE GORSUCH: So give you a 17 certain number of days in which to present the 18 Court with a proper motion? Is that the 19 suggestion? 20 MR. COGHLAN: I wouldn't put a specific number and obviously would defer --21 2.2 JUSTICE GORSUCH: Of course not. No -- no -- no one wants a deadline. But should --23 24 give you an opportunity within a reasonable

period of time, and we might set a deadline for

- 1 a motion. Is -- is that -- is that your
- 2 suggestion?
- 3 MR. COGHLAN: We would -- I think the
- 4 Court certainly could do that. Whatever number
- 5 the Court would feel would be reasonable, we
- 6 would act within that period.
- JUSTICE GORSUCH: Thank you very much,
- 8 counsel.
- 9 CHIEF JUSTICE ROBERTS: Justice
- 10 Kavanaugh.
- JUSTICE KAVANAUGH: Just picking up on
- 12 that, isn't your position that you want to
- 13 preserve the right to seek equitable
- 14 apportionment into the future even if you don't
- seek it now, or am I misunderstanding that?
- 16 MR. COGHLAN: I -- I think it's
- 17 both, Justice Kavanaugh. We would like the
- 18 opportunity to -- to replead in this matter, but
- 19 also, because equitable apportionment is a
- 20 prospective remedy only, we would want the
- 21 opportunity to pursue that in the future in a
- 22 new action if needed.
- JUSTICE KAVANAUGH: Thank you.
- 24 CHIEF JUSTICE ROBERTS: Justice
- 25 Barrett?

1	JUSTICE BARRETT: None.
2	CHIEF JUSTICE ROBERTS: Okay. Thank
3	you, counsel.
4	Mr. Frederick.
5	ORAL ARGUMENT OF DAVID C. FREDERICK
6	ON BEHALF OF THE DEFENDANTS
7	MR. FREDERICK: Thank you, Mr. Chief
8	Justice, and may it please the Court:
9	Tennessee has lawfully pumped
10	groundwater out of the Middle Claiborne Aquifer
11	on its side of the border for more than 130
12	years. The Special Master correctly recommended
13	dismissal of Mississippi's complaint but erred
14	in suggesting that Mississippi be freely granted
15	leave to amend.
16	First, the Equitable Apportionment
17	Doctrine provides the exclusive remedy for
18	complaints about the usage of water that flows
19	from one state into another, and the actions in
20	one's state affect interstate water flow.
21	Mississippi's claim for more than \$600 million
22	in damages, therefore, must be dismissed.
23	Mississippi's principal argument in
24	response is that the aquifer water flows slowly.
25	But this Court has never conditioned the

- 1 application of the Equitable Apportionment
- 2 Doctrine on water velocity.
- 3 Here, even Mississippi's expert
- 4 acknowledged that in predevelopment conditions,
- 5 more than 37 million gallons of water per day
- 6 flowed out of Mississippi and into adjoining
- 7 states.
- 8 Second, the Master did not consider
- 9 how this case would fundamentally change if
- 10 Mississippi were freely allowed to amend to
- 11 plead an equitable apportionment action at this
- 12 stage after disavowing an apportionment claim
- 13 for the last decade.
- Nor did the Master consider that
- 15 Mississippi can show no injury at all from
- 16 Tennessee's water withdrawals. The undisputed
- facts are the aquifer's water volume in the
- 18 greater Memphis and northern Mississippi area
- 19 has changed very little in the past 100 years.
- 20 The aguifer is fully saturated and in a state of
- 21 equilibrium, and Mississippi has increased its
- 22 own pumping dramatically and can extract all the
- 23 water it needs.
- 24 Mr. Chief Justice, I welcome the
- 25 Court's questions.

1 JUSTICE THOMAS: Mr. Frederick, 2 counsel for Mississippi says that if you simply 3 moved your pumps away from the border, all would be well. What do you make of that? 4 MR. FREDERICK: Well, two things. 5 6 There was testimony on this at the trial. 7 Dr. Sprule was asked that question and said that 8 Memphis could engage in a massive relocation, 9 and then Mississippi's other expert, Mr. Wiley, 10 said that it would have no appreciable effect on 11 the cone of depression. 12 Dr. Sprule, on cross-examination, 13 conceded that Mississippi's own pumps are closer 14 to the border than those in Tennessee, and when 15 Dr. Waldron, our expert, testified, he said that 16 that pumping was causing a reversal in the 17 change in the water flow and that Mississippi was, in fact, intercepting -- that was his words 18 19 -- water that would have flowed from Mississippi 20 to Tennessee in its natural state. 21 JUSTICE THOMAS: And you oppose 2.2 amending the complaint here to include 23 apportionment, equitable apportionment. What is

to stop Mississippi from simply filing a new

motion in this case and starting all over?

24

1 MR. FREDERICK: Nothing would stop it, 2 but Mississippi would have to meet the standards for a material change in circumstances that 3 would warrant this Court's consideration of an 4 equitable apportionment claim. 5 In the case of Colorado versus Kansas 6 7 cited in the early 1940s, this Court said that the standard was a material change in 8 circumstances. That, of course, was the 9 long-running dispute over the Arkansas River. 10 11 And what the Court said was that if 12 that material change in circumstances has not occurred, then denial of a motion for leave to 13 14 file a complaint is the appropriate disposition. 15 JUSTICE THOMAS: Thank you. 16 JUSTICE SOTOMAYOR: Mr. Frederick, you 17 claim that the equitable apportionment is the exclusive remedy. The amici law professors say 18 19 it shouldn't be, that a nuisance action could 20 also be appropriate. 21 If all they wanted was to stop you 2.2 from drawing water because the way you're 23 drawing it harmed the aguifers, which is, I 24 think, what I heard them say earlier, why 25 wouldn't a nuisance action be appropriate?

1 MR. FREDERICK: A nuisance action 2 would be appropriate if there was damage to the 3 water or if there was some issue of subsidence or other water quality. I think this Court's 4 case in City of Milwaukee is representative of a 5 6 cross-boundary tort. 7 But what they are complaining about is our usage of the water that flows in interstate 8 9 10 JUSTICE SOTOMAYOR: So it's a --11 MR. FREDERICK: -- waters. 12 JUSTICE SOTOMAYOR: -- question of how 13 they pleaded? 14 MR. FREDERICK: I think that's 15 correct. And in the nuisance context, the law 16 professors don't say exactly how you would 17 administer a nuisance claim under what they are 18 talking about. And I would point out that there 19 was evidence at the trial about the absence of 20 subsidence or any degradation of water quality. 21 We presented that in our Defendants' Proposed 2.2 Findings of Fact Numbers 246 and 47 on page 23 126A. 24 JUSTICE SOTOMAYOR: One last question. 25 What does a material change mean to you? What

- 1 would qualify?
- 2 MR. FREDERICK: I think what would
- 3 qualify is if Mississippi was able to plead
- 4 plausibly and with the suggestion that clear and
- 5 convincing evidence would follow that it was
- 6 unable to extract water, that it had to engage
- 7 in significantly increased costs in order to
- 8 pump, that it suffered a degradation in water
- 9 quality or that there was evidence of subsidence
- in the aquifer as a result of pumping.
- 11 Those would be of the type that you
- would measure their significance based on the
- 13 classic standard that you would look --
- 14 JUSTICE SOTOMAYOR: Given the way this
- 15 has been litigated, those issues have not
- 16 actually been decided by anyone.
- 17 MR. FREDERICK: They haven't been
- 18 decided, but they're --
- 19 JUSTICE SOTOMAYOR: So why should we
- even say, don't amend until there's a material
- 21 change? Because we don't even know what the
- 22 baseline is right now.
- MR. FREDERICK: Well, what you would
- 24 say is that -- and I think to your earlier
- 25 question to my friend, I think you would say

- 1 nothing. Where the Special Master erred was in
- 2 suggesting that there be a free motion to amend
- 3 without actually following through the necessary
- 4 steps, a motion satisfying of the standard for a
- 5 material change in circumstances.
- 6 And you do have cases on this, Your
- 7 Honor. Nebraska versus Wyoming, which looked at
- 8 the question of what constitutes a fundamentally
- 9 different change of character of the claim is
- 10 directly on point, as is the Colorado versus
- 11 Kansas case.
- 12 So you do have standards. It would be
- 13 Mississippi's burden, of course, to prove that
- since 2010, when this Court denied Mississippi's
- 15 complaint in the alternative for an equitable
- 16 apportionment, that circumstances had changed
- 17 sufficiently to warrant allowing it to go
- 18 forward.
- 19 JUSTICE KAGAN: Mr. Frederick, suppose
- 20 that Mississippi had an entirely intrastate lake
- that was near the Mississippi/Tennessee border
- 22 but was -- all the borders of this lake were in
- 23 Mississippi. And suppose -- and suppose that
- there was some newfangled technological way of
- 25 Tennessee helping itself to the waters of that

- 1 lake.
- Would that be an equitable
- 3 apportionment claim, or, in that case, would
- 4 Mississippi have a different kind of action?
- 5 MR. FREDERICK: I think it would have
- 6 a different kind of action. The Equitable
- 7 Apportionment Doctrine has applied to interstate
- 8 bodies of water in which there is flow, there's
- 9 natural flow. And under your hypothetical,
- 10 Justice Kagan, there would be no interstate
- 11 state character to the water.
- 12 JUSTICE KAGAN: Is -- is there such a
- thing as, when you're dealing with groundwater,
- 14 looking at groundwater and saying that it moves
- so slowly with the consequence of transferring
- 16 so little water between these states that we
- should treat it as my hypothetical rather than
- treat it in the same way as, say, an interstate
- 19 river?
- 20 MR. FREDERICK: There was no evidence
- 21 at the trial, the five-day trial, about that,
- 22 although there was a lot of questioning about
- that concept, and all of the hydrologists
- 24 acknowledged a couple of key facts for the
- 25 court.

1 One is there is no physical barrier 2 between the water in the ground under Tennessee 3 and under Mississippi. There is no distinction in the subsoil surface, the sands and the 4 composition. It is one continuous hydrological 5 6 unit. That was acknowledged by all five 7 hydrologists who testified. And so what you would be looking at 8 there, I think, is a situation that would be 9 10 quite different than the aquifer that we have 11 before us here. 12 Now, on the volume question, Justice 13 Kagan --14 JUSTICE KAGAN: I mean, maybe that 15 would be true -- you -- you started by saying, 16 oh, look, this is like 37 million, what was it, 17 37 --18 MR. FREDERICK: Thirty-seven million 19 gallons per day. 20 JUSTICE KAGAN: Right. And -- and --

Heritage Reporting Corporation

and you suggested that that's a relevant fact

such that if there weren't 37 million, if there

were 37,000 or if there were 37, we should maybe

have a different way of analyzing this question,

21

2.2

23

24

25

is that right?

1 MR. FREDERICK: I don't think so 2 because, in the interstate lake hypothetical 3 that Justice Thomas, I believe, posed, you'd still have the same kind of phenomena. Water in 4 its natural state is always going to be moving. 5 Water molecules will be moving. 6 7 Now how quickly they move ought to be irrelevant to the application of the Equitable 8 9 Apportionment Doctrine for a couple of reasons. Legally, the Court has never said that, and in 10 11 the Oregon versus Washington case, where it 12 looked at whether or not the anadromous fish -sorry, Idaho case, the anadromous fish, those 13 fish were out at the ocean for years before they 14 15 came back to spawn. 16 And the Court has also considered 17 situations where rivers have run dry for long 18 stretches of time before there's any water flow. 19 It nonetheless has held that the Equitable 20 Apportionment Doctrine applies. 21 But, on the volume point, Justice 2.2 Kagan, I think it's important to take into 23 account the size, the sheer size, of this 24 aguifer. Not only does it encompass parts of --25 it lies underneath parts of eight different

- 1 states, but the thickness of the aguifer is
- 2 huge. In parts of it, it's as much as 500 feet.
- 3 In parts under Tennessee, it goes to 1100 feet.
- 4 And so one inch of movement per day,
- 5 which is what the testimony was at trial, can
- 6 translate into tens of millions of gallons of
- 7 water per day. And, of course, if you were to
- 8 annualize that, you'd be able to cover the
- 9 entire District of Columbia in more than a foot
- of water by the amount that is moving one inch
- 11 at a time out of this aquifer.
- 12 JUSTICE GORSUCH: Mr. Frederick, our
- doctrine of equitable apportionment arises in
- the area of moving water, of rivers, and you're
- asking to extend it to groundwater, and you've
- 16 made a very strong argument for why that might
- 17 be sound.
- I -- I'm wondering what the limiting
- 19 principle is, however, and what we're buying
- 20 here. Is every aquifer in -- in the country
- 21 that might have some interstate effect now going
- 22 to be part of this Court's original
- 23 jurisdiction? Is -- is Justice Breyer's fog now
- 24 part of the Court's original jurisdiction? Is
- 25 the Chief Justice's herd of wild burros, who may

- or may not be a nuisance, part of this Court's original jurisdiction now?
- z originar jarraarooron now.
- 3 MR. FREDERICK: Well, what the Court
- 4 has held is that the Equitable Apportionment
- 5 Doctrine applies to natural resources,
- 6 principally water and, in the one case of the
- 7 fish, to the public trust doctrine.
- 8 JUSTICE GORSUCH: But so far --
- 9 MR. FREDERICK: And --
- 10 JUSTICE GORSUCH: -- it has been about
- 11 moving water and the fish. You're right. I
- 12 forgot about the fish. Okay. But that's part
- of the moving water, the salmon in the river.
- 14 And this is an extension. And I'm -- I'm --
- just analytically, what are the outer bounds of
- it? You can sell me on how it's not a big deal.
- 17 Fine, I got it. But what are the outer bounds
- 18 of this principle?
- 19 MR. FREDERICK: I think --
- 20 JUSTICE GORSUCH: Where does it end?
- 21 MR. FREDERICK: I think the outer
- 22 bounds are where this Court recognizes the
- 23 public trust doctrine to apply. In those
- 24 resources that are outside the public trust
- 25 doctrine, the Court has not applied the

```
1
      equitable apportionment principle. And so, in
 2
      those -- in those resources -- air is one of
 3
      them. Justice Holmes recognized that in the old
 4
      Illinois Central case over --
               JUSTICE GORSUCH: Right.
 5
 6
               MR. FREDERICK: -- a century ago.
 7
               JUSTICE GORSUCH: Right.
 8
               MR. FREDERICK: So, to Justice Breyer,
      you know, if there were --
 9
10
               JUSTICE GORSUCH: So the wild --
11
               MR. FREDERICK: -- such a plane --
12
               JUSTICE GORSUCH: -- the wildfires --
13
               MR. FREDERICK: -- the fog actually --
14
               JUSTICE GORSUCH: -- in California
15
     affecting Colorado, the burros -- I'm not aware
16
     of any in Mississippi, but there might be some,
17
     wild -- all of that's now part of the Court's
18
     original jurisdiction?
19
               MR. FREDERICK: Well, I -- I would say
20
      that, of course, the burden on the complaining
      state has to be a significant injury of
21
2.2
      substantial magnitude. That has been the
23
     Court's standard for over a century from Kansas
     versus Colorado. And if the burros or the fog
24
25
      created a significant injury of substantial
```

- 1 magnitude, I think it would be appropriate for
- 2 the Court to exercise its jurisdiction.
- 3 Sitting here today, I have a hard time
- 4 seeing that in the real world. But I think that
- 5 what the Court could say is that you have
- 6 extended groundwater in certain respects to
- 7 equitable apportionment cases when there has
- 8 been substantial pumping of groundwater that has
- 9 affected surface flows.
- 10 You did that in the Oregon versus
- 11 Washington case back in the 1930s, where there
- were 300 pumps of water on the Oregon side of
- 13 the boundary, and the Court said that
- Washington, nonetheless, could show no injury to
- its own irrigators because there was subsur- --
- 16 subsurface flow that was occurring.
- 17 You've held that in other cases
- involving compacts, where you've enforced
- 19 compact decrees for surface flows
- 20 notwithstanding the fact that there have been
- 21 substantial water pumping going on on either
- 22 side of the state.
- 23 And so I think that it's not that far
- of an extension to say that where Mississippi
- 25 has uniquely pleaded a claim about an aquifer,

- 1 that all the evidence showed at trial was
- 2 connected to surface streams, and, here, the
- 3 Wolf River, itself an interstate river, flows
- 4 directly into the Middle Claiborne Aquifer at a
- 5 recharge zone in the eastern part of the area
- 6 that we're talking about.
- JUSTICE BREYER: I'm still nervous
- 8 about the question that Justice Gorsuch is
- 9 asking. I mean, there's groundwater under every
- 10 state. I mean, every state will start suing
- 11 each other, except maybe Hawaii or Alaska. And
- 12 we haven't seen a lot of cases like that.
- 13 And my -- my thought then is what you
- think about is maybe it could be done, but maybe
- it's better left to compacts or to Congress.
- And should we say anything about amendment?
- 17 That's where the -- that's where we have to
- decide something here, because anything we say,
- of course, they have a right to ask to amend.
- MR. FREDERICK: Yes.
- JUSTICE BREYER: But, if we say a word
- about it, that's going to be taken as this is a
- 23 totally appropriate kind of suit, and wild
- 24 horses we worry about later, and -- and I don't
- 25 know where it's going.

MR. FREDERICK: Well, Justice Breyer, 1 2 two points in response to your question. 3 One, I think their approach spawns much more litigation than our approach. 4 Equitable apportionment is about sharing. 5 about sharing scarce resources when those 6 7 resources become scarce. It's not about money grabs because of the way that flow has been 8 affected by pumping. 9 10 And, Chief Justice, you asked about 11 Tennessee counterclaims. Dr. Waldron testified 12 that there was significant -- tens of millions of -- of gallons of water every day that was 13 flowing into Tennessee and out of Tennessee and 14 15 into Memphis and into Mississippi. 16 And so what the evidence at trial 17 would show would be that there would be 18 substantial counterclaims if that were the 19 standard. And that's why we respectfully 20 suggest it should not be the standard. 21 Now, with respect to the fact that 2.2 aguifers are under many, many states, in fact, 23 most of the states in the country, respectfully, the question ought to be is there scarcity and, 24 25 if there is scarcity, is there a doctrine that

- 1 calls for conservation, calls for historic uses,
- 2 calls for weighing the harms and benefits, calls
- 3 for prospective action that would enable the
- 4 scarce resource to be shared? And the answer is
- 5 yes.
- 6 JUSTICE BREYER: Well, maybe we should
- 7 just wait to decide that matter, which could
- 8 lead to all kinds of lawsuits, until we have to
- 9 decide it.
- MR. FREDERICK: You could, but what I
- 11 think you should say is that this is
- indisputably an interstate water resource in
- which there is flow. If there is a remedy, it
- 14 falls under the Equitable Apportionment
- 15 Doctrine. Mississippi has disclaimed an
- 16 equitable apportionment claim. Therefore, its
- 17 complaint should be dismissed. Period.
- JUSTICE BARRETT: And not specify with
- or without prejudice for leave to amend?
- 20 MR. FREDERICK: I don't --
- JUSTICE BARRETT: Just say nothing?
- 22 MR. FREDERICK: I -- I thought I just
- 23 captured what I think is the appropriate
- 24 disposition. They haven't moved to amend their
- 25 complaint. They've been very careful not to say

- 1 whether they plan to do it. Their entire gambit
- 2 here has been to get Tennessee to pay them
- 3 hundreds of millions of dollars for water that
- 4 in part they have intercepted at the boundary.
- 5 So it's not -- and they say this on
- 6 page 36 of the blue brief. They do not claim
- 7 that Tennessee is taking out more than its fair
- 8 share of the water. That's not their claim.
- 9 Their claim is that they think they
- 10 have an ownership right that entitles them to
- 11 charge Tennessee for water. And that, we think,
- the Court should say, no, that's not the correct
- 13 statement of the law.
- 14 JUSTICE KAVANAUGH: Shouldn't a
- dismissal be without prejudice to them filing an
- 16 equitable apportionment action? It would seem
- 17 extreme to me to bar them from doing so in the
- 18 future.
- MR. FREDERICK: Justice Kavanaugh, I
- 20 think that the correct disposition would be to
- 21 dismiss this complaint, their territorial
- 22 ownership claim, with prejudice. And I would
- 23 urge the Court to do that to disincentivize any
- 24 other state from seeking --
- 25 JUSTICE KAVANAUGH: What -- what --

1	MR. FREDERICK: to limit a
2	JUSTICE KAVANAUGH: Sorry to
3	interrupt. What would the effects of that be on
4	their ability to file an equitable apportionment
5	claim even if they can't show a material change
6	in circumstances?
7	MR. FREDERICK: You would address that
8	at the motion for leave to file a new complaint,
9	where they would be put to their burden to show
10	that there's been a material change and there
11	has been a significant injury of serious
12	magnitude and Tennessee would respond depending
13	on what they pleaded in their new complaint.
14	CHIEF JUSTICE ROBERTS: Mr. Frederick,
15	thank you. I've had a little trouble following
16	the science here. Is this really water we're
17	talking about? I mean
18	MR. FREDERICK: Yes.
19	CHIEF JUSTICE ROBERTS: it's
20	complete well, it's mixed up with silt and
21	small particles and all. If you you can put
22	it in your hand, right, and it would be silt?
23	It would be wet, but, until you pump it, it's
24	really not the water, right?
25	MR. FREDERICK: No, the definition of

- 1 an aquifer is a fully saturated formation,
- 2 hydrogeological formation, in which there are
- 3 usable quantities of water.
- 4 CHIEF JUSTICE ROBERTS: Yeah, yeah, I
- 5 read that, but "fully saturated" means it's
- 6 saturating something, right?
- 7 MR. FREDERICK: Yes. Sand mostly.
- 8 CHIEF JUSTICE ROBERTS: It's not like
- 9 a -- sand, okay. Someone explained to me it's
- 10 like you're in the -- the side of the shore and
- 11 you put your foot down and when you lift it up,
- it kind of fills with water in that gap, right?
- MR. FREDERICK: That is descriptive of
- 14 parts of the aquifer, yes.
- 15 CHIEF JUSTICE ROBERTS: Well, it's the
- 16 part that I could understand.
- 17 (Laughter.)
- 18 CHIEF JUSTICE ROBERTS: So -- so why
- 19 should we view it as like -- just like our
- 20 interstate water cases? I mean, it is an
- 21 unnatural operation of the pumping, separates
- out the water, and at that point, it's -- it's
- usable.
- MR. FREDERICK: For the --
- 25 CHIEF JUSTICE ROBERTS: But, before

- 1 that, you would just call it silt, and if
- 2 somebody showed you, you know, a handful of
- 3 silt, they wouldn't say, oh, that's water.
- 4 MR. FREDERICK: Well, Mr. Chief
- 5 Justice, I think you would say that it is water
- 6 because it's some of the finest water that
- 7 anyone can drink in the United States. This
- 8 artesian water is absolutely spectacular water
- 9 that they have pumped and they have run it over
- 10 filters that filter out some of the iron and
- 11 some of the other minerals, but it is very pure
- 12 water and it is delicious.
- 13 And I would urge the Court to consider
- 14 the aquifer -- just because it is -- it is mixed
- in with sediment does not distinguish what it
- 16 actually is, which is water when it is pulled
- out, and it is not a sophisticated scientific
- 18 operation to do that.
- 19 CHIEF JUSTICE ROBERTS: Thank you,
- 20 counsel.
- 21 Justice Thomas?
- JUSTICE THOMAS: No questions, Chief.
- 23 CHIEF JUSTICE ROBERTS: Justice
- 24 Breyer?
- JUSTICE BREYER: No.

1	CHIEF JUSTICE ROBERTS: Justice Alito?
2	No?
3	JUSTICE GORSUCH: Mr. Frederick, on
4	the on the question of leave to amend, just
5	to nail that down, would would you have any
6	objection to this Court simply resolving the
7	case as before us and saying that there is no
8	leave to amend currently pending before us? We
9	don't need to address it. The Special Master
10	was erroneous to the extent that he suggested
11	there was?
12	MR. FREDERICK: We that if with
13	that last part, Justice Gorsuch, we would have
14	no objection to that.
15	JUSTICE GORSUCH: Okay.
16	CHIEF JUSTICE ROBERTS: Justice
17	Kavanaugh?
18	JUSTICE KAVANAUGH: No further
19	questions.
20	CHIEF JUSTICE ROBERTS: Justice
21	Barrett?
22	JUSTICE BARRETT: I do have one
23	question following up on the Chief's question to
24	you about separating the water from the silt.
25	What if you could separate out some

- 1 other thing from the silt, like some sort of
- 2 mineral, and find some sort of way to pump it
- 3 and pull it into Tennessee? How would that
- 4 fare? Would that be subject to equitable
- 5 apportionment?
- 6 MR. FREDERICK: No, Your Honor.
- 7 Minerals have not been subjected to the
- 8 Equitable Apportionment Doctrine because they're
- 9 not covered by public trust. They are privately
- owned, usually through surface ownership rights
- 11 by personal property. Sometimes they get
- 12 severed in some states where you can own the
- 13 surface land and sever off the mineral rights.
- 14 Those would be treated separately
- 15 under well-established law.
- 16 JUSTICE BARRETT: Thank you.
- 17 CHIEF JUSTICE ROBERTS: Thank you,
- 18 counsel.
- MR. FREDERICK: Thank you.
- 20 CHIEF JUSTICE ROBERTS: Mr. Liu.
- 21 ORAL ARGUMENT OF FREDERICK LIU
- 22 FOR THE UNITED STATES, AS AMICUS CURIAE,
- 23 IN SUPPORT OF OVERRULING THE PLAINTIFF'S EXCEPTIONS
- MR. LIU: Thank you, Mr. Chief
- 25 Justice, and may it please the Court:

1 Under Mississippi's theory of this 2 case, certain groundwater belongs to Mississippi 3 simply by virtue of having passed through Mississippi's territory. 4 There's no support for such a theory. 5 Indeed, Mississippi can't point to a single 6 7 jurisdiction that has ever allocated groundwater based on such a theory. 8 This Court, when confronted with 9 disputes over the allocation of interstate 10 11 resources, has applied the Doctrine of Equitable 12 Apportionment. That doctrine represents the most sensible way of allocating an interstate 13 14 resource because it respects the equal 15 sovereignty of the states. 16 And Mississippi identifies no reason 17 why that doctrine should govern interstate 18 surface water and fish but not the groundwater 19 at issue here. Mississippi's exceptions to the 20 Special Master's report should, therefore, be 21 overruled. 2.2 I welcome the Court -- the Court's 23 questions. CHIEF JUSTICE ROBERTS: Well, counsel, 24

you say on page 18 of your brief that

- 1 Mississippi's case is indistinguishable from --
- 2 from or at least sufficiently similar to all the
- 3 Court's prior precedents because it's
- 4 groundwater that crosses across state lines and
- 5 affects the other state.
- 6 But there are a lot of other ways in
- 7 which it's distinguishable. The fact that we
- 8 were just talking about that it's however
- 9 delicious it might be when you get the silt out
- of it, it's not too good when the silt's in it
- and the fact that it's groundwater.
- 12 And I'm just wondering, this is a case
- of first impression, isn't it? You really are
- trying to move this beyond the flowing water and
- 15 the fish?
- 16 MR. LIU: Well, it -- it's true that
- 17 this Court has not addressed directly the
- 18 question of how to deal with the allocation of
- 19 water in an aguifer. Our point is that this
- 20 Court's prior precedents have identified two
- 21 characteristics of the resources at issue in
- those cases that justified the application of
- 23 the Doctrine of Equitable Apportionment.
- 24 And in this case, those two
- 25 characteristics, that is, the resource moving

- 1 naturally across state lines and the fact that
- 2 one state's use of the resource within its
- 3 borders affects the presence of the resource in
- 4 the other, those two characteristics are present
- 5 here. At least they're sufficiently similar.
- And so, while there are certainly
- 7 differences between groundwater and surface
- 8 water, those are the -- those are the two
- 9 differences that matter, and they matter
- 10 because, when those characteristics are
- 11 satisfied, that's when the Doctrine of Equitable
- 12 Apportionment makes sense.
- When those characteristics exist,
- 14 you're inevitably going to have a conflict of
- sovereign interests of, on the one hand, the
- sovereign interest of the state's right to use
- 17 the water here in Tennessee and, of course, the
- 18 sovereign -- the interests of the other
- 19 sovereign to protect its citizens from whatever
- 20 effects that use may have.
- 21 And because one state can't simply
- 22 impose its policy on the other, the Doctrine of
- 23 Equitable Apportionment does what the best we
- 24 can do, which is to treat each state as an equal
- sovereign, take account of all their interests,

- 1 put both states' bound -- both states' interests
- on the balance, and then reconcile them as best
- 3 as we can.
- 4 JUSTICE KAGAN: Mr. Liu, suppose that
- 5 instead of drilling their wells straight down,
- 6 Tennessee drilled its wells, like, on a slant --
- 7 MR. LIU: Right.
- 8 JUSTICE KAGAN: -- so that, in fact,
- 9 the wells did cross the boundary between
- 10 Tennessee and Mississippi. Is it then an
- 11 equitable apportionment claim, or, at that
- point, does Mississippi have a different kind of
- 13 action?
- MR. LIU: Well, I want to be clear
- about what we think the domain of equitable
- 16 apportionment is. We think this doctrine
- 17 applies when one state is complaining about the
- 18 other state's use of the water.
- 19 So there might still be equitable
- 20 apportionment as --
- JUSTICE KAGAN: Well, that's really
- 22 what Tennessee -- Mississippi would be
- 23 complaining about, right? Because it's drilled
- these wells and it's getting all this water.
- Let's say that the gravamen of the claim is

- 1 really exactly the same, they're taking our
- 2 water.
- 3 This -- the only thing that's
- 4 different --
- 5 MR. LIU: Right.
- 6 JUSTICE KAGAN: -- is the mechanism,
- 7 that the mechanism they've used is one that does
- 8 a physical trespass.
- 9 MR. LIU: Yeah, that -- that's
- 10 definitely a different case. And I think it's
- 11 because there's a -- an additional harm there
- 12 that I think has been understood --
- JUSTICE KAGAN: But not the harm that
- 14 anybody cares about. You know, it doesn't
- 15 matter that it's stepped an inch onto
- 16 Mississippi's land. What -- you know, what
- 17 Mississippi is complaining about is we have less
- 18 water than we used to have.
- 19 MR. LIU: Well, I -- I think it does
- 20 matter whether the -- the state is crossing the
- 21 boundary or not. That -- that isn't -- that
- 22 isn't a --
- JUSTICE KAGAN: Well --
- MR. LIU: -- circumstance --
- JUSTICE KAGAN: -- presumably, that

- 1 would be a very minimal kind of damages, this --
- 2 the crossing of the border. The damages are
- 3 going to come from the taking of the water, and
- 4 the taking of the water, let's presume in my
- 5 hypothetical, is exactly the same.
- 6 MR. LIU: If the taking of the water
- 7 is exactly the same, I think there -- the water
- 8 would still be subject to equitable
- 9 apportionment, but one very important factor in
- 10 how you import -- apportion that water might be
- 11 how the water was extracted.
- 12 Again, I just want to be clear, there
- 13 probably is room for a different kind of tort
- that's actionable because of the trespass, and
- so I'm not saying that that's -- that's somehow,
- 16 you know, not -- not as -- not an important
- 17 boundary that's literally been crossed in that
- 18 case.
- Now, my friend tries to distinguish
- this Court's equitable apportionment cases from
- this case on a number of grounds, but I don't
- 22 think any of those grounds suffices. One of the
- things my friend said was: Well, in this case,
- we have an exercise of Mississippi's sovereign
- authority. But, of course, that's going to be

- true in all of this Court's equitable
- 2 apportionment cases. There's always going to
- 3 be, for example, an upstream state that's
- 4 exercising sovereign authority over the water
- 5 before it passes on to another state.
- 6 My friend mentioned this unnatural
- 7 effect of -- of -- of how the water is moving
- 8 from Mississippi to Tennessee. But in all of
- 9 these cases, what you're going to have is some
- 10 human intervention that extracts the resource
- 11 from its natural state, whether it's the
- 12 fishermen in Idaho v. Oregon or the irrigators
- in Kansas versus Colorado. Here it's the wells
- in Tennessee. So that -- that doesn't really
- 15 distinguish this case.
- The mechanism by which the water is
- moving across, that's not different in this
- 18 case, either. In all of these cases, the effect
- 19 that one state has on the other, the mechanism
- 20 is through the agency of natural laws.
- 21 So in the case of a stream, it's --
- 22 it's just simple laws of physics that if you
- take water out of a stream, there's going to be
- less water downstream. Here it's really no
- 25 different.

1 I mean, the -- the experts have put a 2 fancy name on what a cone of depression is, but 3 anyone who has ever removed water from a vessel knows that when you remove the water, more water 4 is going to flow to where you removed it. 5 -- and that's -- that's simply what's happening 6 7 here. The one thing my friend also mentioned 8 9 was the -- the pace of the movement. But the 10 fact that it's moving slowly doesn't change the 11 fact that what we have here is a single 12 continuous resource that moves across state 13 lines. 14 And, as Mr. Frederick emphasized, that 15 movement is hardly trivial. We're talking 16 millions and millions of gallons per day. 17 Compare that to the river at issue in Kansas 18 versus Colorado. There the Court noted that the 19 flow of the river varied during certain parts of 20 the year and, in even some of the year, ran 21 totally dry. 2.2 And the Court said, well, that doesn't 23 really matter. What matters is that we're 24 talking about a single continuous river that 25 flows from Kansas to Colorado -- I'm sorry, from

- 1 Colorado to Kansas. And here we're talking
- 2 about a single continuous aquifer that -- that
- 3 exists underneath eight different states,
- 4 including Mississippi and Tennessee.
- 5 Justice Kavanaugh asked about the
- 6 uncertainty that might exist if this Court
- 7 adopted Tennessee and our view of the case. I
- 8 think it's -- it's quite the opposite, that the
- 9 approach that Mississippi is advocating is
- 10 unprecedented.
- 11 This -- this might be a new issue,
- 12 Mr. Chief Justice, that this Court is
- addressing, but the allocation of groundwater is
- an issue that's resolved intrastate every day of
- 15 the week. We -- we have state courts that look
- 16 at, well, how do we allocate groundwater between
- one owner or the other? And the way they do it
- isn't the way Mississippi wants you to do it.
- No one -- no one pulls up water from a
- 20 well and then says, well, some of this -- some
- of these molecules came under the landowner's
- 22 property; I have to -- I have to put those back
- 23 in the water. No, all -- all these
- 24 jurisdictions apply some sort of equitable
- 25 principle where they share the water that's

- 1 underneath them.
- 2 So I think the upheaval would come not
- 3 from adopting our approach, which is continuous
- 4 with not only this Court's equitable
- 5 apportionment precedents but also how states
- 6 deal with this issue, but rather in adopting my
- 7 friend from Mississippi's position.
- 8 JUSTICE KAVANAUGH: Mr. Liu?
- 9 MR. LIU: Yes.
- 10 JUSTICE KAVANAUGH: The final sentence
- of your brief says that the complaint should be
- 12 dismissed. Should that dismissal be with
- 13 prejudice or without prejudice?
- MR. LIU: Well, Justice Kavanaugh, we
- did not file an amicus brief on Tennessee's
- 16 exceptions to that part of the Special Master's
- 17 report. And so we don't take any position on
- 18 that issue. We view that as principally a
- 19 dispute between these specific parties.
- I will say, though, that Mississippi
- 21 has gotten a number of chances already to seek
- 22 an equitable apportionment claim. They -- they
- 23 filed a complaint in 2009. They filed the
- instant complaint in 2014.
- In neither complaint have they made

- 1 any real effort to plead an equitable
- 2 apportionment claim. And so we would simply ask
- 3 this Court that if it does allow leave to amend
- 4 in this instance, that it at least allow those
- 5 new allegations to be subject and tested to a
- 6 prompt motion to dismiss or motion for judgment
- 7 of the -- on the pleadings, just in case we
- 8 don't need any lengthy discovery or evidentiary
- 9 hearing to -- to resolve that.
- JUSTICE KAVANAUGH: Well, they -- they
- 11 presumably didn't raise that because they didn't
- 12 think that was the right box, analytical box,
- for this kind of dispute. But if we say that,
- in fact, equitable apportionment is the right
- 15 categorization, why should they be precluded
- 16 from then seeking an equitable apportionment
- 17 remedy as a matter of basic fairness?
- 18 MR. LIU: I -- I think whether this
- 19 Court gives them a chance to seek that
- opportunity, basically it comes down to whether
- 21 this Court thinks enough is enough or whether
- they've already had a chance to do so. We don't
- have a position on whether Mississippi is given
- 24 that opportunity.
- Our only point is that if they are

- 1 given that opportunity, that we -- we -- that
- 2 this Court allow those allegations to be tested
- 3 promptly because, at least so far, the
- 4 allegations we've seen with respect to injury,
- 5 which is a threshold requirement of equitable
- 6 apportionment, haven't -- haven't been
- 7 sufficient.
- 8 Justice Gorsuch mentioned a concern
- 9 about opening the doors of this Court's original
- 10 jurisdiction. I think one of the -- one of the
- 11 underpinnings of this Court's original
- 12 jurisdiction docket has been this threshold
- 13 requirement of injury. This Court has -- has
- 14 consistently required that the complaining state
- show an injury of serious magnitude that would
- justify invoking this Court's extraordinary
- authority to compel one sovereign to -- to stop
- 18 what it's doing.
- 19 And I -- I -- I think here, again, our
- 20 proposal would leave that injury requirement in
- 21 place. And so that injury requirement would
- 22 filter out many of the cases that simply don't
- 23 have merit.
- I think another problem with
- 25 Mississippi's approach is that they have no

- 1 injury requirement. Mississippi has not really
- 2 tried to show injury here. They've simply tried
- 3 to show that certain molecules took a certain
- 4 path through the water from Mississippi to
- 5 Tennessee. And every state that sits on top of
- 6 an interstate aquifer and that drills wells is
- 7 going to inevitably create a cone of depression
- 8 and you're going to have these claims
- 9 available --
- 10 JUSTICE GORSUCH: But -- but why
- 11 doesn't that suffice to state a harm in -- in at
- 12 least an Article III type sense, that the less
- water available to Mississippi necessarily
- impairs its natural resources and, therefore,
- its ability to attract businesses and
- 16 residential units in the future, and maybe it
- doesn't need it today but it's -- it's in the
- 18 bank for -- for the state's future and future
- 19 generations?
- MR. LIU: Well, we -- we're certainly
- 21 not challenging Mississippi's Article III
- 22 standing in this case.
- JUSTICE GORSUCH: Yeah, but you're
- 24 saying an -- an injury. So why isn't that an
- 25 injury? Or just an injury in the sense of -- of

- 1 the aesthetic pleasure of knowing and certainty
- 2 that your natural resources are preserved for
- 3 future generations?
- 4 MR. LIU: And -- and I think, Justice
- 5 Gorsuch, when this Court is properly presented
- 6 with an equitable apportionment claim, the Court
- 7 would have the opportunity to discuss what sorts
- 8 of injuries in this context suffice --
- JUSTICE GORSUCH: You're selling us on
- 10 injury as being a filtering device, no pun
- 11 intended, right?
- 12 MR. LIU: No pun intended.
- JUSTICE GORSUCH: No pun intended.
- 14 But -- but now you're saying that will have to
- be sorted out in the future. Is that what I'm
- 16 hearing?
- 17 MR. LIU: Well, I think, at the -- at
- a minimum, the injury can't be injury to their
- 19 right of ownership or sovereign control over the
- 20 --
- JUSTICE GORSUCH: But if --
- MR. LIU: -- resources.
- JUSTICE GORSUCH: Again, I can just --
- 24 I can transplant that. Instead of ownership, if
- you don't like ownership, how about parens

- 1 patriae and the protection of natural resources
- 2 for future generations? Do you like that?
- 3 MR. LIU: Well, I think they could get
- 4 in the door, but then the question is whether --
- 5 JUSTICE GORSUCH: That gets them in
- 6 the door but ownership doesn't?
- 7 MR. LIU: Ownership doesn't because
- 8 that -- that's -- that's simply a legal right
- 9 that doesn't exist. And I think even today
- 10 Mississippi conceded that they're not claiming
- absolute ownership over this resource.
- 12 Their -- their point in invoking
- sovereign authority in ownership is to sort of
- 14 justify a legal theory that -- that -- that
- would in turn justify the 615 million dollar in
- 16 damages they're seeking.
- 17 And my only point is it didn't take
- 18 much for them to be able to allege that claim.
- 19 And it's not going to take much for other states
- 20 either because these cones of depression are the
- inevitable consequence of any well use over an
- 22 interstate aquifer.
- 23 And there's nothing stopping
- 24 Tennessee, if Mississippi's theory is upheld,
- 25 from bringing the very next suit. So --

1	JUSTICE GORSUCH: So it sounds to me				
2	like the government thinks that it should be				
3	equitable apportionment because that's a better				
4	doctrinal fit, but that Mississippi very likely				
5	has a claim it can state?				
6	MR. LIU: I I I doubt that				
7	Mississippi has a claim it can state. If you				
8	look at our limitation brief that we filed whe				
9	when when when Mississippi originally				
10	filed the complaint, we looked at the				
11	allegations and said in that brief that the				
12	allegations were not sufficient enough to t				
13	plead a sufficiently serious injury.				
14	Now, it may well be that Mississippi				
15	has injuries now they would like to plead.				
16	Granted, they weren't trying to plead				
17	inequitable apportionment claim in 2014. But				
18	the allegations we've seen have not sufficed.				
19	CHIEF JUSTICE ROBERTS: Thank you,				
20	counsel.				
21	Justice Thomas?				
22	JUSTICE THOMAS: No questions.				
23	CHIEF JUSTICE ROBERTS: Justice				
24	Breyer? Justice Alito?				
25	Justice Kavanaugh, any further				

1 questions? 2 JUSTICE KAVANAUGH: No further 3 questions. 4 CHIEF JUSTICE ROBERTS: And Justice 5 Barrett? No? Thank you, counsel. 6 7 Mr. Frederick, you have rebuttal? I'm sorry, Mr. Coghlan, do you have rebuttal? Thank 8 9 you. 10 REBUTTAL REBUTTAL ARGUMENT OF 11 JOHN V. COGHLAN, ESQ. 12 ON BEHALF OF THE PLAINTIFF 13 MR. COGHLAN: Thank you, Mr. Chief 14 Justice. Just briefly a few points. 15 On the suggestion that Mississippi 16 does not have the ability to -- to show a real 17 and substantial injury, we -- we certainly 18 dispute that. 19 And the core injury which we pled from the beginning, I think, is an injury to 20 21 Mississippi's sovereignty. That's the -- the 22 core injury, the fact that Tennessee is acting 23 extraterritorially and usurping Mississippi's exclusive sovereign control over the groundwater 24

within its borders. We think that in of itself

- 1 is a sufficient injury as recognized in -- in
- 2 Tarrant.
- But we have others. It's certainly
- 4 the case that Mississippi's -- the cost of
- 5 Mississippi to access the groundwater has
- 6 increased. Dr. Sprule, Mississippi's expert,
- 7 talks about this in the hearing transcript at
- 8 pages 212 to 214, that there's greater cost
- 9 because the water levels of dropped as a result
- of this pumping. So while they may in theory be
- able to get the same amount of water as Mr.
- 12 Frederick said, that comes at a greater cost.
- More importantly, there's a suggestion
- 14 that there's no indication that there's any harm
- 15 to the water. The record evidence suggests
- 16 otherwise, too. Defendants acknowledge at
- 17 page -- or, excuse me, defense finding of fact
- 18 156 that their pumping is draining an overlying
- 19 superficial aquifer and both the U.S. Geological
- 20 Survey and Mississippi's expert, Dr. Sprule,
- 21 have testified that that's pulling contaminants
- down into the aquifer at issue here which is
- where both states get their drinking water from.
- So we think that's a real and
- 25 substantial injury. And these issues have not

- 1 fully been explored because of the way the
- 2 Special Master set up the proceedings.
- 3 Mississippi did not have a chance to fully build
- 4 a record on these points but we do think that
- 5 there's sufficient evidence there.
- 6 Justice Kagan, you asked whether the
- 7 case would be different if some of these wells
- 8 physically intruded by an inch across the
- 9 border. And I think your question demonstrates
- 10 why that shouldn't matter because even if it is
- 11 an inch but all the damage and the injuries that
- 12 -- is the same, it really kind of elevates form
- over -- over -- over substance.
- 14 And I turn back to Tarrant. Tarrant
- did not talk about there being a physical
- 16 violation or invasion of space. Tarrant talked
- 17 about a proposed diversion of water and
- 18 exercising control over the water in that case.
- 19 And I think that's where the injury
- 20 was considered there. And that's where the
- 21 injury is here, that Tennessee is exercising
- 22 control over groundwater while it was within
- 23 Mississippi.
- 24 And just -- just finally, if the
- 25 Court, you know, wants to consider applying

- 1 equitable apportionment to groundwater, which we
- don't think it needs to answer that question to
- 3 rule in Mississippi's favor, I would contend it
- 4 doesn't solve the problem because of the nature
- 5 of groundwater.
- 6 Extracting groundwater has a very
- 7 limited area of effect so you can't just
- 8 apportion it and say each state gets a certain
- 9 amount of water. Tennessee gets 5 billion
- 10 gallons and Mississippi gets 5 billion gallons.
- 11 Wherever that water is coming from and
- 12 specifically with relation to the border matters
- 13 because Tennessee as we've said could get all
- 14 the groundwater it wants, could pump as much as
- it wants and have no impact whatsoever on the
- 16 Mississippi because of the nature of
- 17 groundwater.
- 18 So I think simply apportioning it
- 19 without taking into consideration the border
- 20 will not solve the problem. And that's why we
- 21 contend that's what the -- this is a different
- 22 injury and -- and -- and requires a different
- 23 remedy.
- 24 And so ultimately we think Tarrant
- 25 addresses the case that we have here. We don't

т	CIIIIIN CIIC	court needs to pave a new new raw		
2	to to rule in Mississippi's favor.			
3		We believe they just need to extend		
4	the principles recognized in Tarrant to the case			
5	here.			
6		Thank you.		
7		CHIEF JUSTICE ROBERTS: Thank you,		
8	counsel.	The case is submitted.		
9		(Whereupon, at 11:13 a.m., the case		
10	was submitted.)			
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

	Official - Subjec		
\$	absolutely [1] 55:8	amend [18] 16:18 18:11,12 32:10,	argue [1] 8:3
\$600 [1] <b>35</b> :21	access [2] 13:8 75:5	12,20 <b>33:</b> 6,10 <b>35:</b> 15 <b>36:</b> 10 <b>40:</b> 20	arguing [1] 9:22
· <del></del>	account [2] 44:23 60:25	<b>41</b> :2 <b>49</b> :19 <b>51</b> :19,24 <b>56</b> :4,8 <b>68</b> :3	argument [19] 1:16 3:2,5,8,13 4:
1	acknowledge [3] 7:13,20 75:16	amending [2] 17:8 37:22	10,22 <b>5</b> :1 <b>8</b> :15,17 <b>9</b> :3 <b>10</b> :3 <b>26</b> :22,
<b>10:00</b> [2] <b>1:</b> 17 <b>4:</b> 2	acknowledged [3] 36:4 42:24 43:	amendment [1] 49:16	24 <b>35</b> :5,23 <b>45</b> :16 <b>57</b> :21 <b>74</b> :10
<b>100</b> [1] <b>36:</b> 19	6	amici [1] 38:18	arises [1] 45:13
<b>11:13</b> [1] <b>78:</b> 9	across [12] 6:11 7:4,10 11:7,13 24:	· ·	Arkansas [2] 8:16 38:10
<b>1100</b> [1] <b>45:</b> 3	11,13 <b>59</b> :4 <b>60</b> :1 <b>64</b> :17 <b>65</b> :12 <b>76</b> :8	22 67:15	Army [1] 4:16
11th [1] 4:20	act [1] 34:6	among [1] 32:13	around [2] 19:12 23:22
<b>126A</b> [1] <b>39:</b> 23	acting 8 10:9 13:19 14:3,24 20:	amount 5 23:2 30:10 45:10 75:	artesian [1] 55:8 Article [2] 70:12,21
<b>130</b> [1] <b>35</b> :11	action [14] 16:3 25:4,9,15 34:22	11 77:9   anadromous [2] 44:12,13	aside [3] 10:18 11:13 18:15
<b>143</b> [1] <b>4:</b> 23	<b>36</b> :11 <b>38</b> :19,25 <b>39</b> :1 <b>42</b> :4,6 <b>51</b> :3	analytical [1] 68:12	assertion [1] 27:2
<b>156</b> [1] <b>75</b> :18	<b>52:</b> 16 <b>61:</b> 13	analytically [1] 46:15	Assistant [1] 2:7
<b>16</b> [1] <b>16:</b> 22	actionable [3] 9:5 26:12 63:14	analyzing [1] 43:24	assume [1] 13:1
<b>18</b> [1] <b>58:</b> 25	actions [2] 25:6 35:19	announce [1] 4:4	assuming [2] 17:9 18:11
1930s [1] 48:11	actually [7] 26:5 27:7 32:11 40:16	annualize [1] 45:8	assumption [1] 17:13
1940s [1] 38:7	<b>41</b> :3 <b>47</b> :13 <b>55</b> :16	another [10] 5:23 9:5 14:17 23:11	attention [1] 16:17
1960s [1] 6:4	add [1] 32:10	<b>25</b> :10 <b>26</b> :8 <b>30</b> :7 <b>35</b> :19 <b>64</b> :5 <b>69</b> :24	attract [1] 70:15
2	addition [1] 9:25	answer [6] 6:23 20:16 21:3 30:14	authority [4] 63:25 64:4 69:17 72:
<b>2009</b> [1] <b>67:</b> 23	additional [2] 30:19 62:11	51:4 77:2	13
<b>2010</b> [2] <b>17</b> :2 <b>41</b> :14	address [3] 11:3 53:7 56:9	answered [1] 5:15	available 3 18:24 70:9,13
<b>2014</b> [3] <b>6</b> :9 <b>67</b> :24 <b>73</b> :17	addressed [1] 59:17	answers [1] 19:6	aware [1] 47:15
<b>2020</b> [1] <b>4:</b> 5	addresses [2] 10:8 77:25	anybody [1] 62:14	away [2] 29:16 37:3
<b>2021</b> [2] <b>1:</b> 13 <b>4:</b> 7	addressing [1] 66:13	apologize [1] 21:14	В
<b>21</b> [1] <b>4</b> :21	adjoining [1] 36:6	APPEARANCES [1] 2:1	
<b>212</b> [1] <b>75:</b> 8	administer [1] 39:17	application (য় 36:1 44:8 59:22	back [9] 9:7 21:6 22:6 23:1 25:21
<b>214</b> [1] <b>75:</b> 8	admission [1] 6:14	applied [4] 27:17 42:7 46:25 58:11	<b>44</b> :15 <b>48</b> :11 <b>66</b> :22 <b>76</b> :14 balance [1] <b>61</b> :2
<b>246</b> [1] <b>39:</b> 22	admit [2] 7:9 10:19	applies (3 44:20 46:5 61:17	bank [1] 70:18
3	admitted [1] 13:17	apply [8] 10:23 11:4 27:11 28:1,2	bar [1] 52:17
<b>300</b> [1] <b>48</b> :12	adopted [1] 66:7	30:9 46:23 66:24	BARRETT [11] 26:15,18 27:9 34:
<b>35</b> [1] <b>3</b> :7	adopting [2] 67:3,6	applying [1] 76:25	25 <b>35</b> :1 <b>51</b> :18,21 <b>56</b> :21,22 <b>57</b> :16
<b>36</b> [1] <b>52</b> :6	Advocate [1] 4:19	apportion [2] 63:10 77:8	<b>74:</b> 5
<b>37</b> [5] <b>36</b> :5 <b>43</b> :16,17,22,23	advocating [1] 66:9	apportioned [2] 5:19 10:6	barrier [1] 43:1
<b>37,000</b> [1] <b>43</b> :23	affect [2] 24:24 35:20	apportioning [1] 77:18 apportionment [70] 5:6 9:23 10:7,	based [5] 10:25 17:23 29:15 40:12
	affected [2] 48:9 50:9	20,23 <b>11</b> :4,22 <b>12</b> :2 <b>14</b> :18,22 <b>17</b> :1,	<b>58</b> :8
4	affecting [1] 47:15	6,9,17 <b>18</b> :16,24 <b>20</b> :9 <b>22</b> :13,20 <b>27</b> :	baseline [1] 40:22
<b>4</b> [1] <b>1</b> :13	affects [2] 59:5 60:3	17 <b>30</b> :9 <b>31</b> :13,18 <b>32</b> :10 <b>34</b> :14,19	basic [1] 68:17
<b>400</b> [1] <b>6</b> :10	agency [1] 64:20	<b>35</b> :16 <b>36</b> :1,11,12 <b>37</b> :23,23 <b>38</b> :5,	basically [1] 68:20
<b>47</b> [1] <b>39</b> :22	ago [1] 47:6	17 <b>41</b> :16 <b>42</b> :3,7 <b>44</b> :9,20 <b>45</b> :13 <b>46</b> :	beautiful (3) 23:14,16,17
5	ahead [1] 28:6	4 <b>47</b> :1 <b>48</b> :7 <b>50</b> :5 <b>51</b> :14,16 <b>52</b> :16	become [1] 50:7
<b>5</b> [3] <b>3</b> :4 <b>77</b> :9,10	air [2] 23:17 47:2	<b>53</b> :4 <b>57</b> :5,8 <b>58</b> :12 <b>59</b> :23 <b>60</b> :12,23	begin [1] 4:8
<b>500</b> [1] <b>45</b> :2	airplane [1] 23:15	<b>61</b> :11,16,20 <b>63</b> :9,20 <b>64</b> :2 <b>67</b> :5,22	beginning [2] 26:23 74:20
<b>57</b> [1] <b>3</b> :9	Alaska [1] 49:11	<b>68:</b> 2,14,16 <b>69:</b> 6 <b>71:</b> 6 <b>73:</b> 3,17 <b>77:</b> 1	begs [1] 18:19
6	Alito [3] 32:1 56:1 73:24	appreciable [1] 37:10	behalf 9 2:4,6 3:4,7,15 4:4 5:2 35
	allegations [6] <b>68</b> :5 <b>69</b> :2,4 <b>73</b> :11,	approach [5] 50:3,4 66:9 67:3 69:	6 74:12 behave [1] 33:12
<b>6<u>15</u></b> [1] <b>72</b> :15	12,18	25	believe [4] 8:21 30:16 44:3 78:3
7	allege [1] <b>72:</b> 18	appropriate [8] 15:25 38:14,20,25	belongs [1] 58:2
<b>74</b> [1] <b>3</b> :15	allocate [1] 66:16	<b>39</b> :2 <b>48</b> :1 <b>49</b> :23 <b>51</b> :23	benefits [1] 51:2
	allocated [1] 58:7	appropriately [1] 20:22	best [2] 60:23 61:2
A	allocating [1] 58:13	aquifer [28] 6:15,17,21,23 7:24 11:	better [2] 49:15 73:3
<b>a.m</b> [3] <b>1:</b> 17 <b>4:</b> 2 <b>78:</b> 9	allocation [3] 58:10 59:18 66:13	15 <b>29</b> :14 <b>30</b> :6 <b>35</b> :10,24 <b>36</b> :20 <b>40</b> :	between [8] 21:7,11 42:16 43:2
ability [3] 53:4 70:15 74:16	allow [3] 68:3,4 69:2	10 43:10 44:24 45:1,11,20 48:25	<b>60</b> :7 <b>61</b> :9 <b>66</b> :16 <b>67</b> :19
able [5] 18:1 40:3 45:8 72:18 75:	allowed [1] 36:10	<b>49</b> :4 <b>54</b> :1,14 <b>55</b> :14 <b>59</b> :19 <b>66</b> :2 <b>70</b> :	beyond [4] 10:15 11:10 12:6 59:14
11	allowing [1] 41:17 alluded [1] 32:16	6 <b>72</b> :22 <b>75</b> :19,22 aquifer's [1] <b>36</b> :17	big [1] 46:16
above [1] 26:21	alluded [1] 32:16	aquifers 4 11:25 19:7 38:23 50:	billion । वि:11 77:9,10
above-entitled [1] 1:15	already 6 5:18 10:6 27:16 29:10	22	blue [1] <b>52</b> :6
aboveground [1] 27:7	67:21 68:22	area [13] 8:13 9:17 14:6,7 15:10 25:	bodies [1] 42:8
absence [2] 11:14 39:19	alternative [1] 41:15	11,22 <b>29</b> :25 <b>30</b> :4 <b>36</b> :18 <b>45</b> :14 <b>49</b> :	border [27] 6:8,12 7:4,10,23 9:9,17
absent [1] 5:24	although [1] 42:22	5 <b>77</b> :7	<b>10</b> :14,15 <b>11</b> :7,13,18 <b>15</b> :9 <b>24</b> :11,
3060HITO 1/17/1/1/17/14	· WINIVAMII (*) T£144		

although [1] 42:22

absolute [2] 24:4 72:11

13 **26:**3 **29:**12,16,25 **35:**11 **37:**3,

14 41:21 63:2 76:9 77:12.19 borders [10] 10:10,12 13:20 14:3 22:16 24:7 29:1 41:22 60:3 74:25 both [8] 16:25 29:11,15 34:17 61:1. 1 75:19.23 bound [1] 61:1 boundaries [1] 12:6 boundary [5] 48:13 52:4 61:9 62: 21 63 17 bounds [3] 46:15.17.22 box [2] 68:12.12 BREYER [12] 22:22 23:8 24:1 31: 25 **47**:8 **49**:7.21 **50**:1 **51**:6 **55**:24. 25 73:24 Brever's [1] 45:23 brief [7] 28:10 52:6 58:25 67:11,15 73.8 11 briefly [1] 74:14 bring [2] 30:20,21 bringing [1] 72:25 build [1] 76:3 built [1] 15:18 burden [3] 41:13 47:20 53:9 burros [3] 45:25 47:15.24 burrows [1] 19:11

**businesses** [1] **70**:15

California [1] 47:14

buying [1] 45:19

call [1] 55:1 calls [4] 51:1,1,2,2 came [4] 1:15 23:15 44:15 66:21 cannot [1] 7:3 capture [1] 21:15 captured [1] 51:23 care [1] 20:4 careful [1] 51:25 cares [1] 62:14 Case [54] 4:23 5:11 6:18 7:15 8:24 9:24 10:8 13:21 14:20 16:22 17: 10 18:8.17 22:19 25:14.20 26:4. 10 27:19 29:5,5 36:9 37:25 38:6 39:5 41:11 42:3 44:11,13 46:6 47: 4 **48**:11 **56**:7 **58**:2 **59**:1,12,24 **62**: 10 63:18,21,23 64:15,18,21 66:7 68:7 70:22 75:4 76:7,18 77:25 78: 4,8,9 cases [20] 9:2 10:18,19 14:22 17: 17 **22**:13.21 **23**:9 **25**:11 **41**:6 **48**:7. 17 49:12 54:20 59:22 63:20 64:2. 9.18 69:22 categorization [1] 68:15 category [1] 27:9 cause [1] 28:18 causes [1] 26:7 causing [2] 8:18 37:16 Central [1] 47:4 centuries [1] 27:3 century [2] 47:6,23 certain [7] 33:17 48:6 58:2 65:19 70:3.3 77:8 certainly [10] 7:20 8:19,23 20:21

**33**:11 **34**:4 **60**:6 **70**:20 **74**:17 **75**:3 Compare [1] 65:17 certainty [1] 71:1 certified [1] 4:12 challenging [1] 70:21 chance [3] 68:19,22 76:3 chances [1] 67:21 change [12] 36:9 37:17 38:3,8,12 **39**:25 **40**:21 **41**:5,9 **53**:5,10 **65**:10 changed [2] 36:19 41:16 changing [1] 7:23 character [2] 41:9 42:11 characteristics [5] 59:21.25 60:4. charge [1] 52:11 CHIEF [58] 4:3,18 5:3 9:21 10:2,17 11:9,12,20 19:5,24 20:3,15 21:1,5, 13,17,19 22:1,7 24:12 28:8 30:18 **31**:1,11,20,24 **34**:9,24 **35**:2,7 **36**: 24 **45**:25 **50**:10 **53**:14,19 **54**:4,8, 15,18,25 55:4,19,22,23 56:1,16,20 **57**:17,20,24 **58**:24 **66**:12 **73**:19,23 74:4 13 78:7 Chief's [1] 56:23 Circuit [2] 16:23.24 circumstance [1] 62:24 circumstances [6] 38:3,9,12 41:5, 16 53:6 cite [1] 7:15 cited [1] 38:7 citizens [1] 60:19 CITY [2] 1:6 39:5 Claiborne [3] 6:21 35:10 49:4 claim [26] 5:9 17:5 32:11 35:21 36: 12 38:5.17 39:17 41:9 42:3 48:25 **51**:16 **52**:6,8,9,22 **53**:5 **61**:11,25 67:22 68:2 71:6 72:18 73:5,7,17 claiming [2] 24:2 72:10 claims [1] 70:8 classic [1] 40:13 clear [3] 40:4 61:14 63:12 clerk [1] 4:13 closed [1] 4:6 closer [1] 37:13 COGHLAN [60] 2:3 3:3,14 4:25 5: 1,3 **7**:12,18 **8**:5,19 **9**:6 **10**:2,21 **11**: 10.17,24 12:11,15,19,21,25 13:3,9, 12 **14**:1.10.19 **15**:24 **17**:11.15 **18**: 14 22 **19**:24 **20**:15 **21**:4 13 18 24 22:3.9 23:7 24:1 25:17 26:17 27:8. 10 28:5.20 30:24 31:7.15 32:19 33:1.9.20 34:3.16 74:8.11.13 Colonel [1] 4:17 Colorado [9] 23:16 38:6 41:10 47: 15,24 **64**:13 **65**:18,25 **66**:1 Columbia [1] 45:9 come [6] 17:2 25:20 31:9,16 63:3 comes [4] 9:22 25:9 68:20 75:12

coming [3] 30:11.12 77:11

compacts [2] 48:18 49:15

commenced [1] 4:21

compact [1] 48:19

compel [1] 69:17 complain [2] 7:8 30:17 complaining [6] 39:7 47:20 61:17, 23 62:17 69:14 complaint [15] 6:10 35:13 37:22 **38**:14 **41**:15 **51**:17,25 **52**:21 **53**:8, 13 67:11.23.24.25 73:10 complaints [1] 35:18 complete [1] 53:20 completely [1] 15:19 composition [1] 43:5 concede [2] 11:14.17 conceded [2] 37:13 72:10 conceding [2] 12:13,16 concept [4] 10:24 19:7 27:15 42: conceptually [1] 30:8 concern [1] 69:8 conclusion [1] 5:6 conclusions [1] 6:20 conditioned [1] 35:25 conditions [1] 36:4 cone [3] 37:11 65:2 70:7 cones [3] 8:10 29:24 72:20 conflict [1] 60:14 confronted [1] 58:9 Congress [2] 20:21 49:15 connected [1] 49:2 consequence [2] 42:15 72:21 conservation [1] 51:1 consider [4] 36:8.14 55:13 76:25 consideration [2] 38:4 77:19 considered [2] 44:16 76:20 considering [1] 5:17 consistently [1] 69:14 constitutes [1] 41:8 Constitution [1] 7:3 contact [1] 31:10 contaminants [2] 6:17 75:21 contend [3] 9:12 77:3.21 context [2] 39:15 71:8 continues [1] 18:2 continuous [5] 43:5 65:12,24 66: control [40] 5:13 6:25 8:12.22 9:11 13.18 10:14 11:8 12:5.8 13:13 15: 12.13 **16:**7.10.15 **17:**22 **19:**7.8.22. 25 **20:**2.18.20.24 **24:**5.15.16.25 **25**: 19 26:11,14 27:20 28:25,25 71:19 74:24 76:18.22 controllable [3] 8:11 14:7,12 controlling [1] 8:8 controls [1] 26:7 convened [1] 4:7 convincing [1] 40:5 core [2] 74:19.22 correct [8] 7:11 12:14,20,21,25 39: 15 **52**:12.20 correctly [1] 35:12 cost [4] 6:12 75:4 8 12 costs [1] 40:7

Couldn't [3] 8:3.14.16 counsel [14] 7:7 9:21 19:5 30:18 32:6 34:8 35:3 37:2 55:20 57:18 **58**:24 **73**:20 **74**:6 **78**:8 counterclaim [1] 30:21 counterclaims [2] 50:11,18 country [2] 45:20 50:23 couple [2] 42:24 44:9 course [9] 32:20 33:22 38:9 41:13 45:7 47:20 49:19 60:17 63:25 COURT [64] 1:1.16 4:4.5.11.15 5:4. 5.15.19.22 **11:**2 **12:**3 **16:**24.24 **18:** 22 20:22 27:14 28:1.23 29:3 32: 17,19,21 33:10,14,18 34:4,5 35:8, 25 38:7,11 41:14 42:25 44:10,16 **46**:3,22,25 **48**:2,5,13 **52**:12,23 **55**: 13 **56**:6 **57**:25 **58**:9,22 **59**:17 **65**: 18,22 66:6,12 68:3,19,21 69:2,13 71:5.6 76:25 78:1 Court's [23] 4:20 7:6 14:21 22:13, 20 33:4 36:25 38:4 39:4 45:22.24 **46**:1 **47**:17.23 **58**:22 **59**:3.20 **63**: 20 64:1 67:4 69:9 11 16 courts [2] 16:25 66:15 cover [1] 45:8 covered [1] 57:9 create [2] 8:9 70:7 created [1] 47:25 creating [4] 9:15 14:5 15:9 16:2 cross [1] 61:9 cross-border [2] 7:17,19 cross-boundary [1] 39:6 cross-examination [1] 37:12 crossed [3] 19:18 26:2 63:17 crosses [2] 11:18 59:4 crossing [6] 7:22 9:9 10:14 29:25 62:20 63:2 curiae [3] 2:9 3:11 57:22 Curley [2] 4:15,16 currently [1] 56:8 D D.C [3] 1:12 2:5,8

### dam [5] 15:17,18 16:1,2,9 damage [2] 39:2 76:11 damages [4] 35:22 63:1,2 72:16 damaging [2] 19:20 29:14 danger [1] 29:9 dangerous [1] 28:12 DAVID [3] 2:5 3:6 35:5 day [8] 31:14 36:5 43:19 45:4,7 50: 13 65:16 66:14 davs [1] 33:17 deadline [2] 33:23.25 deal [4] 14:18 46:16 59:18 67:6 dealing [2] 27:15 42:13 dealt [1] 10:4 decade [1] 36:13

decide [5] 18:8,9 49:18 51:7,9

Defendants [10] 1:9 2:6 3:7 5:9.

decided [2] 40:16,18

decision [1] 18:9

decrees [1] 48:19

12 **6**:6 **7**:3 **26**:1 **35**:6 **75**:16 Defendants' [2] 6:14 39:21 defense [1] 75:17 defer [1] 33:21 definitely [1] 62:10 definition [1] 53:25 degradation [2] 39:20 40:8 delicious [2] 55:12 59:9 demonstrates [1] 76:9 denial [1] 38:13 denied [1] 41:14 denv [1] 33:14 Department [1] 2:8 depending [1] 53:12 depends [1] 27:1 depression [6] 8:10 29:24 37:11 **65**:2 **70**:7 **72**:20 Deputy [1] 2:3 descriptive [1] 54:13 detrimental [1] 30:16 device [1] 71:10 difference [3] 14:20 16:1 22:11 differences [2] 60:7 9 different [27] 5:12 10:8.13 11:6 13: 25 **15**:17.21 **21**:7 **26**:5 **27**:18 **31**: 13 **41**:9 **42**:4,6 **43**:10,24 **44**:25 **61**: 12 **62**:4,10 **63**:13 **64**:17,25 **66**:3 76:7 77:21,22 differently [1] 26:25 direct [5] 14:25 15:5,12 16:5 25:24 directly [4] 30:15 41:10 49:4 59:17 disagree [1] 14:2 disagrees [1] 18:23 disavowing [1] 36:12 disclaim [1] 17:5 disclaimed [1] 51:15 discovery [1] 68:8 discuss [1] 71:7 disincentivize [1] 52:23 dismiss [2] 52:21 68:6 dismissal [3] 35:13 52:15 67:12 dismissed [3] 35:22 51:17 67:12 disposition [3] 38:14 51:24 52:20 dispute [4] 38:10 67:19 68:13 74: disputes [2] 28:15 58:10 distinct [3] 20:1.4 30:1 distinction [1] 43:3 distinguish [3] 55:15 63:19 64:15 distinguishable [1] 59:7 distinguishes [2] 22:12,18 District [3] 5:16 16:24 45:9 diversion [1] 76:17 divert [2] 5:23 27:20 diverting [1] 6:2 **DIVISION** [2] 1:8 4:19 docket [1] 69:12 doctrinal [1] 73:4 Doctrine [20] 35:17 36:2 42:7 44:9. 20 45:13 46:5.7.23.25 50:25 51: 15 **57**:8 **58**:11,12,17 **59**:23 **60**:11, 22 61:16

doing [4] 13:7,17 52:17 69:18 dollar [1] 72:15 dollars [1] 52:3 domain [1] 61:15 dominion [1] 19:23 done [3] 9:2 17:4 49:14 door [2] 72:4.6 doors [1] 69:9 doubt [1] 73:6 down [7] 6:17 9:22 54:11 56:5 61: 5 **68**:20 **75**:22 downstream [4] 5:21 14:14 15:3 64:24 draining [3] 6:15 29:14 75:18 dramatically [1] 36:22 draw [1] 9:4 drawing [3] 8:4 38:22,23 drilled [2] 61:6,23 drilling [1] 61:5 drills [1] 70:6 drink [1] 55:7 drinking [1] 75:23 dropped [1] 75:9 dry [2] 44:17 65:21 duly [1] 4:12 during [1] 65:19 duties [1] 29:5 duty [2] 28:22,23

each [4] 29:12 49:11 60:24 77:8 earlier [2] 38:24 40:24 early [1] 38:7 eastern [1] 49:5 effect [19] 8:7 14:6,8,8,23,25,25 15: 6,11 **16**:5 **25**:8,24 **29**:23 **30**:4 **37**: 10 45:21 64:7.18 77:7 effects [10] 13:20.24 14:10 24:20. 23 25:10.16 30:17 53:3 60:20 effort [1] 68:1 eight [3] 28:11 44:25 66:3 either [3] 48:21 64:18 72:20 elementary [1] 22:24 elevate [1] 26:12 elevates [1] 76:12 emphasized [2] 19:6 65:14 enable [1] 51:3 encompass [1] 44:24 encroach [1] 24:24 end [2] 31:14 46:20 enforced [1] 48:18 engage [2] 37:8 40:6 enough [7] 17:7,7,13,14 68:21,21 73:12 ensured [1] 7:2 enter [1] 7:10 entered [1] 4:12 entering [1] 9:5 entire [2] 45:9 52:1 entirely [8] 10:9,11 13:19 14:3 15: 1 **16**:11 **22**:16 **41**:20 entitles [1] 52:10

equal [2] 58:14 60:24

equally [3] 27:11 28:1,2 equilibrium [1] 36:21 equitable [69] 5:6 9:23 10:7,20,22 11:4,22 12:1 14:17,21 17:1,5,9,16 **18**:12,16,23 **20**:9 **22**:12,13,20 **30**: 8 **31:**13,18 **32:**10 **34:**13,19 **35:**16 36:1,11 37:23 38:5,17 41:15 42:2, 6 44:8,19 45:13 46:4 47:1 48:7 50: 5 **51**:14,16 **52**:16 **53**:4 **57**:4,8 **58**: 11 59:23 60:11.23 61:11.15.19 63: 8.20 **64:**1 **66:**24 **67:**4.22 **68:**1.14. 16 **69**:5 **71**:6 **73**:3 **77**:1 erred [2] 35:13 41:1 erroneous [1] 56:10 **ESQ** [5] **3**:3,6,9,14 **74**:11 **ESQUIRE** [1] 2:5 essentially [2] 9:15 13:7 established [2] 28:12,14 evaporated [1] 23:1 Even [11] 6:23 12:18 19:1 34:14 **36**:3 **40**:20.21 **53**:5 **65**:20 **72**:9 **76**: evidence [9] 6:16 39:19 40:5.9 42: 20 49:1 50:16 75:15 76:5 evidentiary [1] 68:8 exact [2] 8:15 14:16 exactly [4] 39:16 62:1 63:5,7 example [5] 16:9 22:11,14,19 64:3 except [1] 49:11 exception [1] 16:20 exceptions [5] 2:10 3:12 57:23 58: 19 67:16 exclusive [5] 6:25 16:14 35:17 38: 18 74:24 excuse [2] 13:11 75:17 exercise [12] 9:17 16:14 19:23 24: 5.15 **25**:19 **26**:11.14 **27**:20 **28**:25 48:2 63:24 exercising [14] 8:12,22 9:11,13 **10**:14 **11**:8 **13**:13 **15**:12 **16**:7 **19**: 25 20:24 64:4 76:18,21 exist [3] 60:13 66:6 72:9 existing [1] 32:14 exists [1] 66:3 expert [5] 36:3 37:9,15 75:6,20 experts [1] 65:1 explain [2] 15:17 23:24 explained [1] 54:9 explicitly [1] 17:5 explored [1] 76:1 extend [3] 29:3 45:15 78:3 extended [1] 48:6 extension [2] 46:14 48:24 extent [2] 22:5 56:10 extra [1] 22:17 extract [2] 36:22 40:6 extracted [1] 63:11 Extracting [1] 77:6 extracts [1] 64:10 extraordinary [1] 69:16 extraterritorial [3] 25:3.15.16

extraterritorially [3] 8:23 22:17

74:23 extreme [1] 52:17 fact [18] 9:4 18:15 25:21 37:18 39: 22 43:21 48:20 50:21,22 59:7,11 **60**:1 **61**:8 **65**:10,11 **68**:14 **74**:22 factor [2] 31:9 63:9 facts [2] 36:17 42:24 fail [3] 32:7,17 33:5 fair [2] 5:10 52:7 fairness [1] 68:17 fall [1] 21:21 falls [3] 22:25 27:7 51:14 fancy [1] 65:2 far [4] 19:6 46:8 48:23 69:3 fare [1] 57:4 fast [1] 27:6 favor [2] 77:3 78:2 feel [1] 34:5 feet [2] 45:2,3 few [1] 74:14 fields [1] 6:7 Fifth [1] 16:23 figure [1] 18:12 file [5] 33:13 38:14 53:4.8 67:15 filed [6] 4:12 6:9 67:23,23 73:8,10 filina [2] 37:24 52:15 fills [1] 54:12 filter [2] 55:10 69:22 filtering [1] 71:10 filters [1] 55:10 final [1] 67:10 finally [2] 18:11 76:24 find [1] 57:2 finding [1] 75:17 Findings [1] 39:22 finds [1] 18:23 Fine [1] 46:17 finest [1] 55:6 first [3] 4:22 35:16 59:13 fish [8] 44:12,13,14 46:7,11,12 58: 18 **59**:15 fishermen [1] 64:12 fit [1] 73:4 five [1] 43:6 five-day [1] 42:21 flew [2] 23:16,18 flow [14] 10:1 15:4.20.23 35:20 37: 17 42:8.9 44:18 48:16 50:8 51:13 **65**:5 19 flowed [2] 36:6 37:19 flowing [5] 13:22,23 24:10 50:14 flows [8] 11:15 35:18,24 39:8 48:9, 19 **49**:3 **65**:25 focuses [1] 9:10 fog [5] 23:14,16 45:23 47:13,24 follow [2] 32:5 40:5 follow-up [1] 26:16 following [3] 41:3 53:15 56:23

foot [2] 45:9 54:11

force [1] 7:3 forgive [1] 23:25 forgot [1] 46:12 form [3] 19:2 26:12 76:12 formation [2] 54:1,2 forth [1] 21:6 forward [1] 41:18 found [1] 28:2 Francisco [1] 23:14

FREDERICK [55] 2:5,7 3:6,9 35:4, 5,7 37:1,5 38:1,16 39:1,11,14 40: 2,17,23 41:19 42:5,20 43:18 44:1 45:12 46:3,9,19,21 47:6,8,11,13, 19 49:20 50:1 51:10,20,22 52:19 53:1,7,14,18,25 54:7,13,24 55:4 56:3,12 57:6,19,21 65:14 74:7 75: 12 free [1] 41:2

freely [2] 35:14 36:10 friend [6] 40:25 63:19,23 64:6 65:8 67:7 fully [5] 36:20 54:1,5 76:1,3 fundamentally [2] 36:9 41:8

further [4] 31:22 56:18 73:25 74:2 future [10] 17:18 34:14,21 52:18 70:16.18.18 71:3.15 72:2

#### G

Gail [1] 4:14 gallons [8] 6:11 36:5 43:19 45:6 50:13 65:16 77:10,10 gambit [1] 52:1 gap [1] 54:12 GAS [1] 1:8 General [3] 2:3,7 4:19 generations 3 70:19 71:3 72:2 Geological [2] 6:5 75:19 gets [4] 72:5 77:8,9,10 aettina [1] 61:24 give [3] 21:2 33:16,24 given [4] 16:18 40:14 68:23 69:1 aives [1] 68:19 GORSUCH [34] 28:4,6 32:3,4,22 33:2,3,9,16,22 34:7 45:12 46:8,10 20 47:5,7,10,12,14 49:8 56:3,13, 15 69:8 70:10,23 71:5,9,13,21,23 72:5 73:1 got [2] 16:25 46:17 gotten [2] 29:21 67:21 govern [1] 58:17 government [1] 73:2 grab [2] 21:22 22:8 grabs [1] 50:8 grant [6] 18:10.10 32:9.20 33:6.10 granted [2] 35:14 73:16 gravamen [1] 61:25 greater [3] 36:18 75:8,12 ground [2] 26:21 43:2 grounds [2] 63:21,22 groundwater [66] 5:11,13 6:2,11,

13 **7**:1,4 **8**:13,22,23 **10**:24,25 **11**:5

**12**:1.9 **13**:13 **15**:13.23 **16**:15 **18**:3

20:20 23:3,5,11 24:17,19 25:20,

24 **26**:14,25 **27**:12,25 **29**:13,15,18, 20,21,22,23 **30**:5,10,11,12 **35**:10 **42**:13,14 **45**:15 **48**:6,8 **49**:9 **58**:2,7, 18 **59**:4,11 **60**:7 **66**:13,16 **74**:24 **75**:5 **76**:22 **77**:1,5,6,14,17 **guess** [1] **19**:16

### Н

hand [2] 53:22 60:15

handful [1] 55:2 happen [2] 29:8 31:6 happened [1] 20:12 happening [5] 6:6 16:6 20:2,4 65: hard [1] 48:3 hardly [1] 65:15 harm [4] 62:11.13 70:11 75:14 harmed [1] 38:23 harming [2] 5:20 14:16 harms [1] 51:2 Hawaii [1] 49:11 hear [1] 4:22 heard [1] 38:24 hearing [3] 68:9 71:16 75:7 held [6] 4:17 8:20,24 44:19 46:4 48:17

helping [1] 41:25 herd [1] 45:25 Herrmann [1] 5:17 historic [1] 51:1 Holmes [1] 47:3 honor [19] 4:4 7:18 8:6,21 9:6 10: 21 11:24 13:9 14:19 17:15 18:15 22:9,15 25:17 27:10 30:25 31:8 41:7 57:6 Honor's [1] 22:19

horses [7] 19:10 21:3,16 22:6 23: 5 24:12 49:24 however [2] 45:19 59:8

human [1] 64:10 hundreds [1] 52:3

huge [2] 23:2 45:2

hydrogeological [1] 54:2 hydrological [1] 43:5

hydrologists [2] 42:23 43:7 hypothetical [5] 24:12 42:9,17 44:

2 **63:**5

Idaho [2] 44:13 64:12 idea [1] 23:5 identified [1] 59:20 identifies [1] 58:16 III [2] 70:12,21 Illinois [1] 47:4 impact [3] 29:17 30:5 77:15 impacting [1] 25:23 impairs [1] 70:14 import [1] 63:10 important [3] 44:22 63:9,16 importantly [1] 75:13 impose [1] 60:22 impression [1] 59:13

inch [5] 45:4,10 62:15 76:8,11 incidental [1] 15:5 include [1] 37:22 including [1] 66:4 incomplete [1] 19:2 increased [5] 6:8,12 36:21 40:7

Indeed [1] 58:6
indicates [1] 6:16
indication [1] 75:14
indisputably [1] 51:12
indistinguishable [1] 59:1
inequitable [2] 18:4 73:17
inevitable [1] 72:21
inevitably [2] 60:14 70:7
inject [1] 28:12

injuries [3] 71:8 73:15 76:11 injury [37] 5:8,19 10:8 11:6,6 17: 18,19,22 27:19 36:15 47:21,25 48: 14 53:11 69:4,13,15,20,21 70:1,2, 24,25,25 71:10,18,18 73:13 74:17, 19,20,22 75:1,25 76:19,21 77:22 instance [1] 68:4

instant [1] 67:24 instead [2] 61:5 71:24 intended [3] 71:11,12,13 intent [1] 25:18 intentional [1] 15:6 intentionally [2] 9:16 15:11 intercepted [1] 52:4 intercepting [1] 37:18 interest [1] 60:16 interests [4] 60:15.18.25 61:1

interferes [1] 15:22 interfering [1] 15:20 interim [1] 18:2 interrupt [1] 53:3

interstate [32] 5:18 6:21,24 9:24 10:5 12:12,14,18,24 13:2,8 20:7, 12 21:6 27:2,16 31:10 35:20 39:8 42:7,10,18 44:2 45:21 49:3 51:12 54:20 58:10,13,17 70:6 72:22 intervention [1] 64:10 intrastate [2] 41:20 66:14

intrusion [3] 7:15 26:3,10 invasion [1] 76:16 invoking [2] 69:16 72:12 involving [1] 48:18

iron [1] **55**:10

intruded [1] 76:8

irrelevant [2] 12:23 44:8 irrigators [2] 48:15 64:12 isn't [9] 7:11,25 30:2 34:12 59:13 62:21,22 66:18 70:24 issue [14] 6:17 12:2 16:17 21:12

**29**:13 **39**:3 **58**:19 **59**:21 **65**:17 **66**: 11,14 **67**:6,18 **75**:22

issues 2 40:15 75:25 itself 3 41:25 49:3 74:25

Jackson [1] 2:3

JOHN 5 2:3 3:3,14 5:1 74:11

Judge [1] 4:19 judgment [2] 33:4 68:6 June [1] 4:21 jurisdiction [8] 45:23,24 46:2 47: 18 **48**:2 **58**:7 **69**:10.12 iurisdictions [1] 66:24 Justice [207] 2:8 4:3,9 5:3 7:7,12, 14,25 8:14 9:1,20,21 10:2,17 11:9, 12,20 12:10,16,17,20,22 13:1,4,11, 16,18 **14**:1,9,11 **15**:16,24 **16**:16 **17**:12 **18**:6,18 **19**:5,24 **20**:3,15 **21**: 1.5.13.17.19 22:1.7.22 23:8 24:1 **25**:2 **26**:15,16,17,18,23 **27**:9 **28**:4, 5,6,7,8,8,9,10,20 **30:**15,18 **31:**1,11 20,21,22,24,24 **32:**1,2,3,4,5,15,22 **33:**2,3,7,9,16,22 **34:**7,9,9,11,17,23, 24,24 **35**:1,2,8 **36**:24 **37**:1,21 **38**: 15,16 **39**:10,12,24 **40**:14,19 **41**:19 **42**:10,12 **43**:12,14,20 **44**:3,21 **45**: 12,23 46:8,10,20 47:3,5,7,8,10,12, 14 **49**:7.8.21 **50**:1.10 **51**:6.18.21 **52**:14.19.25 **53**:2.14.19 **54**:4.8.15. 18,25 55:5,19,21,22,23,23,25 56:1, 1,3,13,15,16,16,18,20,20,22 57:16, 17,20,25 **58**:24 **61**:4,8,21 **62**:6,13, 23,25 66:5,12 67:8,10,14 68:10 **69**:8 **70**:10,23 **71**:4,9,13,21,23 **72**: 5 **73**:1,19,21,22,23,23,24,25 **74**:2, 4.4.14 76:6 78:7 Justice's [2] 24:12 45:25 justified [1] 59:22

## K

justify [3] 69:16 72:14,15

**KAGAN** [31] **12**:10,16,17,20,22 **13**: 1,4,11,16 **14**:1,9,11 **25**:2 **26**:16,23 **32**:2 **41**:19 **42**:10,12 **43**:13,14,20 **44**:22 **61**:4,8,21 **62**:6,13,23,25 **76**: 6

Kansas [7] 38:6 41:11 47:23 64: 13 65:17.25 66:1

Kavanaugh [25] 4:9 26:17 28:5,7, 9,10,20 30:15 34:10,11,17,23 52: 14,19,25 53:2 56:17,18 66:5 67:8, 10,14 68:10 73:25 74:2

key [2] 8:6 42:24

kind [14] 9:25 22:23 26:22 27:9 42: 4,6 44:4 49:23 54:12 61:12 63:1,

13 **68**:13 **76**:12 **kinds** [1] **51**:8 **knowing** [1] **71**:1

knowingly [1] 6:4

known [3] 28:22,23 29:5

knows [1] 65:4

lake [6] 8:1,3 41:20,22 42:1 44:2

lakes [1] 23:2 land [4] 25:6,7 57:13 62:16 landowner's [1] 66:21 last [4] 22:8 36:13 39:24 56:13 Lastly [1] 9:1

later [1] 49:24

Laughter [1] 54:17 Law [6] 4:19 38:18 39:15 52:13 57: 15 **78**:1 lawfully [1] 35:9 laws [2] 64:20,22 lawsuits [1] 51:8 lead [1] 51:8 least [6] 20:6 59:2 60:5 68:4 69:3 70.12 leave [16] 14:14 16:18 18:7 32:10 12.20 33:6.10 35:15 38:13 51:19 **53**:8 **56**:4.8 **68**:3 **69**:20 left [1] 49:15 legal [3] 12:2 72:8,14 Legally [1] 44:10 lengthy [1] 68:8 less [4] 14:15 62:17 64:24 70:12 leveling [1] 30:2 levels [2] 7:23 75:9 lies [1] 44:25 lift [1] 54:11 **LIGHT** [1] 1:7 likely [1] 73:4 limit [2] 20:24 53:1 **limitation** [1] **73**:8 limited [4] 8:11 9:17 30:4 77:7 limiting [1] 45:18 limits [3] 20:18,21,22 line [2] 32:6 33:4 lines [4] 19:12 59:4 60:1 65:13 literally [1] 63:17 litigated [1] 40:15 litigating [1] 16:22 litigation [2] 32:15 50:4 little [3] 36:19 42:16 53:15 LIU [26] 2:7 3:9 57:20.21.24 59:16 **61:**4.7.14 **62:**5.9.19.24 **63:**6 **67:**8. 9,14 68:18 70:20 71:4,12,17,22 72:3.7 73:6 located [5] 5:13 7:21 13:14 14:4 16:8 logical [1] 32:14 long [3] 24:20,22 44:17 long-running [1] 38:10 look [6] 19:21 33:4 40:13 43:16 66: 15 **73:**8 looked [3] 41:7 44:12 73:10 looking [2] 42:14 43:8 lose [1] 17:9 lot [7] 14:13 23:23 28:18 31:12 42: 22 49:12 59:6

#### M

made [3] 26:3 45:16 67:25 magnitude [4] 47:22 48:1 53:12 **69:**15 manage [1] 28:19 management [1] 28:13 many [3] 50:22,22 69:22 marshal [3] 4:15,15,21 Massachusetts [1] 23:18 massive [1] 37:8 Master [8] 6:19 32:9 35:12 36:8.14

**41**:1 **56**:9 **76**:2 Master's [3] 5:6 58:20 67:16 material [8] 38:3,8,12 39:25 40:20 41:5 53:5 10 matter [13] 1:15 6:23 10:16 27:24 **34**:18 **51**:7 **60**:9,9 **62**:15,20 **65**:23 68:17 76:10 matters [3] 27:5 65:23 77:12 mean [15] 8:1 11:13 12:11 22:24 23:20 25:11 27:1.4 39:25 43:14 49:9.10 53:17 54:20 65:1 means [1] 54:5 measurable [7] 8:10 14:7.12 15: 10 24:21 25:7.21 measure [1] 40:12 mechanism [4] 62:6,7 64:16,19 meet [2] 32:23 38:2 MEMPHIS [5] 1:6,7 36:18 37:8 50: mention [1] 16:17 mentioned [4] 33:12 64:6 65:8 69: 8 mere [1] 9:4 merit [1] 69:23 met [1] 32:13 Mexico [1] 19:14 Middle [3] 6:20 35:10 49:4 might [12] 11:1 13:23 21:12 33:25 **45**:16,21 **47**:16 **59**:9 **61**:19 **63**:10 66:6.11 migrates [1] 21:11 miles [1] 6:7 million [6] 35:21 36:5 43:16,18,22 72:15 millions [5] 45:6 50:12 52:3 65:16. Milwaukee [1] 39:5 mineral [2] 57:2.13 minerals [2] 55:11 57:7 minimal [1] 63:1 minimum [1] 71:18 MISSISSIPPI [90] 1:3 2:4 4:23 5:9 **6**:3,9,24 **7**:9,11 **8**:4,21,24 **9**:15,19 11:16 12:7,7 13:6,21,24 15:12,21 **16**:9,14 **18**:3,25 **19**:4,8,18,20 **20**: 24.25 21:21 24:3.8.9.17 25:25 26: 4 27:4 29:11.23 33:12 35:14 36:6. 10.15.18.21 37:2.17.19.24 38:2 40: 3 41:20.23 42:4 43:3 47:16 48:24 **50**:15 **51**:15 **58**:2,6,16 **61**:10,12, 22 **62**:17 **64**:8 **66**:4,9,18 **67**:20 **68**: 23 70:1,4,13 72:10 73:4,7,9,14 74: 15 75:5 76:3,23 77:10,16 Mississippi's [35] 5:7,11,14 6:3, 13 **13**:14 **15**:14 **16**:13 **20**:19 **25**:5 **35**:13,21,23 **36**:3 **37**:9,13 **41**:13, 14 **58**:1,4,19 **59**:1 **62**:16 **63**:24 **67**:

7 **69**:25 **70**:21 **72**:24 **74**:21,23 **75**:

Mississippi/Tennessee [1] 41:

4.6.20 77:3 78:2

Missouri [1] 8:16

misunderstanding [1] 34:15 mixed [2] 53:20 55:14 molecules [3] 44:6 66:21 70:3 Monday [1] 1:13 money [1] 50:7 morning [1] 4:23 most [3] 4:18 50:23 58:13 mostly [1] 54:7 motion [12] 32:11 33:6.14.18 34:1 37:25 38:13 41:2.4 53:8 68:6.6 motivate [1] 31:16 motivating [1] 31:9 move [6] 15:8 25:19 26:7 27:3 44: 7 59:14 moved [3] 32:23 37:3 51:24 movement [3] 45:4 65:9,15 moves [3] 27:5 42:14 65:12 moving [10] 44:5,6 45:10,14 46:11, 13 59:25 64:7,17 65:10 much [9] 5:21 27:1 29:22 34:7 45: 2 50:4 72:18,19 77:14 must [1] 35:22

#### Ν

nail [1] 56:5 name [1] 65:2 National [1] 4:18 natural [14] 15:20.22 28:13.15 30: 2 37:20 42:9 44:5 46:5 64:11.20 70:14 71:2 72:1 naturally [2] 24:10 60:1 nature [5] 10:25 17:23 29:15 77:4, near [1] 41:21 Nebraska [1] 41:7 necessarily [1] 70:13 necessary [1] 41:3 need [7] 11:2 26:9.13 56:9 68:8 70: 17 78·3 needed [1] 34:22 needs [3] 36:23 77:2 78:1 negotiate [2] 31:10.17 neighboring [1] 29:18 neither [2] 29:16 67:25 nervous [1] 49:7 never [2] 35:25 44:10 new [11] 4:15 6:7 19:14 34:22 37: 24 53:8,13 66:11 68:5 78:1,1 newfangled [1] 41:24 next [4] 9:16 15:9 32:8 72:25 None [1] 35:1 nonetheless [2] 44:19 48:14 Nor [1] 36:14 normal [1] 31:2 Normally [1] 20:8 northern [1] 36:18 noted [1] 65:18 Nothing [6] 32:1 33:8 38:1 41:1 **51**:21 **72**:23 noting [1] 4:8 notion [1] 28:21 notwithstanding [1] 48:20 nuisance [6] 38:19,25 39:1,15,17

number [7] 18:20,21 33:17,21 34: 4 63:21 67:21 Numbers [1] 39:22

#### 0

obey [1] 19:11 objection [2] 56:6,14 obtain [1] 19:3 obviously [2] 33:14,21 occurred [1] 38:13 occurring [7] 10:11 14:25 15:1 16: 3.10.12 48:16 ocean [1] 44:14 oceans [1] 23:1 October [3] 1:13 4:5.6 often [1] 25:8 Okay [10] 7:14 12:22 13:3 26:15 **31**:1,11 **35**:2 **46**:12 **54**:9 **56**:15 Oklahoma's [1] 27:21 old [1] 47:3 one [39] 5:22 11:7 13:18 14:16 18: 20 21:8 22:8 23:10 25:9,9 26:8 30: 19 **32**:4 **33**:23 **35**:19 **39**:24 **43**:1,5 45:4.10 46:6 47:2 50:3 56:22 60:2. 15.21 **61**:17 **62**:7 **63**:9.22 **64**:19 65:8 66:17.19.19 69:10.10.17 one's [1] 35:20 only [12] 9:24 17:12.24 18:24 28: 25 30:3 34:20 44:24 62:3 67:4 68: 25 72:17 open [1] 17:10 opened [1] 6:7 opening [1] 69:9 operation [2] 54:21 55:18 opportunity [7] 33:24 34:18,21 68: 20.24 69:1 71:7 oppose [1] 37:21 opposed [1] 25:15 opposite [1] 66:8 option [1] 18:25 oral [7] 1:16 3:2.5.8 5:1 35:5 57:21 order [1] 40:7 orders [1] 4:11 Oregon [4] 44:11 48:10,12 64:12 Original [7] 4:23 45:22,24 46:2 47: 18 69:9,11 originally [1] 73:9 other [26] 5:20 10:18,19 16:19 21: 9 23:19 25:14 27:12 31:5 32:13 37:9 39:4 48:17 49:11 52:24 55: 11 **57:**1 **59:**5.6 **60:**4.18.22 **61:**18 64:19 66:17 72:19 Others [2] 23:1 75:3 otherwise [1] 75:16 ought [2] 44:7 50:24 out [23] 9:18 15:11 18:3,12 26:20 30:2,3,11 35:10 36:6 39:18 44:14 45:11 50:14 52:7 54:22 55:10,17 56:25 59:9 64:23 69:22 71:15 outer [3] 46:15,17,21 outgrowth [1] 32:14

outside [3] 24:25 30:5 46:24

real [4] 48:4 68:1 74:16 75:24

1 **64**:14,24 **65**:23 **70**:1 **76**:12

reasonable [2] 33:24 34:5

reasons [2] 10:25 44:9

recognition [2] 17:16,24

recognizes [1] 46:22 recognizing [1] 27:18

reconcile [1] 61:2

rectify [1] 17:18

reflect [1] 33:11

reject [1] 5:5

Regional [1] 5:16

relation [1] 77:12

relevant [1] 43:21

relocation [1] 37:8

remotely [1] 4:10

removed [2] 65:3.5

removina [1] 14:24

report [2] 58:20 67:17 representative [1] 39:5

represents [1] **58**:12

required [1] 69:14

requires [1] 77:22

resolved [1] 66:14

resolving [1] 56:6

3 64:10 65:12 72:11

71:2.22 72:1

residential [1] 70:16

resolve [2] 28:14 68:9

replead [1] 34:18

remove [1] 65:4

remedy [16] 5:7,8 9:23 17:20,23

38:18 51:13 68:17 77:23

**18**:1,17,20,24 **27**:17 **34**:20 **35**:17

requirement [5] 69:5,13,20,21 70:

resource [22] 6:21.24 10:15 12:5

19:17 20:7.12 21:6.10 24:6 28:13.

15 **29**:1 **51**:4.12 **58**:14 **59**:25 **60**:2.

resources [13] 27:13 28:19 46:5.

24 47:2 50:6,7 58:11 59:21 70:14

respect [4] 13:21 31:19 50:21 69:

relief [2] 19:2.3

redress [1] 17:21

redresses [2] 5:8 10:7

recently [1] 4:18

recharge [1] 49:5

really [10] 53:16,24 59:13 61:21 62:

reason [4] 13:5 17:19 30:8 58:16

**REBUTTAL** [5] **3**:13 **74**:7,8,10,10

recognized [10] 5:19.22 7:2 27:14.

15 **28**:24 **29**:4 **47**:3 **75**:1 **78**:4

recommended [2] 32:9 35:12

record [3] 6:16 75:15 76:4

# Official - Subject to Final Review

over [48] 6:25 8:12.23 9:11.14.18 10:15 12:8 13:13 15:13 16:8,15, 22 17:22 19:23 20:20,25 23:4,6 24:6,15,16,16 25:19,22 26:11,12, 14 **27**:20 **28**:15 **29**:1,13 **37**:25 **38**: 10 **47**:4.23 **55**:9 **58**:10 **64**:4 **71**:19 72:11,21 74:24 76:13,13,13,18,22 overlying [2] 6:15 75:18 overruled [1] 58:21 overruling [3] 2:10 3:11 57:23 owe [2] 31:3.4 owes [1] 31:4 own [13] 6:13.14 10:10 13:20 14:3 16:3.4 23:17 29:1 36:22 37:13 48: 15 **57**:12 owned [1] 57:10 owner [1] 66:17 ownership [10] 52:10,22 57:10 71: 19,24,25 72:6,7,11,13 owns [1] 24:3

pace [1] 65:9

PAGE [5] 3:2 39:22 52:6 58:25 75:

pages [1] 75:8 papers [1] 32:24 parens [1] 71:25

part [11] 17:19 45:22.24 46:1.12 47

17 **49**:5 **52**:4 **54**:16 **56**:13 **67**:16

participating [1] 4:9 particles [1] 53:21 particular [1] 20:14 particularly [1] 18:1 parties [1] 67:19

parts [6] 44:24,25 45:2,3 54:14 65:

passed [1] 58:3 passes [1] 64:5 past [2] 17:18 36:19 path [1] 70:4 patriae [1] 72:1 pave [1] 78:1 pay [1] 52:2 pending [2] 33:7 56:8

people [2] 13:22 21:12 per [5] 36:5 43:19 45:4,7 65:16

period [4] 19:23 33:25 34:6 51:17

permission [2] 6:3 18:10

personal [1] 57:11 pests [1] 19:16

phenomena [1] 44:4

physical [14] 9:9 14:8.10 16:5.10

19:7.22 24:20.23 26:3.10 43:1 62: 8 76:15

physically [6] 7:13,21,22 14:4 16: 8 76:8

physics [1] 64:22 picking [1] 34:11

pipe [4] 26:2,5,9,13

place [7] 20:21,22 23:4,6,19 26:8 69:21

places [1] 19:16

Plaintiff [6] 1:4 2:4 3:4.15 5:2 74:

Plaintiff's [3] 2:10 3:12 57:23

plan [1] 52:1 plane [1] 47:11 plausibly [1] 40:4

plead [8] 18:20,21 36:11 40:3 68:1

**73**:13 15 16

pleaded [3] 39:13 48:25 53:13

pleadings [1] 68:7

please [4] 5:4 15:16 35:8 57:25

pleased [1] 4:14 pleasure [1] 71:1 pled [1] 74:19

point [18] 9:3,7 10:4 11:25 19:20 20:14,17,23 39:18 41:10 44:21 54:

22 58:6 59:19 61:12 68:25 72:12,

pointing [2] 16:20 26:19

points [3] 50:2 74:14 76:4

policy [1] 60:22

posed [1] 44:3 posit [2] 27:23 28:22

positing [1] **21**:10

position [7] 9:22 28:11,18 34:12

**67**:7.17 **68**:23

possesses [1] 6:25

possible [1] 19:3

precedents [4] 20:8 59:3,20 67:5

preclude [1] 22:5 precluded [1] 68:15

predevelopment [1] 36:4 predictable [7] 8:11 14:6,12,15

24:22 25:8 22

prejudice [5] 51:19 52:15,22 67:

13.13

premised [2] 25:11 28:21 presence [1] 60:3

present [2] 33:17 60:4

presented [2] 39:21 71:5

presenting [2] 12:3,4 preserve [1] 34:13

preserved [1] 71:2

pressure [1] 7:23 presumably [4] 30:20 31:2 62:25

68:11

presume [1] 63:4

prevail [4] 30:20 32:7.18 33:5 prevent [3] 18:5 24:10.11

principal [1] 35:23

principally [2] 46:6 67:18 principle [6] 27:11,25 45:19 46:18

**47**:1 **66**:25

principles [3] 29:4 33:11 78:4 prior [2] 59:3,20

privately [1] 57:9

probably [2] 22:9 63:13 problem [4] 10:7 69:24 77:4,20

problems [2] 8:18 28:18 proceedings [1] 76:2 process [1] 28:14

professors [2] 38:18 39:16

prompt [1] 68:6

promptly [1] 69:3 proper [2] 33:13,18

properly [1] 71:5 property [2] 57:11 66:22 proposal [1] 69:20

Proposed [2] 39:21 76:17 proposing [1] 24:18

prospective [4] 17:17.24 34:20

**51:**3 protect [1] 60:19

protection [1] 72:1 prove [1] 41:13

provides [1] 35:17

public [4] 46:7,23,24 57:9 pull [3] 9:18 18:3 57:3

pulled [1] 55:16

pulling [4] 6:16 8:22 15:11 75:21

pulls [1] 66:19

pump [6] 8:17 24:23 40:8 53:23 57:

2 77:14

pumped [4] 29:16,21 35:9 55:9 pumping [24] 6:9.13.14 7:8.22 8:2

14:5 15:7 16:7 24:23 25:5.18 26:6 **29**:11 **30**:4 **36**:22 **37**:16 **40**:10 **48**: 8.21 **50**:9 **54**:21 **75**:10.18

pumps [3] 37:3,13 48:12 pun [3] 71:10,12,13

pure [1] 55:11

purely [1] 30:11 purpose [1] 15:7

pursue [3] 18:1 19:1 34:21

put [9] 13:19 15:18 33:20 53:9.21 **54**:11 **61**:1 **65**:1 **66**:22

putting [5] 9:16 10:18 11:12 15:8,

Q

qualify [2] 40:1.3 quality [3] 39:4.20 40:9 quantities [1] 54:3

question [31] 5:12.16 6:22 11:3 17:10 18:7,19 20:16 21:14 22:23

25:3 30:15,19 32:5 37:7 39:12,24 40:25 41:8 43:12,24 49:8 50:2,24

**56**:4,23,23 **59**:18 **72**:4 **76**:9 **77**:2 questioning [2] 32:6 42:22

questions [10] 7:6 13:18 31:23 36 25 55:22 56:19 58:23 73:22 74:1,

auick [1] 32:5 quickly [1] 44:7

quite [2] 43:10 66:8

raise [1] 68:11 ran [1] 65:20 range [1] 8:7

rank [1] 4:17 Rather [4] 5:11 6:6 42:17 67:6

reach [1] 15:3 reaching [3] 6:19 11:7,13

read [1] 54:5

respectfully [2] 50:19,23 respects [2] 48:6 58:14 respond [2] 29:7 53:12

response [3] 28:16 35:24 50:2 rest [1] 30:6

result [2] 40:10 75:9 retired [1] 4:16

reversal [1] 37:16 rights [2] 57:10,13 river [14] 5:18 10:5 13:22,23 14:14 **27**:16 **38**:10 **42**:19 **46**:13 **49**:3,3 65:17.19.24 rivers [2] 44:17 45:14 ROBERTS [42] 4:3 9:21 10:17 11: 9.12.20 19:5 20:3 21:1.5.17.19 22: 1,7 **28**:8 **30**:18 **31**:1,11,20,24 **34**:9, 24 **35**:2 **53**:14,19 **54**:4,8,15,18,25 **55**:19.23 **56**:1.16.20 **57**:17.20 **58**: 24 73:19.23 74:4 78:7 room [1] 63:13 round [1] 21:23 rule [2] 77:3 78:2 run [2] 44:17 55:9 running-around [1] 23:11 runs [2] 23:4,22

#### S

salmon [2] 9:25 46:13 same [15] 8:15,17,20,25 9:4 14:16 17:3 22:23 42:18 44:4 62:1 63:5,7 75:11 76:12 San [1] 23:13 Sand [2] 54:7.9 sands [1] 43:4 satisfied [1] 60:11 satisfying [1] 41:4 saturated [3] 36:20 54:1,5 saturating [1] 54:6 saying [15] 11:21 12:12,17,23 13:4 20:19 24:14 25:2 29:8 42:14 43: 15 **56**:7 **63**:15 **70**:24 **71**:14 says [5] 23:12 28:11 37:2 66:20 67 scarce [3] 50:6.7 51:4 scarcity [2] 50:24,25 science [1] 53:16 scientific [1] 55:17 sea [1] 23:21 Second [1] 36:8 Security [1] 4:18 sediment [1] 55:15 seeing [3] 23:21 29:10 48:4 seek [5] 16:25 34:13,15 67:21 68: seeking 5 17:8 27:19 52:24 68: 16 **72**:16 seem [5] 7:8 21:7 26:1 28:17 52: seen [4] 32:24 49:12 69:4 73:18 seized [1] 19:19 sell [1] 46:16 selling [1] 71:9 sense [9] 9:7 11:1 20:6 24:3 30:9 **31**:15 **60**:12 **70**:12,25 sensible [1] 58:13 sentence [1] 67:10 separate [1] 56:25 separately [1] 57:14 separates [1] 54:21 separating [1] 56:24

serious [3] 53:11 69:15 73:13 service [2] 4:20 5:18 set [3] 31:4 33:25 76:2 setting [1] 18:15 sever [1] 57:13 severed [1] 57:12 share [3] 5:10 52:8 66:25 shared [1] 51:4 sharing [2] 50:5,6 she's [1] 26:19 sheer [1] 44:23 shore [1] 54:10 shouldn't [4] 18:7 38:19 52:14 76: show [9] 36:15 48:14 50:17 53:5,9 69:15 70:2.3 74:16 showed [2] 49:1 55:2 side [9] 8:2 15:19,19 16:19 29:12 **35**:11 **48**:12,22 **54**:10 significance [1] 40:12 significant [4] 47:21,25 50:12 53: significantly [1] 40:7 silt [7] 53:20,22 55:1,3 56:24 57:1 silt's [1] 59:10 similar [4] 8:18 31:18 59:2 60:5 simple [1] 64:22 simply [12] 29:3 37:2,24 56:6 58:3 **60**:21 **65**:6 **68**:2 **69**:22 **70**:2 **72**:8 77:18 since [1] 41:14 single [4] 58:6 65:11,24 66:2 sister [1] 25:1 sits [1] 70:5 Sittina [1] 48:3 situation [3] 7:17.20 43:9 situations [2] 30:22 44:17 size [2] 44:23.23 sky [1] 22:25 slant [1] 61:6 slowly [4] 27:3 35:24 42:15 65:10 small [1] 53:21 sole [2] 5:7 6:25 Solicitor [2] 2:3,7 solve [2] 77:4.20 somebody [3] 23:14,17 55:2 somehow [1] 63:15 Someone [1] 54:9 Sometimes [1] 57:11 sophisticated [1] 55:17 sorry [4] 44:13 53:2 65:25 74:8 sort [5] 26:9 57:1,2 66:24 72:13 sorted [1] 71:15 sorts [1] 71:7 **SOTOMAYOR** [14] **15**:16.24 **16**: 16 17:12 18:6,18 32:15 33:8 38:

16 39:10,12,24 40:14,19

sounds [3] 21:2 23:13 73:1

Sotomayor's [1] 32:6

sound [2] 31:12 45:17

sought [1] 32:23

sovereign [31] 5:14,24 7:1 10:10, 12 **11**:10 **12**:6,8 **13**:14 **15**:2,14 **16**: 3,4,13 **17**:22 **20**:18,20 **24**:7 **27**:21 28:25 60:15,16,18,19,25 63:24 64: 4 **69**:17 **71**:19 **72**:13 **74**:24 sovereignty [4] 5:25 7:5 58:15 74: **space** [3] **26**:4,10 **76**:16 spawn [1] 44:15 spawns [1] 50:3 Special [9] 5:5 6:19 32:9 35:12 41: 1 **56**:9 **58**:20 **67**:16 **76**:2 specific [2] 33:21 67:19 Specifically [3] 5:22 9:8 77:12 specify [1] 51:18 spectacular [1] 55:8 speed [1] 27:5 spring [1] 21:20 Sprule [4] 37:7,12 75:6,20 stage [1] 36:12 standard [11] 8:20,25 23:9,10 32: 13 38:8 40:13 41:4 47:23 50:19. standards [3] 32:23 38:2 41:12 standing [1] 70:22 start [1] 49:10 started [2] 16:23 43:15 starting [1] 37:25 starts [1] 31:12 state [50] 5:20,21,23 9:5 10:14 11: 7 **14**:13,14,16,22 **15**:4 **19**:12 **21**:8 **23**:10,11 **25**:1,10,10 **29**:17,18 **35**: 19,20 **36**:20 **37**:20 **42**:11 **44**:5 **47**: 21 48:22 49:10.10 52:24 59:4.5 60:1.21.24 61:17 62:20 64:3.5.11. 19 **65**:12 **66**:15 **69**:14 **70**:5.11 **73**: 5.7 77:8 state's [8] 5:23 10:11 15:1 21:10 60:2.16 61:18 70:18 statement [1] 52:13 STATES [34] 1:1,17 2:9 3:10 4:6, 16 **10**:9 **17**:25 **19**:9 **21**:7,11 **24**:19 **25**:23 **28**:11,17,24 **29**:8,16 **30**:17 31:9,16 36:7 42:16 45:1 50:22,23 55:7 57:12,22 58:15 66:3 67:5 72: 19 75:23 states' [3] 28:21 61:1.1 stay [1] 23:12 stepped [1] 62:15 steps [1] 41:4 still [6] 6:24 18:25 44:4 49:7 61:19 stop [5] 6:6 37:24 38:1,21 69:17 stopped [1] 17:8 stopping [1] 72:23 **straight** [1] **61:**5 stream [2] 64:21,23 streams [2] 23:2 49:2 stretches [1] 44:18 strong [1] 45:16 subject [6] 10:19 12:1 20:9 57:4 63:8 68:5

subjected [1] 57:7 submitted [2] 78:8,10 subsidence [3] 39:3,20 40:9 subsoil [1] 43:4 substance [2] 26:13 76:13 substantial [7] 47:22,25 48:8,21 50:18 74:17 75:25 substantially [1] 6:8 subsur [1] 48:15 subsurface [2] 27:25 48:16 suctioned [1] 6:10 suddenly [1] 23:21 suffered [1] 40:8 suffice [2] 70:11 71:8 sufficed [1] 73:18 suffices [1] 63:22 sufficient [4] 69:7 73:12 75:1 76:5 sufficiently [4] 41:17 59:2 60:5 73: suggest [6] 9:2 20:6 22:3,10 28: 17 50:20 suggested [2] 43:21 56:10 suggesting [4] 22:11,15 35:14 41: suggestion [5] 33:19 34:2 40:4 74:15 75:13 suggests [1] 75:15 suing [1] 49:10 suit [2] 49:23 72:25 summer [1] 4:17 superficial [1] 75:19 support [5] 2:10 3:11 9:3 57:23 suppose [9] 11:21 19:15,17 23:14 32:7 41:19.23.23 61:4 SUPREME [3] 1:1 16 4:5 surface [13] 10:5 27:12.16 28:2 30: 1 **43**:4 **48**:9,19 **49**:2 **57**:10,13 **58**: 18 60:7 surficial [1] 6:15 Survey [2] 6:5 75:20 systems [1] 28:13 talked [1] 76:16 talks [1] 75:7

Tarrant [19] 5:16 7:2,16,16 9:7,8, 10 10:4,4 27:14 28:3,24 29:4 75:2 76:14,14,16 77:24 78:4 technically [1] 8:3 technological [1] 41:24 TENNESSEE [81] 1:6.7 4:24 6:2 7: 8.9.21 **8:**2.12.15.16 **9:**13.19 **11:**16 12:5 13:10.11.12.16.19.23 14:2.5 **15**:8,18,19 **16**:6,11 **18**:2 **19**:19,19, 21 **20**:1,11,13,13,23 **21**:15,22,22, 25 22:2,15 24:14 26:1 27:4 29:9, 11,20 **30**:20,23 **31**:3,4 **35**:9 **37**:14, 20 41:25 43:2 45:3 50:11,14,14 **52**:2,7,11 **53**:12 **57**:3 **60**:17 **61**:6, 10,22 **64:**8,14 **66:**4,7 **70:**5 **72:**24 74:22 76:21 77:9,13 Tennessee's [5] 12:6 22:16 25:7

**36:**16 **67:**15 tens [2] 45:6 50:12 term [2] 4:5.7 territorial [1] 52:21 territory [14] 5:14,24 7:1 11:11 13: 15 **15**:2,14 **16**:3,4,13 **19**:22 **24**:7 27:22 58:4 tested [2] 68:5 69:2 testified [4] 37:15 43:7 50:11 75: 21 testimony [2] 37:6 45:5 Texas [1] 27:19 theirs [2] 19:8 21:8 theory [7] 20:10 58:1,5,8 72:14,24 75:10 there's [26] 11:22 13:22 17:16.24 20:2 25:3,14,18 30:3,5 33:6 40:20 42:8 44:18 49:9 53:10 58:5 62:11 **64**:2,23 **72**:23 **75**:8,13,14,14 **76:**5 therefore [4] 35:22 51:16 58:20 70.14 They've [5] 6:12 51:25 62:7 68:22 70:2 thickness [1] 45:1 thinks [2] 68:21 73:2 third [1] 17:3 Thirty-seven [1] 43:18 THOMAS [18] 7:7,12,14,25 8:14 9: 1,20 **13**:18 **31**:21,22 **37**:1,21 **38**: 15 **44**:3 **55**:21,22 **73**:21,22 though [1] 67:20 three [1] 6:7 threshold [2] 69:5 12 timeliness [1] 32:15 timely [1] 33:13 title [1] 24:4 today [5] 4:10 32:8 48:3 70:17 72: Today's [1] 4:11 took [3] 23:15,18 70:3 top [1] 70:5 tort [2] 39:6 63:13 totally 3 23:21 49:23 65:21 transcript [1] 75:7 transferring [1] 42:15 translate [1] 45:6 transplant [1] 71:24 travels [1] 27:2 treat [3] 42:17.18 60:24 treated [1] 57:14 treating [1] 26:24 trespass [3] 25:4 62:8 63:14 trial [7] 37:6 39:19 42:21,21 45:5 49:1 50:16 tried [2] 70:2.2 tries [1] 63:19 trivial [1] 65:15 trouble [1] 53:15 true [7] 7:25 25:8.13 30:24 43:15 59:16 64:1 trust [4] 46:7.23.24 57:9 trying [4] 24:9 29:12 59:14 73:16

tug [1] 29:12 turn [4] 14:17 16:16 72:15 76:14 turns [1] 5:11 two [9] 18:21 21:7,11 37:5 50:2 59: 20,24 60:4,8 type [5] 10:8 11:6 27:18 40:11 70:

U

types [1] 27:13

U.S [2] 6:5 75:19 ultimately [2] 15:3 77:24 unable [1] 40:6 uncertainty [2] 28:12 66:6 under [17] 19:22 20:8.10.13.13 23: 2 39:17 42:9 43:2.3 45:3 49:9 50: 22 51:14 57:15 58:1 66:21 underground [1] 23:3 undermine [1] 28:14 underneath [3] 44:25 66:3 67:1 underpinnings [1] 69:11 understand [3] 12:11 23:20 54:16 understanding [1] 22:23 understood [1] 62:12 undisputed [3] 6:1 8:9 36:16 unfortunately [1] 23:24 unique [1] 29:19 uniquely [1] 48:25 unit [1] 43:6 UNITED [8] 1:1,17 2:9 3:10 4:6,16 55:7 57:22 units [1] 70:16 unlimited [1] 20:20 unnatural [7] 8:7 10:10 13:7 14:6, 8 54:21 64:6 unnaturally [4] 7:23 9:14 14:23 unprecedented [1] 66:10 until [3] 40:20 51:8 53:23

V

up [8] 21:23 32:5 34:11 53:20 54:

upstream [3] 5:20 14:13 64:3

11 56:23 66:19 76:2

urge [2] **52:**23 **55:**13

usage [2] 35:18 39:8

usable [2] 54:3,23

uses [1] 51:1

using [1] 13:22

usurping [1] 74:23

upheaval [1] 67:2

upheld [1] 72:24

vacuum [2] 9:15 15:10
vacuums [1] 9:16
valuable [1] 19:17
value [1] 20:11
varied [1] 65:19
velocity [1] 36:2
versus [9] 5:17 38:6 41:7,10 44:11
47:24 48:10 64:13 65:18
vessel [1] 65:3
view [4] 27:11 54:19 66:7 67:18
violating [1] 7:4

violation [1] 76:16 virtue [1] 58:3 volume [3] 36:17 43:12 44:21

W wait [1] 51:7 waived [1] 12:7 waiver [1] 5:24 Waldron [2] 37:15 50:11 wandering [1] 19:12 wanted [3] 28:16 29:22 38:21 wants [5] 33:23 66:18 76:25 77:14. war [1] 29:13 warned [1] 6:5 warrant [2] 38:4 41:17 Washington [6] 1:12 2:5.8 44:11 48:11,14 WATER [147] 1:8 5:16,21,23 7:8 8: 2,4,8 **9**:10,11,14,18 **10**:11,18 **11**: 18,23 **12**:13,14,18,24 **13**:2,8,24 **14** 13,15,23,24 **15**:3,8,11,20 **16**:1,8, 10 17:22 22:25 23:3,17,22,23 24: 3,4,10,24,25 **25**:9,19 **26**:6,7,7,11, 21 27:5.12.20.24 28:2 30:1.2.22 35:18,20,24 36:2,5,16,17,23 37:17 19 **38**:22 **39**:3,4,8,20 **40**:6,8 **42**:8, 11.16 **43:**2 **44:**4.6.18 **45:**7.10.14 **46**:6.11.13 **48**:12.21 **50**:13 **51**:12 **52**:3,8,11 **53**:16,24 **54**:3,12,20,22 **55**:3,5,6,8,8,12,16 **56**:24 **58**:18 **59**: 14,19 **60**:8,17 **61**:18,24 **62**:2,18 **63**:3,4,6,7,10,11 **64**:4,7,16,23,24 **65**:3,4,4 **66**:19,23,25 **70**:4,13 **75**:9 11,15,23 76:17,18 77:9,11 waters [3] 9:24 39:11 41:25 wav [13] 14:16 26:20 38:22 40:14 **41**:24 **42**:18 **43**:24 **50**:8 **57**:2 **58**: 13 66:17.18 76:1 wavs [1] 59:6 week [1] 66:15 weiahina [1] 51:2 welcome [4] 4:14 7:6 36:24 58:22 well-established [1] 57:15 wells [13] 7:13,21 8:9 14:4 15:9 30: 22 61:5,6,9,24 64:13 70:6 76:7 western [3] 19:9 29:8 30:17 wet [1] 53:23 whatever [8] 18:9 19:3,11 20:17 **31:**3.4 **34:**4 **60:**19 whatsoever [3] 29:17 30:6 77:15 whenever [2] 8:17 21:20 whereas [1] 15:5 Whereupon [1] 78:9 wherever [2] 19:14 77:11

whether [21] 6:20 11:3,25 12:23

15:2 16:18 18:9 21:14 22:4 25:3

wild [9] 19:10.10 21:3 23:5 24:11

18,20,21,23 72:4 76:6

who's [2] 9:10 14:22

45:25 47:10.17 49:23

Whoever [1] 21:19

32:14 44:12 52:1 62:20 64:11 68:

wildfires [1] 47:12 Wiley [1] 37:9 will [10] 4:9,22 14:14 18:21 23:24 44:6 49:10 67:20 71:14 77:20 win [3] 12:18 13:5 26:4 wins [1] 29:9 wish [1] 4:20 withdraw [1] 24:19 withdrawals [1] 36:16 within [31] 5:14 6:7 7:1 8:13 9:14 **10**:9.11 **13**:14.19 **14**:3 **15**:1.14 **16**: 2.4.6.11.12 19:25 20:25 22:16 24: 6,17,20 **27:**21 **29:**1,18 **33:**24 **34:**6 60:2 74:25 76:22 without [8] 6:3 7:4 9:5 41:3 51:19 **52**:15 **67**:13 **77**:19 Wolf [1] 49:3 wondering [5] 20:5 32:8,16 45:18 59:12 word [1] 49:21 words [1] 37:18 work [1] 26:20 working [1] 17:13 world [1] 48:4

Υ

year [2] **65**:20,20 years [4] **16**:22 **35**:12 **36**:19 **44**:14

\_\_\_

zero [1] 29:22 zone [1] 49:5

worry [1] 49:24

Wyoming [1] 41:7