UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NORTH CAROLINA
SOUTHERN DIVISION

IN RE:	)	Docket No.
	)	7:23-CV-00897
CAMP LEJEUNE WATER LITIGATION	)	

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TUESDAY, MARCH 25, 2025
TRANSCRIPT OF HEARING
BEFORE THE HONORABLE RICHARD E. MYERS II,
UNITED STATES CHIEF DISTRICT JUDGE

THE HONORABLE LOUISE W. FLANAGAN,
THE HONORABLE TERRENCE W. BOYLE,
THE HONORABLE JAMES C. DEVER III,
UNITED STATES DISTRICT JUDGE

APPEARANCES:

On Behalf of the Plaintiffs:

J. Edward Bell III, William M. Dowling,
James A. Roberts III, Zina Bush, Hugh R. Overholt,
Mona Lisa Wallace, Robin Greenwald,
Elizabeth Cabraser, Laura Baughman

On Behalf of the Government:

John A. Bain, Haroon Anwar, Allison M. O'Leary,
Giovanni Antonucci, Hanley Gibbons,
Bridget Bailey Lipscomb

JENNIFER C. CARROLL, RMR, CRR, CRC
Official Court Reporter
United States District Court
Raleigh, North Carolina
Stenotype with computer-aided transcription

Tuesday, March 25, 2025, at 1:04 p.m.

12:40:26 **P R O C E E D I N G S**

13:04:19 THE HONORABLE CHIEF JUDGE MYERS: All right. Good
13:04:20 morning, everyone -- good afternoon, everyone. We're now
13:04:24 in session in *in re: Camp Lejeune Water Litigation*. We
13:04:30 have multiple individuals present here for the United
13:04:32 States as well as for the defense -- I mean, as well as for
13:04:37 the plaintiff. So if the plaintiff would please make their
13:04:39 appearance.

13:04:40 MR. BELL: Good morning, Your Honors. Edward Bell
13:04:43 for the plaintiffs.

13:04:44 MR. DOWLING: Good morning, Your Honor. Mike
13:04:46 Dowling on behalf of plaintiffs.

13:04:47 MR. ROBERTS: Good morning. Jim Roberts on behalf
13:04:49 of the plaintiffs.

13:04:53 MS. BASH: Good morning. Zina Bash on behalf of
13:04:55 the plaintiffs.

13:04:55 THE HONORABLE CHIEF JUDGE MYERS: Thank you.

13:04:55 And for the United States.

13:04:56 MR. BAIN: Good afternoon, Your Honor. Adam Bain
13:04:58 for the United States.

13:04:59 MR. ANWAR: Good afternoon, Your Honor. Haroon
13:05:01 Anwar for the United States.

13:05:02 MS. O'LEARY: Good afternoon. Allison O'Leary for
13:05:05 the United States.

13:05:06 MR. ANTONUCCI: Good afternoon. Giovanni
13:05:07 Antonucci for the United States.
13:05:09 MR. GIBBONS: Good afternoon, Your Honor. Hanley
13:05:11 Gibbons for the United States.
13:05:14 THE HONORABLE CHIEF JUDGE MYERS: All right.
13:05:15 Thank you.
13:05:16 And welcome to everyone in the gallery. I know
13:05:19 this has generated some interest.
13:05:21 So we're here today because we're going to have
13:05:25 some presentations by the parties regarding water at Camp
13:05:30 Lejeune. The Court's intention is to listen to the
13:05:31 presentations by the parties and then resulting in some
13:05:35 questions from the bench. This litigation is somewhere in
13:05:39 its second year. We're working our way through both this
13:05:43 litigation process which is taking part in installments.
13:05:48 First, we're going to figure out water, then we're going to
13:05:51 figure out exposure. We're going to figure out causation
13:05:55 of various diseases in the tracked method, where those
13:05:58 diseases can be determined whether or not they're caused by
13:06:02 exposure to water at Camp Lejeune. And ultimately, we will
13:06:05 determine liability compensation.
13:06:10 The purpose of today's hearing, we're here to talk
13:06:13 about water, where it was, and how we're going to think
13:06:15 about that. And so with that in mind, we'll start with the
13:06:17 plaintiffs' presentation.

13:06:18 MR. BELL: Good afternoon, Your Honor.
13:06:19 Mr. Dowling is going to address that issue.
13:06:21 THE HONORABLE CHIEF JUDGE MYERS: Thank you, sir.
13:06:22 MR. DOWLING: Good morning, Your Honor. For
13:06:24 planning purposes, can -- this is a novel hearing for
13:06:27 myself. Can I assume that the 20 minutes is what I have
13:06:30 and I won't be rebutting the --
13:06:33 THE HONORABLE CHIEF JUDGE MYERS: I think the
13:06:34 anticipation is 20 minutes on your side, 20 minutes from
13:06:36 the United States, questions from the bench, which will
13:06:40 create a back and forth. So there may be some responsive
13:06:43 statements or questions that say, "How do you now respond
13:06:47 to that?", or vice versa. The United States, of course, by
13:06:51 going second has the benefit of being able to respond in
13:06:52 its presentation.
13:06:53 MR. DOWLING: Understood, Your Honor. Thank you
13:06:55 very much.
13:06:55 Your Honor, with the Court's permission I would
13:06:56 like to forecast plaintiffs' position on two key
13:06:59 substantive Phase I issues this afternoon. The two key
13:07:02 substantive issues are as follows: First, from the 1950s
13:07:07 to the mid-1980s, parts of Camp Lejeune's water
13:07:10 distribution systems were highly contaminated with
13:07:13 poisonous chemicals. And second, the federal government's
13:07:17 historical water modeling reconstructions, the reports

13:07:21 generated by the ATSDR that cataloged the mean monthly
13:07:25 concentration of the poisonous chemicals, are reliable.
13:07:29 Turning to the first issue, Your Honor: We are
13:07:32 here today because of the groundwater contamination that
13:07:35 occurred at Camp Lejeune from the early 1950s to the
13:07:39 mid-1980s, and -- because that contamination injured
13:07:42 thousands of Marines, their family members, and civil
13:07:45 employees that worked at the base. The contamination of
13:07:49 Camp Lejeune's water supply was so extensive and so total
13:07:52 that the base is still under remedial measures and EPA
13:07:57 Superfund institutional controls to this day. At this
13:08:00 moment, there are efforts -- ongoing efforts to remediate
13:08:04 the base.
13:08:05 So at this point, the contamination has been
13:08:08 present for over 70 years. And despite substantial time,
13:08:11 millions of dollars in expense, the contamination has still
13:08:14 not been eliminated. How did this environmental disaster
13:08:19 happen?
13:08:20 Your Honor, construction of Camp Lejeune began in
13:08:24 early 1941. And since the inception, the sole source of
13:08:29 drinking water at Camp Lejeune has been from the freshwater
13:08:32 aquifers beneath Camp Lejeune's sandy soil. Camp Lejeune
13:08:37 grew rapidly in the decades that follow and eventually was
13:08:42 supported by nine separate water distribution systems.
13:08:51 The three known contaminated water distribution

13:08:57 systems are indicated in Plaintiff's Exhibit 1 which is
13:08:59 before the Court. I hope Your Honors can all see
13:09:02 Plaintiff's Exhibit 1. And as Your Honors can see, this is
13:09:05 a chart from the ATSDR's historical water modeling. It
13:09:09 provides some context showing the base overall in the
13:09:12 bottom left-hand corner and then it zooms in on the three
13:09:14 water distribution systems that are at issue and that were
13:09:17 contaminated. Those water distribution systems include,
13:09:20 first, the Hadnot Point water treatment service area;
13:09:24 second, the Holcomb Boulevard water treatment service area;
13:09:28 and then third, the Tarawa Terrace water treatment service
13:09:31 area.

13:09:33 What were these locations? What kinds of
13:09:36 operations did they support? Well, Hadnot Point is the
13:09:44 nerve center of Camp Lejeune. This is the location where
13:09:48 most single enlisted Marines lived and worked in barracks.
13:09:52 Open squad bay or H-style barracks. Thousands upon
13:09:56 thousands of them.

13:09:56 This is the location, as our demonstrative exhibit
13:10:01 Plaintiff's Exhibit 2 demonstrates, of the main
13:10:02 headquarters building, where officers and others would
13:10:05 administer the business of the base. There was a brig at
13:10:08 Hadnot Point. There was an armory and various other
13:10:11 training facilities. There was substantial commercial
13:10:14 activity at Hadnot Point within the Hadnot Point water

13:10:17 treatment service areas. There was a main post exchange
13:10:19 where Marines and their family members could shop, get
13:10:22 groceries, clothing, whatever they may need. There were
13:10:26 social amenities -- movie theaters, gyms, bowling alleys.
13:10:30 There were locations where children spent a lot of time --
13:10:32 high schools, junior high schools. And there was a
13:10:37 hospital. The original Naval hospital was located at
13:10:41 Hospital Point, and it was where individuals, Marines,
13:10:45 their family members would come to receive medical
13:10:48 services.

13:10:50 Now, the Tarawa Terrace water distribution system,
13:10:57 which, again, is indicated on the screen, is in the
13:11:01 northwestern quadrant of the base, Your Honors. And Tarawa
13:11:05 Terrace is essentially a subdivision -- looks very much
13:11:10 like a subdivision at the base. It was primarily
13:11:14 residential housing units for enlisted Marines and their
13:11:18 families and their spouses and their children. However,
13:11:20 there were also -- there were also elementary schools and
13:11:26 other amenities that were present at Tarawa Terrace.

13:11:29 And then finally, Holcomb Boulevard, Your Honors.
13:11:33 I'm sorry to flip around on these, but once I lay the
13:11:36 groundwork, I think it will become clear.

13:11:39 Holcomb Boulevard is just to the north of Tarawa
13:11:44 Terrace in this area right here. Holcomb Boulevard was
13:11:47 primarily residential housing units for the Marines and

13:11:48 their families. There was a golf course at this location.
13:11:51 A new Naval hospital was opened in 1983, and so medical
13:11:54 services were provided at that location. And again, there
13:11:58 were elementary, middle, and junior high schools at Holcomb
13:12:01 Boulevard.
13:12:02 Your Honor, there have been estimates in media
13:12:05 reports that the base may have seen up to a million people
13:12:08 during the statutory time frame. Certainly, it's safe to
13:12:11 say that tens, if not hundreds, of thousands of folks
13:12:16 lived, worked, or otherwise received their water from these
13:12:19 three water treatment service areas.
13:12:22 So what happened? Well, during the early 1980s,
13:12:27 concentrations of -- high concentrations of volatile
13:12:31 organic compounds and solvents were discovered in supply
13:12:34 wells and the finished drinking water at Tarawa Terrace and
13:12:37 at Hadnot Point. Within the Tarawa Terrace water treatment
13:12:43 service area, investigation revealed that the source of
13:12:46 that contamination was a dry cleaners that was located just
13:12:51 north of the base, across from Highway 24. That dry
13:12:54 cleaners is indicated on Plaintiff's Exhibit 3, Your
13:12:56 Honors. And just for perspective, this is Highway 24
13:13:02 headed towards Swansboro, and ABC 1 Hour dry cleaners is
13:13:07 just on the other side of the base there. And the
13:13:09 investigation revealed that since the early 1950s, the
13:13:13 operators of ABC dry cleaners, they would dispose of a

13:13:17 chemical that was common in the dry-cleaning industry
13:13:20 called PCE, or tetrachloroethylene or perchloroethylene.
13:13:24 And the way they would dispose of this chemical
13:13:26 was they would walk outside and they would pour it in a
13:13:30 hole in the ground in the parking lot. Now, subsequent
13:13:32 investigation has revealed that that PCE filtered through
13:13:36 the sand into the groundwater below and then ultimately
13:13:40 formed a plume of toxic poison that was pooled with the
13:13:45 groundwater towards Tarawa Terrace. Unfortunately, there
13:13:48 were several supply wells that provided water to the Tarawa
13:13:50 Terrace water distribution system in this area, including
13:13:53 supply well TT-26, just a few hundred yards from ABC dry
13:13:58 cleaners. And over time, the poison was sucked up by
13:14:03 TT-26, provided to the larger water distribution system in
13:14:06 Tarawa Terrace, and provided to end users who lived or
13:14:10 otherwise obtained their water from Tarawa Terrace.
13:14:15 At Hadnot Point, there were several sources of
13:14:22 contamination. I'll detail some of them briefly. One of
13:14:25 them was a landfill located here to the north.
13:14:30 Investigation revealed that in the '40s and '50s and
13:14:35 otherwise, base operations involved dumping solvents and
13:14:38 chemicals at this landfill. They were placed in drums.
13:14:42 The drums leaked. The solvent seeped into the aquifer and
13:14:47 were pumped up by the supply wells, including supply well
13:14:51 HP-651. And as with Tarawa Terrace, they were pumped into

13:14:54 the Hadnot Point water distribution system.

13:14:58 Another source of the contamination, Your Honors,
13:15:00 was the Hadnot Point Industrial Area. The Hadnot Point
13:15:03 Industrial Area, as the name implies, is an area where
13:15:07 substantial industrial operations are occurring. This is
13:15:10 an area of warehouses. This is an area where heavy
13:15:13 equipment, tanks, vehicles, motors are stored, cleaned, and
13:15:19 maintained. And part of that maintenance and storage and
13:15:22 cleaning involve the use of poisonous solvents. And as the
13:15:29 investigation has revealed, those solvents made their way
13:15:32 into the aquifer. The supply wells pumped the poisons out
13:15:36 and distributed them out to the Hadnot Point water
13:15:41 treatment service area.

13:15:42 I want to give a little bit of additional context
13:15:46 to the Hadnot Point Industrial Area, Your Honors. This is
13:15:49 a picture of one of the Track 1 trial plaintiffs who is
13:15:54 before Your Honor.

13:15:55 Judge Flanagan, this is Mr. Gary McElheny. And
13:15:58 this picture, we believe, was taken in the early 1970s at
13:16:01 the industrial area at Hadnot Point.

13:16:03 Mr. McElheny, he's a 20-plus-year active duty
13:16:06 Marine. At this point in his life he was living at the
13:16:10 barracks -- the mainside barracks. He would be exposed to
13:16:13 the drinking water at the barracks, through water
13:16:16 fountains. He would take showers in the contaminated

water. He would eat chow at the chow hall at mainside. He would march over to the industrial area where he would maintain equipment and throughout the day hydrate himself with poisonous water. And ultimately developed Parkinson's disease several years later.

This is an additional picture of Mr. McElheny when he was a little bit older, with his wife, Simone. And this is just to give the Court some context about the kinds of activities -- the nature of these activities that were occurring at Hadnot Point. You can see a diesel motor within the foreground, and then in the background you can see some drums. Candidly, we're not sure what was in the drums, but we don't believe that it was anything that was safe to be in drinking water.

So the result of Camp Lejeune's poor chemical management practices and the placement of the wells at Hadnot Point and Tarawa Terrace was that Camp Lejeune's drinking water contained hazardous levels of chemicals.

Your Honor, this Plaintiff's Exhibit 6 is a chart from the Government's historical water modeling report regarding Hadnot Point. And I want to walk the Court through a couple of the points on here so the Court has a better understanding of what we're looking at.

As I indicated, Your Honor, testing began -- actual testing of these solvents began in the 1980s. And

13:17:39 so where you see these squares and these circles, those are
13:17:44 actual test results for solvents that were in the drinking
13:17:47 water. The squiggly lines, reminiscent of an EKG, that is
13:17:56 the product of the ATSDR's historic water modeling. The
13:17:57 average mean -- I'm sorry, the monthly mean concentrations
13:17:59 of the various chemicals. And so, for instance, the pink
13:18:02 line reflects TCE -- the average monthly levels of TCE over
13:18:07 time from the 1950s all the way forward.
13:18:11 Your Honor, I want to point out this line right
13:18:13 here. This dotted line signifies the maximum contaminant
13:18:19 level, the MCL. And the maximum contaminant level, in
13:18:25 candor they did not exist for much of the time period that
13:18:27 was at issue in this base. But we now know, based on
13:18:30 science and research, the maximum contaminate level is what
13:18:32 the public health agencies deem is an acceptable level of
13:18:35 these chemicals in the water. And it's set at 5 micrograms
13:18:39 per liter for PCE, TCE, and benzene.
13:18:43 As you can see here, this May 1982 actual
13:18:49 measurement of TCE at Hadnot Point is over 280 times above
13:18:55 the MCL, the enforceable limit for TCE in drinking water.
13:19:03 And as you can see from the rest of the chart which details
13:19:06 the chemicals, they are all above what is acceptable and
13:19:09 what is safe for drinking water.
13:19:12 In 1989, Your Honors, Camp Lejeune was placed on
13:19:15 the EPA's National Priorities List. It was declared a

hazardous waste Superfund site. And as I mentioned before, they are still attempting to fix the environmental damage that has occurred here. But the bottom line on this first issue, Your Honor -- and this is just a very high-level forecast -- is that the groundwater and drinking water at Camp Lejeune, at Hadnot Point, Holcomb Boulevard, and Tarawa Terrace was highly contaminated.

I do want to clarify one thing I may have missed. Holcomb Boulevard for much of the time period at issue received its drinking water from Hadnot Point. It received a separate water treatment system in June of 1972. But before that time, drinking water that was provided by Hadnot Point was provided to Holcomb Boulevard. And so you will see in the ATSDR historical water modeling report that the two -- Hadnot Point and Holcomb Boulevard -- are treated as a joint -- a consolidated water model.

Now, as I mentioned earlier, turning to the second issue, the ATSDR's historic water modeling, Marines and scientists at the base first began testing the contaminants in the 1980s. Determining the contamination levels before that time period required the science of historical water modeling. And historical water modeling was not conducted by us. It was not conducted by the DOJ. It was conducted by a government agency called the Agency for Toxic Substances and Disease Registry. This was an agency that

was formed under the CERCLA legislation. It's a public health agency.

And I want to stress to the Court: We are in a really unique situation here. This expert report that we are going to ask the Court to rely on as part of Phase I, I respectfully submit this is unlike any expert report that has been put before this Court and that a litigant is asked to rely upon. We did not commission this report. We did not pay for this report. This was a report of a government agency. This was a report that was funded at great taxpayer expense. And this was a report that is incredibly thorough. This was a report that took years to produce. And this was a report we're confident that the Court will conclude is reliable and can be relied upon for purposes of determining the average or the monthly mean levels of contaminants in the water at Camp Lejeune.

Morris Maslia, a government engineer at ATSDR, was the project lead at the agency at the time, and he oversaw the historic water modeling. He has since retired. He is a retained testifying expert for the plaintiffs. We have disclosed his report.

Mr. Maslia at the outset in the early 2000s, when he set about to create the historic water model, he brought together a team of over 20 scientists from diverse subject matter areas: hydrologists, geologists, engineers,

13:22:19 mathematicians. He sought their feedback. He incorporated
13:22:24 their feedback. He built a model. He used the data that
13:22:28 was available to him to create that model, and he ran using
13:22:33 statistical software and water simulation software these
13:22:38 historical water modeling simulations like the one in
13:22:40 Plaintiff's Exhibit 6.
13:22:41 I want to stress again: Why is this report so
13:22:43 unique? I submit to you, we have a report that has
13:22:47 actually been peer-reviewed. How many times in civil
13:22:50 litigation is an expert's report that's been retained by a
13:22:53 party has it been subject to peer review? And this report
13:22:56 has not been subject to peer review once. It's been
13:22:59 subject to peer review at multiple levels all along the
13:23:02 process. There were expert panels at the beginning that
13:23:05 helped provide input as to how to set up the historical
13:23:08 water modeling. When each report -- the Tarawa Terrace and
13:23:13 Hadnot Point reports were generated, they were then subject
13:23:15 to external peer review. These results were presented at
13:23:18 conferences. Feedback was obtained and it was incorporated
13:23:21 where appropriate. And these were published in two
13:23:25 peer-reviewed journals.
13:23:27 We are at the pinnacle of science. And at the
13:23:30 risk of sounding hyperbolic, I submit to you that the ATSDR
13:23:34 water modeling report truly is an engineering feat and it
13:23:38 is something to behold. And the Capstone to that, in 2015,

based on the work at the ATSDR, the work of Mr. Maslia and his team, they were awarded the grand prize for Excellence in Environmental Engineering and Science by the American Academy of Environmental Engineers. It's not just that it's been peer-reviewed. It's not just that it's been thorough and no expense was spared. The Government right now, the Department of Veterans Affairs, is relying at least in part on this water model to make determinations about was something service connected, who should receive disability benefits. There's substantial reliance interests baked into the ATSDR historic water modeling report.

And so the bottom line, Your Honors, is the water modeling is thorough. It's rigorous. It's multitime peer-reviewed. It's award winning. It easily meets the standard for admissibility, respectfully, under *Daubert*. And we will ask the Court at the appropriate time -- and we hope soon -- to use this as the baseline, as the cornerstone and the foundation, to resolve these cases.

Now, my friends on the other side, they have no alternative model. They don't have an alternative water model. What they have done -- after the scientific community passed upon the ATSDR, they have retained outside experts who have lobbed various criticisms at the water model. They're poking at the outset -- at the outside of

13:25:10 the water model attempting to undermine its reliability.
13:25:14 And in the appropriate forum, we have an answer for all of
13:25:17 their criticisms. But at the highest level, the most
13:25:21 fundamental premise is that much, if not all, of these
13:25:23 criticisms either were or could have been raised through
13:25:27 these multiple peer-review steps. And it's our submission,
13:25:32 Your Honor, that it's inappropriate for the Department of
13:25:35 Justice to come back after the fact and to substitute or
13:25:38 attempt to substitute its judgment on a scientific matter
13:25:41 the scientific community has so readily resolved and
13:25:45 accepted. That's what they're going to do. We are proud
13:25:51 to defend the reliability of the Government's water model
13:25:53 and we believe the Court should have great confidence in
13:25:56 that water model.
13:26:03 I do recognize -- and I won't have an opportunity
13:26:07 to address the Court on rebuttal -- or potentially won't.
13:26:10 I want to give an example of some of these criticisms that
13:26:13 may be brought up during the Government's presentation.
13:26:18 There is a chart in the Government's presentation
13:26:20 that shows these four graphs. And the purpose, we believe,
13:26:25 although I haven't heard their presentation, is that this
13:26:27 shows that the water model is biased high. That the
13:26:30 monthly mean concentrations, in their view, actually -- the
13:26:35 simulated line here is higher than the observed line.
13:26:38 You'll hear that, "It's biased high. It's biased high."

13:26:41 Again, these matters were considered during peer review.

13:26:44 But in any event, what they have not presented in
13:26:47 their slides is that these particular examples, the overall
13:26:52 contribution of these supply wells that supposedly were
13:26:54 biased high, are minuscule. The main contributor to the
13:26:59 finished water at Tarawa Terrace was TT-26, the well I
13:27:04 showed you just a few hundred feet from ABC dry cleaners.
13:27:07 It contributed far more finished water to the overall
13:27:12 Tarawa Terrace water treatment plant. And as you can see,
13:27:14 and we can explain this with scientists, that the model
13:27:18 rides right in the middle of these observed volatile
13:27:24 organic compound measurements. We wanted to make sure the
13:27:26 Court knew that because we believe this is going to be
13:27:29 presented.

13:27:30 And additionally, the Government's taken the
13:27:35 position that the ATSDR says you shouldn't use this report.
13:27:38 You should not use this report because the ATSDR has said
13:27:41 as much. And they have put before the Court a partial
13:27:44 quote from a 2007 water treatment plant -- water treatment
13:27:48 historical model. And in essence -- you can read it for
13:27:51 yourself, but it says the "ATSDR's exposure assessment
13:27:54 cannot be used to determine whether you, or your family,
13:27:57 suffered any health effects as a result of past exposure to
13:28:03 PCE-contaminated drinking water at Camp Lejeune."

13:28:05 This is not the last word from the ATSDR on this

matter. In a subsequent report in 2009, the ATSDR inserted the word "alone" right there. This is not in the Government's slides. But we want the Court to be aware of it. And what the ATSDR has subsequently said in its last word is, this is one tool that individuals can use as part of a holistic analysis to determine whether their exposure caused their disease. We don't want the Court to be left with the missed impression that this was the last the ATSDR ever had to say about this.

Your Honors, in conclusion, the evidence is overwhelming that Camp Lejeune and the water at Tarawa Terrace and Hadnot Point and Holcomb Boulevard was heavily contaminated. The evidence is also overwhelming that the ATSDR used reliable methods and tools to re-create the historical monthly mean concentration of chemicals in the water at Camp Lejeune. Those monthly mean concentrations from the Government's own reports are reliable evidence that this Court and the litigants in this case can and should rely upon.

Your Honor, we appreciate the Court's willingness to hold this hearing. As you indicated, it's generated a lot of interest. We hope that this has been helpful to the Court and we stand ready to answer any questions you may have. And thank you very much.

THE HONORABLE CHIEF JUDGE MYERS: Thank you,

13:29:27 counsel.

13:29:30 Counsel for the United States.

13:29:32 MR. BAIN: May it please the Court, Adam Bain for
13:29:34 the United States.

13:29:36 Individual exposure is essential to the Camp
13:29:38 Lejeune Justice Act's causation requirement. This was
13:29:41 stated in the Court's order of June 5th, 2024. The
13:29:46 questions regarding water contamination are what was in the
13:29:49 water, where was it, and when was it there. These are
13:29:53 complex questions, and there are two factors that
13:29:55 contribute to the complexity.

13:29:57 First, only two of the nine water systems at Camp
13:30:01 Lejeune were supplied by contaminated wells, and the
13:30:05 primary contaminate was different in each of the two
13:30:07 systems.

13:30:08 Second, for most of the time covered by the Camp
13:30:11 Lejeune Justice Act there is no data at all about the
13:30:14 concentrations of contaminants in those systems. I would
13:30:19 like to cover each of those factors in turn in detail.

13:30:22 With respect to the contaminated water systems at
13:30:25 Camp Lejeune, it's important to know or to recognize that
13:30:28 Camp Lejeune is a very large geographic area. This map,
13:30:33 Government Exhibit 1, shows the relative size of Camp
13:30:37 Lejeune in comparison to the Raleigh metropolitan area. It
13:30:40 takes a long time to get from one part of Camp Lejeune to

13:30:43 another. People lived and worked at different areas on the
13:30:47 base and these areas can be quite distant from one another.
13:30:52 Some of the areas at Camp Lejeune were served at times by
13:30:55 contaminated water supply systems but others were not.
13:31:00 This map, Government Exhibit 2, depicts the nine
13:31:03 water supply systems that operated at different times
13:31:06 during the history of Camp Lejeune. The contaminants of
13:31:10 concern in this litigation, primarily perchloroethylene,
13:31:14 PCE, and trichloroethylene, TCE, were only detected in
13:31:19 wells that served the Hadnot Point and the Tarawa Terrace
13:31:22 systems. These contaminants have not been detected in the
13:31:27 wells that served the other water supply systems. In
13:31:31 particular, there are systems west of Tarawa Terrace -- and
13:31:33 you can see on this map Camp Johnson, Camp Geiger, Marine
13:31:38 Corps Air Station New River, rifle range -- that were not
13:31:42 contaminated with these chemicals. Some of the Track 1
13:31:46 trial plaintiffs spent most, if not all, of their time in
13:31:50 areas served by uncontaminated water systems. For example,
13:31:54 Plaintiff Badonna [phonetic] was only at Camp Johnson. If
13:31:58 an individual was stationed or lived in one of these areas,
13:32:01 the opportunity for exposure is much less than for those
13:32:05 who lived or worked at Tarawa Terrace and Hadnot Point. In
13:32:09 the areas west of Tarawa Terrace, such as Camp Geiger and
13:32:14 end pass New River, had their own mess halls. They had
13:32:18 their own amenities, such as stores or barbershops. They

had their own service clubs. They even had their own recreational facilitates, such as movie theaters and bowling alleys.

To be exposed to contaminants, individuals in the areas west of Tarawa Terrace would have had to travel from where they lived or worked -- and in most instances, quite a distance -- to the other side of the base. The plaintiffs want you to believe that people were going from these areas to Hadnot Point all the time. But to get to Hadnot Point from the Air Station or from Camp Geiger, you have to travel nearly 15 miles and go through the main gate. And the rifle range is even further away.

Additionally, it's very unlikely that they had contaminated water brought to them since they had their own water systems. We anticipate calling historians in Phase I to discuss the historical development of the different water systems and what the historical record shows about movement of individuals from one part of the base to the other.

Now, a second complexity with respect to the exposure issue is the lack of data regarding the contamination of the Tarawa Terrace and Hadnot Point water supply systems. Government Exhibit 3 shows that during most of the period covered by the statute, there is no data regarding the contamination. The only data is from the

1980s. There's no data from the '70s, the '60s, or the '50s.

The plaintiffs, as you've heard, want the Courts to rely on the ATSDR's water model to provide precise chemical concentrations for individual exposures during the periods where there's no data. But that wasn't the purpose of the ATSDR's water model. The ATSDR specifically warned the public not to use the model in this way. In *Daubert*, the Court stated that an expert opinion must fit the issues in the case. The Court stated a fit isn't always obvious and that scientific validity for one purpose isn't necessarily scientific validity for another purpose. So it's important for the Court to consider the purpose of the ATSDR's water model and whether it fits the individual exposure issues in this case. That's the way the plaintiffs are trying to use it.

The purpose of the ATSDR's water model wasn't to provide precise exposure numbers for individuals to determine what their exposure was and whether it was caused by the contamination. And that's how the plaintiffs are trying to use it. Instead, the ATSDR's water model was to support the ATSDR's health studies. These studies looked at relative exposure levels of different populations or groups of individuals to evaluate the risk of disease.

Ultimately, the ATSDR's health studies, as

13:35:13 Mr. Dowling mentioned, supported the VA's presumptive
13:35:17 decision-making for disability determinations and for
13:35:20 healthcare costs for certain health conditions. Because
13:35:24 the ATSDR's model was to determine relative exposure levels
13:35:28 for groups, it did not need to be precise and accurate with
13:35:32 respect to individual exposure levels. And this is
13:35:36 particularly the case regarding when the contamination
13:35:38 began at Camp Lejeune and these different water systems.
13:35:42 In fact, the ATSDR's water model was based on many
13:35:45 assumptions and incorporated complex environmental models.
13:35:51 This makes it highly uncertain and unreliable for the
13:35:54 purpose the plaintiffs are seeking to use it in this case.
13:35:59 Government Exhibit 4, which is the map that
13:36:01 Mr. Dowling presented, shows some of the important features
13:36:05 that affected the modeling effort. The first important
13:36:10 feature is the source of the contamination. For Tarawa
13:36:13 Terrace, as you heard, the source was the ABC Cleaners
13:36:16 depicted by the red square at the top. For Hadnot Point,
13:36:21 as you heard, the sources are the landfill and the
13:36:24 industrial area depicted by the shaded areas in the middle
13:36:28 of the map.
13:36:30 The second important feature is the water supply
13:36:33 wells that are depicted by the blue dots on the map. You
13:36:37 see for Tarawa Terrace there were a few water supply wells
13:36:39 that are located in the central part of that area. For

13:36:44 Hadnot Point, there are several water supply wells located
13:36:48 throughout the area.
13:36:50 So to provide the relative group exposure
13:36:53 information for the ATSDR's epidemiologists and health
13:36:58 scientists, they needed to fill the decades-long data gap
13:37:01 for the years prior to the 1980s. They had to address
13:37:05 important questions about when the chemicals first got into
13:37:09 the environment, about how quickly the chemicals traveled
13:37:12 to the water systems, and about the general levels of
13:37:16 chemicals in the water systems over time.
13:37:19 What did they do? They performed several
13:37:22 different analyses to answer these questions.
13:37:25 First, they needed to determine when did the
13:37:28 contaminants enter the environment at the source areas.
13:37:31 This required making assumptions about events that occurred
13:37:35 decades earlier.
13:37:37 Second, they needed to determine how does
13:37:40 groundwater move at Camp Lejeune. This involved using a
13:37:43 complex groundwater model called MODFLOW.
13:37:46 Third, they needed to determine how were chemicals
13:37:49 transported through the groundwater. This involved using
13:37:52 yet another complex environmental model called MT3DMS.
13:37:58 Finally, they needed to make assumptions about how
13:38:01 the well supplied water to the treatment plants. Because
13:38:04 there were many wells and only a few of them were

13:38:07 contaminated. And all of these wells were not pumping all
13:38:10 the time. They were rotated in and out of service. Each
13:38:15 step that the ATSDR water modeling team did required them
13:38:18 to make assumptions, and each assumption adds an additional
13:38:24 layer of uncertainty with respect to the water model's
13:38:27 ability to reflect reality.
13:38:29 But the ATSDR water model was never intended to
13:38:32 reflect reality of individual exposure with accurate and
13:38:36 precise concentration levels. And to give you one example:
13:38:41 The ATSDR's water modeling did not try to determine how
13:38:45 much of the chemicals were lost when the water was
13:38:49 transported from the water supply wells to the tap.
13:38:51 The next exhibit shows how water moves from supply
13:38:58 wells to the tap. It goes first to a raw water reservoir.
13:39:03 It is then treated in spiractors, which are conical tanks
13:39:09 that soften water. It then goes through sand filters to
13:39:12 remove dirt. It is stored again in reservoirs and water
13:39:19 towers. And then it is distributed through pipes to the
13:39:21 tap. At each of these steps, contaminates are lost to the
13:39:26 atmosphere because these chemicals readily volatilize,
13:39:30 which means they disburse in vapor form when exposed to the
13:39:34 air. ATSDR's water modelers did not account for this loss,
13:39:38 which is what they would have done if they were trying to
13:39:41 determine precise and accurate individual exposure levels.
13:39:46 But that analysis was not necessary for

13:39:49 determining relative exposure levels for groups of
13:39:52 population for the epidemiology studies. As you can see in
13:39:57 Government's Exhibit 6, the ATSDR acknowledged the
13:40:01 uncertainties in the water model, uncertainties due to the
13:40:05 reconstructed inputs, that is, where the chemicals were
13:40:08 released, and uncertainties due to the pumping schedules
13:40:12 for the water supply wells.
13:40:16 Government Exhibit 7 shows -- and you saw this
13:40:18 before. But what it shows -- and it's several instances --
13:40:21 is the results of the models did not pick the few data
13:40:25 points available. The four graphs represent water supply
13:40:29 wells at Tarawa Terrace. The dots show the actual measured
13:40:34 concentrations of the chemicals and the lines show the
13:40:38 values produced by the model. As you can see, the model
13:40:42 results do not fit the measured concentrations.
13:40:48 The next exhibit, Government Exhibit 9 [sic],
13:40:50 shows how different assumptions about when the contaminants
13:40:54 entered the environment affects the results of the ATSDR
13:40:56 model. For Hadnot Point, no one knows when the releases
13:41:01 occurred. If you look at the black dots at the right of
13:41:06 the graph, you'll see those are the measured
13:41:10 concentrations. Those are the actual measured
13:41:12 concentrations that were taken.
13:41:17 Going back to the graph. If you see each line to
13:41:21 the right and went over -- I mean, excuse me. Starting at

13:41:26 the left and going over to the right, each line reflects a
13:41:29 different assume date when contamination entered the
13:41:34 environment at Hadnot Point. The ATSDR was here testing
13:41:38 the sensitivity of the model to the selection of different
13:41:40 release dates. The date the ATSDR selected was not based
13:41:45 on any historic information about when the release
13:41:49 occurred, but rather on an assumption about when storage
13:41:53 tanks would likely have started leaking. The date selected
13:41:57 does not make a big difference in the later years where you
13:42:00 see that the lines coalesce, which is during the period of
13:42:04 the epidemiological studies. However, it does make a big
13:42:08 difference in the earlier years which includes the period
13:42:11 covered by the Camp Lejeune Justice Act.
13:42:16 Given the lack of data and the level of complexity
13:42:20 built into the model, the chances of achieving a precise
13:42:23 and accurate historic exposure for any individual is about
13:42:28 the same as hitting a moving target in a hurricane. It
13:42:31 just can't be done. For example, you can't say based on
13:42:35 this graph that a person at Hadnot Point in 1970 was
13:42:40 exposed to ten parts per billion of TCE in the water. But
13:42:44 what you can say, and this model allows you to say, is that
13:42:48 the people drinking water at Hadnot Point in the 1980 to
13:42:54 1985 time frame likely had a higher relative exposure than
13:42:57 those drinking water in the 1970 to the 1973 time frame.
13:43:03 The relative exposure levels can be derived from the

13:43:06 results of the model to allow the ATSDR health scientists
13:43:11 to analyze whether a greater exposure to the chemical
13:43:14 results in a greater risk of disease by comparing, for
13:43:18 example, the incidence of disease for those who were there
13:43:22 between 1980 and 1985 to those who were there between 1970
13:43:26 and 1973.
13:43:28 Government Exhibit 9 shows that at the time the
13:43:33 ATSDR was clear that the model was not intended to produce
13:43:38 actual exposure levels for individuals.
13:43:43 Government Exhibit 10 shows that the ATSDR's
13:43:46 purpose here -- it was not to produce actual exposure
13:43:51 levels or the actual concentrations of contaminants in the
13:43:55 water, but to rank groups of individuals based on their
13:44:01 relative exposure levels. The ATSDR can use the results of
13:44:04 the water model to group individuals into exposure
13:44:08 categories based on when they were at Camp Lejeune
13:44:11 historically, where they lived or worked, and how long they
13:44:15 were there. They used the graphs that represented the
13:44:18 results of the model to make relative rankings of groups of
13:44:22 individuals for each chemical.
13:44:25 Government Exhibit 11 is the graph that the water
13:44:29 model produced for Tarawa Terrace. The most prevalent
13:44:33 contaminant of concern was PCE, represented by the red
13:44:37 line. The other chemicals are reflected in the other
13:44:40 lines.

13:44:42 Government Exhibit 12 is the graph that the water
13:44:45 model produced for Hadnot Point where the most prevalent
13:44:49 chemical concern was TCE, represented by the blue line.
13:44:54 Using this information, ATSDR's health scientists
13:44:57 were able to group individuals into categories of low,
13:45:01 medium, and high exposure and analyze the risk of disease
13:45:06 for relationships. In epidemiology, you're looking for a
13:45:11 dose-response relationship: Does the risk of disease
13:45:14 increase with greater levels of exposure? If it does, it
13:45:19 may support a conclusion that the chemical causes the
13:45:21 disease. If you don't see a relationship, it doesn't
13:45:25 support that conclusion.
13:45:27 Government Exhibit 13 shows one of the
13:45:32 dose-response analyses that the ATSDR health scientists
13:45:35 used to look for this relationship. There are dozens of
13:45:39 these analyses throughout the ATSDR's Camp Lejeune health
13:45:43 studies and you will hear about them in the general
13:45:45 causation phase. As you can see from this chart, there are
13:45:50 categories of low, medium, and high exposure groups that
13:45:54 were determined using the ATSDR's water model. Here, it
13:45:59 was for the cumulative exposures to all of the chemicals.
13:46:03 The HR, or the hazard ratio, which is the
13:46:08 left-hand column for each category, shows the risk of
13:46:10 disease in comparing Camp Lejeune to Camp Pendleton. If
13:46:14 you look at non-Hodgkin's lymphoma, for example, which is

13:46:18 the second line from the bottom, there is no dose-response
13:46:21 relationship because the risk decreases from the low to the
13:46:26 medium exposure group before increasing in the high
13:46:28 exposure group. So in this instance, it does not support
13:46:33 that non-Hodgkin's lymphoma is caused by these chemicals.
13:46:39 This is just one of many, many analyses that the
13:46:41 ATSDR did. This, this was the purpose of the ATSDR's water
13:46:44 model. Not to determine actual exposure levels for
13:46:49 individuals, which is how the plaintiffs are trying to use
13:46:51 it, but to see if the different exposure levels can say
13:46:55 anything about whether these chemicals cause disease. In
13:46:59 fact, the ATSDR repeatedly stated that it cannot be used
13:47:02 for this purpose.
13:47:03 And you saw the example, but here it is again,
13:47:07 Government Exhibit 14. This is just one example.
13:47:12 To quote *Daubert* again: The scientific validity
13:47:16 for one purpose is not necessarily scientific validity for
13:47:20 other unrelated purposes.
13:47:21 To be clear, we are not arguing that no plaintiff
13:47:24 can prove exposure in this case. The Fourth Circuit, in
13:47:28 the *Westbury* decision, set the standard. A plaintiff must
13:47:32 demonstrate the levels of exposure that are hazardous to
13:47:35 human beings generally as well as the plaintiff's actual
13:47:38 level of exposure. The Court there also recognized the
13:47:42 precise quantitation of exposure is often not available and

13:47:47 is not required. But in that case, the Court noted that
13:47:51 the plaintiff had produced some evidence of substantial
13:47:54 exposure.
13:47:56 The problem with reliance on the ATSDR's model for
13:47:59 exposure levels is it gives an appearance of individual
13:48:03 accuracy and precision which wasn't intended by the ATSDR.
13:48:08 Therefore, it is highly prejudicial, particularly for the
13:48:11 early years, when speculative assumptions can make a big
13:48:16 difference. For this reason, in Phase I, the United States
13:48:19 intends to call two environmental experts. One expert, a
13:48:23 water modeling expert, will testify regarding the
13:48:26 uncertainty and biased assumptions in the ATSDR's water
13:48:31 model that make it highly unreliable for determining
13:48:34 individual exposures. The other expert, a geochemist, will
13:48:39 testify based on environmental science, when the
13:48:42 contamination likely arrived at the different water systems
13:48:45 and what contamination was in the systems at different
13:48:48 times. The reliable scientific evidence will show that
13:48:54 contamination arrived at Tarawa Terrace sometime in the
13:48:57 1970s and at Hadnot Point water system sometime after 1972.
13:49:05 Plaintiffs at Camp Lejeune, beginning in the
13:49:07 1970s, may be able to prove substantial exposure based on
13:49:11 where they lived and worked at the base and how long they
13:49:14 were there. The model is not relevant to individual
13:49:18 exposure. We believe the Court will benefit from hearing

13:49:22 from those experts at an evidentiary hearing. Thank you.
13:49:29 THE HONORABLE CHIEF JUDGE MYERS: Thank you,
13:49:30 Mr. Bain.
13:49:32 I'm going to open it up to my colleagues to ask
13:49:35 questions. I have a couple. I'm going to abuse my rank
13:49:41 and ask a couple first.
13:49:43 I don't see confidence intervals anywhere in these
13:49:47 models, and there has to be for them to be scientifically
13:49:51 valid. What confidence intervals are we talking about
13:49:54 inside the models that says we have 10 percent confidence,
13:49:58 it's this; 90 percent confidence, it's this. What are the
13:50:01 ranges and what's the dispersion and is that accounted for
13:50:05 in the ATSDR or is the fact that the ATSDR is being used
13:50:08 for a different purpose mean that that was not necessary to
13:50:12 its modeling and, therefore, not included. I don't see
13:50:16 anything that looks like a confidence interval in the
13:50:18 materials that were presented.
13:50:22 And the second question is: When do we break in
13:50:30 that -- there's that set of exposure -- possible --
13:50:33 exposure possibilities that the model accounts for, that
13:50:36 says if we model it, it's this at this level of confidence
13:50:39 but it could go back this far and still -- if the latest
13:50:44 model -- or the least -- or the latest time of exposure
13:50:47 results in the same model relative to measurement, as a
13:50:52 party with the burden, why are we not looking at the party

13:50:56 with the burden's ability to prove anything greater than
13:50:59 that if that is sufficient to result in the model -- or for
13:51:03 the model to account for the actual known exposure.
13:51:05 And the other thing, whenever you're talking about
13:51:08 models of this kind: When the models themselves are
13:51:11 applied and they fail to account for the known
13:51:13 measurements, what does that say about the validity of the
13:51:16 model itself?
13:51:16 Those are some questions that I'm starting with
13:51:19 because we're operating for a significant period -- it
13:51:22 looks like our measure date is very late. Very late. And
13:51:26 now we've got to model it backwards. And so the question
13:51:28 is: As the party with the burden, what is the party with
13:51:32 the burden's responsibility for going beyond the least
13:51:36 permissible exposure to result in the ultimate observed
13:51:43 amount?
13:51:44 MR. DOWLING: Your Honor, we brought someone with
13:51:47 a law degree and who I understand is also -- or at one
13:51:51 point in her career was an engineer. And your question is
13:51:54 squarely in the heartland of something she is better suited
13:51:58 to answer, if the Court will indulge. Ms. Laura Baughman.
13:51:58 THE HONORABLE CHIEF JUDGE MYERS: Okay.
13:52:06 MS. BAUGHMAN: Your Honor, Laura Baughman for the
13:52:08 plaintiffs.
13:52:10 I don't know if I got all of your questions. I'll

13:52:13 try to address them. But definitely the ATSDR addressed
13:52:20 the issues that you have raised.
13:52:23 In terms of the confidence interval, what they did
13:52:26 is they did sensitivity analyses and uncertainty analyses
13:52:30 to make sure that the model is reliable. And at every
13:52:32 stage those were reviewed by the outside experts in the
13:52:37 panel and the individual chapters. So the sensitivity
13:52:41 analyses will look at how sensitive is the model to the
13:52:44 different parameters that the DOJ attorney, Mr. Bain,
13:52:47 raised.
13:52:48 In the uncertainty analysis, they did -- they did
13:52:51 do 2.5 to 97.5 percent, what were the levels, what were the
13:52:56 confidence intervals. That was done for Tarawa Terrace.
13:52:58 For Hadnot Point, there was an uncertainty analysis done
13:53:01 with respect to the pumping schedule, which is an issue
13:53:04 that was raised by the DOJ. And then there were
13:53:06 sensitivity analyses done for different parameters, which
13:53:09 is part of an uncertainty analysis. All of that is
13:53:12 addressed in the expert report -- in our expert reports and
13:53:15 based on what the ATSDR did backwards in time.
13:53:19 I'm not sure -- I think you raised some other
13:53:22 issues --
13:53:24 THE HONORABLE CHIEF JUDGE MYERS: So the question
13:53:25 becomes we have -- we say it could be -- it could have
13:53:28 started in 1952 and the model would account for the

13:53:31 ultimate observed number. It could have started in 1959
13:53:33 and the model would equally account for the same observed
13:53:36 number. It could have started in 1963 and the model would
13:53:39 account for the same observed number. As the party with
13:53:41 the burden, if the model accounts -- which of those do we
13:53:45 do? Do we say the one that results in the most liability,
13:53:49 the least liability, the observed liability relative to the
13:53:52 party with the burden of proof? We say, well, it could
13:53:54 equally be accounted for -- from having started in 1969,
13:53:58 shouldn't we discount to zero before 1969?
13:54:02 MS. BAUGHMAN: So let me answer that. There are,
13:54:05 obviously, two different models for two different areas and
13:54:08 there are two different types of -- there are different
13:54:10 ways -- sources, in other words, of contaminants.
13:54:10 THE HONORABLE CHIEF JUDGE MYERS: Right. I'm
13:54:10 looking --
13:54:13 MS. BAUGHMAN: So that's a very complicated
13:54:15 question. But if we go to Tarawa Terrace, which is the
13:54:18 easier one to talk about, we know that the source is --
13:54:21 uncontested, is the ABC 1 Hour dry cleaners. Right? And
13:54:24 we know there are some dispute about did they start
13:54:26 operating at the beginning of 1953 or the middle of 1954.
13:54:30 It turns out that that makes very little difference. So
13:54:33 even if, you know -- DOJ admits that they started operating
13:54:37 in the middle of 1954. We think it might have been

somewhat earlier by a year or so. It doesn't matter at the end of the day in the analysis we've done -- we've done the analysis to show that in our expert reports.

But the bottom line is we know it started then and we know that within a couple of years that contamination would hit the groundwater and start moving toward the supply wells. So it's an easier answer to your question, I think, in Tarawa Terrace.

In Hadnot Point, you have the industrial area and then you have the landfill area. So there are different sources there. Right? So in the landfill -- well, let me talk about the -- in the industrial area, what you had were multiple underground storage tanks. Okay. We don't know for certain when any given underground storage tank leaked. But what ATSDR relied upon is a study that was done by the U.S. Environmental Protection Agency that looked at over a hundred thousand different underground storage tanks around the country and looked at how long does it take for the underground storage tanks to leak. And they determined that it takes -- a median number, I believe, was nine years. So they used nine years as the estimate of when there would be leaks from the underground storage tank.

Now, we know there were leaks. Right? We know contaminants got to the water, and we know by the early 1980s it was in the water. But -- so that was a reasonable

13:55:57 assumption. Then they did -- since to the uncertainty
13:56:02 analysis, well, if it was -- if it was nine years before or
13:56:05 nine years after, how did that affect the analysis?
13:56:07 So this is a reliable methodology to answer your
13:56:10 question. But you're saying, well, how, then, do you know
13:56:13 for an individual person what was their exposure? So I
13:56:16 think that -- that's really a Phase II or a Phase III
13:56:20 question, not a Phase One question. Because -- because
13:56:23 you'll have a scientist, a medical doctor, come in --
13:56:27 assuming -- assuming general causation, that this person's
13:56:31 cancer could be caused by the chemical. Right? When you
13:56:33 get to specific causation, you would be looking at, well,
13:56:36 was it enough? You can look at the range. Right? And you
13:56:38 know at least the lowest number and you know what the
13:56:41 midpoint is. And then you'll have that expert say, well,
13:56:44 was that enough to cause the disease?
13:56:47 And we do have the burden of proof. I understand
13:56:49 that. But it's a -- it's an equipoise. Right? It's not
13:56:53 more likely than not or as likely as not. So you would
13:56:56 look at what the model generated. Right? And what those
13:56:59 ranges were, and compare it to what the science says about
13:57:02 how much do you need, and make a decision for that person.
13:57:04 So what I don't think you're going to get from
13:57:07 Phase I is a determination of these were the exact numbers.
13:57:11 What ATSDR said is this was the most likely number, and

13:57:15 then here is the range and here is how sensitive it is and
13:57:18 here is how uncertain it is. So it's a reliable
13:57:22 methodology under *Daubert*, but it has to be used in
13:57:25 context. And the medical experts will use it appropriately
13:57:28 in that context.
13:57:30 I didn't answer all of the -- like, there are
13:57:32 landfill sources as well, and they may -- ATSDR made
13:57:35 assumptions based on that because you had a landfill that
13:57:38 started when Hadnot Point opened in the early 1940s. They
13:57:42 didn't take any kind of precautions, which was normal at
13:57:46 the time, to make sure that those chemicals didn't seep
13:57:48 into the water. So they made an assumption of seven years.
13:57:51 It would take seven years from the time the landfill
13:57:54 started operating for those chemicals to leach into the
13:57:57 groundwater, which I think is a very conservative
13:58:00 assumption given the standards at the time, which was not
13:58:03 to have any kind of liner or containment to protect
13:58:06 those -- from those chemicals from reaching the
13:58:10 groundwater.
13:58:10 So I'm not sure if I've addressed all of your
13:58:12 questions. But those are the kinds of methodologies that
13:58:14 the ATSDR used. And again, each of those received
13:58:18 substantial peer review from outside of ATSDR before they
13:58:23 were finalized and put on the ATSDR's website and relied
13:58:27 upon.

13:58:28 THE HONORABLE CHIEF JUDGE MYERS: And we've used
13:58:28 the term "scientific community." There's no such thing.
13:58:31 It had to be particular individual scientists who actually
13:58:34 made a determination. And so I'll just say right now that
13:58:37 this judge is not going to be convinced by *scientific*
13:58:41 *community at large*. That's not a thing. There is no
13:58:43 such -- I can't go talk to the scientific community
13:58:46 anywhere. So I don't find that particularly persuasive.
13:58:49 So I want to know who they were, how they were selected,
13:58:54 why those decisions were made. Not just that broad, just,
13:58:59 position.
13:59:01 MS. BAUGHMAN: I can answer some of that now, but
13:59:03 that was --
13:59:03 THE HONORABLE CHIEF JUDGE MYERS: I don't think
13:59:04 it's for today's purpose. I think it's for as we're
13:59:06 putting together, what is this judge going to have to look
13:59:08 at and rely on. There are levels of specificity as opposed
13:59:12 to generality that will be significant to me in coming to
13:59:17 determination when I'm talking to the party with the
13:59:21 burden.
13:59:21 Did you want to respond, Mr. Bain?
13:59:22 MR. BAIN: I would ask our lawyer engineer to
13:59:24 respond to some of that as well. Your Honor, this is
13:59:25 Ally O'Leary.
13:59:26 MS. O'LEARY: Good afternoon, Your Honors. I want

merely to address the initial part of your question, which is what are the confidence intervals on these -- on the simulated numbers predicted by the ATSDR. And the answer is we don't know. They don't exist. We do not know the universe of possible solutions to how contamination entered the environment and moved through the groundwater to arrive at the wells that cause contamination in the water. The number of ways that that could have occurred is infinite and, more importantly, quite varied in time.

The ATSDR did do uncertainty analyses and sensitivity analyses to try and assess some of the range of what that confidence can be. But in their assessment confidence intervals, they were using a limited range of parameters which is smaller than what could have actually happened at the site. So they just don't know.

What they do know from their sensitivity analyses are that the time that contaminants entered the environment and the timing and amount that the specific contaminated wells pumped matter significantly for the outcome of their models. And they do not know when those contaminants entered the environment, particularly at Hadnot Point. And they do not know when those wells were pumping, historically, or even how much.

So the answer is, we do not know the confidence intervals.

14:00:58 THE HONORABLE CHIEF JUDGE MYERS: Thank you.
14:00:58 I'll defer to my colleagues.
14:01:06 THE HONORABLE JUDGE FLANAGAN: Well, do you have a plan for an alternative water model?
14:01:10 MR. BAIN: As I mentioned, Your Honor, we have experts who will be able to say what can reliably be said given what we know about when the contaminants arrived and when -- and what -- generally what contaminants were there over time. We don't have a alternative water model because, frankly, given the lack of data, there is no way reliably to determine these decades past what the actual concentrations were. And it was not done for that purpose by the ATSDR, as I mentioned.
14:01:50 THE HONORABLE CHIEF JUDGE MYERS: All right. I think we've met the purpose of today's presentations, which are really a forecast to help sharpen the issues. My questions were designed to sort of forecast for the parties where my interests are. I'm interested in knowing what the limits are of the science. At some point you run out of science because you've run out of data and you're into speculation. And so I don't want us -- I don't want us to spend too much time today on that except to know it's a significant issue for this judge. My colleagues may view this quite differently. I don't wish to speak for them.
14:02:35 But it does raise the question of ultimately,

after we've received the full presentations with the expert reports and materials, is a hearing going to be necessary. I think we will defer an answer to that question today. I know it's a question that's been on the parties' mind. Because we can't tell until we've seen everything and had a chance to talk as the judges about where and -- where we see the particular issues are. But we would try to focus the parties if we're coming to a hearing, we want additional information on a particular point.

This is very unusual because we are four District judges who are hoping to establish something that becomes reliable for the litigants about exposure, and we will seek to work together to do that. But then we each have individual diseases. We have individual cases, we have individual exposure quantities. Because nobody had the same experience while they were at Camp Lejeune. And so this will very quickly devolve from a group dynamic, I think, back to individual judges and individual cases.

We are going to rearrange the docket such that causation as to individual diseases on Track 1 and then again on Track 2 will be before an individual judge who will be hearing and making appropriate determinations on disease-by-disease causation so you're not having four opinions as to whether or not bladder cancer is caused by exposure to TCE. So we'll try and get those rearranged in

such a way that by the time we're into the tracks, you'll be before a single judge as to a disease and then -- that will get us general causation, and then we'll move forward on specific causation, because those cases will be on a single judge's docket.

The other thing that I'm going to say as the Court is we appreciate the years of work that have gone into this. I want to particularly note the presence of our magistrate judges. Judge Jones and Judge Gates are here, and they have been working very hard with the parties on routine meetings. I'm trying to get the discovery done on these issues so that we can bring this down to the issues before the Court.

I know that there are family members out there of people who are aging and some of whom are ill, and we are not blind to that. Justice delayed can be justice denied, and we fully intend to hear these in a way that gets the most people's cases resolved in the most expeditious way possible. So I'm very grateful to all of the judges of this Court, and particularly to our magistrate judges who are working so hard to get these cases properly litigated and to get settlement proceedings working in such a way that we can take care of the people who Congress wants taken care of and make sure that resources go appropriately to the people who deserve them and not otherwise.

14:05:36 We recognize that there are significant balancing
14:05:39 taking place amongst all of the people in the courtroom,
14:05:41 and I would like to commend the attorneys for working in
14:05:45 good faith. All the reports from the magistrate judges
14:05:47 have been that the Plaintiffs' Leadership Group is working
14:05:50 very hard, the United States is working very hard. And we
14:05:53 commend to the parties to continue working in good faith so
14:05:56 that we can get these issues resolved in a way that makes
14:05:58 sense.
14:05:59 Any of my colleagues like to make any further
14:06:02 comment?
14:06:03 THE HONORABLE JUDGE DEVER: I would echo the
14:06:04 Chief's comments about how hard all of y'all have been
14:06:07 working for the last two years, and we appreciate that hard
14:06:12 work. And we've tried to, obviously, set these things up
14:06:16 in tracks to maximize the number of cases that can get
14:06:22 resolved as expeditiously as we can.
14:06:26 And I also want to compliment the settlement
14:06:29 masters who the Court appointed to try to help facilitate
14:06:32 some resolution short of trial of tens of thousands of
14:06:40 cases, in terms of trying to come up with a matrix that is
14:06:48 acceptable, even if not perfect, to the multitude of folks
14:06:55 who have filed claims. Perfect is always the enemy of
14:07:01 better in most everything.
14:07:06 And so, again, I thank you for all of your hard

work and thank the settlement masters again for their continued efforts to try and come up with a framework for the parties to potentially reach a resolution sooner rather than later.

THE HONORABLE JUDGE BOYLE: I'm here as part of the Court, and I'm looking forward to a day when we can say that we've satisfactorily resolved these cases, either by trial or by settlement or by dismissal, with whichever is appropriate. I know that the Court and my colleagues are dedicated to the administration of justice in this -- on this issue, and I look forward to working with them in the future.

THE HONORABLE JUDGE FLANAGAN: For those of you on the periphery who may not have command of the master docket but want very much to know more about what this Court's been doing, I commend for your reading the docket entry numbers 333, a notice that was provided by the judges before this hearing in summary, and the settlement master's most recent status report at docket entry number 340.

And we're all well aware how expensive this litigation is. And with the august assembly in front of us, I would personally regret if I didn't ask: Is there anything else that if we talked about now where we all share Rule One's mandate to look for just, speedy, and inexpensive ways to resolve the cases before the Court, now

14:08:55 being very sensitive to this disagreement about the water
14:08:59 table, is there anything else, perhaps a significant
14:09:03 disagreement or maybe a shared determination, that if you
14:09:08 spoke very briefly about it now would be helpful to us in
14:09:12 our planning?
14:09:14 Is there anything else from the plaintiff's side
14:09:16 of the room you would like us to know?
14:09:25 MR. DOWLING: Your Honor, I think it's --
14:09:28 consistent with what the Court has said, we understand this
14:09:31 needs to proceed in an orderly fashion, and methodically
14:09:35 and in a thorough way. But I do believe that nothing
14:09:38 sharpens the mind and resolves disputes like a deadline,
14:09:42 like a trial date. And so as many of those as we can
14:09:46 foresee coming down the road.
14:09:48 I'll give you an example. We struggled to find
14:09:51 our footing on the stipulations for quite a while, didn't
14:09:55 really know where to begin. And I think -- I probably
14:10:01 speak for both of us. When we got the notice, the message
14:10:05 was loud and clear that we needed to get moving on that.
14:10:07 And I'm happy to report that we have traded some drafts of
14:10:10 substantial stipulations. And so even if it's not a trial
14:10:13 date, necessarily, deadlines from the Court do help push
14:10:18 the cases and discrete aspects of a case towards
14:10:24 resolution. So...
14:10:25 THE HONORABLE JUDGE FLANAGAN: Is there any

14:10:26 particular deadline you're asking us to set? We would be
14:10:30 happy to, I would think.
14:10:32 MR. DOWLING: We have a scheduling order that
14:10:34 we're satisfied with, Your Honor. But I did just want to
14:10:36 echo that sentiment. I know we've all looked at the
14:10:40 Hellerstein model, and I think that a critical component of
14:10:43 that model was holding the lawyers' feet to the fire with a
14:10:48 deadline at the end of it. Because, otherwise, you go
14:10:51 sideways. You don't -- you don't get to the end. And I
14:10:55 think we all crave finality. I think my friends on the
14:10:57 other side do as well. Certainly the Marines do. So...
14:11:01 THE HONORABLE JUDGE FLANAGAN: Is there anything
14:11:02 from your side of the room that you would like us to know
14:11:04 about now that might be helpful in our planning?
14:11:07 MR. BAIN: Your Honor, I would echo what
14:11:09 Mr. Dowling said. I think that the way the Court has set
14:11:12 up the case management structure and the deadlines that are
14:11:16 coming in the future have been helpful to focus the
14:11:19 parties' attention on trying to make progress. As we
14:11:22 approach each status conference, we tend to resolve our
14:11:25 discovery disputes right before the conference. So that's
14:11:27 helpful.
14:11:28 I will say that we are fully dedicated to the
14:11:32 global resolution process with the settlement masters.
14:11:35 From our side, our mantra is essentially to be fair to the

14:11:39 claimants, be faithful to the statute, and be accountable
14:11:42 to the taxpayers. And that's what we're trying to do. It
14:11:45 takes some time. We want to make sure that the settlement
14:11:48 has integrity, that it compensates those people who are
14:11:51 deservant of compensation under the statute but that it
14:11:54 doesn't do any shortcuts and not do what the taxpayers
14:11:59 would expect us to do.
14:12:03 THE HONORABLE JUDGE FLANAGAN: Thank you.
14:12:04 THE HONORABLE CHIEF JUDGE MYERS: All right. With
14:12:05 that in mind, we will be adjourned for the day. Thank you.
14:12:38 (The proceedings concluded at 2:12 p.m.)

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UNITED STATES DISTRICT COURT

EASTERN DISTRICT OF NORTH CAROLINA

CERTIFICATE OF OFFICIAL REPORTER

I, Jennifer C. Carroll, RMR, CRR, CRC, Federal Official Court Reporter, in and for the United States District Court for the Eastern District of North Carolina, do hereby certify that pursuant to Section 753, Title 28, United States Code, that the foregoing is a true and correct transcript of the stenographically reported proceedings held in the above-entitled matter and that the transcript page format is in conformance with the regulations of the Judicial Conference of the United States.

Dated this 26th day of March, 2025.

/s/ Jennifer C. Carroll
Jennifer C. Carroll, RMR, CRR, CRC
U.S. Official Court Reporter