IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
SOUTHERN DIVISION
No. 7:23-CV-00667-BO

FRANK MOUSSER, **Plaintiff,** **v.** **UNITED STATES OF AMERICA,** **Defendant.**	**FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER**

Plaintiff, Frank Mousser, brought this civil action under the Camp Lejeune Justice Act of 2022 ("CLJA" or the "Act"), Pub. L. No. 117-168, § 804, 136 Stat. 1759, 1802–04, seeking relief for kidney cancer caused by the water at Camp Lejeune. The Court held a bench trial on October 26 through 28, 2026, in Elizabeth City, North Carolina. Under Federal Rule of Civil Procedure 52(a)(1), the Court makes the following findings of fact and conclusions of law.[1]

FINDINGS OF FACT

I. The Undisputed Facts

The United States owned and operated Camp Lejeune from August 1, 1953, through December 31, 1987. PTO at 3, § I.E.4. Chemicals from sources on and around the base contaminated the groundwater that supplied its drinking water, and the people who lived and worked there drank, cooked with, and bathed in it. D.E. 50 (United States' Answer to Master

[1] The Amended Pretrial Order, ECF No. 99 in this action, is cited as "PTO," and citations to "D.E." are to the master docket, *In re Camp Lejeune Water Litig.*, No. 7:23-CV-897 (E.D.N.C.). Citations to "Tr." are to the certified transcript of the bench trial by page and line. The transcript is filed in this action, No. 7:23-CV-00667-BO, at ECF No. 126 (vol. 1, October 26, 2026, pp. 1–268), ECF No. 127 (vol. 2, October 27, 2026, pp. 269–527), and ECF No. 124 (vol. 3, October 28, 2026, pp. 528–718); its pages are numbered consecutively across the three volumes.

Compl.) ¶ 110. The Hadnot Point water treatment plant served the Hadnot Point barracks and Hospital Point from 1943 to 2000 and the French Creek barracks from 1947 to 2000, *id.* ¶ 42, and industrial chemicals from the Hadnot Point Industrial Area and the Hadnot Point Landfill contaminated the wells that fed the plant. PTO at 3, § I.E.7. In the Industrial Area, trichloroethylene ("TCE") that the United States supplied was used to degrease metal equipment and vehicles, D.E. 50 ¶ 46, and an engineering report on a 1979 leak at the Hadnot Point Fuel Farm estimated that it had lost at least 20,000 gallons of fuel. *Id.* ¶ 44. Part of the Landfill Area was used for disposal of volatile organic compounds. *Id.* ¶ 41. In 1981, a report noted that the water was "HIGHLY CONTAMINATED WITH OTHER CHLORINATED HYDROCARBONS (SOLVENTS)!" PX 1. In 1989, the Environmental Protection Agency placed Camp Lejeune on the National Priorities List, making it a Superfund site. PTO at 4, §§ I.E.12–13. The Navy has reported actual and planned spending of about $321 million on its Installation Restoration Program at Camp Lejeune through fiscal year 2023. PX 2 at 3.

Mr. Mousser, a Marine field artilleryman, was stationed at Camp Lejeune from October 18, 1982, through September 7, 1986, with time away on deployments and leave. PTO at 2, § I.D.3. Among his deployments were two combat deployments, one to Grenada, the other to Beirut, Lebanon. Tr. 222:21–223:11. When not deployed, he lived in the French Creek barracks, which drew water from the contaminated Hadnot Point system. Tr. 223:12–20. He also testified that he visited married enlisted Marines at their separate housing at Tarawa Terrace, whose water was also contaminated. The United States stipulated that he meets the Act's 30-day exposure requirement. PTO at 1, § I.D.1. At closing, the United States conceded that Mr. Mousser was exposed to the contaminated water. Tr. 708:4–5.

On August 25, 2020, when Mr. Mousser was 57, his providers found a 3.7-centimeter mass in his right kidney, later diagnosed as high-grade papillary upper tract urothelial carcinoma ("UTUC"). PTO §§ I.D.6, 8–9. On October 20, 2020, surgeons removed his right kidney, its ureter, and a cuff of his bladder. *Id.* § I.D.7. He was then diagnosed with chronic kidney disease ("CKD") in the kidney that remains. *Id.* §§ I.D.10–11. In October 2024, his providers found another cancerous tumor on or around his bladder; it was removed on January 31, 2025, and the United States agrees this second cancer was a recurrence of the original cancer. *Id.* at 2, 13, §§ I.D.12–15, II.B.4(kk).

II. The Water Mr. Mousser Drank Was Highly Contaminated During His Time on Base

In making its findings on the contamination of the water, the Court relies on Morris Maslia, a retired engineer who led the reconstruction of the Camp Lejeune water systems for the Agency for Toxic Substances and Disease Registry ("ATSDR"). Tr. 20:23–25, 26:23–27:2, 28:16–22. The Court finds his testimony persuasive and relies on it. ATSDR reconstructed monthly concentrations of TCE, tetrachloroethylene ("PCE"), vinyl chloride, and benzene in the finished water of the Hadnot Point plant, using accepted groundwater, fate-and-transport, and distribution models, and its work was peer reviewed. Tr. 34:3–35:10, 41:15–16. The work was done for public health, not litigation. PX 6.1–6.22; PX 11; Tr. 36:17–37:20. Mr. Mousser arrived on base during the period of highest contamination at Hadnot Point, when modeled TCE in the finished water ran in the hundreds of micrograms per liter. PX 10; Tr. 21:9–16, 39:23–40:5.

The United States offered no competing reconstruction. Its own exposure scientist, Dr. Judy LaKind, used ATSDR's modeled concentrations because, to her knowledge, they are the only data covering the whole period, and she offered no opinion that they are wrong. Tr. 450:7–

451:21. The Court recognizes that measured data from the 1980s are sparse, that ATSDR modeled monthly averages rather than daily values, that one pumping-schedule analysis produced a wide range, and that ATSDR cautioned that its estimates cannot alone show whether a person was harmed. Tr. 61:16–19, 64:6–12, 65:22–67:9, 73:3–74:4. But the Court does not use the estimates alone. It uses them, as ATSDR's own epidemiologists did, to place Mr. Mousser's exposure in context, together with the epidemiology and the clinical evidence. Tr. 34:14–18, 74:5–23. The Court finds this water modeling to be reliable. The Court further finds that this water modeling captures with reasonable accuracy the concentration of the chemicals, on a month-by-month basis, in the water at Camp Lejeune during the relevant time period.

The United States also relies on the deposition testimony of Dr. Dan Waddill, a Navy engineer, who testified that ATSDR's Tarawa Terrace model was never validated against measured data. U.S. Ex. 2026 at 96:4–98:16. Asked whether ATSDR had more data for Hadnot Point, he said, "I don't know. I don't remember." *Id.* at 97:3–10. But Dr. Waddill's field is the movement of contaminants through groundwater; he testified that distribution-system modeling "is not my area of expertise," and his comments were directed "far more" to Tarawa Terrace than to Hadnot Point, the system that served Mr. Mousser. *Id.* at 206:8–16, 237:18–238:17. Thus, the Court affords his opinion little weight.

For all the reasons above, the Court finds that ATSDR's monthly concentrations reliably estimate the TCE, PCE, vinyl chloride, and benzene in the Hadnot Point water during Mr. Mousser's time on base, and that the water was highly contaminated with TCE, PCE, vinyl chloride, and benzene from his arrival until the most contaminated wells were shut down in early 1985. Tr. 21:9–16, 38:4–10; PX 9. Benzene remained in the Hadnot Point water throughout Mr. Mousser's time on base. PX 145 at 5.

III. Mr. Mousser Was Substantially Exposed to the Contaminated Water

In making its findings on the amount of Mr. Mousser's exposure, the Court relies on Dr. Kelly Reynolds, an environmental health scientist at the University of Arizona. Tr. 145:15–19; PX 91 at 1. From Mr. Mousser's military records and testimony, Dr. Reynolds counted 891 days on base, leaving out deployments and leave. During 574 of those days, the water was at its peak contamination level. PX 145 at 1, 5; PX 91 app. 8; Tr. 148:11–150:15.

Mr. Mousser drank the contaminated water from barracks taps and his canteens, drank it in the mess-hall coffee and drinks, mixed it into his field rations, showered in it two or three times a day in unventilated communal showers, and washed trays in it on mess duty. Tr. 223:23–227:4, 227:21–230:10. Using the scenario drawn from his own account of what he drank, which Dr. Reynolds testified was the lowest (i.e., the most conservative) of the three plausible scenarios, Dr. Reynolds calculated that Mr. Mousser ingested about 788,000 micrograms of TCE. PX 145 at 4; Tr. 151:10–24, 154:12–23. That figure counts only what he drank, not what he inhaled or absorbed through his skin. Tr. 157:6–14. Dr. LaKind agreed that counting those other routes would give a higher estimate. U.S. Ex. 950 at 60; Tr. 463:18–464:9. Dr. Reynolds's estimate was therefore conservative.

The Court recognizes Dr. LaKind's criticism that Dr. Reynolds's microgram-per-liter-month figure counted each month Mr. Mousser was on base in full. Tr. 460:17–461:21. But that figure was not Dr. Reynolds's measure of what Mr. Mousser took in. Her intake calculations applied each month's concentration to each day he was on base, and Dr. LaKind agreed that, converted to her units, the two experts' ingestion results are "in the same ballpark." PX 91 app. 8; Tr. 150:16–151:1, 164:15–20; Tr. 462:7–463:17. Dr. Reynolds explained that she computed the microgram-per-liter-month figure "because that's what was done in other studies," as a

comparator, not as an absolute measure of dose. Tr. 155:12–25, 165:1–8. That was done both in the Camp Lejeune studies and in studies of other populations. The Court credits her explanation. Dr. LaKind herself counted Mr. Mousser's time on base one month at a time. Tr. 450:2–6, 461:22–462:6; U.S. Ex. 950 at 24, 57. Dr. LaKind's own high-end scenarios, moreover, assumed more daily water than the scenario on which the Court relies. U.S. Ex. 950 at 50, 63.

For all the reasons above, the Court finds that Mr. Mousser was substantially exposed to the contaminated Hadnot Point water for 574 days at the height of the contamination, within 891 days on base. Relying on Dr. Reynolds's calculations, the Court further finds that, by drinking the water alone, Mr. Mousser took in at least 788,229 micrograms of TCE, 37,604 micrograms of PCE, 66,029 micrograms of vinyl chloride, and 16,499 micrograms of benzene. PX 145 at 4. As discussed below, this amount of exposure is more than sufficient to cause kidney cancer. *See infra* Part IV.

IV. Exposure to the Water at Camp Lejeune Can Cause Kidney Cancer, Including UTUC

In making its findings on general causation, the Court relies on Dr. Benjamin Hatten, a medical toxicologist with training in epidemiology, about two-thirds of whose expert work has been for defendants. Tr. 78:3–12, 79:12–18, 80:4–6. Dr. Hatten searched for the relevant studies, read them, and weighed them under the Bradford Hill considerations, the method he uses in every case, regardless of the burden of proof. PX 34; Tr. 81:22–82:10. The Court recognizes that Dr. Hatten's report described the Act's standard as a "different and reduced causation standard." PX 34 at 3–4. But he did not change his methodology, and he analyzed the evidence under the traditional standard as well as the Act's and reached the same conclusion under both. PX 34 at 10, 16, 23–24, 28–29; Tr. 103:11–15. The Court finds his testimony persuasive and relies on it.

Dr. Hatten's first opinion is that exposure to the water at Camp Lejeune, and to the mixture of contaminants it carried, is a cause of kidney cancer. PX 34 at 10, 16; Tr. 82:11–15. The most direct evidence is ATSDR's studies of the people who drank the water, which measure the effect of whatever mixture they actually drank. Across the totality of these studies, kidney-cancer rates among Marines and civilians at Camp Lejeune ran higher than at Camp Pendleton, another military base in operation at the same time. Tr. 83:16–84:1, 84:22–85:3, 91:6–8. In ATSDR's 2024 mortality study, Marines and Navy personnel who served at Camp Lejeune had a statistically significant 21 percent higher hazard of death from kidney cancer than those at Camp Pendleton (adjusted hazard ratio 1.21, 95 percent confidence interval 1.02–1.43). PX 146 at 2; Tr. 87:21–23, 131:15–25. In ATSDR's 2014 study of Marines, risk also rose with cumulative exposure to the mixture as a whole. PX 34 at 12.

The Court recognizes the United States' points that (a) the 2024 result appears in the study's supplemental tables, (b) the smaller subgroup analyses did not reach statistical significance, and (c) risk did not rise with time on base in the 2024 analyses. Tr. 130:10–25, 133:15–135:25. But the supplemental tables are published parts of the study, and the smaller subgroup the authors emphasized produced the same estimate, 1.21, with an interval that crosses one because it counted fewer deaths. PX 80; Tr. 133:15–134:12. The United States' point that the comparison group may count as unexposed some Camp Pendleton personnel who served at Camp Lejeune before 1975 cuts the other way: that kind of error biases the result toward no effect, meaning that the study likely underestimates the true association. Tr. 131:9–132:19. And, as Dr. Hatten explained, the author of the study, Dr. Bove, recognized that Marines with longer assignments were more often deployed away from the base, which blurs any trend by time on base. Tr. 137:20–138:1. EPA, the National Toxicology Program, and the International Agency

for Research on Cancer each recognizes TCE as a cause of kidney cancer, and the United States agrees that TCE can cause kidney cancer. PTO at 10, § II.B.3(a); Tr. 398:9–15. In announcing its 2024 rule on TCE, EPA described TCE as "known to cause . . . kidney cancer," among other cancers and diseases. PX 240; Tr. 675:22–676:3.

Dr. Hatten also relied on studies outside Camp Lejeune. PX 146 at 3–13; PX 147; PX 148. He summarized the studies he weighed in three charts. Tr. 93:8–96:12. They identify 66 statistically significant associations between TCE and kidney cancer, drawn from three meta-analyses and ten studies, and ten statistically significant associations in the studies of the people at Camp Lejeune. PX 146 at 1–8. They also identify statistically significant associations between kidney cancer and the other chemicals in the Hadnot Point water: 8 for PCE, 32 for benzene, and 4 for vinyl chloride. *Id.* at 1, 9–13. The literature also reports 211 other positive risk estimates for TCE and kidney cancer. PX 148 at 1. And the studies of contaminated water show statistically significant increases at modest levels of exposure. A study of New Hampshire residents found 78 percent higher odds of kidney cancer where the median modeled TCE in residential groundwater was no more than 27.6 micrograms per liter, well below the hundreds of micrograms per liter in the Hadnot Point water during Mr. Mousser's time on base. PX 146 at 4; PX 147 at 1; PX 10. The study also measured exposure by the modeled concentration of TCE in residential groundwater. PX 147 at 1. The 2018 ATSDR survey found a statistically significant increase among Camp Lejeune Marines with medium cumulative TCE exposure. PX 146 at 2. As discussed at trial, ATSDR's website currently says of the 2018 study: "This study shows that contaminated drinking water at Camp Lejeune was linked to increased risk for bladder cancer, kidney cancer, and kidney disease." Tr. 412:12–413:1. As Dr. Hatten explained, when study after

study shows positive risk, and particularly the same estimates of risk over and over, that is "a very strong finding for causality." Tr. 95:24–96:6. The Court agrees.

Even the United States' own witnesses supported that conclusion. Dr. Walter Stadler, its oncologist, agreed that TCE "is a known cause of renal cancer," that there is some increased risk of kidney cancer for people stationed at Camp Lejeune, and that the Camp Lejeune studies are accurate and reliable. Tr. 591:4–11, 593:15–19, 595:11–14. Dr. John Lipscomb, its toxicologist, who worked on EPA's TCE assessment, agreed that TCE can cause kidney cancer under some circumstances of exposure and, as best he could remember, that EPA found TCE carcinogenic to humans by all routes of exposure. Tr. 417:17–19, 434:22–435:4, 435:14–18.

The United States relies on Dr. Peter Shields, who testified that the Camp Lejeune exposures were far too low to cause kidney cancer and that the study results reflect chance. Tr. 340:23–341:7, 372:8–14, 411:21–23. The Court recognizes Dr. Shields's point that a single result that is not statistically significant has a higher probability of being due to chance. But the literature here consists of far more than a single study without statistically significant results. It consists of hundreds of results from the Camp Lejeune epidemiology and non–Camp Lejeune epidemiology. A number of those results were statistically significant. The Court does not accept that all of these results are due to chance.

The Court finds that Dr. Shields's expert testimony was not credible. Dr. Shields disagrees with EPA, ATSDR, the National Toxicology Program, and the International Agency for Research on Cancer that the evidence shows TCE causes kidney cancer — a view at odds with the United States' own position in this case, as well as the opinions of at least two of the United States' other experts — and, outside tobacco and mesothelioma cases, he has never testified that an exposure at issue caused a cancer. Tr. 392:9–394:11, 398:9–15. He testified that

ingested TCE goes to the liver, which "basically takes care of all that" and makes it "not poisonous." Tr. 368:12–15. But Dr. Lipscomb, the United States' own toxicologist, when asked about that testimony, said he had heard "several inaccurate statements" about how the body processes TCE, and he explained that one of its metabolites "is activated in the kidney, and that's why you see the effect in the kidney." Tr. 435:25–436:9, 437:3–9. Dr. Shields also described the Camp Lejeune studies as "one coin flip done in three different papers," but on cross-examination he agreed that a coin that keeps coming up heads "probably" has "an issue," and the Camp Lejeune studies report higher kidney-cancer rates at Camp Lejeune than at Camp Pendleton. Tr. 395:18–23, 411:21–23. He also agreed that the two 2014 studies examined different groups, Marines in one and civilians in the other. Tr. 405:8–19. And studies of TCE outside Camp Lejeune, which involve entirely different people, report statistically significant associations between TCE and kidney cancer again and again. PX 146 at 3–8.

The Court finds that the association between the water at Camp Lejeune and kidney cancer cannot be explained away as chance. Dr. Shields's charts did not fairly present the evidence. His chart comparing doses in occupational studies to Camp Lejeune included no study at levels like Camp Lejeune's. He testified that studies at those levels "are consistently showing no increase," then conceded that some show increases, which he attributed to chance. U.S. Ex. 2012 at 10; Tr. 371:13–17, 401:5–402:25. He acknowledged that Moore 2010 was the "one exception" to the positive studies being "generally more than 60 parts per million," yet he left it off the chart. PX 146 at 5–6; Tr. 399:13–17, 401:14–16. And he conceded that no organization identifies a dose below which TCE does not cause kidney cancer. Tr. 400:3–9. Another slide stated, "No statistically significant increase in kidney cancer across studies," yet he acknowledged three statistically significant results in a supplement that the peer-reviewed paper

cites and the peer reviewers received. U.S. Ex. 2012 at 12; Tr. 379:5–8, 403:9–404:20. He testified that Bove 2014 shows no monotonic dose response, then agreed the paper reports that "[m]onotonic categorical cumulative exposure trends were observed for kidney cancer." Tr. 405:20–406:8. His own slide graphed hazard ratios of 1.42, 1.44, and 1.54 for low, medium, and high exposure beside the labels "This is not a monotonic increase" and "This is a flat curve." U.S. Ex. 2012 at 21. He also stood by his testimony that the studies show no difference between Camp Lejeune and Camp Pendleton "[f]or the statistical analyses," though each reports higher kidney-cancer hazard ratios at Camp Lejeune. Tr. 408:1–19, 409:9–12, 410:5–9, 411:11–17. Having reviewed his report and observed his testimony and demeanor, the Court finds Dr. Shields not credible. The Court rejects, and gives no weight to, Dr. Shields's opinion that there is no association between exposure to the water at Camp Lejeune and kidney cancer or UTUC.

Through deposition designations, the United States also relies on the 2009 report of a National Research Council committee chaired by Dr. David Savitz, which found "limited/suggestive evidence of an association between chronic exposure to TCE or PCE and kidney cancer." U.S. Ex. 2020 at 137:14–19. The Court recognizes that the committee placed no disease in a higher category. *Id.* at 114:15–115:17. But limited/suggestive was the strongest category the committee assigned to any disease, and for TCE its conclusion was a shift upward from the Institute of Medicine's 2003 review. *Id.* at 137:5–19. The committee weighed the studies published through 2008, *id.* at 100:5–12, before ATSDR completed its Hadnot Point reconstruction or published any of its Camp Lejeune studies. It did not consider the levels of exposure at Camp Lejeune; in Dr. Savitz's words, it was "a much more sort of generic assessment of the evidence." *Id.* at 112:13–21. And Dr. Savitz acknowledged that "another

committee that was equally qualified academically may well not have come to exactly the judgment we came to." *Id.* at 24:2–6.

The United States also contends that the evidence linking the water and its contaminants to kidney cancer does not apply to UTUC, Mr. Mousser's type of kidney cancer. PTO at 11, § II.B.3(c). This argument fails for at least four reasons.

First, UTUC is (quite literally) kidney cancer. It arises in the renal pelvis, the chamber inside the kidney where urine collects, and it is treated, as Mr. Mousser's was, by removing the kidney. Dr. Del Pizzo testified that Mr. Mousser had a subset of kidney cancer. Tr. 193:14–20. Dr. Stadler agreed that renal cancer and UTUC are two subtypes of kidney cancer, and Dr. Shields agreed that both arise within the body of the kidney. Tr. 590:23–25; Tr. 349:4–10. Dr. Andrew Rockwood, the VA urologist who worked up Mr. Mousser's cancer, described it as "the specific type of kidney cancer that Mr. Mousser had." U.S. Ex. 2023 at 31:5–7. Dr. Bailey described Mr. Mousser's cancer as kidney cancer throughout her report and compared his TCE exposure to a kidney-cancer study. U.S. Ex. 946 at 37–38; Tr. 517:19–518:15.

Second, the Camp Lejeune studies included Mr. Mousser's specific type of cancer. They counted cancers of the kidney and renal pelvis together, so a renal-pelvis cancer like his falls within the very outcome they report. U.S. Ex. 242, tbl. 4; Tr. 88:13–18. Dr. Hatten explained that most studies — certainly the ones that do not analyze urothelial cancers separately — include them with kidney cancers, and he testified that the studies that compare the two directly report similar measures of association. PX 34 at 10; Tr. 108:17–25, 111:24–112:6.

Third, the biology fits. TCE causes kidney cancer through metabolites formed largely in the kidney, which pass into the urine. Tr. 98:15–19. The renal pelvis is where that urine collects; it shares the kidney's blood supply, and urine flows from the kidney through it. PX 34 at 43. Dr.

Lipscomb agreed that this bioactivation takes place in the kidney. Tr. 437:3–9. ATSDR's 2017 assessment, which the United States offered, likewise explains that PCE's activated metabolites act "in the kidney and to some extent in the bladder epithelium" — the lining in which UTUC arises. U.S. Ex. 238 at 94.

Fourth, the United States' own approach leads to the same place. Dr. Stadler and Dr. Bailey treated UTUC as closely related to bladder cancer and looked to bladder-cancer studies. But that same ATSDR assessment found sufficient evidence for causation between TCE and kidney cancer, and between PCE, which was also in the Hadnot Point water, and bladder cancer. U.S. Ex. 238 at 13–14. Whether UTUC is grouped with kidney cancer or with bladder cancer, the evidence connects it to the water and establishes a causal relationship.

The Court recognizes some limited evidence in the record to the contrary. Dr. Stadler and Dr. Shields testified that UTUC arises from different cells than renal-cell carcinoma and has different risk factors. They also testified that the high-exposure TCE studies the agencies relied on largely concerned renal-cell carcinoma, and that no agency has classified any of the chemicals as a cause of renal-pelvis cancer specifically, as distinct from kidney cancer. Tr. 340:16–21, 341:23–342:4, 347:5–15, 347:23–348:9; Tr. 574:20–575:9. Dr. Bailey testified that agencies describe the evidence on PCE and bladder cancer as limited. But Dr. Stadler conceded that studies group UTUC with kidney cancer because of "the data that's available and not necessarily due to the biology of what we know about causation." Tr. 590:23–591:3. A lack of separate studies is not evidence that the water does not cause UTUC. Dr. Stadler also testified that an ATSDR study comparing Camp Lejeune with Camp Pendleton broke out UTUC and found no difference between the bases. Tr. 591:11–16. He did not name or date the study, and none of ATSDR's studies comparing the two bases breaks out UTUC. U.S. Ex. 242, tbls. 4–5; U.S. Ex.

237; PX 72; PX 146 at 2. The "Urothelial" row in the 2024 incidence study reports a subtype of urinary bladder cancer — that is, cancers located in the bladder — whereas cancers of the renal pelvis (such as Mr. Mousser's) are counted in the "Kidney and Renal Pelvis" row. U.S. Ex. 242, tbls. 4–5. His own report acknowledges that "many epidemiologic studies do not separate UTUC from renal cancer." U.S. Ex. 934 at 6. Dr. Stadler's unsupported testimony about that study is one reason the Court, as explained below, does not find his causation testimony credible.

Dr. Hatten also testified that PCE can cause kidney cancer at the levels found at Camp Lejeune, and that the same is true of the other chemicals he reviewed, including benzene, which has positive associations with kidney cancer at the levels of exposure estimated there. PX 34 at 10, 28–33; Tr. 97:8–23. Weighing the benzene studies under the Bradford Hill considerations, he concluded that benzene is at least as likely as not a cause of kidney cancer. PX 34 at 31–33. In announcing its 2024 rule on PCE, EPA described PCE as "known to cause liver, kidney, brain and testicular cancer." PX 240; Tr. 675:22–676:3. ATSDR's 2017 assessment placed the evidence on PCE and kidney cancer below equipoise. U.S. Ex. 238 at 13, 22, 95. The Court recognizes the testimony of the United States' witnesses that no agency classifies PCE or benzene as a cause of kidney cancer. Tr. 340:16–341:1, 487:7–11. As to PCE, EPA's statement is to the contrary. Dr. Hatten cited 8 statistically significant results for PCE and kidney cancer and 81 other positive results. As to benzene, the lack of an agency classification is not evidence that benzene does not cause kidney cancer, and the Court credits Dr. Hatten's weighing of the studies. The Court finds it highly persuasive that a meta-analysis of studies analyzing benzene and kidney cancer found a statistically significant association and that Dr. Hatten cited 32 statistically significant results and 67 other positive results on benzene and kidney cancer. The Court finds that PCE can cause kidney cancer and that benzene is at least as likely as not a cause

of kidney cancer. Those findings add to the Court's finding on causation but are not necessary to it. The causation finding rests on the water and on TCE, its principal contaminant, which was present at far higher concentrations. PX 10.

For all the reasons above, the Court finds that exposure to the water at Camp Lejeune, and to the TCE, PCE, and benzene in it, at the levels present there, can cause kidney cancer, including UTUC.

V. Mr. Mousser's Exposure Caused His Cancer

In making its findings on specific causation, the Court relies on Dr. Joseph J. Del Pizzo, a urologic surgeon at Weill Cornell who has diagnosed and treated kidney cancer, including UTUC, since 2001. Tr. 182:18–183:21. Dr. Del Pizzo used differential diagnosis, the method Dr. Stadler also used. Tr. 198:5–199:2; Tr. 571:4–16. He considered the water a potential cause: Mr. Mousser was exposed at the height of the contamination and falls in the highest exposure category of the 2014 Marine study for each of the four chemicals, and the decades between his exposure and his diagnosis are consistent with the latency of kidney cancer. Tr. 185:6–16, 190:1–24. He then weighed the other risk factors and concluded that the water caused Mr. Mousser's kidney cancer, PX 101; PX 102, and he testified that, but for that exposure, Mr. Mousser would not have developed it. Tr. 193:23–194:6. The Court finds his testimony persuasive and relies on it.

The Court recognizes that smoking is a risk factor for kidney cancer, and for UTUC specifically, and that Mr. Mousser had a history of smoking. Tr. 186:4–12; Tr. 576:22–577:19. He smoked about half a pack to a pack a week in the Marine Corps and, very rarely and socially, afterward. Tr. 198:11–16, 215:3–5; Tr. 281:4–10, 282:24–283:9. A 2016 private cardiology record states that he "did smoke until 2012," though the same record elsewhere calls him a

"never smoker." U.S. Ex. 753 at 1–2. Richard Mercer, who first worked with Mr. Mousser in 2012, testified at a deposition that Mr. Mousser smoked that year and "quit shortly thereafter," and that he had not seen him smoke since. U.S. Ex. 2025 at 27:16–28:5. Dr. Rockwood, who worked up Mr. Mousser's cancer in August 2020, testified that Mr. Mousser told him he was a nonsmoker, and Dr. Rockwood's records reflect that. Dr. Rockwood had no evidence that Mr. Mousser was a current smoker and did not recall his ever smelling of cigarette smoke. U.S. Ex. 2023 at 55:16–56:1, 111:25–112:10. The Court finds that Mr. Mousser did not smoke after 2012.

The United States relies on a July 30, 2020, VA telephone note, recorded about a month before the mass in his kidney was found, which states that he smoked "a little bit," about a pack a week, and that he declined help quitting. U.S. Ex. 531 at 2–3; Tr. 583:13–16. The Court recognizes Dr. Stadler's testimony that physicians ask about smoking as a routine matter and that patients often understate their habits. Tr. 580:22–581:1. But the Court does not find the note credible on this point. Dr. Del Pizzo, who reviews records like it in his practice, testified that it looks like a preprinted, typed form and that it is very nonspecific. Tr. 202:13–14, 203:21–204:3. Mr. Mousser testified that the note is not true, that he never told the nurse he smoked, and that no physician told him to quit because he was not smoking. Tr. 283:10–18. Mrs. Mousser, who has been married to Mr. Mousser for 33 years, has worked with him every day since 2015, and does not allow cigarettes in their home, testified that there is "no possible way" he was smoking in 2020. Tr. 205:3–16, 209:15–21, 214:19–215:7. The Court finds Mr. and Mrs. Mousser credible. Their account also fits Dr. Rockwood's records from the following month and Mr. Mercer's testimony. No witness who made or approved the 2020 note testified about it. U.S. Ex. 531 at 3. The Court recognizes that Dr. Flood, who staffed Mr. Mousser's nephrology care for four months in 2022, listed "tobacco use" among his risk factors for kidney disease. U.S. Ex. 2024 at

80:9–81:4. But Dr. Flood did not say when that use occurred. No witness testified to seeing Mr. Mousser smoke after 2012.

Even assuming, arguendo, that Mr. Mousser smoked a pack a week in 2020, the result would not change. Dr. Stadler's risk figures came from studies of bladder cancer, his highest figure was for smoking on the order of a pack a day, and he gave two different figures for lighter smoking. Tr. 585:21–586:1, 589:22–590:6, 606:12–17. And Dr. Del Pizzo explained that the note does not take away from Mr. Mousser's very high exposure to the chemicals and that smoking is much more a risk factor for bladder cancer than for kidney cancer. Tr. 204:3–7. The Court credits him. Whatever contribution smoking may have made, the Court finds that the water caused the cancer.

The United States relies on Dr. Walter Stadler, a genitourinary oncologist, who attributed the cancer to smoking, with a possible contribution from an inflammatory condition of the kidney. U.S. Exs. 934, 935; Tr. 572:8–12. The Court does not find his causation testimony credible.

A program whose review panel he chairs reports that Marines and their families stationed at Camp Lejeune face a 35 percent higher risk of kidney cancer than civilians because of the contaminated water. Tr. 595:2–10. Yet, though he personally agrees that there is some increased risk of kidney cancer for people stationed at Camp Lejeune, he ruled out the water as a possible cause by relying on the reports of Dr. Lisa Bailey, Dr. Judy LaKind, and Dr. Julie Goodman, experts who, as he understood it, take the view that the water cannot cause these cancers at all. Tr. 591:5–11, 601:1–19, 603:25–604:3. The United States did not call Dr. Goodman. Dr. Stadler had "very little specific understanding" of their analyses, and he did none of his own. Tr. 602:9–12. He did not look at how much water Mr. Mousser drank or how he bathed, did not compare

Mr. Mousser's exposure to any epidemiology, and reviewed only the five Camp Lejeune studies, which he found reliable and reputable. Tr. 595:20–596:12, 597:13–18, 597:24–598:8, 598:23–599:22.

His smoking testimony was also unreliable. At trial he named no study behind his risk figures; he relied on what he called "the general epidemiology literature." Tr. 606:20–22. His report gives only two smoking figures, both taken from a single study of bladder cancer, and none of the figures for lighter smoking he gave at trial. U.S. Ex. 934 at 7, 14, 16. Only on cross-examination did he acknowledge that the studies he relied on concerned bladder cancer, a different cancer, because "there are no good epidemiologic studies regarding upper tract urothelial cancer." Tr. 589:20–590:6. And his figures changed each time he gave them: three- to fourfold for smokers and twofold for former smokers, Tr. 577:6–12; more than fourfold for a pack a day and two- to threefold for one to ten cigarettes a day, Tr. 585:21–586:1; and, on recross, three- to fourfold, which he said "is much more closely related to patients who smoke up to a pack a day," and twofold for one to nine cigarettes a day, Tr. 606:2–17. Testimony that rests on studies of another cancer, with figures that shift from one answer to the next, does not reliably measure Mr. Mousser's risk. He testified that "there is no relationship between TCE and upper tract or urothelial cancer," though he could not recall reviewing the literature on PCE and kidney cancer. Tr. 596:19–22, 597:13–18. His opinion rests on Mr. Mousser's smoking in the Marine Corps and through 2012 and on his view that a former smoker's risk does not go away. Tr. 577:10–19, 583:5–10. But Mr. Mousser's smoking, at most about a pack a week, was far below the 50 pack-years (a pack a day for 50 years) at which Dr. Stadler said the risk peaks. Tr. 607:8–11.

As for inflammation, Dr. Stadler conceded that "we can't be very specific as to what that was." Tr. 579:24–580:6. Dr. Del Pizzo explained that inflammation becomes a risk for kidney cancer with a history of obstructing kidney stones and repeated infections, and Mr. Mousser has none. Tr. 192:4–21. The cystitis for which VA rates him is inflammation of the bladder, not the kidney. Tr. 191:16–17, 260:1–4. Having considered Dr. Stadler's testimony, shifting explanations, and demeanor, the Court affords his causation opinion no weight.

The United States also relies on Dr. Lisa Bailey, a toxicologist and risk assessor at Gradient, who testified that Mr. Mousser's TCE exposure was about 450 times below the level at which a French occupational study, Charbotel 2006, found an increased risk of kidney cancer. Tr. 485:3–487:6. Having observed her testimony, the Court does not find her credible. Her opinion was not her own. She did no independent literature search or systematic review of the epidemiology. Tr. 508:20–509:20. At the United States' request, she relied on Dr. Julie Goodman's evaluation of the epidemiology, deferred to it, and did not independently verify it. U.S. Ex. 946 at 38; Tr. 512:4–19, 514:14–20. The United States did not call Dr. Goodman. Dr. Bailey compared Mr. Mousser's TCE exposure to only one study and not to the drinking-water studies, including the New Hampshire study described above. Tr. 515:16–517:2, 522:20–523:16. She treated the level at which the Charbotel study found increased risk as a threshold below which exposure is not a concern, though she could name no authority that sets such a threshold. Tr. 518:16–519:9, 522:17–19. And Dr. Lipscomb, the United States' own toxicologist, who worked on EPA's TCE assessment, testified that EPA did not discuss Charbotel as showing a threshold, which is "not the way it's done in cancer risk assessment." Tr. 439:10–18. And though Dr. Bailey told the Court that no agency has associated PCE with kidney cancer, EPA has, as found above. PX 240; Tr. 487:7–11. She also told the Court that agencies describe the evidence

on PCE and bladder cancer as limited and weak, without mentioning ATSDR's contrary finding, discussed above. U.S. Ex. 238 at 13–14. And her conclusions are copied and pasted; they do not change with the evidence. She found that none of the 25 plaintiffs she evaluated had exposures high enough to be of concern, and her concluding paragraphs differ only in the plaintiff's name and years on base. Tr. 493:19–22, 494:15–19. She could not recall concluding, in any industry-funded work, that the evidence strongly supported causation. Tr. 495:23–496:13. She is an owner of Gradient, which has billed the United States more than $1 million for her work in this case, yet she claimed not to know how much Gradient had billed for Dr. Goodman's work, even when asked whether she and Dr. Goodman together had billed the United States many millions of dollars. Tr. 500:10–501:7, 508:12–19. The Court affords her opinion no weight.

For all the reasons above, the Court finds that Mr. Mousser's exposure to the water at Camp Lejeune caused his UTUC and its recurrence.

VI. Mr. Mousser's Injuries and Damages

A. The Cancer and Its Treatment

In describing what Mr. Mousser has endured, the Court relies on the testimony of Mr. and Mrs. Mousser and on his medical and VA records. Mr. Mousser learned he had cancer at age 57. Tr. 220:4–221:4. An attempted ureteral biopsy caused the worst pain of his life. Tr. 235:19–236:6. Eight weeks after the diagnosis, surgeons removed his right kidney, its ureter, and part of his bladder; he faced the surgery at the height of the COVID-19 pandemic, without any visitors, after signing a form acknowledging he could die. U.S. Ex. 900 at 51; Tr. 236:18–237:16. He has since undergone more than a dozen cystoscopies, each painful and humiliating, and will need them for the rest of his life. Tr. 238:13–239:7. The cancer then returned in his bladder and was removed on January 31, 2025. Tr. 242:21–243:2; U.S. Ex. 900 at 53. He lives each day in fear of

another recurrence, of kidney failure, and of dying; Mrs. Mousser testified that he is "afraid of dying" and "afraid of leaving me." Tr. 209:20–22. The cancer and its consequences have shortened his life by about a decade, and the treatment ahead may include dialysis, which even the United States' nephrologist, Dr. Duncan Johnstone, agreed can be "a living hell." U.S. Ex. 2018 at 51:19–22.

B. The Cancer Caused Mr. Mousser's Chronic Kidney Disease, Which Will Likely Require Dialysis or a Kidney Transplant

In making its findings on Mr. Mousser's kidney disease and its course, the Court relies on Dr. Matthew Cooper, a kidney transplant surgeon and tenured professor of surgery at the Medical College of Wisconsin who has directed the kidney transplant programs at Georgetown and Johns Hopkins, performs 60 to 75 kidney transplants a year, and sees patients with chronic kidney disease who are expected to progress to kidney failure. PX 144 at 6:10–8:25; PX 125. The Court finds his testimony persuasive and relies on it.

The experts agree on the starting point. The surgery that removed the cancer caused Mr. Mousser's chronic kidney disease. U.S. Ex. 2018 at 27:21–24; PX 144 at 21:20–22:9. Pathology of the removed kidney showed nephrosclerosis, scarring of the kidney's small vessels, and even Dr. Johnstone agreed that nephrosclerosis is "almost certainly present" in the kidney that remains. U.S. Ex. 2018 at 40:2–4, 53:8–18; PX 144 at 15:3–16:15. Dr. Johnstone also agreed that, with one kidney, Mr. Mousser has nothing to fall back on if something goes wrong, and that patients at his stage of kidney disease reach end-stage kidney disease 5.2 times as often as people with normal kidney function, though he stressed that the absolute risk remains low. U.S. Ex. 2018 at 52:12–20, 56:5–24.

Dr. Cooper explained why the remaining kidney will likely fail. Having lost half of its filtering units, the remaining kidney must enlarge and hyperfiltrate to do the work of two, while carrying the same nephrosclerosis and the strain of diabetes and hypertension, the two leading causes of kidney failure. PX 144 at 16:24–17:23, 19:5–20:16. Mr. Mousser's creatinine has never returned to its normal pre-surgery level. *Id.* at 21:23–22:9, 31:9–18. In Dr. Cooper's words, that kidney "is working hard and it is, in many ways, fighting a losing battle." *Id.* at 32:12–24. Dr. Cooper testified that he is "certain" Mr. Mousser will need renal replacement therapy, likely within two to four years, an estimate he called conservative, and that it will be either maintenance dialysis or, "if he's fortunate," a kidney transplant. *Id.* at 9:22–10:2, 13:11–14, 22:10–16, 24:16–25:2, 55:23–56:4. He also approved the life care plan Mr. Fryar used to price Mr. Mousser's treatment. *Id.* at 28:12–29:10; PX 131.

The Court recognizes the contrary evidence. Dr. Cooper never examined, met, or spoke with Mr. Mousser, and he is a surgeon, not a nephrologist. PX 144 at 48:3–7, 55:16–22. He agreed he would not typically recommend dialysis or a transplant for a patient with stable Stage 3 kidney disease. *Id.* at 37:21–38:7. No treating physician has recommended either, and VA discharged Mr. Mousser from its kidney clinic. U.S. Ex. 2018 at 33:15–19; Tr. 295:22–296:2. And Dr. Johnstone's Kidney Failure Risk Equation calculation puts the five-year risk of kidney failure at less than one percent. U.S. Ex. 2018 at 29:12–30:6. Dr. Stadler, the United States' oncologist, likewise testified that Mr. Mousser's risk of renal failure requiring dialysis "from the cancer itself" is "very low." Tr. 587:4–8.

But the Court is satisfied that Dr. Cooper's opinion is the more reliable one. Dr. Cooper's point is that this kidney is not stable in the way that matters: a single kidney with nephrosclerosis, working in a hyperfiltrating state against diabetes and hypertension, will not

hold. PX 144 at 19:12–20:16, 32:12–24. The equation Dr. Johnstone relied on has no input for having one kidney, for diabetes, or for nephrosclerosis, and it does not look past five years. U.S. Ex. 2018 at 31:2–4, 57:6–58:12. Dr. Cooper testified that VA's discharge of Mr. Mousser from kidney care was "an absolute mistake," because he "needs greater care, not lesser care." PX 144 at 33:5–25. And Dr. Stadler, an oncologist rather than a nephrologist, testified only about the cause of the cancer itself, not about the course of the single remaining kidney on which Dr. Cooper's opinion rests.

VA's nephrology records drew the same line. In January 2022, a VA nephrology note cosigned by Mr. Mousser's treating nephrologist, Dr. D. Kevin Flood, recorded a low probability of significant progression of his kidney disease, "providing he does not have intrinsic renal disease in his remaining kidney." U.S. Ex. 371 at 5. But the evidence suggests that Mr. Mousser likely *does have* renal disease in his remaining kidney. The pathology of the removed kidney showed nephrosclerosis, *id.* at 4–5, a disease of the kidney's own small blood vessels that can cause entire filtering units to drop out, U.S. Ex. 2018 at 53:11–18, and both experts agree that the remaining kidney almost certainly carries it as well. PX 144 at 16:10–15; U.S. Ex. 2018 at 40:2–4, 53:8–18, 87:2–4. The Court recognizes that, at his 2024 deposition, Dr. Flood testified that he saw "no evidence" of intrinsic disease in the remaining kidney, which "seems to be . . . very healthy," and that Mr. Mousser's five-year risk of dialysis is below one percent and his prognosis "excellent." U.S. Ex. 2024 at 78:18–79:12, 94:14–95:7, 113:14–114:12. Dr. Rockwood likewise described the findings in the removed kidney as "very nonspecific." U.S. Ex. 2023 at 80:17–22. But Dr. Flood explained that his outlook rested on blood and urine values, and that "without a biopsy, I can't tell" whether the kidney had been damaged. U.S. Ex. 2024 at 78:10–25. Asked the cause of the kidney disease, he said, "I don't know if his — his remaining kidney is in any way

diseased, or if it's just a reflection of having one kidney," and he named high blood pressure, vascular disease, and diabetes as other risk factors. *Id.* at 129:7–130:2. He also explained that if there is vascular disease in the heart, "it's likely affecting the kidney." *Id.* at 29:3–14. His risk figure came from the same equation Dr. Johnstone used. *Id.* at 113:14–22. Dr. Flood treated Mr. Mousser for four months in 2022, spent "probably less than five minutes" with him in person, and agreed that his knowledge is limited to that period. *Id.* at 27:6–28:9, 34:11–35:7, 125:17–25. Dr. Rockwood, a urologist, leaves intrinsic kidney disease to nephrologists. U.S. Ex. 2023 at 36:8–37:1. Thus, the Court does not find that the condition on which Dr. Flood rested his favorable outlook — a remaining kidney free of intrinsic disease — is met.

The Court rejects Dr. Johnstone's conclusion that Mr. Mousser's kidney disease will not progress or shorten his life, for three reasons.

First, he drew no line between serving as a witness and serving as an advocate. Asked whether he understood the difference between being a witness and being an advocate, he said he was "happy to hear it explained" and that he had "not heard of a formal definition between the two," and he agreed that he would make "arguments" for the side paying his bill if he believed them accurate. U.S. Ex. 2018 at 68:20–69:16.

Second, his experience as an expert in court is limited. All of his expert work has been for defendants, and he has never been admitted as an expert by any court. *Id.* at 67:3–13.

Third, his work in this litigation has twice omitted information in misleading fashion. In another Camp Lejeune case, he advanced a hypothesis about the cause of a claimant's cancer, a subject he acknowledged was "not my area of expertise." Asked whether the hypothesis was "pure speculation," he answered, "Okay, that's fair." PX 205 at 80:19–81:18. His report in that case summarized a genetic counselor's note as saying that a genetic test "is not perfect in ruling

out hereditary renal papillary cancer." He left out the rest of the counselor's sentence: "but that chance is small." U.S. Ex. 2018 at 75:12–77:2; PX 205 at 80:4–82:10. Asked why, he said, "I guess I'm trying to support my hypothesis," and that he omitted information "as part of an argument based on my belief of her medical record." PX 205 at 81:1–82:6; U.S. Ex. 2018 at 79:19–80:6. In this case, he told the Court that Mr. Mousser's kidney function is "in the upper 50s most of the time," and he prepared a chart of Mr. Mousser's kidney function that he claimed showed "exactly the trends." U.S. Ex. 2018 at 22:25–23:5, 28:2–3, 28:12–15, 29:7–11. Every reading the chart shows for 2024 through 2026 is 57 or higher. U.S. Ex. 2050 at 5. The chart leaves out an eGFR of 53 from January 2024 and an eGFR of 52 from June 2025. PX 201; PX 202. He agreed that neither reading appeared on the chart, said that he did not "want to include every single data point," and agreed that he did not try to include everything. U.S. Ex. 2018 at 82:14–83:15, 87:25–88:8, 93:3–6. The Court recognizes that Dr. Johnstone denied deliberately excluding any reading, said it was possible he did not see one of them, and pointed out that the chart includes lower readings from 2021 through 2023 and that both omitted readings fall within the same stage of kidney disease. *Id.* at 84:6–9, 87:21–88:8, 92:2–7, 92:18–93:2. But he chose what he called "a fair set" of values rather than all of them, he described the result to the Court as "in the upper 50s most of the time," and he had left out unfavorable information to support his hypothesis before. *Id.* at 27:25–28:3, 91:19–92:21, 93:3–6. Based on this testimony and his prior conduct omitting relevant information to support the United States' position, the Court finds that Dr. Johnstone intentionally omitted information that bears directly on the heart of his opinion, which is that Mr. Mousser's kidney function has held steady in recent years. Such conduct renders him not credible. Thus, the Court affords Dr. Johnstone's prognosis opinion no weight and credits Dr. Cooper.

For all the reasons above, the Court finds that the cancer and the loss of his right kidney caused Mr. Mousser's chronic kidney disease, that he will likely require renal replacement therapy, either dialysis or a kidney transplant, and that he will likely need the care in the life care plan Mr. Fryar prepared and Dr. Cooper approved.

C. The Cancer Has Shortened Mr. Mousser's Life by About a Decade

Crediting Dr. Cooper, the Court finds that, but for the cancer and its consequences, Mr. Mousser would likely have lived to about 85, and that he will now likely live, at best, to about 75, even with a transplant. PX 144 at 10:6–18, 25:9–27:6. With two kidneys, he would not face this course. *Id.* at 27:7–11. The Court recognizes Dr. Johnstone's view that Mr. Mousser's heart disease, which predates the cancer, will matter more to his survival. But kidney disease adds to the very cardiovascular risk Dr. Johnstone describes, and he agreed that dialysis patients face a risk of death similar to that of patients with Stage 3 colon cancer. U.S. Ex. 2018 at 52:6–11; PX 144 at 24:9–15. Dr. Flood testified that Mr. Mousser's coronary artery disease, not his kidney disease, is "likely to end his life," and Dr. Rockwood testified that he would have "a relatively normal life expectancy." U.S. Ex. 2024 at 123:18–124:7; U.S. Ex. 2023 at 100:10–17. But Dr. Flood himself explained that as kidney disease advances, blood pressure becomes harder to control and can damage organs "including the heart," and that the more advanced the disease, "the higher the risk of cardiovascular disease." U.S. Ex. 2024 at 29:25–30:7, 52:15–24. Dr. Rockwood, for his part, began his answer, "I really can't say." U.S. Ex. 2023 at 100:10. And the Court, having already found Dr. Johnstone not credible, declines to accept his opinion as to Mr. Mousser's lifespan.

For all the reasons above, the Court finds that the cancer and its consequences have shortened Mr. Mousser's life by about a decade.

D. The Cancer Caused Mr. Mousser's Depression, Ended His Work, and Took His Intimate Life

In making its findings on Mr. Mousser's depression, his work, and his intimate life, the Court relies on VA's findings, the January 2024 vocational evaluation, and the testimony of Mr. and Mrs. Mousser. Before the cancer, Mr. Mousser had no diagnosis of or treatment for depression. Tr. 241:9–11; U.S. Ex. 900 at 32. Since then, his VA physician has assessed his depression as "most likely secondary to the surgery and his diagnosis," and a VA examiner has diagnosed a mood disorder with major depressive episodes due to his kidney cancer and chronic kidney disease and found it at least as likely as not the result of the cancer, its surgery, and his kidney disease. U.S. Ex. 900 at 64, 75. He sleeps apart from his wife because he is up four or five times a night, and he lies awake with fear. Tr. 240:19–242:19. The cancer, its treatment, his depression, and his medications ended the couple's intimate life. Tr. 206:22–207:1, 241:19–242:8. The Court recognizes the United States' evidence of earlier difficulties — a hard childhood, long-standing back pain, and a 2019 note reporting insomnia. Tr. 255:18–257:4; Tr. 279:14–280:4; Tr. 627:20–628:17. But none of them produced depression before the cancer.

The cancer also ended the career in the car business that Mr. Mousser began after leaving the Marine Corps in 1988. Tr. 231:13–25. He returned to work after surgery, left his employer in December 2022 to "take care of my health," tried again at a friend's dealership, and stopped in October 2023. Tr. 209:11–24, 243:7–245:11; *see also* PX 110 at 3–4. VA found him unemployable from that month because of his service-connected conditions, including his kidney cancer, the kidney disease in his remaining kidney, and his depression. PX 120 at 3. A January 2024 vocational evaluation reached the same conclusion: Mr. Mousser "is unemployable for any full-time or part-time job existing in the competitive labor market due to his severely reduced emotional and physical functional capacity." PX 121 at 27. The Court recognizes the testimony

of his employer that he performed well, his treating physicians' view that he could keep working, and a December 2023 note that a disappointing new position added to his depression. U.S. Exs. 270, 2023, 2024, 2025. But none of his other conditions kept him from full-time work before the cancer. And although Mr. Mercer has "zero" medical training and had not spoken at length with Mr. Mousser about his symptoms, he testified that Mr. Mousser "wasn't the same person" he had been a decade earlier, that his rapport with customers had "diminished," and that he had expected Mr. Mousser to work there "till he retired." U.S. Ex. 2025 at 32:12–16, 41:17–42:20, 45:20–46:4. The United States' vocational expert, Dr. Michael Shahnasarian, rested his contrary view largely on physical capacity, and his own report records the VA findings that the kidney cancer affected Mr. Mousser's ability to work. U.S. Ex. 900 at 63, 65, 69–70.

The Court also does not find Dr. Shahnasarian credible. He testifies about six times a month as a paid expert. Tr. 633:17–22. His updated life care plan provides for only one urology follow-up visit for the rest of Mr. Mousser's life. U.S. Ex. 901 at 6. That cannot be right for a man who had a cancerous tumor removed from his bladder in January 2025. U.S. Ex. 900 at 53. And he would not concede that his first plan, which provided only a single cystoscopy for life, was wrong. Tr. 635:23–636:10, 637:22–23. Instead, he claimed the plan was just a "draft," though it had been produced to Mr. Mousser's counsel as a formal expert disclosure. Tr. 636:7–21, 638:12–21. Thus, the Court affords his opinion no weight.

For all the reasons above, the Court finds that the cancer caused Mr. Mousser's depression, ended his ability to work, and ended his intimate life.

E. Economic Damages

Past medical care is $62,854, the stipulated cost of the care VA furnished Mr. Mousser. U.S. Ex. 866; U.S. Ex. 1002 at 5; Tr. 535:7–536:5, 537:24–538:2.

For future medical care, the Court relies on Michael Fryar, a life care planner, whose pricing method Dr. Shahnasarian also used, and on Chad Staller, an economist whose methods the United States' economist, Tricia Yount, does not dispute. U.S. Ex. 1002 at 3; Tr. 288:20–24; Tr. 617:9–18, 657:7–11. Assuming a kidney transplant in 2029, the present value of future care through age 75 is $802,874. That figure includes no cost for dialysis and is therefore conservative; assuming dialysis without a transplant, the present value is $777,255. PX 128 at 5–7, 11 tbl. 4. The United States' alternative, $4,630, rests on Dr. Shahnasarian's plan, which provides one urology follow-up visit, five years of cystoscopies, and one CT scan, but no dialysis or transplant. U.S. Ex. 1002 at 8 tbl. 1. The Court finds that Mr. Mousser will need more medical care than that. Thus, the Court affords it no weight.

Lost earnings, net of taxes and including lost retirement benefits, are $305,101. Mr. Mousser relies on the shorter of Mr. Staller's two models, which runs only to age 65.6, his statistical work-life expectancy, and not to age 67, his Social Security retirement age. PX 128 at 3, 7–8 tbl. 1; Tr. 305:20–306:13. Ms. Yount takes no issue with that calculation and assigns no loss only because Dr. Shahnasarian concluded the cancer did not end Mr. Mousser's work, a conclusion the Court has rejected. U.S. Ex. 1002 at 3–4; Tr. 656:10–18.

For all the reasons above, the Court finds that Mr. Mousser's economic damages total $1,170,829.

F. Non-Economic Damages

For the pain, suffering, fear, and loss of enjoyment of life found above, including the shortening of his life and his knowledge that his life has been shortened, the Court awards non-economic damages of $1,000 a day for 10,000 days, or $10,000,000.

The daily figure is an average across the whole period, not a value assigned to any single day. Some days have been, and will be, far worse than others: the day he learned he had cancer; the attempted biopsy, the worst pain of his life; the surgery he faced alone at the height of the pandemic; the news that his remaining kidney was diseased; the recurrence and its removal; and each cystoscopy. Ahead lie dialysis sessions of about four hours, three times a week, or a transplant and lifelong immunosuppression, then serious decline and, ultimately, a shortened life. The United States' own nephrologist agreed that dialysis can cause severely painful cramping and fatigue lasting hours afterward; asked whether dialysis "can be a living hell," he answered, "For some patients, yes." U.S. Ex. 2018 at 48:11–16, 49:14–16, 51:8–22. Other days are less bad, but none is free of the harm: the nights awake and up four or five times; the fear of recurrence and of kidney failure; the depression; the loss of intimacy with his wife; and the loss of his work. Taking the worst days and the less bad days together, the Court finds that $1,000 a day is a fair average measure of that harm. The Court applies it to 10,000 days, fewer than the roughly 10,120 days from August 26, 2020, when he learned at 57 that he had cancer, to age 85, the age to which he likely would have lived but for the cancer. About 2,250 of those days had passed by the time of trial; the rest are future days.

The award excludes conditions unrelated to the cancer or its treatment. For all the reasons above, the Court finds that non-economic damages total $10,000,000, and damages before any offset total $11,170,829.

VII. The United States Proved Past Offsets of $353,077 and Did Not Prove Any Future Offset

In making its findings on offsets, the Court relies on the past VA payment figures the United States offered. The United States proved, and Mr. Mousser does not contest, past VA

disability compensation related to the water of $290,223 through October 26, 2026, and past VA medical care of $62,854, for total offsets of $353,077. U.S. Ex. 1002 at 5 & tbl. 4; U.S. Ex. 866; Tr. 535:7–536:8, 697:7–11.

The United States also seeks to offset $544,008, the present value of the disability compensation it projects VA will pay Mr. Mousser through age 75. U.S. Ex. 1002 at 5 & tbl. 4. The Court recognizes the testimony of Jadine Piper, a VBA analyst, that most re-examined ratings are confirmed and continued and that VA seldom re-examines static disabilities in veterans over 55. U.S. Exs. 931, 932; Tr. 555:1–6, 556:10–15, 559:10–25. VA's code sheet lists Mr. Mousser's conditions as static. U.S. Ex. 910 at VBA 34146–50; Tr. 259:16–261:9. But Ms. Piper did not know Mr. Mousser's circumstances and could not assure the Court that his benefits would continue at the same level. Tr. 562:19–563:2. Indeed, at trial, the Court took judicial notice that "no one can predict what Congress will do tomorrow, much less one year from now," and thus accepted a limitation on this testimony in that regard. Tr. 546:4–13.

Ms. Piper explained that an active cancer is an unusual circumstance that requires VA, by regulation, to schedule a future examination, and Mr. Mousser's cancer recurred after VA's April 2024 decision. U.S. Ex. 900 at 53; Tr. 560:5–13. And shown a bill introduced in Congress that would end individual-unemployability compensation at age 67, she could not say how it would affect him. Tr. 563:3–564:9. Whether or not that bill would reach Mr. Mousser, it illustrates that legislation can change these entitlements. Ms. Yount, who made the projection, assumed his ratings would never change because, she said, she cannot predict changes. Tr. 668:4–669:12. The benefit she projects depends on VA's finding that he cannot work: VA pays him at the 100 percent rate because it found him unemployable, and his special monthly compensation rests on the same finding. PX 120 at 1, 3–4; Tr. 261:10–20. And his ratings have not held still. After

granting service connection for the kidney cancer at 100 percent in December 2020, VA proposed to cut that rating three times, cut it to 30 percent effective September 1, 2022, and again effective March 1, 2024, and ended, or set a date to end, his special monthly compensation three times before continuing it in April 2024. Three of those decisions found clear and unmistakable error in VA's own earlier decisions. U.S. Ex. 910; PX 120 at 1, 4. The United States also relies on deposition designations of Andrew McIlroy, a VA budget official, who testified that Congress has always funded these benefits and that the rates have always increased. U.S. Ex. 2028 at 86:5–7, 150:14–19. The Court recognizes that history. But the cost-of-living increase Ms. Yount built into every future year is enacted by an annual act of Congress, *id.* at 150:4–13, and the law could change. The only projection offered here assumes that Mr. Mousser's ratings will never change. The Court finds that a projection assuming no change does not reliably predict what VA will pay this veteran, and that the United States has not proved the amount of any future disability-compensation offset.

Nor did the United States prove that VA will furnish Mr. Mousser's future care. The United States values that care at $228,147 under Mr. Fryar's transplant plan. U.S. Ex. 1002 at 4 & tbl. 3. Of that amount, $171,271 is in-home attendant care, and Ms. Yount took VA's costs from the report of a witness who did not testify. *Id.* The United States' VHA witness, Heather Ford, did not testify that Mr. Mousser will use VA care, and she explained that VHA's forecasting models do not cost care at the level of an individual patient. Tr. 542:14–23, 544:11–20. Mr. Mousser testified that, given the choice, he would have his transplant at a private hospital, because at VA he never saw the same doctor twice, and Mrs. Mousser testified that if they had the resources he would see a private doctor "every time." Tr. 211:24–212:1, 246:22–247:15. The Court recognizes that Mr. Mousser has been treated at VA for more than six years,

has no private insurance, and declined the insurance his last employer offered, which he called "way too expensive." Tr. 257:17–258:23. But he used VA because it was the only care he could afford, and the Court credits his testimony that he will use private care for this treatment. The Court finds that the United States has not proved that VA will furnish Mr. Mousser's future transplant care.

For all the reasons above, the Court finds past offsets of $353,077 and no future offset.

CONCLUSIONS OF LAW

I. The Camp Lejeune Justice Act

The Camp Lejeune Justice Act of 2022, Pub. L. No. 117-168, § 804, 136 Stat. 1759, 1802–04 (codified at 28 U.S.C. § 2671 note prec.), was enacted as part of the Honoring our PACT Act of 2022 and took effect on August 10, 2022. D.E. 227 at 1; D.E. 284 at 1. Subsection 804(b) provides that "[a]n individual, including a veteran (as defined in section 101 of title 38, United States Code), or the legal representative of such an individual, who resided, worked, or was otherwise exposed (including in utero exposure) for not less than 30 days during the period beginning on August 1, 1953, and ending on December 31, 1987, to water at Camp Lejeune, North Carolina, that was supplied by, or on behalf of, the United States may bring an action in the United States District Court for the Eastern District of North Carolina to obtain appropriate relief for harm that was caused by exposure to the water at Camp Lejeune." CLJA § 804(b).

Subsection 804(c), titled "Burdens and Standard of Proof," provides: "(1) In general.—The burden of proof shall be on the party filing the action to show one or more relationships between the water at Camp Lejeune and the harm. (2) Standards.—To meet the burden of proof described in paragraph (1), a party shall produce evidence showing that the relationship between exposure to the water at Camp Lejeune and the harm is—(A) sufficient to conclude that a causal

relationship exists; or (B) sufficient to conclude that a causal relationship is at least as likely as not." CLJA § 804(c). "Congress expressly departed from the common-law preponderance burden of proof standard," and "[s]ubsections 804(c)(2)(A)–(B) supplant the common-law preponderance standard." D.E. 227 at 11 (cleaned up).

Congress enacted the CLJA to supply a federal cause of action that North Carolina's ten-year statute of repose had foreclosed in earlier Federal Tort Claims Act ("FTCA") litigation. *See id.* at 3–4. "Any applicable statute of repose or statute of limitations, other than under paragraph (2), shall not apply to a claim under this section." CLJA § 804(j)(3).

II. Jurisdiction, Venue, Exhaustion, and Timeliness

This Court "shall have exclusive jurisdiction over any action filed under subsection (b), and shall be the exclusive venue for such an action." CLJA § 804(d). The parties so stipulate. PTO at 1, § I.A.

A CLJA plaintiff must first comply with 28 U.S.C. § 2675. CLJA § 804(h). Exhaustion requires that the plaintiff present the claim to the appropriate federal agency, state a sum certain, and wait for a final denial or for six months to pass without final disposition. D.E. 284 at 4–5 (citing 28 U.S.C. § 2675(a)–(b); *Est. of Van Emburgh ex rel. Van Emburgh v. United States*, 95 F.4th 795, 801 (4th Cir. 2024)). The parties stipulate that Mr. Mousser complied with § 2675. PTO at 2–3, §§ I.D.2, I.E.2.

A CLJA claim "may not be commenced after the later of (A) the date that is two years after the date of enactment of this Act; or (B) the date that is 180 days after the date on which the claim is denied under section 2675 of title 28." CLJA § 804(j)(2). Mr. Mousser filed this action on March 31, 2023, within two years of enactment. *Mousser v. United States*, No. 7:23-CV-00667-BO (E.D.N.C.), ECF No. 1. His claim accrued before August 10, 2022: his cancer was

found on August 25, 2020, and his nephroureterectomy followed on October 20, 2020. CLJA § 804(j)(1); Findings of Fact ("FOF") Part I. The United States' fifth affirmative defense regarding accrual therefore does not apply. *See* PTO at 18, § III.B.5.

"The United States may not assert any claim to immunity in an action under this section that would otherwise be available under section 2680(a) of title 28." CLJA § 804(f).

This Court has held that the CLJA does not provide a right to a jury trial. D.E. 133 at 1. The Court thus sits as the finder of fact and enters these findings and conclusions under Federal Rule of Civil Procedure 52(a)(1).

III. The Elements of a CLJA Claim

To recover under the CLJA, a plaintiff must establish (1) that he is an individual who "resided, worked, or was otherwise exposed . . . for not less than 30 days" between August 1, 1953, and December 31, 1987, "to water at Camp Lejeune, North Carolina, that was supplied by, or on behalf of, the United States"; (2) that he suffered harm; and (3) a causal relationship between exposure to the water and the harm meeting the standard of § 804(c)(2). CLJA § 804(b)–(c). "First, a plaintiff must prove the statutorily defined exposure. Second, a plaintiff must 'show one or more relationships between the water at Camp Lejeune and the harm'; that is, plaintiff must produce evidence 'sufficient to conclude that a causal relationship [between exposure and harm] exists' or 'is at least as likely as not.'" D.E. 227 at 8 (alteration in original) (citation omitted) (quoting CLJA § 804(c)).

The CLJA does not condition relief on proof that the United States was negligent, breached a duty, or acted wrongfully. The only burden § 804(c) places on the plaintiff is to show exposure, harm, and a causal relationship between the water and the harm. CLJA § 804(c)(1).

The 30-day requirement in § 804(b) is a threshold prerequisite that "does not presume harm." D.E. 227 at 7–8. The United States has stipulated that Mr. Mousser satisfies it. PTO at 1, § I.D.1; FOF Parts I, III.

IV. CLJA Standard of Proof

In the CLJA, Congress "'expressly departed' from the common-law preponderance burden of proof standard." D.E. 886 at 2 (quoting D.E. 227 at 11); *see id.* at 15–16 (Congress "relaxed" the standard). The Court has described the resulting standard as "a claim where the burden of proof is equipoise." D.E. 886 at 17; *see id.* at 19 ("the equipoise burden of proof"). Under § 804(c)(2)(B), therefore, the plaintiff carries his burden by producing evidence "sufficient to conclude that a causal relationship is at least as likely as not"; a plaintiff whose evidence places causation at equipoise prevails, and he need not show that causation is more likely than not. The question for the Court is whether, considering all the evidence, a causal relationship between the water and Mr. Mousser's cancer is more likely than not or at least as likely as not.

V. Admissibility of Expert Testimony

The Federal Rules of Evidence, including Rule 702, govern the admission of expert testimony in CLJA cases, and "Congress choosing a relaxed burden of proof for plaintiffs pursuing CLJA claims does not relax admissibility requirements under Rule 702." D.E. 886 at 2–3, 15–16. The Court has ruled on certain of the parties' Rule 702 motions, *see, e.g.*, D.E. 777; D.E. 886, and reserved remaining admissibility determinations to this trial. D.E. 818 at 12, 19–20 (Order of Feb. 27, 2026). The Court hereby determines that the expert testimony on which the findings and conclusions rest satisfies Rule 702. Dr. Hatten and Dr. Del Pizzo each applied the methodology of his field and did not tailor it to the CLJA's standard of proof, FOF Parts IV, V,

and the ATSDR water models and Dr. Reynolds's exposure estimates rest on methods the Court has found reliable, FOF Parts II, III. The Court has decided each of the United States' challenges to this testimony as a question of admissibility under Rule 702, and not only as a matter of weight. *See Sardis v. Overhead Door Corp.*, 10 F.4th 268, 281–84 (4th Cir. 2021). The Court finds it more likely than not that each of these witnesses is qualified, that the testimony helps the Court determine the facts in issue, that it is based on sufficient facts or data, that it is the product of reliable principles and methods, and that it reflects a reliable application of those principles and methods to the facts of this case. Fed. R. Evid. 702. Mr. Maslia relied on ATSDR's peer-reviewed reconstruction of the Hadnot Point system, which used accepted groundwater, fate-and-transport, and distribution models, and the United States offered no competing reconstruction. FOF Part II. Dr. Reynolds applied those concentrations to Mr. Mousser's documented days on base and to his own account of what he drank, and the United States' exposure scientist used the same concentrations and agreed that the two experts' ingestion results are "in the same ballpark." FOF Part III. Dr. Hatten identified the relevant studies and weighed them under the Bradford Hill considerations, the method he uses in every case, and he reached the same conclusion under the traditional standard as under the Act's. FOF Part IV. Dr. Del Pizzo performed a differential diagnosis, the same method the United States' oncologist used, and addressed the alternative causes the United States advances. FOF Part V. Having found the testimony admissible, the Court has separately weighed the United States' criticisms in deciding how much of it to credit. FOF Parts II–V.

The United States' motion for judgment on partial findings under Rule 52(c) and its renewed motion to exclude Dr. Hatten are DENIED. Its renewed objection to the use of ATSDR's water models to determine Mr. Mousser's exposure, and its objections to the

testimony of Dr. Del Pizzo and Mr. Fryar, are OVERRULED. Plaintiff's motion to exclude Dr. Stadler is DENIED; his reliance on analyses the United States did not present goes to weight, and the Court has weighed it. The United States' relevance and Rule 403 objections to the cross-examination of Dr. Johnstone about his report in another Camp Lejeune case are OVERRULED; that testimony bears on the reliability of his method and the weight of his opinions here. The United States' objection to Mr. Mousser's testimony about the conditions that followed his cancer and surgery is OVERRULED; Case Management Order No. 12 ("CMO 12") preserves those conditions. D.E. 232 at 1. The United States' objections to Dr. Cooper under Federal Rules of Civil Procedure 26 and 37 are OVERRULED; his testimony on Mr. Mousser's life expectancy and need for renal replacement therapy is within the opinions disclosed in his report and in the pretrial order. PX 123 at 3–4; PTO at 118. The parties' objections to the deposition testimony received at trial, including the United States' objections to plaintiff's counter-designations and plaintiff's objections to the United States' designations, are OVERRULED. PTO § V. The counter-designated testimony is part of the same depositions and in fairness should be considered with the parts the United States designated. Fed. R. Civ. P. 32(a)(6); Fed. R. Evid. 106. Objections to the form of a question, to the scope of a treating physician's testimony, or to the foundation for an opinion go to weight, and the Court has weighed the testimony accordingly. Overruling plaintiff's objections to Mr. McIlroy's testimony does not decide whether any future offset is sufficiently certain and calculable. The objections made during the trial deposition of Dr. Cooper are also OVERRULED.

VI. Mr. Mousser Proved Causation Under the CLJA

On causation, "Congress established a CLJA action as a modified form of toxic tort claim, requiring evidence of both general and specific causation, with a modified burden of proof." D.E. 227 at 13; *see also* D.E. 886 at 2.

General causation asks whether "exposure to an agent can cause the disease at issue," D.E. 227 at 10 (quoting *Rhyne v. U.S. Steel Corp.*, 474 F. Supp. 3d 733, 743 (W.D.N.C. 2020)), including "the levels of exposure that are hazardous to human beings generally." *Westberry v. Gislaved Gummi AB*, 178 F.3d 257, 263 (4th Cir. 1999) (citations omitted); *see also* D.E. 884 at 8. Mr. Mousser has made this showing. TCE at the levels present in the Camp Lejeune water, and the Camp Lejeune water as a whole, can cause kidney cancer, including cancer of the renal pelvis. FOF Part IV. At a minimum, Mr. Mousser has shown that it is at least as likely as not that TCE at the levels present in the Camp Lejeune water, and the Camp Lejeune water itself, can each cause kidney cancer.

Specific causation asks whether this plaintiff's exposure was a cause in fact of his disease. D.E. 227 at 4. Thus, the plaintiff must show "a causal relationship" between the exposure and the harm. CLJA § 804(c)(1)–(2). A causal relationship exists when the exposure "is a factual cause of an outcome" — that is, a but-for cause. D.E. 227 at 4 (quoting Restatement (Third) of Torts: Phys. & Emot. Harm § 26 cmt. b (2010)). The water need not be the sole cause. An injury can have more than one cause. *Connor v. Covil Corp.*, 996 F.3d 143, 155 (4th Cir. 2021).

The plaintiff may meet this burden by showing his "actual level of exposure," *Westberry*, 178 F.3d at 263 (citations omitted), and that it reached the levels found hazardous. *See* D.E. 884 at 4, 7. The plaintiff need not always quantify his dose precisely, and a showing of substantial

exposure to a toxic chemical may suffice. *Westberry*, 178 F.3d at 264; *In re Lipitor (Atorvastatin Calcium) Mktg., Sales Pracs. & Prods. Liab. Litig.*, 892 F.3d 624, 639–40 (4th Cir. 2018). Indeed, the United States has told this Court that, under *Westberry*, whether a plaintiff was "substantially exposed" to the contaminated water can be decided without the ATSDR water models, and that the Hadnot Point system likely became contaminated sometime after supply well HP-651 began pumping in 1972. *See* D.E. 368 at 29–30 (citing *Westberry*, 178 F.3d at 264). Mr. Mousser has made more than a sufficient showing: he was substantially exposed to the Hadnot Point water from October 1982 to September 1986. By drinking the water, he consumed at least 788,229 micrograms of TCE, along with the amounts of the other contaminants found above. FOF Part III. That amount of exposure is capable of causing kidney cancer. FOF Parts III, IV. His exposure to each of the four chemicals falls in the highest exposure category of ATSDR's 2014 study of Marines, in which risk rose with cumulative exposure. FOF Parts IV, V. As concluded above, Mr. Mousser has established that TCE can cause kidney cancer at his exposure levels. FOF Part IV.

Mr. Mousser has also established specific causation through differential diagnosis. Differential diagnosis — "a standard scientific technique of identifying the cause of a medical problem by eliminating the likely causes until the most probable one is isolated" — is a reliable method of proving specific causation once general causation is established. *Westberry*, 178 F.3d at 262–63; *Cooper v. Smith & Nephew, Inc.*, 259 F.3d 194, 200–02 (4th Cir. 2001); *see also* D.E. 444 at 4, 8; D.E. 886 at 10 n.1. The expert need not rule out every conceivable alternative cause; he must take serious account of the alternatives the defendant advances and explain why they were not the cause, and the factfinder may assess the weight of that explanation. *Westberry*, 178 F.3d at 265; *Cooper*, 259 F.3d at 202; *In re Lipitor*, 892 F.3d at 644–45.

Plaintiff's expert Dr. Del Pizzo considered the water a potential cause, weighed the recognized risk factors for Mr. Mousser's kidney cancer and the alternatives the United States identified, and concluded that exposure to the Camp Lejeune water was the most likely cause of Mr. Mousser's cancer. The Court has found his testimony persuasive. FOF Part V. The alternatives the United States advances through Dr. Stadler — smoking and an inflammatory condition of the kidney that he could not specify — are not compelling based on the record and on Dr. Stadler's own concessions. FOF Part V. Nor can the association between the water and kidney cancer be explained away as chance. FOF Part IV. Dr. Stadler's differential diagnosis is subject to the same standards: a differential that does not "take serious account" of the plaintiff's exposure and removes it from consideration on the strength of other witnesses' conclusions is entitled to little or no weight. The Court gives Dr. Stadler's differential diagnosis no weight on whether the water was a cause because he refused to seriously consider the water as a possible cause, and because he based his assessment of kidney cancer causation on Dr. Goodman's analysis, which the United States did not offer at trial. *See Westberry*, 178 F.3d at 265; *Cooper*, 259 F.3d at 202–03; FOF Part V.

After careful consideration of all of the evidence presented at trial, the Court finds that Mr. Mousser has carried his burden to prove his CLJA claim. Applying the standards above, Mr. Mousser has shown that a causal relationship between his exposure to the water at Camp Lejeune and his kidney cancer — an upper tract urothelial carcinoma of the right renal pelvis, FOF Parts I, IV — is at least as likely as not; indeed, the evidence here demonstrates a causal relationship that is more likely than not. CLJA § 804(c)(2)(A)–(B); FOF Parts II–V. Mr. Mousser is entitled to "appropriate relief for harm that was caused by exposure to the water at Camp Lejeune." CLJA § 804(b).

VII. The Scope of Compensable Harm

The harm for which the CLJA affords relief is the harm "caused by exposure to the water." CLJA § 804(b). That harm includes the cancer itself and every injury and condition that flows from it and its treatment. In other words, all harms that Mr. Mousser has proved stem from his kidney cancer or its treatment are within the scope of harm permitted by the CLJA, including Mr. Mousser's pain, his loss of a kidney, his chronic kidney disease, his psychological injuries, his physical limitations, the loss of his intimate life with his wife, his shortened life, his knowledge of a shortened life, and his loss of earning capacity. FOF Part VI.

The United States contends that Mr. Mousser waived any claim for non–Track 1 conditions under Case Management Order No. 12 (D.E. 232). PTO at 17, § II.B.11(a). This argument fails. CMO 12 limits Track 1 Trial Plaintiffs to alleging that a "Track 1 Illness" was "caused by the water on Camp Lejeune, along with other injuries or conditions stemming from a Track 1 Illness or its treatment." D.E. 232 at 1. Under CMO 12, Track 1 Trial Plaintiffs waive only claims relating to "any other illnesses or injuries *besides* Track 1 Illnesses (and those injuries or conditions stemming from a Track 1 Illness or its treatment)[.]" *Id.* (emphasis added). In other words, the CMO 12 waiver explicitly excepts "injuries or conditions stemming from a Track 1 Illness or its treatment." *Id.* The harms for which Mr. Mousser seeks relief are exactly such conditions: the loss of his right kidney; the chronic kidney disease in the kidney that remains and the renal replacement therapy it will likely require; his fear and depression; the loss of his intimate life with his wife; the end of his working life; his shortened life expectancy; and his knowledge that his life has been shortened. FOF Part VI.A–D. Each stems from the Track 1 Illness (kidney cancer) or its treatment, and he does not claim that the water caused any of them independently.

VIII. Relief

The CLJA authorizes "appropriate relief for harm that was caused by exposure to the water at Camp Lejeune." CLJA § 804(b). The CLJA is a tort remedy, and the relief it authorizes "extends beyond an order granting VA benefits." D.E. 227 at 16. Appropriate relief for a personal injury may include compensatory damages for past and future medical expenses, lost earning capacity, and past and future non-economic harm. "Punitive damages may not be awarded in any action under" the CLJA. CLJA § 804(g). Mr. Mousser seeks no punitive damages, and his award is limited to compensatory damages.

The parties stipulated that VA paid $62,854 for Mr. Mousser's past medical care and that the care was reasonable and medically necessary. PTO § I.D.16; Tr. 658:22–25. The Court adopts that figure as his past medical damages and need not decide whether past medical expenses are measured by amounts charged, amounts paid, or reasonable value. *See* PTO § II.B.12(c). The CLJA addresses benefits the United States itself provided through the offsets in § 804(e)(2), not by reducing the measure of the harm. That Mr. Mousser's care was furnished by VA rather than billed to him does not reduce his pre-offset damages under the CLJA; it bears only on the offset under § 804(e)(2), which the United States must prove. D.E. 885 at 13. The Court has assessed the value of Mr. Mousser's past medical care, and any corresponding offsets, in the Findings of Fact. FOF Parts VI.E, VII.

Future economic damages include future medical care and lost earning capacity and are awarded at present value. *See Jones & Laughlin Steel Corp. v. Pfeifer*, 462 U.S. 523, 537–38, 547 (1983) (an award for future economic loss must be discounted to present value as a matter of federal law for federal claims, regardless of state law); *Monessen Sw. Ry. Co. v. Morgan*, 486 U.S. 330, 339–40 (1988) (same). The Supreme Court declined to mandate a specific

methodology for discounting to present value, permitting reasonable methodologies based on the facts of the case. *See Jones & Laughlin*, 462 U.S. at 546–51, 553. Mr. Staller reduced each future loss to present value, and the United States' economist takes no issue with his methods. FOF Part VI.E. Non-economic damages are fixed as of trial.

In determining non-economic damages, the Court's "ultimate task" is "somehow to assign a monetary value to the injured party's intangible losses attributable to pain, suffering, disfigurement and disablement." *Finch v. Covil Corp.*, 388 F. Supp. 3d 593, 621 (M.D.N.C. 2019) (quoting *Weeks v. Holsclaw*, 295 S.E.2d 596, 600 (N.C. 1982)), *aff'd*, 972 F.3d 507 (4th Cir. 2020). Non-economic damages may be calculated per unit of time, by reference to comparable cases, or by any other reasonable measure. A per diem approach is permissible when the evidence shows that the harm persisted over the period. *Weeks*, 295 S.E.2d at 597, 599–601; *see Murphy v. Nat'l R.R. Passenger Corp.*, 547 F.2d 816, 818 (4th Cir. 1977) (court may permit an illustration of "a unit of time multiplied by the expected duration of suffering"); *Urizar-Mota v. United States*, 171 F.4th 445, 456–57, 464 (1st Cir. 2026).

The period over which the Court measures Mr. Mousser's harm is proper on either of two grounds. First, a plaintiff whose injury shortens his life is compensated "based on life expectancy at the time of injury," for the injury's effects on "those activities which normally contribute to the enjoyment of life." *Downie v. U.S. Lines Co.*, 359 F.2d 344, 347 (3d Cir. 1966). Such losses are "measurable to the same extent as pain, suffering and mental anguish." *Id.* at 348. Second, and independently, the common-law principles that apply by default, *see* D.E. 227 at 12, recognize shortened life expectancy as a compensable element of damages. *Morrison v. Stallworth*, 326 S.E.2d 387, 393 (N.C. Ct. App. 1985).

The most thorough judicial survey of non-economic damages for kidney injury appears in *Clanton v. United States*, an FTCA bench trial. There, the United States answered for a nurse practitioner's failure to properly treat a young man's severe hypertension, and his kidneys failed at age 32. He spent about 31 months on dialysis before a transplant, and he faced two more rounds of dialysis and one or two more transplants over a life expectancy of 70. The court awarded $13,750,000 in non-economic damages, about $18.8 million in 2026 dollars. *Clanton v. United States*, No. 15-CV-124-NJR-RJD, 2017 WL 2637795, at *1, *21–23 (S.D. Ill. June 19, 2017); *Clanton v. United States*, No. 15-CV-124-NJR-RJD, ECF No. 163 at 6–7, 25–26 (S.D. Ill. July 27, 2018) (memorandum and order issued after government's motion for reconsideration). The *Clanton* court analyzed every case the parties offered, and others it found itself — twenty in all. ECF No. 163 at 7–10. It set aside defense verdicts and settlements, awards limited by statutory caps or insurance limits, cases involving other organs, and cases whose facts differed materially, and it adjusted the remaining awards for inflation. *Id.* at 5–6, 9–17. The ten kidney-injury verdicts that remained ranged from $171,000 to $7 million (about $13.9 million in 2026 dollars), all below Mr. Clanton's award. *Id.* at 17–22, 24. The court held that this did not make the award excessive, because awards in other cases "do not establish a range beyond which awards are necessarily excessive." *Id.* at 4, 24 (quoting *Farfaras v. Citizens Bank & Tr. of Chi.*, 433 F.3d 558, 566 (7th Cir. 2006)). It drew two principles from the comparators. First, a plaintiff whose kidney injury is more severe, and whose past and future treatment is more extensive, is entitled to several times the awards made to plaintiffs with far less severe kidney injuries. *Id.* at 24–26. Second, a younger plaintiff, who must live with the injury for decades, is entitled to more than an older one. *Id.* at 26–27. The court then confirmed the award by comparing non-economic damages to medical expenses. *Id.* at 29–33. The Seventh Circuit reviewed the court's damages

methodology, upheld its choice of comparators, and found no reversible error in the non-economic damages award. *Clanton v. United States*, 943 F.3d 319, 322, 325–26 (7th Cir. 2019). The appellate court did not reach the ratio comparison because it had not affected the award. *Id.* at 326. After a remand to address comparative negligence, the Seventh Circuit affirmed the district court's decision. *Clanton v. United States*, 20 F.4th 1137 (7th Cir. 2021).

In an asbestos wrongful-death case tried before this Court, the jury awarded $2,887,500 in compensatory damages, about $6.5 million in 2026 dollars, and the Fourth Circuit affirmed. *Haislip v. Owens-Corning Fiberglas Corp.*, No. 90-181-CIV-5-BO, ECF No. 119 (E.D.N.C. Oct. 28, 1994), *amended*, ECF No. 134 (E.D.N.C. Feb. 7, 1995) (crediting $394,200 in settlements), *aff'd*, 86 F.3d 1150 (4th Cir. 1996) (unpublished table decision).

Measured against those principles, Mr. Mousser's injury lies well above the one-kidney cases at the low end of the *Clanton* survey. He lost his right kidney to cancer; the kidney that remains is diseased, and he will likely need dialysis or a transplant; and his life has been shortened by about a decade. FOF Part VI.A–C. He lives with fear of recurrence, kidney failure, and death, and with depression; the cancer ended his working life and his intimate life with his wife. FOF Part VI.A, D. And he was 57 when he learned he had cancer, so he will carry these harms for the rest of a shortened life. FOF Part VI.F.

Here, the Court has considered and applied these legal principles and examples to the findings of fact regarding non-economic damages discussed above, and for the reasons stated the Court concludes that non-economic damages of $10,000,000 are legally appropriate.

Considering the foregoing Conclusions of Law and the Findings of Fact discussed above, the Court determines that Mr. Mousser is entitled to total compensatory damages of $11,170,829. This amount constitutes the "appropriate relief for harm that was caused by exposure to the water

at Camp Lejeune," CLJA § 804(b), given the facts proven at trial, before any offsets required by CLJA § 804(e)(2).

IX. Offsets Under CLJA § 804(e)(2)

Subsection 804(e)(2) of the CLJA provides that "[a]ny award made to an individual . . . under this section shall be offset by the amount of any disability award, payment, or benefit provided to the individual . . . (A) under—(i) any program under the laws administered by the Secretary of Veterans Affairs; (ii) the Medicare program under title XVIII of the Social Security Act (42 U.S.C. 1395 et seq.); or (iii) the Medicaid program under title XIX of the Social Security Act (42 U.S.C. 1396 et seq.); and (B) in connection with health care or a disability relating to exposure to the water at Camp Lejeune." CLJA § 804(e)(2).

Subsection 804(e)(2) "contains offset source and subject-matter limits," and the Court enforces them. D.E. 885 at 7, 13. First, disability awards, payments, or benefits from sources that are not enumerated in the subsection, including from TRICARE, may not provide the basis for an offset. *Id.* at 4 n.1. Second, the award, payment, or benefit that serves as the basis for an offset must be provided "in connection with health care or a disability relating to exposure to the water at Camp Lejeune." CLJA § 804(e)(2)(B). Accordingly, awards, payments, or benefits provided in connection with unrelated health care or disabilities may not serve as the basis for an offset.

Whether the United States is entitled to an offset against a damages award is an affirmative defense, and "Defendant bears the burden of proving any statutory offset." D.E. 885 at 13; *see also Durham v. SMI Indus. Corp.*, 882 F.2d 881, 883 (4th Cir. 1989) ("Setoff . . . is an affirmative defense which must be pled and proven by the party asserting it.") (citation omitted).

A. Offsets Against Past Benefits

Subsection 804(e)(2)'s subject-matter limit provides that offsets can be claimed based only on benefits provided "in connection with health care or a disability relating to exposure to the water at Camp Lejeune." CLJA § 804(e)(2)(B). Thus, for example, when a plaintiff has a combined VA disability rating, the United States must show which part qualifies. *See* D.E. 885 at 13 (recognizing that not all medical benefits provided by qualifying programs may have been connected to exposure to Camp Lejeune water). The United States proved, and Mr. Mousser does not contest, past VA disability compensation related to the water of $290,223 and past VA medical care of $62,854. FOF Part VII.

The Court's causation findings govern both the damages and the offsets. Because the cancer caused Mr. Mousser's depression and ended his ability to work, the mood-disorder rating, the unemployability finding, and the special monthly compensation that rests on that finding fall within the scope of § 804(e)(2). FOF Parts VI.D, VII.

For these reasons, the Court determines that the appropriate offset under CLJA § 804(e)(2) for past VA medical expenses is $62,854, and for past VA disability compensation through October 26, 2026, is $290,223. FOF Part VII; U.S. Ex. 866. Mr. Mousser's total award must be reduced by these amounts. D.E. 885 at 10–11.

B. Offsets Against Future Benefits

The United States "must show that any proposed future offset is sufficiently certain and calculable." D.E. 885 at 9.

1. Future VA Disability Compensation

For future VA disability compensation, the United States offered only a projection that assumes nothing will change, from a witness who could not say whether anything will change.

FOF Part VII. Its VA benefits witness did not know Mr. Mousser's circumstances and could not assure the Court that his benefits would continue at the same level; the cost-of-living increases built into the projection depend on annual acts of Congress; and the law could change. *Id.* Mr. Mousser's ratings have changed, his cancer has recurred, and his compensation rests on an unemployability finding that the United States itself disputes. *Id.* The United States therefore did not show that the schedule of benefits and Mr. Mousser's entitlement will remain the same, which leaves significant uncertainty about the future VA compensation he will receive, if any. *See Laskowski v. U.S. Dep't of Veterans Affairs*, 918 F. Supp. 2d 301, 329–30 (M.D. Pa. 2013). Mr. Mousser's future VA compensation is not sufficiently certain and calculable, and the Court offsets none.

2. Future VA Health Care Benefits

A future VA medical benefit is "provided" under the CLJA only if VA in fact furnishes or pays for the care, and the United States must prove that it is reasonably certain it will. *See* D.E. 885 at 7–9, 13. Mr. Mousser, like all veterans, has "a right to select a doctor or private hospital of his own choice for his future medical needs." *Ulrich v. Veterans Admin. Hosp.*, 853 F.2d 1078, 1084 (2d Cir. 1988); *see also Hester v. United States*, No. 8:10-cv-1565, 2012 WL 368269, at *1 (M.D. Fla. Feb. 3, 2012) ("The Government's argument in favor of setoff is based on its contention that Plaintiff will incur no expense in obtaining the future medical care for which he seeks compensation. The flaw in the Government's argument is that if Plaintiff *chooses* to get his medical care outside of the VA, he may have to pay for such care.") (footnote omitted). Here, the United States did not prove that it is reasonably certain that Mr. Mousser will choose VA. FOF Part VII; *see also Feeley v. United States*, 337 F.2d 924, 935 (3d Cir. 1964) (explaining that "[t]he plaintiff's past use of the government facilities does not ensure his future

use of them" as the plaintiff "will now have the funds available to him to enable him to seek private care"). Nor did the United States prove what the care would cost VA, so the benefit is not sufficiently "calculable." D.E. 885 at 9; FOF Part VII. Because the United States has not met its burden to prove this affirmative defense, the Court offsets nothing for future VA medical care.

Because the United States did not prove any future offset, plaintiffs' motion for partial summary judgment regarding future offsets, D.E. 860, and plaintiffs' motion to exclude certain opinions of the United States' offset economists, D.E. 864, are DENIED AS MOOT as they apply to Mr. Mousser, as are the United States' motions to exclude the opinions of Marjorie Hackett-Wallace, D.E. 856, and Peter Rybolt, D.E. 858, who did not testify. FOF Part VII. The United States' pending motion for summary judgment, D.E. 611, is DENIED AS MOOT.

The United States proved offsettable benefits of $353,077. FOF Part VII.

CONCLUSION

For the foregoing reasons, the Court finds that plaintiff has met his burden under the Camp Lejeune Justice Act. Mr. Mousser is entitled to compensatory damages of $11,170,829, less offsets of $353,077 under CLJA § 804(e)(2), for a total of $10,817,752, together with costs under 28 U.S.C. § 2412(a)(1) and Federal Rule of Civil Procedure 54(d)(1), and post-judgment interest to the extent 31 U.S.C. § 1304(b)(1)(A) allows. Under CLJA § 804(e)(1), Mr. Mousser may not thereafter bring a tort action against the United States for this harm under any other law. The Clerk is DIRECTED to enter judgment in favor of plaintiff in the amount of $10,817,752.

SO ORDERED, this ____ day of _____ 2026.

_____
TERRENCE W. BOYLE
UNITED STATES DISTRICT JUDGE