

Nos. 21-1484 and 22-51

IN THE
Supreme Court of the United States

STATE OF ARIZONA, ET AL., *Petitioners*,

v.

NAVAJO NATION, ET AL., *Respondents*.

DEPARTMENT OF THE INTERIOR, ET AL., *Petitioners*,

v.

NAVAJO NATION, ET AL., *Respondents*.

**On Writs of Certiorari to the United States
Court of Appeals for the Ninth Circuit**

**BRIEF OF DIGDEEP RIGHT TO WATER
PROJECT AND UTAH TRIBAL RELIEF
FOUNDATION AS *AMICI CURIAE* IN
SUPPORT OF RESPONDENTS**

Heather Tanana	Elizabeth G. Bentley
University of Utah	<i>Counsel of Record</i>
S.J. Quinney College of	CIVIL RIGHTS APPELLATE
Law*	CLINIC, UNIVERSITY OF
383 S. University St.	MINNESOTA LAW SCHOOL
Salt Lake City, UT 84112	229 19th Ave. S.
(801) 213-3454	Minneapolis, MN 55455
tananah@law.utah.edu	(612) 625-7809
<i>Counsel for DigDeep</i>	ebentley@umn.edu
<i>Right to Water Project</i>	<i>Counsel for Amici Curiae</i>

[*Affiliation listed for identification purposes only;
additional counsel listed on inside cover.]

Elisabeth Parker
University of Utah
S.J. Quinney College of
Law*
383 S. University St.
Salt Lake City, UT 84112
(801) 581-6438
Beth.Parker@
law.utah.edu

Frannie Monasterio
University of Colorado
Law School*
2450 Kittredge Loop Dr.
Boulder, CO 80309
(303) 735-2154
Frannie.Monasterio@
colorado.edu

Clifford B. Parkinson
Utah State University*
540 East 535 South
Hyrum, UT 84319
(801) 652-9668
clifford.b.parkinson@
gmail.com

Counsel for DigDeep Right to Water Project

**Appearing in personal capacity; affiliations listed for identification purposes only and do not represent the position or interests of the respective institution.*

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INTEREST OF *AMICI CURIAE*¹

Amicus DigDeep Right to Water Project (“DigDeep”) is a nonprofit, nonpartisan organization dedicated to ensuring that everyone in the United States has clean, running water and adequate sanitation through advocacy, research, and community-led water projects. In 2014, DigDeep established the Navajo Water Project (the “Project”), an Indigenous-led, community-managed utility alternative that brings hot and cold running water to homes and businesses on the Navajo Nation that do not have access to water or sewer lines. The Project is a registered enterprise with the Navajo Nation and works closely with local partners, leaders, and clients to install off-grid water home systems, develop more effective septic systems, create skilled jobs, and support individuals and communities working to address their own water challenges. Today, the Project extends across multiple states and has served hundreds of Navajo families. DigDeep also participates in the Navajo Nation Water Access Coordination Group, which was established during the COVID-19 pandemic “to identify, acquire, prioritize, and use available resources to increase access to quality water for tribal homes.”²

¹ Pursuant to this Court’s Rule 37.6, counsel for *amici curiae* state that no counsel for any party authored this brief in whole or in part and that no person or entity other than *amici curiae* or their counsel made a monetary contribution to the preparation or submission of this brief.

² *Navajo Safe Water: Protecting You and Your Family’s Health*, Water Access Coordination Group (last updated Sept. 15, 2022), navajosafewater.org.

Amicus Utah Tribal Relief Foundation (the “Foundation”) is a nonprofit, nonpartisan organization whose goal is to serve Utah’s eight federally recognized tribes, including the Navajo Nation. Organized in 2020, at the beginning of the COVID-19 pandemic, the Foundation’s earliest efforts were geared toward providing drinking water, food, cleaning supplies, and personal protective equipment to tribes in Utah. During this time, the Foundation coordinated with Utah tribes to plan and execute deliveries of supplies to Native American communities throughout Utah. These efforts included coordinating with the Utah Navajo Health System and local community leadership regarding delivery of potable water and sanitation supplies to the Navajo Nation.

Together, *amici* have a strong interest in increasing water access and security and improving water quality on the Navajo Nation. As a result of their work, *amici* have an intimate understanding of the Navajo Nation’s water crisis and the dire health and economic consequences that water insecurity has had on individuals and the community. This case is critical to *amici*’s work because the outcome will directly impact their ability to fulfill their urgent, essential goal of providing the basic human right of water access to all, and in particular to residents of the Navajo Nation.

INTRODUCTION AND SUMMARY OF ARGUMENT

For the Navajo people, *tó éí iiná até*, water is life. At its core, this sacred belief recognizes that water is essential to all aspects of life. To family, to health, to community, and to security. Without access to clean water, no person and no community can thrive. It follows that “no lands can be a permanent homeland without an adequate supply of water, especially potable water.”³ And yet, a staggering thirty percent of residents on Navajo Nation lack running water in their home. *See* Section I.A. Water insecurity plagues Navajo communities and contributes significantly to poor health outcomes and economic stagnation. To ensure that the Navajo people, the Diné, can live with dignity and prosperity on land that the United States recognizes as their “permanent home,”⁴ it is vital that the United States fulfill its trust obligations and provide the Navajo Nation with sufficient access to clean water.

Water insecurity is pervasive on the Navajo Nation. Roughly a third of families are forced to purchase bottled water, haul water long distances, or use contaminated water to meet their basic needs. The water they have must be rationed between hygiene and consumptive uses, with some individuals

³ *The Navajo Utah Water Rights Settlement Act of 2019: Hearing on H.R. 644 Before the H. Nat. Res. Comm., Subcomm. on Water, Oceans, and Wildlife*, 116th Cong. 2 (June 26, 2019) (testimony of Jonathan Nez, Former President, Navajo Nation) [hereinafter Nez 2019 Testimony].

⁴ *Treaty Between the United States of America and the Navajo Tribe of Indians*, art. XIII, June 1, 1868 (ratification advised July 25, 1868; proclaimed Aug. 12, 1868).

surviving on as few as two to three gallons of water per day, as compared to the average American's eighty-eight gallons. *See* Section I.A.

This lack of water access results in severe consequences for Navajo families. Lisa Teller was separated from her family for the first years of her life after she was diagnosed with a medical condition that required reliable access to water in her home. *See* Section I.B. Generations of Navajo people have endured hours of hard labor each week hauling water to their homes—time that could be spent on a business or with family or community. *Id.*

Water insecurity on the Navajo Nation is exacerbated by poor water quality, in part as a result of decades of contamination from uranium mining that has not been remediated. Families that rely on hauled water from unregulated sources are regularly exposed to water that fails to meet minimum acceptable water quality standards. *See* Section I.C. Even piped water may contain contaminants from the source or as a result of defective plumbing. *Id.*

Because of water insecurity, Navajo residents have suffered from significant health disparities. Lack of access to clean water contributes to high morbidity and mortality rates, the spread of waterborne illness, and lower mental and social development in children. *See* Section II.A. The COVID-19 pandemic also had an outsized impact on the Navajo Nation, which experienced a higher number of cases and deaths per capita than any U.S. State. *Id.* The lack of running water made it impracticable to comply with basic health protocols like frequent hand washing and social distancing. *Id.*

Finally, water insecurity carries substantial economic costs. *See* Section II.B. These conditions not only drain resources by forcing individuals to spend exorbitantly to meet just one basic need; they also prevent economic development by making it more difficult to sustain a business on the reservation. *Amicus* DigDeep calculated that the economy loses nearly \$15,800 for each household without access to running water each year. Considering the number of households without piped water, water insecurity may cost the Navajo Nation and the broader U.S. economy \$152.5 million each year. *See id.*

To put it simply, the Navajo Nation lacks water to meet its basic needs, at unbearable costs. The present water crisis is incompatible with the United States' obligation in trust to ensure that the Navajo people can live on their permanent homeland with dignity and prosperity. The Court should affirm the decision of the Court of Appeals for the Ninth Circuit.

ARGUMENT

I. THE UNITED STATES' FAILURE TO FULFILL ITS TRUST RESPONSIBILITY TO THE NAVAJO NATION HAS RESULTED IN DECADES OF SEVERE WATER INSECURITY.

The United States has failed in its trust obligations to the Navajo Nation to ensure the rights to water such that Navajo residents can live with dignity and prosperity on what the United States recognizes as their "permanent home." *Treaty Between the United States of America and the Navajo Tribe of Indians*, art. XIII, June 1, 1868 (ratification advised July 25, 1868; proclaimed Aug. 12, 1868). In 1849, the United States guaranteed by treaty that it would "legislate and act as to secure the permanent

prosperity and happiness” of the Navajo Nation. *Treaty Between the United States and the Navajo Indians*, art. XI, Sept. 9, 1849 (ratified Sept. 9, 1850; proclaimed Sept. 24, 1850). In establishing a permanent home for the Navajo Nation, the 1849 and 1868 Treaties established the rights to water necessary to meet the purposes of the reservation. See *Winters v. United States*, 207 U.S. 564, 576–77 (1908). Despite these treaty promises to provide a permanent homeland for the Navajo Nation, the United States has failed to ensure water access to satisfy even Navajo residents’ most basic needs.

A. Water Insecurity Is Pervasive on the Navajo Nation, as Thousands of Residents Lack Running Water.

“Household water security is defined as the safe and reliable access to sufficient quantity and quality of water for household consumption, production, and cleanliness” Shiloh Deitz & Katie Meehan, *Plumbing Poverty: Mapping Hot Spots of Racial and Geographic Inequality in U.S. Household Water Insecurity*, 109 *Annals Am. Ass’n Geographers* 1092, 1093 (2019). Native American⁵ communities have experienced water insecurity for decades. As early as 1928, the federal government documented unsafe and inadequate water availability on Native American reservations. See Lewis Meriam, *The Problem of Indian Administration: Report of a Survey Made at*

⁵ There is no official consensus regarding the terminology used to refer to Indigenous peoples in the United States. Federal law often utilizes the terms “American Indian and Alaska Native” or “Indian.” In this brief, Native American generally is used, unless referring to a specific law, policy, or quoted source that uses another term.

the Request of Honorable Hubert Work, Secretary of the Interior, and Submitted to Him (The Johns Hopkins Press 1928) [hereinafter Meriam Report]. The Meriam Report, which chronicled the conditions of Native Americans throughout the country, reported the lack of water supplies for tribes in the Southwest, noting that “[s]ometimes it is difficult even to get enough to drink, so lack of cleanliness of body, clothing, and homes is a natural consequence and is found with discouraging frequency.” *Id.* at 220.

Nearly a century later, water insecurity persists in many Native American communities and is particularly dire on the Navajo Nation. Overall, “Native American households are 19 times more likely than white households to lack indoor plumbing.” DigDeep & US Water Alliance, *Closing the Water Access Gap in the United States: A National Action Plan* 13 (2019) [hereinafter *Closing the Water Access Gap*]. Residents of the Navajo Nation are sixty-seven times more likely than other Americans to live without running water or a toilet. *About – Navajo Water Project*, DigDeep, <https://www.navajowaterproject.org/project-specifics> (last visited Feb. 2, 2023).

At least thirty percent of Navajo Nation residents do not have piped water delivery in their homes and, therefore, must haul water. *See, e.g., Env’t Prot. Agency, Final Results: Navajo Nation Unregulated Water Source Sampling Results* 3 (2010)⁶; *Closing the*

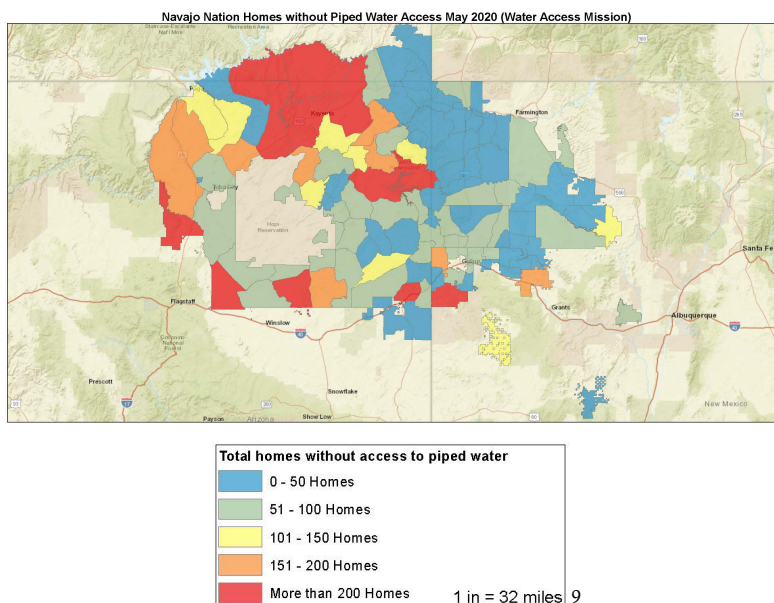
⁶ Available at <https://www.epa.gov/sites/default/files/2016-06/documents/2010-08-01-navajo-water-sample-results-final-report.pdf>.

Water Access Gap 38; Resp. Br. at 10 (citing J.A. 101).⁷ That means tens of thousands of residents lack access to clean and safe drinking water, threatening their lives and the overall community's well-being.⁸

⁷ The exact percentage of Navajo Nation without running water is unknown because of a lack of publicly-available data, but it may well be higher than thirty percent. The Indian Health Service (“IHS”) has “identified approximately 9,650 homes on the Navajo Nation without piped water in their homes.” *Navajo Safe Water: Protecting You and Your Family’s Health*, Water Access Coordination Group (last updated Sept. 15, 2022), navajosafewater.org. The precise number is difficult to assess, however, as it is challenging to identify where tribal members reside, and some tribes may choose not to provide information to the IHS for various reasons. See U.S. Gov’t Accountability Off., GAO-18-309, *Drinking Water and Wastewater Infrastructure: Opportunities Exist to Enhance Federal Agency Needs Assessment and Coordination on Tribal Projects* 16–17, 19–20 (2018). During a July 8, 2020, congressional hearing, former Navajo Nation President Jonathan Nez testified that “over 40 percent of Navajo Nation households do not have running water and rely on hauling water to meet their daily needs.” *Addressing the Urgent Needs of Our Tribal Communities: Hearing Before the Comm. on Energy and Com.*, 116th Congress 13 (2020) (testimony of Jonathan Nez, Former President, Navajo Nation) [hereinafter Nez 2020 Testimony].

⁸ The population of the Navajo Nation is approximately 169,688 people. *Navajo Nation Reservation and Off-Reservation Trust Land, AZ--NM--UT, 2017-2021 American Community Survey 5-Year Estimates*, U.S. Census Bureau (last visited Feb. 3, 2023), [available at https://www.census.gov/tribal/?st=04&aianihh=2430](https://www.census.gov/tribal/?st=04&aianihh=2430). Assuming 30% of the population lacks running water, see *supra* at 9 & n.7, that is approximately 50,906 people.

The following map of the Navajo Nation illustrates the areas with the greatest concentration of known homes without piped water as of May 2020:



In comparison, less than one percent of total homes in the United States lack access to piped water delivery. Ranking Member Raul M. Grijalva & Democratic Staff of H. Comm. on Nat. Res., 114th Cong., *Water Delayed Is Water Denied: How Congress Has Blocked Access to Water for Native Families 1* (2016)¹⁰ [hereinafter *Water Delayed Is Water Denied*]. The average Navajo Nation resident uses “7 gallons [of water] a day to drink, cook, bathe, and clean.” *For Many Navajo, A Visit from ‘The Water Lady’ Is a*

⁹ *Navajo Safe Water: Protecting You and Your Family’s Health*, Water Access Coordination Group (last updated Sept. 15, 2022), navajosafewater.org.

¹⁰ Available at <http://blackfeetnation.com/wp-content/uploads/2016/10/House-NRC-Water-Report-Minority-10-10-16.pdf>.

Refreshing Sight, Nat'l Pub. Radio (Jan. 6, 2015, 3:57 AM).¹¹ Some households must ration further, using as little as two to three gallons of water per day. *Closing the Water Access Gap* 38. In comparison, the average American uses about 88 to 100 gallons at home daily. *Id.* (estimating eighty-eight gallons); Water Science School, *Water Q&A: How Much Water Do I Use at Home Each Day?*, U.S. Geological Surv. (June 20, 2019) (estimating 100 gallons).¹²

The disparity in water availability and use holds true when compared to the States immediately surrounding the Navajo Nation. Utah's per capita, daily, domestic, public-supply water use is 169 gallons per day. See *USGS Water Use Data for the Nation*, U.S. Geological Surv., <https://waterdata.usgs.gov/nwis/wu> (last visited Feb. 2, 2023).¹³ Arizona's respective water use is 146

¹¹ Available at <https://www.npr.org/sections/codeswitch/2015/01/06/374584452/for-many-of-navajo-nation-water-delivery-comes-monthly>.

¹² Available at <https://www.usgs.gov/special-topics/water-science-school/science/water-qa-how-much-water-do-i-use-home-each-day> (last visited Feb. 2, 2023).

¹³ The most recent data set of the U.S. Geological Survey ("USGS") is from 2015. To locate state-specific data on the website, select the state under "Geographic Area" in the upper-right corner; then the link to "State Data" on the left side; select "2015" under "Year," "State Total" under "Area Type," and "Domestic" under "Category"; and finally, select the "Table of data" output format. According to USGS, public-supply water use includes "water withdrawn by public and private water suppliers that furnish water to at least 25 people or have a minimum of 15 connections. Public suppliers provide water for various uses, such as domestic, commercial, industrial, thermoelectric-power, and public water use." *Water-Use*

gallons. *Id.* Colorado's respective water use is 123 gallons. *Id.* Finally, New Mexico's respective water use is 81 gallons. *Id.*¹⁴

In the face of limited water availability, Navajo residents must ration water between hygiene and consumptive uses, which is challenging for every family, let alone families with youth, elders, disabled, and other vulnerable members. Such conditions should not be tolerated on the Navajo Nation, especially in light of the United States' trust obligation.

B. Navajo Families Suffer Without Access to Running Water and Hauling Water Is Insufficient to Meet Even Basic Needs.

The lack of sanitary running water in homes has severe consequences for Navajo families. Many households are forced to purchase bottled water, haul water, and/or use contaminated water to meet their basic needs. Those practices are no substitute for clean running water. *See Navajo Nation Env't Prot. Agency, Pub. Water Sys. Supervision Program, Guidelines for Hauling and Transporting Regulated*

Terminology, U.S. Geological Surv. (Feb. 27, 2019), <https://www.usgs.gov/mission-areas/water-resources/science/water-use-terminology>. Water use is considered domestic when it is made available for use "for indoor household purposes such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, and outdoor purposes such as watering lawns and gardens." *Id.*

¹⁴ The USGS data cited for the three states within which the Navajo Nation Reservation is located (Arizona, New Mexico, and Utah) may include Reservation water usage. If that is the case, the difference in water use by residents of the Navajo Nation and non-Navajo residents of those states may be more stark than the data suggests.

Water for Human Consumption 1 [hereinafter *Water Hauling Guidelines*]. Without running water, Navajo households cannot maintain safe conditions for individuals living in the home. And notwithstanding the grueling effort it takes to bring water home, there is just not enough.

For infant Lisa Teller and her family, the lack of running water in their home had life-or-death consequences and resulted in years of family separation. See *Meet the Teller Family*, DigDeep, <http://digdepreports.org/babylisa#/babylisa4> (last visited Feb. 2, 2023) [hereinafter *Teller Family*]. Lisa was born with microvillus inclusion disease, a rare disorder of the small intestine, that necessitated an immediate organ transplant. *Bring #BabyLisa Home*, DigDeep, <https://www.babylisa.org> (last visited Feb. 2, 2023) [hereinafter *Bring #BabyLisa Home*]. She was prepared for surgery at four days old; however, after social workers discovered that Lisa’s home did not have running water, the surgery was canceled because Lisa had “no chance of surviving without running water.” DigDeep, *Bring #BabyLisa Home*, YouTube (Mar. 21, 2016), <https://www.youtube.com/watch?v=HaNi6i7v74U> [hereinafter *#BabyLisa Video*].

To tap into the water utility service, Lisa’s family had to overcome multiple barriers. Their home needed electricity, basic plumbing, and a septic system. On top of that, they were on a multi-year waitlist to have the nearby water line extended to their home by 1,200 feet. *Map + Data*, DigDeep, <http://digdepreports.org/babylisa#/babylisa5> (last visited Jan. 16, 2023) [hereinafter *Map + Data*]. While Lisa’s family was waiting to get access, they relied on hauling water weekly from sources that were many

miles away to provide for their five children. See Teller Family. However, this was insufficient for Lisa's needs. The family had no choice but to have her stay at a medical facility over three hours away until it was safe to complete her surgery and bring her home. *Bring #BabyLisa Home*.

The family's limited income and responsibilities at home made it difficult for them to visit her. *Baby Lisa's Home Water Project*, DigDeep, <http://digdeepreports.org/babylisa#/babylisa1> (last visited Feb. 2, 2023) [hereinafter *Baby Lisa's Home Water Project*]. Her mother, LaTanya, missed many of the milestones that parents most look forward to—Lisa's first tooth, her first crawl, and her first word. *Bring #BabyLisa Home*, DigDeep (Apr. 10, 2016), <https://www.babylisa.org/updates?offset=1468358456655> (last visited Feb. 2, 2023). In LaTanya's words, "It seemed like Baby Lisa would have to live in that medical facility forever." *Baby Lisa's Home Water Project*. Nearly three years after Lisa was born, *amicus* DigDeep was able to install electricity, plumbing, and a septic system, and worked with the Indian Health Service (IHS) to extend the water line so that it reached the Tellers' home, making it safe for Lisa to return. *Map + Data*.

Unfortunately, Lisa's family's struggles are not unique. Hauling water is a common practice on the Navajo Nation because of the substantial number of homes without access to clean and safe water. *Water Hauling Guidelines* at 1. In some areas, such as the community of Oljato located near the border of Arizona and Utah, "a single spigot on a desolate road, miles from any residence, serves 900 people." Nez 2019 Testimony at 1. Hauling water in winter is particularly precarious. The dirt roads are difficult to

traverse due to frost or mud. Some residents get their water from a dam and must “go to the dam and break the ice to get the water underneath.” Telephone interview by Elisabeth Parker with Lucinda Backman, Diné (Jan. 29, 2023) (notes on file with counsel Elisabeth Parker) [hereinafter Backman Interview].

These dire water conditions and the practice of hauling water on the Navajo Nation have persisted for decades. For example, Boyd Silversmith, now-sixty three years old, grew up on the Navajo Nation and began hauling water when he was five. Telephone interview by Elisabeth Parker with Boyd Silversmith, Diné (notes on file with counsel Elisabeth Parker) (Jan. 29, 2023) [hereinafter Silversmith Interview]. He would travel several times a week, forty-five minutes each way, with his father to a well or other “good water source.” *Id.*

Silversmith and his family frequented two primary water sources. The first water source consisted of an open well in which a metal bucket was attached to the end of a rope. To get water, they would “toss the bucket down a hole and hoist up that bucket of water and dump it into an open barrel. And then you’d repeat that until the barrel was full.” *Id.* They would fill three to four fifty-five-gallon barrels, which often took half of a day. *Id.*

The second water source Silversmith’s family used consisted of a hand pump well. The hand pump, while more efficient than the bucket and rope, still took hours to fill the barrels. Aside from being time-consuming, pumping water by way of a hand pump was a grueling process. Silversmith would pump until he was physically exhausted, then pass the task to a

family member. Sometimes, especially when he was young, operating the hand pump required two people. And even after the barrels are brought home, the arduous process continues. The barrels are heavy¹⁵ and residents must lift the barrels out of the truck or trailer and siphon the water out of the drum and into the home. When the water nears the bottom, the siphon can no longer function and the barrel must be lifted, and the remaining water poured into buckets and carried into the house. This is particularly difficult for the elderly and single parents. Backman Interview.

The physically demanding and tedious task of hauling water is never complete. Silversmith and his family were forced to repeat the process multiple times a week. In retrospect, Silversmith reflected: “At that point, we thought this is normal. This is the way of life. This is what we got to do.” Silversmith Interview. But when Silversmith left the Reservation for school, he saw the “conveniences of running water.” *Id.* Although he deeply desired to live on his ancestral lands and was devoted to his home on the Navajo Nation, he also wanted his family to “have running water and be able to take showers every day.” *Id.* He said his feelings are not uncommon. Silversmith knows many people who grew up on the Navajo Nation and “even though they’re drawn to the Reservation, they stay off because of the lack of water and the lack of infrastructure to provide water.” *Id.*

¹⁵ Fifty-five gallons of water weighs approximately 485 pounds. *How Much Does 55 Gallons Weigh?*, Reference (Mar. 29, 2020), <https://www.reference.com/science-technology/much-55-gallons-weigh-a2ef4c1473c9feef>.

The water insecurity that Silversmith experienced growing up continues today. He currently works on the Navajo Nation, where he is a health and physical education teacher at a high school. He reported that “about 50 or 60%” of his students lack running water in their homes. *Id.* He opens up the gym each morning “so that kids can come in and shower and clean up because they lack running water at home. For them, it’s just the way of life, but they do understand the fact that there are conveniences out there that are available.” *Id.*

C. Pervasive Water Quality Issues Also Contribute to Water Insecurity on the Navajo Nation.

Water security is not just about acceptable quantity—it requires the availability of acceptable quality of water. David Grey & Claudia W. Sadoff, *Sink or Swim? Water Security for Growth and Development*, 9 *Water Policy* 545, 547–48 (2007), <https://doi.org/10.2166/wp.2007.021>. On the Navajo Nation, even when residents have access to a water source or water utility line, the water often fails to meet minimum acceptable water quality standards.

Energy development, and in particular decades of uranium mining, left behind a legacy of contamination, diminishing water quality and contributing to water insecurity on the Navajo Nation. See Lindsey Jones et al., *Dissolved Uranium and Arsenic in Unregulated Groundwater Sources—Western Navajo Nation*, 169 *J. Contemp. Water Rsch. Educ.* 27 (2020). “From 1944 to 1986, approximately thirty million tons of uranium ore were extracted during mining operations within the Navajo Nation for defense purposes by the United States

Government.” Nez 2020 Testimony at 18. See also Doug Brugge & Rob Goble, *The History of Uranium Mining and the Navajo People*, 92 Am. J. Pub. Health 1410 (2002); Press Release, Off. Pub. Affs., U.S. Dep’t of Just., *EPA and the Navajo Nation Announce Settlement for Cleanup of 94 Abandoned Uranium Mines on the Navajo Nation* (Jan. 17, 2017), <https://www.justice.gov/opa/pr/justice-department-epa-and-navajo-nation-announce-settlement-cleanup-94-abandoned-uranium>.

During that time, the “largest radioactive waste spill in the history of the United States occurred in Church Rock, NM, when the earthen dam to the pond holding the mill’s uranium tailings¹⁶ was breached.” *Id.* The breach “sent more than 1,000 tons of solid radioactive waste and 93 million gallons of acidic liquid into the [Puerco River.]” *Oversight of the Cause, Response, and Impacts of EPA’s Gold King Mine Spill: Hearing Before the S. Comm. on Env’t & Pub. Works*, 114th Cong. 13, 14 (2015) (statement of Sen. Martin Heinrich).

The Puerco River runs through Sanders, Arizona, and the spill may be linked to elevated levels of uranium in the drinking water of a small community school district there. Hiroko Tabuchi, *Uranium Miners Pushed Hard for a Comeback. They Got Their Wish.*, N.Y. Times (Jan. 13, 2018), <https://www.nytimes.com/2018/01/13/climate/trump-uranium-bears-ears.html>. Sanders is just beyond the formal boundaries of the Navajo Nation Reservation,

¹⁶ Mill tailings “are the fine-grained, sandy waste byproduct that remain after” uranium ore is milled. Env’t Prot. Agency, *The Legacy of Abandoned Uranium Mines in the Grants Mineral Belt, New Mexico* 2 (2011).

“and about 80 percent of the community is Navajo.” *Tommy Rock – Exposing Years of Uranium Water Contamination in a Navajo Community*, Nat’l Inst. Env’t Health Scis. (Jan. 9, 2017).¹⁷ Water sampling records from the Sanders School Well by the Arizona Department of Environmental Quality show that in 2003, the School District’s water supply contained uranium at 69.3 parts per billion, over two times higher than the Environmental Protection Agency’s (“EPA”) uranium maximum contaminant level.¹⁸ 40 C.F.R. § 141.66 (2000) (listing thirty micrograms per liter as the maximum contaminant level for uranium); Ariz. Dep’t of Health Servs., Off. Env’t Health, *Health Consultation: Arizona Windsong Water Company 4–5* (2016) (listing uranium concentrations in Sanders water samples) [hereinafter *Health Consultation*]. “Over the span of the next 12 years, water samples totaled an average of nearly 50 parts per billion.” Nancy Harrison, *Research Into Arizona Town’s Uranium-Contaminated Water Supply Sparks Change*, 12 News (Apr. 10, 2016, 9:36 AM), <https://www.12news.com/article/news/local/arizona/research-into-arizona-towns-uranium-contaminated-water-supply-sparks-change/75-124812713> [hereinafter Harrison].

Despite this evidence, the contamination did not come to public light until Dr. Tommy Rock, an

¹⁷ Available at

https://www.niehs.nih.gov/research/supported/translational/peph/grantee-highlights/2017/tommy_rock_exposing_years_of_uranium_water_contamination_in_a_navajo_community.cfm.

¹⁸ Maximum contaminant level is “the maximum permissible level of a contaminant in water which is delivered to any user of a public water system.” 40 C.F.R. § 141.2 (2021).

environmental scientist and member of the Navajo Nation, analyzed water samples in July 2015. Harrison. Sanders residents, including children within the Sanders Unified School District, had been unknowingly drinking this contaminated water for years. *Health Consultation* at 5; Harrison.

Beyond this historic catastrophe, contamination from mining operations on the Navajo Nation has not been properly remediated, resulting in decades of exposure to uranium and other co-occurring metals from these mines, such as arsenic, cadmium, copper and lead. Sara S. Nozadi et al., *Prenatal Metal Exposures and Infants' Developmental Outcomes in a Navajo Population*, 19 *Int'l J. Env't Rsch. & Pub. Health* 425 (2022). Of the 524 uranium mines on record with the EPA, only 219 have funding secured under the Comprehensive Environmental Response Compensation Liability Act ("CERCLA")¹⁹ to begin studies toward remediation, and the remediation effort itself has practically not even begun. *Id.* By one estimate, "it would take 100 years to complete the task" of cleaning up the mines. *Water Delayed Is Water Denied* 4. "In the meantime, uranium-contaminated dust blows across the Navajo Nation and seeps into groundwater." *Id.*

Because of this contamination, it is perhaps unsurprising that "[t]esting of unregulated Navajo Nation water sources done by federal and tribal agencies has consistently found that many of these sources do not meet federal drinking water standards for uranium or other radioactive particles." *Id.* at 4–5.

¹⁹ Commonly known as Superfund, CERCLA is a federal environmental remediation program administered by the EPA. 42 U.S.C. §§ 9601–75.

Testing of various unregulated water sources within the Navajo Nation revealed that more than two dozen tested sites exceeded the EPA's uranium limit, with one site having twenty-three times the amount of uranium allowed by the EPA's regulations. See U.S. Env't Prot. Agency, *Water Sampling Results in the Navajo Nation, Contaminated Unregulated Water Sources*, Table 2 (2012), <https://www.epa.gov/navajo-nation-uranium-cleanup/water-sampling-results-navajo-nation>.

If these conditions existed in public water systems, it would violate the limitations on tolerable water contaminants under the Safe Drinking Water Act. 42 U.S.C. § 300f. But the Act does not apply to private wells, leaving no mechanism to enforce quality standards in the Act for individuals who do not have access to the public water utility system. *Water Delayed Is Water Denied* 3–4; see 42 U.S.C. §§ 300g–f. Hauled water is frequently obtained from unregulated water sources—such as livestock wells, community wells, and springs—or may be contaminated during the water hauling process. See Emily Litvack, *On Navajo Nation, Taking Clean Water Off the Grid*, Univ. Ariz. Off. Rsch., Innovation, & Impact (Sept. 26, 2019) (noting that “[a]cross the Navajo Nation, the number of unregulated water sources is estimated to be in the low thousands”), available at <https://research.arizona.edu/stories/navajo-nation-taking-clean-water-grid>; *Water Hauling Guidelines* at 1. As a result, individuals who must haul water are regularly exposed to harsh contaminants and are more susceptible to waterborne diseases. Karen Cozzetto et al., *Climate Change Impacts on the Water Resources of American Indians and Alaska Natives in the U.S.*, 120 *Climatic Change* 569, 574 (2013).

Making matters worse, even water available through public utility water supply lines is often contaminated after traveling a long way from the original water source and running through old plumbing lines. Before *amicus* DigDeep’s involvement with the Navajo Nation, the water at St. Michael’s Association for Special Education was “black, stinky, and toxic.”²⁰ *Clean Water for Saint Michael’s*, DigDeep, <https://www.waterforsaintmichaels.org> [hereinafter *Clean Water for St. Michael’s*]. Unsafe levels of lead, arsenic, iron, and decaying organic material, gave the water a dark color and the odor of rotting eggs. Justin Haskins, *Navajo Nation’s Only Special-Needs School Has Been Praying for a Miracle—It’s Getting One*, Blaze Media/News (Apr. 9, 2017), <https://www.theblaze.com/news/2017/04/09/navajo-nations-only-special-needs-school-has-been-praying-for-a-miracle-its-getting-one> [hereinafter Haskins]; James King, *Navajo Special-Ed School to Get Clean Water for the First Time*, Vocativ (Mar. 22, 2017), <https://www.vocativ.com/413576/navajo-special-ed-school-to-get-clean-water-for-the-first-time>.

Since most of St. Michael’s students have significant medical needs, day-to-day care involves

²⁰ St. Michael’s Association for Special Education is a hybrid residential-day program on the Navajo Nation for individuals with medical and developmental disabilities. *Clean Water for Saint Michael’s*. Students travel up to 200 miles to attend and sometimes board overnight. Justin Haskins, *Navajo Nation’s Only Special-Needs School Has Been Praying for a Miracle—It’s Getting One*, Blaze Media/News (Apr. 9, 2017), <https://www.theblaze.com/news/2017/04/09/navajo-nations-only-special-needs-school-has-been-praying-for-a-miracle-its-getting-one>.

bathing the students, sanitizing their medical equipment, providing drinking water, and preparing students' meals. *Clean Water for St. Michael's*; see also DigDeep, *Water Problems at St. Michael's Association for Special Education (SMASE)*, YouTube (Feb. 23, 2017), https://www.youtube.com/watch?v=R-2F1A6Gd_c&t=15s; DigDeep, *Brianna Presents! Water Problems at St. Michael's Special Needs School*, YouTube (Mar. 20, 2017), <https://www.youtube.com/watch?v=NWqSVRkXhtg&t=35s>. Clean water is indispensable to the school's ability to safely serve this vulnerable population, making it all the more "shocking" that St. Michael's, despite its dire need, lacked access to clean running water for so long. Haskins.

In 2017, *amicus* DigDeep worked to ensure that St. Michael's had safe water. *Clean Water for St. Michael's*. This included conducting water tests, drafting a remediation plan, and working with the local utility to flush lines and clean the source water before replacing the plumbing system. *Id.* While St. Michael's water contamination has been remediated, the water quality crisis on the Navajo Nation remains, thereby triggering the federal trust responsibility.

II. WATER INSECURITY HAS RESULTED IN DISPROPORTIONATE AND DEVASTATING IMPACTS ON THE NAVAJO NATION.

Tó éí iiná até. Water is life. "Water is essential to every aspect of household and community life and the economy." Am. Soc'y Civ. Eng'rs, *The Economic Benefits of Investing in Water Infrastructure: How a Failure to Act Would Affect the U.S. Economic Recovery* 3 (2020). "A century ago, the U.S. government invested in modern water and sanitation

systems as a means of eradicating water-borne diseases and stimulating economic prosperity, but this government investment in water infrastructure over the past one hundred years has largely bypassed reservations.” *Addressing Tribal Needs Through Innovation and Investment in Water Resources Infrastructures Through the U.S. Bureau of Reclamation: Hearing Before the H. Comm. on Appropriations & Subcomm. on Energy & Water Dev.*, 117th Cong. 2 (2021) (statement of Bidtah Becker, Assoc. Attorney, Navajo Tribal Util. Auth.). Water insecurity on the Navajo Nation has resulted in devastating health and economic impacts that affect the entire community. The lack of access to clean and safe water threatens the Navajo Nation’s ability to thrive on their ancestral land, which the United States has guaranteed as its permanent homeland.

A. Water Insecurity Contributes to Negative Health Outcomes on the Navajo Nation.

Water insecurity is a public health crisis. Water constitutes up to sixty percent of the human adult body—it is essential for human survival. Water Science School, *The Water in You: Water and the Human Body*, U.S. Geological Surv. (May 22, 2019), <https://www.usgs.gov/special-topics/water-science-school/science/water-you-water-and-human-body>. The connection between water and life is so strong that the United Nations, several countries, and some U.S. states have recognized the human right to water. G.A. Res. 64/292, U.N. Doc. A/RES/64/292 (July 28, 2010); *see also* World Health Org., *National Systems to Support Drinking-Water, Sanitation and Hygiene: Global Status Report 2019*, at 48–55 (2019),

<https://apps.who.int/iris/bitstream/handle/10665/326444/9789241516297-eng.pdf?ua=1>.²¹

“For decades, experts have documented how lack of access to clean water and sanitation in Indian country contributes to high rates of morbidity and mortality among American Indians and Alaska Natives.” *Water Delayed Is Water Denied* 3. Lack of water access can contribute to malnutrition and diarrheal disease. Ctrs. for Disease Control and Prevention, *Climate Effects on Health, Impact of Climate Change on Human Health* (Apr. 25, 2022), <https://www.cdc.gov/climateandhealth/effects/default.htm>. Indeed, “families in the water access gap are 30 times more likely to contract [waterborne] illnesses than those living in houses with basic services.” DigDeep, *Draining: The Economic Impact of America’s Hidden Water Crisis* 39 (2022), available at <https://www.digdeep.org/draining> [hereinafter *Draining: The Economic Impact*].²² Poor water quality has been associated with lower mental and social development in children. Faissal Tarrass & Meryem Benjelloun, *The Effects of Water Shortages on Health*

²¹ The state constitutions of Massachusetts and Pennsylvania recognize the right to water, and California and Virginia have passed legislation to recognize this right. Mass. Const., art. XCVII; Pa. Const., art. 1, § 27; Cal., Assemb. 685, 2011-2012 Leg. Reg. Sess. (2012) (codified at Cal. Water Code § 106.3); Cal. Assemb. 401, 2015-2016 Leg. Reg. Sess. (2015); H.R.J. Res. 538, 2021 Leg. Special Sess. (Va. 2021).

²² Waterborne diseases include several different types of infections that are transmitted via water and can result in “fever and other flu-like symptoms, neurological disorders, liver damage, and [other symptoms].” Karen Levy et al., *Climate Change Impacts on Waterborne Diseases: Moving Forward Designing Interventions*, 5 *Current Env’t Health Reps.* 272, 273 (2019).

and Human Development, 132 Perspectives Pub. Health 240, 241 (2012); Sara Nozadi et al., *Prenatal Metal Exposures and Infants' Developmental Outcomes in a Navajo Population*, 19 Int'l J. Env't Rsch. & Pub. Health 425 (2021).

Water insecurity also contributes to chronic health issues, such as diabetes and obesity. *See Draining: The Economic Impact* at 39. “In order to conserve their scarce water supply, Navajo residents are often forced to make accommodations that are detrimental to their health. For example, some residents opt to eat less nutritious foods because the preparation uses less water.” Heather Tanana et al., *Universal Access to Clean Water for Tribes in the Colorado River Basin*, Water & Tribes Initiative, at 15 (2021) [hereinafter *Universal Access to Clean Water*]. “[T]he Navajo Nation faces a diabetes crisis because soda and other sugary beverages are more readily available and less expensive than potable water.” *Id.* Existing research further shows that Native American children residing on the reservation suffer the highest rates of early childhood obesity in the United States. Dennis M. Styne, *Childhood Obesity in American Indians*, 16 J. Pub. Health Mgmt. & Prac. 381, 381–87 (2010).

The COVID-19 pandemic highlighted the Navajo Nation's lack of water access, which contributed to COVID-19 susceptibility and unnecessary loss of life. Former President Nez testified before the House of Representatives that “[t]he outbreak of COVID-19 on the Navajo Nation has largely been attributed to lack of water in the homes of Navajo people.” Nez 2020 Testimony at 7–8. *See also* Desi Rodriguez-Lonebear et al., *American Indian Reservations and COVID-19: Correlates of Early Infection Rates in the Pandemic*, 26 J. Pub. Health Manag. Pract. 371 (2020) (finding

an association between lack of indoor plumbing and COVID-19 infection rates on reservations). To prevent spread of the disease, the CDC recommends frequently washing hands for at least twenty seconds and social distancing. Ctrs. for Disease Control and Prevention, *How to Protect Yourself & Others* (Jan. 26, 2023), <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>. Because of water scarcity, residents of the Navajo Nation are often unable to comply with such basic public health protocols. See Nez 2020 Testimony at 7–8. Households must ration hauled water and when there is not enough water at the community source, “residents must rely on other households with piped water access, further risking transmission and contraction of COVID-19.” *Universal Access to Clean Water* at 8; see also Justin Stoler et al., *Beyond Handwashing: Water Insecurity Undermines COVID-19 Response in Developing Areas*, 10 J. Glob. Health 010355 (2020) (noting that household water sharing “may serve as a transmission pathway for many communicable diseases”).

Consequently, the pandemic has had an outsized impact on the Navajo Nation, which experienced more cases and deaths per capita than any State.²³ During

²³ In January 2023, the Navajo Nation had 80,305 confirmed COVID-19 cases and 1,994 deaths. Navajo Dep’t of Health, *Navajo Nation COVID-19 Dashboard*, <https://ndoh.navajonnsn.gov/COVID-19/Data>. Based on a population of 169,688, see *supra* note 8, the death rate per 100,000 people is 1,175. In contrast, the state with the highest death rate is Arizona at 444 per 100,000 people. *Death Rates from COVID-19 in the United States as of January 9, 2023, by state*, Statista, <https://www.statista.com/statistics/1109011/coronavirus-covid19-death-rates-us-by-state> (last visited Jan. 30, 2023). The

the peak of the pandemic in May 2020, the Navajo Nation exceeded New York State for the highest infection rate, with 2,304 cases per 100,000 people, compared to 1,806 cases per 100,000 in New York. Megan Marples, *Navajo Nation Faces Devastating Loss from COVID-19 Pandemic*, CNN (Nov. 24, 2020), <https://www.cnn.com/2020/11/24/health/navajo-nation-coronavirus-losses-wellness/index.html>. By early 2021 (prior to widespread availability of the COVID-19 vaccines), *amici* calculated that the Navajo Nation's per capita COVID-19 rate remained nearly twice the national average.²⁴

overall case rate on Navajo Nation is 47,325 per 100,000 people. The highest case rate per capita in any state, by contrast, is Rhode Island with 42,309 cases per 100,000 people. *Rate of COVID-19 Cases in the United States as of January 9, 2023*, Statista, <https://www.statista.com/statistics/1109004/coronavirus-covid19-cases-rate-us-americans-by-state> (last visited Jan. 30, 2023).

²⁴ Nationally, there were 21,551,811 cumulative cases as of January 6, 2021. *United States Data Timeline*, Johns Hopkins Univ. & Med., Coronavirus Res. Ctr., <https://coronavirus.jhu.edu/region/united-states> (last visited Feb. 5, 2023). The U.S. Census Bureau's estimated population for January 6, 2021, was 331,768,548. *U.S. and World Population Clock*, U.S. Census Bureau, <https://www.census.gov/popclock/> (last visited Feb. 5, 2023). Based on case count and population size at the time, the national COVID-19 case rate was approximately 6,496 cases per 100,000 people on January 6, 2021. In contrast, the Navajo Nation had 23,978 cumulative cases as of January 6, 2021. 12News, *Coronavirus in Arizona on Jan. 6: Maricopa County to Expand COVID-19 Vaccine Rollout as 7,206 New Cases, 127 New Deaths Reported Wednesday* (Jan. 6, 2021), <https://www.12news.com/article/news/health/coronavirus/here-is-everything-you-need-to-know-about-coronavirus-in-arizona->

The federal government has a legal obligation to provide health care to Native Americans²⁵ and is well aware of the health consequences of water insecurity on health outcomes. In 1959, Congress passed the Indian Sanitation Facilities Act, which authorized the creation of the IHS Sanitation Facilities Construction Program to provide safe water, wastewater, and solid waste systems in Indian country for Native American homes. “In the first 30 years of the IHS Sanitation Facilities Construction (SFC) Program, the gastrointestinal disease death rate for American Indians and Alaska Natives decreased 86 percent.” Indian Health Serv., *Sanitation Facilities Construction*, <https://www.ihs.gov/phoenix/programsservices/sanitationfacilitiesconstruction/> (last visited Feb. 5, 2023). As part of the SFC Program, IHS maintains a Sanitation Deficiency System (SDS) database identifying water and sanitation deficiencies for Native American homes within its service areas. These deficiencies range from Level I (where the water and sanitation system complies with applicable water supply and pollution control laws, but requires routine replacement, repair, or maintenance) to Level V (where there is no water supply or sewage disposal

on-january-6/75-a4debb9b-a073-466f-b29d-fc01a2433595. Based upon an estimated population size of 169,688, the Navajo Nation experienced approximately 14,130 cases per 100,000 people on January 6, 2021.

²⁵ See, e.g., Indian Health Care Improvement Act of 1976, Pub. L. No. 94-437, 25 U.S.C. § 1601 (“Federal health services to maintain and improve the health of the Indians are consonant with and required by the Federal Government’s historical and unique relationship with, and resulting responsibility to, the American Indian people.”).

system at all). See Indian Health Serv., *Annual Report to the Congress of the United States on Sanitation Deficiency Levels for Indian Homes and Communities* 4 (2019), available at https://www.ihs.gov/sites/newsroom/themes/responsive2017/display_objects/documents/FY_2019_RTC_Sanitation_Deficiencies_Report.pdf.

Within the Navajo Nation service area, IHS has identified 349 SDS deficiency projects—109 (or thirty-one percent) are at Level V with a complete lack of water supply. Indian Health Serv., *FY 2021 Annual Report of Sanitation Deficiency Levels* (Nov. 16, 2021), https://www.ihs.gov/sites/dsfc/themes/responsive2017/display_objects/documents/FY_2021_Appendix_Project_Listing.pdf.²⁶ In contrast, only three (or 0.8 percent) of SDS projects are at Level I. *Id.* Unless and until the United States fulfills its trust obligations to provide the Navajo Nation with access to clean water, Navajo residents will continue to face insurmountable barriers to improving health outcomes.

B. Lack of Water Access Carries Significant Economic Consequences.

The lack of water access on the Navajo Nation has resulted in severe economic consequences that threaten the sustainability of the permanent homeland guaranteed in the Navajo Nation's treaties.

²⁶ Notably, the IHS SDS list underestimates the number of projects and associated costs. See *supra* note 7; U.S. Gov't Accountability Off., GAO-18-309, *Drinking Water and Wastewater Infrastructure: Opportunities Exist to Enhance Federal Agency Needs Assessment and Coordination on Tribal Projects* 16–17, 19–20 (2018). As a result, the total actual need on Navajo Nation is higher than identified in the SDS.

On the one hand, the lack of water access drains individual and community resources and forces residents to spend exorbitantly to meet just one basic need. On the other, the lack of water hampers economic development and makes it more difficult for Navajo residents to develop and sustain businesses on the reservation.

“Water is the essential ingredient that fuels industry. . . . Most people do not associate a gallon of paint or a glass of wine with their water supplies, but virtually all consumer products rely on water to varying degrees.” Am. Soc’y Civ. Eng’rs, *The Economic Benefits of Investing in Water Infrastructure: How a Failure to Act Would Affect the U.S. Economic Recovery* 17 (2020). Water-reliant industries are the very same ones that people rely on every day—education, health services, retail, construction, manufacturing, and agriculture. *Id.* at 20.

The Colorado River, in particular, is a substantial driver of the local economy and contributes to the annual gross state product (GSP), employment, and labor income for all seven Colorado River Basin states. Tim James et al., W.P. Carey Sch. Bus. – Ariz. State Univ., *The Economic Importance of the Colorado River to the Basin Region* 9–34 (2014), <https://businessforwater.org/wp-content/uploads/2016/12/PTF-Final-121814.pdf>.

Although unquantified, failure to ensure that the Navajo Nation receives the water to which it is entitled from the Colorado River or other sources likely contributes to lost gross product, employment, and income for the Navajo Nation and its residents. Livestock sales represent twenty-one percent of all agricultural sales on the Navajo Nation, while hay

and forage represent approximately sixty-seven percent of all crop acreage. Tatiana Drugova et al., *The Economic Impacts of Drought on Navajo Nation*, 52 J. Food Distrib. Rsch. 32 (2021). Cattle and hay productivity requires an adequate supply of water.

Hauling water also “poses a great economic burden on families that already struggle.” Nez 2019 Testimony at 4. “Navajo citizens pay an estimated 67 times more for water that they haul versus water that is delivered via a municipal water system into their homes.” Off. of the President and Vice President, E. Agency Council Rep., *President Nez Provides Testimony in Support of Congressional Bills That Will Deliver More Clean Water to Navajo Communities* (June 4, 2022). That cost “includes the cost of gasoline for their vehicle, for the barrels that hold the water, maintenance of vehicles, and the cost of the water itself, which depends on where they are buying the water.” *Id.* For comparison, Navajo families that need to haul water spend an average of \$43,000 per acre-foot of water, while the average American water user spends only \$600 per acre-foot of water. U.S. Bureau of Reclamation, *Colorado River Basin Ten Tribes Partnership Tribal Water Study* § 5.5-26 (2018).

In a comprehensive study, *amicus* DigDeep calculated that “[e]ach household without access to water and sanitation costs the U.S. economy \$15,800 per year, because of health care costs, time spent collecting paying for bottled water, loss of time at work or at school, and premature death.” *Draining: The Economic Impact* at 10. Accounting for the number of households identified as lacking piped water on the Navajo Nation, *see supra* note 7, the Nation’s water insecurity costs the American economy approximately \$152.5 million annually.

Investing in water access can dramatically improve the economic outlook. DigDeep estimates that “[c]losing the water access gap will create \$366,400 in direct and implicit economic benefits per household on average.” *Id.* at 10. That means ensuring all households on Navajo Nation have piped water could result in more than \$3.5 billion in direct and implicit economic benefits.

The story of one of DigDeep’s clients, Brenda Johnson, exemplifies the delicate balance between financial security and financial ruin that can result from a lack of running water in the home. *See Draining: The Economic Impact* at 5. Brenda and her husband lived in an area not yet connected to existing water utility lines. *Id.* When her husband injured his foot in a work accident, the minor injury became infected because there was no water in their home to clean the wound. *Id.* Thankfully, Brenda’s husband was treated at a hospital fifty miles away, but his “lost work hours were a crippling hit to their family’s income.” *Id.* Her income, too, was dependent on access to clean water. When her husband was discharged from the hospital, she could not pick him up right away because she had to meet one of DigDeep’s water trucks that provided water for their home and her tamale business. “Unfortunately, no clean water meant Brenda couldn’t make tamales; no tamales meant no gas money; and no gas money meant she couldn’t bring her husband home.” *Id.* DigDeep has since installed an off-grid water system at Brenda’s home, contributing to greater financial stability for her family. All others on the Navajo Nation deserve the same, and the United States’ trust obligation to ensure access to clean and adequate water supply requires it.

CONCLUSION

The Court should affirm the judgment of the Ninth Circuit and thereby ensure that the United States fulfills its obligations to the Navajo Nation to provide access to clean and safe water that would allow the Navajo Nation to thrive on its permanent homeland.

Respectfully submitted,

Elizabeth G. Bentley
CIVIL RIGHTS APPELLATE CLINIC
UNIVERSITY OF MINNESOTA LAW SCHOOL
229 19th Ave. S.
Minneapolis, MN 55455
(612) 625-7809
ebentley@umn.edu

Counsel for Amici Curiae

Heather Tanana
University of Utah
S.J. Quinney College of Law*
383 S. University St.
Salt Lake City, UT 84112
(801) 213-3454
tanahah@law.utah.edu

Elisabeth Parker
University of Utah
S.J. Quinney College of Law*
383 S. University St.
Salt Lake City, UT 84112
(801) 581-6438
Beth.Parker@law.utah.edu

Frannie Monasterio
University of Colorado Law School*
2450 Kittredge Loop Dr.
Boulder, CO 80309
(303) 735-2154
Frannie.Monasterio@colorado.edu

Clifford B. Parkinson
Utah State University*
540 East 535 South
Hyrum, UT 84319
(801)652-9668
clifford.b.parkinson@gmail.com

*Counsel for Amicus
DigDeep Right to Water Project*

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affiliations listed for identification
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