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### **Water Is Life: Law, Systemic Racism, and Water Security in Indian Country**

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## COMMENTARY

# WATER IS LIFE: LAW, SYSTEMIC RACISM, AND WATER SECURITY IN INDIAN COUNTRY

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*No lands can be a permanent homeland without an adequate supply of water, especially potable water.... Safe drinking water is a basic need, and the consequences of lack of access to reliable potable water supplies can be staggering.*

– Jonathan Nez, President, Navajo Nation

THE 21ST CENTURY has been marked by significant advancements in technology, from travel to Mars and self-driving cars to smartphones and bitcoin. And yet, at the same time, hundreds of thousands of Native Americans live without access to safe, clean, and reliable drinking water. By some estimates, 48% of households on Indian reservations do not have clean water or adequate sanitation.<sup>1</sup> This lack of access has been highlighted by the COVID-19 pandemic, but it is not a new issue. Native American communities have long suffered inequities stemming from colonization and perpetrated by federal policy. While the pandemic has devastated many Tribal communities, it has also brought attention to issues long ignored, including lack of clean water access and health disparities. As a result, a unique window of opportunity has arisen to address these issues and achieve universal access to clean water across the United States.

The pandemic heightened the need for clean water access in Indian country (the legal term under federal law that

includes, in part, all land within the boundaries of an Indian reservation).<sup>2</sup> Two crucial actions to prevent transmission of SARS-CoV-2, the virus that causes COVID-19, are frequent handwashing and sanitizing high-touch surfaces.<sup>3</sup> Hydration is also being studied as a factor in COVID-19 mortality,<sup>4</sup> and healthcare providers have cited hydration and nutrition as tools for supporting COVID-19 recovery.<sup>5-7</sup> For drinking, eating, and hygiene, access to clean water is essential. Limited water access makes it challenging to take these recommended steps against COVID-19. Consequently, it is not surprising that a recent study found an association between lack of indoor plumbing and COVID-19 infection rates on reservations.<sup>8</sup> According to the US Centers for Disease Control and Prevention (CDC), American Indians and Alaska Natives (AI/AN) are at least 3.5 times more likely than White persons to contract COVID-19.<sup>9</sup> Lack of water access may have contributed to the higher rate of COVID-19 in AI/AN communities.<sup>10</sup>

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“Water is essential to every aspect of household and community life and the economy.”<sup>11</sup> Aside from its association with COVID-19 incidence, water insecurity also contributes to other negative health outcomes in Tribal communities, including lead poisoning, anemia, diabetes,<sup>12</sup> kidney disease, and certain cancers. Contaminants, such as the chemicals associated with per- and polyfluoroalkyl substances (PFASs), are pervasive in some water supplies and have been identified as a potential risk to human health, but their full health impacts are still being studied.<sup>13</sup> Overall, in comparison to other populations, the AI/AN population suffers significant health disparities, many of which are associated with disproportionate exposure to environmental health hazards.<sup>14</sup>

For many Tribal communities, connection to culture is an indivisible component for individual and community health. And while Western scientific research is not necessary to demonstrate this connection, (Tribal traditional knowledge is Indigenous science, equally valid and more relevant to Tribal communities), studies have shown that engaging in cultural activities is a protective factor and loss of culture is a risk factor for various health conditions.<sup>15</sup> For many Tribes, water is part of their cultural and community activities, serving as another reason for water access in Indian country to be prioritized as a public health tool. From the Navajo (To’ ei’iina até) to the Hopi (Paatuwaquatsi) to the Standing Rock Sioux Tribe (Mní Wíćóni), these Tribes view water as sacred and recognize that “water is life.”

There are 574 federally recognized Tribes in the United States, located across 35 states. The specific challenges that a given community faces with respect to water varies from Tribe to Tribe. However, some common experiences include lack of a piped delivery system providing water to homes and unsafe or otherwise unacceptable water quality. Even when clean water is provided to a community, the aging and deteriorating water and sanitation infrastructure can threaten future supply of that water or prevent Tribal growth. Each of these challenges are briefly discussed next.

**Water Access.** “Race is the strongest predictor of water and sanitation access.”<sup>14</sup> Vis-a-vis White households, Native Americans are 19 times more likely to live in a household without indoor plumbing with running water.<sup>16</sup> This disparity is even higher for residents of the Navajo Nation, who are 67 times more likely to live in a household without running water compared to other population groups.<sup>16</sup> Without piped water, many families are required to haul water over long distances from communal wells. In addition to being a time-consuming burden, hauling water is also more costly. The average American family with piped water delivery spends \$600 per acre-foot of water. In comparison, the Navajo Department of Water Resources estimates that Navajo families relying on hauled water spend \$43,000 per acre-foot of water.<sup>17</sup>

**Water Quality.** Inadequate water quality is also prevalent in some parts of Indian country. A small study conducted on the Navajo Nation with the Johns Hopkins Center for American Indian Health found *Escherichia coli* and other coliform bacteria in 8% and 44% of samples, respectively.<sup>18</sup> A long history of mining in the western United States has left groundwater in many areas, including the Navajo Nation, polluted with arsenic and uranium, as demonstrated by a study of nearly 300 water sources.<sup>19</sup> Naturally occurring arsenic has plagued the Hopi Tribe since its drinking water systems were first installed in the 1960s. The Hopi Tribe estimates that 75% of its community members are drinking contaminated water.<sup>20</sup> Beyond these known contaminants, there are also several lurking unknowns. For example, PFASs have been detected in the drinking water of cities across the United States.<sup>21</sup> They have also been linked to a reduced immune response and other harmful health effects.<sup>22</sup> But the true extent of PFAS, including its presence in Indian country, is unknown. Given the extent of unlined landfills and unpaved roads on or near many Tribal lands, PFAS is a potential threat to many Tribes<sup>23</sup> and, more broadly, represents the dire need for further research into water quality issues.

**Water Infrastructure.** While some Tribes have constructed suitable water infrastructure to provide water delivery into homes within their reservation, such infrastructure is often deteriorating or inadequate to keep up with population growth and other needs. Broadly across the United States, the American Society of Civil Engineers has rated the country’s drinking water infrastructure a “D,” based on condition, safety, and other factors.<sup>10</sup> Deteriorating infrastructure raises several public health concerns, including increased risk of water contamination and nonpotable water delivery.<sup>24</sup> Waterborne disease outbreaks caused by inadequate infrastructure have occurred in several cities across the United States.<sup>24</sup> Tribal drinking water infrastructure is not an exception to these challenges, and in many cases is worse.

The federal government has treaty obligations and trust responsibility to Tribes. When the federal government removed Tribes from their homelands, it frequently entered into treaties with Tribes and established a reservation as a permanent homeland for the Tribe. Like any other communities, Tribes must have access to a clean, safe, and reliable supply of water in order for reservations to be a permanent and habitable homeland. Treaty rights thus include access to water<sup>25</sup> and access to healthcare,<sup>26</sup> among other rights. The trust responsibility is a legal, moral, and fiduciary responsibility of the federal government to protect Tribal treaties, lands, and resources.<sup>27</sup> While these treaty

and trust rights are legally binding, it is well-documented that the federal government has reneged on its responsibilities to adequately protect Tribal lands and waters and to provide adequate healthcare through Indian Health Service and other funding.<sup>28</sup> Other scholarship has documented that these violations are rooted in racism.<sup>29,30</sup>

The continued violation of treaty and trust rights by the federal government are barriers to adequate water access in Indian country. “The protection of tribal sovereignty and treaty rights through the support of Indigenous activism and alliance building is necessary to ensure treaty trust responsibilities, which are critical to water-related environmental and social justice.”<sup>31</sup>

Beyond federal treaty and trust responsibilities, inequities in water quality and access have been facilitated by other laws and legal systems that reduce the access, quality, and infrastructure for water. First, federal law fails to provide adequate protection for Tribal water. The Clean Water Act<sup>32</sup> and the Safe Drinking Water Act<sup>33</sup> established federal water quality standards. Today, these laws are intended to support Tribal self-governance and thereby protect Tribal environmental values by allowing Tribes to directly administer federal water protection programs.<sup>34</sup> However, the Environmental Protection Agency (EPA)—the federal agency responsible for enforcing federal clean water and safe drinking water standards—has only approved 2 Tribal programs since 2016 (Pueblo of Laguna and Swinomish Indian Tribal Community) and only 15% of eligible Tribes have water quality standards needed for EPA approval.<sup>35</sup> Generally speaking, Tribes have a strong connection to their land and environment. Threats to environmental quality are threats to Tribal culture and tradition. For example, “water pollution permits that do not account for Indigenous cultural uses of water risk environmental injustice in a manner reminiscent of early colonial attempts at assimilation.”<sup>35</sup> One proposal to increase Tribal eligibility and water quality protections, is for the EPA to create a direct implementation program that encompasses cultural and traditional considerations. Such action would begin to close the regulatory gap that exists in water quality protection in Indian country while still allowing Tribes the opportunity to assume administration of these programs in the future.

Second, federal laws also allow for resource extraction that threaten Tribal water sources. Indian country and neighboring lands are rich in natural resources, but the development of resources in adjacent areas off Tribal lands can threaten Tribal water supplies, especially in instances of inadequate Tribal consultation.<sup>36</sup> In 2015, the Gold King Mine—located approximately 100 miles outside the Navajo Nation near Silverton, Colorado—spilled 3 million gallons of wastewater that spread to and contaminated the San Juan River, a water source of the Navajo Nation. Mitigation efforts continue today. The Dakota Access Pipeline across the Great Plains also brought these issues to national attention. In litigation against the Army Corps of Engineers for its approval of permits for the project, the Standing

Rock Sioux Tribe asserted a right to spiritually pure water and argued that construction of the pipeline will irrevocably damage usability for spiritual purposes.<sup>37</sup> While the future of the project remains uncertain pending litigation, several leaks in the pipeline since it began operations in 2017 reinforce the Tribe’s concerns and the need to protect human health and the environment when engaging in natural resource development.

Finally, Tribes have legally recognized and protected reserved water rights that are sufficient to fulfill the purposes of their reservation (eg, domestic, agricultural, hunting, fishing). These water rights are quantified through either litigation or settlements. In the event of competing water claims across multiple users, the federal government has facilitated legal settlements in which Tribes waive claims against the federal government in exchange for funding to build infrastructure which can deliver clean water.<sup>1</sup> In many ways, this is an unfair exchange for Tribes to have to cede their water rights in order to receive infrastructure support that the federal government is already obligated to provide. States have also attempted to condition Tribal water settlements on waiver of other rights. While water settlements can be a potential option to obtain water access by including infrastructure projects, potable water is needed now for the survival of Tribal communities and should not be held hostage to political maneuvering.

The legal framework governing Tribal rights, including water rights, in Indian country is based on racism, colonization, and genocide. Early federal reports have documented insufficient water access in Indian country. The 1928 Meriam Report<sup>38</sup> documented both lack of access to clean water and lack of sanitation facilities for waste disposal in Indian country. Nearly a century later, the US Commission on Civil Rights chronicles many of the same water access issues in its 2018 report, *Broken Promises: Continuing Federal Funding Shortfall for Native Americans*.<sup>28</sup>

The legal foundations for water access under federal law are important, but access to clean water is more appropriately framed as a human rights issue. In addition to the United Nations recognizing the human right to water,<sup>39</sup> the United Nations Declaration for the Rights of Indigenous People<sup>40</sup> recognizes the right to:

- “the enjoyment of the highest attainable standard of physical and mental health;”
- “maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas;” and
- require governments to “consult and cooperate in good faith with the indigenous people [...] in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.”

The COVID-19 pandemic reveals yet another reason to make the right to water a reality in the United States, particularly in the context of water security for Tribal communities. The federal government continues to have a major role in providing clean and reliable water access to Tribes; yet, it has long failed on its legal obligations. The public health community should align their efforts alongside the work that Indigenous water protectors have been doing since time immemorial.

One area that is ripe for a public health–Tribal partnership is the gap in research related to water quality, access, and health. This issue is compounded by a persistent lack of data regarding water access and health outcomes across Indian country. Most of the related research relates to the Navajo Nation (the largest Tribal nation in the United States); but, even there, more comprehensive studies are needed to truly understand and address problems. At present, no federal or Tribal entity is tasked with assessing each home in Indian country. While Indian Health Service maintains a database to track sanitation deficiencies in AI/AN homes (which includes drinking water), the database has limitations and relies on deficiencies being first identified by the Tribe and then reported to Indian Health Service for inclusion.<sup>41</sup> Nonetheless, although the amount and quality of data currently available is not ideal, it does underscore that many Tribal communities continue to suffer from water insecurity. Furthermore, data insufficiencies do not justify continued lack of action under the law. The federal government, under treaty and trust obligations, is legally responsible to provide water and healthcare access. Holding the government responsible in these areas is essential to bridging the gap in existing water access inequities. Although each Tribe's water challenges are unique and require content-specific solutions, the federal government must address the water- and health-related inequities that affect all Tribes. This includes more protections of Tribal waters under federal law, more leadership at the federal level to prioritize Tribal water quality and access, and a commitment to honor federal treaty and trust obligations.

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