

Water Equity: How the IIJA Can Help Ensure Safe and Healthy Drinking Water for All



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**National Environmental
Health Partnership Council**



The Infrastructure Investment and Jobs Act (IIJA), H.R. 3684, provides **more than \$50 billion** to the EPA to improve drinking water, wastewater and stormwater infrastructure across the nation. This is the largest investment in drinking water and related water uses in American history, signaling a major step forward for public health in relation to water infrastructure.

Clean, accessible water is vital to health and well-being. Communities across the U.S. need safe water not only for drinking, but also for activities such as bathing, cooking, and cleaning. However, much of the water infrastructure in the U.S. is decades old. Over the years, this aging infrastructure has created various public health issues linked to water contamination as well as inequitable access.

- **EXPOSURE TO LEAD AND EMERGING CONTAMINANTS:** Aging water infrastructure and insufficient water treatment technologies, among other issues, has exposed communities to lead and emerging contaminants, such as per- and polyfluoroalkyl substances (PFAS), which have made drinking water unsafe and have caused significant harmful health impacts.
- **SYSTEMIC RACISM AND CLEAN WATER ACCESS:** Pervading systemic racism in historical and current-day policies and practices has created inequitable water infrastructure quality and access, specifically in communities of low-wealth and communities of color. Moreover, increasing costs for water utilities creates barriers to accessing water, especially in communities of low-wealth. These inequities can be directly linked to disproportionate health impacts, including developmental and reproductive issues.
- **CLIMATE CHANGE:** Climate change threatens our nation's water infrastructure and is projected to exacerbate inequities and related health outcomes. Impacts such as decreased water quality, water shortages induced by drought, and increased water treatment costs will more harshly affect communities of low-wealth and communities of color that are already located in areas vulnerable to climate change impacts. As an example, flooding, as caused by more severe and frequent rain events linked to climate change, combined with aging water infrastructure and sewage overflow systems, poses a threat to public health.¹

Public health officials in particular play an integral role in this work — they can lead with equity and be explicit about how racism impacts health.² Due to the longstanding impacts of historical, structural and institutional racist policies and practices on water infrastructure investments and access, communities of color are more likely to experience unsafe drinking water and related health disparities. Residential segregation practices and differential pricing structures as well as selective inadequate enforcement of drinking water standards are only some of the mechanisms that have determined inequitable water infrastructure and resultant disproportionate health outcomes in communities of color. Addressing the cumulative impacts of water issues and advancing the state of water infrastructure across the nation is a collaborative process that needs to be conducted in partnership with and driven by the communities most impacted.

Implementation of the IIJA is occurring during a time of historic commitment to environmental justice under the Biden administration. Through the Justice40 Initiative, IIJA investments, when they are equitably made, can be used to maximize benefits to disadvantaged communities.

The IIJA represents an opportunity for public health officials to work with communities and water systems to provide significant and sustainable water infrastructure contributing public health benefits towards environmental justice and equity.



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Water Contamination and Environmental Racism

Perhaps the most prominent example of water contamination linked to environmental racism, community disinvestment and residential segregation is the Flint, Michigan water crisis, in which the state government switched the city's water supply to cut costs, resulting in toxic lead contamination to the majority-black community. Another example is Newark, New Jersey, which also experienced unsafe lead levels in drinking water due to aging lead pipes.

Fedinick, K.P., Taylor, S., and Roberts, M. (2019 September). Watered Down Justice. Retrieved from <https://www.nrdc.org/sites/default/files/watered-down-justice-report.pdf>

Major IJA program focuses

SUPPORT IS FORMULA-BASED ON STATE NEED AND FUNDING IS SPREAD OVER MULTIPLE YEARS.

DRINKING WATER STATE REVOLVING FUND LEAD SERVICE LINES REPLACEMENT

Funding for lead service line replacement projects and associated activities directly connected to the identification, planning, design and replacement of lead service lines. Forty-nine percent of funds are eligible to be grants and principal forgiveness loans. States initially receive funding, then provide funds to water utilities and/or municipal and other eligible entities.

\$15
BILLION

DRINKING WATER STATE REVOLVING FUNDS (SRF)

States are required to give priority for the use of these funds to: 1) address the most serious risks to human health; 2) ensure compliance with the requirements of the Safe Drinking Water Act; and 3) assist systems most in need on a per household basis according to state affordability criteria. Forty-nine percent of funds are provided to communities as grants and principal forgiveness loans.

\$11.7
BILLION

CLEAN WATER STATE REVOLVING FUNDS

Federal-state partnership that provides communities low-cost financing for a wide range of water quality infrastructure projects. Forty-nine percent of funds are available for grants and principal forgiveness loans.

\$11.7
BILLION

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) AND EMERGING CONTAMINANTS

Funding for states and water utilities to be used in the treatment of any pollutant that is a PFAS or any pollutant identified by the EPA Administrator as a contaminant of emerging concern.

\$10
BILLION

WATER INFRASTRUCTURE IMPROVEMENTS FOR THE NATION SMALL AND UNDERSERVED COMMUNITIES EMERGING CONTAMINANTS GRANT PROGRAM

Provides grants to public water systems in small and underserved/ disadvantaged communities that are unable to finance activities needed to comply with drinking water regulations. Prioritized funding to focus on small and disadvantaged communities in addressing emerging contaminants, including PFAS.

\$5
BILLION

DRINKING WATER SRF EMERGING CONTAMINANTS

Drinking Water SRF funding (see above), with eligible projects limited to those that address emerging contaminants, such as PFAS. Funds are provided to communities as grants and principal forgiveness loans.

\$4
BILLION

CLEAN WATER SRF EMERGING CONTAMINANTS

Clean Water SRF funding (see above), with eligible projects limited to those that address emerging contaminants, such as PFAS. Funds are provided as grants or principal forgiveness loans.

\$1
BILLION

INDIAN WATER RIGHTS

To satisfy obligations under Indian water rights settlements³ enacted as of November 15, 2021.

\$2.5
BILLION

INDIAN HEALTH SERVICE WATER AND SEWER

Provides funds for the provision of domestic and community sanitation facilities for Tribal communities.

\$1.8
BILLION

RURAL WATER

Invests in water infrastructure projects in rural communities.

\$1
BILLION

INVESTMENTS ARE ONLY THE BEGINNING

The EPA estimates that there are between 6 to 10 million lead service lines in the country.⁴ The agency has also identified more than 120,000 sites across the U.S. with possible PFAS contamination.⁵ While \$15 billion is directed toward replacing lead pipes, estimates from the EPA project that it will cost at least \$45 billion or more to remove all the lead from pipes across the U.S.⁶ Similarly, although \$10 billion is dedicated toward addressing emerging contaminants (including PFAS), this investment may also not cover all that is needed. For example, Orange County, California has estimated that it will cost at least \$1 billion for the infrastructure needed to lower the levels of PFAS in its drinking water to California's recommended levels.⁷ These considerations indicate further need for water infrastructure investment and leadership to ensure that these investments are equitably driven.

PUBLIC HEALTH PROFESSIONALS — OPPORTUNITIES FOR ACTION

The IJJA represents significant promise for improving public health by making our water cleaner and safer and our infrastructure more resilient to climate change. Fulfilling that promise will take leadership, support and guidance from public health professionals.

PUBLIC HEALTH OFFICIALS CAN:

ENSURE DECISIONS REGARDING IJJA IMPLEMENTATION ARE EVIDENCE-BASED AND ADDRESS HISTORIC AND CURRENT PATTERNS OF ENVIRONMENTAL RACISM.



- » Guide equitable investing of these funds by providing comprehensive health inequity research.
- » Work with water utilities, strengthen community partnerships and support evidence-based policies and practices that center equity in lead service line replacement and PFAS contamination clean-up.⁸
- » Ensure that the greatest number of lead service lines are replaced in communities that are already disproportionately exposed to lead from a variety of sources.
- » Advance the use of return on investment (ROI)⁹ as a useful measure of equitably driven service line replacement as long as it considers the full socioeconomic impact.
- » Ensure investment and program focuses on lead pipes and PFAS testing and contamination clean-up across the nation, especially in communities that are at risk, through partnerships with water utilities and state environmental offices.

HELP STATE AND LOCAL AGENCIES AND PRIVATE PARTNERS TO UNDERSTAND A HEALTH IN ALL POLICIES (HIAP) APPROACH TO WATER INFRASTRUCTURE DECISIONS.^{10,11}



- » Support the incorporation of a racial equity and justice lens in lead service line replacement.
- » Provide public health data linked to inequitable water infrastructure quality, access and regulations.

PARTNER WITH UNDER-RESOURCED AND UNDERSERVED POPULATIONS TO IDENTIFY EQUITY GAPS IN INVESTMENT PROCESSES, SERVICES, PROGRAMS AND POLICIES.



- » Provide opportunities for community engagement¹² on funding programs and prioritizing investments, such as creating community-based participatory partnerships.¹³
- » Recognize the historic impact of redlining, underinvestment and other discriminatory practices on water infrastructure access.¹⁴



PFAS CLEAN-UP

AGENCY OF TOXIC SUBSTANCES AND DISEASE REGISTRY (ATSDR)

MAPPING & TESTING

ATSDR works with state departments across the U.S. to collect environmental samples and evaluate levels of PFAS in the indoor and outdoor environment that may be contributing to elevated levels of PFAS in people's blood.¹⁵

EXPOSURE ASSESSMENTS

The Centers for Disease Control and Prevention (CDC) and ATSDR are conducting exposure assessments in communities near current or former military bases and that are known to have PFAS in drinking water to provide information to communities about levels of PFAS in their bodies and help inform future studies on the impact of PFAS exposure on human health.

HEALTH STUDIES

CDC/ATSDR are conducting health studies to learn more about the relationship between PFAS exposure and health outcomes to allow communities and governmental agencies to make better decisions about how to protect public health.

Learn more at <https://www.atsdr.cdc.gov/pfas/activities/index.html>.

Considering the significant links between water, health and equity, the IJJA is an opportunity to protect and advance public health through water infrastructure advancement. To ensure this investment fulfills its potential in improving our nation's water systems, cross-sector support and collaboration, as well as comprehensive accompanying strategies that incorporate health considerations, are important sustainable actions. This type of work is most successful when all levels of government, health organizations and experts and community stakeholders work together to create equitable policies and programs that address water infrastructure and access and related health impacts.

FIND OUT MORE INFORMATION ABOUT THE IJJA

Visit: <https://www.whitehouse.gov/wp-content/uploads/2022/05/BUILDING-A-BETTER-AMERICA-V2.pdf>

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ABOUT THE NATIONAL ENVIRONMENTAL HEALTH PARTNERSHIP COUNCIL

The National Environmental Health Partnership Council comprises a variety of agencies and organizations dedicated to environmental health within the US. The NEHPC strives to support healthy people by working for healthier environments.

The NEHPC brings together diverse stakeholders to help expand and sustain awareness, education, policies, and practices related to environmental health.

The NEHPC strives to:

1. Build a collective voice in support of priority environmental health issues.
2. Foster and coordinate activities to advance environmental health.
3. Communicate new information and research to support better and more effective environmental health programs, practices, and policies.
4. Promote ways to leverage current and future resources to maximize the impact of environmental health activities.
5. Generate momentum and build greater public awareness of the role that environmental health plays in sustaining and promoting human health.

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