



The International Water, Sanitation
and Hygiene Foundation

2023 YEAR IN REVIEW

IMPACTFUL PLUMBING
AROUND THE WORLD



PUBLIC CHARITY OF THE IAPMO GROUP



OUR MISSION

We are the International Water, Sanitation and Hygiene Foundation (IWSH). **We unite innovators, plumbers, manufacturers, researchers, and NGOs to bring clean drinking water and safe sanitation** to historically underserved and under-resourced low-income and indigenous communities.

We measure our success in lives, water, and total lifecycle costs saved, contributing to strong, healthy communities.



VIEW OUR 2024-2026
PROGRAM GUIDE BY
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MESSAGE FROM IWSH LEADERSHIP

Proper plumbing systems help deliver drinking water, remove wastewater safely, and allow for people to tend to their hygiene needs.

Our work advances the United Nations Sustainable Development Goal #6: ensuring availability and sustainable management of water and sanitation for all. Billions of people around the world lack access to safe water, sanitation, and hygiene (WASH) services. The communities most affected are in low-income, underserved, and under-resourced areas, and they are vulnerable to the impacts of climate change and aging infrastructure. These marginalized groups often don't have basic human services like access to clean water and adequate sanitation, putting them more at risk of waterborne illnesses and infections that can gravely affect their quality of life.

In 2023, our partners, volunteers, and sponsors have helped us deepen our impact worldwide, launching new community plumbing projects and social impact initiatives in the United States, Australia, Germany and Ireland.

IWSH has also grown this past year. We are now registered as a charity in Australia, which will enable us to drive stronger partnerships and programs in the Asia-Pacific region. We refreshed our website and had our best Giving Tuesday donation drive ever. And we've developed a new Program Guide that outlines our three-year approach to how we will coordinate the resources of the plumbing industry to address WASH challenges worldwide.

We have exciting years ahead, and we are thrilled to share this past year's accomplishments with you.

Gary Hile
Chair, IWSH Board of Trustees



Across the globe, IWSH provides humanitarian support to those in need of improved water services, working hand-in-hand with the local community, our partners, and IAPMO's dedicated volunteers. In 2023, IWSH deepened its impact worldwide, launching new community plumbing projects and social impact initiatives in the [United States](#), [Australia](#), [Germany](#) and [Ireland](#).



ACHIEVED IMPACT

ISH — the world's leading trade fair for HVAC + Water — is a biannual conference bringing together industry stakeholders. Using this platform, IWSH worked with partners to design and implement a new corporate social responsibility approach for the ISH trade fair. Profiling certified materials and young plumbers who performed installations, IWSH coordinated delivery of new plumbing systems to benefit a nearby sports club. This inaugural, social impact event opened the door for further, larger plumbing industry collaborations at future shows.

Promoting Young Plumbers on the Global Industry Stage

DATE & LOCATION

March 2023

ISH Frankfurt 2023

Frankfurt am Main, Germany

THE PROBLEM

Aged infrastructure was replaced and upgraded in changing area washrooms as part of larger building renovation works at the Eintracht Frankfurt 'Niddahalle' sports complex, which is home to several teams and clubs including rugby, tennis, gaelic football, handball, martial arts and gymnastics, and is used by hundreds of people from the local community every day.

IWSH ACTIVITIES

ISH's event focused on promoting innovations for achieving climate-protection targets and a responsible and efficient use of resources. IWSH collaborated with World Plumbing Council member organizations to assemble a team of twelve young plumbing apprentices, representing eight different countries to build a model project at the trade show. The apprentices then worked together to reuse event materials to install the new washroom facilities.

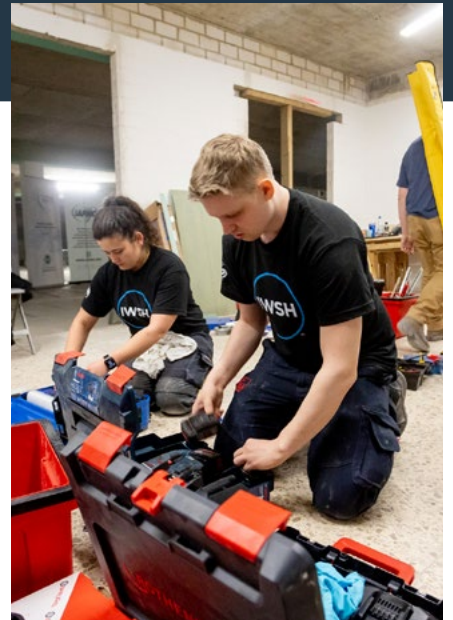
PROJECT PARTNERS

- World Plumbing Council
- Messe Frankfurt
- Geberit

“ We all know that to reach our Climate Change goals of Net Zero by 2050 we really have big challenges ahead for our economy, but opportunities as well. I think that for us to be able to embrace the Green Transition and to have a more sustainable future we really need young people — like the [Plumbing Champions] teams here today — who know how to get us there. They have the skills that can help us have not only a green economy but a green society as well. ”

Anne-Marie Flynn

Consul General of Ireland, Frankfurt (Germany)



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ACHIEVED IMPACT

At the 2023 United Nations Water Conference, we launched global initiative with national governments and international organizations to work towards lead-free drinking water by 2040. The pledge focuses on improving water quality by constructing new water systems with products and materials that meet international standards for lead-leaching, material safety and performance and by eliminating counterfeit, unsafe products from the market.

Launch of Global Lead-Free Pledge and Partnership at United Nations

DATE & LOCATION

March 2023

United Nations Water Conference
New York City, NY — USA

THE PROBLEM

Globally, 800 million, or roughly 1 in 3, children have elevated levels of lead in their blood. Lead is a toxin that irreversibly impacts neurological and cognitive development. Acute or chronic childhood exposure to lead causes lifelong harm. Exposure of pregnant women to high levels of lead can cause fetal deaths and developmental abnormalities. Yet today environmental exposures to lead remains a significant global challenge.

IWSH ACTIVITIES

IWSH, along with other sector partners, utilized the UN Water Conference platform to convene a briefing about the role of the plumbing industry for implementing clean drinking water services. This included understanding the global lead problem, identifying solutions, and forming commitments to improve water quality through products and qualified personnel. This work is now included as part of UN's official Water Action Agenda.

PROJECT PARTNERS

Founding partners include representatives from Ghana, South Africa, Uganda, UNICEF, World Health Organization (WHO), The Hilton Foundation, University of North Carolina's Water Institute, World Plumbing Council, LIXIL, and other international stakeholders.

“ Access to safe drinking water is fundamental to improve public health outcomes within vulnerable communities. We must accelerate progress towards improving water quality globally and the Hilton Foundation is committed to doing our part and joining efforts to work towards lead-free water supplies. ”

Peter Laugharn

President and CEO,
Conrad N. Hilton Foundation



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ACHIEVED IMPACT

IWSH improved access to safe, convenient, and affordable laundry facilities for hundreds of students living on campus at Bacone College – Oklahoma’s oldest operating institution of higher learning serving American Indian students.

Improving Hygiene Facility Access for American Indian Students

DATE & LOCATION

April 2023
Bacone College
Muskogee, Oklahoma — USA

THE PROBLEM

Affordability is a major barrier to a college education for many Native students — tribal colleges and universities give Native students an opportunity to earn a degree close to home at a low cost. At Bacone College, students living on campus did not have access to convenient or affordable laundry amenities.

IWSH ACTIVITIES

The IWSH team spent a week remodeling an existing classroom and transforming it into a laundry facility that includes two sets of washers and dryers, and a wash sink. The work included installing drains, water lines, gas piping, and venting, and was implemented by volunteer licensed plumbers. IWSH also contracted with local carpenters and electricians to implement components of the project.

PROJECT PARTNERS

- Bacone College Administration
- Daughters of the American Revolution (Illinois State Organization of the National Society)

“ Because we’re a historic college, many of our plumbing and HVAC systems are dated. Here at Bacone, our goal is to provide quality education and help American Indians improve their future and gain access to opportunities. This laundry facility is one facet of improving student life by providing access to affordable and reliable hygiene services. Thank you to IWSH for what they did for our students – a seemingly small project will make a huge difference in the students’ lives. ”

Dr. Leroy Thompson
Chief Operating Officer, Bacone College



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ACHIEVED IMPACT

IWSH helped build increased community participation in the ongoing Black Belt Unincorporated Wastewater Program by teaching Lowndes County residents how to evaluate their indoor plumbing systems using a bespoke IWSH Household Plumbing Survey. Licensed volunteer plumbers also repaired systems in homes throughout the local area, improving access to clean drinking water, reducing the burden on septic systems, limiting water waste, and reducing utility fees for homeowners.

Building Local Capacity to Increase Household Water Efficiency

DATE & LOCATION

May 2023

Black Belt Unincorporated Wastewater Program
Lowndes County, Alabama — USA

THE PROBLEM

Marginalized communities throughout the southern part of the United States lack proper sanitation services, which threatens their public health and the environment. Many homes have aging and outdated plumbing systems – with little understanding of where safety and efficiency can be improved – and a shortage of qualified plumbers to respond to and provide meaningful solutions.

IWSH ACTIVITIES

IWSH led a Household Plumbing Survey training for BBUWP staff and 12 high school students from Lowndes County, enabling them to assess local homes' plumbing systems and gathering essential data to inform needed repairs in future. IWSH also organized licensed staff and volunteer plumbers from UA Local Unions 52, 91, and South-Central Pipe Trades to conduct repairs in ten homes, over five days.

PROJECT PARTNERS

- Blackbelt Unincorporated Wastewater Program
- LIXIL Americas

“ IWSH’s survey provides the necessary information to guide home plumbing repairs, helping us to create a more sustainable wastewater program. The training IWSH led for the local high school students will equip teenagers with the information and tools to conduct these assessments and perform a much-needed service in their own community. The students learn the correct terms about plumbing systems and begin to understand what’s not working within homes, and why. Now they’re an integral part of improving people’s quality of life in Lowndes County. ”

Sherry Bradley

Executive Director, BBUWP



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ACHIEVED IMPACT

“Going beyond conventional...” IWSH demonstrated the appropriate design, installation, and maintenance of engineered septic systems, which can be utilized where conventional, gravity-fed septic systems are failing. The pressurized mound septic systems serve as a working demonstration for Navajo officials, chapter leaders, tradespeople, non-profits, and community members to learn about alternative sanitation solutions.

Engineered Septic Systems for Navajo Nation Homes

DATE & LOCATION

August 2023

Baca-Prewitt Chapter, New Mexico

Navajo Nation — USA

THE PROBLEM

A 2021 Tribal report to U.S. Congress showed that more than 15,000 homes in the Navajo Nation need sanitation facility improvements. Indian Health Services reported that many homes in the Baca-Prewitt area of Navajo Nation either have failing septic systems or have no system at all (e.g. outhouses). And though the agency is committed to providing solutions, there is a great need to repair or replace failed, conventional septic systems.

IWSH ACTIVITIES

IWSH evaluated soil conditions at multiple sites in Baca-Prewitt and determined what types of septic system would be suitable at each home. Our team of Master Plumbers, with specific qualifications and extensive experience with septic systems, designed and installed two mound septic systems. IWSH invited IHS, NN EPA, and Navajo Engineering and Construction Authority (NECA) to tour the sites. We also convened a sanitation stakeholder meeting with Navajo officials, Chapter leaders, local tradespeople, non-profits, and community members to discuss the current state of septic systems in the area, ideas for improving design and installation through training and education, and leveraging sector resources for alternative septic systems.

PROJECT PARTNERS

- DigDeep
- Indian Health Services (IHS)
- Navajo Nation Environmental Protection Agency (EPA)
- Baca-Prewitt Chapter Leaders

“ Many of the homes in the Baca area either have failing septic systems or have no system at all. Failed septic systems are affecting the quality of life of Navajo people and will continue to impact the health of the community. The two demonstration projects IWSH designed and installed help to inform our community and local decision makers about different and effective ways to implement sanitation programs. ”

Cindy Howe

Navajo Water Project Director, DigDeep



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ACHIEVED IMPACT

“From skill test to real install...” twelve young plumbers from across Australia, competing in their national skills competition finals, prepared sixteen new hand wash stations for installation at a disability enterprise in Mooroopna, Victoria. This facility is owned and managed by Yooralla, an organization that supports people with disabilities of all ages and needs across Melbourne and regional Victoria.

Connecting Skills Showcase with Local Community Enterprise

DATE & LOCATION

August 2023
WorldSkills Australia National Championships & Skills Show
Melbourne — Australia

THE PROBLEM

The Mooroopna enterprise site has a long history in the local community, established in 1975 by parents of people with disabilities and taken over by Yooralla soon after. As staffing and overall use of the facility has grown over the years, the original handwashing stations in the main workshop and male and female bathrooms were all in need of upgrade and reducing overcrowding: modernizing them and making them fit for purpose.

IWSH ACTIVITIES

IWSH developed improved handwash station designs together with the social partner, and presented this assembly activity as a Plumbing Champions team project on the final day of the national skills competition. Completed systems were transported to the Yooralla site, where they were installed as part of a training exercise by volunteers from the RAW Group Training Organization: a company that provides host employers and Aboriginal job seekers culturally safe employment opportunities across corporate Australia. This coordinated social impact initiative was a first-of-its-kind for the WorldSkills Australia event.

PROJECT PARTNERS

- WorldSkills Australia
- Yooralla
- Reece
- PICAC

“ This is a good opportunity to give back to the community; it’s a volunteering exercise. They learn from each other, we all learn together. Different products, different styles, techniques... different language! It’s always a good laugh because everyone has a different way of approaching things... the friendships built in these situations are priceless. ”

Grant Stewart

IWSH International Program Director



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ACHIEVED IMPACT

IWSH presented a social impact initiative as part of the Plumbing and Heating competition at the WorldSkills Ireland National Skills Competition. New plumbing systems, assembled as a training project, were transferred and installed at a local social housing property. This unique training activity stood out at the national skills competition event by first demonstrating and then delivering a real-world application of plumbing system design and installation.

Supporting Social Housing Programs Through Apprenticeship Training

DATE & LOCATION

September 2023
WorldSkills Ireland National Skills Competition
Dublin — Ireland

THE PROBLEM

A full bathroom renovation was provided for an elderly couple with mobility issues, creating a new walk-in wet room for their social housing property where a small and cramped bathroom had existed previously.

IWSH ACTIVITIES

Leveraging IAPMO's position as a WorldSkills Global Industry Partners, IWSH coordinated the support of GROHE, who donated products and materials required for the social housing bathroom renovation; DHL, who provided transportation and delivery from the competition venue to the social housing site; and Jones Engineering — sponsor of the WorldSkills Ireland Plumbing and Heating competition — whose apprentices oversaw the assembly and installation of the new plumbing systems.

PROJECT PARTNERS

- WorldSkills Ireland
- GROHE
- Jones Engineering
- Peter McVerry Trust

“ I’m only 22 years of age... the housing crisis can affect anybody in this country, absolutely. But especially younger people, of today’s Irish generation. It’s something that we can’t go out and do: we all can’t go out and get our own house, we can’t go and renovate our own bathroom, we can’t go and get work done. But it’s great to be the person actually going and doing this, to help someone. It is a fantastic opportunity. ”

Thom Maguire

Plumbing Apprentice, Jones Engineering



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ACHIEVED IMPACT

Navajo Technical University concluded the first year of its new plumbing training program, using a new classroom facility and materials that IWSH developed. The new program covers foundational plumbing skills so students can address basic plumbing repairs in their homes and communities, and pursue further training towards formal professional qualifications. Students are equipped with essential, hands-on knowledge and a chance to explore a career in the plumbing trade.

Curriculum and Classroom for Navajo Technical University

DATE & LOCATION

August and December 2023
Navajo Technical University
Kirtland, New Mexico — USA

THE PROBLEM

More than 30% of people living in Navajo Nation still don't have a tap or toilet at home. In fact, Navajo people are 67 times more likely than other Americans to live without running water or a toilet. There was no locally available program for Navajo learners to access the plumbing trade and in turn develop a career in the sector.

IWSH ACTIVITIES

IWSH developed an entry-level plumbing curriculum and constructed a hands-on training facility for Navajo Technical University's first-ever plumbing program – the only course of its kind in Navajo Nation. A qualified instructor was selected and then was trained by IWSH to teach the course materials.

PROJECT PARTNERS

- Navajo Technical University
- Local Union 412
- American Technical Publishers
- DigDeep

“ We at NTU are proud to have partnered with IWSH and DigDeep to develop a new course and training facility focused on plumbing systems. We are excited to begin training students to become plumbers and support our community. The new plumbing course at NTU will give students the valuable skills to help many households fix their poor plumbing and improve safe access to clean water. ”

Dr. Elmer Guy

President, Navajo Technical University



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Texas Gulf Coast Chapter of IAPMO • Central California Chapter of IAPMO
Iowa Chapter of IAPMO • Southern Nevada Chapter of IAPMO
Nebraska Chapter of IAPMO

- **Apprenticeship Training Trust (New Zealand)**
- **Association of Plumbing Professionals, Burkina Faso**
- **Coe Plumbing (Oklahoma, US)**
- **Connect Trade Union (Ireland)**
- **Consulate General of Ireland, Frankfurt (Germany)**
- **D'Plumbing (India)**
- **DHL (Germany and Ireland)**
- **Eintracht Frankfurt e.V. (Germany)**
- **Gansee Films (Ireland)**
- **IIT Palakkad (India)**
- **Innung SHK Frankfurt (Germany)**
- **Innung SHK Schweinfurt (Germany)**
- **Institute of Plumbing, South Africa**
- **Jones Engineering (Ireland)**
- **Keystone Foundation (India)**
- **Local Union 412 (New Mexico, USA)**
- **Local Union 52 (Alabama, USA)**
- **Local Union 760 (Alabama, USA)**
- **Local Union 91 (Alabama, USA)**
- **Mercury Engineering (Ireland)**
- **Peter McVerry Trust (Ireland)**
- **Philippine Society of Sanitary Engineers**
- **Plumbers Association of Zambia**
- **Property Services Ltd. (Ireland)**
- **RAW GTO (Australia)**
- **Reece Foundation (Australia)**
- **Riverside Rotary Club (California, US)**
- **Rwanda Plumbers Organization**
- **Southcentral Plumbing Trades (United States)**
- **Sticky Situations (South Africa)**
- **Technical University Dublin (Ireland)**
- **The Drain Whisperer (California, USA)**
- **WASSUP Diepsloot (South Africa)**
- **WKO (Austria)**
- **Woolsey Plumbing (Wisconsin, USA)**
- **WorldSkills Liechtenstein**



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