By Mike Flenniken

Putwett, New Mexico, resident Marie Jones has never had running water in the house her father built, despite repeated pleas for help. But thanks to the International Water, Sanitation and Hygiene (IWSH) Foundation’s most recently completed Community Plumbing Challenge (CPC) event, clean, running water is now only a turn of the faucet away.

“I’m so happy and excited with the water,” said Jones, who frequently takes care of her grandchildren. “I’m just so thankful, because I don’t know how I would have done this. Now I won’t be depending on somebody to get water for me, and water in a bucket doesn’t last long.”

The focus of the latest CPC collaboration was the Navajo Water Project, an initiative of the U.S.-based nonprofit organization DigDeep that was among the 2018 recipients of the U.S. Water Prize. The initiative’s goal is to help ensure that every American has clean, running water forever. The St. Bonaventure Indian Mission and School in Thoreau, a small town in Northwestern New Mexico, hosted this CPC event from Oct 22–26, 2018, following a series of meetings between DigDeep and IWSH organizing teams, plus preparatory visits to the area earlier in the year.

CPC Navajo Nation represents the first time a Community Plumbing Challenge has been hosted in the United States, following projects in Nashik, India (2015); Diepsloot, South Africa (2016); and Cikarang, Indonesia (2017). IWSH officials are hopeful it signals the beginning of increasing IWSH involvement in helping tackle the growing water and sanitation issues that affect the health and safety of more than 1.6 million American citizens.

“We’re here to give life-changing experiences and bring water and sanitation to people who haven’t had it for years,” said IWSH Managing Director Dain Hansen. “But also with that, we’re giving them the skills to be able to do that themselves in the future, so they can do this long term. We’ve partnered with St. Bonaventure, we’ve partnered with DigDeep, we’ve partnered with Navajo Technical University.”

“This has been an incredibly rewarding, yet challenging, week,” said IWSH Project Manager Grant Stewart. “Many families are
Haystack resident Loretta Smith’s daughter, Cheryl Smith, washes her daughter Elayna’s hair in a plastic basin filled with water from a barrel outside the home. A day later, this would no longer be necessary as Loretta Smith’s home was equipped with a fully functioning shower by an IWSH team.

PHOTO BY GEOFF BILAU
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OFFICIAL

At right, morning briefing at the St. Bonaventure Indian Mission and School across from Dig Deep headquarters.

Below, CPC Navajo Nation teams gather for a day-end briefing at DigDeep headquarters in Thoreau, N.M.

PHOTOS BY GEOFF BILAU

At right, morning briefing at the St. Bonaventure Indian Mission and School across from Dig Deep headquarters.

Below, CPC Navajo Nation teams gather for a day-end briefing at DigDeep headquarters in Thoreau, N.M.

MAKING THINGS WORK

Jones' home was one of 10 nominated by DigDeep for October’s CPC Navajo Nation event. None of the homes had adequate sanitation systems, running water or safe electrical systems. By the end of an intensive week, they all had been connected to a wastewater system, nine of the 10 now have running water inside the home, and all have a safe electrical system. A multi-disciplined team of more than 25 skilled tradespeople traveled from throughout the United States and as far as away as Australia and South Africa to perform the work.

Jones' sister and next-door neighbor, Angie Yazzie, was also a beneficiary of the project. She still lives in the house her grandfather living without running water and sanitation. The few that do have access to well water, in several cases find that water is so contaminated that it is unusable. Therefore, this year, we were forced to use many different approaches to provide adequate access to water and sanitation — repairing homes and connecting them to utility water, installing 1,200-gallon water cisterns, and connecting homes to safe wastewater systems. This required a wide range of products and skill sets, which is why it is so gratifying to see the entire industry step up to help a community in need.”
built, along with her daughter and two granddaughters. She also frequently cares for her grandson while her son is in school.

Yazzie said St. Bonaventure installed a water tank behind the house about two years ago that allowed them to use the kitchen sink, but they still had to use an outhouse that was on the property.

“It’s hard in the winter days when we go,” she said. “It’s really cold to walk over there. So, I’m just happy that there’s a restroom for us now.”

Baca-Prewitt Chapter President Cecil Lewis Jr. explained that new sanitary facilities in these households will give many local children a better opportunity to pursue their education.

“A lot of our youth miss out on schooling due to no restrooms,” he said. “There’s usually about three to nine people in one house. Illness comes upon them because they don’t take care of themselves because of lack of water.”

Cindy Howe, DigDeep’s Project Manager for the Navajo Water Project, joined the organization in May after 10 years with St. Bonaventure. She is well acquainted with the residents’ plight, and said many have been promised clean water and safe sanitation for years, only to see those promises go unfulfilled. Howe said as a result, the first thing DigDeep has to do is gain locals’ trust, followed by encouraging them to participate in the process by preparing
Top, outhouses are still common at the homes of Navajo Nation residents, something IWSH sought to change.

Middle, Angie Yazzie’s grand daughter, Angelina, plays with the cardboard boxes that held new American Standard fixtures installed in Yazzie’s home.

Bottom, UA Local 412 Business Manager Courtenay Eichhorst discusses site improvements with Baca Prewitt Chapter President Cecil Lewis Jr.

PHOTOS BY GEOFF BILAU

their properties and making sure they meet with Navajo Tribal Utility Authority (NTUA) officials when necessary.

“They had to have their hands in the pot, as well,” she said, explaining that she tells residents, “You have to help, you have to help me do this if you want this done.” So, that was really hard for me to do because people, they don’t like to travel, they don’t have money sometimes for gas or whatever.”

While some residents have never been connected to the NTUA water system, others were connected at one time but were no longer getting water because their system may have broken and they were unable to make the necessary repairs. Howe said DigDeep works with the NTUA and the Gallup Water and Sanitation Department to get the as-built drawings for the homes to determine how to get reconnected to the NTUA water system. In some instances, DigDeep paid outstanding fees, she said.

Howe said she sometimes has trouble sleeping at night knowing that many people on the reservation don’t have such basic necessities, but now rests easier knowing the CPC has already made a number of people’s lives better.

“This project has made a big difference in a lot of people’s homes and families, and I’m very happy to be part of it,” she said. “I’m hopeful this will continue, and it sounds like it might. So, I’m very happy for that.”

People who are hooked up to the NTUA water system are responsible for maintaining everything from the meter to the house, and Howe explained that DigDeep teaches the homeowners how to maintain the systems and provide information on what to do if something breaks or stops working. While DigDeep is always happy to help at first, once a new system is installed, as time goes on the residents must take ownership, she said.

“After everything is done I’m going to go back out and let these people know — because sometimes people will drive over pipe or something close to the meter, or maybe like cows and horses, they roam around here — ‘You guys have to take care of this,’ ” she said. “‘If anything breaks, it’s really your responsibility. It’s not DigDeep’s or it’s not this group that came, it’s not their responsibility, it’s going to be yours.’ So, you have to give
them a little bit of, something to do. They have to be responsible, as well.”

Loretta Smith, whose home was the most remote of the 10 selected for the CPC project, was overjoyed. She lives next door to her brother and nephew — who also had work done on their home — and regularly takes care of her grandchildren. Because of the remote location, rather than being connected to the water system both homes use cisterns provided by the Office of Environmental Health. Previously they had to hand carry the water from barrels in the front yard; thanks to the CPC, they are now able to access that water using indoor fixtures. Volunteers also dug leach fields and installed septic systems for each home’s bathroom, meaning the residents will have indoor plumbing for the first time.

“We’ve never been helped like this before,” she said. “It’s nice and it’s perfect. I was happy when they came around here. I’m glad that they’re here. They keep asking me how I’m going to feel when they finish it. I tell them, ‘I’ll jump up and down!’ ”

‘IT’S UNBELIEVABLE’

CPC team member Tom Gugino, who served as IWSH’s first chairman from 2016 to 2018, said it was fulfilling to see the organization continue to grow.

“To have candidates and help come from all different countries, that’s what’s so special about it,” he said. “That’s what we need. You can’t be one-dimensional; you need to be inclusive, and I think we’re getting closer.”

This was IAPMO Field Services Manager Jed Scheuermann’s first involvement in an actual CPC week, having previously taken part in preparatory works for what eventually became a CPC program in Diepsloot, South Africa, in 2016. Over his 30-year career he has worked on similar projects in every continent except Antarctica.

Scheuermann said it was rewarding to be able to use his skills and his profession to help change people’s lives, because for the beneficiaries it’s a quantitative and a qualitative change.

“It’s unbelievable,” he said. “I never imagined I could change people’s lives like that over
access to potable water and sanitation, and the satisfaction you get from changing people’s lives, the joy and the thankfulness at their end, is unbelievable. So, I’m going to keep on doing it until I can’t.”

Randy Lorge, Training Manager for UA Local 400 Plumbers & Steamfitters in Kaukauna, Wisconsin, also participated in the three previous international Community Plumbing Challenges. He said the Navajo Nation CPC was unlike anything he had ever experienced.

“In all my travels to overseas countries helping deliver safe water and sanitation systems, I have never seen conditions as upsetting as I did this week on the Navajo Indian reservation,” he said. “It was one of the most exhausting but worthwhile weeks of my life. I am so proud I was able to be a part of the Community Plumbing Challenge once again — this time, in my own country — and to have the opportunity to work with other like-minded plumbers from not only the United States but around the world.”

One of those plumbers was Obed Kekae, a Diepsloot, South Africa, resident who hosted and participated in the 2016 CPC. This was his first visit to the United States.

“Plumbing goes hand in hand with health,” he said, “so I saw the need to come here because what they did back in South Africa, it was massive, and even the community where they helped, they’re still happy about the service that they got from IAPMO and IWSH. So, I had to extend a helping hand, too.”

Amy Kosterman, a plumber from Melbourne, Australia, was sponsored by the Plumbing Industry Climate Action Centre (PICAC). She said she was immediately interested in participating and would jump at the chance to take part in another one.

“I didn’t know what to expect at all, but it’s unbelievable,” she said. “The cultures and everything about it are very different to Australia. We take it so much for granted and they still live such a happy life without it.”

Plumber Michael Wiech also made the trip from Australia. The Brisbane resident said he first learned about the Community Plumbing Challenge by watching a live video stream via Facebook on World Plumbing Day 2018, in which previous CPC participant Aidan Ward presented the story of his CPC experience in
Above, A CPC crew installs insulation to newly installed plumbing in the kitchen of Regina Vandever’s home.

At left, A CPC crew installs a new water heater at Loretta Smith’s home.

PHOTOS BY GEOFF BILAU
“This experience has been unbelievable,” Wiech said. “The day we turned the lady’s water on in that house, and I saw tears coming out of her eyes, I was just full of emotion. It was just amazing to think that the lady had lived in that house with actual plumbing in there that didn’t work, for 15 years, with no water, no sewage, having to go to the outhouse every day, every night, and in the cold here? To help was just amazing. Just an amazing feeling.”

FINDING SOLUTIONS


Indonesia to an industry audience gathered at PICAC.

Above, Courtenay Eichhorst shows Regina Vandever the outside hose bib his crew installed, connecting her home to a water utility line for the first time in more than a decade.

At right, Sammy Maes of Local 412, measures during the installation of a water heater at his crew’s site.

PHOTOS BY GEOFF BILAU
Above, Angie Yazzie supervises work in the kitchen of her home in Baca, N.M.

At left, Ian Longacre connects a new faucet to a now functioning sink basin in Yazzie’s bathroom.

PHOTOS BY GEOFF BILAU

more than 1.6 million people across the U.S. without access to clean water and safe sanitation.

Heinrich said the geography of the Navajo Nation is so challenging that multiple things must be done at the same time to be able to create the basic infrastructure in places like Thoreau. The federal Navajo-Gallup Water Supply Project will result in hundreds of miles of new supply line, but remote areas such as Thoreau may remain out of reach for the time being.

“That still doesn’t connect people in these really remote areas,” he said. “You have to have multiple different approaches, and having skilled labor come and make sometimes really basic fixes that make things work in somebody’s own home? That’s just invaluable, absolutely invaluable, and so I think we need to learn how to walk and chew gum at the same time, really build on these partnerships, look at how we do the same sort of approach for electrification in many of these remote locations, and all work together as a team.”

Brian Lee, who grew up on a reservation and attended on Rep. Lujan’s behalf, said it is
powerful when an organization such as IWSH comes forward and says it wants to partner with the community.

“For so long, living on the reservation, we knew that we were disadvantaged,” he said. “Living on the reservation, there is a different standard. You use an outhouse to use the bathroom. You didn’t have electricity in your house, you had a generator. You didn’t have an electric heater or gas heater, you have to bring in wood or coal. Those were our standards. We lived by those standards and they were acceptable. But now that we’re in a different time or era, we know these standards have changed and we’re playing catch up. We’re trying to figure out how to make sure we have the best available resources for residents out here because, first of all, it’s a public safety issue. It goes right to those basic necessities to battle obesity and diabetes.”

United Association (UA) Plumbers Local Union 412, which is based in Albuquerque and whose jurisdiction covers New Mexico, El Paso, Texas, and surrounding areas, sent close to a dozen plumbers to the Navajo Nation CPC. Business Manager Courtenay Eichhorst said IWSH officials contacted him earlier in the year to gauge the union’s interest level in participating. Eichhorst was immediately on board, and he’s ready for more.

“It was an eye-opener and it taught me a lot, but it was great,” he said. “Good start. I’m excited to do it again and again. Seriously.”

Eichhorst said Local 412 has been working with a nearby technical college on its welding program, and will now collaborate on a plumbing program.

“We’ve got about 250 Navajo members of Local 412,” he said. “So, we’ve got a ton of Navajo apprentices, and a lot of them don’t understand how bad some of these homes are. So, it’ll be awesome. It’ll be something we’ll continue on with.”

Local 412 Training Director Ray Trujillo said it was a valuable learning experience because while the union tried to provide as many of the tools and materials as it could, since much of the work its members perform is commercial and heavy industrial, many of the tools don’t lend themselves very easily to the residential side.
“We had a lot of learning to do on this one as far as what we think we should have out here the next time,” he said.

Trujillo said the goal moving forward is to maintain communication with IWSH and DigDeep, and get more Local 412 members involved in future efforts to bring clean water and safe sanitation to even more people.

“She said, this is our own backyard and sometimes we just don’t realize what people are doing without and things that we take for granted,” he said. “So, we’re going to see if we can stay in contact with them and try to get out here maybe once every other month, see if we can get some apprentices to volunteer so they’ll get training and they’ll be doing good for the community at the same time.”

Residents had the opportunity to show their appreciation during a community forum at the Baca-Prewitt Chapter House on Oct. 24, during which Prewitt residents Regina Vandever and the aforementioned Loretta Smith, whose homes were both recipients of CPC project works, led preparation of a dinner for all of the volunteers and other local residents. Several more of the CPC’s beneficiaries took to their feet to thank the volunteers during the emotional event.

“We hope that there are people in the room tonight — who are involved in the CPC for the first time — that will join us for the next CPC, as well,” IAPMO/IWSH Project Manager Seán Kearney said at the forum, “and we really hope that we’ve begun something important here, in our collaboration with DigDeep this week, that will continue into the future.”

**MANY HELPING HANDS**

The Navajo Nation CPC was sponsored by LIXIL/American Standard; the International Association of Plumbing and Mechanical Officials (IAPMO); Plumbers Local Union 412 (New Mexico and El Paso, Texas); the Piping Industry Progress & Education (P.I.P.E.) Trust Fund/NITC; United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States, Canada (UA); World Plumbing Council; Reliance Worldwide Corporation/Sharkbite.
Australian NGO Healthabitat has also been a key IWSH partner in the design and ongoing development of the CPC program since its inception in 2015. For CPC Navajo Nation, Healthabitat Project Manager Dave Donald oversaw a “Housing For Health” survey-fix program with a team of local community representatives and residents in the days leading up to the event. This survey helped capture detailed information on hardware defects and risks to the general health of family members in each home, which was then used to better plan and prepare renovation and upgrade works scheduled for the CPC project week.

Verne Myers, Senior Director for Advanced Technology and Development at LIXIL/American Standard, said the company is increasingly looking to engage in such philanthropic projects, and saw potential for a partnership with IWSH.

“I know that we have struggled a bit with understanding what the total landscape is and where and how the leadership will occur,” said Myers, whose company contributed plumbing fixtures and toilets. “I think there are some definite possibilities that we could connect with some of the efforts going on here with the different foundations led by IAPMO, and could prove to be very productive for us in helping...
us be efficient in how we can deliver some solutions.”

G.E. Appliances donated 12 water filtration systems and more than 60 replacement filters to the project.

“We were honored to participate in this project to help bring access to clean drinking water to the Navajo nation in Thoreau,” said Ryan Prince, Principal Program Manager — Water Appliances for G.E. Appliances. “It is the mission of G.E. Appliances, a Haier company, to enable happiness and well-being in every home and assisting residents with this basic human need through our water filtration systems is core to our purpose.”

Indians or organizations who are interested in getting involved in future Community Plumbing Challenges, or would like to join forces to support ongoing efforts around the Navajo Water Project, are encouraged to get in contact via info@iwsh.org., where further ideas or comments are greatly welcomed.

SEE MORE:

Water Is Life, a short highlights documentary explaining the story of CPC Navajo Nation and the diverse group of participants involved, may be viewed online at https://youtu.be/PzUtYpq5J34

For more information about CPC Navajo Nation, please visit the project website at www.commplumbing.org or email info@iwsh.org.
Youngster’s Wonder Brings Power of CPC to Light

By Geoff Bilau

His name is Marques. He showed me why the CPC Navajo Nation is so important, why even those Americans living in the most rural of locations have a right to the most basic necessities of safe, clean water and sanitation.

Marques is 8 years old. His knowledge of tribal politics and the affairs of government is limited. The circumstances that left his grandmother’s home, where he spends many of his after-school afternoons, without running water since before he was born are a mystery to him. But his excitement about all of that changing was unmistakable.

I attended the 2018 CPC primarily as a photographer, to document the event through pictures of the people performing the work and those it would benefit. In this role, it’s easy for me to hide behind my lens, observing as unobtrusively as possible. That all changed, however, when I visited Loretta Smith’s home in Haystack.

The most remote of the 10 sites rehabilitated by CPC teams, the drive out was often bumpy, winding, and barely marked, but my goodness is it beautiful. The question “Why would anybody want to live all the way out here?” was easily answered as sandstone cliffs and wind-eroded columns emerged around every turn.

On my initial visit to the residence, I was taken at first by the dilapidated condition of the trailer — the blue water barrels in the front yard, the worn dirt path to the outhouse, the antiquated wood-burning stove in the kitchen. I have to admit, I thought to myself this is no way for a person to live. But a couple of things happened to disarm me. First, I felt the natural heat from that stove. CPC plumber and fellow IAPMO employee Jed Scheuermann described it as a warming hug. It truly was. Then I sat down to interview Loretta.

Soft spoken and yet in her own way fiery, Loretta has lived most of her life on remote Navajo land, eschewing city life for the more traditional Navajo ways. The trailer in which she lived before this one rolled over in a severe windstorm. She’d been without running water since. Loretta was happy to be selected for the CPC improvements, but there was more than a hint of doubt it would be completed. She’d been promised many improvements in the past, but they’d always fall through.
The next day, after visiting several other sites, we returned to Loretta’s, as we’d been told the crew hoped to turn on her water before the day’s end. That’s when I met Marques — or I should say he introduced himself to me. Precocious as can be, Marques abounded with questions — about the work being done, about all of us. He stared in wide-eyed amazement as we talked with Amy Kosterman, a CPC crew member from Australia. He smiled when I
At left, Loretta Smith in the main living space of her home. Bottom left, wood burning stoves are used primarily for heating homes in Navajo Nation. Bottom right, Marques gathering freshly chopped wood for his grandmother’s home.

PHOTOS BY GEOFF BILAU

joked that I wanted to take his grandmother’s dog Max home with me. Then he asked if I wanted to take a hike with him. I happily obliged.

Marques took me on a guided tour of his grandmother’s homestead. He showed me the trees, the mountain that looks like a reclining woman, the fort he built; he taught me about the Skin Walkers, something that would no
At right, Marques in the fort he built near his grandmother’s home. Far right, Marques and me. Bottom right, Loretta Smith’s grandson (Marques’ cousin) Eleno. Bottom left, Smith’s grandchildren — from left, Marques, Elayna, Eleno, and Jorgan — give each other wheelbarrow rides.

PHOTOS BY GEOFF BILAU

At right, Marques in the fort he built near his grandmother’s home. Far right, Marques and me. Bottom right, Loretta Smith’s grandson (Marques’ cousin) Eleno. Bottom left, Smith’s grandchildren — from left, Marques, Elayna, Eleno, and Jorgan — give each other wheelbarrow rides.

PHOTOS BY GEOFF BILAU

When I recall my week with the CPC Navajo Nation, I think about Marques, Loretta, and all of her grandkids. They live freely in a wondrous place, surrounded by nature and immersed in their Native American culture. Clean, hot running water and a safe sanitation system now enhance that life in ways most of us take for granted, and its ripples will be felt for generations to come. ☟