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Community Water System Improvements

Progress of work performed January 2022 – August 2022



Water System Improvements for the communities of:
Alto Mancreek, Quebrada Pastor, Bajo Algodón, Quebrada Mina, and Buena Vista.



In collaboration with our in-country circuit riders (Nicolas and José), our WEFTA volunteers (Alexandra, Hanna, Jacob, Patrick, John, Tommy, Leo, and Father Robert), and our donors (Wardle Family Fund, Wellman Family Fund, Waterlines Sunset Fund), we are working to help these communities rehabilitate and improve their water systems.



Alto Mancreek, Comarca Ngäbe-Buglé

Project Background:

The water project in Alto Mancreek was in motion with the assistance of a Peace Corps Volunteer (PCV) when she was evacuated due to the global pandemic. The PCV has stayed in touch with the community and WEFTA to ensure that the project will be completed.

WEFTA Circuit Rider, Nicolas, worked with the community to keep momentum up to complete the spring capture, transmission line, and storage tank. The distribution line to the households is still pending.

This project, when complete, will positively impact 22 families (155 people).



Community members transport store-bought materials from the nearest road to the construction site.



Community members gather local materials and transport them to the construction site.



The spring source is captured and protected, then piped to the community via the transmission line.



The spring source is flowing well. The spring capture area is complete.



The water storage tank site is cleared and leveled. The bottom slab is poured and finished.



Steel re-bar is laid out for the final slab pour and the beginning of the tank walls.



The final tank floor is poured and finished. Steel Re-bar wraps around the tank on block courses to reinforce the tank walls.



Once the tank walls are complete, the walls are plastered to be waterproof inside and out.



The tank ceiling is formed, supported, and rebar is tied in to complete the total tank reinforcement. The tank ceiling is then poured.



The tank is complete. Outlet valves are protected with valve boxes and the outlet is connected to the distribution system.

Bajo Algodón, Comarca Ngäbe-Buglé

Project Background:

This water project was also in motion when the PCV was evacuated due to the global pandemic. The PCV has stayed in touch with the community and WEFTA to ensure the project will be completed.

WEFTA volunteers Hanna and Jacob recently spent 10 days in the community to assist in completing the water storage tank and line out work groups for project completion.

The water source, transmission line and storage tank are complete. The community is now working to finish the distribution line with the assistance of Nicolas.

Upon completion, this project will positively impact 34 families (171 people).



WEFTA volunteers, Hanna and Jacob, who worked in the community as Peace Corps Volunteers pre-pandemic, work with the community to finish the water supply tank.



The tank ceiling/roof is supported and reinforced with rebar for the concrete pour. A tank hatch is built to allow for access in and out of the tank for cleaning.



The community and WEFTA volunteers work together. The water storage tank is complete with a lid for the access port.



Quebrada Mina, Comarca Ngäbe-Buglé

Project Background:

In 2008, a PCV in the community was able to construct a small spring-fed gravity flow water system. WEFTA and Waterlines volunteers have visited the community multiple times for post-construction follow-up. The community water committee is very proactive, and they have done a great job keeping up with the system.

Unfortunately, heavy rain last year flooded one of the original water line bridges. Nicolas was able to take some time from his other projects to help install the new bridge.

This project impacted 24 families (125 people).



The community and Nicolas work to repair the existing waterline bridge crossing. Steel cable and reinforced anchors are used to keep the waterline above the flood level of the stream.



The anchors are set, and the cable is drawn tight. The new waterline is connected to the cables and will be painted to prevent sun damage.

Quebrada Pastor, Bocas del Toro

Project Background:

This community has had multiple small water projects constructed over the years through the Peace Corps/Waterlines PCPP process.

This most recent project is a rehabilitation project that serves the community school and the surrounding 70 households. Our WEFTA, in-country coordinator, José Molina, who has worked in the past on multiple other Waterlines' water projects in the Bocas del Toro province of Panama, is currently working on the final touches to the project.

This rehabilitation project will serve 70 households (390 people) and over 1,000 students who attend the K-12 school.



Community work groups called 'juntas' work with José to survey the transmission line.



The old spring capture was leaking from underneath the capture foundation, and beyond repair. José worked with the junta to completely rebuild the spring capture



The second spring capture was also in complete disrepair. The junta and José built a brand-new spring capture – in Panama it is called a 'toma'.



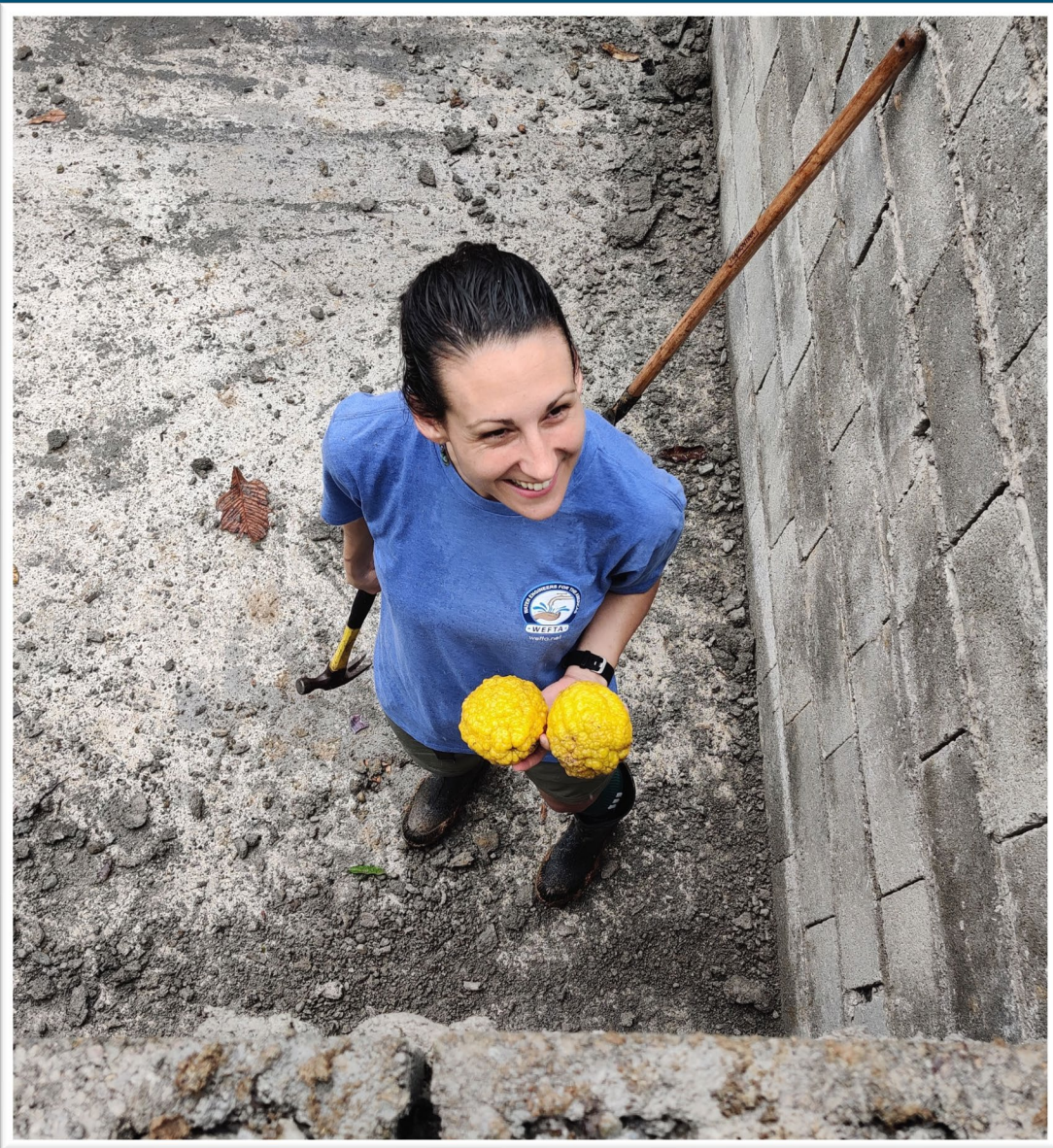
The original water system had three plastic tanks for water storage. They all leaked and were insufficient for storage. A new tank was built on site. The old tanks were repair and placed at the school for rainwater collection.



A new transmission line was installed. Rocks cover the line where the soil is too rocky to bury the line. Shut off valves and valve boxes are installed to control water flow.



Where the original bridge structure was rusted and failing, a new block pillar was constructed to support the transmission line over large creek crossings.



In April, WEFTA volunteer engineer, Alexandra L., visited the site to verify and assist with construction progress.



WEFTA volunteer Father Robert visited the site in June for post-construction follow-up.



Buena Vista, Coclé

Project Background:

This project was completed in 2018. The PVC (and follow-up PCVs) utilized the Peace Corps Partnership Program (PCPP) to fund this project using Waterlines funds.

On the last post-construction follow-up trip in 2022, the WEFTA team found the community was struggling with the transmission line pulling apart on very steep hillsides between the source and the storage tank.

WEFTA volunteers, Patrick and John were able to work with the community in June to devise a plan and purchase materials to fix the transmission line issue. As well, they assisted the community in constructing a break-pressure tank in the distribution portion of the water system to decrease pressure in the lower reached of the community.

This project is serving 36 families (171 people).



The WEFTA team walks the transmission line with members of the water committee.



Running a transmission line down steep grades causes the joint to pull apart if not anchored properly. One area with multiple repairs.



The break pressure tank site is prepared for the first concrete pour of the floor.



The floor is finished. Blocks and steel re-bar make up the tank walls.



The community and water committee were very involved in getting the break-pressure tank constructed.

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