

WEFTA Panama Trip Report 2024

Introduction:

WEFTA is grateful to our supporters, volunteers, and in-country coordinators to be able to return to Panama every year to perform what we call a 'circuit riding trip' where we visit the communities where we work and talk with water committee members and community members alike about water and community health. The information collected along the way provides WEFTA with action items for either post-construction follow-up in the form of repairs, renovations, water committee training, or community education.

This year's trip we were honored to share time with community members in the Comarca Ngäbe-Bugle on the Chiriquí side of Panama as well as Ngäbe communities in Bocas del Toro. We are very impressed with the work of our in-country project managers, Nicolas Arcia, and Jose Molina. It is critical to have on the ground support for these reparation and renovation projects, as well as post-construction follow-up for operation and maintenance training and general water committee education on water systems maintenance and community health.

This year, with our partners including Engineers Without Borders – Northeast Professional Chapter and Michigan Technological University we continue work with students at the Panama Technological University on the development of an in-country Non-Governmental Organization (NGO) called ARAGUAS. ARAGUAS has the potential to become a sister entity to WEFTA on our water and sanitation objectives for rural/Indigenous communities in Panama. We will continue this effort and hope to have good news about this development in the coming months.

As always, we are elated to work with our WEFTA volunteers, Father Robert Cumberland, and Greg Branch on the trip itinerary and the community visits. Their companionship along the way is priceless and add so much value to our many community meetings, water committee engagement, and strategy for how to continue this critical effort to improve access to potable water resources in these rural/Indigenous communities.

Overall, this was a successful trip. We love walking the trails, including some boat rides, to the communities, and we are always charmed by the community participation in our meetings with the objective of discussing the issues of water supply and household water use. With this trip report, we present to you the narrative (provided by Greg Branch) of the meetings and thoughts along the way. Community data is provided by WEFTA so that readers can see the progress and positive impact we have in Panama.

Day by Day Narrative (provided by WEFTA volunteer Greg Branch, community data provide by WEFTA):

I was honored to be invited back to Panama for another round of community meetings, water system inaugurations, and water committee discussions with WEFTA team members Tim Wellman and Robert Cumberland. Preparing and packing for what would be my second annual Panama WEFTA trip was a challenge. Counting the travel days and the change of clothes, knowing I'm going to be sweaty, dusty, and smelly. All tightly packed into a large backpack that could be tossed into the back of a pickup truck. Backpack in hand, I was in a taxi to Dulles international airport.

Day one: Monday 2/19/24

This year I opted to fly direct from Washington DC to Panama. I arrived six hours before Tim, which gave me time to check into the hotel. I put my walking shoes on and went to retrace my old footsteps from 2001 to 2009. I walked along Avenida Balboa and went to the doorstep of each of the three city apartments that I used to live in. Storefronts and buildings had changed, but the uneven sidewalks and pedestrian potholes were still there. A couple of the security guards had retired. I would've liked to have said hi to them. So many memories of working in Panama City with Peace Corps came flooding back to my memory. My watch recorded over 5 miles of walking. That evening, I met up with Tim Wellman for dinner and we were able to give each other a hug and get caught up.

Day two: Tuesday 2/20/24

We woke up early, grabbed a coffee and a "choripan" from the local bakery. We jumped in a taxi for the Technological University of Panama. We were met by Edgar Cedeno and Natasha Gomez. WEFTA is helping to form an NGO called ARAGUAS with hopes to provide water system support to rural Panama and specifically the Ngäbe Indigenous people. It hopefully will become an effective partnership for WEFTA to have more technical support on the ground.

Most interesting was an initiative by the university to create a moving water testing laboratory. They could access rural Panama and do water testing on the spot. The wonders of technology to benefit people in need. Edgar mentioned that each student now requires 50 to 80 hours of social work to qualify for their degree. Getting these students out into the field, looking at water systems and testing water, provides an opportunity for young Panamanians to further their understanding of rural Panama and the struggles for clean water. We also talked about partnering with Engineers Without Borders. It seems to me like it is another area of growth worthy of the effort.

After the meeting with ARAGUAS, we met with the director of the University, Mr. Oscar Patiño. He expressed enthusiasm to work with WEFTA and it turns out he studied as a young man in environmental engineering with a focus on water. Serendipitous and advantageous that we can tap into his youthful passion and get his support both for the NGO and a WEFTA partnership.

We then had lunch with Alan Foster, Director of Solea Water- Panama. We talked about water projects in the Darien, Gunayala and eastern Panama. He has provided support for follow up on WEFTA projects and we talked about more systems to assess in the future. He talked about the grim reality on the ground as masses of immigrants are making their way from Colombia through Panama's Darien gap.

Tim and I then retraced more footsteps to the Peace Corps Panama office. A handful of the staff we worked with 20 years ago were still there. Many kind words and hugs were exchanged. The work of Peace Corps volunteers has shifted away from infrastructure projects and towards

education. Both aspects regarding water are equally important and I hope we can continue to work together in the future.

Day three: Wednesday 2/21/24

We got up at the crack of dawn to a taxi driver that was filled with more energy than I was prepared for, talking the whole way to the airport. We flew to David, got the rental truck, and we were off to Tole to meet Father Robert and Nicolas. It is always heartwarming to reconnect with Robert with a big hug and smiles. Nicolas looked better than last year with his shoulder injury much improved. He had a four-month-old granddaughter in the house and it's a pleasure to see his family growing and thriving.

We drove almost 2 hours straight up into the mountains that would rival any Toyota pickup commercial. We parked the truck and hiked for an hour, to where Nicolas had built a spring box for the community of **Llano Majagua**. We had excellent community turnout. We were greeted with many kind words and bowls of food. It was yet another successful project by Nicolas and it was an honor to be able to represent and recognize his work side-by-side with the community. If there is one thing, besides water systems, that WEFTA does well it is making a personal connection behind the water systems that WEFTA builds.

Location: Llano Majagua, CNB Population: 230 people/48+ homes

Project Detail: WEFTA worked with the water committee to add another spring source to the dwindling supply to help serve the community with more water. WEFTA will support the renovation of the supply tank in 2024.

Llano Majagua Project Data:	
Spring source	Two springs sources (original provided by MINSA, new spring
	provided by WEFTA). Nicolas constructed the new springs capture as
	an additional project that provides – dry season 10
	gallons/person/day, wet season 40 gpcd
Transmission line	3,100 feet
Storage Tank	Existing 3,500-gallon tank (MINSA)
Distribution	9,500 feet of total pipe serving 48+ homes (MINSA)
Project Cost	
WEFTA contribution	\$3,500
(2023)	
Community contribution	\$750 (labor & meals)
TOTAL	\$4,250

Day four: Thursday 2/22/24

We drove back up the mountain for another water inauguration at **Alto Cienega**. It was the most formal inauguration that I've seen in years. The community had dressed the table with cloth and made a sign out of cardboard to celebrate the inauguration accompanied with green palm leaves. Community turnout was 60+ people and we all walked up to the spring box where they had captured the water. They were proud of their work with Nicolas. Speeches were made before we enjoyed another bowl of food and conversation with the community. Tim had given Nicolas more initiative to arrange our daily activities this year, and it certainly showed great

community turnout and Nicolas was able to celebrate the work that he had done the previous year.

That afternoon we visited **Alto Arena**. As it was the dry season, their spring had dried up and they had no water. Meeting with the water committee we learned that there are four other communities that also do not have water. The project they are proposing is enormous in size, and frankly beyond the scope of what WEFTA might be able to do. It is another instance of where the Panamanian government is falling short and not providing for its people .

Location: Alto Cienega, CNB Population: 120 people/18 homes

Project Detail: This project serves a sub-sector of the Alto Cienega community. WEFTA work with the sub-sector water committee to design and construction this small-scale gravity-flow water system to capture the springs source, provide water storage, and piping to the 18 homes. WEFTA will track this progress of this water system and community by way of visits from Nicolas.

Alto Cienega Project Data:	
Spring source	Nicolas constructed the new springs capture that project that
	provides – dry season 22 gallons/person/day, wet season 48 gpcd
Transmission line	1,800 feet
Storage Tank	New plastic 400-gallon tank
Distribution	2,100 feet of total pipe serving 18 homes
Project Cost:	
WEFTA contribution	\$3,700
(2023)	
Community contribution	\$1,000 (labor & meals)
TOTAL	\$4,700

Location: Alto Arena, CNB

Population: 354 people/51 homes

Project Detail: This is a new potential project for 2024. Nicolas has been collaborating with the community on minor repairs to the existing water system provided by MINSA. The reality is that the spring sources are drying up and the community population is growing. People are forced to carry water from other unprotected sources, especially in the dry season, to meet their household water needs. WEFTA will work with Nicolas to assist the development of this larger water system in 2024.

Alto Arena Project Details: Project assessment TBD for 2024.

Day five: Friday 2/23/24

We traveled to the community of **Buena Vista**. Another good turnout from the community. What was unique about Buena Vista was that the women did most of the talking, It was clear the community had a matriarchal structure not only for its water system, but throughout the network of the community. They needed to have another spring box developed as the dry season dried up their main water source.

We then drove to **Zapote** and saw the tank that Nicolas built in 2023 as a repair and renovation project with the community. It was empty, again of victim of the dry season dry season. We met a woman with her three sons with handfuls of water containers and laundry. They had to hike one hour down the mountain to where a river was trickling enough to collect water. It reminded me to never take my own water for granted. After the meeting we had just enough daylight left to get Father Robert to the beach. I loaned him an extra pair of swimming trunks that I brought, and he was like a 75-year-old kid in the water. We played in the waves for 30 minutes and he was grinning ear to ear.

Location: Buena Vista, CNB Population: 180 people/27 homes

Project Detail: Buena Vista is a new community for WEFTA. Nicolas has provided some assistance here in the past under Waterlines for the improvement of a spring source. Nicolas will gather the necessary information for this potential new project for 2024-2025. The project will include a new spring source and new water storage to serve the community distribution lines already in place from MINSA.

Buena Vista Project Date: Project Assessment TBD for 2024.

Location: Zapote 1&2, CNB

Population: 444 people/75 homes (Zapote 1: 205 people 43 homes, Zapote 2: 239 people/32

homes)

Project Detail: WEFTA and Waterlines have worked with these two communities since 2003. Most recently, in 2023 Nicolas and team reconstructed the main supply tank that serves both communities. We were dismayed to find the supply tank empty and the community water system out of water. Nicolas will work with the water committee this year to resolve water system supply issues.

Zapote Project Data:	
Spring source	Zapote 1: Two springs sources that provide water to the upper community with dry season issues in delivery. Nicolas constructed the springs captures as an additional project. Zapote 2: (2018 PCPP project) The PCV and community captured a spring that provides – dry season 11 gallons/person/day, wet season 46 gpcd
Transmission line	Zapote 1: No data available; Zapote 2: 2100 feet
Storage Tank	Zapote 1: two tanks (2002 tank is 4,000 gallons, 2003 MINSA tank is 5,000); Zapote 2: renovation of the existing 3,000-gallon tank
Distribution	Zapote 1: distribution to 43 homes; Zapote 2: 9,565 feet of total pipe serving 32 homes
Project Cost	
WEFTA contribution (2023)	Zapote 1: \$3,000; Zapote 2 : \$5,000
Community contribution	Zapote 1: 1,100 (estimated); Zapote 2: \$3,750.00 (labor & meals)
TOTAL	Zapote 1: \$4,100; Zapote 2: \$8,750

Day six: Saturday 2/24/24

We had an early morning wake up and drove the five hours to Valle Risco, Bocas del Toro Province, picked up Jose Molina and drove to **San Martin**. I think that everybody from all 50 houses showed up for the meeting. They were so proud of the work they had done with Jose Molina. Our ears were filled with words of kindness and gratitude for the help that WEFTA was able to provide.

We then traveled to **Nudobiti** for an afternoon meeting. The water committee talked about how climate change is leading to dryer periods and more severe rainstorms. It was yet another message that climate changes are real and have an adverse impact on the Earth. The water committee explained how much the community is growing and the need to expand the water system to new houses. It was a recurring theme in every community we went to. The population is growing, and new houses need to be connected to water systems that are already limited in supply.

Location: San Martin (Bocas del Toro)
Population: 290 people/50 homes

Project Details: San Martin is a suburb of the municipality of Valle Risco. WEFTA worked the community water committee in 2023 to capture a new spring and connect it to the existing transmission line. It became evident that the existing transmission line and storage tank were beyond repair. WEFTA will work with the water committee to renovate the transmission line, storage tank and distribution in 2024.

San Martin Project Data:	
Spring source	One renovated spring capture. Jose and community captured a spring that provides – dry season 32 gallons/person/day, wet season 76 gpcd
Transmission line	1,800 feet (will be repaired in 2024)
Storage Tank	Reconstruction on the new 5,000-gallon tank
Distribution	6,265 feet of total pipe serving 50 homes
Project Cost:	
WEFTA contribution (2023 & projected 2024)	\$4,500
Community contribution	\$1,125
TOTAL	\$5,725

Location: Nudobiti (Bocas del Toro) Population: 484 people/82 homes

Project Details: The community of Nudobiti is a suburb of the municipality of Valle Risco. Nudobiti has had Peace Corps volunteer engagement dating back to the early 2000s. In 2008 the PCV with Waterlines funds constructed a new spring capture, transmission line, and storage tank. In 2023, Jose and the water committee added a new spring source and storage tank to increase the total water supply. In our meeting with the water committee in 2024, the committee is asking for WEFTA assistance to help repair and renovate the distribution system. The water committee is not charging for water at this point and has no money in the bank. In our meeting with the water committee, we suggested that now is the time to charge for water and capture revenue to be able to start to work on distribution system repairs. If they are able to start down this path, WEFTA could help with funding for necessary repairs. Jose is in the community and will keep track of the progress there.

Nudobiti Project Data:	
Spring source	Two spring sources were renovated in 2023. Jose and community improved the two spring that now provides – dry season 45 gallons/person/day, wet season 85 gpcd
Transmission line	2300 feet
Storage Tank	Existing storage tank is 5,000 gallons. Jose and water committee built a new tank in 2023 that is 6,000 gallons.
Distribution	10,265 feet of total pipe serving 82 homes
Project Cost:	
WEFTA contribution (2023)	\$4,500
Community contribution	\$1,750
TOTAL	\$6,250

Day seven: Sunday 2/25/24

We traveled by boat to a community called **Cerro Brujo**. Another great community turnout, accompanied with food and many thanks for the work that WEFTA has done. More discussions about a community that is growing and a water source that is diminishing. Jose Molina delivered an impressive speech in the Indigenous language. It reminded me how important it is for these people to have their identity, speak amongst themselves in the language that they grew up in.

Location: Cerro Brujo, Bocas del Toro Service Population: 300+ people/28 homes

Project Details: The community of Cerro Brujo is a coastal community on the Tierra Obscura peninsula of Bocas del Toro. Waterlines and WEFTA both have collaborated with the community since 2008. Jose has evaluated the water system and the questions from the water committee and based off of our last WEFTA trip in 2021, we are looking to support the water system renovation in 2024. With this latest meeting with the water committee and community members, we felt like all is in place to help renovate the water source and build a new storage tank. Nicolas and Jose will work on the elaboration of this project in 2024.

Cerro Brujo Project Data:	
Stream source	2 small streams in a protected watershed – flow exceeds demand – to be renovated in 2024.
Transmission line	5,000 feet with multiple bridge crossings across streams and pastureland
Storage Tank	5,000-gallon hexagonal block tank (existing). 5,000-gallon new storage tank proposed for 2024.
Distribution	1,000 feet with multiple small family branch lines
Project Cost:	
WEFTA contribution (projected 2024)	\$8,140
Community contribution	\$2,040 (labor & meals)
TOTAL	\$10,180

Day eight: Monday 2/26/24

We traveled to **Quebrada Pastor** and were welcomed by 40 or more people. We were honored by a local government official attending the meeting. He responded to questions and vocalized commitment in working together with WEFTA and the community. Robert reminded us of our long history in that community and how well they work with WEFTA. They were proud as a community to donate their labor and participate fully in the construction of the project. We have good follow up happening with a Peace Corps volunteers and a couple engineers that are going to Panama in the next week to work there.

In the afternoon we traveled to Valle de Risco to meet with representatives of the bilingual school functioning in the community (Valle Risco Bilingual School). There are over 1500 students, teachers, and administrative personnel working daily at the school. We learned that they serve food every day for all of those people. In the dry season, they have no water. Therefore, they cannot prepare the food or wash the dishes. They would like to build another water system from a spring that would provide water year-round. For some of the kids studying there, it is the only balanced diet they get every day.

Location: Quebrada Pastor, Bocas del Toro

Population: 400+ people/70+ homes/1 school with more than 500 students and staff

Project Detail: The community of Quebrada Pastor lies on the main road from Chiriquí Grande and Almirante, both in the Bocas del Toro Province. Like many of the communities in Bocas del Toro, Quebrada Pastor has had a rich legacy working with Peace Corps. Waterlines and WEFTA have both supported small scale water systems in the 'neighborhoods,' as well as providing support for the principal water system that serves the central part of Quebrada Pastor and the School (500 students and staff). Jose is actively working with the water committee and WEFTA's partners at EWB to find effective solutions for increasing water supply to the main community, school, and neighborhoods.

Quebrada Pastor Project Data:	
Spring source	1 spring – dry season 22 gallons/person/day, wet season 43 gpcd
Transmission line	3,500 feet with 3 waterline bridge crossings
Storage Tank	7,500-gallon block water tank.
Distribution	3,700 feet with multiple branches to the community and the school.
Project Cost:	
WEFTA contribution (2023 & 2024 projected)	\$10,500
Community contribution	\$3,500
TOTAL	\$14,000

Location: Centro Educativo Bilingue, Valle Risco, Bocas de Toro Service Population: 1500 students, staff, and admin personnel.

Project Details: The bilingual school in Valle Risco serves the majority of the population for education grades K-12. Jose is active in the community and will continue to work with the school officials and water committee to assess the overall water needs for the school.

Centro Educativo Project Date: Project Assessment TBD for 2024.

Day nine: Tuesday 2/27/24

We made the long journey back to Panama City to wrap up the trip. As I stared out the car and plane windows, my head was spinning with all the faces, words, and smiles of the past week. The work that WEFA does is so important. The accomplishments mean so much to these very humble and struggling people. I am honored to be a part of the mission. I offer encouragement, hopefully some good advice, and most of all my humanity. We are in this struggle together.

Project/Program Outlook for 2024:

Projects Slated for 2024

- Llano Majagua, Comara Ngäbe-Bugle (Chiriquí): Nicolas will continue work with the community to improve the water storage tank and rehabilitate the community water distribution system to complete the project in progress from 2023.
- Alto Arena, Comarca Ngäbe-Bugle (Chiriquí): Nicolas will work with the community to capture a new spring source, build a new transmission line, and renovate existing distribution lines for improved water delivery in collaboration with other communities in the area and the Ministry of Health.
- Zapote, Comarca Ngäbe-Bugle (Chiriquí): Nicolas will work with the community to troubleshoot the water supply issues that prevent water filling the new water storage tank.
- Cerro Brujo, Bocas del Toro: Nicholas and Jose will work together to rehabilitate the water source and increase water storage by building a new storage tank.
- Valle Risco Bilingual School, Bocas del Toro: Jose will work with the school water committee to capture a new water source, build a new storage tank, and improve distribution within the school facility.
- San Martin, Bocas del Toro: Jose will continue work completed last year by adding water storage and water line distribution to each of the households in the community.
- Quebrada Pastor, Bocas del Toro: Jose will work with the EWB NE Ohio Chapter to continue our efforts to increase water supply in the community, the school, and neighborhood small water systems.
- Kwite, Comarca Ngäbe-Bugle (Bocas del Toro): Jose will work to renovate the existing storage tank and improve distribution in the community. Nicolas and Jose will work on the renovation of the spring capture to improve source water flow.

Program Development for 2024:

- WEFTA will continue to work with ARAGUAS on their NGO development and strategic
 partnerships within Panama's Ministry of Health and the Technological University of
 Panama, along with potential international partners such as Michigan Technological
 University, and the Inter-American Foundation. We are hopeful that ARAGUAS will
 become WEFTA's partner for our Circuit Rider Program which aims to assist
 communities with water system operation and maintenance, management, and
 community health.
- WEFTA will work with our in-country partner, Nicolas Arcia, to transition from water project design and construction to water committee training and water system needs assessment.

•	WEFTA will continue to build strategic partnerships in Panama (i.e., Rotary Clubs, Peace Corps, Solea Water) to support our mission and the many rural/Indigenous communities we have served for over 20 years.	





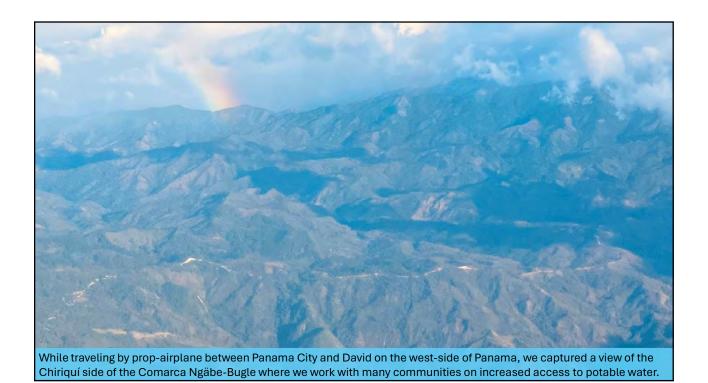
WEFTA Volunteers Greg Branch and Tim Wellman visit the US Peace Corps Office in Panama City to catch up with staff and hear about the status of Peace Corps Programs. Greg and Tim both served as Directors of the Environmental Health Program in Panama which aimed to increase access to water and sanitation in indigenous communities across Panama.



WEFTA Volunteers Greg and Wellman visit with students from the Technological University of Panama. Engineering students are working to develop an in-country non-governmental organization (NGO) called ARAGUAS. ARAGUA will work to serve rural/indigenous communities on the improvement of water quality and water supply.

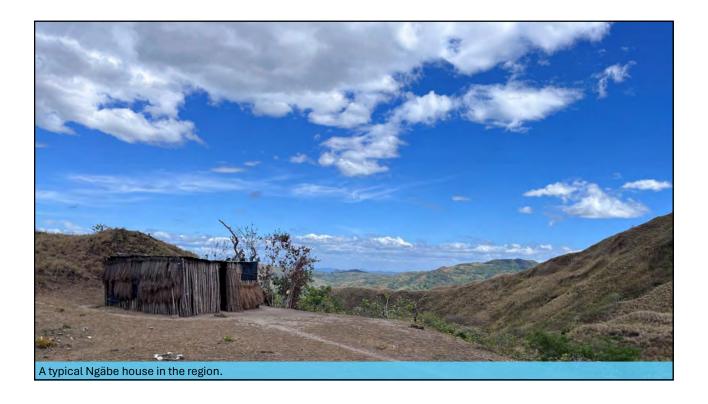


WEFTA Volunteers Greg and Tim visit with the Director of the Technological University of Panama – Experimental Engineering Center to discuss potential connection between WEFTA and our strategic partners. With the development of a Panama based engineering group, we plan to expand our post-construction follow-up program with engineering students for the communities WEFTA serves.



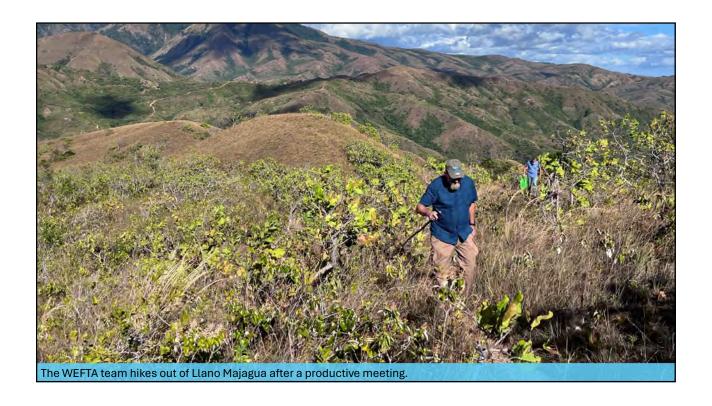




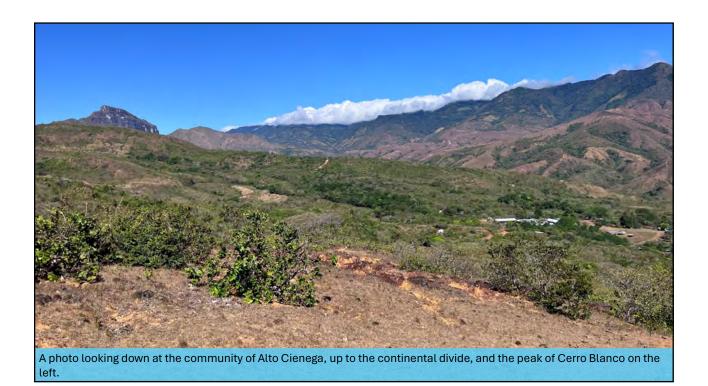


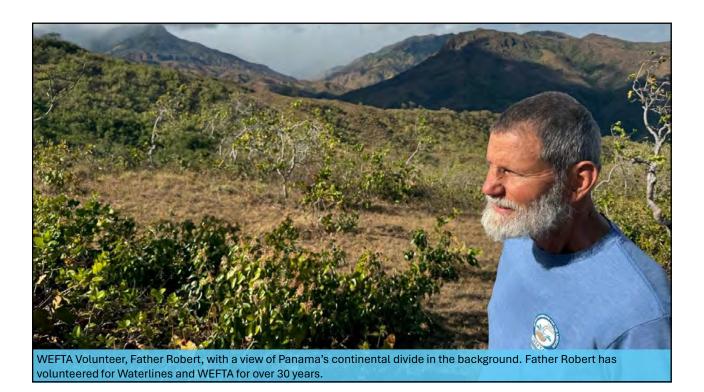


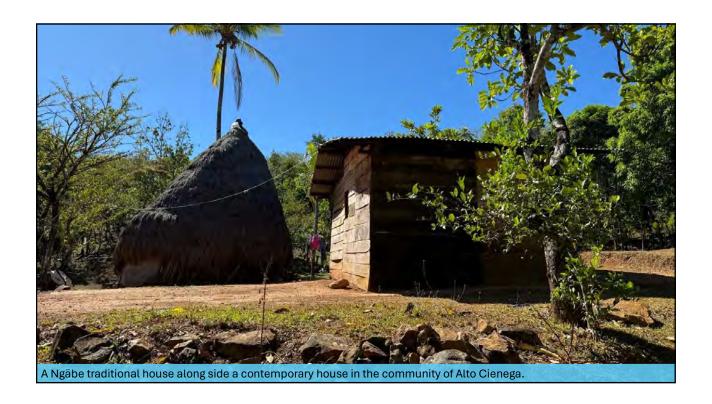








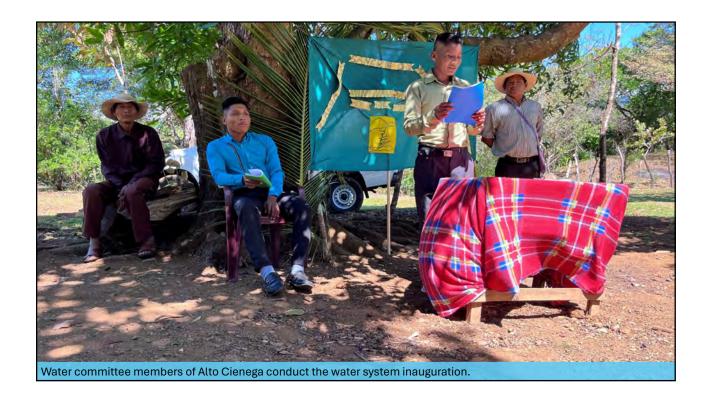








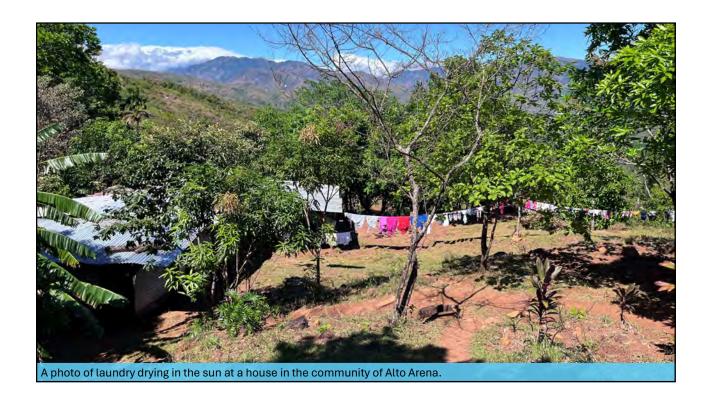






















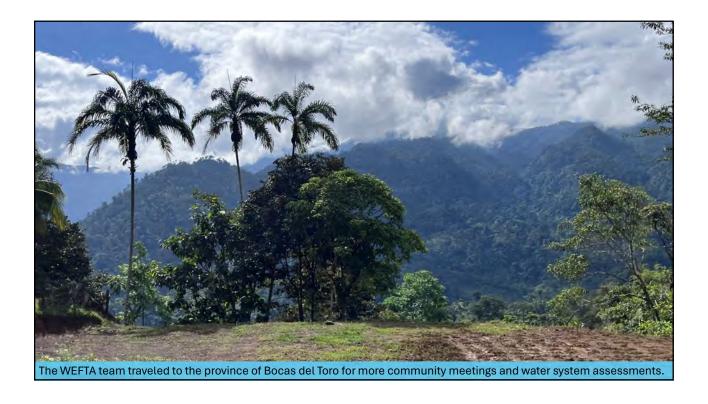


WEFTA Volunteer, Greg, speaks to the water committee of Buena Vista about the importance of community initiative and organization. The water committee is soliciting a water system renovation project as the community has grown and the water sources are drying up due to a drought on the Pacific side of Panama.



The WEFTA team reviews the new tank construction (performed by Nicolas and Cheo) in the community of Zapote. Due to the drought, the new water storage tank is dry.







The WEFTA team is greeted by water committee and community members in the community of San Martin. WEFTA with our in-country coordinator, Jose Molina, is working with the water committee to renovate and expand a community water system that constructed here with the assistance of Peace Corps Volunteers many years ago.











