

# **WATER ENGINEERS FOR THE AMERICAS**

## **2018 YEAR TO DATE SUMMARY REPORT**

### **TRIPS MADE BY WEFTA VOLUNTEERS IN 2018**

#### ***Trip to Chiapas, Mexico by Ramon Lucero and Emily Sotelo, P.E. from February 24 to March 7, 2018***

Ramon Lucero and Emily Sotelo went to Chiapas and visited the communities of Miguel Hidalgo, Tierra y Libertad, Ixcan, and Hospital San Carlos in Altamirano.

In Miguel Hidalgo Ramon and Emily tried to finalize the purchase, transportation and installation of replacement waterline for a section of the system that was leaking. The greatest challenge encountered for completion of the project so far is the transportation costs for the 2 ½-inch waterline.

In Tierra y Libertad our two volunteers reviewed ongoing construction of a new water system which includes two water-spring catchments, a concrete water storage tank, waterline, and spigots to 68 homes and other buildings. Construction of the tank was completed during their visit and they witnessed the tank being filled prior to their departure.

The community members of Ixcan had recently petitioned WEFTA, through Kees Grootenboer, for help with completion of their well, water storage tank, and distribution system. The government started the project initially but did not finish it; a study of the work that was completed will be available for analysis by WEFTA. Ramon and Emily are working on preliminary cost estimates for the project; it is likely that the community can commit financial resources for a part of the project.

Kees was able to meet up with Ramon and Emily in Altamirano at Hospital San Carlos. Over the past several years, the hospital's primary water supply source from Naranjo Spring has been greatly diminished. Several alternatives for a new water source were considered while there, but all had downsides. Emily and Ramon are coordinating meetings with engineers at SMA to develop additional alternatives as well as cost estimates. The wastewater system is also in great need of improvements so Aqua Engineering is involved in the project too helping with design and cost estimates.

#### ***Trip to Panama, by Tod Phinney, P.E., Father Robert Cumberland, and Ramon Lucero on January 8 -19, 2018***

Tod and Ramon traveled with Father Roberto (Waterlines board member and volunteer) to Panama where they visited 16 projects previously funded by Waterlines. The water systems were built by the different communities with the help of Peace Corps volunteers, and Nicolas Arcea, Marcial Mendoza, and Estevan Mendoza, Waterlines volunteers.

Six of the communities visited were either follow-up visits to completed projects or for a review of applications for projects to further improve, expand, or repair their water systems:

• Buena Vista – Coclé	complete
• Santa Cruz de Perecabecito – Coclé	in progress
• Cerro Ortiga	complete
• Peña Blanca	complete
• Cerro Miel	complete
• Bajo Simen	in progress

Ten communities needed help in evaluating their water needs and completing an application for assistance:

- Cabecera de Quebrada Cama
- Llano Palma
- Cerro Grande
- Llano Conejo
- Llano Rey, Llano Bonito and Llano Bello
- Llano Majagua
- Llano Mira
- Llano Nopo

#### ***Trip to Puerto Rico by Andrew Robertson, P.E. from March 25 to March 31, 2018 after Hurricane Irma and Maria***

After Hurricanes Irma and Maria, many homes were flooded with contaminated floodwater. Moreover, even more homes suffered severe roof damage, which means every time it rains, they flood again. As a result, there was a huge outbreak of mold in people's homes, as well as bacteria. Local public health workers had reported marked increases in infections due to these unsanitary conditions.

Puerto Rico's residents are accustomed to using chlorine for sanitation and hygiene. However, sodium hypochlorite was in short supply after the hurricanes and difficult to transport in large quantities or store for long periods. Therefore, the American Chemistry Council donated sodium dichlorocyanurate (NaDCC). Additional training for the families was required to use NaDCC safely and effectively.

Andrew went to Puerto Rico to train community leaders in packaging and distribution, and to train individual homeowners in safe storage and use of granular chlorine for household sanitation and hygiene. These same community leaders will train individual homeowners in how to use granular NaDCC, so the trip was essentially to "Train the Trainer". The communities visited were:

1. Guayanés
2. Cayey
3. Parcelas Suarez
4. Villa Hugo
5. Las Mareas



### **Trip to Honduras by Andrew Robertson, P.E. from July 23 to August 5, 2018**

Andrew visited the communities of La Iguala, Yamaranguila, Monquecagua and Belen.

In la Iguala, Andrew worked with the communities of Llano Largo, Guadalupe and Quioco on the construction of regional water project that would benefit the three communities. During his visit, Andrew inspected the lines and worked with community members on quality control and testing pressure on the lines, fixing leaks, measuring water flow, and training two community members to help with inspection of the construction and coordination activities among the three communities. Andrew also met with local organizations that have been involved in the project, like World Vision, to talk about funding for the next phases of the project. World Vision offered funding to build the 3 distribution systems if WEFTA provided the design by September 15th.

In Yamaranguila, Andrew inspected the wastewater treatment plant and provided recommendation to the Mayor, his staff and system operator. Andrew also visited the water system and met with the board to discuss new projects:

1. Install water meters that will reduce consumption and should reduce stress on distribution system and supply source.
2. New water source in Opalaca. Andrew did preliminary analysis and made recommendations about alignment of the lines and surveying needs.

In Monquecagua, Andrew attended the water system inauguration, celebrating with the community and local organizations that the project is complete and new families have water at their homes. Andrew did a brief inspection of the project, including meters. All the connections are metered.

In Belen, Andrew inspected tank and waterproofing compound to be used to cover the interior of the tank. Andrew also gave suggestions for worker safety while working in confined space to paint the tank interior.

### **Trip to El Alto, Bolivia by John Rocha Robertson from November 23 to December 6, 2018**

John Rocha visited our partners in Bolivia, Suma Jayma, with the main purpose of training Suma Jayma on how to use survey station on the design of water systems that included how to use the equipment and also how to capture data and how to manage it. As part of the training, John and Suma Jayma team visited the community of Centro Rosa Pata and completed a survey that will help the design of network to connect new users to the community water system. The team also inspected the storage tanks and completed cleaning of the pipes which helped to increase water flow and pressure.

### **Trip to La Iguala, Honduras by Andrew Robertson from December 10 to 16, 2018**

Andrew worked with the communities of Llano Largo, Guadalupe and Quioco to inspect progress made in the construction of transmission lines that will bring water to three communities, and to verify survey marks and measure water flow and pressure. Other activities completed during the trip were:

- Delivering donated system's parts and materials like valves, Teflon tape and sealant.



- Revision of the updated system.
- Revision of storage tank and distribution network designs and relocation of storage tank for Llano Largo, including modification to initial survey, verification of new location elevation, and recalculation of material needed.
- Meeting with local government and other local non-profit to review and sign agreement for the construction of future phases of the project (storage tanks and distribution networks) and funding options.
- Revision of the survey for project impact study.

### **Trip to Peru by Lou Harrington in December 2018**

After five (5) years since last visit to the projects in Urubamba, Lou Harrington visited projects in the Valle de Urubamba and new communities that have requested assistance to their project. During the trip, Lou visited past projects in the valley and discussed plans for rehabilitating the two septic tanks.

In Urubamba, Lou also visited the school WEFTA assisted with the installation of bathroom facilities. They seem to be well kept and functioning. The school requested help with funding for shower facilities for those children that attend the school and have never taken a real shower in their lives.

While in Urubamba, our volunteer also met with representatives from international non-profit, Urubamba water and sanitation system (who also requested assistance with the system), Rumichaca JASS board members, and local government including the city's Mayor.

Other communities visited during this trip were:

- City of Calca: Lou met with manager of the local government entity in charge of supervising wastewater services. The visit was very informative regarding current status of WWTPs for Calca. This was a follow up visit to a previous one completed four (4) years ago by Peter Fant and John Lincoln. The recommendations made for WEFTA volunteers were not implemented.
- Pisac/Cotataqui: New community requested assistance through a GIS professor from the NM Highland University. The community needs a new water system. Lou and a community leader visited the community and the proposed site for the reservoir. They assessed the progress made by the community on their own and the plans they had to connect the families into the system, and how WEFTA could help.
- El Ron and Aguas Turbias: Peace Corp Volunteer contacted WEFTA regarding this community she was working with in Peru. During his visit, Lou met with Lianna and two other PCV. They visited the Aguas Turbias current water system and latrines. It seems there is no assistance needed with the water system but the latrines are in really bad condition. In the town of El Ron, volunteers visited the WWTP which is not functioning and required maintenance and improvements to function properly.



## WEFTA Projects of 2018

The following projects were funded and completed in 2018. Detailed final reports and accounting for each are available upon request.

### **Bolivia Projects**

- **Suma Jayma Equipment:** WEFTA helped with the acquisition of water drilling equipment and materials to support the work of Suma Jayma for Andean villages of Bolivia for a total value of \$9,815, in addition to shipping costs. The equipment and materials include:
  - (one) Used Miller Bobcat 225 Skid Mounted Welder (Serial Number LC079733)
  - (one) Used 185 cfm Air Compressor manufactured by Sullair (Serial Number 200704160044)
  - (one) Used Trailer
  - (three) Used/Rebuilt 8 ¾" mill tooth drill bits (Serial Numbers, XC514-J33, 00294-J20, 637667-J29)
  - Used /Rebuilt 7 7/8" mill tooth drill bit (Serial Number 707002 – J48)
  - (one) Used /Rebuilt 9 7/8" 5 blade rerun PDC drill bit (Serial Number 5197 – L231) w 6 5/8
  - Regular Male Threading
  - (one) used 8" pneumatic diaphragm pump
  - Mud Pump Replacement Parts
  - Miscellaneous Used mud pump parts
  - Drilling Mud Products like Quick-Gel, Holeplug, EZ Mud Gold and Quik-Foam

The equipment was sent early November and by the end of the year, it was still in transit to Bolivia.

- **Playa Verde:** Through funding from Spirit of Christ, WEFTA supported a hand pumps project for the families of the community of Playa Verde, near Jalsuri, in the amount of \$6,019. The funds were sent to Suma Jayma in July 2018.
- **Viacha:** Through originally undesignated funds, WEFTA funded a hand pumps project for 35 families of the community of Viacha in the amount of \$14,867. The funds were sent in July 2018.
- **Conses/Jason O. Mission:** WEFTA sent \$15,000 of the funds received from the Wheaton Franciscan Sisters to Conses for the production of ecological latrines that will be used for sanitation projects in communities in Bolivia.

### **Mexico Projects**

- **Miguel Hidalgo y Tierra y Libertad Project:**

In Miguel Hidalgo, additional water leaks were discovered throughout the remaining 204 meters (approximately 600 feet) of 2-inch polyethylene line between the section replaced in 2017 and the lowest section of the transmission line. To



address this issue, WEFTA sent funding to purchase, transport, and install 2 1/2-inch PVC RD-26 waterline to replace this section of the line.

In Tierra y Libertad, construction for one of the spring catchment tanks was initiated on May 4th and completed on May 20, 2017. Due to the rainy season, construction was halted and restarted again in January 2018. The storage tank, the second spring catchment tank, and a water spigot outside of each community dwelling including the school and the church were completed during 2018.

The funding sent to Chiapas in 2018 for the completion of the two projects totaled \$3,600.

### **Honduras Projects**

- **La Iguala: Llano Largo, Guadalupe and Quioco**

The construction of the regional project for the communities of Llano Largo, Quioco and Guadalupe started in March 2018. The transmission line is currently under construction. The design for the three distribution systems is completed and has been submitted to World Vision Honduras for budgeting and funding approval for fiscal year 2019. During last visit to the project in December 2018, World Vision Honduras committed to contribute USD\$30,000 for the storage tanks and distribution networks for the three communities. WEFTA will contribute another USD\$25,000 and the community members will contribute approximately USD\$5,000.

### **Ongoing Circuit Riding Programs in Honduras and Bolivia**

WEFTA continued to transfer \$2,500/quarter to Bolivia to support the circuit-riding work of Suma Jayma. The circuit rider funding sent to Honduras has been reduced and divided among Enrique and other two community members that are supervising the work in the project. The amount sent varies every month and is based on estimations of transportation and communication expenses in accordance with the work that is planned for the specific period.

### **Summary Financial Report for 2018**

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#### **Contribution from Jennifer McDowell via the Pittsburgh Foundation**

WEFTA received a donation in May 2018 of \$30,000 from Jennifer McDowell to cover project costs and potentially additional administrative costs of the organization. The funds have been used to complete the projects in Miguel Hidalgo and Tierra y Libertad in Mexico, and to build hand pumps for Viacha and equipment acquisition for Suma Jayma in Bolivia. Another \$10,000 was donated to support a Waterlines' project in Africa. Waterlines asked WEFTA to hold the funding until the community is ready to spend the funds and complete the construction of the project.



### **Contribution from Wallace Genetic Foundation**

WEFTA received a grant in the amount of \$75,000 in December 2018 to be used for operational and administrative expenses. Also, a portion of this grant must be designated to cover circuit rider expenses for projects in Ethiopia.

### **Contributions from Businesses and Other Organizations**

- Contributions from Spirit of Christ during 2018: \$11,447. Of this amount, \$7,919 was for the hands pump project in Playa Verde, Bolivia. The remainder (\$3,528) corresponds to the reimbursements for the funding of 2017 project that was sent in advance to SJ.
- Iceworks donations from January through December 2018: \$ 4,340
- Contributions from Wheaton Franciscan Sisters: \$123,625 which corresponds to the Conses project (\$30,000) and first contribution for the two-year project for Suma Jayma (\$93,625). The second contribution for the second year (\$97,125) is expected in October 2019.
- Contributions from Amazon through AmazonSmile were received for \$26.61
- Interest earned on Ameritrade Account: \$31.18
- Other Revenue: \$13,369 for Africa and Panama travel expenses reimbursement from Waterlines.

### **Contributions from Individuals and Matching Grants**

From January to December 2018, WEFTA received \$41,257.55 from individual donations other than those identified above. Of these, \$11,752.40 were donated through the 2018 WEFTA event. Some of the donations received were designated to Bolivia and Jason O. fund.

### **Other Activities**

#### **Grant Proposals submitted**

- **Spirit of Christ Catholic Community, Denver, CO**

In March 2018, WEFTA submitted a new proposal in the amount of \$7,919 to the Spirit of Christ parish of Denver, Colorado for assistance with the purchase of a refurbished total station survey equipment for Suma Jayma and to furnish and install family hand pumps for members of a dairy cooperative, Playa Verde, near the rural community of Jalsuri in the Bolivian alps. Funds would also be used for follow-up support of the Senkata Library Network in El Alto, Bolivia. The grant request was approved and most of the funds were spent by November 2018. The funding for Playa Verde hand pumps was sent to Suma Jayma and the project was completed. The funding for the Senkata libraries has not been spent yet.

In June 2018 SOC completed the monthly payments of the 2017 approved grant of \$7,056. The 2017 grant funds were distributed in monthly payments of \$588 beginning July 2017 through June 2018.

- **Wheaton Franciscan Sisters Ministry Fund**



In November 2017, WEFTA and Jason Obergfell received approval for a grant proposal to the Wheaton Franciscan Sisters Ministry Fund to build and distribute Ecological Latrines for families with limited financial resources in El Altiplano, Bolivia. The proposal was approved in the amount of \$30,000 and the funding was sent to WEFTA in February 2018. The funding will be spent over two years on the fabrication of ecological latrines that will be used for sanitation projects for communities.

In July 2018, WEFTA and Jason Obergfell submitted a two-year proposal to support Suma Jayma hand pumps project and a fundraising strategy that would help Suma Jayma to become financially sustainable. The Wheaton Franciscan Sisters Ministry Fund Committee approved a grant of \$190,750 to WEFTA/Suma Jayma over a 2-year period. In October 2018, they sent funding for the first year in the amount of \$93,625, and they will fund the amount of \$97,125 for Year 2 in October 2019.

- ***Wallace Genetic Foundation grant***

In October 2017, WEFTA submitted the annual grant request to the Wallace Genetic Foundation (WGF) to support WEFTA general operation. The grant in the amount of \$100,000.00 was approved and the funds were sent to WEFTA in December 2017. This funding has covered administration and operations during 2018. WEFTA submitted the 2018 funding application that requested a grant in the amount of \$75,000 for administration and operational expenses, including expenses for project follow up in Africa. The grant application was approved and the funds were received in December.

- ***American Chemistry Council funding application***

In October 2018, WEFTA submitted an application to the American Chemistry Council in the amount of \$15,000 to support construction of the water distribution system for the community of Ixcan in Chiapas, Mexico. The application was approved. This is partial funding, so WEFTA will continue the efforts to raise the funding required to complete the project.

## ***2018 Annual reports***

- The annual corporate report was submitted to the NM Secretary of the State Office on May 7, 2018. WEFTA is listed as being a Domestic Nonprofit Corporation that is Active and in Good Standing by the NM Secretary of State Office – Corporations and Business Services. The next report due date is May 15, 2019.
- For the year 2017 tax return, WEFTA filed a form 8868 Application for Automatic Extension of Time to File an Exempt Organization Return. The filing time was extended until November 15, 2018. Because WEFTA received more than \$200,000 in donations during 2017, we had to file the full 990 tax return form. The form was completed in October and submitted to IRS.
- After completing the 2017 tax return, WEFTA submitted the annual report to NM Attorney General office.

## ***Social Media and WEFTA Awareness***



From January to December 2018, WEFTA actively posted updates on Facebook regarding the different WEFTA projects and site visits made by volunteers.

### ***Development Activities***

During 2018, Carla Conner, Karen Pereira, and Kathy Mastoras (along with Lou Harrington and Peter Fant) worked with Real Time Solutions to develop a new website for WEFTA. Since everyone was working part time on the site content, progress was slow but steady. At the end, we were able to meet the goal of having the new website ready before the networking event in November 2018. The team decided that an interactive map showing the countries where WEFTA works and the projects that we've completed would be a good addition to the site. Scott Andreasen and Zach Taraschi were able to develop the GIS model for the map and the accompanying information about the projects and funding.

In November, WEFTA hosted its bi-annual meeting to celebrate water and health connections in Latin America's indigenous and rural communities. The 2018 celebration took place at the Indian Pueblo Cultural Center in Albuquerque where volunteers shared progress made on the projects and how these projects have impacted the lives of hundreds of people in Mexico, Honduras, Panama and Bolivia. WEFTA volunteers, donors, sponsors, and others interested in finding out more about our work in Latin America attended the meeting.

