

WATER BRIGADES PROJECT FOLLOW UP: EL RETIRO

DATE OF FOLLOW UP VISIT: July 9, 2014

System Background

El Retiro has a gravity-based water system that was completed on March 27, 2013. The system connects 91 houses, 1 kindergarten school, 1 primary school, 2 churches and 1 community center to an adequate supply of chlorinated water.

Summary of Follow-Up

Water Brigades staff and the summer interns carried out the following activities during a follow-up visit:



- Completed a walk-through of the system including the pump, and treatment tank
- Tested chlorine levels in the treatment tank and 3 houses.
- Held a meeting with the Water Council



Observations

A small catchment dam collects 18 gallons per minute which is connected to the 10,000 gallon tank, giving them consistent water supply on a daily basis.

The visit was attended by the entire seven member water council.

Technical Follow-up

Dam

- 1 minutes walk distance from tank
- Natural spring water source (18 gallons per minute flow rate)

Hardness	PH	Chlorine	Nitrates	Nitrites	Pesticides	Lead
250	8	0	0.2	0.0	Negative	Negative

Conduction line

- Whole section of 2” Galvanized Iron

Tank

- 10,000 gallon storage capacity
- Chlorine levels = low to some; 1
- PH of 8.5
- 6-7 ounces of chlorine allotted to entire system and fed into main tank via drip tank on top

Hardness	PH	Chlorine	Nitrates	Nitrites	Pesticides	Lead
250	8.5	1.0 ppm	0.25	0.00	Negative	Negative

House nearest main tank

Hardness	PH	Chlorine	Nitrates	Nitrites	Pesticides	Lead
250	8.5	None	0.25	0.00	Negative	Negative

The tank was filling up during the visit, so chlorine tests could not be conducted at all houses.

The current water council meets every 2 months because no significant problems have been reported and they meet and with the community’s general assembly every three months.

They keep good records and have a large savings account. They have 14,000 Lempiras (US \$700) in the community bank.

Payments from community members are regular and on time at a rate of 45 lempiras per month. Late payments receive a warning followed by temporary disconnection. However, 100% of the community is paying their water fees on time. They are also considering raising the fee to 50 lempiras per month.

Recommendations and Response

Global Brigades recommended that the Water Council increase the levels of chlorine from 7.0 oz to 10.0 oz. because a house near the tank and a house in middle of the distribution network had 0.0 ppm and the recommended levels are between 1.0 and 3.0 ppm.

It is recommended that they install valves to regulate flow so 5 houses receive water at the same time as the rest of the community.

As the plumbers would like to earn more money, the Water Council is considering raising the current water fee from 45 to 50 lempira per month.