



## Water Report for October 2012 Trip

### **About the Author**

My name is V. Travis Poulson. My wife and I own Grass Plus Inc. Landscaping in Eden, Utah. I am a contractor with 28 years of experience in erosion control, re-vegetation, landscaping, and irrigation systems, and I have completed projects in 10 western states. With this experience, I wanted to help improve the agricultural systems in Haiti by re-seeding land as a preventative for erosion and a source of grazing for animals, introduce new varieties of seeds, install new drip systems for gardens as well as check on those previously installed, map out current and future water systems, set up the clinic, and get the generators and air compressors functioning.

### **Work Done in Haiti**

While we were in Haiti, our activities consisted of providing the people with over 85 pounds of seed, taking inventory of fittings and water supplies, making repairs, mapping out the Tifon, Micho, Gran Platon, and Camaten springs water systems, setting up the clinic and getting the generators and compressors functioning, and securing supplies in the clinics during Hurricane Sandy. We discussed with and informed the people of the importance of letting some of the garden plants go to seed for harvesting, how to reuse the seeds for future and long-term garden use, how to plant companion seeds in the existing gardens, how to utilize crop rotations to avoid depletion of valuable nutrients in the soil, and how to de-worm cows.

We were able to accomplish much and had many positive results from the trip to Haiti. With import permits from Haiti and State Certifications from the US, we were able to provide the people with 85 pounds of seed, consisting of side oats grama, buffalo grass, weeping love grass, tall fescue, switch grass, and Indian rice grass. We also provided many heirloom vegetable seeds, such as Asian winged bean, okra, arugula, lettuce, beets, peppers, radish, eggplant, tomato, carrot, parsley, cilantro, onion, and chard. Some of these seeds were planted in existing gardens while the rest were left in Timo to be planted in the three future gardens that will be there. We left three drip systems for them to use in the new gardens, as we ran out of time to install them ourselves.

Another accomplishment was in the mapping of several springs water systems. In Tifon, we identified one new location for which a new tap could be installed for the use of several homes. The Micho area has a good water system, but we discussed the importance of keeping the soil built up around the bases of the concrete tanks to prevent undercutting and erosion under the tanks that may cause damage to the tanks. The Gran Platon water system needs a little bit of work, but we

were able to map it out. In Camaten, we identified one leg to expand the water system there with several tap sites.

## **Problems**

Although there were many accomplishments on the trip, there were also some problems and needs. We were not able to seed a large landslide area that was in need of erosion control. We received permission from the land owner to work with the land in the slide area, but Hurricane Sandy prevented us from carrying out our objective. In Tifon, there were no screens or filters on the capture box and holding tank piping to prevent crabs, leaves, and other debris from getting in and blocking the pipes and restricting the water. There was also a partially clogged reducer four feet below the capture box. The Micho springs water system needs a few minor repairs on the holding tank PVC pipes as well as screens or filters on the captures box and holding tank (as described in the Tifon problem). The Gran Planton system has an older PVC pipe under the HDPE pipe that has a few problems and leaks. The people on the lower system seem to have water in the morning and then the water runs out until the next morning. The Camaten water system has a large amount of water overflowing out over the holding tank through a 1 ½” pipe at the rate of about 60 gallons per minute. One leg was able to be mapped out, but we were unable to map the other legs due to Hurricane Sandy.

As we encountered problems and needs, we came up with some recommendations and solutions. Because of Hurricane Sandy, we were not able to seed a landslide area; however, we left Thomas the seeds and he said that he would make sure the seed was planted in the next week or two. A follow-up should be done on this to make sure that it was carried out. To solve the problem of the lack of screen or filters in the Tifon springs water system, we discussed taking about a 12” piece of PVC pipe with a cap and drilling many small holes in the pipe to create a screen. Other problems within the system were solved by Remy, who creatively used PVC pipe to make couplers to keep the water system working. We suggest that future teams replace these temporary fixes with the proper fittings. For the clogged reducer, we estimate that the few gallons coming through could be doubled or tripled if a littler work were to be done at the capture box and cleaning and removing the partial clog. In Micho, there needs to be a few minor repairs on the holding tank PVC pipes as well as screens or filters on the captures box and holding tank. We recommend that the few minor leaks be fixed so more gallons per minutes can come through. The Gran Planton water system could use the same system as that used in Micho and Tifon. All the faucets on this system also need to be updated to newer faucets. In regard to the clinics that we set up, the storage tool boxes that store the tools, generators, and compressors should have some ventilation holes drilled into them to allow for the venting of condensation and should be stored in a dry area. The last recommendation we make is to have the farmers in Timo grow a few tobacco crops for the use of de-worming their livestock.

## **Impressions**

I was personally very impressed with the wonderful people of Timo. My good friend, Remy, has been taking care of all of these water systems and figuring out ways to repair them for the common good of the people that use them, and he expects nothing in return. This is just one example of the many wonderful people we met. The locals did a lot of hard work for us, such as cooking great food and packing all of our heavy luggage and supplies. Their eagerness to learn and to get in and help

made it really easy to fall in love with these wonderful, warm, loving, and hardworking people. It is my hope and prayer that maybe in some small way the little bit of work that I did there will make some difference. I look forward to returning to Timo as soon as circumstances permit, to spend more time there with many new friends. I feel I have learned more and gained more from them than I could have given them. The team I went with was great, wonderful people who all had the same goal in mind: to work hard, to serve, and to try in their own ways to make this world a better place. They are noble people giving back, expecting nothing in return, but knowing in some small or big way they will be blessed for their efforts. Marc Aurel Martial was a great leader with a big heart. I am very impressed with all of his extra efforts to keep the team safe and with all the logistics he did to have everything figured out so the team can get doing the things they came to do in a very clean, safe, fun, hardworking, and awesome atmosphere. I admired his effort to maximize the team's efforts and impacts. I love this aspect. I could go on and on. I had a great trip to Haiti with HHI.