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Improving drinking water quality through innovative research, knowledge transfer, open source engineering, and design of sustainable, replicable water treatment systems

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Read the
latest update
from the
AguaClara
Engineers!

Introducing the AguaClara Newsletter!

Due to our ever-growing base of supporters and team alumni, we are proud to introduce the AguaClara newsletter! In this first issue we provide a focus on the implementation of our latest project in Cuatro Communiades.

An Update from Cuatro Comunidades

Excavation of the construction site at Cuatro Comunidades (Four Communities) has been completed and the foundation of another AguaClara plant has been set. In fact the flocculation tanks have already been cemented and most of the walls are up. Our Regional Partner, Agua Para el Pueblo (APP), a non-profit Honduran NGO who manages the project, knows the importance of community support of our plants and has worked to involve the community from the start. APP

works directly with the *Junta de Agua*, or Water Board, which acts as a liaison between APP and the community.

It is important to note that one of the most important social components of the project was already in place before construction began. Before the first stone was placed, the community and the *Junta* had agreed to contribute to the construction of the plant with labor



and materials and to raise the monthly water tariff to a sustainable level once the plant is built. Annexed to the construction agreement was a budget the *Junta* made planning how they will use the tariff to maintain and operate the treatment plant and water system.

On October 30th, APP and the two AguaClara Engineers who are alumni from the project team, John Erickson and Tamar Sharabi, organized a fair called FODA (which stands for Strengths, Opportunities, Weaknesses, and Threats in Spanish). In a comfortable environment, members of the *Junta* and other community leaders were able to evaluate



<u>Treatment Plants</u> In Honduras



Tamara, since 2008



Marcala, since 2008



Ojojona, since 2007

Under Construction:



Cuatro Comunidades

Special Thanks To Our Partners:



the current situation of the *Junta* and think about how to improve it.

Later in November, APP contracted a bus to bring 60 residents from the Cuatro Comunidades to Ojojona to see the first AguaClara plant constructed by APP. Pictured above, Antonio, the AguaClara technician employed be APP, explains the layout of the plant. The participants enjoyed the excursion to Ojojona and returned ready to build consciousness and enthusiasm in the Cuatro Comunidades for their future plant.

Also in November, several members of the Cuatro Comunidades *Junta* travelled to Marcala for an exchange event between four different Honduran communities involved with AguaClara. Operators and water board members from Tamara, Ojojona, Cuatro Comunidades and Marcala convened in Marcala to discuss the operation of their plants and to tour the Marcala plant.

Community ownership and support of AguaClara plants will continue to be a key factor in the success of the AguaClara project.

Haven't Heard? An Overview of the Project

Over thirty students from undergraduates to PHD candidates are working hard at Cornell University and on internships in Honduras to research, design, and implement AguaClara water treatment plants, all under the direction of Dr. Monroe Weber-Shirk. Research conducted at bench scale, pilot scale, full-scale, and through computational fluid dynamics increases our understanding of flocculation processes. The Design of AguaClara plants including the AutoCAD drawing is automatically generated by a program that is constantly tested and debugged by a team of students. Ultimately, the designs for our plants will be made available, thus allowing for open-source engineering.

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AguaClara.cee.cornell.edu CUAguaClara@gmail.com Hollister Hall, Cornell University