

Potable Water System for Quisayá, Chimaltenango, Guatemala

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Ann Campana Judge Foundation Project Report

PAVA Foundation

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This project, completed in December 2008, consisted of the installation of a water delivery system for the rural population of Quisayá, in the Department of Chimaltenango, Guatemala. This project was initiated by the residents of this small community, and designed, supervised and fostered through PAVA (Aid Program for Highland Communities), with the collaboration of local and municipal labor and donations, and a generous grant from the Ann Campana Judge Foundation.

The community of Quisayá has long recognized the need for clean water delivery to its population and had previously purchased the rights to a spring about 1 1/2 kilometers from the proposed water distribution site for the realization of this goal. Prior to the completion of this project, water had been carried in plastic containers from other sources near their homes. Mostly village women and children performed this time-consuming daily work which left them with much less time to devote to other important tasks, including education, childcare and attention to crops. Substantial effort was required to haul available water to homes for drinking, food preparation and bathing.

The objective of this potable water project was to improve the health and hygiene of the residents in this community by eliminating contaminated water sources and providing reliable, consistent water delivery to their homes.

Project Accomplishments

PAVA, with the assistance of the village of Quisayá, the municipality of San José Poaquil, and the Ann Campana Judge Foundation, constructed a 1,500 meter, spring fed, water delivery system to 420 people from 66 families. A single cement encapsulated spring box was constructed at the beginning of this system, and PVC/galvanized pipe lengths extended into a two catchment/distribution boxes, two pressure relief tanks and one collection tank. From there, separate delivery lines continued to cement basins (*pilas*) with water taps. The technical quality of the project design was modified by the efforts of former Peace Corps Volunteer, Katie Bovitz, who also supervised the implementation



Both PVC and galvanized pipe were used in the system.



PAVA staff member René Martínez collaborates with local and municipal workers studying pipeline placement.

and construction of the system along with PAVA staff members.

This potable water system took approximately two months and 15 days to finish, was initiated September 19, 2008 and ended successfully December 4, 2008, when it was delivered by PAVA and the municipality to the regional authorities (CONCODES) to encourage among the local community the principles of adequate and reasonable use of water and maintenance of the system.

An important aspect of this project was the enthusiastic participation of the leaders of the community who organized a segment of the local population (mostly men) to provide about 200 workdays of unskilled labor for the total construction of the system. The women of the community also had relevant participation, such that throughout the duration of the project, the municipality of San José Poaquil, an alliance that was promoted by PAVA, imparted training in hygiene, appropriate use of water, and rights and obligations of women and leaders. In addition, two individuals were designated from the community for the task of preventive maintenance of the water system and the metal lathe fabrication work necessary to form parts of the galvanized pipe system. This local, community involvement not only expedited the project but reinforced PAVA's philosophy of empowering local groups to accomplish their own goals. Through the implementation of this system, basic public health practices such as frequent hand washing, bathing, and sanitary food preparation can be accomplished as a matter of daily routine.



An additionally relevant part of this water project was the reforestation of 4,000 trees around the area of the spring. This effort was coordinated and supported by the environmental staff from PAVA, the community, and the municipal office of reforestation. This activity is anticipated to continue in the coming years, for which PAVA initiated the formation of a local committee from the community to establish family and village nurseries that will allow them to maintain this reforestation effort.



Overcoming Obstacles

Municipal government bureaucracy delayed the inception of the water project. A new law requiring projects that exceed spending of Q30,000(\$4,000) now have to be independently evaluated by engineering firms prior to the onset of those projects. This delay of the water project evaluation in Quisayá, as well as construction timelines extending well into the rainy season in Guatemala, slowed the anticipated progress of the project by two months. Although it would have been possible to simply circumvent the municipality of San José Poaquil and provide the funding for this project to begin on time, it is the goal of PAVA to encourage the community to work with the municipality, and even to expect assistance



Catchment tank construction(above) and completion.

from local government entities.

ACJF Fund Expenditures

The generous grant from the Ann Campana Judge Foundation of \$12,000 was incorporated into the general materials fund for this project. The following is a cost breakdown for this water project in Quisayá, noted in U.S Dollars.

PAVA/Ann Campana Judge Foundation	\$ 14,496
Municipality of San José Poaquil	\$ 3,947*
Community of Quisayá	<u>\$ 4,605*</u>
TOTAL COST	\$ 23,048

*The very low valuation placed on labor by the municipality and/or the community itself equates to substantially more manpower than this dollar amount would indicate.



The knowledge and experience of former Peace Corps Volunteer and PAVA staff worker Katie Bovitz (above) contributed to important modifications required for this water system.