

# SAN JUAN LAS PALMAS, CHIAPAS, MEXICO

## Community Water System Project

### THE COMMUNITY

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San Juan las Palmas is a Zapatista community located in the mountainous region northeast of the city of Ocosingo near the Mayan Archaeological Ruins of Tonina. There are 15 houses and approximately 150 inhabitants. In addition to the houses, there is a small school building, and small building for a church built with funds donated by Dr. Gregorio de Anda and his wife Dr. Aurora who work at the hospital in Altamirano. The community is approximately 1-1/2 hours walk from the nearest road.

### PROJECT DESCRIPTION

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In the trip report prepared by Ramon Lucero during his site visit in January of 2009 he wrote: “This is the poorest community I visited during my trip. There seemed to be little food and a very poor waterhole, which doesn’t run, is full of insects and shared with the horses. Unlike the communities in the jungle, the communities in the mountains do not get as much rainfall, which cuts down on the growing season. There are no running water springs only holes of water that are mostly stagnant and full of bugs. One of the leaders of the communities, a young man of approximately 17 years of age, explained the arduous trip he and his wife took to deliver their infant son, ill with diarrhea to the hospital in Altamirano. A trip that started by walking 1-1/2 hours to the nearest road and almost two hours by car, only to arrive at the hospital in Altamirano after dark with no place to stay. The infant son was treated at the hospital, but only after a long wait. The family slept within the confines of the hospital property, but outside exposed to the cold.”

Similar to other communities in the region, in order to prepare a cost estimate to build a water system, it was necessary to take elevations of the waterhole, the location of the proposed water storage tank and the community, as well as distance measurements between the community, the water storage tank and the waterhole.

The distance between the waterhole and the proposed water storage tank location is 235 meters and the distance from the water storage tank to the last house is 1,203 meters.



San Juan las Palmas Waterhole



A second option would be to dig and construct a hand dug well within the community. Although a hand dug well would not deliver water to the individual homes, it would provide a method of better protecting their water source. The well could hopefully be constructed similar to the hand dug wells and hand pumps from the Altiplano of Bolivia. There is a second waterhole lower in elevation to the community where a second well could be constructed.

A formal proposal and cost analysis is still pending. However a preliminary cost estimate of the proposed water system prepared by Ramon indicates that the cost of the gravity fed community water system would be approximately \$6,400.

Spring Catchment Tank Materials	\$ 1,280
Water Storage Tank Materials	\$ 2,150
Piping Materials	\$ 670
Specialized Labor	\$ 1,230
<u>General Project Contingency</u>	<u>\$ 1,070</u>
<b>Total Estimated Project Cost:</b>	<b>\$ 6,400</b>

It is estimated that the cost of constructing and equipping a well with hand pump unit would be approximately \$2,200.

Hand Dug Well Materials	\$ 1,020
Specialized Labor	\$ 820
<u>General Project Contingency</u>	<u>\$ 360</u>
<b>Total Estimated Project Cost:</b>	<b>\$ 2,200</b>

