

EIA VOLUNTEER EUCALITUS PROGRAM 2017

1. Information about the participant organizations:

Volunteer Team:

Team leader:

Phone:

Email:

Host organization: EIA

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EIA Project Manager:

Email:

Partner Community: Eucaliptus

Contact:

2. Community Description:

- Eucaliptus is a town located on the coordinates: 17°35'48.54"S, 67°30'32.86"the altiplano region with 4,413 habitants. Eucaliptus, is located on a slightly undulating plateau, interrupted by occasional chain of small hills, with a height of 3,700 to 3,800 meters, an average precipitation of 300 mm per year, and Strong winds that in some occasions cause damages to the crops and erode the soil. The Municipality is formed by a unique canton, Quelcata, that groups to 6 communities. It is located at 80 km. From the city of Oruro, by the road Panuro La Paz Oruro, also has another direct access, by road of the land Oruro - Inti Raymi - Eucaliptus, at 63 Km. Vegetation is formed by native grasses and shrubs typical of the highland flora. Overgrazing causes a large part of the soil to be found with little vegetation cover. The population is mainly of Aymara origin, and the languages that speak Aymara and Spanish.

- The municipal water system in Eucaliptus consists of one elevated tanks, two water wells, and a pipeline with household connections. Los Eucaliptus does not have a sanitary sewage system; instead, they use individual septic tanks and pits. The amount of water that the municipality delivers to town is not enough to fit the population water needs, for this, the municipality rationales water. Some sections of the town have troubles when they get deliver the water due to the location and demand of water.



3. Background

- The school is divided into high school and elementary school, they held 144 and 117 students respectively. Unidad Educativa Metodista is provided with water only two or three times a week for up to three hours a day. The flow rate is approximately 2 liters per minute and the quality of the water is poor.
- The school has two new restrooms for the students that have eight toilets each. These restrooms have washing stations including six sinks but two of them have been closed to save water.
- The water that serves the schools' restrooms flows to one plastic tank that is underground and has one electrical pump that pumps water to another elevated plastic tank which provides water to their respective sanitation facilities.

4. Problem

- The school have problems with access to water since the amount they receive from the municipality does not meet their needs.
- The problem is generalized to the whole community.
- Due to the inadequate quantity of water, the Methodist School is not using their washing stations. All the community is having the same problem with the availability of the water and the municipality is rationing the water.

5. Specific Team Objectives

- Make the hydraulic model of the current system of the eucalyptus community, to determine the best solution for increase the flow and with supply the collective demand for water.

6. Profile team members

- **Team lead**
 - Hydraulic engineer, modeling experience in WaterCAD, Epanet or similar software.
- **Second lead**
 - Civil engineer P.E. , experience on hydraulic design and software in hydraulic modeling
- **Member one**
 - Civil engineers, background in AutoCad and total station management
- **Member two**
 - Sanitary Engineer or related, for support activities.
- **Member three**
 - Enviromental engineer, for support the team on project.

7. Agreements

According to EIA guidelines for this type of volunteer program, the team needs to coordinate the date for the travel and pay 25% of the total amount to show a serious interest in the volunteer program and close that position.

8. Cost

The technical volunteer program is estimated to cost 1355\$ which includes,

- 5 Days for engineer work with the team, 2 in field 3 in office
- 4 Days renting the car plus gasoline
- 2 Days Driver
- Food for 4 days in field
- 1 Cell phone
- 1 complete survey equipment
- 6 days lodging (shared room)
- Airport Pick Up
- Volunteer fee
- Tourism Activity (Death Road, Trip to Titicaca lake, Visit Tiwanacu ruins)

9. Permanence in country and trip activities

- The trip is estimated for 10 days; this 10 days are distributed as: one day for acclimating, two days for trip, two full days in field, three days of work office and one free day in the city
- The activities in field will be coordinated with the EIA staff member assigned to project.
- The activities in office is going to be with the assigned engineer.