

TO: ROTARY PARTNERS
FROM: ANDREW DANE, ROTARY CHIPPEWA FALLS, WI
RE: MARCH 9-19 2005 COCHABAMBA VISIT
DATE: 4/26/05

The following is an account of my recent visit to Cochabamba, Bolivia. I hope that my account may be of some value to the Alaskan scoping committee as they prepare for their trip. In addition, I hope this memo will be of value to the Cochabamba – Tunari Rotary club, as they build support for and coordinate this international project.

I traveled to Cochabamba with Dr. David Crane, the world-renowned dentist and Cochabamba enthusiast from March 09 to March 19, 2005. A significant part of my “mission” was to familiarize myself with the Buena Vista/Illimani water project, which Chippewa Falls Rotary Club has committed \$5,000 dollars toward thus far.

I will describe my findings and provide brief recommendations below. The red text was provided by First City Rotary, AK, in Part 5 of their Rotary Foundation IGA, submitted on December 9, 2004. I found the following questions very helpful in terms of framing my own “fact-finding” while in Cochabamba:

5. How will both the Host and International Partner Clubs participate in the planning mission?

The following information needs to be acquired by the primary International Partner’s scoping committee:

1. Verify the land ownership and right of way approvals.

This is an on-going process. I understand that the government has formally decided to regularize these land holdings by providing title.

Recommendation: At the very least, some type of signed agreement for right of way approvals where water pipes are crossing individual properties. Also, the land ownership for the proposed well site will need to be verified.

2. Verify water rights

The latest proposed site (as of March 05) for locating the well is on private property. As I understand it, according to Bolivian law, groundwater is considered a State governed resource and permits for its use are required.

Recommendation: Provide a letter of “solicitation of support” to the Prefect of Cochabamba, Department of Infrastructure Development. This State agency made a verbal agreement to Andrew Dane and Helena provide free assistance to the water project, including assistance with this type of due diligence.

3. Verify water quality and quantity

This may require an additional study once the well site has been finalized.

4. Understand the legal framework of the water cooperative and verify that the operation of the water cooperative will assure water distribution to the residents of San Antonio de Buena Vista and Illimani into the future.

Bolivian water law spells out the legal framework for water project planning, implementation, and management. Chapter 20-66 is available on the Internet. The City's "Mejoramiento de Barril" program is designed to ensure that communities meet the legal requirements necessary, including the structure and way in which water cooperative is established.

Recommendation: Obtain copies of "Mejoramiento de Barril" program materials from the City of Cochabamba

5. Establish mutual understanding between the two Rotary Clubs that all accounting, contracting, and reporting practices meet the Rotary Foundation approval.

This should be very straightforward. Rotary – Tunari has a lot of experience executing these types of projects.

6. Verify that the construction methods, cost estimates and project management procedures are acceptable.

I cannot speak to the technical aspects of the project. However, I would emphasize that building the water infrastructure is the easy part. Training the operators of the system and developing mechanisms to ensure long-term sustainability will be more challenging. Adequate attention must be paid to the training component of the project.

Water Project Overview

The following is a simplified overview of the water project's three main components:

- **Engineering:** The project has been engineered by **Jorge Pardo** (see below for more information). Additional engineering will likely be needed once the well site is finalized. The consultant company, **Mendizabal and Associates** (see below) has agreed to review the engineering work and provide supervision as necessary.
- **Construction:** Some construction will be done using donated labor, such as the canals for the water pipes. However, for the more technical aspects, a professional contractor will likely be needed. Supervision will likely be done by Jorge Pardo, consultant. Quality control may be provided by some combination of the following individuals and organizations: Mendizabal and Associates, consultant, Leonardo Anaya, Dept. of Infrastructure Development (see below)

- **Training:** The City of Cochabamba, through the Mejoramiento de Barril program and SEMAPA, helps communities with all of the required paperwork and provides training for water communities managing their own water systems. Complimentary capacity building may be done through a combination of the following individuals and organizations: Mendizibal and Associates, the local school, and Rotary - Tunari).

ADDITIONAL RECOMMENDATIONS:

The following are a list of additional recommendations based on my short trip to Cochabamba, including interviews with representatives of SEMAPA, the City of Cochabamba, the Department of Infrastructure Development. All of this information is likely spelled out in the City's "Mejoramiento de Barril" program. More specific information on the "Mejoramiento de Barril" program would be helpful.

1. Provide a letter of solicitation of support to the Prefect of Cochabamba, Dept. of Infrastructure Development. The letter should be addressed to Juan Carlos Baya, requesting assistance for the Buena Vista/Illimani water project. (Contact information below)
2. Type up an inter-institutional agreement outlining the roles and responsibilities of the following agencies before signing any contracts:
 - a. City Hall – Cochabamba
 - b. SEMAPA
 - c. Buena Vista OTB (neighborhood association)
 - d. Illimani OTB
 - e. Buena Vista/Illimani Water Committee
 - f. Any "Comite de Vigilancia" with overlapping jurisdiction into project site
 - g. The Cochabamba Prefect, Dept. of Infrastructure Development
 - h. Any consultants working on the project
 - i. Any Rotary Clubs involved in the project
3. Official letters of intent from the Buena Vista and Illimani Neighborhood Associations and the Water Committee stating that they will purchase the land for the well site by XX date.
4. Official letter of authorization from the Buena Vista and Illimani Neighborhood Associations authorizing the construction within their two communities of all of the necessary infrastructure to complete the project.
5. Develop a plan to improve the overall health of the community, including such complimentary goals as: a) Basic Sanitation Education b) Environmental Education c) On-going Capacity Building for the Water and Sewer Committee or EPSA d) Community Gardens, etc...

APPENDICES:

Water Engineer Consultants

- Ingeniero (Engineer) **Jorge Ernesto Rojas Pardo**, T 423.1136, Cel 779.67240, jerpardo@hotmail.com

Jorge is a civil engineer that has done much of the preliminary work on the project, including attending a number of community meetings. I believe he helped put together the official project outline for SEMAPA. He is not working under contract at this time.

- **Mendizabal and Associates**, Ingeniero (Engineer) Vladimir Mendizabal, President, Av. Portales E-0455 Edif. Portales Planta Baja, Queru Queru Casilla Postal No 313, T 448.7133, 448.7134, F 448.7135, mendicon@supernet.com.bo

Vladimir Mendizabal is an international engineering expert and has agreed to provide low-cost technical assistance for the water project. His company specializes in civil engineering and has a tremendous amount of experience with water projects. In addition, Mendizabal and Associates have developed training resources or “acompanimiento” to help ensure sustainability of community water projects.

A very rough framework showing governmental agencies with roles in water project planning and implementation

1. Ministry of Services and Public Works (Federal)
 - a. Vice Ministry of Basic Services
2. Prefect of Cochabamba (Department or State)
 - a. Department of Roads and Infrastructure (Met with these people, contact information provided below)
3. City of Cochabamba. City is divided into districts. Sub-mayors may represent one or more districts of the City.
 - a. SEMAPA – under the City, set up as a public utility to provide water/sanitation services
 - b. Department of Planning
 - i. Office of Special Programs “Mejoramiento de Barril” program for smaller communities that need water now and are developing their own self-run systems in the absence of SEMAPA run infrastructure.

4. The OTB's or Neighborhood Associations of Illimani and San Antonio de Buena Vista are in District 9 of the City of Cochamba. The District has a Sub-Mayor.

City of Cochabamba (Alcaldia)

The City is currently undergoing an overhaul of its administrative structure. The number of city districts is being reduced and the organization is being reorganized. An on-going theme is that of political decentralization, giving more power to more local units of government than before.

The City has a council and a mayor and 5 major departments: 1) technical services, 2) Administration/Finance, 3) Planning/Environment, 4) Human/Cultural development, 5) Institutional/Economic development. The "Mejoramiento de Barril" program is located in the Planning/Environment department within the office of "special programs."

City hall includes **SEMAPA**, the official water utility that is run as a public corporation. I met with one of Semapas' directors, whom I believe also runs the Planning/Environment department for the City.

The Buena Vista/Illimani Water System project dated February 2003 was designed and approved by SEMAPA. SEMAPA would like to extend its water lines to service the peripheral communities of Cochabamba as financing becomes available in the future. The current project design takes into account these future plans.

The City administers a program, "Mejoramiento Barril", which provides training and supervision to community water projects, such as the Buena Vista/Illimani project.

Cochabamba Prefect, Department of Infrastructure Development

This agency is a Departmental branch which falls under the Federal Ministry of Housing and overseas construction of roads and other civil engineering projects, including basic sanitation within the Prefect, or Department, of Cochabamba. They work throughout the Department of Cochabamba and the City of Cochabamba, partnering with municipal governments to provide coordination and oversight of projects. They have limited resources to finance projects themselves, but they made a verbal commitment to provide oversight assistance to the project if requested. As part of the legal requirements for implementing a community-based water and sewer cooperative (EPSA), this State agency will need to eventually approve the project. This State agency plays a role in overseeing groundwater usage within the Department.

Ingeniero (Engineer) Juan Carlos Baya, T 717.35858, F 449.0497

Director of the Dept. of Infrastructure Development

Ingeniero (Engineer) Leonardo Anaya, T 717.56894, leo.anaya@acelerate

Jefe Unidad de Saneamiento Basico y Vivienda
(Head of Basic Sanitation and Housing)

Ingeniero (Engineer) Veronica Balderama (speaks fluent English), T 774.03947,
Jefe Unidad de Fiscalizacion de Obras
(Head of Project Accounting)

Web Sites

www.rotarycleanwater.org

Rotary list of water projects

www.purewaterfortheworld.org

International water NGO

www.waterforpeople.org

International water NGO

www.ine.es

Bolivian National Statistics Institute

www.oopp.gov.bo

Ministry of Services and Public Works

www.sias.gov.bo

Bolivian Vice Ministry of Basic Services (under Ministry of Services and Public Works)
Excellent website, includes Water Law 20-66, water project guides, water statistics and maps, list of international partners...

<http://www.irc.nl/>

IRC International Water and Sanitation Centre

Current Rotary Partners

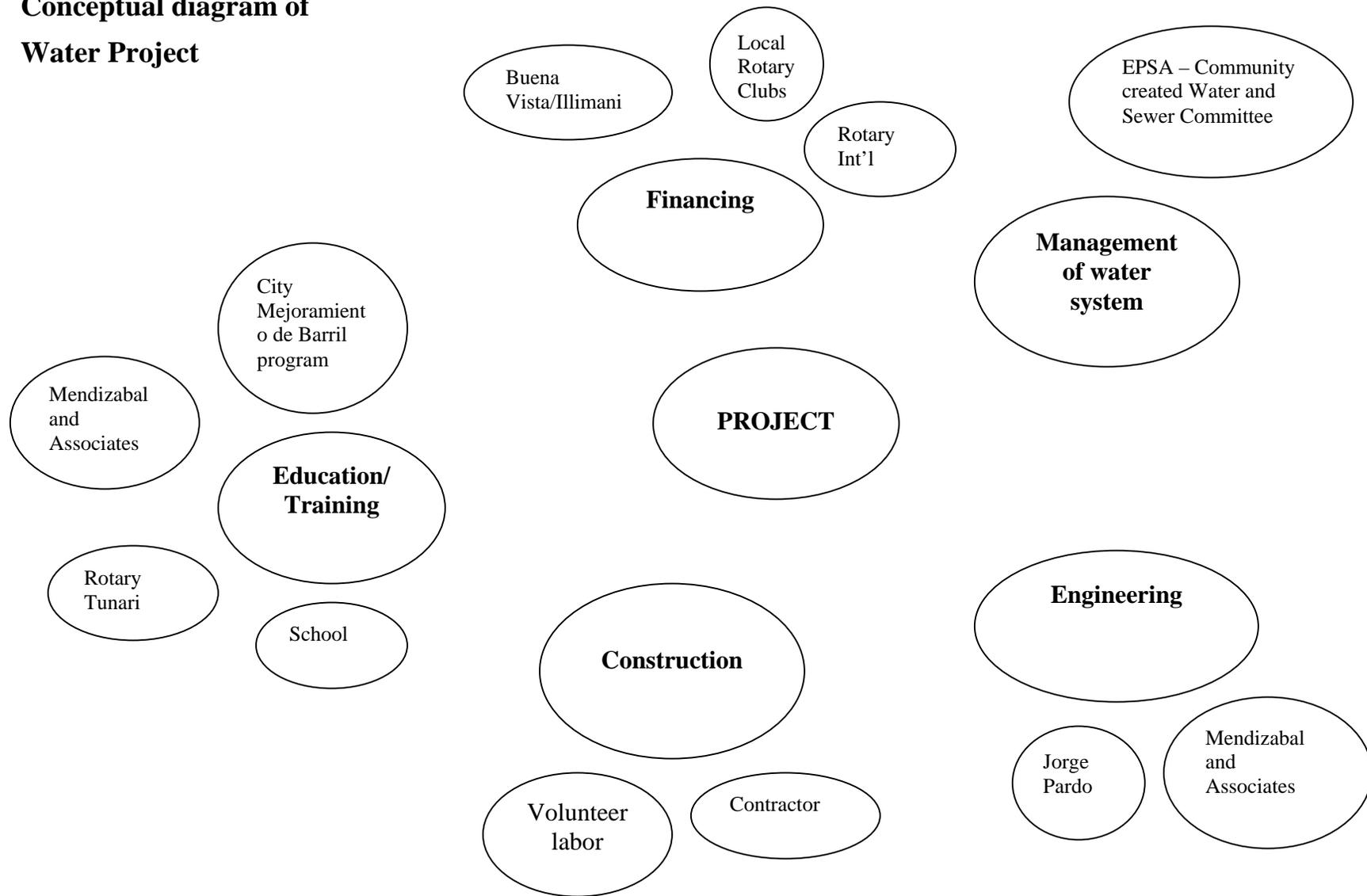
Chippewa Falls Rotary, WI

<http://www.discover-net.net/rotarycf/service.htm>

First City Rotary, AK

<http://firstcityrotary.org/>

Conceptual diagram of Water Project



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