Community Application for an EWB-USA New Program/1st Project

BACKGROUND INFORMATION – PROGRAM VS. PROJECT

The EWB-USA theory of change is that all members of our partner communities will enjoy an improved quality of life through being able to access, use, and maintain technologies that are appropriate to their needs.

We seek to approach community development holistically – implementing engineering projects that are part of larger community development programs. The distinction between a project and a program within the context of the EWB-USA process is as follows:

- A program represents the overarching commitment between a chapter and a community to collaborate on community-driven projects.
- Within a program, chapters will often partner with the community to implement multiple projects which address the needs identified by the community.
  - For example, a slow-sand filter project followed by the construction of composting latrines are two separate projects within the same program.
- Managing multiple projects within one program allows chapters and community partners to take a more holistic and integrated approach to community-driven development.
- Programs also incorporate community-needs assessment, education, as well as monitoring and evaluation components.
- Chapters and communities must commit to a partnership for a minimum of five years in order to accomplish all that is required for a sustainable community program.
- Examples of projects implemented by chapters and partnering communities include: water supply, sanitation, school construction, road improvements, energy improvements, etc.

In this application, the community will be asked to address both the overarching community development program, as well as the first proposed project within the program.

CRITERIA CONSIDERED BY OUR APPLICATION REVIEW COMMITTEE (ARC) AND REQUIRED DOCUMENTATION

- Community Organization and Involvement— In order for EWB-USA projects to succeed, communities must be highly organized and motivated to contribute to the project(s). We believe that communities know their needs, resources, and constraints best and therefore, it makes sense that the request for partnership comes directly from the community. This application should demonstrate that the community has been actively involved in the development of the project proposal and is driving the application process. To demonstrate this, applications must include the following:
  1) Community-Based Organization (CBO) – An existing community-based organization (CBO) that has the capacity and interest to act as the primary partner for the project must be included on the contact page. The CBO can range from a local women’s group to a farming cooperative to a town council.
  2) Community Contact – At least one community contact and his/her contact information (e-mail and/or phone number) must be listed on the contact page. This person must be a member of the community.
  3) Letter of Endorsement from Community Representatives – The goal of this letter is to verify that the community is requesting the partnership with EWB-USA. In the letter, community members should express, in their own words, what the need is, why they are requesting a partnership with EWB-USA, what their commitment and contribution to the
proposed project will be, and what they have done up to this point to address the issue. This letter must state that the community understands they will be responsible for the required minimum 5% cash contribution towards the construction costs of the proposed project and is committed to providing this contribution (see more details under the criteria, “Community Cash Contribution for Construction Costs”). This letter can come in the form of an e-mail, document which is scanned and e-mailed, fax, or an account of a phone call which is transcribed. Please include this as an attachment to this application.

- **Local Partnering Organization** – EWB-USA projects are most successful when there is a three-way partnership between a CBO, a non-governmental organization (NGO) and/or local government, and the EWB-USA chapter. Therefore, in addition to a partnering CBO, there must be a local NGO and/or local government (municipal/city) included as a primary partnering organization in the contact section of the application.

  Please see document 511 – Project Partner Roles and Responsibilities for more details about the typical roles and responsibilities of each project partner. This is available on the EWB-USA website.

  **Expatriate Volunteers Please Note:** If the application is being submitted by an expatriate working in a community or for an NGO (Peace Corps Volunteer, missionary, or similar), there must be another partnering organization and community contact listed on the application, in addition to the expatriate volunteer.

- **Community Financial Contribution for Construction Costs** – EWB-USA is not a funding organization and will only collaborate on community-driven projects. As part of the community-driven criteria of all EWB-USA projects, we have always required a significant contribution from partnering communities. In support of this, beginning on September 1, 2013, EWB-USA will require a minimum 5% community financial contribution for all projects. This was announced in September 2012 and is based on best practices learned from our projects, as well as findings within the field of international development. The financial community contribution can come in various forms, such as from individual families, the local government, and/or local grant programs. EWB-USA understands that final constructions costs are unknown at the application phase in the project process. Our chapters are committed to working with community members to determine alternative solutions that are within the limits of what community members can afford. Please address this commitment in the Letter of Endorsement from Community Representatives (instructions noted above), as well as in Section A.4) of this application.

  For more details regarding the community cash contribution, please see the Frequently Asked Questions (FAQ) and the summary paper, which are available on the EWB-USA website.

- **Community In-Kind Contributions** – In addition to the community financial contribution, the community is also expected to provide in-kind contributions for the proposed project(s). In-kind community contributions may include: unskilled and skilled labor, project materials, material transport, tool use for the project, translation support, logistical support for the chapter, food and/or lodging for the chapter, etc. Please address the in-kind community contributions for the first proposed project in the Letter of Endorsement from Community Representatives and in Section A.4) of this application.

- **Project Ownership** – Project ownership must lie within the community and the proposed project facilities must be owned by the community. This should be addressed in Section B.2) of this application.

  If the program is being proposed by an in-country NGO, in conjunction with a CBO, the following are requirements:

  1. The NGO should have permanent presence in-country.
2) The NGO should state in the application that it understands that project ownership lies with the community, not the NGO.

- Financial Independence and Sustainability — EWB-USA does not provide cash donations or grants to communities. The Program, and each project within the Program, must demonstrate financial sustainability. This application must demonstrate the ability of the community to maintain projects once the projects have been implemented. EWB-USA may provide financial support for project implementation, but this should not be expected. In addition, it is the communities' responsibility to create a fund for ongoing maintenance. The long-term funding sources and overall plan for financial sustainability, including operation and maintenance, must be addressed in this application in Section B.2). For example, a community wishing to implement a water project must demonstrate the ability to create a water committee which will collect monthly fees from community members for maintenance and repair costs. Without the ability to maintain the infrastructure, the project will never be sustainable. Therefore, a Program will be declined if it is clear that the community would always depend on donor support for the projects to be sustained and maintained over the long-term.

- Mission and Vision – The overall Program and proposed first project must be in-line with EWB-USA's mission and vision.

- Scope of work – The Program and each project within the Program must be within a reasonable scope to be realistically developed and completed by a group of engineering volunteers. We typically collaborate with small communities (100-5,000 residents) on projects that cost well under $100,000 to implement.

- Open Access - The Program and each project within the Program must be openly accessible to all members of the community regardless of race, religion, or social standing. EWB-USA projects must not be used as a means of proselytism. The Program and each project within the Program must benefit the entire community.

- Long-term Commitment - EWB-USA requires that both our chapters and the communities we work with commit to a five year partnership. Unfortunately, EWB-USA is not in a position to provide emergency humanitarian relief.

- Community Statement of Intent - Community leadership must sign the Community Statement of Intent at the end of this application. This statement demonstrates the community's acceptance of the requirements listed in working within our organizational community-development model. This confirmation of acceptance is required for the application to be considered for approval.

- Criteria for Orphanage and School-Related Proposals – For program applications which are being submitted by or on behalf of an orphanage or a school, please see Appendix A – Criteria for Orphanage and School-Related Projects. Responses to how these criteria will be met must be included in Appendix A of this application.
SUBMITTAL OPTIONS

• NO EWB-USA CHAPTER AFFILIATION ESTABLISHED: If the applicant is a CBO, or a local NGO and CBO applying together, please complete this application in Microsoft Word format and submit to projects@ewb-usa.org, with the required Letter of Endorsement from Community Representatives attached.
  o Please note, while outside NGOs and individuals are welcome to assist communities with submitting an application, the application should come directly from an organization based in the community. This requirement is consistent with our community-driven approach to development. You can learn more about our overall approach for implementing community programs on the EWB-USA website. Please note that a Letter of Endorsement from Community Representatives is required with this application.

• EWB-USA CHAPTER AFFILIATION ESTABLISHED: If a community is applying along with an EWB-USA chapter, the chapter can find more information regarding the 502 – Chapter Application to Acquire an EWB-USA Program process on the myEWBUSASA website. Both applications should note the partnering chapter and community. In addition, both applications should be in Microsoft Word format and should be submitted to projects@ewb-usa.org with the required Letter of Endorsement from Community Representatives attached.

APPLICATION REVIEW PROCESS AND PROGRAM ADOPTION

• Monthly 501 application deadline is the last day of each month.

• 501 applications are submitted to the Application Review Committee (ARC) on the first day of each month. The ARC reviews the application and makes the final decision. The review process will take 4-6 weeks, during which time the submitter may be contacted with questions.

• If the application receives a request via e-mail to answer questions or provide further clarification from a member of the ARC, the applicant has ONE WEEK to respond. If the applicant needs more time to respond, he/she must still respond to the ARC member within ONE WEEK and request more time to gather the responses.

• If no EWB-USA chapter is affiliated with the program application and the program is approved, the applicant will be contacted with information on the next steps in the process. The timeframe for program adoption by a chapter may take up to a year and some programs are not adopted by a chapter.

• If there is an affiliated chapter with the program application and the program is approved, the applicant and the chapter will be contacted immediately with details regarding the next steps in the process. The chapter can find more information regarding the 502 – Chapter Application to Acquire an EWB-USA Program process on the myEWBUSASA website.

• If the chapter application to adopt the program is declined, the 501 applicant will be contacted with other options.

• To learn more about the project process after the program has been approved and adopted by a chapter, please see the EWB-USA website.

TRAVEL SAFETY AND SECURITY

• EWB-USA will not approve new programs in any country or areas within a country rated as “Extreme Risk” by the ISOS Country Risk Guide.
• EWB-USA will not approve new programs to any country or areas within a country rated as “High Risk” by the ISOS Country Risk Guide.

• EWB-USA will not approve new programs in a country if UN Peace Keepers are in-country due to a threat of violence.

• EWB-USA will not approve new programs in a country if major airlines have pulled their travel operations due to security reasons.

• EWB-USA will not approve new programs in any country which has no diplomatic or consular ties with the United States.

• EWB-USA may approve a new program in a country with a Department of State “Travel Warning.” However, the chapter will have additional travel requirements to follow before travel approval would be granted.

• EWB-USA will not approve a student chapter to adopt an EWB-USA program if it’s University/College has travel restrictions for a specific country or provides an objection to their traveling. In accordance with the Student Chapter Agreements, all student chapters are also obligated to adhere to and satisfy the requirements of their university.

• Program restrictions will be considered on a case by case basis in countries where the U.S. Peace Corps has pulled out or has been suspended due to security reasons.
SECTION A: PROGRAM INFORMATION

EWB-USA is committed to a long term relationship with communities. The purpose of Section A is to outline all of the important needs of the community so that chapters can achieve a broad understanding of the community. Within a program, there may be one or many projects. Please note that only the first proposed project in this program can be approved with this application.

A.1) Program Information

1) **Today's Date**: 2/21/2014

2) Please check one of the following boxes:
   - [ ] New Program Submitted by community-based organization with no EWB-USA chapter affiliation
   - [x] New Program Submitted by community-based organization with EWB-USA chapter affiliation

   (If this 501 application is approved, the chapter must submit a chapter application to adopt the program)

   - If a chapter of EWB-USA has agreed to submit a 502 – Chapter Application to Acquire an EWB-USA Program, please provide the following information:
     
     Name of Chapter(s): **University of Minnesota**
     
     Chapter Contact person: **Ian Pierson**
     
     Chapter E-mail Address: **piers206@umn.edu**

   - If this is a student chapter, does the university/college allow students to travel to the destination country?  
     __x__ Yes  
     _____ No

   - Please describe how you initially came in contact with an EWB-USA chapter and briefly describe any contacts you have had with the chapter. Has a chapter been working in your area? Have chapter members visited your community already?

     A member of Engineers in Action was a former member of EWB-USA UMN, and connected the community with the chapter when they were looking for a new project. Chapter members have not visited the community, but members of Engineers in Action have visited.

3) **Country**: Bolivia

4) **Region (State, Department, Province, or District, etc.)**: Department: **Potosi**, Province: **Nor Chichas**

5) **Location in Country** (e.g. South West Kenya, 30 miles from Tanzania): **Near Vitichi, approximately 160 km sout of Potosi**

6) **Community**: **Yulo**

7) **Community Geographic Coordinates**: Google Earth may be used to determine coordinates. Care should be taken to get the relative direction for the latitude (E/W) and longitude (N/S). Please use N, W, S, or E as a prefix to indicate the relative direction from the equator or Prime Meridian. For
example: S 44.0354, W 98.3342.

S 20°28'24.5" W 065°29'07.6"

8) Coordinates for the first proposed project of this Program:

S 20°28'24.5" W 065°29'07.6"
A.2) Partnering Organization(s) Contact Information

_Expatriate Volunteers Please Note:_ If the application is being submitted by an expatriate working in a community or for an NGO (Peace Corps Volunteer, missionary or similar), there must be another partnering organization and community contact listed on the application, in addition to the expatriate volunteer.

1) **Name of Community-Based Organization (CBO) (REQUIRED):** The Water Committee of Yulo  
   (Examples include: water board, community development committee, women’s committee, village council, etc.)
   
   **Mission of the requesting organization:** The Water Committee was formed to coordinate with FIEA in the application process for an EWB project. It will also be key negotiator on behalf of the community in project development with the EWB-Chapter; and will be the responsible local community organization for operations, collection of fees, maintenance and repairs, in partnership with their Municipal government.

   Website of organization (If applicable): N/A

2) **Name of Local Partnering Organization (Local NGO and/or local government) (REQUIRED):** Fundación Ingenieros En Acción, FIEA, organization which is a national coordinator between the communities and eleven EWB chapters
   
   **Mission of organization:** To enable engineering solutions to improve the quality of life of the indigenous communities of Bolivia through facilitating sustainable partnerships between engineering organizations and those communities. (FIEA is the Bolivian ‘arm’ of Engineers in Action.)

   Website of organization (if applicable): [www.engineersinaction.org](http://www.engineersinaction.org)

3) **Name of primary project contact person (REQUIRED):** Ricardo Condori
   
   **Position/Affiliation with organization(s) listed above (REQUIRED):** Engineering Project Manager
   
   **Contact email:** ricardo.condori@engineersinaction.org
   
   **Contact phone:** (591) 75851739
   
   **Contact address:** C. Aspiazu 775, La Paz, Bolivia
   
   _NOTE: Either a contact e-mail or phone number is REQUIRED_

4) **Name of primary project facilitator/contact in the community(REQUIRED):** Ricardo Condori
   
   (Once a Water Committee is formed they will select a person to be the primary contact within the community.)
(Note: This person must be located in the community and will be the primary community contact for the EWB-USA chapter. This might be the same person as listed above):

Position/Affiliation within community (REQUIRED): Engineering Project Manager
Contact email: ricardo.condori@engineersinaction.org
Contact phone: (591) 75851739
Contact address: C. Aspiazu 775, La Paz, Bolivia

NOTE: Either a contact e-mail or phone number is REQUIRED
A.3) Program Description

1) **Community Program Goals:** The Program is the overall mission of project-related efforts in the community. There may be several projects within a single Program. In the table below, the community will identify their Program-related goals by checking the elements of change in the community that EWB-USA's project involvement might affect:

<table>
<thead>
<tr>
<th>EWB-USA Change Element</th>
<th>Community Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in public health</td>
<td>x</td>
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<tr>
<td>Change in environmental health</td>
<td>x</td>
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<tr>
<td>Change in behavior</td>
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<td>Change in access to services</td>
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<td>Change in technical knowledge related to projects</td>
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<tr>
<td>Change in community organization</td>
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<tr>
<td>Change in community self-advocacy</td>
<td>x</td>
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</tbody>
</table>

2) **Program Description** (One-Three paragraphs: Approximately 300 words):

- Provide background on the community, including the primary needs of the community and current economic situation.
- Why is this Program necessary, and how will it improve the conditions of the community?
- Please include the Letter of Endorsement from Community Representatives as an attachment to this application. See the above section “Criteria Considered by the ARC and Required Documentation” for more details regarding the required content of the letter.
- Please sign the Community Statement of Intent from Community Representatives in Section C of this application. See the above section “Criteria Considered by the ARC and Required Documentation” for more details regarding the required statement.

Yulo is a small Quechua community in the Municipality of Vitichi, Potosi; as most of the surrounding communities, is extremely poor and lacking in basic infrastructure. The residents are mostly subsistence farmers and survive on growing corn, potato, peach, barley, lime bean, grape, fig, apple, pear and cherimoya. All of these crops are growing in the area surrounding a contaminated river (Juckucha River) and are irrigated with that water.

The Juckucha River has been contaminated for centuries from the acid mine drainage from abandoned mines about 80 km upstream of Yulo which date back to the Spanish colonial era. All of the water is needed for agricultural use by local farmers. However, the local farmers know that the water is unsafe. The metals in the water leach into the ground, and we have found high concentrations of cadmium, lead, tin and zinc in the potatoes, and even in blood samples taken from local residents. It is a deadly environmental situation.

The community has many additional needs, including improved housing infrastructure, ensuring that their drinking water is completely pure, and irrigation infrastructure and improved agricultural systems. The community already has a drinking water system from a spring source, but the water quality is not yet known.

The goal of this program is to improve the quality of life in Yulo, by improving access to basic necessities and economic opportunities. With this program we hope to primarily improve the water for irrigation,
improvement of the agriculture through reduction of the contamination effects, and safe water for animal consumption and household uses, as well as to address additional needs that the community identifies.

While Yulo is a ‘stand-alone’ project, it is a critical piece in a comprehensive plan to improve life along the Juckucha River. This plan includes water treatment plants for both the ancient/abandoned and active mines, government designed & built projects in the La Lava area; and 3 FIEA/EWB projects in Vitichi. (Aripalca/EWB-Univ of Florida begins implementation this summer; Calcha/EWB-Cornell was just approved and begins Assessment this Spring. Yulo/EWB-Minnesota will be the third EWB project.)

The key to the sustainability of this program is insuring that the community plays an active role in the planning and implementation of the projects. EWB will work with the community to make sure an adequate structure is in place to maintain the systems and that the potential expansion of the community is planned for. With the health benefits and the potential for increased agricultural production, Yulo’s clean water will not only improve the quality of life in the community, but also improve its economic viability in years to come.
A.4) Partnering Organization(s) and Community Collaboration

EWB-USA is not a funding agency. EWB-USA partners with communities to improve quality of life by providing technical assistance for the design and development of sustainable engineering projects. We expect community contribution to EWB-USA programs, as this has been found to improve Program success and long-term sustainability. Likewise, we require a partnership with a community-based organization to ensure the sustainability of the Program.

1) Collaboration of Partnering Organization(s): Briefly describe the local partnering organizations for this Program, including the CBO and the local NGO and/or local government.

FIEA was originally created to be an ‘in-county’ partnering organization for EWB-USA in Bolivia. EWB will partner with Fundación Ingenieros En Acción (FIEA), a non-profit with offices in La Paz, Bolivia, and with the community and leaders of Yulo. FIEA is dedicated to facilitating partnerships between engineering organizations and communities. The community is one of the thousands that live in the contaminated basin, so that FIEA was approached by the community of Yulo for engineering assistance and is serving as a liaison between the community and the EWB chapter. FIEA additionally provides logistical support in Bolivia and assists with follow-up and monitoring at times when the EWB chapter cannot travel. FIEA can provide the service of translating documents, engineering advice, project follow-up, purchase and delivery of hard to get materials, and other logistical matters for the team while they are in the country and after they leave. FIEA does not provide financial support.

The Rotary Club of Potosí also helps FIEA with communication in the Potosí area, which includes Yulo. The Rotary Club members can further facilitate logistics and information about local materials.

Depending upon the needs of the project, FIEA can facilitate support from other NGO’s and Governmental sources including the German and Japanese Development Agencies in Bolivia, regional water or electrical cooperatives, and Bolivian National financial assistance.

2) Community Cash Contribution: How does the community plan to raise the minimum required 5% cash community contribution? What are the community plans for ensuring that cash contributions will be transparent to the whole community to minimize the risk of the misappropriation of funds? How will the funds be kept secure?

The community knows that the contributions will be transparent to the whole community, to minimize the risk of the misappropriation of funds, they have an organized system of leaders that are chosen by the community, one of them is the leaders of cash contributions, and the other is the leaders of the water management. So coordinating together they will manage the contributions. Also at the end of each year, as new leaders are chosen, the leaders give a report of all the money that they had used and the amount of money that they have in cash for the next year.

3) Community In-Kind Contributions: What in-kind contributions will be offered by the community (unskilled and skilled labor, project materials, material transport, tool use for the project, translation support, logistical support for the chapter, food and/or lodging for the chapter, etc.)?

The community members and community leaders of Yulo will assist with manual labor into their possibilities and local materials, such as stones, water, sand, etc., during the implementation of the project and will provide some tools for the use of the project. Each family will contribute money, even if a very small amount, to the construction of the project. The project will only be carried out when the municipality and the community contribute 5% of the cost of the project, and we expect that percentage to be much more. FIEA will make sure that the community asks the municipal (county) government to purchase some of the materials for the project.
4) **Presence of Other Organizations:** What other organizations are currently working in the community? How do your projects complement/detract from each other?

The municipality supports the community with education and health programs; also the municipality and the national financial support have been working in the implementation of a small potable water system but they are not working in the problems related directly with the contaminated water. There are no NGOs working in this community, besides FIEA.

5) **Communication Plan:** Please describe the communication plan between the primary partnering organization/community contacts and the EWB-USA chapter. What will the primary means of communication be when the chapter is in the U.S. (i.e. e-mail, phone, etc.)? Will communication be in English or will there be translation needs as a part of this communication plan? How frequently will community partner(s) be in contact with the EWB-USA chapter? Will the EWB-USA chapter be able to reach community partner contacts whenever the need arises for project-related and/or logistics-related questions?

The primary means of contact between the community contacts and the EWB-USA chapter will be email, with phone and Skype options available when necessary. Communication will primarily be in English, through Ricardo Condori with FIEA, or Spanish, when speaking directly to the community. Community partners will be in contact with the EWB-USA chapter at least biweekly for project updates, and likely even more frequently as the occasion arises. FIEA will be reachable for project-related and logistics-related questions.
SECTION B: FIRST PROJECT OF PROGRAM

Please outline the first proposed project of the Program in Section B. The community should understand that the first proposed project and any proposed solutions in this application may need to be altered after the chapter has completed the initial assessment trip.

B.1) First Proposed Project Description

Project Title (for first project only): Impact reduction of river water contaminated by mining activities

1) Project Summary: Provide a short overview of the scope of work of the first proposed project.

This project will consist of planning and implementing a water treatment program for 35 families living in the community of Yulo. The source will be the river that goes near the community, which is currently contaminated. The water will be collected from the river and delivered via tubing to a structure for treating and filtering the heavy metals, thereby providing safe water for domestic use, animal consumption, and irrigation.

The specific solution will be determined by first studying the condition of the water, feasibility of the treatment system, characteristics of the community, and exact location of the treatment construction(s), the details of which will be determined during the assessment trip.

2) First Proposed Project Type: Please check ONLY ONE project type that best describes the services and needs addressed by the first proposed project. Note that only the first project in this program can be approved with this application. For subsequent project approval within this program, the affiliated EWB-USA chapter must submit the 501B – New Project within Existing Program Application.

   __x__ Water Supply
   ___ Sanitation (examples – latrine, gray water system, black water system, etc.)
   ___ Structures (examples – bridge, building, etc.)
   ___ Civil Works (examples – road, drainage, dam, etc.)
   ___ Energy (examples – fuel, electricity, etc.)
   ___ Agriculture (examples – irrigation, fish farm, crop processing equipment, soil improvement, etc.)
   ___ Information Systems (example – computer service)

3) Affected Population: How many people will be affected by this project in a certain geographic region (please provide an estimated NUMBER of people affected -- not a description)

   • Directly Affected: 60
   • Indirectly Affected: 50
   • Geographic Area (5km radius, town, region etc): 5 km radius

4) Project Goals: Elaborate on the goals of the first proposed project. Why is the community proposing to begin the program with this project? What issues is the community attempting to address that relate to the proposed project? How will the proposed project be used? Are materials for the proposed project likely to be available locally? What are some possible solutions that the community may be proposing? Please note that any solutions proposed in this application will need to be discussed with the partnering EWB-USA chapter during the initial assessment trip and as part of the alternatives analysis phase of the project. The applicant(s) should demonstrate that community members are open to possible solutions, other than those proposed in the application.
The primary purpose of this project is to improve the characteristics of Yulo’s water for animals, irrigation, and household uses. This is important because currently, children and older people often suffer from chronic skin infections due to the contaminated water, and scarcity of water for washing. The heavy metals in the water that the animals drink are then present in the animal products that the community members consume. Crops are also affected by the contaminated water used for irrigation, resulting in unsafe food and low crop yields. These contaminated animal products and crops are sold around Potosi and Bolivia, so not only negatively affect the health of the members of Yulo, but of families around the country.

There are many possible solutions to this problem, depending on the specific heavy metals that are found in the assessment phase. The solutions could include sand filters, limestone filters or canals, bacteriological filters that use plants and/or bacteria, or treatments that make use of electrical charges or other metals to remove the contamination. The assessment trip is necessary to address the most appropriate form and location of water treatment for the community.

A secondary objective is to insure that the community’s drinking water is safe, because gastrointestinal diseases are common in Yulo. Tests for bacterial contamination can be done on both the river water and the current drinking water system, to see if there is also an opportunity to improve the water used for human consumption.

Improved access to safe water will immediately improve the quality of life for the residents of Yulo. It makes sense to address the need of access to safe water for irrigation, domestic use, and animal consumption first, as the health and economic benefits are immediate. Interventions and assistance such as increased education in hygiene and nutrition, or increased agricultural production, are more relevant and much easier to implement after the problem of water is addressed.

5) Previous Efforts to Address the Problem: What solutions have been tried in the past to address this problem, if any? What were the results?

In the past, community leaders approached the Vitichi municipal government for access to safe water. Few answers resulted from these requests, with the government citing lack of funds and too few residents in the area to make the project worthwhile. Local politics and lack of funds have been the primary barriers to providing safe water in the community. However, there has been a recent movement in the municipal and state government to finally address these problems. The presence of additional organizations (FIEA, EWB-USA, and Rotary) can help further mobilize local resources and show the importance of treating the water.

On the technical side, similar treatment solutions have been tried in Potosí with varying levels of success. There are examples of systems that have failed, due to inadequate design, construction execution that didn’t follow the technical specifications, poor maintenance, or lack of considering what to do with hazardous waste. All these things will have to be carefully considered, researched, and planned for in this project, taking into account the specific examples of the past.

6) Potential Barriers/Challenges: What are some potential barriers/challenges to implementing a sustainable solution to this problem?

On the technical side, similar treatment solutions have been tried in Potosí with varying levels of success. There are examples of systems that have failed, due to inadequate design, construction execution that didn’t follow the technical specifications, poor maintenance, or lack of considering what to do with hazardous waste. All these things will have to be carefully considered, researched, and planned for in this project, taking into account the specific examples of the past.
7) **EWB-USA Role:** Describe the proposed role of EWB-USA. Labor? Design? Construction oversight? What specific skills can EWB-USA offer that are not available locally? We require at least a 5-year commitment to the community. What is the proposed plan to develop relationships between EWB-USA team members and community members?

The primary role of EWB team is to provide design and construction oversight of the water treatment system and introduce purification or treatment methods of the water. Some of the skills not available locally, which EWB-USA can provide, are surveying, water storage sizing, design and layout of the water treatment system and knowledge of water purification technology. The EWB chapter will also work with the community to understand their other needs and develop an integral solution for health and well-being. During EWB-USA trips to the community, the chapter will work side-by-side with the community members, to not only implement a project but also to develop mutually beneficial relationships and meaningful friendships.

8) **Budget:** Please include an estimated project budget for the first proposed project:

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<thead>
<tr>
<th>Estimated Cost</th>
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<tbody>
<tr>
<td>Labor</td>
</tr>
<tr>
<td>Materials</td>
</tr>
<tr>
<td>Equipment</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

9) **Program Timeline:** How will the Program develop, beginning with the first project? You do not need to know all of the timeline or budgeting, but estimate as best as possible. It will help the chapter in understanding and planning for the overall Program.

<table>
<thead>
<tr>
<th>Project Sequence</th>
<th>*Project Type(s)</th>
<th>Estimated Cost</th>
<th>Estimated Length of Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project #1</td>
<td>Small river water treatment</td>
<td>16,000</td>
<td>2-3 years</td>
</tr>
<tr>
<td>Project #2</td>
<td>Additional structures for river water</td>
<td>14,000</td>
<td>1 year</td>
</tr>
<tr>
<td></td>
<td>treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project #3</td>
<td>Potable and irrigation water system</td>
<td>12,000</td>
<td>1-2 years</td>
</tr>
<tr>
<td></td>
<td>improvement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project #4</td>
<td>Additional health, sanitation, or</td>
<td>10,000</td>
<td>1-2 years</td>
</tr>
<tr>
<td></td>
<td>agricultural improvement program</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>N/A</td>
<td>52,000</td>
<td>6-8 years</td>
</tr>
</tbody>
</table>


10) Estimated number of years to complete Program and ensure Program sustainability:
11) **Similar Project Applications with Government and Other Organizations:** In some situations, a project similar to the one being submitted to EWB-USA is already being planned for implementation by the government. In other cases, the community has applied to several organizations for support with the same project. It is understandable that the community may apply to multiple organizations; however, EWB-USA must be made aware of these other organizations and efforts, to maximize collaboration on projects and minimize duplication of effort.

Please list contact information in the table below for government and other organizations with which a similar project application has been submitted. Add additional organizations if necessary.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Organization Contact Name</th>
<th>Contact Information (Phone, email, address, etc.)</th>
<th>Application Status</th>
<th>Date of latest communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local /Regional/ Federal Government</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization #1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization #2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization #3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
B.2) Beneficiary Group(s) Information for First Proposed Project

1) **Primary Beneficiary of First Proposed Project:** Yulo Community

2) **Beneficiary Information:** Describe the beneficiary group(s) in terms of ethnicity, tribal and religious affiliations, spatial organization, primary occupations and relative incomes of groups (if more than one). Are social relationships harmonious in the area where the beneficiary groups reside? What language does the beneficiary group speak?

The community ethnicity is primarily Quechua; everyone speaks Quechua and most but not all also speak Spanish. The community is principally engaged in agricultural activities from which they generate their income. Most of the community has a similar income level, and there are no major social or political divisions within the community. Part of the community belongs to the Evangelical Methodist church; the rest is of Catholic faith. The authorities of the community are elected democratically; their period of authority can last 1-2 years. The majority of the houses are in the town center near to the river, because with this they can get water for their crops; the houses that are outside of the center are still within a mile.

3) **Project Ownership, Operation and Maintenance, Sustainability:** Who is expected to own this first proposed project? Does the community own the land where the proposed facilities are implemented? How will community members organize themselves to sustain the proposed project over the long-term? Who will manage and be responsible for the maintenance and repairs of the project? Will a committee be established? How will replacement parts be obtained? The community will be 100% financially responsible for the operation and maintenance costs of the facilities after they are constructed. Who will cover the cost of maintenance and repairs and manage the finances? Will a fee structure be involved? Who will decide on the amount of the fees, and who will collect the fees?

*If ownership of the land for proposed facilities/infrastructure does not lie with the community, there must be a clear understanding that this will be accomplished during the design of the facilities. The applicant should confirm in this section that the community has ownership of the land or will have use of the land prior to implementation.*

The community of Yulo will own this proposed project. A water committee is already in place (the water committee and the general secretary of the community work together). The committee will work to coordinate with the community the fee amount to cover operation and long-term maintenance, and the methodology of fee collection. It is expected that the water committee, with the help of FIEA, will manage and maintain the project during the design and construction phase. Once the project is completed, the community will assume the full cost and responsibility of maintenance. To encourage a feeling and understanding of project ownership, the families will each be expected to contribute money and manual labor into their possibilities, and some materials to the construction of the project.

In Yulo, there is some land that is owned privately and some land that is owned by the community. Ideally, the project will be designed to make use of this public land, but if use of private land is unavoidable, an official transfer and compensation, if necessary, will be done before the start of implementation.

4) **Project Accessibility:** Will the proposed project be accessible to all persons in the local area, or will it be restricted for use by certain groups? If certain groups cannot pay the fees mentioned above, how will the community deal with this?
Please note, we are NOT advocating that the project be available to anyone for free. On the contrary, if an individual(s) has access to the project for free, this may cause problems and could ultimately end up with no one paying the operation and maintenance fee. At the same time, there should be assistance for those who legitimately cannot pay, like the widowed, elderly, orphaned, handicapped, etc.

Water treatment and purification will be equally available to all families, and their fields, that are within a reasonable distance of Yulo. The exact fee structure will depend on the type of treatment system implemented, whether water pumping could be necessary, and the purification method introduced. When a family cannot afford the set fee, they will be able to contribute to the maintenance through working a certain number of hours, as agreed upon in advance with the water committee.

The community is expected to grow in the next 20 years since many residents of Potosi and Vitichi have lands in Yulo. Care will be taken to ensure that any treatment system has the capacity to incorporate new residents who will want access to safe water.

B.3) Project Impacts

1) **Positive Impacts:** What potential positive impacts are anticipated as a result of the first proposed project? Please consider health, economic, environmental, social and cultural effects.

Access to safe water will greatly enhance the quality of life in the community of Yulo. It will relieve the damages of the contaminated water in their crops and greatly promote the health in the community. Additionally, it will enable community members to improve their diets with the cultivation of more fruits and vegetables. The poverty percentage will be reduced by the improvement of their crops caused by the improvement of the water quality.

Some of these crops may also be sold to provide an income for the residents who are largely subsistence farmers, and will allow the residents to not have to leave their community. FIEA has found in their projects that increased water access in a community actually reverses urban migration, thereby improving not only the quality of life in the countryside, but also reducing urban crowding. By the water available mainly for agriculture, it will encourage people to maintain their agricultural activities rather than leaving the farms to seek other jobs. This increases the self-sustainability and diversity of Bolivia’s food and economic system.

2) **Negative Impacts:** Every project has negative impacts as well as positive impacts. List negative impacts that the community has considered to be potential consequences or outcomes of this project *(Note: We require that you answer this question – it will reflect the level of analysis put into this project application).*

There are families in Potosi and Vitichi who own land in Yulo, who may move there if the community has access to safe water. This may or may not cause tension in the community or make it important to address other infrastructure deficiencies in the community such as the lack of latrines, other sanitation measures, agricultural problems, etc.

Additionally, a water treatment system for the community of Yulo could cause disagreements related to distribution and use. There may be complicated political ramifications, which are hard for an outside organization to predict.
Increased access to irrigation may increase the agricultural activity, and this higher need for water could cause over-extraction of the river.

Finally, any failures or errors in implementation and training could cause the community to lose trust in such projects, in EWB-USA, FIEA, and the local partners.

3) Reducing Negative Impacts: How will these potential negative impacts be addressed?

First and foremost, for a successful design, the EWB team must have a clear idea of both the current needs and future needs of the community. In particular, attention must be paid to the potential for community expansion and a system must be in place for if/when new residents move to Yulo.

Care should be taken to respect the political situation of the region. The safest course for the EWB team, since they are not involved with and do not understand local politics, is to work with the community leaders of Yulo and support them in interacting with those in Vitichi as is necessary.

In addition to implementing a successful design, the community must also be trained and supported to successfully maintain and utilize the treatment system, and especially any filtration or purification system that may be implemented. FIEA, the local partner organization with engineering expertise, will also be a resource for the community in the case that something fails with which the community is unprepared to deal. It will not be stuck waiting for a year until EWB team can return.

Care will have to be taken to determine a sustainable rate of water use and evaluate any other environmental effects, and to educate the community about the importance of maintaining the health of the river and its environment.

B.4) Travel Logistics for Project

1) When to Travel: When is the best time to work in the area, considering weather, transportation access, holidays, as well as the availability of the beneficiary group(s) and NGO’s facilitating the project?

The best time to work in the area is May to November, to avoid the harvest season and rainy season. In parts of August and September the community is also busy with planting their crops. Bolivia celebrates many local and religious festivals each year, and these dates should be taken into consideration when deciding exact dates for travel. FIEA is able to host teams at any time throughout the year, but these dates must be negotiated as each FIEA engineer works with 3-4 EWB teams.

2) Accommodations & Daily Costs: What local accommodations are available for EWB-USA team? What are estimated per day living costs for team members? Will the team stay with local community members?

FIEA coordinates food for the team, at a cost of $15/person/day. The local sleeping buildings in Yulo will be available for housing of the EWB-USA team. There will not be any fees for the team’s use of this lodging.
There also is a hostel in Vitichi, an hour and twenty minutes from Yulo, where EWB members could stay; Vitichi may also offer other inexpensive options such as staying in a church or school. The EWB-USA team can stay in Potosí hotels, which could be a good option for the beginning and end of the trip. The cost of the hotel will be around 20 to 25 US dollars per person per night. Food in the city will also be around 15 US dollars per person a day.

3) Safety Hazards: What are some hazards that may be faced by EWB-USA members traveling to this project location (health issues, transportation difficulties, weather, insects, diseases, snakes, violence, crime, land mines, etc.)?

Travelers may need to adapt to altitude a few days in advance; the community is located approximately 9074 feet above sea level. Insect-borne diseases are not a problem, due to the altitude. They face the normal hazards associated with travel in developing countries. Common health issues that the team may encounter include traveler’s diarrhea and altitude sickness. There are occasionally spiders whose bite makes a person sick, but they are rare and well outside the town; it is not expected that the EWB members would come in contact with one of these. In the rainy season there are sand flies so it is advisable to bring insect repellants. Salmonella and other GI infections are common in this area. FIEA arranges food and water that is safe for the team; however, it may be unavoidable that some team members get traveler’s diarrhea. FIEA will bring food from Potosí or La Paz, so that the team is not eating the local crops possibly contaminated by heavy metals. However, the community may offer, for example, a piece of fruit to the team as a gift, and eating it would be a possible health hazard. The weather is a little cold in winter (June through August), occasionally reaching 0 degrees Celsius at night.

For transportation, the road to Vitichi is paved and then to the community the road is not paved. Some parts are narrow and dangerous, and the risks dramatically increase during the rainy season (December-March). Buses travel at high speeds. In Bolivia, strikes and road blockades are very common; in rare cases they can turn violent, so as a safety precaution should be avoided. FIEA carefully monitors these events and makes recommendations to the EWB team leaders. Appropriate measures will be taken to ensure the health and safety of all travelers.

4) Nearest Hospital or Clinic Location: Where is the nearest hospital or clinic approved by the US State Department or Peace Corps? What kind of health care providers regularly staff this facility? How far from the project site is this facility? Provide an address and phone number for the hospital or clinic.

US State Department lists approved hospitals in La Paz, Cochabamba, and Santa Cruz. From Yulo, if the team travels by plane it would be best to go to Cochabamba, if by bus then to La Paz.

In La Paz: Clinica del Sur
Address: Obrajes, Avenida Hernando Siles Esq. Calle 7 Nro. 3539, La Paz-Bolivia
Phone: (591)-2-2784003 - 2784750 - Fax: (591)-2-2784753 - Casilla Nro. 8650

In Cochabamba: Centro Médico Boliviano Belga
Address: Calle Antezana, entre Venezuela y Paccieri N-0455.
Phones: 422-9407 / 423-1403 / 425-0928

In Potosí, Lonely Planet recommends: Hospital Daniel Bracamonte
Address: Avenida Japón, Potosí.
Phone: 622-3900

In Vitichi, there is an ambulance and a medical clinic with multiple doctors and various services. In Yulo there is a small clinic with a resident Doctor and a Nurse.
FIEA is currently negotiating with another Bolivian NGO to provide emergency air evacuation from any location in Bolivia to the nearest major city. These negotiations should be completed in 2014.

5) Have people from the USA worked in the area before? If so, who, and in what capacity?
FIEA and EWB-USA chapters currently have projects in four communities in the Potosí Department. (EWB-VMI in Pampoyo in addition to 2 mentioned earlier.) It is not known whether people from the U.S. have ever worked in Yulo specifically.

6) Additional Information: Please add any other information that the community thinks is relevant to this Program/project.
There is poor vegetation in the area; the land is not good for agriculture except for the areas surrounding the river. The area is used only for grazing purposes, and is characterized by hills with sandy soils, low amounts of organic matter, and erosion from water, wind, and human activity. This may be due various factors, such as marked differentiation of the rainy season, low vegetation, overgrazing, and possibly effects from water contaminated by the mining activities. The community has limited resources or government aid to help address these needs.

After seeing that crop yields have decreased over time, the community members started to mobilize, to look for some answers to solve the problem. Nobody wanted to discuss the situation or take any responsibility, so the community held blockades and strikes. But these efforts did not result in any solutions to the problem. Recently, as a result of the strikes and blockades, the departmental government started to develop some projects. Unfortunately, they are either negatively affected by the political bureaucracy, or they were not successful. However, FIEA is currently working in Potosi, with projects that have been successful so far and well received by the community members. Today, FIEA has already signed an MOU with the Municipality of Vitichi, to let us work and join efforts in the implementation of projects to bring safe water for the communities near the Vitichi watershed, such as Yulo.

7) Photos: Please add pictures that may be helpful to understand the project.

- Please add pictures as JPEG files
- WE WILL NOT ACCEPT PROJECT APPLICATION FILES THAT ARE LARGER THAN 2MB. (To add a picture as a jpeg, go to Edit → Paste Special, and choose “Picture (jpeg)”
Members of Yulo and of other nearby communities at a meeting in La Lava to protest the contamination showing water taken from the river upstream of Yulo.

The soccer field in Yulo
There is poor vegetation in the area; the land is not good for agriculture except for the areas surrounding the river. The area is used only for grazing purposes, and is characterized by hills with sandy soils, low amounts of organic matter, and erosion from water, wind, and human activity.

The main entrance passing through Yulo
SECTION C: COMMUNITY STATEMENT OF INTENT

The community of Yulo agrees to:

- communicate with the EWB-USA chapter contacts directly and frequently, as determined by the project schedule, including feedback throughout the assessment and design process;
- contact the EWB-USA chapter contact immediately to discuss any changes in priority projects or the project scope;
- identify community contacts to accompany the EWB-USA chapter during site visits;
- make a cash contribution of a minimum 5% of the capital construction costs for each project within the program before construction begins;
- provide in-kind contributions at no cost to the EWB-USA chapter (examples are labor, local materials, transportation of materials to the site, etc.);
- develop and present to the EWB-USA chapter a system for management and funding the long term operations and maintenance of the project before construction begins;
- pay for all operations and maintenance upon project completion and in the future;
- ensure that all implemented project(s) in this program represent community-wide priorities and that all community members will have the opportunity to benefit from the project per the terms of use established by the community.

In addition to this Community Statement of Intent, the applicant community, EWB-USA, and the local partner (NGO or municipality) will sign a general Project Partnership Agreement after the first assessment trip. The final Implementation Agreement, including the roles and responsibilities of all parties to the agreement during the construction and ongoing maintenance phases, will be signed prior to the beginning of construction.

On behalf of, and acting with the authority of the residents of the applicant community, the under-signed agrees to the requirements stated above.

Ricardo Condori
Feb. 19th 2014

Signature Date
Ricardo Condori ricardo.condori@engineersinaction.org (591) 75851739
Printed Name E-mail Address Mobile phone number
Project Coordinator, Local NGO

Role in the Community
APPENDIX A
Criteria for Orphanage and School-Related Proposals

(Please note that the word “facility” will be used to describe both orphanages and schools in the description below).

Background

One of the key principles of EWB-USA’s community development model is that we support community owned, community-driven projects. Given this approach to community development, both orphanage and school-related projects present a unique challenge to our organization because they are distinct from our other projects. First of all, these projects are typically driven, funded, and/or owned by a local NGO, international NGO, and/or local/national government. This entity is typically advocating on behalf of the “community” of children who use the facility; however, the “community” of children is not likely driving the proposed project or partnership with EWB-USA. In addition, the ultimate ownership of the project is not with this “community,” but rather ownership lies with the partnering NGO and/or local government. While EWB-USA will continue to partner with these projects, we are concerned about their viability and sustainability, especially if outside donor funding is discontinued. Given these circumstances, as well as our desire to ensure the long-term sustainability and success of all projects, we have identified a specific set of requirements for orphanage and school-related proposals.

The Application Review Committee (ARC) will use the following set of criteria to determine if a partnership with the proposed orphanage or school-related program is viable for our organization. The applicant should provide responses to each of the criteria below. If the response to any of these criteria has already been addressed in the application above, please restate it here.

1) Partnering NGO and/or local government must demonstrate their past and future commitment to the facility, including financial support.

2) Partnering NGO and/or local government must demonstrate that the facility is, or will be, legally registered and will be monitored by a government agency.

3) Partnering NGO and/or local government, in collaboration with facility staff members, must demonstrate support for the proposed projects, including taking primary responsibility for all operation and maintenance costs and logistics.

4) Partnering NGO and/or local government must explain the plans for providing skilled and/or unskilled labor for the proposed project(s).

5) Partnering NGO and/or local government must provide plans for the participation and engagement of the members of the orphanage/school community, including the surrounding community, if applicable.

6) Partnering NGO and/or local government must contribute a minimum of 5% cash towards the upfront construction costs of the proposed project(s). This is the same requirement for all EWB-USA projects.

7) Any existing community linkages, such as Parent-Teacher Association or community support organizations, should be identified in the application. If possible, endorsements from these organizations should accompany the application.