



MEMORANDUM

TO: Edward D. Breslin, Chief Executive Officer

CC: Richard Linowes

FROM: Michelle K Holleran, Consultant

RE: PlayPumps International Partnership

DATE: April 14, 2010

EXECUTIVE SUMMARY

Water is essential for sustaining life. Studies supported by the United Nations have pointed to a clear relationship between poverty and the access to water, showing that individuals who lack adequate water resources are far more likely to be poor, and vice versa.¹ Along with basic sanitation and hygiene education, the lack of clean water is one of the greatest obstacles to economic progress in the developing world. International development organizations such as Water For People are making it their mission to make governments accountable, to invest in local financial and technical support, and to create “total district solutions” instead of scattered fixes.² Through strategic partnerships, such as the recent investment from PlayPumps International, Water For People seeks to end the cycle of water poverty. Management should

¹ “Water.” *Oxfam America*. 09 Apr. 2010 <http://www.oxfamamerica.org/issues/water>

² “Water For People: Strategic Plan 2010-2014.” *Water For People*. March 2010. 28 Mar. 2010. <http://www.waterforpeople.org/assets/pdfs/strategic-plan-2010-2014.pdf>

consider expanding the PlayPump system into its portfolio of water technologies offered beyond Sub-Saharan Africa. By expanding its offering to Peru, Water For People will satisfy Phase 1 of its 2010-2014 strategic plan while supporting a child's right to play (See Appendix A).³

THE WATER CRISIS

Clean, safe drinking water is inaccessible by nearly one billion people on the planet. According to *charity:water*, “unsafe water and lack of basic sanitation cause 80% of diseases and kill more people every year than all forms of violence, including war.”⁴ Reports of death in Iraq, rare diseases, and terrorism are commonly highlighted on the nightly news, but little is conveyed about the daily fight for health and sanitation for those in the bottom billion. With weak bodies and developing immune systems, children are especially vulnerable to diarrhea, dysentery, and other illnesses. Of the 42,000 deaths that occur every week as a result of unsafe water and living conditions, 90% are to children under five years old.⁵ Much of the global burden of disease can be prevented through innovation, collaboration, and action in improving water supply and sanitation.

Installing clean water systems affects communities in more ways than increasing health and sanitation. Access to safe drinking water improves the livelihood of women and children by providing more opportunities. Women and children often bear the burden of gathering water for their families, leading them to travel an average of 6 kilometers to a safe water source.⁶

While some may advocate that this is a special time when women can talk to other women

³ Ibid.

⁴ “Why Water?” *charity: water*. 2010. April 20 2010. <http://www.charitywater.org/whywater/>

⁵ Ibid.

⁶ The Facts About The Global Drinking Water Crisis. *Blue Planet Run Foundation*. 2004. April 15 2010. <http://blueplanetrun.org/water/facts>

about their thoughts and problems without the pressure of men, I feel that this is an excuse. By reducing the amount of time it takes to gather water, women and children have the incentive to change their communities. Children can attend school at the appropriate hour, making them more likely to complete primary school and become teachers and business owners. Women can become members of the economic community with the assistance of microfinance loans and providing them with a chance to have equality with men. Providing water sources that are closer to communities reduces the risk of harassment, sexual assault, and back pain during the long walk.⁷

Water contributes to poverty alleviation “through sanitation services, water supply, affordable food and enhanced resilience of poor communities to disease, climate shocks and environmental degradation.”⁸ By building water projects in communities, members can gain skills to learn how to maintain, fix, and manage the water supply. More time is available for economic activity. Additionally, the overall economic loss due to lack of safe water and sanitation is \$28 billion, or about 5% of GDP in Africa alone.⁹ Many individuals in developing countries buy water from private distributors at prices that may take up more than a quarter of their household income.¹⁰ This inequity causes those in poverty to fall further behind the rest of the world.

Water scarcity is not a new issue. In 2000, the United Nations created the Millennium Development Goals, including the goal “to halve the proportion of people who are unable to

⁷ “Why Water?”

⁸ “Water in a Changing World.” *The United Nations World Water Development Report 3*. 2009. WApril 20 2010. https://docs.google.com/viewer?url=http://www.unesco.org/water/wwap/wwdr/wwdr3/pdf/08_WWDR3_overview_of_key_msgs.pdf

⁹ “Why Water?”

¹⁰ “The Facts About The Global Drinking Water Crisis.”

reach or to afford safe drinking water,” by 2015.¹¹ However, with the rapid increase in population size around the globe, particularly in developing regions, the water crisis is going to affect more people than it does today, putting current sustainable water solutions at risk to be over capacity. Furthermore, the world’s population continues to migrate towards the cities, putting additional stress on urban regions while causing rural regions to suffer. Villages can become transformed through hygiene education about sanitation. Building latrines and hand washing stations increases the effectiveness of the new village water system. As communities begin to thrive, neighboring communities will desire complete water systems to satisfy their own water problem, continuing the cycle of safe, clean drinking water.

COMPANY OVERVIEW

Water For People is a nonprofit international development organization with a vision to provide worldwide access to safe drinking water and sanitation, and to end suffering and dying from water- or sanitation-related diseases.¹² By collaborating with individuals and partners around the globe, Water For People develops solutions to the water, sanitation, and hygiene crises. Supporting development of locally sustainable drinking water resources, sanitation facilities and health and hygiene education programs improve the quality of life for people in developing countries. Water For People currently has fully developed projects operating in Bolivia, Guatemala, Honduras, India, Malawi, Nicaragua, Rwanda, and South Africa. Current expansion began in 2008 and spread the portfolio of water solutions to the Dominican Republic, Ecuador, Peru, and Uganda.¹³ Partnering with local governments, the private sector,

¹¹“United Nations Millennium Declaration.” *United Nations General Assembly*. 18 Sept 2000. 20 Apr 2010. <https://docs.google.com/viewer?url=http://www.un.org/millennium/declaration/ares552e.pdf>

¹²“Mission.” Water For People. 12 Apr. 2010. <http://www.waterforpeople.org/about/mission-and-vision/>

¹³ “Confront the Crisis.” Water For People. 10 Apr. 2010. [http:// www.waterforpeople.org](http://www.waterforpeople.org)

and trusted nongovernmental organizations has created a structure of support which enhances local sustainability. Rather than finding solutions for individual families and villages, Water For People evaluates complete water solutions for entire districts and regions while eliminating the need for nonprofit organizations to keep returning to these areas to fix problems.

Business Structure

Established in 2007, the World Water Corps supports the network of local resources by focusing on local investment, motivation, and resources. The World Water Corps is Water For People's volunteer program, which oversees field work. The organization is dependent on its volunteers to fulfill its mission. Volunteers gather data and interview communities to find out what is working and what is not, monitor the functionality of past projects, and evaluate overall program effectiveness.¹⁴ Rather than focusing on digging wells and constructing latrines, the World Water Corps seeks to hold development organizations, governments, aid agencies, and donors accountable to find out which solutions really work for communities—after the pumps are installed and the organizations have left.¹⁵ The organization is endorsed by The American Water Works Association, the Water Environment Federation, the Water Quality Association, the National Association of Water Companies, the National Association of Clean Water Agencies, the Association of Metropolitan Water Agencies, as well as other sectors of the North American water community, including leading manufacturing and consulting engineering companies.¹⁶

¹⁴ "World Water Corps." *Water For People*. 10 Apr. 2010. <http://www.waterforpeople.org/programs/how-we-work/world-water-corps/>

¹⁵ "Water For People: Strategic Plan 2010-2014." *Water For People*. March 2010. 28 Mar. 2010. <http://www.waterforpeople.org/assets/pdfs/strategic-plan-2010-2014.pdf>

¹⁶ "History." *Water For People*. 2010. 10 Apr. 2010 <http://www.waterforpeople.org/about/history/>

Competitors

Although the global water crisis does not get the media attention it deserves, there are many organizations working to provide the bottom billion with safe, clean water. In industries seeking to accomplish the Millennium Development Goals, competition is often related to the ability to obtain investment from foundations, corporations, and individuals, rather than consumers. Unfortunately, the private sector also plays a competitive role in providing safe water sources, often at a high price to the consumer. The best solution to the water crisis is for communities to evaluate various water solution options and determine which is best for the community.

Living Water International addresses injustice, oppression, and abject poverty to assist in providing sustainable water sources. By transforming communities, the organization believes individuals in what Paul Collier refers to as the “bottom billion” will begin to climb the ladder of development.¹⁷ Other organizations such as the Water Supply and Sanitation Collaborative Council spend their resources on research, advocacy, and networking to improve the lives of poor people.¹⁸ *Charity: water* uses the power of social media to spread its message through Twitter. As a growing company *Charity: water* seeks much of its donations from their followers and people who view their website, advocating that \$20 can give one person clean and safe drinking water for 20 years.¹⁹ Although each organization will believe that their solution is the best, the proven method in the industry is collaboration to provide communities with the option to choose among trusted water solutions.

¹⁷“The Water Crisis – What Would it Take?” *Living Water International: Providing a Cup of Water in Jesus’ Name*” 30 Mar. 2010. <http://ow.ly/1u3Pm>

¹⁸ “Sustainable Water Supply & Sanitation for All People.” *Water Supply & Sanitation Collaborative Council*. 10 Apr. 2010 <http://www.wsscc.org/>

¹⁹ “Select your card.” *Charity: water*. 2010. 25 Apr 2010. <https://www.charitywater.org/store/>

PLAYPUMPS INTERNATIONAL PARTNERSHIP

PlayPumps International-U.S. (PPI-U.S.) was a fundraising entity based in the U.S. It raised money to provide access to clean drinking water to people in poor African communities using the power of children at play. In October 2009, the PlayPumps initiative and The Case Foundation chose Water For People to be its new implementing NGO, contributing inventory of manufactured pumps and additional funds.²⁰ Since October, Water For People made the changeover by shifting donor relationships, sharing best practices, and creating an implementation plan. Major donors contributing to PPI-US include UNICEF, The Case Foundation, IFC, and One Water in the UK. Incorporating the PlayPumps technology with other community water options, Water For People has committed to adapt the system and operations to satisfy the needs of local communities and improve sustainability. Water For People is seeking local entrepreneurs to repair and maintain the systems and retaining advertising revenue in the community. As of February 23, 2010, PPI-US officially announced that it would no longer serve as a fundraising entity effective March 1, 2010.²¹

This partnership will provide more effective usage for the PlayPump systems. When a community decides that the PlayPump is the suitable solution to their water problem, the partnership will make it easier to install a PlayPump at a primary school, and additional pumps throughout the community. As a result, a sustainable environment would be created, eliminating the need for Water For People to maintain their access to clean water.²²

²⁰ “PlayPumps International Announcement.” Water For People. 25 Feb. 2010. 08 Apr. 2010.
<http://support.waterforpeople.org/site/News2?id=5921>

²¹ “PlayPumps International FAQ’S.” Water For People. 10 Apr. 2010
<http://www.waterforpeople.org/extras/playpumps/playpumps-international-faqs.html>

²² Interview with Dee Benzinger. PlayPumps International. 05 Apr. 2010.

The grant will be used to incorporate the PlayPump technology among other options offered to communities in Malawi, starting in 2010. Appendix B depicts how Water For People plans to implement the new technology as part of a whole-village solution.

PlayPumps Technology

The PlayPump provides a unique water system by offering easy access to a protected source of water. By attaching a merry-go-round to a water pump, kids can play, pumping water into the connected 2,500-liter storage tank and tap stand. Usually stored over wells in primary schools, the pumps can generate up to 370 gallons of water per hour from a depth of 131 and 328 feet. This allows communities to reach water that was once inaccessible. Excess water is diverted from the water tank back down into the borehole.²³ Both adults and children can easily retrieve the water from a nearby tap.

The PlayPumps water system is self-sustaining. Leasing the four sides of the water tank creates revenue from advertising which pays for pump maintenance. Two sides are reserved for consumer advertising and two sides for educational or public health messages. Appendix C depicts the highly effective PlayPump water system, illustrating how the system will keep costs down while providing advertising revenue for the community to maintain the pumps for at least 10 years.

Benefits of the PlayPump System

The PlayPump system is an effective choice for a community for various reasons. It is economically sustainable as the advertising revenue pays for pump maintenance. Water For People is seeking to advance PPI-US's strategy by training locals run a professional company

²³ "How PlayPumps Works." *Water For People*. 08 Apr. 2010.
<http://www.waterforpeople.org/extras/playpumps/how-playpumps-works.html>

responsible for maintaining them. By providing locally sustainable water sources, less time and money is spent on gathering drinking water. Economic development grows as the community becomes healthier as individuals now can drink safe water. The addition of public health messages on the billboards will increase health education and disease prevention. Additionally, the clean water provided will increase hygiene and reduce diarrhea and other water-borne diseases. Finally, the system helps keep children in school, as they no longer have to travel long distances during the school day to gather water. By promoting play, the PlayPump system provides many benefits to a community that a simple hand pump cannot do.

The Social Entrepreneur

Roundabout Outdoor originally manufactured, installed and maintained the PlayPump technology. Trevor Field continues to serve as the founder and marketing director of the company after revolutionizing the concept of combining advertising revenue by selling billboard space on the PlayPump technology. Field's 25-plus years of experience successfully transformed Roundabout Outdoor through public private partnerships, leading to the installation of PlayPumps across Sub-Saharan Africa.²⁴

OTHER CLEAN WATER SOLUTIONS

Arbor-loo "Tree toilet"

Providing simple solutions for toilets can significantly impact the health of communities. Inexpensive toilets such as arbor loos will not only satisfy sanitation needs but also "provide a

²⁴ "Trevor Field and the PlayPumps of Africa." Center for Management Research. 10 Apr 2010.
<http://www.icmrindia.org/casestudies/catalogue/leadership%20and%20entrepreneurship/LDEN057.htm>

rich source of nutrients for fruit trees” later.²⁵ Consisting of a movable bottom slab and a portable upper structure, an arbor-loo sits over a shallow pit lined with bricks. Throughout the period of using the toilet, families add ash, leaves, and other organic material to create compost along with the soil, ash, urine, and fecal matter.²⁶ After the pit is $\frac{3}{4}$ full, top-soil is added and a banana, guava, marlberry, or mango tree is planted, helping the community also achieve food sustainability. Because the pits are only three feet deep, the latrines are easy for anyone in a village to dig in less than half of a day. This technology is also cheap as there are no maintenance costs—the only costs include the concrete toilet slab and the tree when it is first planted.

Sky-loo

Another type of composting latrine is constructed above the ground. This technology is best used where there are high water tables or for families looking for a more modern type of toilet. The sky-loo helps to protect underground water sources by reducing possible contamination with the water source below. There are special advancements to the sky-loo which allow it to be urine-diverting, allowing “feces to fall into one hole while urine is diverted into a smaller hole at the front of the latrine seat and collected separately.”²⁷ Scientists are still determining which process is better for communities. Ensuring that urine and feces do not mix reduces odor from the mixing of organic matter by accelerating the drying process of feces. However,

²⁵ “World Toilet Day: Arbor Loss Do Double Duty.” *Catholic Relief Services*. 19 Nov 2008. 26 Apr. 2010.
<http://crs-blog.org/world-toilet-day-arbor-loos-do-double-duty/>

²⁶ Guzha, Edward. “Ecological Sanitation Practice and Technology Development in Southern Africa and Zimbabwean Case Study.” *EcoSanRes*. 2002. 26 Apr. 2010.
https://docs.google.com/viewer?url=http://www.ecosanres.org/pdf_files/Nanning_PDFs/Eng/Guzha%252023_E34.pdf

²⁷ Bramley, S. and Breslin, E. “Sanitation as a Business: A new spin on the challenge of sanitation Operation and Maintenance.” *Sustainable Sanitation Practice*. Issue 2. 2010

the quality for the compost is less nutrient-rich, although still high in quality.²⁸ Diverted urine travels through pipes to an area where a tree is planted. This tree will absorb the nitrates in the urine, preventing contamination of underground water. The sky-loo is an excellent way for families to provide a healthy sanitation solution while reducing environmental impacts which may occur with the arbor-loo.

Hand Pump

Hand pumps are the traditional and most common source of obtaining safe water in the developing world. However, there are many organizations and companies installing them that it is difficult to identify one traditional pump. Most hand pumps fail after a short time, causing organizations to keep returning to the same communities for maintenance. Water For People is seeking to install hand pumps in communities as one of many water solutions. As a result, the region will be able to develop a maintenance crew to respond to potential pump malfunctions, reducing the time and money for others to come in and fix them. According to the Rural Water Supply Network (RWSN), hand pumps represent the most cost-effective option for supplying safe water to low-income regions. They are environmentally friendly, simple to operate, and manageable by the community.²⁹ However, the RWSN also estimates that 20% to 70% of installed handpumps in Sub-Saharan Africa are not functioning (Village Earth reports that 20-50% of handpumps are broken down at any one time). This is an enormously wide range for estimation, making it a difficult statistic to base any strong conclusions on. However, even if the lowest of the range is the accurate statistic, a failure of 20% of installed hand pumps is a tremendous failure on the sustainable water industry.

²⁸ Guzha, Edward.

²⁹ "Sustainable Rural Water Supplies." *Rural Water Supply Network*. 2010. 26 Apr. 2010.
http://www.rwsn.ch/prarticle.2005-10-25.9856177177/prarticle.2005-10-26.9228452953/prarticle_view

Most handpumps have reciprocating pistons and plungers and are positive displacement pumps.³⁰ When someone raises and lowers the handle of the pump, the piston also moves upward, closing the valve. As a result, a vacuum is created causing water to be displaced upwards, emerging out of the pump above ground (See Appendix E). Backflow is prevented when the piston moves downward, as the foot valve closes. Pumps can lift water out of the ground as much as 45 meters, with lower technology pumps limited to approximately 15-25 meters. Suction pumps, low lift pumps, direct action pumps, intermediate lift pumps, and high lift pumps are used for different environmental conditions. The World Bank/UNDP Handpumps Project clearly sets out recommendations for the best pump to be used in community-based water supply projects.

Rainwater Harvesting

Collecting rain is an affordable solution providing each family to harvest their own reserves for use free of charge. One of the cleanest sources of natural water, rainwater is harvested by collecting it from pre-cleaned roofs, where it travels through a gutter into a storage tank.³¹ Large quantities of water are lost due to evaporation and transpiration when the rain falls, reducing the water levels in rivers, streams, and lakes. By harvesting rain in storage tanks, the water will also be protected from contamination if it were to sit in an open tub. The best roofing for rainwater harvesting are either tiled or sheeted with corrugated mild steel.³² One of the problems with rainwater harvesting is that families tend to use water more frequently when it is available. The willingness to conserve water must be improved upon in the case of a dry spell to ensure water is available when it is truly needed. While studying abroad in South

³⁰ “Handpumps.” *WaterAid: International Site*. 26 Apr. 2010.

http://www.wateraid.org/international/what_we_do/sustainable_technologies/technology_notes/2061.asp

³¹ “Sustainable technologies.” *WaterAid: UK Site*. 2010. 26 Apr. 2010.

http://www.wateraid.org/uk/what_we_do/sustainable_technologies/default.asp

³² *ibid.*

Africa, many of the homes in the townships had storage tanks either on top of their roofs or next to the building.

RECOMMENDATION: PLAYPUMPS EXPANSION TO PERU

Climate change has brought Peru to the forefront of the global water crisis. Due to its dependence on glacier melt-water for most of its water, Peru is now among the top three countries most vulnerable to climate change. Over the next 20 to 30 years, Peru will need to invest in additional solutions to provide safe water for its citizens.³³ According to Amber Stenson of World Water Corps, opportunities are opening up for Spanish-speaking volunteers to conduct baseline assessments in Peru in November 2010.³⁴ As Water For People grows in Peru, it should consider using its partnership with el Instituto de Desarrollo Urbano CENCA while expanding the offering of PlayPumps beyond Sub-Saharan Africa.

Peru is not a developing country. However, while “official water and sanitation coverage rates for Peru are 84% and 72% respectively,” both rates scarcely reach 30% in rural regions.³⁵ Additionally, Peru is also good country to focus on because one third of its population (7 million out of 23 million) live in the greater Lima, Peru region.³⁶ Urban and rural residences lacked clean water and sewerage, at rates of 25% and 90% respectively, resulting in high death rates from infectious diseases. These statistics indicate that even developed countries with

³³ “NBC Nightly News to Report on Peru’s Melting.” *An American in Lima: slices of my life in Peru*. 1 Dec. 2009. 10 Apr. 2010. <http://americaninlima.com/2009/12/01/nbc-nightly-news-peru-glaciers/>

³⁴ Interview with Amber Stenson. 20 Mar 2010. World Water Corps.

³⁵ “Launching new programs in Peru.” Water For People. 2010. 27 Apr 2010. <http://www.waterforpeople.org/programs/south-america/peru.html>

³⁶ “Peru Information & Facts.” *Peru Travel Adventures*. 2010. 27 Apr 2010. <http://www.peru-travel-adventures.com/peru-overview.html>

stable governments can still lack proper resources for the most important life sustaining element.

Scoping, Geo-Hydro Census and Borehole Drilling

Before expansion into a particular country can be initiated, a scoping mission needs to be undertaken to fully understand the local working conditions, to secure government support, and to identify potential partners already working in water, sanitation, and education to ensure stability of the whole-community approach. When the 2007 World Water Corps scoping team entered Peru, it reported that Water For People “could have a significant impact in Peru because of the government’s strong commitment to provide safe and reliable drinking water, the lack of water and sanitation services throughout the country, the availability of local partners, and the lack of other NGOs working in the sector.”³⁷ Additionally, Water For People will be able to use the best practices learned from working in Ecuador and Bolivia because Peru has similar geographic and cultural contexts.

The cost of drilling boreholes varies greatly across the globe (on average between \$5,000-9,500). To make a conservative estimate, the current budget is based on the assumption that new boreholes will be drilled. The goal, however, is to try to locate existing boreholes that can be rehabilitated. For example, in South Africa over two thirds of all PlayPump installations have been on sites where a handpump was previously installed but is no longer functioning. Any cost savings on boreholes will be used to install a greater number of pumps.³⁸

³⁷ “Launching new programs in Peru.”

³⁸ “South Africa.” PlayPumps International. www.playpumps.org

During the baseline assessment of Peru in October 2009, the World Water Corps focused on La Libertad and Cajamarca in evaluating water and sanitation conditions. AguaEcoSan Peru will become a local private sector partner used to promote the business model around sanitation.

Testing and Community Liaison

Once potential sites have been identified, they need to be tested, both to ensure that sufficient quantities of water are available and that the water is fit for human consumption. In addition, it is important that the PlayPump concept is explained to the communities they will serve and that there is “buy in” across a variety of stakeholders (water committee, village elders, school principals, etc). As the community has full ownership of the PlayPump, this is a critical step in the expansion process.

Training

Each cluster of 100 PlayPumps creates permanent jobs for local crews who are hired to install and maintain them. As the current unemployment rate in Peru is approximately 9%,³⁹ this will be a welcome addition to the labor force. Each team is trained by dedicated PlayPumps personnel and must pass a test over the course of several installations before they are officially accredited. Once each team has been trained they receive an upfront payment for installations and then ongoing income for maintaining the pump and changing the billboards. However, this process will be changing among new communities as the PlayPump becomes one solution in a myriad of technological water advances for a region.

In addition, for those interested in sponsoring the public service messages surrounding the storage tank the cost is \$1,080 per pump for one year in most African countries. Peru has a

³⁹ “South America: Peru.” *CIA: The World Factbook*. 07 Apr. 2010. 10 Apr. 2010.
<https://www.cia.gov/library/publications/the-world-factbook/geos/pe.html>

much more commercial environment, indicating that advertising costs on the billboard can be increased dramatically to compete against the cost of other billboards costs along the highways. In other countries, public services messages have included HIV/AIDS awareness, hygiene education, and basic literacy. The messages can be tailored to meet the needs of individual communities or interest areas of the donor.

The estimated costs for initial entry into Peru total approximately \$2,330,000. Based on a cluster of 100 PlayPumps, the goal is to teach skills to create local sustainability to maintain and repair the systems.

The costs include:

Scoping and Geo-Hydro Census	\$190,000
Testing and Community Liaison	\$125,000
Boreholes	\$750,000
PlayPumps (w/installation)	\$1,000,000
Transport	\$255,000
Training	\$10,000
Total	\$2,330,000

Average Cost of Providing PlayPump System to Community of 2,500 People

Purpose	Cost
PlayPump, tank stand, and tap stand	\$4,446
Procurement and installation	\$2,760
Borehole drilling and testing	\$5,366
Operational overhead	\$1,227
Total	\$13,799

Based on figures from South Africa.

Since 2006, Water For People has consistently allocated over \$0.80 of every dollar donated to international programs and fieldwork, allowing the organization to be recognized as one of the most efficient nonprofits in operation. For seven straight years, Charity Navigator rated Water For People as a four-star charity.⁴⁰ The organization also performs internal audits in addition to external audits to prove the importance of accountability.

The expansion of PlayPumps into South America, and in particular Peru, will help to enhance the possible water solutions. According to the World Health Organization, 880 million people do not have access to a safe water source and 2.5 billion people lack access to a safe toilet.⁴¹ Population growth, urbanization, and increasing usage of water in households and industry continue to worsen the water crisis. Peru has been experiencing massive immigration into shantytowns in the informal settlements on the outskirts of the capital. Home to 70% of the Peruvian population, but only 2% of the water source, Lima, Peru represents a great starting point for expansion of PlayPumps to another continent.

The biggest challenge will be overcoming the cost of overseas shipping. In order to compensate for this cost, Roundabout Outdoor may also consider building a second factory in Peru to satisfy the demand. As the PlayPump water solution spreads, this new factory will be able to produce for other South American countries while providing opportunities for children to play while at school.

Children and their families live longer, healthier lives with access to clean drinking water. The World Health Organization believes the health sector would save more than \$11 billion in treatment costs if everyone had access to basic water and sanitation services. Although

⁴⁰ "Financials." *Water For People*. 2010. 27 Apr. 2010. <http://www.waterforpeople.org/about/financials/>

⁴¹ WHO and UNICEF Joint Monitoring Program 2008. http://www.wssinfo.org/en/40_MDG2008.html

achieving this goal will take more time and financial investment, Water For People and PlayPumps are invested in working towards this ideal.

Appendices

Appendix A: Strategic Plan Phasing Chart

GOALS AND STRATEGIES FOR 2010–2014

Water For People enters this strategic plan with country programs in various stages of development, as indicated below.

PHASE	COUNTRIES	DESCRIPTION
PHASE 1	Peru, Uganda, Ecuador, and the Dominican Republic	New countries, nascent programs.
PHASE 2	Rwanda and Nicaragua	Country programs show potential for signature work.
PHASE 3	India, Malawi, Honduras, Guatemala, and Bolivia	Core transformative programs are operating, and best opportunities for influencing and replication.
Regional Offices and International Programs		Key centers to provide support and facilitate intercountry and interprogram learning. Priority is Phase 3 countries.

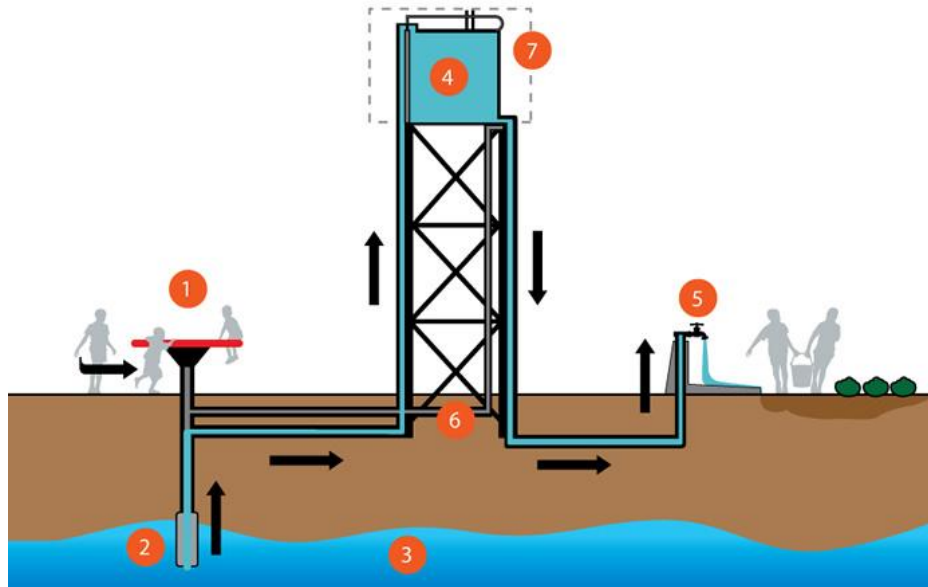
Over the next five years, Water For People has set out ambitious plans in three areas: growing our impact, organizational excellence, and resource development. We will continue to maintain programs in 10 to 15 countries, and we will continue working in rural, urban, and small-town contexts in all the countries where we operate.

Appendix B: Whole-Village Solution



<http://support.waterforpeople.org/site/News2?id=5921>

Appendix C: How to Use a PlayPump



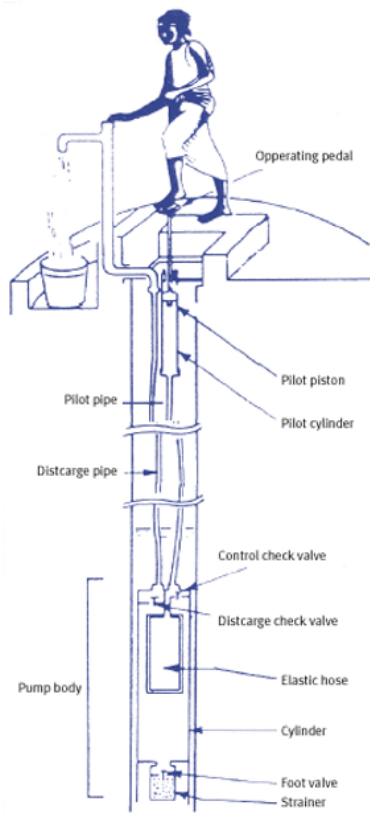
<http://www.waterforpeople.org/extras/playpumps/how-playpumps-works.html>

Appendix D: Using the PlayPump System



Photos courtesy of the Case Foundation.

Appendix E: Hand Pump



http://www.wateraid.org/international/what_we_do/sustainable_technologies/technology_notes/2061.asp

Appendix F: Financial Statements and Supplementary Data

WATER FOR PEOPLE STATEMENTS OF FINANCIAL POSITION DECEMBER 31, 2008 AND 2007

	2008	2007
ASSETS		
CURRENT ASSETS		
Cash and Cash Equivalents	\$ 1,414,296	\$ 1,918,656
Contributions Receivable	215,250	224,583
Grants Receivable	74,100	7,039
Prepaid Expenses and Other Assets	199,122	48,546
Total Current Assets	1,902,768	2,198,824
PREPAID PENSION ASSET	-	49,809
INVESTMENTS	2,127,478	2,617,003
PROPERTY AND EQUIPMENT, NET	78,217	67,868
Total Assets	<u>\$ 4,108,463</u>	<u>\$ 4,933,504</u>
LIABILITIES AND NET ASSETS		
CURRENT LIABILITIES		
Accounts Payable and Accrued Expenses	\$ 282,821	\$ 198,163
Due to American Water Works Association	6,576	8,772
Deferred Revenue	600	129,600
Total Current Liabilities	289,997	336,535
PENSION LIABILITY	182,748	-
NET ASSETS		
Unrestricted:		
Undesignated	1,130,957	1,185,314
Board Designated	1,872,405	-
Temporarily Restricted	319,893	874,594
Permanently Restricted	312,463	2,537,061
Total Net Assets	3,635,718	4,596,969
Total Liabilities and Net Assets	<u>\$ 4,108,463</u>	<u>\$ 4,933,504</u>

**WATER FOR PEOPLE
STATEMENTS OF ACTIVITIES
YEARS ENDED DECEMBER 31, 2008 AND 2007**

	2008			
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
REVENUE				
Contributions, Grants and Sponsorships	\$ 3,618,375	\$ 2,138,332	\$ 105,000	\$ 5,861,707
In-Kind Contribution	648,002	-	-	648,002
Special Events, Net of Direct Cost of \$222,163 and \$201,177, Respectively	343,869	6,151	-	350,020
Interest Income	106,379	245	-	106,624
Unrealized Gain	(567,855)	-	-	(567,855)
Realized Gains	-	-	-	-
Other Income	91,597	-	-	91,597
Subtotal	4,240,367	2,144,728	105,000	6,490,095
NET ASSETS RELEASED FROM RESTRICTIONS	2,699,429	(2,699,429)	-	-
Total Revenue	6,939,796	(554,701)	105,000	6,490,095
EXPENSE				
Program Services:				
Developing Countries	6,513,051	-	-	6,513,051
Supporting Services:				
Management and General	500,715	-	-	500,715
Fundraising	437,580	-	-	437,580
Total Support Services	938,295	-	-	938,295
Total Expense	7,451,346	-	-	7,451,346
CHANGE IN NET ASSETS, BEFORE OTHER ITEMS	(511,550)	(554,701)	105,000	(961,251)
CHANGE IN PENSION LIABILITY				
Adoption of FAS 158	-	-	-	-
RECLASSIFICATION OF NET ASSETS				
From the Adoption of FSP 117-1	2,329,598	-	(2,329,598)	-
Total Other Items	2,329,598	-	(2,329,598)	-
CHANGE IN NET ASSETS	1,818,048	(554,701)	(2,224,598)	(961,251)
Net Assets - Beginning of Year	1,185,314	874,594	2,537,061	4,596,969
NET ASSETS - END OF YEAR	<u>\$ 3,003,362</u>	<u>\$ 319,893</u>	<u>\$ 312,463</u>	<u>\$ 3,635,718</u>

2007			
Unrestricted	Temporarily Restricted	Permanently Restricted	Total
\$ 2,742,571	\$ 1,247,998	\$ 5,000	\$ 3,995,569
798,959	-	-	798,959
383,276	28,329	-	411,605
62,174	53,446	3,541	119,161
-	-	75,329	75,329
-	-	3,138	3,138
64,054	100,000	-	164,054
4,051,034	1,429,773	87,008	5,567,815
1,442,041	(1,442,041)	-	-
5,493,075	(12,268)	87,008	5,567,815
4,433,734	-	-	4,433,734
434,657	-	-	434,657
347,677	-	-	347,677
782,334	-	-	782,334
5,216,068	-	-	5,216,068
277,007	(12,268)	87,008	351,747
1,767	-	-	1,767
-	-	-	-
1,767	-	-	1,767
278,774	(12,268)	87,008	353,514
906,540	886,862	2,450,053	4,243,455
<u>\$ 1,185,314</u>	<u>\$ 874,594</u>	<u>\$ 2,537,061</u>	<u>\$ 4,596,969</u>

WATER FOR PEOPLE
STATEMENT OF FUNCTIONAL EXPENSES
YEAR ENDED DECEMBER 31, 2008

	Program Services	Management and General	Fundraising	Total	Total Expenses
EXPENSES					
Salaries and benefits	\$ 1,429,006	\$ 301,911	\$ 263,845	\$ 565,756	\$ 1,994,762
Country Contributions	4,143,063	-	-	-	4,143,063
Professional Fees and Contract Services	358,006	75,637	66,101	141,738	499,744
Travel and Meetings	134,887	28,498	24,905	53,403	188,290
Printing and Publications	147,766	31,218	27,285	58,503	206,269
Depreciation	25,503	5,388	4,709	10,097	35,600
Telephone	18,767	3,965	3,465	7,429	26,196
Insurance	10,677	2,256	1,971	4,227	14,904
Supplies	19,834	4,190	3,662	7,852	27,686
Postage	39,618	8,371	7,315	15,686	55,304
Other	185,924	39,281	34,323	73,604	259,528
Total Expenses	\$ 6,513,051	\$ 500,715	\$ 437,580	\$ 938,295	\$ 7,451,346

WATER FOR PEOPLE
STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2008 AND 2007

	2008	2007
CASH FLOWS FROM OPERATING ACTIVITIES		
Change in Net Assets	\$ (961,251)	\$ 353,514
Adjustments to Reconcile Change in Net Assets to		
Net Cash Provided (Used) by Operating Activities:		
Contributed Noncash Assets	(45,300)	(29,179)
Depreciation	35,600	39,856
Gain on Sale of Property and Equipment	-	(346)
Realized Gains on Investments	-	(3,138)
Unrealized (Gain) Loss on Investments	567,855	(75,329)
Changes in Assets and Liabilities:		
Receivables	(57,728)	305,797
Prepaid Expenses and Other Assets	(150,576)	(13,929)
Prepaid Pension Asset	232,557	(49,809)
Accounts Payable and Accrued Expenses	84,658	18,136
Due to American Water Works Association	(2,196)	(145,099)
Deferred Revenue	(129,000)	125,255
Net Cash Provided (Used) by Operating Activities	(425,381)	525,729
CASH FLOW FROM INVESTING ACTIVITIES		
Proceeds from Sale of Property and Equipment	-	2,410
Purchase of Property and Equipment	(19,539)	(26,556)
Proceeds from Sale of Investments	-	136,141
Purchase of Investments	(59,440)	(118,286)
Net Cash Used by Investing Activities	(78,979)	(6,291)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(504,360)	519,438
Cash and Cash Equivalents - Beginning of Year	1,918,656	1,399,218
CASH AND CASH EQUIVALENTS - END OF YEAR	<u>\$ 1,414,296</u>	<u>\$ 1,918,656</u>
SUPPLEMENTAL DISCLOSURES		
Noncash Investing Transactions:		
Donated Securities	\$ (18,890)	\$ (27,379)
Donated Property and Equipment	(26,410)	(1,800)
Total Contributed Noncash Assets	<u>\$ (45,300)</u>	<u>\$ (29,179)</u>