

EWB-USA is a not-for-profit organization that partners with developing communities to improve their quality of life through the implementation of environmentally sustainable, equitable, and economical engineering projects while developing internationally responsible engineers and engineering students. The Portland Professionals chapter is working on projects in Ecuador, Haiti, Tanzania, and Portland.

### In This Issue:

- ⇒ Haiti Water Supply Project Update
- ⇒ Tanzania Assessment Trip Recap
- ⇒ Annual Fundraising Event: Kickball Without Borders
- ⇒ West Coast Regional Workshop
- ⇒ Upcoming Events

## EWB Assesses and Implements First Phases of Drinking Water Project in Haiti

Compiled by Brooke Weeks

A dedicated team of local professionals and their project partners have made huge strides toward bringing clean water to the people of Les Anglais, Haiti.

EWB Portland began working with the rural community of Les Anglais in early 2008 to address drinking water contamination and supply issues. Our Savior's Lutheran Church (OSLC) in Lake Oswego had been providing relief services to the Les Anglais community since 1988 and worked with Carolyn Shapiro of EWB Portland to start a project to address the water quality issues they believed to be a major cause of illness in the community.

In March 2008, two engineers from the chapter traveled with OSLC to Les Anglais, a district on the SW coast of Haiti, over 3 hours away from the nearest city. These engineers gathered information that would go on to support the early phases of the project. They found a system of two reservoirs and about 600 taps, built around 20 years ago and undersized for the community of around 20,000 people. They also found bacterial contamination throughout the system.



Future beneficiaries of the water system

### A difficult year in Haiti

The team planned to return to perform a full assessment in June 2008, but food riots in the country delayed that trip. Then in August a trio of hurricanes slammed Haiti, killing several people in Les Anglais and severely damaging the community's water system. The entire community was left to rely on two wells installed by OSLC earlier that year.



Performing a health assessment at a local school

*Haiti, cont'd on Page 2.*

## President's Letter

Dear EWB Portland Community,

First, let me say it has been a pleasure to get to know many of you and a privilege to have your support over the last year. As I leave my post and welcome Rachel, I want to recognize two key factors that have contributed to our progress and I believe will continue to drive our success.

First are the outstanding **individual efforts** of our volunteers. So many have risen to the challenge and worked incredibly hard to make things happen; to improve the quality of life in our partner communities. Our organization will continue to thrive as volunteers find their time and place to "get in the thick of it." It can be tough, but certainly rewarding.

Second is the strength we derive from our **community**: our employers who support us, those who bring diverse perspectives to our chapter meetings, those who donate or help raise funds, our partners and partner communities, and our volunteers. You all play an important role. Thank you!

These are trying times, especially for non-profits and those we serve. Please know that whatever you are able to contribute will be **magnified** by the EWB community and **matched many-fold** by our project partners and beneficiaries, so inspiring to me in their dedication to bring about lasting change in their communities and lives.

Wholeheartedly,  
Aaron Poresky



## Member Spotlight



*Contributed By Ayn Generes*

**Rachel (Armstrong) Lanigan** has been an active member of the chapter since 2007. Rachel quickly got involved in the chapter upon her move to Portland from Ashland and joined the Bua, Ecuador project team. Rachel traveled with the site assessment team in February 2008 and was instrumental in gathering data to implement the compost toilets built at the school last September. This past year Rachel has switched her focus from projects to the role of President Elect and just made the transition to chapter President.

Rachel's passion for volunteering started at a young age. When she was around 14 years old, she worked on a service project digging trenches for a water supply pipeline and hand-shoveling a quarry to build a road for an orphanage! Since that time Rachel has been on many service trips to Mexico and spent most of her spring breaks in college volunteering on construction projects. Rachel's passion for volunteering helped guide her towards a civil engineering degree: something she felt would be useful at home and also enable her to help people abroad.

Rachel is just coming back from her honeymoon in Sayulita, Mexico where she and new husband E.J. had a great time snorkeling and learning to surf again. It also happened to be crab season and they were able to see the crabs meandering down from the mountains to lay eggs on the beach (and hear them scurrying around the cabana at night).

Rachel graduated from Oregon State University with a BS in Civil Engineering and is now working on water master plans and pump stations at Carollo Engineers.

Haiti, cont'd from Page 1.

### The 'Google Effect'

For all the ill they caused, the hurricanes brought one positive element: they sparked the formation of a strong project support network. As Carolyn Shapiro describes, "After the hurricanes, people from Les Anglais (who now live in the States) started 'googling' their home town and found out EWB Portland had a project there. People came out of the woodwork to help in any way they could." Dominique Georges of New Jersey has family in the community with access to a cell phone and was able to provide updates she received from them to help the team begin to quantify the damage. Travis Harvey, an engineer from Florida, helped the team make connections with what would become their multi-faceted trip support team: Tout Bagay from Port au Prince.

### Assessment and Implementation

The EWB team finally returned to Les Anglais in February 2009, accompanied by Tout Bagay. They had an ambitious agenda.

The team met with community stakeholders to identify high priority needs and define how EWB and the community will work together to begin to address them.



**Repairing the distribution system**

Team members collected extensive GPS data with assistance from the Les Anglais water board. These data will be used to map the Basin Simbe system, conduct hydraulic modeling, and plan for future system improvements. Water quality testing was completed, confirming the need for treatment of Basin Simbe water and confirming the safety of water from two modern wells installed by OSLC in March 2008. EWB public health professionals completed focus group surveys with health clinic staff and staff from two school as well as 50 household health surveys.

The team also began repairs on the Basin Simbe system and worked with the water board to plan additional repairs. The work parties were always full and vibrant. The "repairs" team accomplished their goal of fixing the most urgent spots and training local plumbers to continue the repairs between EWB trips.

### But we're not done yet...

The team will return to the community from June 18 to July 5 to continue repairs on the system, install a chlorinator at the Basin Simbe reservoir, and collect more health assessment and survey data to support future project phases.

All told, it has been an intense year for the team. When asked how she inspires her all-volunteer team to work so hard, Carolyn just shrugs, "There's something about Haiti that brings out a spark in people." Perhaps the spirit of the people of Les Anglais is rubbing off on them. Despite everything the community has gone through this year and the day-to-day difficulties of life in Les Anglais, they remain strong-willed and greet each day with optimism. Les Anglais agronomist and project partner, Etienne Francois, sums it up: "Even through they are in a very difficult situation, I see the smile of the people. That gives me hope. [They] trust that life can be changed."

To read more, view pictures, and find out how you can contribute to the Les Anglais project, visit [www.ewbportland.org/haiti](http://www.ewbportland.org/haiti)

# EWB Completes Assessment of Orkeeswa School; Design of Water Supply System Underway

By Ada Banasik



**Surrounding countryside**

A team of local engineers from the Portland Professionals chapter traveled to Tanzania this spring to complete a site assessment and to evaluate design options for a water-supply system at Orkeeswa Secondary School, built and operated by Lake Oswego-based Indigenous Education Foundation of Tanzania (IEFT). The school is located near the town of Monduli within the Great Rift Valley in northern Tanzania, between Mt. Kilimanjaro and the Serengeti Plain. Currently 40 students attend, and 40 more will be added this year.

Monduli is a predominantly Maasai settlement surrounded by rural communities of subsistence farmers and cattle herders. Due to their distinctive customs and dress, and famed resistance to western ways, the Maasai are among the most well known of East African ethnic groups.

The EWB team completed a topographical survey of the school site, located in Lashaine Village, a 20-minute bumpy ride from Monduli. The survey was done with much help from the students of Orkeeswa, always eager to learn new skills, as well as school staff and volunteer teachers. It was a true “team without borders”! Getting to know the students, their personalities, and goals was fun and inspiring, and every day was spent laughing and joking, with lots of football (soccer) to go around.

EWB collaborated with the students of the Orkeeswa science club to analyze various drinking water sources for bacteria, the club’s first hands-on scientific experiment! Un-shockingly, water from a nearby “watering hole” shared by humans and livestock was shown to be highly contaminated with fecal bacteria. “Seeing” the bacteria made a great impression on all the students, as the results were shared with the whole school and even spread to the rest of the village.

With no surface water, other than the watering hole, and no groundwater sources in Lashaine, the EWB team plans to construct rainwater storage tanks at Orkeeswa, with enough capacity to provide water during the lengthy dry season.



**Orkeeswa Secondary School Students**



**Ken Elbert Teaches Surveying to Orkeeswa Secondary School Students**

The team met with Joseph, a local contractor with experience in building water tanks. When they caught up with him, he was at a nearby primary school finishing the construction of four tanks with a combined volume of 230,000L. The team plans to work with Joseph this fall to build concrete rainwater storage tanks for Orkeeswa School. EWB volunteers also assessed the availability of building materials in the nearby city of Arusha and evaluated options for supplying renewable power to Orkeeswa in the future.

Wanting to get the most out of their airfare (which they paid for themselves!) team members snuck away for a weekend safari to the Serengeti to complete their African adventure! It was a great experience all around and the team looks forward to returning to Tanzania in the fall. In the mean time, there is a great amount of design work to do and money to raise. Please help if you can!

To read more and find out how you can contribute to this project, visit [www.ewbportland.org/tanzania](http://www.ewbportland.org/tanzania)

## A Thank You to Our Sponsors

-----Gold Level-----  
(\$2,500 to \$5,000 Level)

**B I A M P**<sup>®</sup>  
S Y S T E M S



**BROWN AND  
CALDWELL**



---Bronze ---  
(\$500 to \$1,000 Level)

**Black and Veatch**

**PAE Consulting Engineers**

**PBS Engineering and  
Environmental**

**CH2MHill**

**David Evans and Associates**

**GSI Water Solutions**

To learn about sponsorship opportunities, visit  
<http://www.ewbportland.org/sponsors>

## Kickball Without Borders 2009

**Saturday, August 1<sup>st</sup>**

**Join EWB Portland for a day of fun times and friendly competition!**

We're talking loads of summer-time goodness, the coolest engineers in Portland and plenty of comfort food/ice-cold beverages.

Stake claim to bragging rights, enjoy some no-stress team building, and become a kickball hero to friends and family.

We're going to have a great time -- and it's all to benefit Engineers Without Borders!

Irving Park, NE 7<sup>th</sup> & Fremont  
Round-robin begins at 10 a.m. | Finals begin around 5 p.m.

Register a team or become a sponsor:

<http://www.ewbportland.org/kickball2009>.

Questions? Contact Matt Barbian at [matt@ewbportland.org](mailto:matt@ewbportland.org).



**Mark your calendars!**

## EWB-USA West Coast Regional Workshop

**Where:** The University of California, Davis

**When:** October 9-11th

**Why:** Because learning from others helps us do better work! Because there are 10 professional chapters on the West Coast, plus many more student chapters, all doing great work. Because it isn't that far down I-5 and it'll be a great time. We'll probably have carpools heading down.

**More Information:** Contact [rachel@ewbportland.org](mailto:rachel@ewbportland.org)

## Project Brief: Puca Chicta

A travel team from the Ecuador project leaves for their first assessment trip to Puca Chicta, Ecuador on July 3. For this two week trip, the focus will be on determining the water quality of the community's existing & new feasible water sources, mapping the existing water infrastructure, as well as completing a health assessment survey of the community. Follow their progress at: [www.ewbportland.org/pucachicta](http://www.ewbportland.org/pucachicta)

### Upcoming Events Calendar

June 18—July 5—Haiti Implementation Trip

July 3—July 19—Puca Chicta Ecuador Assessment Trip

August 1—Kickball without Borders (see info above)

August-September—Tanzania Implementation Trip

September 9—Chapter Meetings Resume

October 9 to 11 —EWB-USA West Coast Regional Workshop  
Davis, CA

Our chapter's activities are funded through donations and sponsorships. Donations are tax-deductible and can be made online at [www.ewbportland.org/donate](http://www.ewbportland.org/donate), or can be mailed to EWB-USA, Portland Chapter, P.O. Box 14734, Portland, OR 97293. Thanks!