



ENGINEERS WITHOUT BORDERS USA

PUGET SOUND PROFESSIONAL CHAPTER

2018 ANNUAL REPORT

The Puget Sound Professionals Chapter of Engineers Without Borders (EWB-PSP) had a very successful year in 2018 with the continued development of our established projects. In Nicaragua, our project team oversaw the successful implementation of a new water distribution system for the La Bendición community, bringing a stable supply of clean and accessible drinking water to over 35 households. Our Sierra Leone project team embarked on a successful assessment trip to the Wai community and are now using the data gathered there to prepare for their implementation trip to be held in 2019. The Uganda project team made considerable strides in the design for the proposed Information and Communications Technology center for the people of Coope which is set to commence implementation in the Fall of 2019. EWB-PSP would like to express our sincere gratitude to the dedicated group of volunteers for the countless hours that they have invested in our projects this past year, and we especially want to extend our heartfelt appreciation to the generous donors who make it possible for our Chapter to build a better world, one community at a time.

Rowdy Roddick, President
Sierra Gawlowski, President-Elect
Eset Alemu, Past-President

2018 INITIATIVES AND GOALS

At the start of every calendar year the EWB-PSP Executive Committee holds its annual retreat to outline the goals, challenges and initiatives for the forthcoming year. Some key initiatives developed during the January 2018 retreat include:

- Streamline collaboration between all project teams through frequent communication in order to increase the number of opportunities for new members to get involved in Chapter projects
- Supply regular updates to donors regarding the status of the Chapter and begin focused solicitations of local engineering firms and non-profit organizations in order to establish strategic partnerships
- Engage new members by providing consistent updates about specific skills and roles that are in demand across our Chapter's project teams and administrative committees

KICKBALL WITHOUT BORDERS

Engineering firms from across the Puget Sound region gathered at Lower Woodland Park on September 9th for the EWB-PSP second annual Kickball Without Borders tournament. The event was an even greater success than last year's inaugural competition, with a total of 14 teams competing for the coveted trophy.. Overall, the Chapter raised over \$6,000 in net profit from Kickball Without Borders 2018.



Shannon & Wilson Proudly Supporting the Second Annual Kickball Without Borders Event – Sept 2018

NATHAN HALE RAINWATER

In 2018 EWB-PSP initiated a new local partnership with the teachers and faculty who manage the urban farm at Nathan Hale High School, as they had sought help in designing a solution that would collect and store rainwater for their operations. A team of EWB-PSP engineers are currently drafting designs for this proposed collection system with construction tentatively scheduled for the summer of 2019.



Nathan Hale Urban Farm & EWB-PSP – Oct 2018

PROJECT HIGHLIGHTS IN 2018

SIERRA LEONE – HEALTH CARE

Our work in Sierra Leone has made significant progress since we first began our partnership with the Wai community in March 2016. High infant and post-partum mortality rates are of critical concern for this community, as the Wai village currently lacks access to a comprehensive health care facility. The people of the Wai village also live in a region where poor sanitation and a lack of adequate water resources are causing a range of adverse health effects.



EWB-PSP Consulting With Residents of Wai – May 2017

EWB-PSP is currently working with the people of Wai to tackle each one of these challenges in order to improve the overall health of the community. Kicking off with an assessment trip in May 2017 as a means to establish contact with the community and evaluate existing resources, the team discovered that access to water was their highest priority. Members of the Sierra Leone project team then returned in May 2018 to further investigate the state of the existing wells.



Wai Clinic Assistants and Midwives – May 2017

In April 2019 the project team will visit the Wai community with the goal of rehabilitating several wells in the community that are no longer functional to improve the supply of potable water during the dry season. These wells will be restored using locally sourced materials and members of the community

will be trained on how to repair and maintain the wells to ensure that they remain functional.

UGANDA – INFORMATION AND COMMUNICATION TECHNOLOGY CENTER



Children of the Coope Community – Apr 2016

Coope is a small, rural community in northern Uganda. The area is still emerging from a devastating 20-year conflict between the insurgent Lord's Resistance Army (LRA) and Ugandan government forces. EWB-USA is now partnering with the community to help members rebuild their lives through the construction of an Information and Communication Technology (ICT) Center. The goal of this program is to empower the community, and particularly its youth, by providing computer access and training, as well as training in other life and professional skills.

Since the adoption of this project EWB-PSP has conducted two assessment trips, in 2015 and in 2016. The project team is currently completing the final design for the proposed ICT Center, partnering with the Seattle Chapter of Architects Without Borders (AWB) to complete the building design as well as the Seattle-based NGO Kilowatts for Humanity for the design of a solar generating system that will provide power for the facility.



EWB-PSP Consulting With Coope Residents – Apr 2016

In 2018 recommendations were approved for the structural design, for the sanitation facilities, for the water supply system and for the solar power system. In addition, the land title transfer was completed, an

updated drawing package was released, a partnership agreement was signed with Construction for Change and the program was awarded a grant from The Boeing Company.

NICARAGUA – WATER SUPPLY

In 2018 the Nicaragua project team oversaw the successful implementation of a new water supply and distribution system for the La Bendición community in Nicaragua. La Bendición is a new community that was founded in 2015 by the Seattle-based NGO Agros International; the people of La Bendición moved to this area in search of financial independence. One of the first problems that the community faced upon its formation was a lack of an adequate supply of clean drinking water.



La Bendición Celebrating Their New Spigots – Nov 2018

Through their work the EWB-PSP Nicaragua project team identified several water sources. The team completed a comprehensive feasibility analysis of the alternatives to ensure the needs of the community would be met. The team selected the rehabilitation of two existing spring sources and a supplemental third spring source. EWB-PSP engineers also developed a design for a new water distribution system with individual spigots built for every household in the community to ensure that fresh water will not only be abundant but also accessible.

The EWB-PSP project team traveled to Nicaragua in Spring 2018 to supervise the first week of construction alongside the local contractors and community members who would be constructing the new water distribution system. After returning to Seattle, EWB-PSP continued to monitor the construction process over the subsequent months, with the system becoming fully operational by November 2018.



A Resident of La Bendición – Nov 2018

NICARAGUA – COFFEE PROCESSING AND WASTEWATER TREATMENT

EWB-PSP first established a relationship with the Tierra Nueva community in 2012 in partnership with Agros International. The residents of Tierra Nueva rely heavily on the harvest of coffee crop as a source of income, but one of the difficulties associated with this agricultural commodity is the processing of the coffee cherries once they have been picked. Coffee cherries must be processed immediately into beans once they are harvested or else they will start to decompose and lose market value.

The Tierra Nueva EWB-PSP project team worked alongside local residents to construct a coffee processing facility with a wastewater treatment system. The team began assessing the community in 2013 with an additional assessment trip the following year, where they collected topographical survey data and scouted for locally available construction materials. The plant was then constructed in the Spring of 2015 and the facility became fully operational later that year.



EWB-PSP Consulting With Local Engineers – February 2014

To assess the state of the facility, EWB-PSP sent a team to Tierra Nueva for a monitoring trip in December 2017. The project team identified several structural problems with the plant upon their arrival, including poor geological conditions of the surrounding terrain caused by water runoff in addition to mechanical wear of the coffee processing

appliance. The EWB-PSP Nicaragua project team wrote a summary of these problems with suggested corrective measures and sent their findings to the community.

Beginning in April 2018, the community took action to implement these corrective measures, which involved the installation of larger pipes to improve water flow, the addition of a larger grinding wheel to reduce mechanical vibrations of the coffee processing unit and the removal of solid waste from the facility to protect against mudslides and erosion. These changes will improve the performance of the mill and increase Tierra Nueva's overall coffee production.

Donor Appreciation

Groups

EWB-PSP would like to express their sincere gratitude to the following firms and organizations that provided generous contributions to the Chapter in 2018:

The Boeing Company
Boeing Company Gift Match
Shannon & Wilson, Inc.
Pertee
American Society of Civil Engineers
WSP
KPFF
Anchor QEA
Aspect Consulting
Stantec
PAE
Airways Brewing

Individuals

The Chapter is thankful to the following generous individuals who have each contributed over \$200 in 2018 in support of our efforts:

- Steve Roddick
- Kaleb Madsen
- Krijn de Jonge
- Viola Herkes
- William Phillips

Financial Summary

In 2018, the Chapter had a net cash flow of -\$2,726 with an income of \$39,963 and expenses of \$42,689. Chapter expenditures included the assessment trip in Sierra Leone and implementation costs for the water projects in La Bendición. In addition, the Chapter spent funds on materials for the kickball tournament fundraiser and also incurred overhead costs for hosting the EWB-PSP website and maintaining a storage locker for Chapter supplies.

In 2019 the Chapter is planning on retrofitting the wells in the Wai community in Sierra Leone as well as kicking off construction on the ICT center in Uganda.

Chapter Leadership

Following is a list of members of the 2018 Chapter Executive Committee as well as the leads of the Chapter programs:

- President, Rowdy Roddick
- President-Elect, Sierra Gawlowski
- Past-President, Eset Alemu
- Secretary, Wenting Guo
- Treasurer, Adnan Khan
- Membership Chair, Kelsey Hu
- Fundraising, Ross Brazzale
- Projects Chair, Eric Koethe
- Local Projects Chair, Beth Mende & Peter Brask
- Student Liaison, Sofia Wilkinson & Jason Haury
- Information Officer, Robert Stumberger
- Nicaragua Program Lead, Sierra Gawlowski
- Uganda Program Lead, Will Herkes
- Sierra Leone Program Lead, Chris Stearns