BUILDING A BETTER WORLD
748 million lack clean water
1.4 billion lack access to electricity
2.5 billion lack adequate sanitation
2.7 billion rely on biomass energy for cooking
Build stronger communities

Build stronger global leaders
16,800 MEMBERS

286 CHAPTERS

72% STUDENTS

28% PROFESSIONALS
EWB-USA members have impacted more than 2.5 million lives.
EWB-USA volunteer members implement 686 projects around the world.

There are seven EWB-USA project types:
EWB-USA’s Approach to Sustainability

What Do We Mean By Sustainability?

Sustainability within EWB-USA is the capacity of a project to endure.
Community-initiated
Community-driven
Community-maintained
HOW WE MEASURE IMPACT

• Planning
• Monitoring
• Evaluation
• Learning
EWB-USA Philadelphia Professional Chapter
EWB-USA Philadelphia Professional Chapter

Engineers, architects, public health practitioners, designers, business professionals, artists....

One thing in common: committed to making a difference, building a better world

- 35-40 active volunteers/contributors
- Design, construction, funding, marketing, education, mentoring
- 2014 EWB-USA Northeast Regional Premier Chapter
Northeast Regional CONFERENCE

November 4 - 6, 2016
4:00 pm

Boston, MA
The Photonics Center, 8 St. Mary's St
EWB-USA Northeast Regional Conference 2016

Call for PRESENTATIONS

- "How managing a troubled project makes us stronger - lessons learned from a project where (many) things went wrong"
- “Coordinating Effective Relationships Among Student Chapters”
- “Leadership Development: Recruiting, Transitioning, & Preparing the Next Wave of Chapter Executive Officers”
Las Delicias, El Salvador Program

“Faith In Action Together” Project (2009-Present)

Partner NGO: Handmaids of the Sacred Heart / Project FIAT
Las Delicias, El Salvador Program

El Salvador

- Project Co-Lead Adam Brostow
  mountainelm@gmail.com
- Project Co-Lead Jonathan Campos
  jcampos88@gmail.com

EWB-Philly
“Faith In Action Together”
El Salvador Travel Timeline

Project Timeline:

- **Summer 2012** – Storage tank construction
- **2013-2014** – Pipeline construction
- **July 2014** – Variable frequency drive installation
- **May 2015** – Community surveying, education, and training, water quality testing, public health record assessment
- **March 2016** – Monitoring and evaluation trip. Operation and maintenance training, water quality testing, community education and training, community health survey
Project Photo Snapshots
Apatut, Philippines Program

“Water For Life” Project (2010-2016)

Partner NGO: Rotary Club of Suburban East Rizal, Philippines
Rotary Club of Hatboro, PA
Apatut, Philippines Program

- Senior Project Lead & Technical Mentor: Bob DiFilippo rmd@aquaterra-tech.com
- Project Co-Lead Adam Aerispaha at aerispaha@gmail.com

EWB-Philly “Water For Life” Project
Philippines – Program Scope + Current Project

Community Needs:
Reliable, accessible potable water supply for a resident population of 800+, school population of 300; Improved health & sanitation practices; economical fee structure for system sustainability

Solution/Current Project:
Deep groundwater well, pumping station, HDPE storage tanks, gravity distribution piping, O&M training, sanitation/public health programs, interim household treatment,

Project Status: Implementation
Well development & sanitation – Nov 2014
Well development, community outreach and development, sanitation – Apr 2015
Community leadership, socio-economic, foundation & tank design; Co-op future –?
Project Travel Timeline

Project Timeline:

- **March 2010** – Site Assessment and surveying
- **January 2012** – GPS/mapping of distribution system, groundbreaking of initial well drilling
- **March 2012** – initial completion of well drilling (was not properly developed)
- **November 2012** – aquifer re-assessed; community-wide sanitation survey
- **May & November 2013** – groundwater investigation, proposal of household water treatment, site observations for design layout
- **November 2014** – well development, sanitation education, partnerships & community leadership, site observations
Project Photo Snapshots
Lessons Learned - Apatut, Philippines

- Social, Economic, Regulatory, and Cultural Challenges
- Non-Technical / Non-Engineering Challenges
- Lessons-Learned
- Political Conflict
- Ambitious Expectations
- Changing Economics
- Transparency Flaws
- EWB Member Burnout.

“How managing a troubled project makes us better - lessons learned from a project where (many) things went wrong”
- Adam Erispaha
Vision:
The Community Engineering Corps’ Vision is a country where all communities have the infrastructure they need to thrive regardless of their financial resources.

Mission:
CE Corps will bring underserved communities and volunteer engineering leaders together to advance local infrastructure solutions.
# Differences between Domestic and International Projects

<table>
<thead>
<tr>
<th>Issue</th>
<th>EWB-USA International</th>
<th>Domestic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible Engineer-in-Charge Qualifications</td>
<td>Generally do not need PE</td>
<td>Generally need PE registered in the state where project is located</td>
</tr>
<tr>
<td>Responsible Engineer-in-Charge Responsibility</td>
<td>Conformance with general engineering principles</td>
<td>Meets specific standard of care and has passed regulatory requirements.</td>
</tr>
<tr>
<td>Drawings sealed?</td>
<td>No</td>
<td>May be required for some projects.</td>
</tr>
<tr>
<td>TAC Review</td>
<td>Reviews for conformance with general engineering principles</td>
<td>Review for compliance with specific requirements in project area</td>
</tr>
<tr>
<td>Professional Liability</td>
<td>Negligible risk</td>
<td>Not negligible risk</td>
</tr>
</tbody>
</table>
## Differences between Domestic and International Projects

<table>
<thead>
<tr>
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<th>EWB-USA International</th>
<th>Domestic</th>
</tr>
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<tr>
<td>Agreement</td>
<td>MOU</td>
<td>Legally binding engineering services agreement</td>
</tr>
<tr>
<td>Partnership</td>
<td>Community Only</td>
<td>Community or NGO that represents a community</td>
</tr>
<tr>
<td>Construction Activities</td>
<td>Part of many projects</td>
<td>Generally, project teams will not carry out construction activities</td>
</tr>
<tr>
<td>Travel waivers, trip insurance</td>
<td>Needed for every trip</td>
<td>Waiver signed by every team member one time</td>
</tr>
<tr>
<td>Regulatory review</td>
<td>Generally none</td>
<td>Could be a significant part of a project</td>
</tr>
<tr>
<td>Permits</td>
<td>Generally none</td>
<td>Could be required depending on project</td>
</tr>
</tbody>
</table>
Mission:
The Community Engineering Corps provides engineering services to underserved communities in the USA

We are an engineering organization

We do not

- Fund projects
- Construct projects
- Work on non-engineering projects
Philadelphia Region  – Potential Domestic Projects

Examples:

- Community garden projects in Camden, NJ, Philadelphia, and Pittsburgh PA
- Serving on a technical advisory committee with the Delaware Valley Green Building Council Philadelphia, PA.
- Structural design of a community center in Chester County
- Water system design for an up and coming Urban Farm located West Philadelphia
- ADA Accessibility for a Church in Northeast Philadelphia
EWB-USA Philadelphia Student Chapter Mentorship

• Oversee all technical aspects of student projects
• Share expertise in professional engineering design, construction, and international development
• Required to travel with students
EWB-USA Philadelphia Professional Chapter Tours 2016/2017

• Introduce professionals and students to a developing technology, industry or something relevant to their interests, professions etc.

• Anyone interested or with inquiries/requests can contact us at info@ewb-philly.org
Executive Board
- President: James Furman II - j.furman2@gmail.com
- VP of Operations: Torin Johnson - toriffic92@gmail.com
- VP of Finances: Alexandra Shivers - ashivers856@gmail.com
- Co-VP of Communications: Katherine Smith - kat.m.smith0@gmail.com & Scott Loughery - scott.loughery@gmail.com
- Local Outreach Lead (CEC/Domestic Project): Matthew Parkhurst - mpark87@gmail.com

Philippines
- Senior Project Lead & Technical Mentor: Bob DiFilippo - rmd@aquaterra-tech.com
- Co-Lead: Adam Erispaha - aerispaha@gmail.com
- Technical Mentor/REIC: Sal Palalay - sfpalalay@gmail.com

El Salvador
- Project Co-Lead: Adam Brostow - mountainelm@gmail.com
- Project Co-Lead: Jonathan Campos - jcampos88@gmail.com
- Technical Mentor/REIC: Brian Hamill - bhamill@hardesty-hanover.com

Webmaster: Tracy McClure - tracy@webworkinternational.com

Get In Touch With Us!
Thank You!
SE PA AWWA Fall 2016 Conference
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