

EWB-USA Project Process

2009 Regional Workshops



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Presentation Outline

- Role of Project Managers (PM), Technical Advisory Committee (TAC) and Chapter Relations Managers (CRM)
- Why do we have a project process?
- Definition of project process
- Common mistakes and how to avoid them
- Example of successful project
- Questions





Roles of the PMs, TAC, CRMs

<p>PM</p>	<p>Engineers in the National Office with responsibility of ensuring quality of projects and health and safety volunteers throughout project development and implementation.</p>
<p>TAC</p>	<p>Volunteer committee of professionals in a variety of technical disciplines with international experience. They, along with the PMs, are responsible for granting final approval of all designs that are implemented as EWB-USA.</p>
<p>CRM</p>	<p>Your primary point of contact in the national office that can help with all non-technical questions including which reports to submit. If you are not sure who to contact, contact your CRM.</p>





EWB-USA Project Managers



Peter Waugh, P.E.

Water resources, structural and civil engineer with project experience in Republic of Seychelles, Mexico, and Guatemala



Tiffany Martindale, P.E.

Structural engineer with project experience in Niger and Ecuador



Kelly Latham, P.E.

Environmental and water resources engineer with project experience in Honduras





What is the status of the solar panels 5 years later?



- A) Unused because of damage from rocks
- B) No one knows – it was stolen
- C) Used as kitchen table
- D) Supplying energy to nearby school

Note: Photos are used for examples only – they do not represent failed projects



What is the status of the biosand filters 5 years later?

- A) Used daily by families to treat water
- B) Used daily by families to store but not treat water
- C) Not really used but adds to the décor of the home
- D) Used daily by families to filter but without microbial activity



Note: Photos are used for examples only – they do not represent failed projects



What is the status of the latrines 5 years later?

- A) Not used because they are a stinky mess that no one goes near
- B) Materials were used for other home improvements
- C) Being used as intended
- D) Used as a chicken coop



Note: Photos are used for examples only – they do not represent failed projects



Project Process – Common Questions from Chapters

- Why are there so many reports and forms?
- Doesn't completing the reports just take away time from doing the project?
- The reports and forms are so confusing – how can we keep them straight?
- How does our chapter know which reports to fill out when?





Project Process - Background

- The EWB-USA project process has one purpose – to maximize the likelihood of a successful project
- The project process is the way the EWB-USA does its quality assurance and quality control
- The project process is based upon the standard engineering procedure of assessment, design, implementation and evaluation
- The reports are not just a set of hoops to jump through





Definition of Project Process

- **Pre-Assessment (521)** – report plans for an assessment trip.





Definition of Project Process

- Pre-Assessment (521)
- **Post-Assessment (522)** – documentation of what happened on the assessment trip.





Definition of Project Process

- Pre-Assessment (521)
- Post-Assessment (522)
- **Alternatives Analysis (523)** – report on all alternatives researched and explanation of chosen option.





Definition of Project Process

- Pre-Assessment (521)
- Post-Assessment (522)
- Alternatives Analysis (523)
- **Preliminary (30%) Design (524)** – documentation of the design in its early stages.



Definition of Project Process

- Pre-Assessment (521)
- Post-Assessment (522)
- Alternatives Analysis (523)
- Preliminary (30%) Design (524)
- **Pre-Implementation (525)** – presentation of the final design for both PMs and TAC to review.





Definition of Project Process

- Pre-Assessment (521)
- Post-Assessment (522)
- Alternatives Analysis (523)
- Preliminary (30%) Design (524)
- Pre-Implementation (525)
- **Post-Implementation (526)** – report on what happened during the implementation trip.





Definition of Project Process

- Pre-Assessment (521)
- Post-Assessment (522)
- Alternatives Analysis (523)
- Preliminary (30%) Design (524)
- Pre-Implementation (525)
- Post-Implementation (526)
- **Program Closeout (527)** – documenting the closeout of a program.





Common Mistakes and How to Avoid Them

- Missing deadlines for submittals
 - Make sure that you know when to submit your reports
 - All deadlines are on the website
 - If in doubt, ask your chapter relations manager or project manager
- In-country problems
 - Translators
 - Ongoing communication with your community
 - Your partner NGO





Common Mistakes and How to Avoid Them

- Long-term project sustainability
 - MOU (expectations management) with the community
 - Ownership
 - Operation and maintenance
- Program continuity within the chapter
 - Document storage
 - Continuity of project leads
 - Continuity on travel teams





Common Mistakes and How to Avoid Them

- Inadequate design
 - Same level of quality as would be expected in the US
 - Calculations and drawings
 - TAC needs enough to do a thorough review
- Professional Mentors
 - Find appropriate mentors that are qualified
 - Get your mentor involved early
 - Make sure that you have mentors who can travel with you





Professional Mentors

- Your chapter must have a Professional Mentor throughout design and for travel.
- Professional Mentor minimum qualifications (Document 405 in Sourcebook Downloads).
- Faculty member may not be adequate.
- EWB-USA Project Manager must review Professional Mentor resumes.
- Professional Mentors must:
 - Be or become an EWB-USA member in order to travel,
 - Submit a resume for EWB-USA Project Managers to review,
 - Submit the 404 – Mentor Statement of Intent
- If you can not find a Professional Mentor contact us early for help.





Professional Mentor Technical Qualifications

- **Level 1** - Failure of the project may result in severe illness, injury, death or significant damage of property. (Buildings, bridges, large scale water projects.)
 - **Licensed Engineer with at least 7 years of direct experience** in design and construction of infrastructure similar to that proposed in the project.
- **Level 2** - Failure of the project would not result in death, severe illness or injury. However, some damage to property is possible. (Water supply, water treatment, sanitation, energy.)
 - **Professional with at least 5 years of direct professional experience** (post bachelor's degree) in design and construction of infrastructure similar to that proposed in the project.
- **Level 3** - Failure of project would not result in significant damage beyond limited economic loss. (Agriculture, improved stoves, computer systems.)
 - **Professional with 3 years of direct professional experience** in design and construction of infrastructure similar to that proposed in the project.





Professional Mentor

Non-technical Qualifications

- Understanding of the fundamentals of community-driven development.
- Capacity to communicate engineering knowledge across language and cultural barriers.
- Sensitivity and respect for local culture and history.
- Understanding of what makes technologies appropriate for use in *each specific community*.
- Commitment to monitor the project and assess its impact on the community.
- Ability to provide remote mentoring if the student chapter is not local.
- Long-term commitment to the project and to the community.
- Ability and willingness to experience the living conditions in the host community.





Professional Mentors

- Tools being developed:
 - Required Professional Mentor webinar
 - Guidelines for new Professional Mentors
 - In-person trainings at workshops
 - Networking between Professional Mentors
- Coordination at the state governance level is also developing to provide a network of interested professionals to student chapters seeking a Professional Mentor.





Professional Mentors

Liability Coverage

- Follow general engineering principles and do a solid job designing the project!
- EWB-USA does have E&O insurance for our professional members.
- The Volunteer Protection Act of 1997.





Requirements for Success in the Project Process

- Submit your reports to projects@ewb-usa.org in accordance with the submission deadlines posted on the website.
- You must have two qualified Health and Safety Officers on your travel team.
- If you don't yet have approval for your Professional Mentor, submit the resume of the traveling Professional Mentor at the same time as the 521 – Pre-Assessment Report.
- Submit your travel waivers (form 605) and proof of insurance (form 608) to your CRM.
- Submit updated membership lists for your chapter to your CRM and ensure that annual dues have been paid.





Tips for Success in the Project Process

- Do not leave everything until the last minute. Plan ahead!
- Make sure to have a traveling Professional Mentor on board from the beginning of design through implementation.
- Form 505 (Site Assessment Checklist) may be helpful in planning your trip.
- Do not miss any deadlines. If you have any questions about the deadlines, contact your CRM to discuss it with them.
- ALWAYS go to the website for the most current versions of the reporting templates.
- The EWB-USA website has many good resources to help you plan your trip.
 - International SOS
 - Technical Guidelines
 - Community Guidelines
 - Example reports
 - Technical Webinars





What went wrong with this project?



Concrete protection box for the chlorination system



Slow sand filters under a shade structure for additional sun protection





Nothing!

- Approved Professional Mentor on board early and continually
- Frequent correspondence with EWB-USA Project Manager
- Community buy-in obtained and maintained through repeated sessions
- All reports submitted on time for review and approval
- All materials obtained locally
- Maintenance plans in place with the community's input
- Ongoing **monitoring** of the project continues post implementation



Community meetings conducted on design options and sanitation techniques





Questions?

- For administrative issues, contact your regional CRM:
 - Colleen O'Holleran MA – colleen.oholleran@ewb-usa.org
- For technical issues, contact your assigned Project Manager:
 - Peter Waugh PE – peter.waugh@ewb-usa.org
 - Tiffany Martindale PE – tiffany.martindale@ewb-usa.org
 - Kelly Latham PE – kelly.latham@ewb-usa.org

All submittals go to: projects@ewb-usa.org

