



ENGINEERS
WITHOUT
BORDERS
USA

EWB's Mission is to develop relations with communities in developing nations and foster the development of sustainable infrastructure projects to improve the lives of members of the communities.

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May 2016

EWB-OC NEWSLETTER

Announcements

- ✚ Board Positions
Opening for
Secretary,
Membership
Coordinator, Kenya
Project Lead, and
Potential Nicaragua
Project Lead
- ✚ Upcoming 2016
Corporate
Challenge

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PRESIDENT'S COLUMN



Maventiboa, Madagascar Assessment Trip 2015

Greetings EWB members and friends! My term as President over the last several months has been very exciting. With great leaders within our Professional Chapter, our EWB group has made significant progress on an existing project in Honduras, has developed a new project

in El Salvador, is transitioning our project in Kenya, and is, in cooperation with ASCE-OC, developing domestic projects with the US Forest Service in SoCal and the San Diego Zoo's Safari Park in northern San Diego county. Under the direction of our dedicated project leads and with the leadership of our VP of Operations, our Chapter is becoming a standout in delivering needed engineering projects both internationally and locally. Our Chapter has also provided support to the EWBUCI Student Chapter where I had the privilege of serving as a Mentor for their Madagascar Water project and traveled to Maventiboa, Madagascar last December for an Assessment trip. Our Chapter is planning trips yet this year to Honduras, El Salvador, and the Los Angeles National Forest and the Safari Park. We may also be traveling to Kenya and are also in discussions regarding a potential new project in Nicaragua. In addition to project participants for the international and local projects, we have other needs including a Secretary for the Chapter and assistance with our Corporate Challenge fundraiser. So feel free to contact me, President@EWB-OC.org, about helping out at any level you feel comfortable, engineer or not. Our Board meetings are the fourth Tuesday of the month at 6:30 P.M. (see our webpage "calendar") and all are welcome to attend and learn about what we are doing.

Sincerely,
Greg Henk

Kenya

Project Update and Future Outlook

By Eric Witten

My name is Eric Witten and I am the new Kenya Project Lead. I have spent the past few months working to develop a new Kenya Project for EWB-OC. At the end of April, the EWB-OC Board approved a new project for Kenya under the Laikipia District Kenya Program. The project, Bridging the Gap Africa, assists communities in Western Kenya to build



New Kenya Project: Bridging the Gap Africa

bridges across dangerous rivers. They have a "standard" design selected. The link below will take you to the Bridging the Gap Africa website where you can see the type of bridge and gather information about Bridging the Gap Africa. We are looking for project supports in both engineering and field services. I invite all of you to join with me to build a brand new bridge for Kenya. I know that some of you may have participated in the previous EWB-OC Kenya bridge project and I want to welcome you to the new project. Please send me an email with your contact information and what role you would enjoy having on our team. Also if you would like to be part of this wonderful project let me know what day you would like to have a monthly team meeting. Thank you very much. I look forward to meeting you soon.

Bridging the Gap Bridge Website: <http://www.bridgingthegapafrika.org>

Get Involved in Kenya Project

Project Team Meeting

Date: TBD

Time: TBD

Location: TBD

*detailed calendar see, <http://ewb-oc.org/calendar/>

For more information or question, please contact Eric Witten @ kenya@ewb-oc.org

Honduras

Project Update and Future Outlook

By Steve Tedesco

In 2015 the Honduras Water Project completed several major milestones toward project completion. These included the completion of the 20,000 gallon elevated concrete water storage tank and drilling of a new well to fill the tank and provide water to the 350 citizens of Barrio Lempira and Colonia Lempira. Design of the final portions of the project are almost completed including the water pipeline network, well pump, well piping, and pump house. The communities have also agreed to pay for the cost for backhoe work and will assist with the pipeline installation. Local government agencies in Honduras have agreed to supply the well pump, piping and valves for the water system. Construction is expected to begin in spring 2016 on this final phase of the project and we expect to have the system operational by the end of summer 2016.



Well Pump in Olancho, Honduras

Completed Water Tank



Get Involved in Honduras Project

Project Team Meeting

Date: Every other Wednesdays

Time: 6:30pm – 7:00pm

Location: Tetra Tech, 17885 Von Karman, Suite 500, Irvine, CA 92614

Conference Call: (866) 692-5721, Pass-code: 9878785

*detailed calendar see, <http://ewb-oc.org/calendar/>

For more information or question, please contact Steve Tedesco @ honduras@ewb-oc.org



El Salvador

Project Update and Future Outlook

By Ty Keith

Project Milagro consists of designing and building a clean water distribution system for up to 10,000 people in the country of El Salvador, providing hygiene education and training to 300 community leaders in three rural communities, and providing water distribution system operations and maintenance training of the local water board. This program started in 2008 and is scheduled for completion in 2016. The project is located roughly 50 kilometers north of San Salvador. In March, 2016 five EWB-OC Professional Members traveled to El Salvador to conduct a site visit to assess the water production/distribution system currently being constructed and to spend time with the local community. The EWB team took an altimeter to verify precise tank locations, water test kits to test water quality at multiple sites, and cameras to capture photos and videos. Upon return the team produced several reports and analysis. They documented the findings from their water tests, they documented the existing electrical system and they provided our El Salvador partners with professional recommendations regarding pump selection, pipe sizing and quantities. We also made suggestions for site safety enhancements. Next we intend to focus on detail design of the controls system, perform further analysis of and provide recommendations for the water quality system, and continue our community involvement efforts. We have monthly web-meetings and we are planning another trip to El Salvador later this summer.



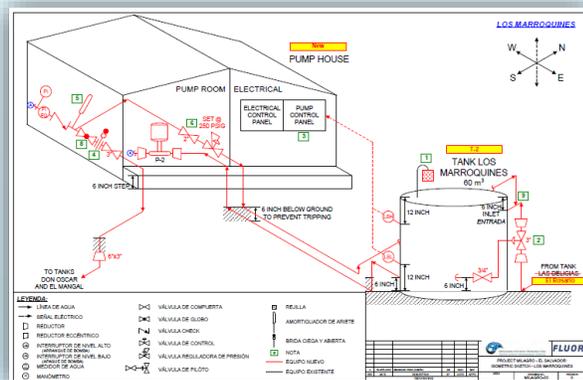
Evaluating the Existing Water Production System



EWB Members with Members from the Local Community



Testing the Water Quality



An Isometric Drawing from our Post Travel Report

For more information or questions, please contact Ty Keith at elsalvador@ewb-oc.org

Local Projects

Project Update and Future Outlook

By Mandy Wong

Our chapter has partnered with ASCE-OC and EWB-LA on two projects in the SoCal area. One is a bridge retrofit project for the San Diego Zoo's Safari Park (SP) and the other is a facility enhancement project for the US Forest Service (FS). For the SP project, a team of volunteers from our chapter and ASCE-OC is finalizing the design (i.e. safety features and end treatments) for the Gorilla bridge, converting a monorail bridge to allow for pedestrian and ADA access, while another team is working on an inspection write-up and a seismic analysis for the 245' Tiger bridge. One of our goals is to organize a one-day work day this summer for volunteers to install railings on the Gorilla bridge, and this is dependent on our team's success in raising enough funds to purchase railing materials.

Similarly, our FS team has also made significant progress these last few months thanks to volunteers from EWB-LA and ASCE-OC. An assessment of the Wildwood Picnic Grounds (in LA county) and a preliminary design for a sun/rain shelter have been completed. The FS team of volunteers are looking forward to an in-person meeting with the Angeles National Forest facilities engineers to discuss further about the shelter proposal and other potential projects.



245' Tiger Bridge, San Diego Zoo's Safari Park



Wildwood Picnic Grounds, Angeles National Forest

For more information or question, please contact Mandy Wong at localprojects@ewb-oc.org

MEMBERS SPOTLIGHT

San Diego Zoo's Safari Park Bridge Project BEYOND THE CALL OF DUTY

By Mandy Wong



Raj (Middle) with his family

Rajneesh “Raj” Bharil

has been the design engineer for the San Diego Zoo's Safari Park bridge retrofit project since the start. In addition to being grateful for Raj's volunteerism, we are also thankful to his wife, ASCE-OC's publication committee chair, for volunteering him when she heard that our project was in need of a

bridge engineer. Currently a principal bridge engineer at AECOM, Raj has over 30 years of management and engineering experience, including running a bridge engineering consulting firm he had co-founded for a little over a decade. Raj, who comes from an engineering family, has always been “fascinated with bridges and have done almost anything there is to [be done] with bridges,” including converting hundreds of abandoned turn-of-the-century railroad bridges for trail use.

For the past year, Raj has been working closely with the Safari Park in designing railings for abandoned monorail bridges to be re-purposed for pedestrian and light vehicle use. “It took many meetings and brainstorming sessions to arrive at a final solution” that matched the Safari Park's environment and aesthetics, and satisfied safety requirements and the need for ease of construction. In fact, the railing design is simple enough that volunteers will be able to build most of it.

Aside from work and volunteering, Raj enjoys walking on the beach, meditating, painting, reading, and cooking. One thing he is looking forward to is in starting a part-time doctorate program in leadership where he can teach and help people who want to live impactful lives. Raj firmly believes “that the only way to improve yourself is through others, and therefore, teamwork and mutual collaboration such as one gets at EWB play an important role in personal development.” We couldn't have said it better.

Thank you for your great work!

FUNDRAISING

By Anand Helekar

The Corporate Challenge is being scheduled for this fall. I wanted to get the word out in case any of you felt your company would like to form a team and participate this year. More information on the event will be sent out over the next few weeks. If you think your company would like to form a team, shoot me a quick reply back so I will know to send you information. Also, we could use some volunteers in helping to plan the event. Scott Toma is the chairman of the Corporate Challenge this year. Please let Scott and I know if you'd like to be part of the planning committee. Thanks everyone!



Join Us 2016 Corporation Challenge

For more information or question, please contact Anand Helekar @ fundraising@ewb-oc.org

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STAY CONNECTED TO EWB-OC

Engineers and non-engineers of all backgrounds

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