



WELCOME TO OUR

Fall 2023 Newsletter

A/B Travel Trip



This semester has been very busy for WPI's Engineers Without Borders. Project/Travel Team led the club through the assessment phase of the project, where we evaluated the wants and needs that our partner community in Ecuador has in their water distribution system. A Term was spent preparing for our Travel Trip to the community. Travel Team visited our community over A/B Break, and B Term was spent analyzing the social and technical data collected on the trip.



In this newsletter you will find:

Travel Trip updates, GBM, tech, and other activities on campus, & Cookies Without Borders

TRAVEL TRIP

Social Side

INTERVIEWS

The social data team on the assessment trip primarily worked on interviewing community members from each household. Through these interviews, we were hoping to get to know the community members, learn about their lives, and learn about their interaction with the water distribution network. We also interviewed the community's water board to learn about the boards' operations and to learn how the water distribution network is maintained.



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TRAVEL TRIP

Tech Side

UNDERSTANDING THE WATER SYSTEM

The technical team went into this project with the primary goal of gaining a comprehensive understanding of the community's water system so we could start designing potential solutions after the trip. To accomplish this, we spent each day in the community collecting vast amounts of data related to different aspects of the system. We started by collecting water samples at key points throughout the distribution network to understand how much water the system is delivering to the community and how safe that water is to drink. This information will be vital in understanding what kinds of system upgrades we will need to make to address water quantity and quality issues.

Next, we analyzed the condition of the community's tanks using various tools to assess the integrity of the concrete in the tanks and the strength of the soil around them. Going into the project, we were concerned that some of the oldest tanks in the community might need to be replaced, however the data we collected has been very promising and we no longer think that is necessary.



Last, but perhaps most important, we created a comprehensive map of the community to understand where all the different components of the water system are located and how they connect to each other. Knowing where everything in the system is located will allow us to make informed decisions about how we want to address the community's water issues.



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TRAVEL TEAM SPOTLIGHT

READ ABOUT THEIR FAVORITE PART OF THE TRIP!

NEW PROJECT TEAM ANNOUNCEMENT

Project Lead: Sophia Gross

Tech Lead: Sarah Gardner

PMEL Lead: Meera Sridhar

Treasurer: Keagan Hitt

PHOTOS FROM EDUADOR



BECCA SCHULTZ

Project/Travel Lead



BECCA'S FAVORITE PART

"my favorite part of this trip was the final day. this day was essentially reserved to take time to eat a meal with the community and sign off on the final documents. it was great to get to know everyone and say our goodbyes, and we tried guinea pig! this photo was taken during this final meal, right after we signed the partnership agreement with the president of the community's water board."



Engineers Without Borders WPI

TRAVEL TEAM SPOTLIGHT

READ ABOUT THEIR FAVORITE PART OF THE TRIP!

LYDIA PONOMARENKO

*Planning, Monitoring,
Evaluation & Learning Lead*



COLIN FRAZER

Treasurer



LYDIA'S FAVORITE PART

"my favorite part of the trip was getting to know and connect with each of the community members!"



COLIN'S FAVORITE PART

"My favorite part of the trip was visiting the houses of all the community members, as it was incredibly interesting and often eye-opening to get a look into their lives and meet everyone. And of course, their pets."



TRAVEL TEAM SPOTLIGHT

READ ABOUT THEIR FAVORITE PART OF THE TRIP!

ABRAHAM DIONNE

*Technical
Lead*



GABE ESPINOSA

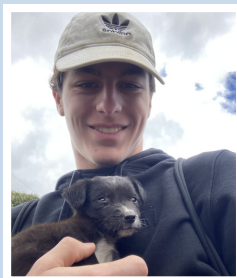
*Health & Safety
Officer*



ABE'S FAVORITE PART

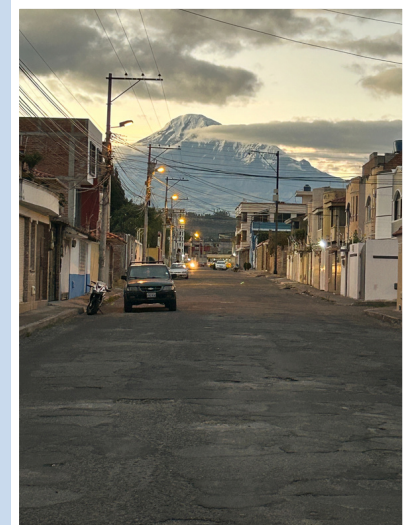
"It would have to be all the animals and pets we met.

Everytime we drove up to the community there were 3 or 4 dogs that would meet us at the van as soon as we got out. At one house, (which we called the yellow house) there was a tiny black dog that couldn't have been more than a few months old and loved to be held. We went back to the yellow house several times and we all wanted to take a turn with the little puppy"



GABE'S FAVORITE PART

"Getting to travel throughout the Ecuadorian Andes while learning all about Ecuador's rich culture and history. Mostly the mountains though :))))"



TECH ON CAMPUS



Pre-Trip: A Term

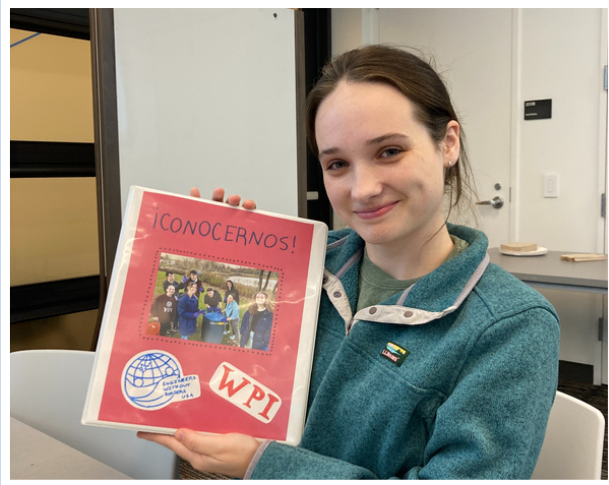
Before going on our travel trip, we spent our tech meetings preparing for the technical tasks that the travel team would be working on while in the community. We researched and tested different GPS tracking apps to determine which one was the most accurate and easiest to use. This testing was done through a scavenger hunt where teams of three were given a list of coordinates for well-known locations around campus and by using their assigned app to test, had to figure out what their locations were and record the coordinates that their GPS app was telling them. We also practiced how to use various testing tools, such as concrete testing hammers and water quality test kits. This was done by testing various concrete areas and water sources within and around our tech meeting building.



Post-Trip: B Term

After our Project Team got back from the Assessment Trip, there was a lot of work to be done, from analyzing social and technical data to creating detailed maps of the community we are working with! For the first few weeks of B Term, tech meetings were spent going through the social survey data collected and organizing it in a way to allow for conclusions to be drawn in an easier manner, and digitizing all of the technical data about the water sources and distribution system. As the term progressed, the technical data was organized to show what data points broke US and Ecuadorian water quality standards, and the GPS coordinate data was used to create a digital map of the community that includes locations of water sources, the main distribution system, water tanks, houses, and shared community spaces.

GENERAL BODY MEETINGS



Workgroups

SCRAPBOOK, PROJECT TEAM,
FUNDRAISING

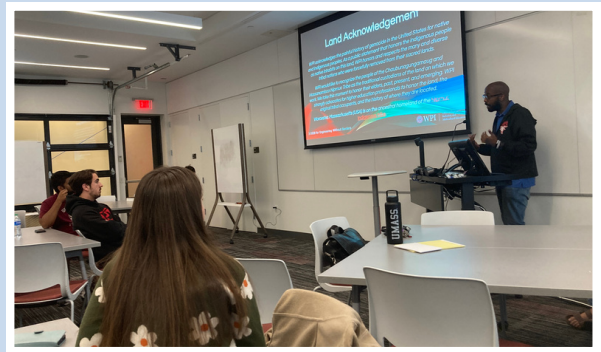
This semester, some of our workgroups were project team, fundraising, cookies fundraiser, and also a scrapbook group, where we created a scrapbook for the community to meet EWB members!



GBM Activities

WATER DISTRIBUTION

One of the activities that we did in GBM was a water distribution system! Members worked in teams to design a small-scale water distribution system.



Guest Speakers

ODIME

Before our travel trip, the Office of Diversity, Inclusion, and Multicultural Education presented and led a discussion about member's questions/concerns pre-travel.

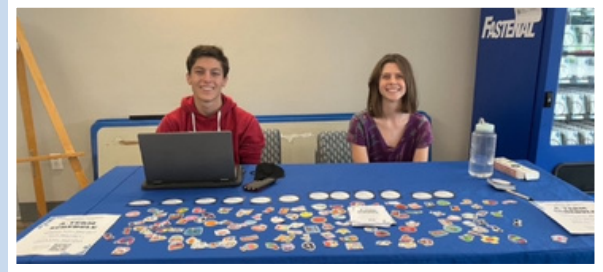


Guest Speakers

SHPE

The Society of Hispanic Professional Engineers also presented to EWB. SHPE members from Ecuador presented information on the culture, history, and important information to know before traveling.

EVENTS ON CAMPUS



Tablesitting

INCREASING OUR PRESENCE

Throughout the semester, we have been actively table sitting to promote our club, including at the activities fair and in the campus center!



Cookies Without Borders

2ND ANNUAL FUNDRAISER

This Fall, we made, sold, and delivered cookies for our second annual Cookies Without Borders fundraiser. This event could not have been possible without our Events Coordinator, Lydia Ponomarenko! Our members sold a total of 443 cookies, raising a total of \$487 to go towards our project expenses in Shungubug Grande, Ecuador! These cookies were delivered directly to our WPI students and staff on December 12th on their day off!



SGA Pep Rally

INCREASING OUR PRESENCE

We also helped out at the Student Government Association's annual pep rally and gave out churros from a local restaurant in Worcester, El Patron Mexican Restaurant!



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