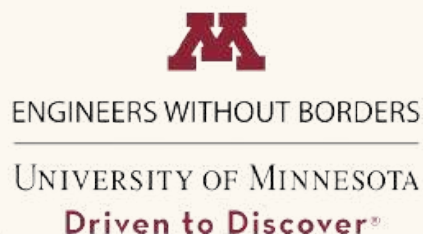


2026 SPRING DONOR REPORT



**East Africa, Guatemala, Local, Context
Committee, and Finance Updates**



Meet Our Admin



Top Row: Jade Murray, Gregory Barrett, Mason Hamar, Conrad Rodriguez.

Middle Row: Nathan Tomas, Jacob Brule, Allie Magarian, Madelynn Mikkalson, Leah Corey.

Bottom Row: Ryan Reasat, Nate Ramberg, Milan Datta-Nemana, Jeri Wilkerson, Mariana Houle, Nicholas Peterson.

Mason Hamar

President

Nathan Tomas

Vice President

Madelynn Mikkalson

Project Coordinator

Ryan Reasat

Finance Officer

Wesley Barnhart

Guatemala Project Lead

Jeri Wilkerson

Guatemala Project Lead

Nicholas Peterson

East Africa Project Lead

Nate Ramberg

East Africa Project Lead

Jade Murray

Local Project Lead

Milan Datta-Nemana

Local Project Lead

Conrad Rodriguez

Events Officer

Gregory Barrett

Outreach Officer

Jacob Brule

Fundraising Officer

Allie Magarian

Fundraising Officer

Leah Corey

Creative Director

Mariana Houle

Context Committee Lead

Thank You

A Letter From our President

Dear EWB Community,

While drawing inspiration for this letter (i.e. me looking at previous reports and definitely not considering plagiarizing them), I took a moment to reflect on the chapter and its growth over my time in the group. Since joining in 2021, as our chapter and the world emerged from the COVID-19 pandemic, I've seen incredible developments in the breadth, scope, and impact of all three of our projects, as well as our chapter's ability to adapt and overcome challenges. I am honored to have been a part of and witness to all of it, and it is my and our team's pleasure to share this past year's updates and achievements with you this spring.

EWB-UMN has continued growing through strong partnerships and collaborations. We are grateful for our continued relationships with Rotary Clubs across Minneapolis/St. Paul, including the Chanhassen club, who have again generously provided a \$10,000 fundraising match. With the merger of EWB and Engineering World Health, our chapter has also taken a greater focus on health, including a new partnership with the EWB Purdue chapter on water sanitation in Guatemala. Both of our international projects are set to travel this summer: Guatemala in May for implementation in Simajhuleu, and East Africa in August for implementation and assessment in Malawi and Kenya, while our local project continues work in Alexandria on the community's water filtration system. Our finance and fundraising team has remained instrumental through grants and contributions within and beyond the University. We've also enjoyed time together outside of project work through seminars, camping, skiing and snowboarding, and taking first place in the CSE fall kickball tournament.

I'd like to close by extending our chapter's gratitude to our students and volunteers, mentors and advisors, EWB colleagues, University supporters, and our donors. None of our accomplishments would have been possible without your support and dedication to our mission and the communities we work alongside.

These past five years have been incredible and filled with invaluable memories and experiences. It has been an honor to serve as this chapter's President, and I look forward to EWB-UMN's continued growth and achievement

Mason Hamar

President

EWB-USA University of Minnesota



East Africa Project

Project Leads: Nathan Ramberg & Keerthana Radapuram

Malawi

Namatapa Primary School in the Southern Malawi district of Zomba needs water and sanitation aid. The school only has 7 poorly functioning stalls for 1,000+ students, inhibiting proper hygiene practices. The East Africa Project aims to provide on-demand water and improve sanitation access.



Improving Sanitation Access

New student-designed latrine blocks are planned for completion by August. Each latrine block has 6-8 stalls, decreasing the student-toilet ratio from 300:1 to 80:1. Proper access to bathrooms will significantly improve sanitation for the students.



Providing On-Demand Water Access

Students used to walk 150 meters to the nearest potable water source, which discouraged proper hygiene practices. We plan to implement closer sinks that are handicap accessible to ensure equitable and safe access for everyone.

Major Updates

Last summer, a monitoring trip to the St. Pius Primary school assessed the project's impact. The student-toilet ratio decreased from 208:1 to 130:1. The final exam pass rate is now 100% and the secondary school acceptance rate increased from 55% to 97%. They are now the #1 school in the area, leading to increased government funding for two new buildings, a roof replacement, and two additional tap stands.

Subgroups

PMEL

The PMEL subgroup ensures that implemented systems properly work and are sustainable within the community. PMEL's demographic and cultural surveys consistently evaluate project impact. This spring, PMEL conducted an expansive search to choose the project's next community.

Sanitation

The sanitation subgroup is finishing latrine block designs. Sanitation is split into two groups: CAD & Soil. CAD designs the walls, floor slabs, waste pit, roof, and vent pipes. Soil determines the best location for the designs, analyzes soil tests, and decides the waste pit depth.



Water Distribution

The water distribution subgroup designs pumps, piping, and water storage. The chosen contractor will use the designs to construct sinks so the school has consistent and safe water access from distant community boreholes. Water Distribution plans to power the borehole pumps with solar power to provide power during peak usage hours.

Future Goals

We want our projects to be sustainable for communities after implementation. Our project team will complete an implementation trip to Namatapa to assess the construction quality of the latrines and water distribution systems. For the remainder of the semester, the PMEL subgroup will draw plans for a new community and search for organizations to work with.

Guatemala Project

Project Leads: Jeri Wilkerson & Cayman Pagel

Issues in the Community

3,500 residents of Simajhuleu – located in Comalapa, Guatemala – live without consistent water access. 3 freshwater springs produce 80 liters of water a day per person, but less than 25% of it makes it through the distribution system. This is severely low when accounting for hydration, hygiene, and daily water use. The Guatemala Project is revising and updating the majority of their system. We plan to improve community access to on-demand quality water by implementing pressure relief tanks, valve systems, and trunk lines.

Major Updates

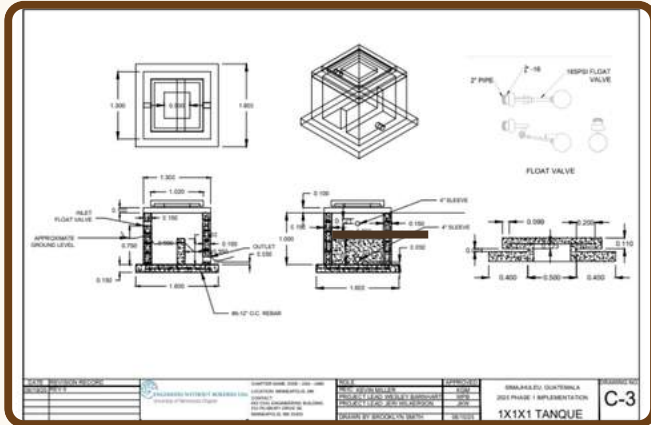
Erosion and farm runoff has put Chirijuyu's only spring in danger of chemical and organic contamination. PMEL is working with U.S. stream restoration specialists and our NGO to address the issue. The plan is to work with local vendors to reinforce the existing layers of clay with tires over the rainy season and gabion mattresses in the future. Chirijuyu has also requested our help in automating their water distribution tanks to reduce equipment failure. The two tanks are a feasible distance apart, so we plan to implement a low voltage wire that sends signals to and from the pump.



Future Goals

After completing the designs for pressure reduction devices and trunk lines, we will begin the largest phase of the project. This May, our team will aid in trunk line installation. To pressurize the system and increase capacity, we will then connect this piping to the 5 pressure relief tanks (PRTs) and install 16 pressure relief valves (PRVs) to the 15,000 ft system. These will increase access to the water while ensuring the system works on-demand. The team will also connect with the surrounding communities in a new project search. After traveling, we will work with community leaders, members, and water committee on system education and on-demand usage.

Subgroups



CAD

CAD is designing plans sets of the proposed piping for contractors, as well as cross sections of the piping and manifolds. The subgroup also completed 3D models of PRTs along with a complete construction plan drawing package for the entire water distribution system. The CAD subgroup is vital in designing and locating plans for implementation.

PMEL

PMEL focuses on maintaining and improving past projects. Regular updates with past partner communities are crucial to sustain relationships and ensure system success. PMEL is automating Paraxaj's water distribution system and addressing potential tank contamination in Chirijuyu. They also collaborate on material distribution with Guatemalan governments to estimate costs and plan implementation for system improvements.

Pipelines

Pipelines oversees the EPAnet model and pipeline network to pick the locations of all proposed piping, valves, and tanks. The team also drafted a manual to describe proper use and upkeep of the new and preexisting system. The main focus of this groups work is creating effective, sustainable, and long-lasting systems for the community.



Community Relations (CR)

CR is vital for the translation and communication of all subgroup projects to the community, and ensuring the questions and concerns are addressed. The group is responsible for educating the community on chlorination, safety, and maintenance. They are currently transmitting the project's status and resources to the community. They ensure all tasks are completed in line with the needs and cultures of the relevant community.

Local Project

Project Leads: Jade Murray & Milan Datta-Nemana

Issues facing the community

The Local Project has always sought to improve quality of life for communities here in the Twin Cities, but are now expanding beyond the metro area. They chose to work with a community in Alexandria, MN because of its problems with arsenic contaminated drinking water. At 20 ppb of arsenic, the 40 residents drink more than double the safe, nationwide limit of a known carcinogen and developmental inhibitor. Our project, in conjunction with the EWB NDSU chapter, plans to provide a long-lasting, community centered solution to this problem.



Future Goals

We are still in the early stages of design and assessment. As of now, we are preparing our Preliminary Engineering Report, which will be reviewed and hopefully approved by our regulators, the Minnesota Department of Health. In future trips to the project site, we will conduct a survey to create an accurate site plan, implement flow metering technology to help us determine demand, and meet with the community to learn more from them about their water issues.



Subgroups

Community Relations (CR)

CR focuses on non-engineering work. Their primary responsibilities are collaborating with community members to establish clear communication channels, handling fundraising, and ensuring all subgroups are connected.



Filtration: This group is responsible for finding an effective, sustainable way to remove contaminants, particularly arsenic, from the community's drinking water system. They have been researching several solutions while, in conjunction with other subgroups, are preparing the Preliminary Engineering Report for regulator approval.

Piping: Combining Water Chemistry and Filtration's ideas, Piping ensures the project is feasible. Their exposure to multiple subgroups' construction documents is incredibly valuable while drafting the PER.



Source Water Analysis:

They research possible alternative drinking water sources. This requires various Geospatial statistical analysis tools and complex computer models. Minnesota groundwater experts have been immensely helpful in this subgroups work.

Water Chemistry:

This group works with well data, lab results, and more to design a low-cost, easy to manage water production process. They have spent a large amount of the semester researching different chemicals, processes, and mechanisms for this. They are also contributing to the PER, working closely with Filtration to find compatible strategies.

Context Committee

Lead: Jane Bailey

Context Committee

Our Context Committee demonstrates our dedication to creating sustainable, community-centered solutions. They work across all projects - East Africa, Guatemala, and Local - to ensure all of our students are educated on the cultures they are assisting.



This past semester, they have been focusing on preparing the Guatemala travel team. They work with them on community calls, educational videos, and consolidating data frameworks for community use. All of these help answer questions about sickness, overall water quality, and the system post improvement of chlorinator re-design.

Midwest Regional Conference Recap



This fall, we had the pleasure of hosting EWB's Midwest Regional Conference. Almost 100 students attended from across 15 chapters, making ours the most attended ever. Over 15 speakers covered topics from Building Better Community Relations to Minnesota Transportation Capabilities and Highlights. We would like to thank Westwood, AECOM, AE2S, HDR, Barr, and PE Services for helping make the event a success.

Other Initiatives

Events

CSE First Year Mentor Connection: CSE FYMC seeks to assist freshmen students with their transition into CSE by pairing them with upperclassmen mentors within the college. Our chapter organized a event where a panel of professionals from a wide range of backgrounds got to speak to first years and upperclassmen alike about their experiences.

Context Committee Movie Night: Our Context Committee recently put on a movie night, where members could watch Granito: How to Nail a Dictator.

Our students greatly appreciated learning about prominent Guatemalan history, while also getting a break from their studies.



Habitat for Humanity:

We often volunteer for Habitat for Humanity, and this semester was no different. It's always an amazing opportunity to give students hands-on work, a chance to give back to their community, and bond across projects.

Seminars

Our seminars this semester included EPANET, Video Editing, Birdhouse Woodworking, and Water Filtration. All of them provide hands-on experience to our students, so they have more expertise to offer their projects.



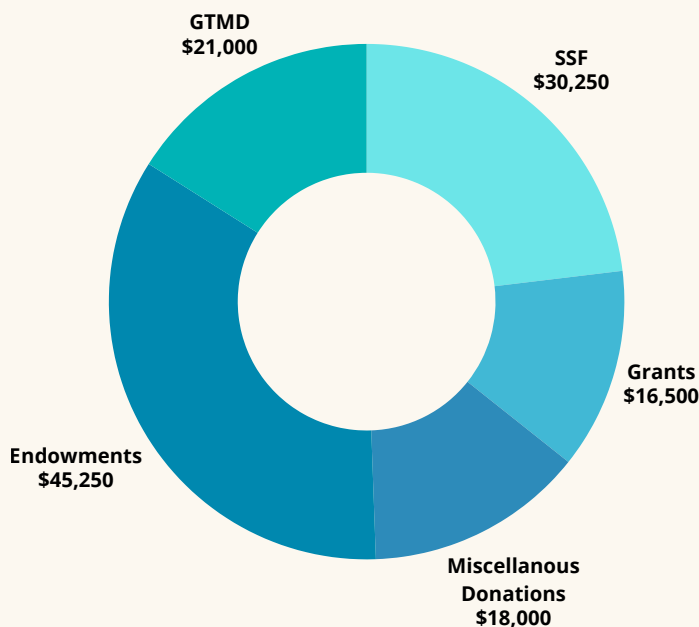
Birdhouse Woodworking, for example, was the students' favorite. It taught them how to follow plan sets and work with power tools, with a birdhouse to take home by the end. Two more seminars, HDPE Piping and Concrete Pouring, are scheduled to finish the semester. All of our projects this year involve piping and concrete, so whether working on latrines, filtration systems, or water distribution systems, our students are encouraged to attend them.

Financial Report

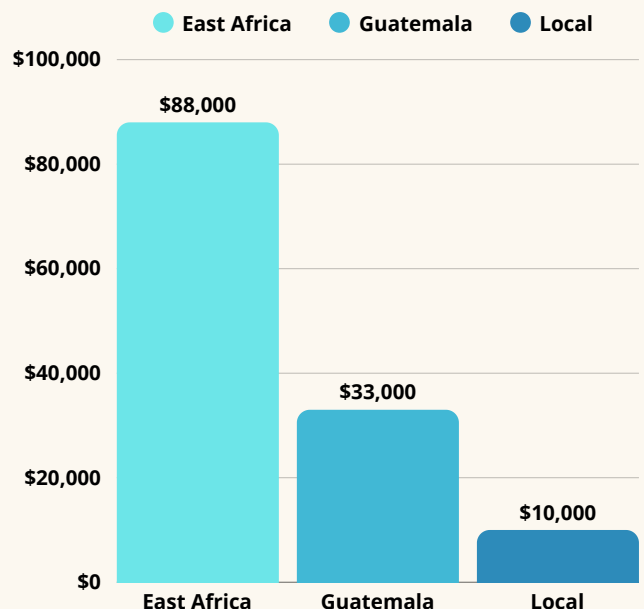
Monetary Updates

We have raised \$131,000 so far this year. It came from individual donors, Give to the Max Day, rotaries, corporate donations, grants the UMN Student Services Fee, endowment funds, and our Ruth V Jones Fund. Thank you to all who donate to us - individuals, rotaries, and family of Ruth in particular - we could not reach our goals without you.

2026 Funding Sources (\$131,000)



2026 Allocations (\$131,000)



We also plan on obtaining additional funding through more external grants and corporate sponsorships. We hope to have a large portion of next year's funding through Give to the Max Day donations. This year it lands on **November 20th**, but expect promotional materials beginning late summer.

We would like to extend a special thank you to all of our mentors. Our projects would not be possible without their extensive time, effort, and dedication. Thank you for all you do, Jeff 1, Chris, Missy, Justin, Jeff 2, David, Brian, Kevin, Bill, Ann, Walter, Laura, Heather, Pat, Fadila, Yib, and Alex.



ENGINEERS WITHOUT BORDERS

UNIVERSITY OF MINNESOTA

Driven to Discover®