



ENGINEERS WITHOUT BORDERS USA
Boston Professional Chapter

Fall 2021 Newsletter



Mashpee Wampanoag Food Sovereignty Project



In loving memory of our friend
and colleague

Mike Worthy

March 2, 1955 - July 28, 2021

The Mashpee Wampanoag Tribe's Community Food Project aims to provide access to nutritious food and fresh produce to tribal families most in need—including elders and children. Not only does the Community Food Project address improving healthy lifestyles and overall well-being, but it will bring the community together in the intergenerational exchange of traditional ecological and tribal knowledge.

Last spring, EWB-BPC facilitated the inspection of the pump and tests to determine the capacity of the current well by a local contractor. We are grateful for the support of the Neponset Valley Sunrise Rotary Club in funding a new pump. Both water pressure and flow were improved by utilizing a new pump; however, due to the limited capacity of the well, simultaneous operation of a hose and a sprinkler is still not possible.

The Tribe has applied for a grant to drill a new well from the USDA Natural Resources Conservation Service (NRCS). EWB-BPC provided a document for the proposal that outlined the limitations of the current system and the benefits of drilling a new well. We are hoping that the grant application will be approved in time to drill another well before next year's growing season.

Photo:

The gardens at the Mashpee Wampa-



Mkutani Water Supply Project Phase 3

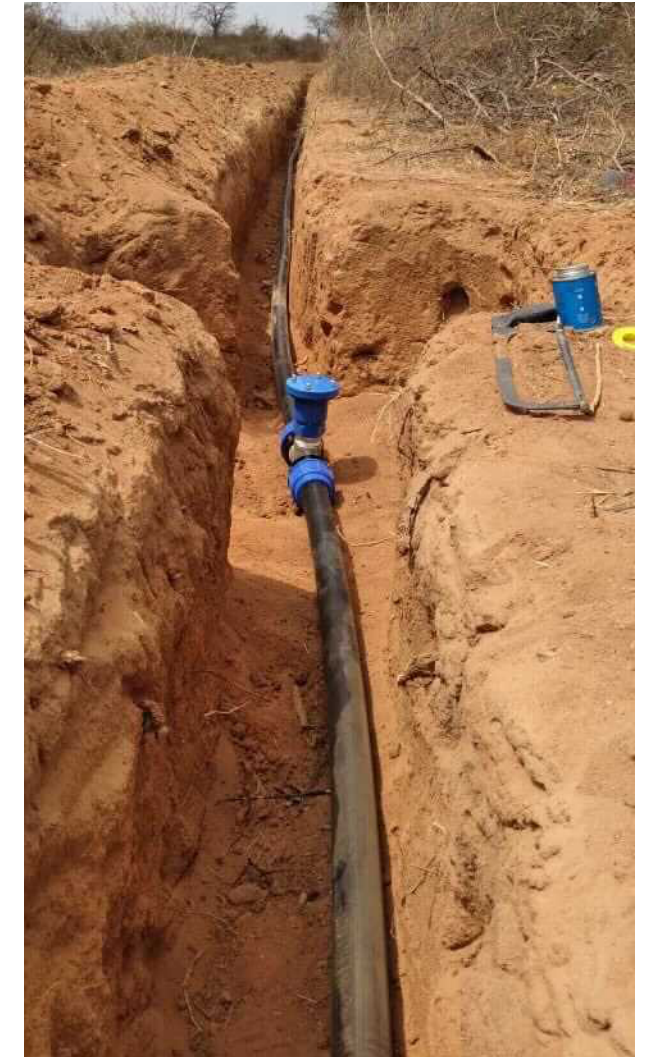
Water is flowing at the more centrally located tap in Mkutani, Tanzania! EWB-BPC has finished remote construction of the 4km pipeline connecting the 120 meter deep borehole with a site at the primary school. There now exists a new tapstand, tank, tank stand, and fence at the site near the Mkutani Primary School, and an additional solar panel has been

installed at the borehole. With this new distribution point at the school, many more people in the community will have closer access to clean water.

The CBWSO (Community Based Water Supply Organization) for Mkutani will oversee the operation and maintenance of the expanded system. Many thanks to all, particularly our

project leader Bill Clunie and our in-country representative Semu Nassari!

Photo
Community members gather water at the newly installed tap stand



Top Left
A community member measures the depth of the trench

Top Right
Newly installed pipeline

Bottom Right
Tank and tank stand at the primary school



Chamhawi Water Supply Project



The Boston Professional Chapter has continued to make progress in the community of Chamhawi! Following the successful drilling of a borehole and installation of a hand pump in the fall of 2020, the newly formed Chamhawi Community-Based Water Supply Organization (CBWSO) commissioned the operation of the borehole in January 2021, and village members began to utilize this new, safe and potable water supply for domestic use. In July, the Chapter provided Water, Sanitation and Hygiene (WASH) training to the com-

munity members, educating the village on best practices for sanitation, importance of hand washing, and an understanding of how water becomes contaminated, among other topics.

In August 2021, the Chapter made the decision to begin planning and design of the second phase for the community water project. This phase will involve the installation of a solar-powered submersible water pump, a solar panel array, pump controls, and a water storage tank in the vicinity of

the borehole. Once completed, the community members will save additional time by filling their water vessels from taps located at the base of the tank with much less time and effort than drawing water using the hand pump.

Design is currently underway, and construction is planned for Spring 2022. The Chapter looks forward to strengthening its relationship with Chamhawi and meeting the members of the newly formed CBWSO when we have the opportunity to visit the community again!



Left
Community Members attending the Water, Sanitation and Hygiene Training in July 2021

Right Top
Mr. Augustine Rukeha facilitates the WASH training for the community

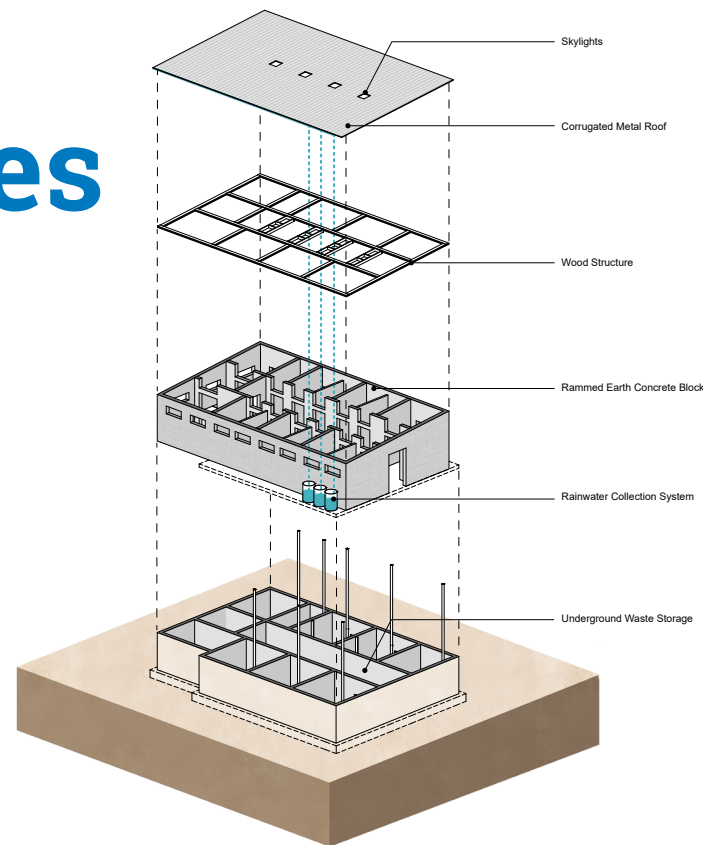


Right Bottom
A Chamhawi community member draws water from the borehole

Mkutani Girls' Latrines Project

The Mkutani Primary School is attended by approximately 640 students (312 boys and 328 girls). Although a six toilet latrine block for boys was constructed in October 2017 with financial assistance from the NGO, UFUNKO, the girl's latrine block remains in poor and deteriorating condition. Not only does the substandard state of the latrines contribute to girls not attending school, the number of latrines available is not in compliance with Tanzanian School Guidelines. The guidelines state that there should be at least one toilet stall per 20 female students. As indicated in the previous newsletter, the August 2019 trip evaluated the needs of the school girls which helped propel the design needs.

EWB-BPC completed the design and report for the girl's latrine block in September 2020. This design involves the construction of one private washroom and 12 individual stalls, each with a ceramic pan and some form of latch on the door to ensure privacy while maintaining the safety of the younger girls. The design also includes a rainwater catchment system so the girls can get access to water.



The design, pre-trip implementation report, and construction safety document have all been approved by EWB-USA. The project is currently being evaluated and reviewed by various contractors in the Dodoma region. Construction is planned to commence in Spring 2022.

Photo
Rendering of EWB-BPC's design for the new latrine facility done by volunteers at SMMA

Mkutani Multipurpose Classroom Project

The village of Mkutani struggles to provide education facilities adequate for the necessary progression of the primary school students. The students in Mkutani are crowded into too few classrooms and there is no library or study space with lighting for the students to prepare for crucial exams once it becomes dark. Consequently, many students repeat 4th grade and do not pass national exams which allow them to continue their education at a nearby secondary school.

Previously, EWB-BPC has worked with the EWB-Harvard and MIT Student Chapters to improve the Mkutani Primary School. Water catchment systems were installed to provide drinking water for the students and the teachers, and much needed housing for the teachers was designed and built.

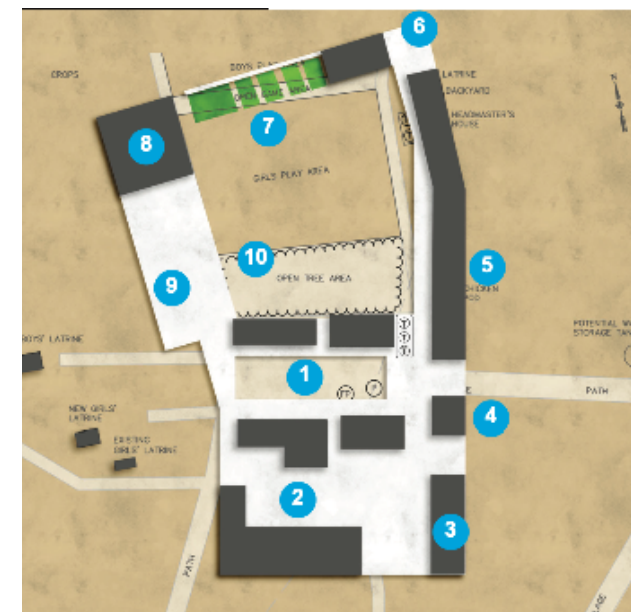
Currently, EWB-BPC is working on a project to design and construct a multipurpose classroom and learning center. These classrooms will have the capability to provide students

with a better educational experience during the day, while also providing adults with vocational education in the evenings. Break out study spaces are also being incorporated, as well as simple, natural aesthetic features to make the experience of going to school more exciting. We are in the design phase for this project with construction planned for Winter 2022/2023. Our team is looking forward to designing and building an innovative, flexible learning space for people of all ages in Mkutani.

Top
Young students in existing classroom

Bottom
Bird's eye view rendering of proposed master plan

- 1) Existing Academic Cluster
- 2) Library/Media Space
- 3) Maker Space/Adult Education
- 4) Administration Office
- 5) Future Teacher Housing
- 6) Outdoor Classroom
- 7) Student Garden
- 8) Kitchen
- 9) Multipurpose Space
- 10) Outdoor Seating



Meet Our Executive Committee



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Alyssa Stavola



Vice President
Bruce Jacobs



Director of Development
Natalie Tarski



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Charles Conley



Director of Communications
Allison Evans



Membership Coordinator
Ryan Barrett



Tanzania Program Manager
Barbara Piper



Secretary
Jill Gosnell



Chamhawi Water Supply Lead
Mike Stover

Events

Night Shift

On July 29th, members of EWB were able to meet in person at Night Shift Brewing in Everett. It was a great opportunity to catch up and ease back into a new normal. We love seeing new faces at these events!



Turtle Swamp

EWB-BPC hosted a membership event at the Turtle Swamp Brewery in Jamaica Plain on November 15th. We reached out to the next generation of EWB volunteers and recent grads from North-eastern's EWB chapter, Duke University, and seniors from WPI-EWB chapter answered our call and met for beer and tacos.

Get Involved

Here are a few tips on what to do if you are new to EWB-BPC or if you want to be more involved:

- Join our Slack channel! We use Slack for project and fundraising discussions, in addition to general announcements and meeting reminders. It is the easiest way to stay up to date on EWB-BPC activities. Email president@ewbboston.org if you would like to be added, or scan the QR code!
- Join our mailing list! You can subscribe to our mailing list via our website, on the "Subscribe" page. This will ensure that you will receive our monthly bulletins that are sent out on the 1st of each month. Email bulletins include monthly up-to-date project information, groups that need assistance and EWB-BPC meeting/event information.
- Come to our meetings and events! If you are not on our Slack or mailing list, our meeting information is listed on the calendar located in the "Events" page of our website. (<https://www.ewbboston.org/events>)



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- Photo updates of the project(s) your donation is funding

