



WATER
UNDER
GROUND

2016
ANNUAL
REPORT

IN THE 2
YEARS
SINCE
WATER
UNDER
GROUND
WAS
FOUNDED

2015 Foundation Year
Launch of Field Operations

5 COMMUNITY
WATER
PROJECTS SERVING OVER **7,500 PEOPLE**

2016

6 COMMUNITY
WATER
PROJECTS SERVING OVER **8,483 PEOPLE**

15,983 PEOPLE HAVE ACCESS TO WATER AND IMPROVED
SANITATION FACILITIES THROUGHOUT **11** COMMUNITIES

**176 NEW
LEADERS** WHO ARE MAJORITY WOMEN, HAVE EMERGED AND BEEN GIVEN A
VOICE AND A RESPONSIBILITY THAT ALLOWS THEM TO GUIDE THEIR
COMMUNITY TOWARDS DEVELOPMENT.

**7,227
CHILDREN** NOW HAVE BETTER LEARNING ENVIRONMENTS IN THE SCHOOL WITH
WATER, SANITATION MENSTRUAL HYGIENE CENTERS, AND
AGRICULTURE PROGRAMS INCORPORATED INTO CURRICULUM.

**92%
SCHOOL
ATTENDANCE RATES** ONCE A NEW WATER SOURCE AND SANITATION CENTER IS IN THE SCHOOL,
THERE HAS BEEN AN AVERAGE OF **30%** INCREASE IN ATTENDANCE
RATES AND A **36%** INCREASE IN ENROLLMENT.

**80%
REDUCTION
IN DISEASE** SCHOOL TEACHERS REPORT AN AVERAGE OF **80%** REDUCTION
IN CASES OF DIARRHEAL DISEASES AND AILMENTS CAUSED BY A
LACK OF ACCESS TO CLEAN WATER AND POOR HYGIENE.

The logo consists of the words "WATER", "UNDER", and "GROUND" stacked vertically in a sans-serif font, enclosed within a white circle.

WATER
UNDER
GROUND

TABLE OF CONTENTS

- 01. Letter from the CEO
- 02. The Water Underground Model
- 03. Our Work in the Field
- 04. Proving & Sharing the Impact
- 05. Fundraising Overview
- 06. Financials
- 07. Looking Ahead
- 08. About Us





.01

A LETTER FROM OUR FOUNDER

Not a day in my life has gone by where I have had to concern myself with where I would find safe water to drink. If you are like me, you have never truly experienced the literal meaning when saying, "I'm dying of thirst!" If you are like me, being forced to walk 6 miles to fetch dirty water every single day is the furthest thing from reality. If you are like me, clean and safe drinking water is expected. Unfortunately, the narrative is very different in the developing world—especially in Mozambique. The water crisis is in fact ravaging over 700 million people worldwide—and represents not only the single most vital ingredient to preserve human life; but access to clean water is the pivotal first step that gives education, health, dignity, self-reliance, prosperity for opportunity its only chance at survival. Simply put, as you dream to change the world in whichever way, the very first move is clean water.

Yes, my reality is different from that of a similar man in a community in Mozambique. However, I don't feel a sense of guilt that my reality isn't burdened by a lack of access to clean and safe water—and the following pages are not meant to evoke that emotion in you either. As it happens, the intention is quite the opposite. The words and stories that follow are meant to fuel the gift of perspective and show that we can solve this. The following pages are meant to connect our realities. They are intended to reveal a way to change 14 million lives in Mozambique, illuminate a path towards shaking up the paradigm in philanthropy and the water sector—and hopefully inspire us to suck the marrow out of life; where together, the substance of our actions no longer leaves us as simply observers of the human condition... but a part of it.

I would like to invite you on a journey. A journey to leave a legacy. A journey to change 14 million lives and the fabric of an entire country—one that can influence an entire region and global affairs. I invite you on a journey to meet the unseen people that are grouped as 'those without access to clean drinking water'. They are not a statistic. They are vibrant. They are full of life. They are elegant and graceful. And they are not only needing clean water to quench thirst, but to quench their ambitions to seize a life not dictated by the winds of circumstance.

WHO WILL BE THE NEXT MANDELA?

The next Einstein, Isaac Newton or Mother Theresa? The one who finds a cure to cancer? Will they be in one of these vulnerable villages in Mozambique?

Even a mother who doesn't have to worry and struggle with the lack of dignity about serving her child dirty water has a legacy to contribute. The effects of a person's legacy can quietly ripple across entire continents and oceans for many years to come. Giving an entire rural population the opportunity to seize life and be a part of this global community is not just a gift to them, but it is a gift to each one of us.

So, I invite you on a journey. We need your support and generosity. Let us leave our mark—so that others can leave theirs.

Be water, my friend.



Justin Arana

.02 OUR STRATEGY

.02

WATER UNDERGROUND MODEL
ADDITIONS AND IMPROVEMENTS



Creating access to clean water is the vital first step, but that is only the beginning.

We work hard to create sustainable projects that equip and empower individuals using new water as the platform.

EVERY COMMUNITY PROJECT WE DO INCORPORATES THE FOLLOWING:



**WATER
OVERSIGHT
COMMITTEE**



**2 MONTH
INTENSIVE
COMMUNITY
TRAINING**



**WATER
WELL**



**SANITATION
CENTERS**



**DRIP IRRIGATION
AGRICULTURE**



**MONITORING
AND
EVALUATION**



.02

ADDITIONS AND IMPROVEMENTS
TO OUR MODEL FROM LAST YEAR

THE BUCKET DRIP IRRIGATION SYSTEM

The wise use of water is important in agriculture.
In the communities that we work in - it is crucial.

We worked to innovate this system of gravity-fed drip irrigation using a simple 20L bucket. By filling up the bucket 1.5 times, a person can irrigate 50m of crops. Each of these systems cost only \$12 USD

Each of these systems cost only \$12 USD initial capital investment to build and can yield a net profit of \$150 - \$200 from each harvest. After implementing new, unique technologies and strategies, it is possible for people to have 3-4 harvests per year growing demand-focused crops such as tomatoes, beetroot, green beans etc., instead of a rain-dependent single harvest growing profitless cassava.

Simple and low-cost methodologies, such as growing corn in between rows of tomatoes to provide shade, can open up possibilities to household farmers beyond what they ever thought was possible.

This new income stimulates the local economy and can be a rung on the development ladder that they can climb themselves.

This Water Underground drip irrigation model in these gardens is aimed at demonstrating methods and technologies that are accessible and possible for the community to implement in their own homes - not only to benefit the school and sustainability of the water project.

SANITATION CENTER DESIGN AND CONSTRUCTION MATRIAL

Every Sanitation Center we build includes multiple latrines and urination stalls for teachers and students, complete with a handwash station, ensuring they no longer have to run into the field to defecate and urinate out in the open. New handwash stations engrain this important practice into the children making it second nature.

We are building these sanitation centers to improve the health and educational environment for the students in the school, but also want to construct latrines that can be a reference to families in the community to replicate in their homes.

We improved our model this year by constructing all sanitation centers in 3 main blocks. One block each for boys, girls, and teachers. Each block has its own septic tank and uses a squat porcelain toilet using pour flush. The walls are constructed using posts and zing paneling, the floor is a cement slab, and the septic tank (fossa) is a self leaching tank made with cement and PVC tubes. The tank is double ventilated. All sanitation centers are at least 50m and down-slope from the new water well.

We tested several materials in 2015 including traditional materials (tightly woven straw) and completely constructed top-to-bottom with cement blocks.

We found that the traditional materials we cheaper (therefore able to be replicated by community members), but also would only have a life of 2-4 years. The sanitation centers made from cement were very expensive, (causing a barrier for community members to replicate) and took very long to complete.

We have found that using zinc siding is the perfect melding of the two options. Not only is the zinc siding affordable for community members to implement in their home latrines, but it is very quick to construct. These zinc sanitation center walls can last for 10 years before needing replacement. The septic tank is 4 cubic meters each and will be emptied when necessary after about 5 years.



.03
MALOVECUA
CAPE CAPE
ROVENE
GUIZUGO
CHILACUA
IMPACT STORIES
WOMENSEMPOWERMENT
YOUNG WOMEN'S HEALTH AND OPPORTUNITY

.03 **OUR WORK IN THE FIELD**



Malovecua was the first secondary school Water Underground has done a project in. This year they started with only grade 8, and next year it will be grade 8 and 9. This was the first year this school has been in operation so starting a Water Underground project in a new secondary school meant that we were able to teach the students from the beginning at their new school what is possible with clean water available. This includes building a strong foundation of personal hygiene, good sanitation behavior and solid knowledge in benefits of growing quality vegetables for nutrition and for income generation.

The Water Underground sanitation centers were an extremely important topic of conversation and practical training in Malovecua given that all the female students are of menstruating age. No secondary or primary school in Massing district has incorporated private feminine hygiene rooms into their sanitation facilities so explaining the importance of taking care of these facilities as well as disposing safely of the garbage was an important topic of conversation.

Through collaboration with the female teachers and the women in the committee we devised a good schedule of education and daily cleaning of the facilities (which the students are responsible for under teacher supervision).

The students being older meant that we could trial a larger scale, more complex garden program because the students are physically stronger, capable of learning quicker and working autonomously without constant teacher supervision.

This garden's drip irrigation system was the most complex of the communities and involved a foot pump and a tank for even dispersion of water from the well to the tubes in the garden. Cucumber, green beans, tomatoes and squash have been grown and harvested once so far, which other vegetables such as beetroot and sweet potatoes still growing.

The drip system in Malovecua has perforated holes allocated for 1,748 plants. The profits from the harvest of a single plant here can average between \$0.50 to \$4.50 in profit, averaging \$2.00 profit per plant. This community therefore has the capacity to have a net gain of \$3,496 per harvest. It is not possible to have 100% success in a harvest, so estimating a 70% efficiency the net gain would still be \$2,447. A rotation of four harvests are possible per year therefore this community can earn an average of \$9,788 per year. To put that in perspective, this community could afford to put in one new water well themselves every year at that cash flow. This level of cash flow in this community has been unheard of prior to this agricultural program and is a completely new level of income generating activity for this community.

The committee of Malovecua proved to be very strong. Coincidentally the community leader (chief) named Tomo is also the leader of Maguezane community where one of our first ever projects took place.

He is a strong leader and has brought a lot of his knowledge from training in his other community to the Malovecua committee. The male (Reginaldo) and female (Lina) presidents of Malovecua are possibly the strongest team of presidents from this round of projects.

There were some cultural difficulties with one of the male community members saying that women could not do the work of men in the garden. Lina spoke up on behalf of the women, and Reginaldo backed her up stating that when women and men work together, the work can be done faster and easier. Together these two presidents spoke to the man, and soon the women were working harmoniously alongside the men in the garden and the fence was finished twice as fast. This is just one example of how strong having both male and female presidents makes the committees. The principal and the teachers from Malovecua were also incredibly motivated and were interested to start getting their students to make soap from local coconuts to keep good hygiene in the school.

MALOVECUA COMMUNITY BY THE NUMBERS

GPS COORDINATES:	23°17'19.0"S 35°23'31.0"E
COMPLETION DATE:	SEPTEMBER 12, 2016
TOTAL NUMBER OF BENEFICIARIES:	1,184
NUMBER OF CHILDREN IN THE SCHOOL:	314

THE COMMUNITY OF MALOVECUA

THE COMMUNITY OF CAPE CAPE

CAPE CAPE COMMUNITY BY THE NUMBERS

GPS COORDINATES: 23°21'25.5"S 35°20'29.5"E
COMPLETION DATE: SEPTEMBER 10, 2016
TOTAL NUMBER OF BENEFICIARIES: 1,028
NUMBER OF CHILDREN IN THE SCHOOL: 315

Cape Cape was the second project commenced this trip, and the first full project to be completed during this round of field projects. Full sanitation center with hand-wash station, water-well and garden with bucket-fed drip irrigation was constructed.

This community holds extra significance to the Arana family, being that the water well was dedicated in memory of Justin's grandparents Leo & Lydia Jacobs (his Grandfather - the inspiration for My Name is Water film, and his Grandmother whom passed away more recently). Justin's parents made a special trip for 12 days to Mozambique to be there during these field operations and to see a community's transformation. They were able to be present for the trainings, traditional blessing of the land, drilling of the well, construction of the garden and sanitation center and completion of this water well. They were truly touched and impacted by this community's dedication and participation.

Cape Cape school teaches grades 1 thru 5 and prior to the Water Underground sanitation center this school did not have any structure for defecation.

Some community initiative was shown by the existence of urination structures built by the local families out of local materials, however the lack of sanitation was an obvious health hazard to address immediately.

Previously, children were going into the bushes during school to defecate in the fields, and according to the female teacher, girls were definitely not coming to school during menstruation because of shame and lack of a private facility.

These issues are not uncommon in most rural schools in Massinga District and remain a major focus of our projects. In Cape Cape we found the community members were more committed to participating in training than the teachers because none of the teachers live near Cape Cape school. We worked closely with the teacher Margarita in the Hygiene and Sanitation commission and encouraged her to come up with methods to improve the hygiene and sanitation of the students. She implemented a program of children bringing their own water bottles or cups to school so that children are not sharing bottles around the well. She has been using a bucket with detergent and scrubbing brushes and making sure the school children clean their cups and bottles before fetching water from the well.



At the beginning of the trainings we were finding that many of the community members were coming to learn but many of the committee members were not coming to training. Through discussion with the attendees discovered that some of these women who were attending couldn't write or read and therefore thought they would be of no use on the Water Oversight Committee. In an attempt to problem solve, we encouraged the two presidents that if they felt there were people in their community who wanted to make the commitment to the committee that it didn't matter if they couldn't read or write, if they were able to spread the message of health verbally in their community, their presence was extremely valuable.

There were two stand out members of the committee in Cape Cape, Ana (the female president) and Januario (chief of the hygiene and sanitation commission and the local Pastor). Januario started out attending training only to learn, however he brought wonderful ideas and input that he was encouraged to become a member of the committee. He is now the chief of the Hygiene and Sanitation commission and ensures the latrines and hand wash stations are properly maintained by the school and is advocating for people to build latrines in their own homes to prevent the spread of disease.

Ana was also very dedicated in attending all the trainings, and would often mobilize up to 15 people from the general community (mostly women) to attend the hygiene and sanitation/women's health trainings (in addition to the committee members).

This community's eagerness to learn was so incredible. When the drip irrigation was first set up the committee was intimidated at first, but once they saw how effective it was they were immediately in awe of the possibilities and worked tirelessly in the garden. Following implementation of the bucket drip irrigation system tomato, bell peppers, green beans and cabbage were all harvested and sold to the local community. Sweet potato and other vegetables were still yet to be harvested.



.03 OUR WORK IN THE FIELD

The community of Rovene is quite far from Massinga village (approximately 7 miles). They are a vastly spread out community, many residents live up to 2 miles from the school and travel by foot so arranging appropriate times and days for meetings and training sessions proved to be difficult at times. This is not a new challenge for Water Underground. Many communities face this same difficulty so we will continue to try to identify the more densely populated vulnerable areas to gauge the efficacy of projects given this learning.

Many of the women in the most remote areas like Rovene are collecting water and doing household tasks including gathering and preparing food in the early mornings between 5am – 11am, and in the afternoons from 3pm, so our window for training was not always the best, but we found ways to adapt and the committee members put in a lot of time and effort. This was definitely one of the more vulnerable schools given the location and disease-riddled stagnant creek water they were drinking before.

The school land was very small and at first did not appear to have enough room to do a large garden and full sanitation centers. The local leader (chief) Mateus has been key to mobilizing this community. He managed to convince the owner of the land next door to donate a portion of his land to help the children in the school (and his own family).

Once the chief Mateus learned about the bucket drip irrigation system Water Underground was implementing and teaching, then saw how quickly and beautifully the hybrid corn was growing, he mobilized his community and the committee to work hard and honor this project. They said they had never seen corn that lush and that tall in their lives (and they all grow corn in their homes).

Seeing a new kind of quality in the produce growing in the Water Underground garden gave us credibility with the local people, and inspired them to stand up and lead their community. Each garden plot with corresponding bucket system represents a different kind of vegetable and there is currently eggplant, hybrid tomato (HTX), sweet potato, cucumber, bell peppers, green beans and beetroot growing.

In the last few visits to Rovene, the Water Underground team took a complete back step and watched how the committee and the leader were handling everything. We were impressed by what we saw – ownership. That demonstrated great pride in their roles as guardians of the project and showed great knowledge when educating their community in some of the topics we covered in training. Since the children have just returned from school holidays to a school that now has clean water, a garden and latrines the teachers organized a day where they would discuss all aspects of the Water Underground project, including the sanitation centers (explaining how to use them and maintain them in good condition), the garden (explaining its purpose and how the bucket drip system works), and the water well (maintaining it and taking care of it).

The female teacher Sortie although timid at first as proven to be an intelligent woman who has taken a lot of education from our training and is sharing that with her students with regards to hygiene and good sanitation practices. They have organized a bi-daily latrine cleaning schedule which is completed by a different class group each week and checked by the teacher in the hygiene and sanitation commission.

THE COMMUNITY OF ROVENE

ROVENE COMMUNITY BY THE NUMBERS

GPS COORDINATES: 23°23'29.8" S 35°24' 21.3" E
COMPLETION DATE: NOVEMBER 24, 2016
TOTAL NUMBER OF BENEFICIARIES: 1,328
NUMBER OF CHILDREN IN THE SCHOOL: 454



ROVENE'S PRIOR WATER SOURCE

THE COMMUNITY OF GUIZUGO

Out of the 5 community projects completed on this round of field operations, Guizugo is the closest community to the town of Massinga. This community is still approximately 3 miles from the nearest clean water source. The school teaches grades 1 through 5, and prior to our project, the parents of the school children had been providing materials each year from their homes (leaves and sticks) to build makeshift latrines for defecation and urination in the school. This immediately showed a positive initiative and helped spur our decision to do a project here.

During the months leading up to completion of the well, the female school teachers demonstrated a strong commitment to learning about hygiene and sanitation. One particular community member named Florentina proved to be a wonderful connection for the community in spreading the messages about water borne disease and vaccinations. She was already a volunteer at the local hospital and was extremely eager to learn - never missing a lesson.

Prior to our involvement, there was an obvious lack of cohesion between the school and the community, however after in-depth training with the teachers and community members, and the formation of the committee, communication and participation improved greatly. For the first 3 weeks of training, the school principal was away sick and therefore did not join the Committee.

Having a very good rapport with the students (and being an influencer for the teachers), we felt disappointed about his decision. Upon his return to school, and with a little encouragement from Water Underground staff, he decided to be part of the committee on the Sustainability commission. The school principal has since proved to be a very good asset in incorporating the garden program into the daily school activities.

Another highly respected community member, Denis proved to be a very good mobilizer for the committee and when we needed the people to come together to work in the garden, he was an excellent resource in gathering all the local people to help. With collaboration from the teachers, students and community members, Guizugo managed to have a thriving garden before the water well was even finished. The teachers, specifically Raoul (who had already incorporated agricultural studies into their school curriculum) put in place a routine where the children would bring water every day from their own homes (water collected from nearby rivers and traditional wells) and watered the seed beds we had planted.

This demonstration of initiative was extremely positive, and showed that with collective collaboration between the school and the community in the interim time that the well was being drilled, vegetables could still be grown successfully. In the same week that this community's well was finished, the first harvest of vegetables including green beans, tomatoes and bell peppers was garnered and sold to the local residents. Other vegetables such as cucumbers and sweet potatoes will be harvested soon. Justin also introduced the Committee to a local lodge and told them about the vegetables Guizugo was producing. As a result, this community is now selling eggplant to that lodge. If the lodge is happy with their produce, they said they they will continue to buy more and more vegetables from Guizugo.

GUIZUGO COMMUNITY BY THE NUMBERS

CPS COORDINATES:	23°23'25.54"S 35°22'32.96"E
COMPLETION DATE:	DECEMBER 25, 2016
TOTAL NUMBER OF BENEFICIARIES:	947
NUMBER OF CHILDREN IN THE SCHOOL:	538

THE COMMUNITY OF CHILACUA

Chilacua was the highest altitude well we have completed thus far with a depth of 90 meters. This is also by far the largest school we have done a project in with approximately 900 students from grades 1 to 7. The school is located at the highest point in a very rural area (a few miles from Rovene) and there were no options to drill the water well at a lower altitude whilst staying within the school grounds.

Other NGOs had tried to get water in this school 5 years ago and had no luck, so there was an abandoned well present in the school which had never been functional according to the local chief. After the drilling process it became clear that a different, much more expensive type of pump for the well would be necessary to be able to bring water up from almost 100 meters underground.

Thanks to various public and private donations, we were able to afford the extra \$5,500 to complete the Chilacua well. At a glance Chilacua school appeared to be well equipped, with government funded solid cement latrine structures and large, fairly modern-looking classrooms however after careful assessment we realized that the school and the community needed a lot of help.

Having communal student latrines without water, and without covers and doors on the latrines was causing very bad habits to form. There were feces on the ground around the latrines, where other children would have to walk, and flies in the pits of the latrines (because they did not have piped pour-flush systems in place because of lack of water).

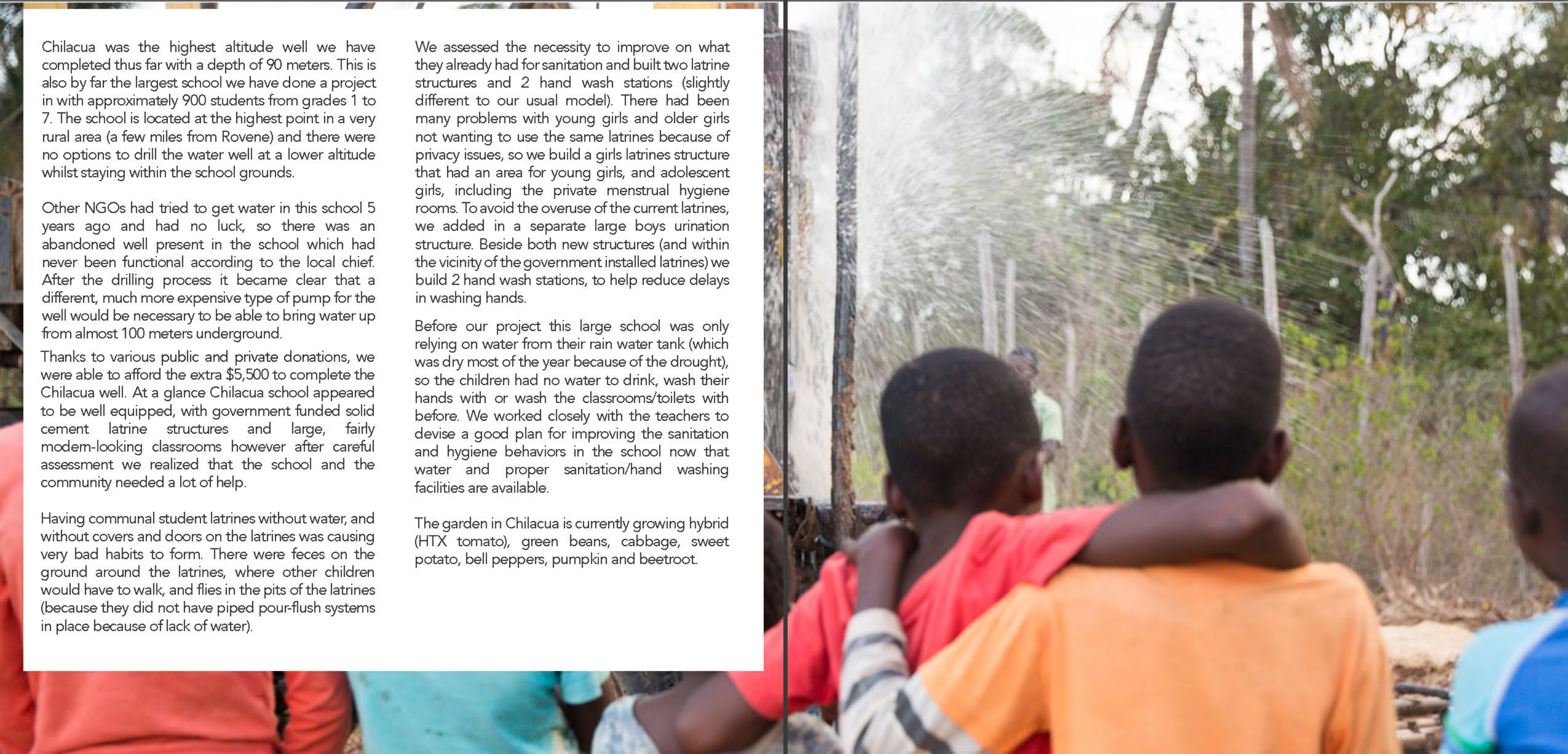
We assessed the necessity to improve on what they already had for sanitation and built two latrine structures and 2 hand wash stations (slightly different to our usual model). There had been many problems with young girls and older girls not wanting to use the same latrines because of privacy issues, so we build a girls latrines structure that had an area for young girls, and adolescent girls, including the private menstrual hygiene rooms. To avoid the overuse of the current latrines, we added in a separate large boys urination structure. Beside both new structures (and within the vicinity of the government installed latrines) we build 2 hand wash stations, to help reduce delays in washing hands.

Before our project this large school was only relying on water from their rain water tank (which was dry most of the year because of the drought), so the children had no water to drink, wash their hands with or wash the classrooms/toilets with before. We worked closely with the teachers to devise a good plan for improving the sanitation and hygiene behaviors in the school now that water and proper sanitation/hand washing facilities are available.

The garden in Chilacua is currently growing hybrid (HTX tomato), green beans, cabbage, sweet potato, bell peppers, pumpkin and beetroot.

CHILACUA COMMUNITY BY THE NUMBERS

CPS COORDINATES:	23°21'16.2"S 35°25'38.1"E
COMPLETION DATE:	OCTOBER 17, 2016
TOTAL NUMBER OF BENEFICIARIES:	1,720
NUMBER OF CHILDREN IN THE SCHOOL:	984



THE WAY PEOPLE FEEL

“With clean water, my body can shine.

...and that is what makes me feel beautiful.”

— Ana Almedia
Member of Hygiene & Sanitation Division
Community of Ngongane

“I know that I have value, and I know I have value in my community.

I didn't know that in this stage of my life I could learn more things, like I am learning now.

Actually, I am a leader now. I am teaching others too.”

— Marta Jossai
President of Water Oversight Committee
Community of Ngongane

HOURS OF LIFE GIVEN BACK

“It is so painful to think I have been wasting 3 months every year of my life fetching water.

Now, we have water, everything is changing.

I can become what I've dreamed of.”

— Irena Alfredo
Community of Sota

NEW LEADERS & SUSTAINABILITY

In many communities, a local 'chief' is the only leadership entity that exists.

Water Underground works to establish an elected supporting leadership infrastructure in each community called the Water Oversight Committee.

Through our projects, there are now 176 new leaders who have a new-found purpose and pride in having a respected voice in their community.

TAKING THE TIME TO PROPERLY TRAIN ABOUT MAINTENANCE PAYS OFF

Repairs are bound to happen. We just want our communities to be ready to handle them. Members of the commission of Maintenance & Repair are trained in depth and given weekly, monthly and yearly schedules. We cover the diagnosing of problems and how to approach these independently. This is not only efficient, but it builds self-reliance and empowers the community with ownership and responsibility.

Last year, 3 communities had minor repairs that had to be handled. Every community handled it themselves. They had money to pay for the repairs from community contributions, identified the problem, sourced the spare parts necessary, and repaired themselves. They recorded their repairs as we require, and informed us. Endearingly, they were more excited and proud to inform our staff rather than just keeping us in the loop.

In fact, word got out that our Water Oversight Committees had this training, and the commission in the community of Ngongane was contacted by another community who needed repairs and was hired to help. It ended up that they did it for free.

TRANSFORMING UNUSED LAND INTO FOOD AND INCOME

Every community has shifted into practicing agriculture for 3-4 harvests per year, no longer only one that is dependent on rain. Given new horticulture foundations, the yields are very encouraging.

Communities are selling their harvests to restaurants and the community, and 4 communities have used some profits to expand their gardens. Other profits have gone to buying soap for the handwash stations, maintenance of the well, and uniforms for children at the school who can't afford.

WOMENS EMPOWERMENT

SIMPLY PUT, THE WATER ISSUE IS A WOMEN'S ISSUE.

2016 was an incredible year for the women in our communities. Upon our return to Mozambique in 2016, we first returned to our villages from the previous year. We visited the community of Ngongane (the home of Water Underground's first community project) and met with the Water Oversight Committee to hear their thoughts on their first year after their training, and since having access to clean water. We saw first-hand what women's empowerment in action really looked like.

The first, and most notable observation, was that the women had found their voice. They spoke more passionately and with more conviction than we had ever seen, and they lead the conversation with confidence. We saw very quickly the embodiment of leadership, pride and a feeling of equality. When we asked what had changed for them in the past year, Florencia, a senior female member of the Committee stood up and said proudly that she had enrolled in adult education classes (at the age of 57), and was enjoying the opportunity to further her education finally, having dropped out of school at the age of 13 years old. She spoke of the 40 years that had past, and with her new found time back (since she was not walking 7 hours every day to find water) and with her new income (from implementing improved agriculture), she finally had freedom to become what she always dreamed of.

A female school teacher, Ana, explained that she had implemented a menstrual hygiene program

into the school (from what she learned in training with Water Underground), and that girl's absenteeism had reduced dramatically now that sanitation, clean water, and menstrual hygiene education was available.

During 2016 projects, there was a great emergence of new female leaders. Some of the women found their empowerment through rallying others to make change, and other women found their own voice. One common element is that they started to feel a sense of purpose, not just existence. One notable female leader that emerged was 'Lena'. On day one it was clear that she had silent power among her people, however as our trainings progressed, her colors began to shine! Week after week she became more empowered to challenge the men's opinions, and rally the women to speak their mind for the betterment of their community. On one occasion, a man from the community told her that the women could not help build the garden fence. She called a spur of the moment meeting with the male Committee president, and fellow community members and had an open discussion. She proposed for him to give the women the chance to help, and then he could decide if they were useful. Soon, he realized that the women were of great value, and they built the rest of the fence in one third of the time.

There are countless more stories of women's empowerment yet to be told, and we look forward to witnessing countless more through income generating opportunities, time, education, improved health and leadership.



YOUNG WOMEN'S HEALTH AND OPPORTUNITY

our impact over the last 2 years,
by the numbers:

5,500

GIRLS IN SCHOOL NOW HAVE
ACCESS TO SAFE SANITATION AND
MENSTRUAL HYGIENE FACILITIES

156,000

DAYS THAT GIRLS HAVE BEEN
GIVEN BACK IN SCHOOL NOW THAT
THEY ARE NO LONGER MISSING
SCHOOL DURING MENSTRUATION

10,500

WOMEN AND GIRLS ARE NOW
GETTING AN EQUAL EDUCATION
NOW THAT THEY ARE NOT
WALKING SEVERAL MILES EVERY
DAY TO FETCH WATER

.04 PROVING & SHARING THE IMPACT



ACCOUNTABILITY AND TRANSPARENCY

Transparency and financial accountability are pillars of our organization. As we partner in this work, we hold ourselves to the highest standards of accountability, communication, and reporting.

TRANSPARENCY IN THE FIELD

We give reports on every stage of every project. Reports are provided not only to you but also to the Mozambican government structures to assist in the countries water sector progression.



CONNECTING YOU

We direct donors money to specific projects and prove the impact. Donors receive a web publication that takes them through the entire journey of their project.

We feel this is how philanthropy should be. Here are some images of what the report looks like



YOUR WELL STORY

Welcome
to the community of
Chilacua

funded by you
This project began October 2016

YOUR COMMUNITY OF DONORS

YOU HAVE ALL CREATED A BEAUTIFUL SUB-COMMUNITY THAT WILL CHANGE THE ENTIRE FABRIC OF THE COMMUNITY OF CHILACUA IN MOZAMBIQUE. HERE ARE ALL THE NAMES OF THE PEOPLE WHO HELPED, ALONG WITH YOU, TO FINANCE THIS PROJECT.

Spaghetini Restaurant	Jim & Nancy Linden	Patty Wagner
Amber Mulvey	Joanne Nakamine-Sarria &	Dane & Reyna Solomon
Andrew Purvis	Sam and Joanne Sarria	Rick & Linda Burney
Angelina Khoo	Jodi Frankel and Family	Robin & Alan Lilien
Annie and Jake Heller	John Cassini	Roni Love
Arlene Solomon	John Kadvary	Ryan Conliss
Bickerstaff Family Trust	Judith W. Leff	Ryan Manderscheid
Brittany Young	Judy & Denny Blumenthal	Shelly Spiegel Coleman
Capital Group C. Charitable	Justin Brooks	Spencer Wagner
Foundation	Kelly Sarria	Sterling Johnson
Casey Clubb	Ken Pierce	Steve & Michelle Gordon
Casey Manderson	Kimberly & Robert Entringer	Steve & Yvonne Rodriguez
Charmaine Weiner	Kirk Jaques	Steven Dwight
Cindy Gotz	Lindsay Hill	Stephanie & Jarrod Schuster
Claudio Arana	Loring Christine	Susan David Phillips
Cynthia Marks	Marin Miller	Tara Wong
CJ Studios	Maura Dunbar	Vanessa Saiz
David Lott and Family	Michael Bank	Vida & Gregory Knapp
Emma Wiggins	Michael Murphy	Robert Gumer
Fay Tracy	Michelle Boston	Becky Giordano
Forrest Smith	Michelle Linardis	Tyler Seislove
Gianpaolo and Sylvia Girardello	Mosaic Real Estate Investors	Peter Derryhouse
Heidi Jo Markel	Nicole Vuleich	Nettie Coleman
Jack & Binnie Berro	Teresa Oratowski	
Jeff Dawson	Oratowski Family Trust	

YOUR WELL
CHILACUA COMMUNITY

YOUR GPS.

These GPS coordinates are at the school of Chilacua.

As we do with every project, your water well will be placed directly at the school in the community. Along with the well, a 50m x 50m garden is built with the community in the school.

This has 3 main benefits:

- 1. It is neutral land and will have better oversight.
- 2. Improved attendance in the school.
- 3. Better educational environment.

THESE ARE YOUR GPS COORDINATES.

Please click the link to fly right into the community. Be sure your Google Map is set to Satellite View.

Go ahead, have a look around!

Chilacua, Mozambique
23°21'16.2"S 35°25'38.1"E

.04 PROVING & SHARING THE IMPACT

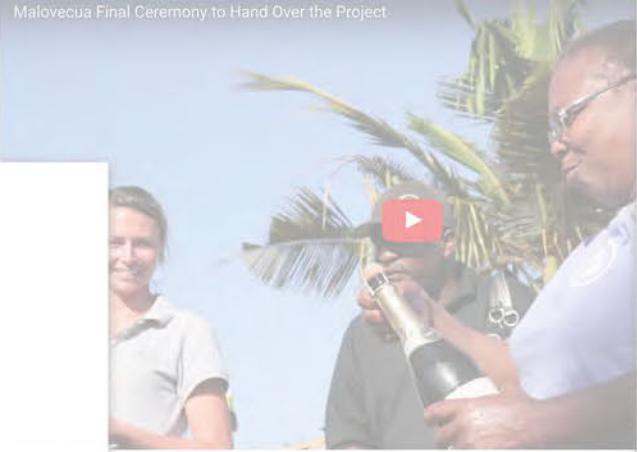
The Water Oversight Committee.

EACH WATER UNDERGROUND PROJECT WORKS WITH THE COMMUNITY TO ORGANIZE A WATER OVERSIGHT COMMITTEE - NOT ONLY TO ENSURE THE LONG-TERM SUSTAINABILITY OF THE WELL - BUT ALSO TO MAXIMIZE THE DEVELOPMENT POTENTIAL WITHIN THE COMMUNITY NOW THAT CLEAN WATER IS READILY ACCESSIBLE.

THE COMMITTEE IS COMPRISED OF 13 MEMBERS (7 WOMEN AND 6 MEN) AND IS SPLIT UP INTO 3 COMMISSIONS: SANITATION & HYGIENE, SUSTAINABILITY, AND OPERATIONS & MAINTENANCE. ON TOP OF THESE COMMISSIONS, THERE ARE 2 PRESIDENTS ELECTED (ONE WOMAN AND ONE MAN), A TREASURER, AND SECRETARY.

AS OF SEPTEMBER 30, 2016 THE WATER OVERSIGHT COMMITTEE OF MALOVECUA AND WATER UNDERGROUND HAS HAD 7 TRAINING SESSIONS TOGETHER GOING VERY IN DEPTH, LEARNING FROM EACH OTHER, AND WORKING TOGETHER TO MAKE THIS WATER PROJECT THE BEST IT CAN POSSIBLY BE.

MEET YOUR WATER OVERSIGHT COMMITTEE OF MALOVECUA.



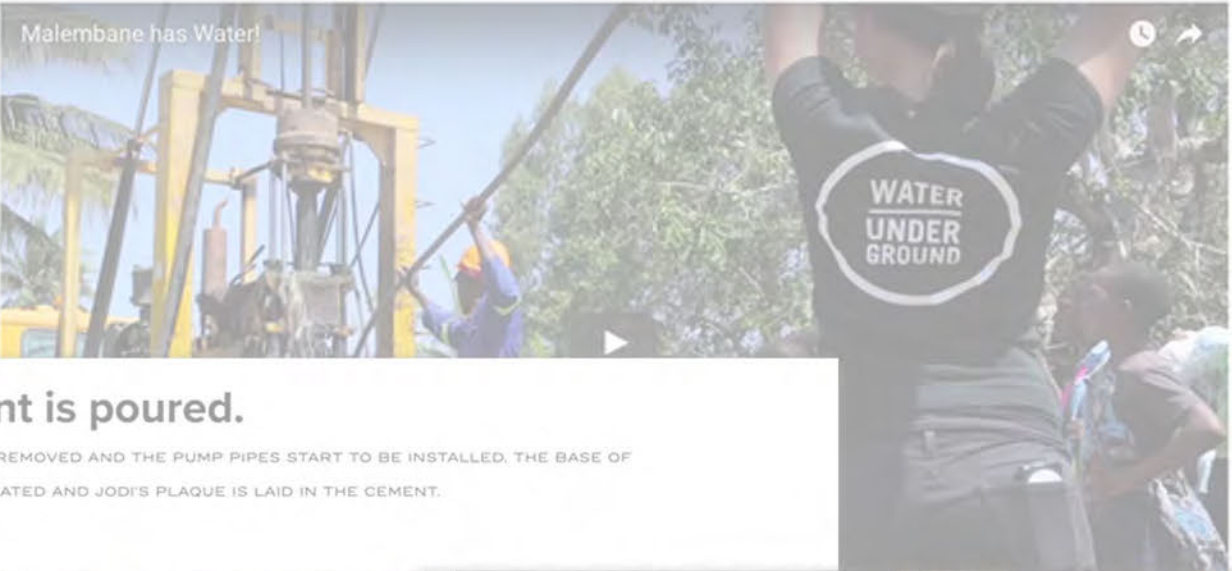
- All donors receive a web publication and receive updates as the project progresses. Updates include:
- Prior Bad Water Source
 - GPS Coordinates
 - Your name and the other donors who made it possible
 - Introduction to the Chief
 - Meet the Water Oversight Committee
 - When the Drill Arrives
 - Updates on Drilling
 - Video of Water Erupting
 - Meet the new Female Leaders
 - Watch the garden grow
 - Ceremony

November 1, 2016 Drilling starts in Chilacua!



Malembane has water.

AT 48 METERS, THE PIPES ARE REMOVED, AND THE COMPRESSOR HOSE IS INSERTED TO SEE IF WE HAVE WATER. AS YOU CAN SEE HERE, WE DO!



The cement is poured.

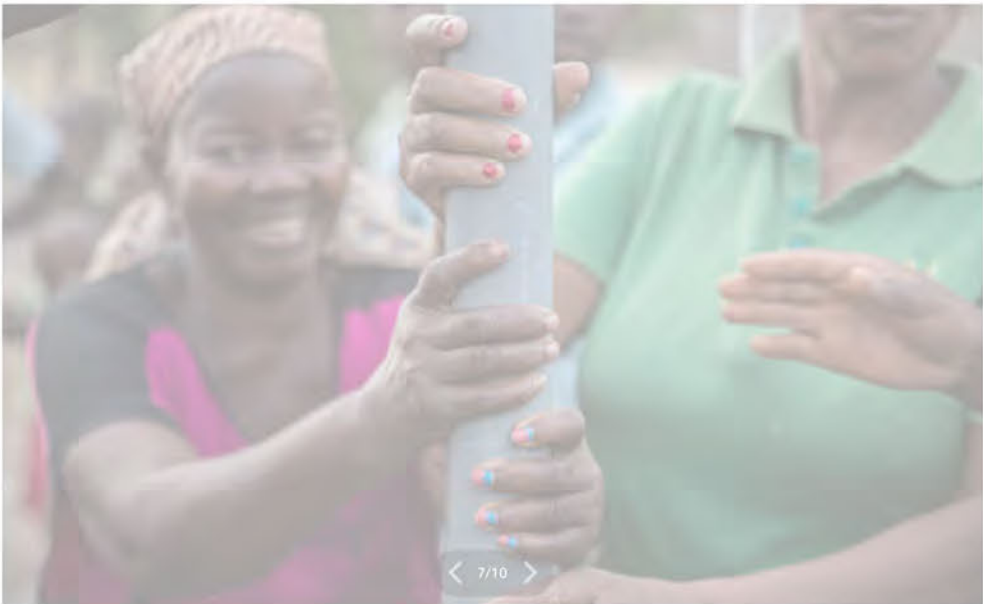
THE MACHINE IS REMOVED AND THE PUMP PIPES START TO BE INSTALLED. THE BASE OF THE WELL IS CREATED AND JODI'S PLAQUE IS LAID IN THE CEMENT.



Operations & Maintenance.

WORKING WITH THE WATER OVERSIGHT COMMITTEE'S COMMISSION OF OPERATIONS & MAINTINANCE, ALONG WITH THE DRILLING CREW, THE PUMP IS INSTALLED.

THIS IS THE FIRST INSTRUCTION WITH THE COMMITTEE AS TO WHAT ROUTINE MAINTINANCE NEEDS TO BE DONE, WHAT SCENARIOS MAY PRESENT THEMSELVES AND HOW TO SOLVE THEM. THE SUSTAINABILITY OF THE WELL IS DEPENDENT NOT ONLY ON THE FINANCIAL COMPONENT, WHICH THE COMMUNITY IS RESPONSIBLE FOR, BUT ALSO ROUTINE MAINTINANCE AND STANDARD REPAIRS.





.05 **FUNDRAISING** **PARENERSHIPS** **& PUBLIC AWARENESS**

.05
ROOFTOP LAUNCH EVENT
ROTARY INTERNATIONAL

WATER UNDERGROUND LAUNCHEVENT AT EP & LP FOR WORLD WATER DAY 2016

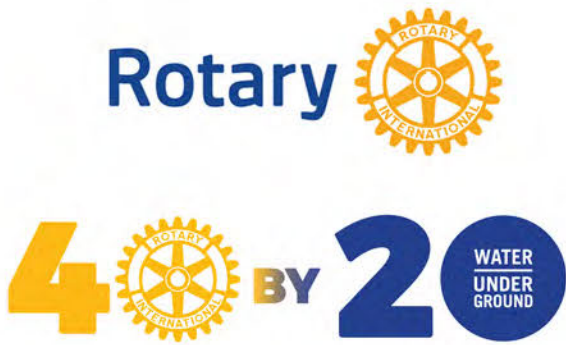
The Water Underground 'Water Water Day 2016' event was held at EP/LP Rooftop on March 22, 2016 with over 150 special guests in attendance. The stunning Hollywood rooftop event space was generously donated by EP/LP, with other major sponsors including Soap.Club, Mixwell and Alain Hirsch Constructions.

It was a red-carpet event combining art with philanthropy, hosted by Ciera Foster and including live music, spoken word, and visual art. Special guest performances included 'The Voice' star Justin Hopkins, Arielle Estoria, Ellen Cooper, DJ Sarah Lawrence and an incredible live art installation by Deth Kills.

Footage captured during our 2015 water projects was screened, with an address from the Water Underground founder – Justin Arana, and Co-director – Pauline Egan. The evening brought to the forefront, the global water and sanitation crisis, as well as gender inequality, whilst raising money for Water Underground 2016 Projects. Guests learned in detail about Water Underground's program including providing access to sustainable clean water, sanitation, agricultural innovation, and education, as well as our efforts in the empowerment of women.



ROTARY INTERNATIONAL



We have partnered with the Rotary Club of Long Beach to begin our first Global Grant. The Long Beach club is hosting the grant and has organized Water Underground to speak at several clubs throughout the region.

The grant will be an ongoing process and our collaboration has coined the phrase 40 by 20 - where we will complete 40 Rotary projects by the year 2020.

CORPORATE PARTNERSHIPS

We were fortunate to have the following great companies support and partner with us where we could help each other better achieve our goals.



GENEROUS PRIVATE DONORS

We were very lucky to be supported by three great private family foundations in 2016 including the Lilien Family Foundation, The Bickerstaff Family Foundation and the Arlene Solomon Foundation.

In addition to foundations, we had the restaurant Spaghetini and several other great companies using their staff to raise money for water.

All of our projects are made possible by our donors who give smaller amounts but do it consistently. We began to accept monthly donations and thanks to our more than 500 other donors we were able to have a great impact in 2016.



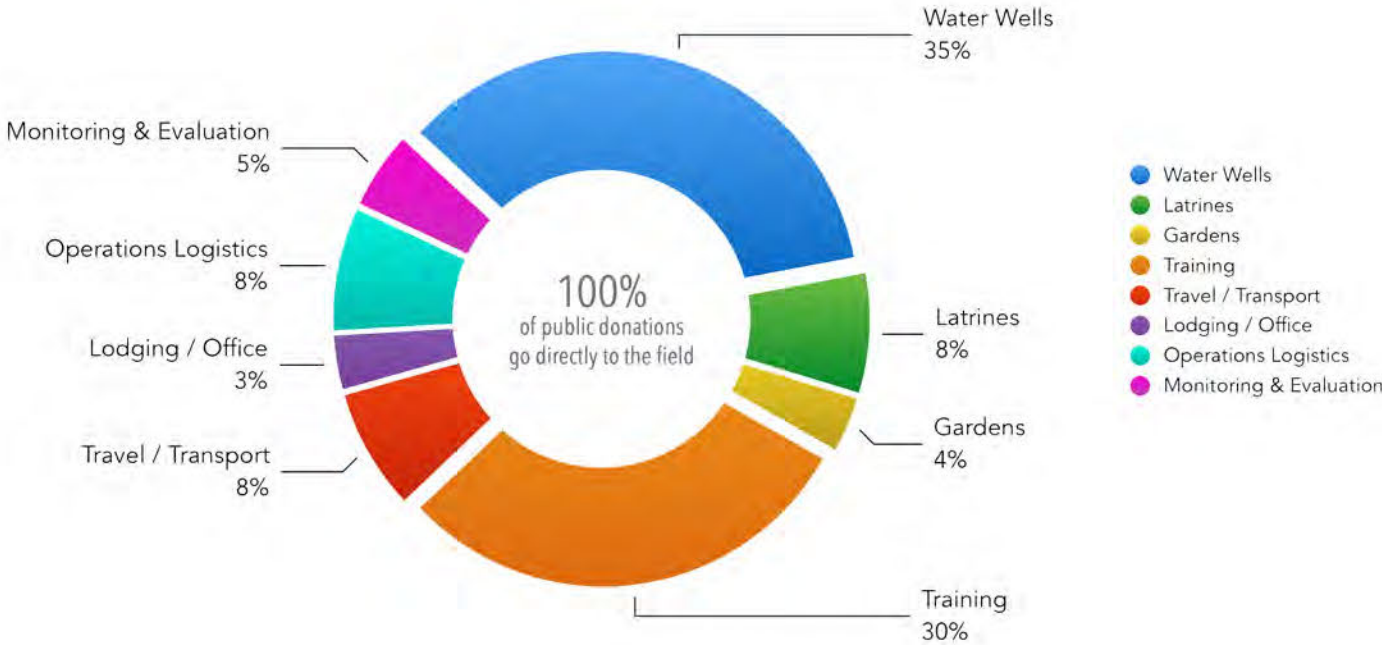
.06 FINANCIALS

.06
IN THE FIELD
OPERATING COSTS
FINANCIAL STATEMENTS

IN THE FIELD

WATER UNDERGROUND
2016 FIELD OPERATIONS FINANCIAL SUMMARY

COMMUNITY WATER PROJECTS	
Water Wells	\$58,572
Latrines	\$12,736
Garden	\$5,850
Training Costs	\$49,450
Community Program Costs (manuals, supplies for latrines, ceremony etc)	\$4,650
Community Petrol	\$3,146
Monitoring & Evaluation	\$8,178
Total for Community Water Projects	\$142,582
FIELD OPERATIONS LOGISTICS	
Air Travel	\$6,322
Transportation (Car/Bus/Petrol)	\$6,508
Staff Support (Staff meals, water, supplies, medical)	\$3,544
Phone/ Internet	\$449
Legal & Official	\$1,287
Lodging and Office	\$5,755
Total for Field Operations Logistics	\$23,865
Total for Community Water Projects	
	\$84,954
Total for Field Operations Logistics	
	\$81,493
Total for 2016 Field Operations	\$166,447



RUNNING COSTS



We are an implementing organization that has offices and full time staff in Mozambique. Our Founder and Executive Director, Justin Arana, and Director of Health Programs, Pauline Egan, are present in the field during field projects and spend the rest of the time back in Los Angeles (where our U.S. office is) fundraising and developing the organization so that we can scale effectively. It is a lot of work in having two full time teams and we strive to be as operationally efficient with our finances as possible.

100% of public donations went directly to the field. Our running costs that include salaries and fundraising we covered by generous private donors.

consolidated statement of activities
FOR THE YEAR ENDED DECEMBER 31, 2016

	UNRESTRICTED	2016 TOTALS
REVENUE, SUPPRT AND RELEASES		
Contributions	\$222,635	\$222,635
Total revenue, support and releases	222,635	222,635
EXPENSES		
Program services	166,447	166,477
Management and general	40,956	40,956
Development and public relations	3,097	3,097
Total Expenses	210,502	210,502
NET ASSETS AT BEGINNING OF YEAR	272.17	272.17
NET ASSETS AT END OF YEAR	\$12,133	\$12,133

.07 LOOKING AHEAD



Where we work in Massinga District in Mozambique, there remain 69 communities that do not have access to clean water.

Our 5-year goal is to achieve this District-wide 100% access benchmark which will be a statistic that the entire country of Mozambique has never been able to claim.

Our goal is to empower every woman in Massinga District with renewed time, leadership and opportunity through our programs.

We look forward to nurturing our new partnerships with global foundations and companies to help propel each other towards our goal and continue to scale strategically, effectively and have the greatest impact we can have on those who need it most.

.08 ABOUT US



We have offices in Los Angeles and Mozambique.
Our Mozambique team is entirely local staff.
Here are our main leaders.



SILVESTRE UQUEIO

Co-Founder, Mozambique Field Director

Former Minister of Agriculture and Regional Manager of INGC (the equivalent of FEMA). Silvestre directs all field project teams for Water Underground and negotiates the journey for each community project with the grace necessary to welcome each member of the community to water for the first time, and empower them to grow - on their own terms. Silvestre has over 30 years experience in the WASH sector in Mozambique.



JUSTIN ARANA

Founder, Director

Originally from Southern California and a graduate of the University of Southern California with degrees in International Relations and Business Administration. Worked in Darfur and then in other parts of Africa specifically focused on the water crisis before teaming up with Silvestre Uqueio to form Water Underground.

[Read about Justin's story and the birth of Water Underground.](#)



PAULINE EGAN

Co-Director / Director of Sanitation & Hygiene Program

Born in Australia. Bachelor of Nursing and Post-Grad Cert. in Primary Health in Developing Countries. Pauline directs and develops the Hygiene & Sanitation program and works with the local Water Underground medical staff to ensure each community member embraces the connection between water and health. Pauline also works heavily with the women in each community, focusing on women's empowerment and women's health.



VALDEMIRO MUAGA

Monitoring & Evaluation Lead

Worked for Massinga district government in Monitoring & Evaluation as well as rural and semi-urban land development. Valdamiro heads up the Monitoring & Evaluation team with Water Underground, working closely with the communities and helps assure our projects - and the communities development goals - are sustainably met with transparency.



MOMADE CALIA

Drilling / Handpump Specialist

Working in the water sector for over 15 years for large organizations like USAID, Momade works with the drilling teams assuring all aspects are done to the highest quality and standards. Momade also works with every Water Oversight Committee's Division of Maintenance & Operations and trains them in all aspects of well maintenance, repair and diagnostics. He makes sure each division member walks away from the process as fully trained technicians themselves.



HUMBERTO MONGUAMBE

Agriculture Specialist

With several degrees in Horticulture & Agriculture, Monguambe has helped innovate the Bucket Drip Irrigation System and works with every community in the installation of these systems and guides them through every stage of the agricultural process. Every person has unique concerns about their agriculture practices, and Monguambe walks everyone through with grace, leaving them empowered.



www.water-underground.org
info@waterundergroundproject.org