

Water Pump Project

Water is fundamental to life on earth. It's also a key ingredient for our project site. Several of our planned projects must have water before we can begin. The living fence needs water to grow. The forest needs irrigation to get established. The garden needs irrigation to grow. We need water for making compressed earth blocks that we can use to build our structures. We need water for people to drink – clean, safe water.

We evaluated several possible sources – rain water, well water, and lake water. Our site is on the shore of the largest lake in Africa – Lake Victoria. We will collect rainwater eventually, but we need structures first. Pumping water from the lake seemed like the easiest and most cost effective solution. It can be used untreated for most of our needs, and a modest amount can be treated for human consumption – with sand filters and/or solar distilling.

Our plan is to install an elevated storage tank and use a solar powered pump to move water from the lake into the storage tank. The gravity pressure from the elevated storage tank will allow us to distribute water to the various uses on the site.

We have completed many hours of planning and design for the project, and the water project is our first major construction activity. That lead to our first major fundraising campaign. We need money permits, tanks, pumps, solar panels, pipes, and the ability to secure these assets. It will cost approximately \$5,000 US for this first enabling project step. We have a GoFundMe set up here: <https://www.gofundme.com/f/Water-pump-for-Kijiji-Tanzania>

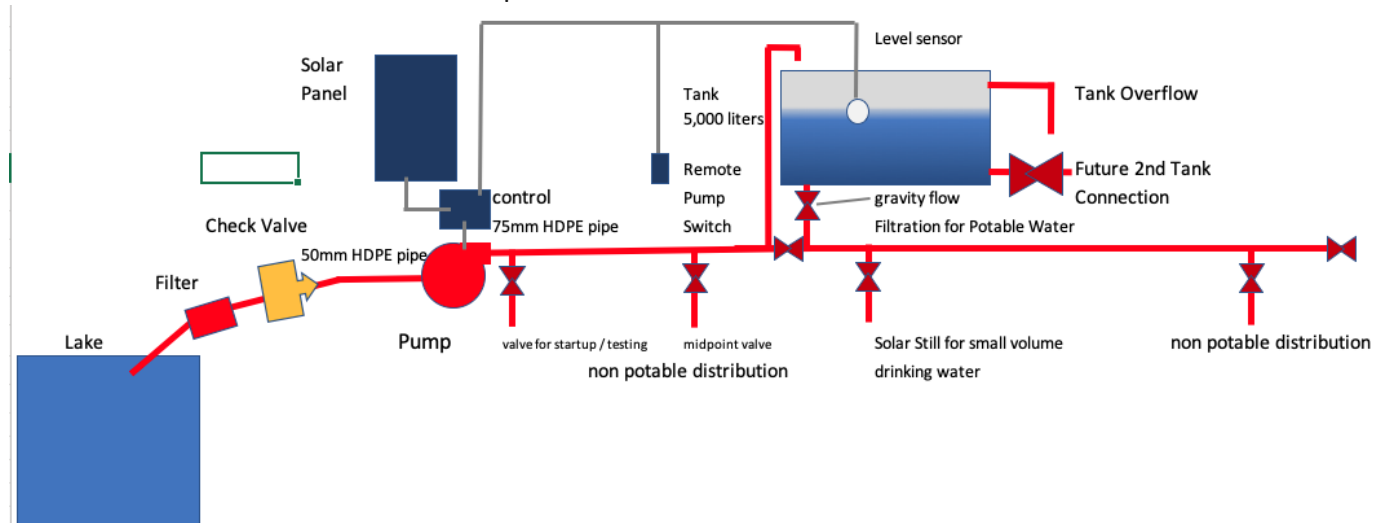
In all our designs we seek to understand local materials/skills availability. We search for cost effective solutions that have already been developed and tested. We assess the sustainability of the solution. We hope that some of the solutions can be embraced by the community and used to address similar issues in the area. We hope that people will embrace these ideas and even find business opportunities for themselves.

The heart of the water system is the pump. Fortunately, an innovative solar pump has already been developed and we will deploy that on our project – [Futurepump](#).



The Futurepump fits our requirements well. It's durable, easily repairable, and solar powered. It has the pumping capacity we need to move water from the lake to the high point of our site.

This basic schematic shows our water plan:



We are excited to get this project installed as it will enable our next major project steps to proceed.

March 24, 2023