

# EMPOWERING REGENERATION: EL CENTRO DE EDUCACION AGUA

TEGUCIGALPA, HONDURAS | EMILY RUSSELL | REGENERATIVE DESIGN THESIS STUDIO | SPRING 2013

## WHY WATER?

11% of the world's population do not have access to safe water.

2.5 billion people do not have access to adequate sanitation.

700,000 children die every year from diarrhea caused by unsafe water and poor sanitation – that's almost 2,000 children a day.

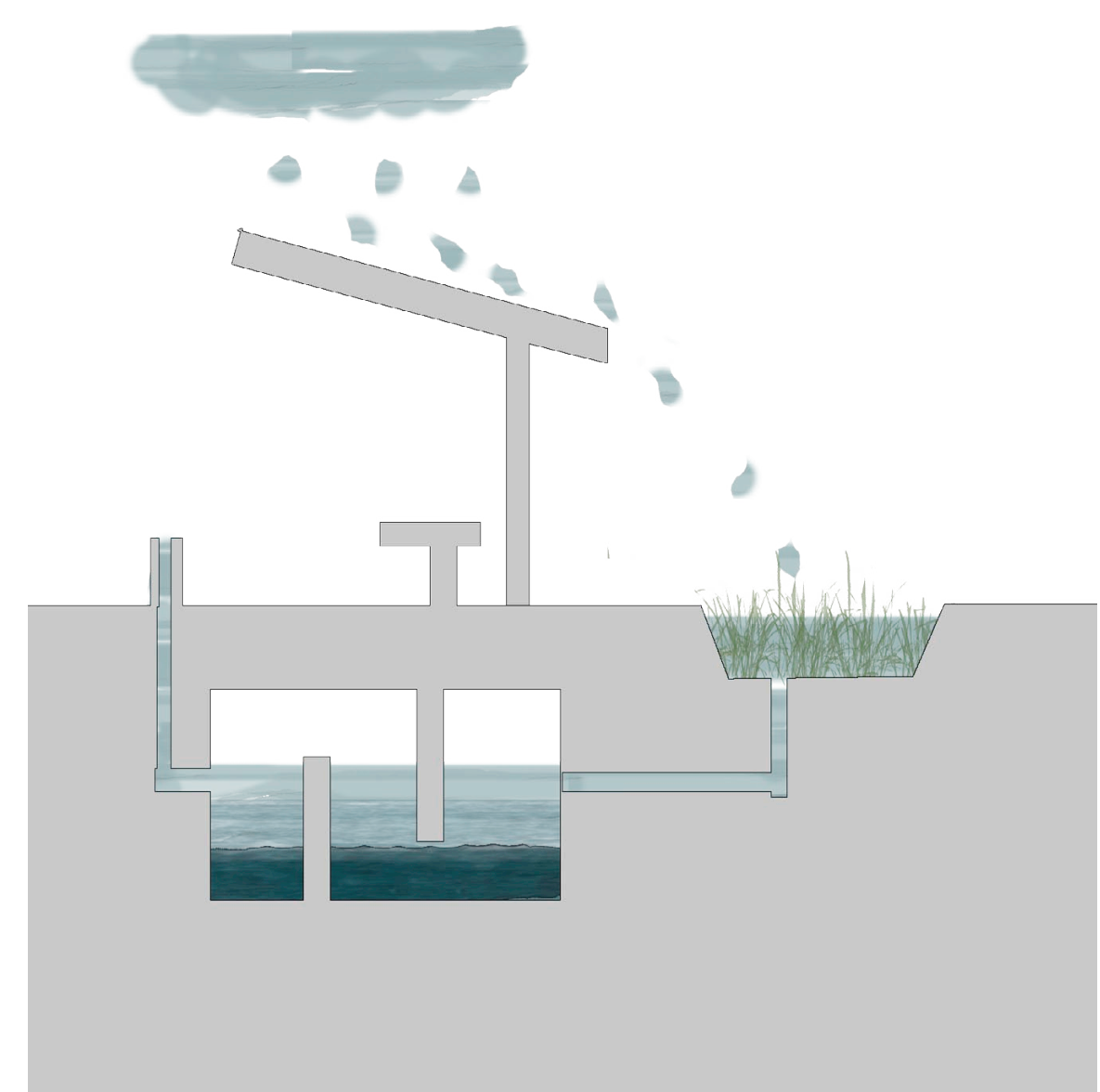
In the developing world as a whole, around 90% of sewage is discharged un-treated into rivers, polluting them and affecting plant and aquatic life

## IN TEGUCIGALPA?

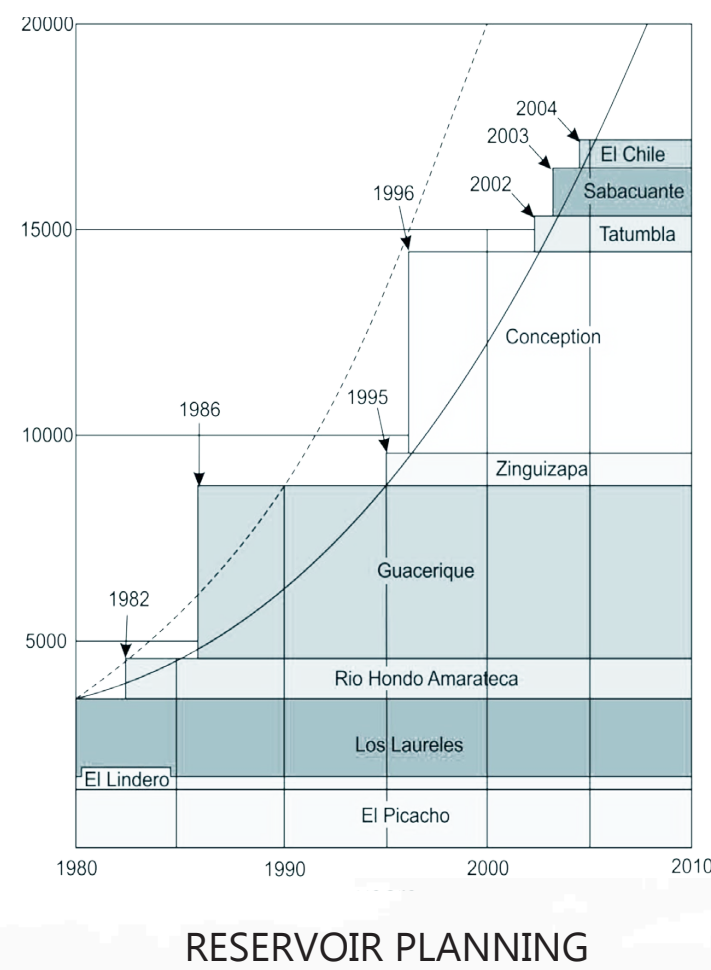
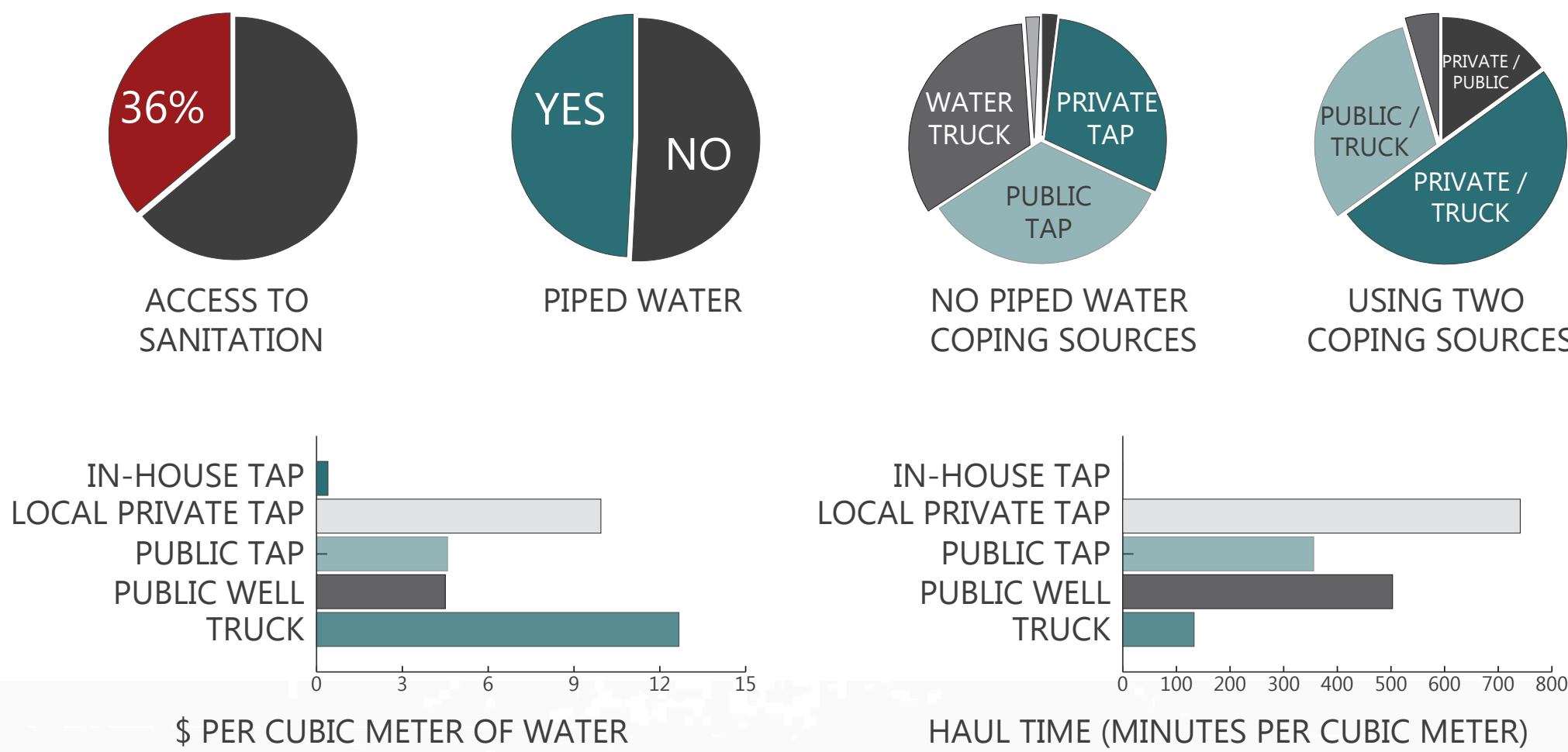
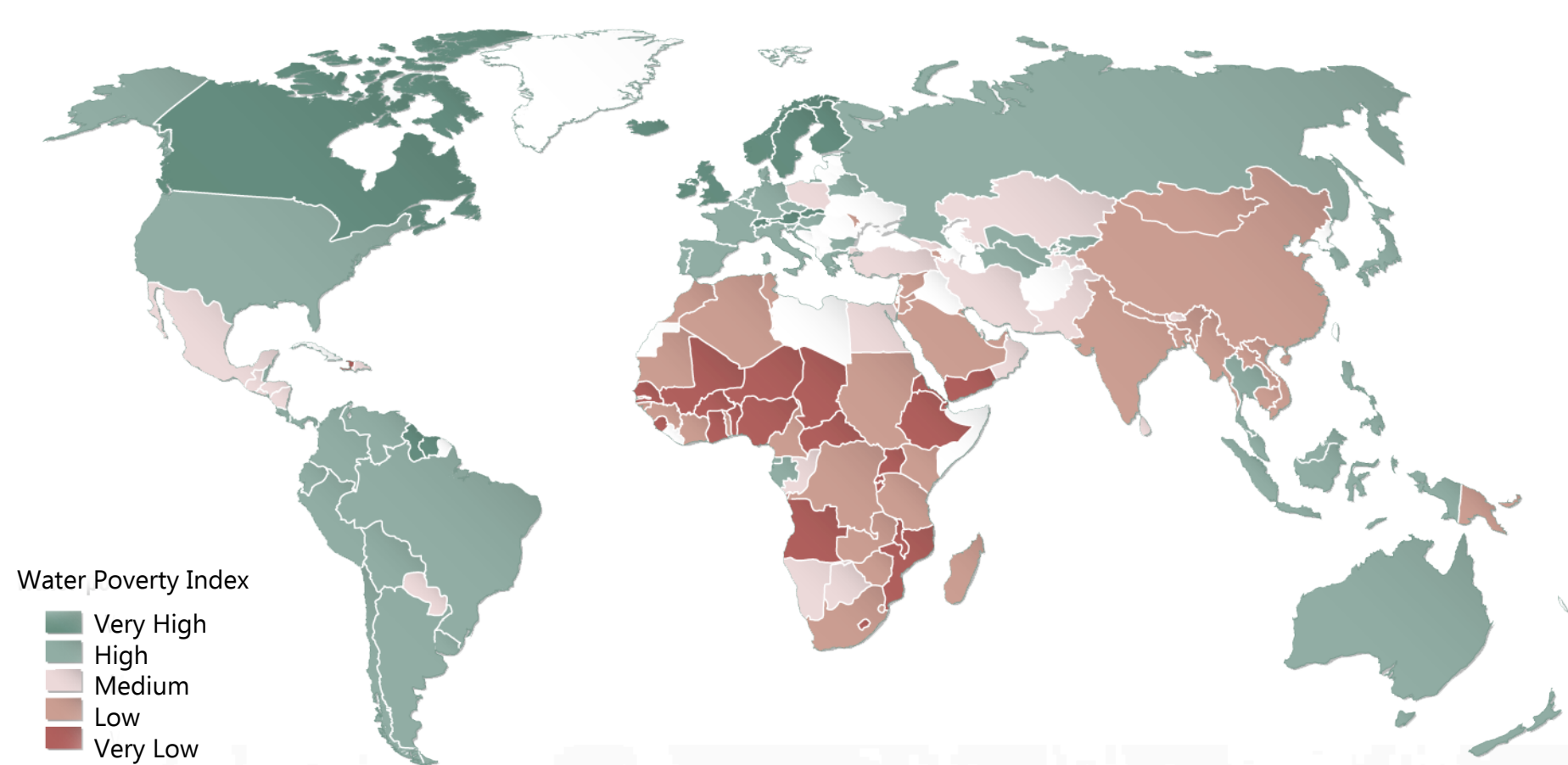
In the city, there is an estimated clean water shortage of 65 million meters<sup>3</sup> per year.

During the dry season neighborhoods receive running water every other day for 8 hours a day.

60% of clean water is wasted on it's way from the reservoir to peoples' homes due to leaking pipes.



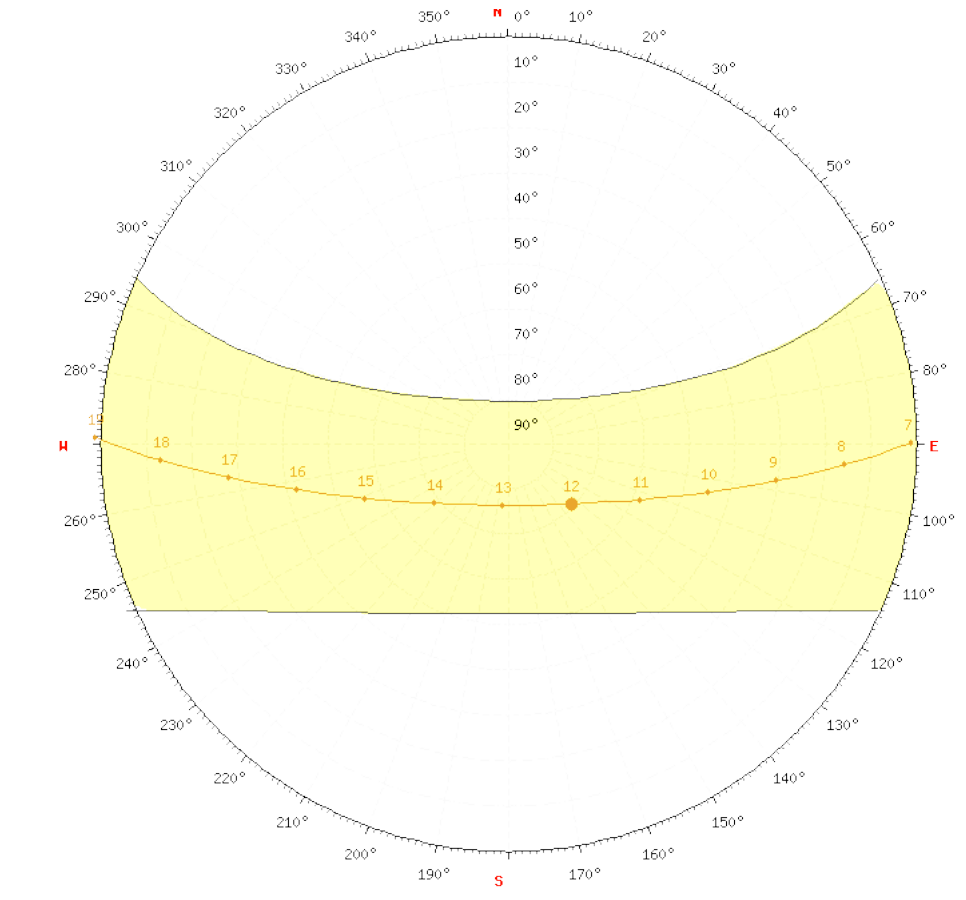
Regional Bus Stop Water Filtration



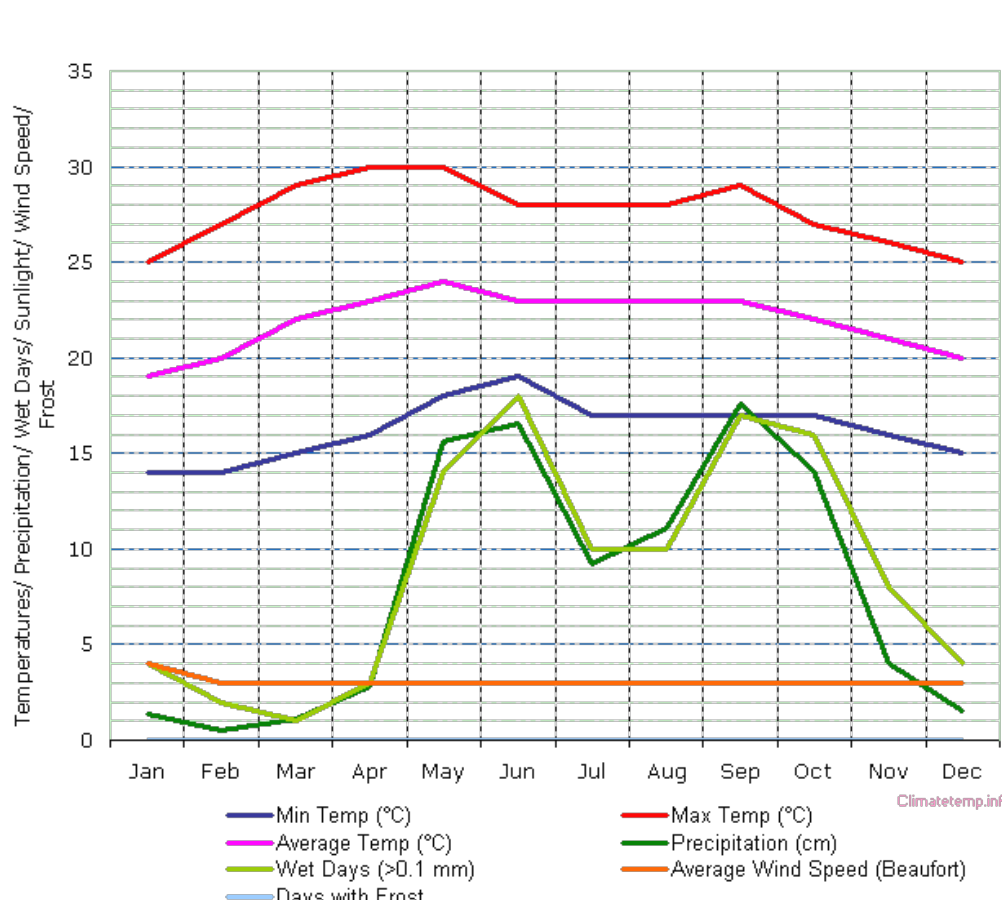
Proposed Regional Bus Stops (each circle has a 400 meter radius)



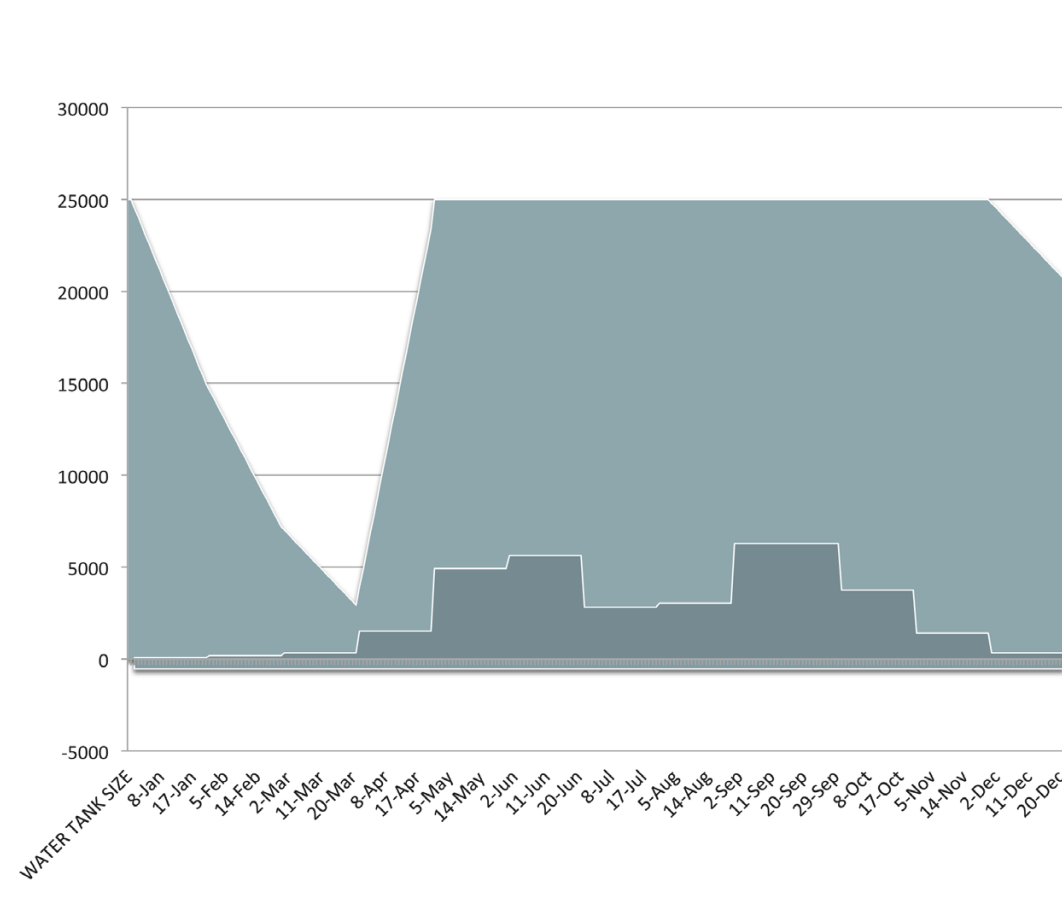




Tegucigalpa Annual Sun Path Diagram



Tegucigalpa Climate Chart



On-Site Water Catchment Cistern

PROJECT GOALS + ELEMENTS:

1. Directly assist the surrounding community and **reduce water pollution** through demonstration classes and workshops about how to fix leaks, disinfect water, and collect water safely at private residences.
2. Target the most affected population, **enhance health**, and contribute to the development of the communities. By giving people a place to be educated about water conservation, they will take greater responsibility in their communities.
3. Provide the municipality the resources to start metering more households and informing the inhabitants of the importance of clean water.
4. Improve the lives of the people in Tegucigalpa through **education about conservation**, coupled with improvements in hygiene and sanitation

