AQUA CLEAN

Team Member Name	Year	Major
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Topic Title: **Ensuring Access to Clean Water and Sanitation for the City of Tulancingo**
Audience: Water Local Management Unit, and community leaders

Sustainable Development Goal

<u>SDG #6</u>: Ensure availability and sustainable management of water and sanitation for all

Executive Summary

As an outside consulting group, Aqua Clean has been asked to address the issue of water sanitation of "*La Presa Endho*", or "the Endho Dam," located between the cities of Tepetitlan and *Tula de Allende*, Mexico. The dam´s primary function is to serve as a reservoir for water for agricultural activities in the Valley or Mezquital where 456,855.69 ha, are planted with grains such as corn, beans and fodder oats, of which 20% are rainfed and 80% are irrigated.

Since 1951 the dam receives residual water from the City of Mexico with a storage capacity or 182 million cubic meters. Our firm receive information that there is a water treatment plant; however, the community reported problems in agricultural activities as well as diseases from the polluted water which has become a problem in the nearby cities of Tepetitlan and Tula de Allende with indigenous *Otomí* communities, due to the high metal concentration in the water. Studies showed presence of Hg, Mg, and Pb in the nearby river (Rio Tula), which had lead to various diseases not only in the dam but along the Tula basin in the state of Hidalgo.

To address the pollution problem, our project aims to use AquaClean technology as a second step and address the community to participate in a first stage that will include to step in a general cleaning labor by recollecting domestic garbage easy pick up. On a second stage AquaClean will use the Electro Dialysis (ED) and sand filtration, to remove metals.