sk837

SPRING 2014

In Fall 2013, I took the Sustainable Municipal Drinking Water Treatment course with Professor M. L. Weber-Shirk and am now a part of the AguaClara team. This is my first semester and I will be working with the PR team to help raise awareness for our cause and the AguaClara team.

I have been specializing in the video aspect of the PR work, but have also been involved with other work. Recently, I decided with Professor Weber-Shirk that I will begin creating videos to explain the different processes within the currently operating plants to help not only people abroad, but also students to learn about AguaClara technologies.

FALL 2014

This is my second semester with the team, but the first time I will be researching technologies to help improve the plant. In Fall 2014, I will be working on the Floc Probe project with Larry Ge and advisor Ethan Keller. We are hoping to find a practical way to measure the depth of the floc blanket and the sludge in the floc hopper. We are also hoping to learn more about what happens inside the floc blanket and floc hopper. Performance is greatly increased with the emptying of the floc hopper and we want to find out why.

FALL 2015

This is my third semester with the team, and I am returning after a semester break as an M.Eng student in Environmental Processes. In Fall 2015, I will be working on a new concept of stacking floc blankets to replace sand filters for the treatment of ground water, specifically for the removal of heavy metals: Arsenic and Fluoride. My teammates are Christine Leu, Cindy Dou, and Amlan Sinha, and our advisor is Amiel Middelmann.

We were able to successfully produce a setup for experimentation, and it will be used for next semester's research. Floc blankets have been created in each reactor of the system, but minimal testing has been done with dye, which is our indicator of removal by the system. Our goal for next semester will be to perform more experiments, and optimize our parameters for the best performance, and hopefully cost as well.

SPRING 2016

This semester, I will be continuing with the Countercurrent Stacked Floc Blanket Reactor research team. Most of FALL 2015 was spent setting up the apparatus with which to experiment, and so this semester the team will spend most of our time experimenting with different variables to see the viability of this technology. We also hope to develop a way to eliminate the use of pumps for transporting flocs from one reactor to the next. Our other major goal for this semester is to apply for an EPA P3 grant for our research with Fluoride removal.