

Task List:

- **Understand** how floc and the floc blanket specifically behave in the existing AguaClara plants. We realize that the full nature of the floc blanket is still not completely understood, but we hope to work closely with Casey Garland and others who have previously studied floc behavior. (Larry, Mickey)
- **Identify** the current operating problems in AguaClara Plants associated with the floc blanket and sludge accumulation in the Sedimentation Tanks. It is important that we understand what problems exist so we can best address them. One known problem is sludge accumulation in the tanks, which might be blocking the jets designed to resuspend the flocs. In this step we hope to identify which parameters our floc probe should measure, such as turbidity, concentration, etc. (Larry, Mickey)
- **Research** existing technologies and commercially available products that allow for the quantification of certain determined parameters. Such parameters may include:
 - Turbidity
 - Depth of floc blanket
 - Individual jet velocities
- **Construct or purchase** a floc probe using fabricated or purchased sensors. In this design phase, there are several challenges that we will need to overcome:
 - How to get the floc probe past the settling plates
 - How to make sure our probe isn't susceptible to water damage
 - How to ensure we are achieving accurate, consistent readings
- **Calibrate** the prototype probe so it provides us with the readings that we want. This will be done in a laboratory setting so we can control the parameters. Write instructions for calibration for future operators.
- **Bring** prototype to Honduras to see if it operates correctly at existing Aguaclara plants.