

# Foam Filter Preflocculation

## Foam Filter Cleaning

1. What pore size foam is best for filtering flocculated suspensions and what determines “best”? Best might be determined by solids holding capacity, ease of cleaning, or effluent turbidity.
2. Does head loss through the foam increase linearly with the mass of accumulated coagulant? This would match results obtained with sand filters by several AguaClara researchers.
3. How much collision potential is needed in the flocculator?
4. Should the energy dissipation rate in the flocculator be high enough to ensure that flocs are small so that surface clogging (solids accumulation on top of the foam) doesn't occur?
5. Do we need to use more than one foam filter in series with different sizes of foam?

## Fall 2015

The current foam filter system in El Carpintero lacks a flocculation system and we suspect adding one would improve the efficiency of the overall system. We expect that the addition of a flocculation system would reduce the amount of coagulant and foam needed to properly filter the water and would improve cleaning. The sub-team is responsible for designing and building a bench-scale flocculator system to test collision potential in conjunction with a bench-scale foam system to test pore size and headloss of overall system. We hope to better model the impact of flocculation and the possibility of adding a full-scale system in El Carpintero.



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## Documents

	Challenges	Tasks	Symposium	Final Presentation	Final Report
Fall '15	? Unknown Attachment	? Unknown Attachment			? Unknown Attachment