

# AguaClara technologies in plain English

## AguaClara Water Treatment

(Plain Language Version)

AguaClara uses the same water treatment processes that water treatment plants in the developed world use. AguaClara has changed the design of the plant so that the plant does not depend on electricity to be able to operate. AguaClara plants depend on gravity to be able to operate. Gravity is free, it always works, and it is always available!

Water has particles in it. The particles are so small that you cannot see them individually. When water has many particles in it, it looks like tamarindo or coffee or chocolate. Some of the particles are soil or clay or minerals; some of the particles are microorganisms that cause diarrhea and other illnesses. AguaClara removes particles from water and makes it clear. More importantly, AguaClara makes water safe and healthy.

How does AguaClara take particles out of water? Water from your water source enters the plant, and PAC (poly aluminum chloride) is added to the water. PAC makes the particles in the water "sticky".

Particles need time to collide and stick together, so the water goes through the flocculator tank. More and more particles keep sticking on, and these particle groups are called "flocs".

The water goes from the flocculator tank into the sedimentation tanks. When a floc is large enough to be heavy, gravity makes the floc fall to the bottom of the tank. The flocs at the bottom of the tank are called sediment.

The clear water is decanted from the top of the sedimentation tanks. This clear water is disinfected with chlorine, to kill any microorganisms that escaped flocculation and sedimentation. The water goes into a storage/distribution tank, and from there to your houses. The water should arrive in your house with a small amount of chlorine, so it can kill any microorganisms that may have entered the pipes.

If you don't like the smell or taste of chlorine, you can put water in a clean, sanitary bottle. In about an hour, the chlorine should have passed out of the water and into the air. The water is safe to drink, because the chlorine did its job and killed any microorganisms in the water.

--Juanita Weber-Shirk