# Water Filtration Systems: Re-engineered

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In this experiment, we will be conducting an examination based on adding distillation to our preceding systems of water filtration. In doing this, we will be allowed to examine which method will result in the lowest TDS (Total Dissolved Solids) rating after running water from the Rio Grande through both systems. The Rio Grande is the main source of water in El Paso, supplying nearly half (40%) of the city's population with drinking water. However, my partner and I have discovered that the water, before entering treatment, happens to be immensely polluted as would be expected. As a result, it is run through an extensive process involving the inclusion of chemicals such as chlorine in order to get it to an adequate drinking measure (TDS). Thus, our intentions are to discover an efficient method for El Paso citizens to filter out their own water without the addition of harsh chemicals in doing so. Whichever method will prove to be the most effective by achieving the lowest TDS rate will then be used to complete our mission to provide the population of El Paso with quality drinking water with the exclusion of harsh chemicals in the process.

**Awards Won:**