Executive Summary:

**Aqua House | Water Reclamation at Pitt Greensburg**

The University of Pittsburgh, having growing concerns regarding the water shortages along the western coast of the United States, has asked our company to develop a way for them to recycle their water for reuse. Our company, Colorful Solutions, specializes in developing sustainable methods of treating water that would fit within its rural branch campus in Greensburg, Pennsylvania. Our design utilizes constructed wetland cells that will be used for the secondary treatment. These wetland cells, held within a large greenhouse, create a great opportunity to teach both students and their community about water treatment and the growing worldwide threat of water scarcity.

Due to the campus being spilt between north and south by Slate Run creek, our facility will be treating the collected waste water from the eleven buildings north of the creek. The average combined daily flow from all eleven building equals sixty-five million gallons per day. Described in the following report is a preliminary design and cost estimate to treat the water and redistribute the water back to the buildings to be used in non-potable applications such as toilet flushing.

All results within this report are both conceptual and preliminary. The resulting designs give the client a unique option to meet their goal of being an educational leader in the area of water resources and water consumption. The hope for this project is to spread awareness of global water shortages that are often overlooked in water-rich Pennsylvania.