It was a hot miserable day on my mission trip in Nicaragua as I helped the orphan children learn their alphabet. For lunch, we were sent to walk a mile for a small amount of daily water. As I walked with the children to and from the water hole daily, the harsh reality occurred to me as I realized how their small amount of water was contaminated and often made the children extremely sick, and yet I live in a society where I have never had to hesitate about the drinking water being unclean. In urban areas of the United States, we have the luxury of focusing on the culinary aspects of water. We don't hold up the glass and ask ourselves, is this water going to make me sick? Americans spend millions of dollars on bottled water because they don't like the taste of their local tap water, yet one in six people worldwide lack access to clean drinking water. Americans waste drastic amounts of clean water on lawns and plants by over watering. The Texas Panhandle has entered a period of extreme drought from the lack of long-term precipitation and combined with increased demand for water we are depleting our resource. This area's precious water is now being taken for granted. The area reached record-breaking drought and heat records during 2012. As we endure the drought during this season and maybe century, citizens and groundwater users need to find solutions to restore the critical water resource such as incorporating synthetic turf, installing drip irrigation, and utilizing drought tolerant plants.

As drought conditions are persistent throughout the country, conservationists concerns and reductions in school finances persuade businesses and schools to "go synthetic." Synthetic turf is one of the most effective water saving products available, saving over 32,000,000 gallons of water annually. By changing fields to synthetic turf, schools play a vital role in water conservation saving 70 percent of water usage while increasing use of their facilities. Synthetic turf not only conserves the output of water, but also saves our precious water resource by no

urban run-off. Synthetic turf, though seemingly pricey on the front end, pays for itself over a typical five to seven year period. Would making this bold step to go synthetic not be worth it to better allocate this limited resource? In some areas, water authorities have encouraged turf replacement as a key element of a long-range planning to heighten local conservation efforts. Additionally, some water districts offer rebates as incentives to customers who replace existing high-water-use grass with synthetic turf. People question if going synthetic would really help conserve the limited water resource and yet the average lawn uses 41,690 gallons of water a year. Currently, Lubbock has just issued a one-time a week water restriction ordinance. Thus, water conservation by the use of synthetic turf may soon translate into increased availability of this resource into the future both for commercial and private use.

Another option is for stewards of the land to incorporate drip irrigation for efficient water consumption. Drip irrigation allows farmer's to conserve water by applying water slowly and directly to the targeted plants root zone. This process eliminates water loss from the wind, and drip irrigation application uniformity is over 90%. Drip irrigation is capable of germinating seeds and setting transplants, which eliminates the need for pre-watering and eliminates the resulting waste in the early stages of crop growth. Drip irrigation reduces water loss by up to 60% compared to traditional watering methods. The basic concept behind the successful use of drip irrigation is that the soil moisture remains relatively constant. Although there is significant upfront cost and increased maintenance of employing a drip system, this does provide another method of conserving our water resource.

Thirdly, efficient water conservation would require cooperation by not only the area farmers but residents in the Texas Panhandle as well. Drought tolerant plants can be used as an integral element in gardens and landscaping. In a struggling drought affected area, residents

should plant plants that function efficiently under low-water conditions while at the same time help create an aesthetically pleasing environment. Drought-tolerant trees, shrubs, and groundcover reduce the water usage. These plants are beneficial to a community because they withstand high-heat conditions with low water consumption while still maintaining their aesthetic and functional qualities. Drought areas often experience high fire dangers. These plants have low quantities of flammable oils that contribute to fire-resistance. Residents can also train their plants to use less water. Planters should water the plant just enough for survival. As the plants mature, decrease the frequency and increase the depth of irrigation. The plants will benefit from deep, slow, and less frequent watering. This plant has now become a drought-tolerant plant that can help conserve water.

As a senior in a small town, we often never realize the effects we as students have on society. We look around and act as if everything is ok, but if we really stop to examine our ways we as a society are destroying our chances of survival. This is an inspiration to my peers and me, because what we do now determines our future. We must protect our future children and grandchildren by conserving and improving the living conditions through the conservation of the vital water resource. The community as a whole must pull together and begin the long journey of improving an area that has been destroyed by humans for years. This way will not be easy, but by utilizing these three water conservation ideas we can successfully begin to make a difference for future generations. Once the precious resource is depleted, it is not renewable. Residents in the area need to take a stand for future generations and began to implement water conservation into their everyday lives. The future's success of our descendents is dependent upon what we do today to conserve the essential limited resource.