

Meeting the Growing Demand for Water through Conservation Education

- Population growth, drought, and increasing water demands have stressed Texas' water supply.
- Water demand in Texas is projected to increase by 17% between 2020 and 2070.
- The 2017 State Water Plan includes more than 5,500 water management strategies developed to balance the projected water demand and supply.
- Municipal water conservation is expected to account for approximately 10% of water supplies by 2070. Part of this conservation would be achieved through education.

AgriLife Extension's Response

- In 2011, the Texas A&M AgriLife Extension Service joined the 40 Gallon Challenge, a program that calls on residents and businesses to reduce their average water use by 40 gallons per household or business each day. The program began as a volunteer campaign to increase water conservation.
- The 40 Gallon Challenge teaches and encourages people to adopt new water-saving techniques and practices, such as repairing leaky faucets, turning off water between rinsing dishes or while brushing teeth, reducing irrigation runtimes, and replacing inefficient toilets and showerheads with low-flow devices.
- The 40 Gallon Challenge now boasts more than 11,140 participants in 48 states who have either adopted or plan to adopt water conservation strategies. Based on follow-up evaluations, their efforts add up to a daily water savings of over 1.2 million gallons nationwide (105 gal./household/day).



- In Texas, AgriLife Extension has provided residential water education to more than 4,100 households in 200 Texas counties.

Economic Impacts

- The economic benefit of the 40 Gallon Challenge program in Texas is measured in terms of water savings and water-cost savings associated with new, efficient water-saving practices adopted by participants.
- Texas participants have adopted water conservation practices that are estimated to save 168.2 million gallons of water annually (112 gal./household/day) — and more counties are implementing the program each week. Using an average municipal water price, the water-cost savings to Texas participants as a whole is estimated at \$612,000 per year.
- In addition to these water-cost savings, the ultimate societal benefit to Texas is more efficient use of our scarce water resources.