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THE POTENTIAL OF WATER SAVING AND WATER CAPTURING INNOVATIONS IN ALBUQUERQUE SINGLE FAMILY HOMES

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The need for innovative water saving and water capturing strategies in Albuquerque single family homes (SFH) is evident by the city's vulnerability to drought, climate change and population growth. The intrinsic value of modern innovations is that they offer the potential to produce the largest, most cost effective and environmentally sound alternative source of water required to meet future demand. Moreover, recognizing the intimate relationship between water use and the energy consumed in conveyance, treatment, end uses and waste treatment, allows policy makers to meet water and energy use reduction goals simultaneously.

Three innovations were utilized to demonstrate the potential water savings in Albuquerque SFH homes. Two in-home innovations, the Caroma Caravel dual-flush toilet and the Shower Water Conservation System (SWCS), as well as one exterior innovation, rain water harvesting, were analyzed for their potential alternative source water production.

Using dual flush toilets in Albuquerque SFH offers a potential annual water savings of approximately 375 million gallons. The SWCS potential annual water savings in Albuquerque SFH is greater than 469 million gallons. Annual rainwater harvesting potential for capturing water exceeds approximately 2 billion gallons. This alternative source water can augment the city's supply.

Using water saving and water capturing innovations in Albuquerque SFR homes offers access to a significant volume of alternative source water. This new source water will enable the city to conserve energy resources and further decrease its reliance on groundwater, better equipping it to manage future drought, climate change and demand due to population growth.

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