## Water Shortage Solutions to be Studied in Three Oklahoma "Hot Spot" Water Basins

Officials and planning specialists from the Oklahoma Water Resources Board (OWRB) have announced three in-depth studies focused on reviewing specific strategies to prevent future water supply shortages in western Oklahoma. The water basins to be analyzed are three of the state's twelve "Hot Spot" basins which are those identified in the 2012 Update of the Oklahoma Comprehensive Water Plan (OCWP) as having the most significant water supply challenges within the next 50 years.

The three water basins include the following: Basin 26, part of the Beaver-Cache Watershed Planning Region located near Duncan; Basin 38, part of the Southwest Watershed Planning Region located near Altus; and Basin 51, part of the Central Watershed Planning Region located between Yukon and Watonga. Map of Oklahoma's 82 OCWP designated watershed basins.

The three studies will focus on how water conservation, marginal quality water supplies, and public water supply system regionalization strategies might address the needs of hot spot basins on a local implementation level, as examples for water users statewide.

"These focused studies will be critical to addressing potential water supply challenges not just for water users who are at the greatest risk of shortages in coming decades, but also for the state as a whole," said J.D. Strong, OWRB Executive Director. "By analyzing these strategies at the local level, we will gain critical insight on implementing effective solutions wherever future water challenges may arise in Oklahoma."

The study for Basin 26 near Duncan will include a comprehensive analysis of water conservation practices with an emphasis on public water supply, one of the state's largest water use sectors. This will include a review of efficiencies created through irrigation technology and best practices, a review of current and prospective plumbing codes, an investigation of tiered water rate structures, and the creation of local outreach and educational programs, in relation to a specific hot spot basin. Basin 26 is a strong candidate for this type of study because it shows a high potential for achieving a reduction in the frequency and size of water shortages through implementation of additional conservation measures.

Basin 38 near Altus will be analyzed to determine the strategies, opportunities, and benefits associated with regionalization of public water supply systems, building on the interconnections that already exist between several systems. Public water supply systems in Basin 38 and adjoining basins are in relatively close proximity to each other, which may help control costs associated with interconnecting the systems to improve reliability.

Basin 51, which stretches between Yukon and Watonga, will be assessed to determine the effectiveness of using marginal quality water to alleviate future water supply shortages. Marginal quality water sources include recycled municipal supplies, stormwater, oil and gas flowback or produced water, brackish water, and waters with elevated levels of key constituents. Basin 51 shows a high potential for use of marginal quality water to address very specific and targeted future water needs.

The studies are part of the state's on-going Water for 2060 initiative. Approved by the Governor and Legislature in 2012, the Water for 2060 Act set an ambitious statewide goal of consuming no more fresh water in 2060 than was consumed in 2012, while continuing to grow the state's population and economy. The Water for 2060 Advisory Council — a council consisting of various state and local water planning officials and water policy advocates — was first convened in 2013 to begin the work of studying and recommending appropriate water conservation practices, incentives, and educational programs to moderate statewide water usage while preserving Oklahoma's population growth and economic development goals. The Council's final report will be submitted to the Governor, Speaker of the House, and President Pro Tempore by late 2015. The OWRB and U.S. Army Corps of Engineers will continue to support the work of the Advisory Council while also conducting more intensive investigations of conservation strategies proposed by the OCWP.

"We had strong attendance at each of our 'Hot Spot' public meetings earlier this spring, and that has assisted the Advisory Council in its mission," added Strong. "The public meetings brought together agriculture producers, water providers, and interested citizens residing in the state's twelve hot spot planning basins."

"As we witness the impacts that long-term drought can have on fresh water supplies for many Oklahoma communities, the Water for 2060 Advisory Council's work continues to grow in importance," added Strong. "I look forward to each of these three in-depth studies, and I hope to see continued participation from water users and stakeholders in each of these three Hot Spot basins."