

BARTLESVILLE'S INDIRECT POTABLE WATER REUSE SOLUTION

STATE PROGRAM: Oklahoma Water Resources Board

ASSISTANCE RECIPIENT: Bartlesville Municipal Authority

ASSISTANCE AMOUNT: \$8,220,000



PROJECT DESCRIPTION

In 2001, a “Drought of Record” found Bartlesville Municipal Authority (Authority) with less than a 90-day supply of water for its approximate 36,500 residents. Impacts of the drought were felt state-wide. Shortly after, Oklahoma passed the Water for 2060 Act - becoming the first state in the nation to establish a goal of consuming no more fresh water in 2060 than in 2012. The Water for 2060 Act and the Authority’s experience with drought provided the impetus to create a working group to explore the reuse and recycling of treated wastewater. The workgroup’s study showed that indirect potable water reuse was possible due to the locations of Authority’s existing water treatment and wastewater treatment plants. A plan was developed to pump treated effluent from the wastewater treatment plant three miles upstream and discharge into the Caney River, where it would then mix with stream water for about 7 miles before being pumped to the water treatment plant to produce potable water. This reuse project will extend Bartlesville Municipal Authority’s water supply by 20-40 years, depending on water consumption.

Bartlesville’s indirect potable water reuse project is the first of its kind permitted within the State of Oklahoma. It will support Oklahoma’s Water for 2060 goals by focusing on water conservation and efficiencies along the Caney River. The total project cost is \$8,970,000 with \$750,000 coming from a Bureau of Reclamation grant and \$8,220,000 from the CWSRF. The Oklahoma Water Resources Board approved the project in August 2020, and it is currently under construction.

To read more about this case study, please visit <https://www.epa.gov/system/files/documents/2022-02/2021-pisces-compendium.pdf>.