

Fresno looks to use recycled water to irrigate landscaping

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Fresno is taking another step toward easing its reliance on water pumped from underground, awarding a \$2.47 million contract Thursday for plans for a new pipeline system to carry recycled water for outdoor irrigation.

The Fresno City Council's 5-0 vote hires AECOM Technical Services Inc., an international engineering and consulting firm with an office in Fresno, to design the 14.4-mile system of pipelines that will carry treated water from the city's north Fresno Wastewater Treatment Facility near the Copper River Country Club to parks and other open-space areas across the northside.

AECOM will also do an environmental analysis of the project and assist the city in applying for government loans to offset some of the cost.

The recycled-water mains will span from the Copper River area near Copper and Chestnut avenues to Herndon and Fruit avenues in northwest Fresno. The water will be used for outdoor irrigation, fountains and dust control at Woodward Park, Fort Washington Golf Club and several schools in the area, said Kevin Norgaard, a supervising engineer with the city's wastewater management division.

With pipes ranging in size from 12 to 30 inches in diameter, the recycled-water system will be separate from water mains that carry water to homes, businesses and schools for drinking, food processing-preparation and cleaning.

The water will be used for outdoor irrigation, fountains and dust control at Woodward Park, Fort Washington Golf Club and several schools in the area.

The AECOM contract does not include the actual cost of building the pipeline system; Norgaard estimated that construction would cost about \$26 million. Work would begin in the 2018-19 fiscal year.

Last week, the City Council approved a pair of contracts for components of its recycled-water plans in the southwest part of Fresno: a \$1.8 million award to Clark Bros. Inc. of Fresno for construction of a pump station, and a \$4.2 million construction contract to Garvey Construction of Livermore for work on a distribution system for recycled water. Norgaard said those projects will eventually supply recycled water to Roeding Park at Belmont Avenue and Highway 99.

The recycled-water system is part of the city's long-range plan to reduce its reliance on water pumped from the underground water table by providing as much as 25,000 acre-feet of recycled water annually. Fresno is building a filtration system at its regional wastewater treatment plant southwest of the city, and is planning several other satellite treatment plants around the city and water mains to carry recycled water over the coming years.

An acre-foot is about 326,000 gallons, or the approximate volume of water needed to submerge a football field under a foot of water. According to the Water Education Foundation, the average California household uses between one-half and one acre-foot of water in a year.

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