

Santee Water Project Water Sustainability Fund Grant Award

Annual Report April 1, 2025

Application NO. 10095

Project summary: The Water Sustainability Fund (WSF) grant agreement for Santee Water Project was approved to begin August 14, 2024, for the use of \$9,129,000.00 towards Environmental Assessment (EA), Project Planning and Development, and Engineering Professional Services. This year Santee Water Project has received \$78,501.85 reimbursement payment for work towards the Santee Water Project. Next reporting year the targeted goal will be obtaining additional funding, continuing design and development, and finalizing an EA for most of the project.

The Need.

No Consumption Order Since 2020

Nebraska's Santee Sioux Reservation has been without safe drinking water after the Environmental Protection Agency (EPA) issued a no consumption order in 2020. The wells that provide drinking water to Santee had readings of manganese of more than 50 times greater than the value considered safe for adults.

Home to approximately 1,000 residents, the Village of Santee and surrounding rural areas are isolated from Nebraska's major population centers. So, in addition to lacking clean water, the community lacks population density and economic development opportunities which can be beneficial in garnering support for a costly infrastructure project. The Santee Sioux Tribal Council voted to pursue funding for a pipeline bringing clean water from South Dakota in September, but several bureaucratic and financial hurdles need to be cleared before safe drinking water becomes a reality in Santee once more.

Contaminated Well Water - The U.S. Environmental Protection Agency has developed a health advisory level of 0.3 mg/L of manganese to be protective of lifetime exposure for the general population and a secondary drinking water guideline of 0.05 mg/L. Testing by the EPA Region 7 laboratory showed out of 31 samples tested between July 2020 and July 2021, 28 exceeded the secondary drinking water guideline with levels as high as 3.27 mg/L identified from one of the functional water source wells.

In addition to manganese, data collected by the federal government has shown naturally occurring gross alpha radionuclides exceeding drinking water standards. Finally, a groundwater plume with nitrate contaminant levels from 14-20 mg/L exists within 10 miles of the existing groundwater source.

Deficient Water Storage - Current water storage of the Nation results in significant capacity concerns during high water usage events such as fire suppression. Lack of water storage significantly limits future growth and economic development.

Aging Infrastructure - Existing infrastructure evaluation indicates that several components are nearing the end of their useful life. The project will allow the Nation to address these issues while also solving supply issues.

Quality of Life Issues - Water everywhere, but not a drop to drink. The Santee Sioux Nation is blessed to be located in one of those picturesque locals in the United States. Within a stone's throw of the Missouri River and sitting above groundwater resources that are as shallow as 15 feet, an individual is not allowed to consume any water from the faucet or make a baby bottle without fear of long-term health impacts.

The Solution.

A Multi-Generational Regional Water System

After years of study including five appraisal and feasibility studies with federal participation, a viable solution has emerged. The current recommended plan addresses the design, construction, and financing of alternatives to meet anticipated regulatory requirements, residential and commercial growth, and system reliability needs for the Nation. The implementation of the recommended improvements will provide adequate and dependable drinking water for existing and future customers.

Pump Treated Water to the Tribe

The Tribe's preferred option is to pump treated water from South Dakota across the Missouri River into Santee. This alternative connects the Nation to Randall Community Water District (RCWD) in Lake Andes, South Dakota. RCWD is a rural water system within South Dakota that treats Missouri River surface water upstream of the Fort Randall Dam. The Nation would purchase bulk water from the rural water system.

One of the many benefits of this alternative is that the Nation would not be responsible for water treatment, or O&M costs associated with a complex water treatment facility. The Nation's main responsibility would be distribution pipeline maintenance.

Adequate Water Storage

The project will also include a new water storage tank. Water from the storage tank will flow by gravity to the 110,000-gallon aqua store tank located south of the Village of Santee. In addition to serving the Village of Santee, this tank will also serve the remaining portions of the Nation. For example, the housing development just West of the casino would have adequate water and potentially proceed with additional development. Rural farms, ranches, and tribal housing located within the Nation would have a reliable water supply after connecting to the proposed tank.

Infrastructure Improvements

And, to complete the project the Tribe intends to install meters to assist in monitoring water usage, leaks, and promote water conservation.



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