



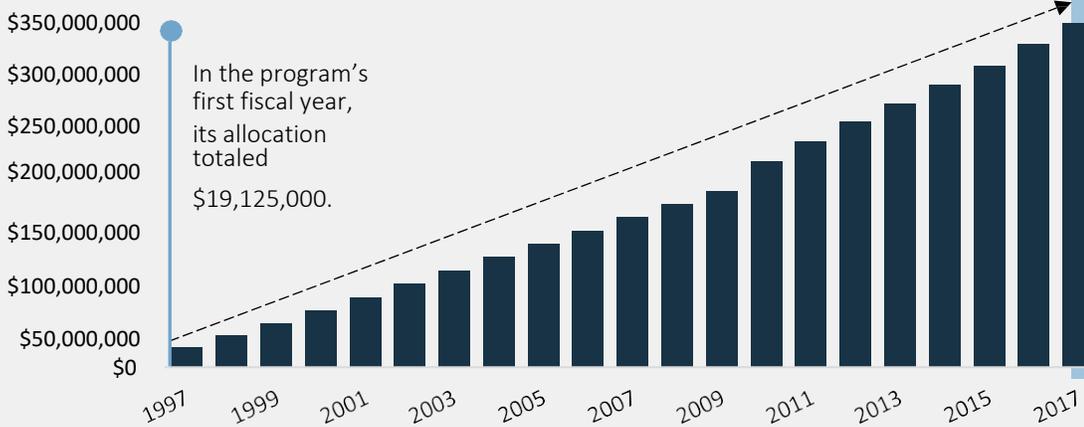
20 Years of Protecting Public Health on Tribal Lands: EPA Drinking Water Infrastructure Grants



EPA’s Drinking Water Infrastructure Grants - Tribal Set-Aside (DWIG-TSA) program helps tribal communities and Alaska Native Villages address the unique challenges they face in providing reliable access to safe drinking water. Throughout the past 20 years, the DWIG-TSA program has contributed \$325,000,000 towards infrastructure upgrades and capital improvement projects, as well as operator training and certification programs. These projects provided initial access to safe drinking water to thousands of tribal members across the country and helped many more by ensuring that water systems meet the Environmental Protection Agency’s (EPA) National Primary Drinking Water Regulations.

DWIG-TSA Funding

Since its inception, the DWIG-TSA has contributed \$325,000,000 towards providing safe drinking water to tribal communities across the country.



A NEED STILL EXISTS

The 2011 DWINSA identified **\$3.289B** tribal drinking water infrastructure needs.

As of fiscal year 2017, **4.22%** of the total homes in tribal communities (a total of **16,900** homes) still lack access to safe drinking water

Background

The 1996 Safe Drinking Water Act (SDWA) amendments authorized the U.S. Environmental Protection Agency (EPA) to establish the DWIG-TSA. The DWIG-TSA program is implemented by EPA Regional Offices in partnership with the Indian Health Service (IHS) and is based on allocations from:

- the EPA Drinking Water Infrastructure Needs Survey and Assessment: a survey and assessment of drinking water infrastructure need conducted every four years that includes tribal lands, and
- the Indian Health Service (IHS) Sanitary Deficiency Survey list: an annual inventory of tribal and Alaska Native Villages water infrastructure needs.

Many benefiting communities are in remote regions that cannot easily connect to larger water systems and, due to their small population sizes, often lack economies of scale and capacities found in larger utilities. Additionally, many of these communities experience arid or permafrost conditions, which make water sources difficult to find. The DWIG-TSA is often used to:

- provide additional sources of drinking water
- construct or update treatment and storage facilities,
- install or upgrade transmission and distribution lines,
- provide homes with initial access to drinking water and
- replace aged water system infrastructure.

DWIG-TSA Appropriations

- ◆ In 1996, SDWA authorizes 1.5% of the total annual DWSRF appropriations to the DWIG-TSA
- ◆ In 2010, this percentage was increased to 2.0%
- ◆ In 2016, Congress authorized EPA to increase the Tribal Set-Aside to the greater of 2% of the total DWSRF appropriation or \$20,000,000

Case Studies

Cheyenne River Indian Reservation Sioux Tribe – South Dakota



Above: 750 kW generator at Fox Ridge water treatment plant.
Below: Diesel engine with starting motor for 750 kW generator

The reservation's climate is typical of the Northern Great Plains, with weather extremes during the winter and summer months. A severe winter ice storm in January 2010 caused a power outage at the water treatment plant, which resulted in a loss of water pressure to the distribution system and prevented production of potable water. At the time, no backup power was available for the water system. The Cheyenne River Sioux Tribe water system was awarded \$692,000 from the DWIG-TSA program for a project to provide backup power to the water treatment plant and its intake. The system purchased and installed two emergency generators with winterized enclosures. This project provides resiliency during natural disasters and emergency events and ensures a reliable water supply.



Located in the Cheyenne River Indian Reservation in South Dakota, the Fox Ridge Water Treatment Plant serves about 1,806 homes and approximately 8,000 people.

Native City of Atka, Alaska

The city's public water system was in violation of EPA's Surface Water Treatment Rules, and the utility regularly issued boil water notices. To address this deficiency, the City was awarded DWIG-TSA funds to improve the community's infrastructure. The City's drinking water problems centered on aging wood stave water storage tanks. These tanks were built in the 1980s, were no longer reliable, and had become a liability to the system. Through an interagency agreement,



The City of Atka lies in the Aleutian Islands in Alaska. The population is approximately 65 people and the water system serves 31 buildings.



Construction of the 163,000-gallon water storage/disinfectant contact tank in Atka, AK

\$734,281 was used to install a centralized 163,000-gallon water storage tank that enhanced the disinfection process. This new tank is closer to the water source and, together with a new water treatment plant (put into service in 2012), provides a safer and more reliable source of drinking water for the system's customers.

Pyramid Lake Paiute Tribe – Sutcliffe, Nevada



Greensand filtration water treatment plant for the removal of iron, manganese, and arsenic.

The Paiute Tribe water system consisted of two wells, both of which exceeded one or more of EPA's drinking water standards for iron, manganese and arsenic. The Paiute Tribe received a grant for \$955,000 to rehabilitate and restore Well #1 service and constructed a greensand filter water treatment plant for the removal of arsenic, iron, and manganese. This addressed compliance with the primary and secondary drinking water MCLs, and ensured safe and reliable drinking water for the community.

Located 35 miles northeast of Reno, the Sutcliffe water system serves 66 homes and approximately 250 people.

