



Primary Wastewater Treatment Cell, Tuba City, AZ, Navajo

Clean Water Indian Set Aside Grant Program

Promoting access to sustainable basic sanitation in Indian Country linking the development goals of the tribe with the need for wastewater services and infrastructure.

Public Health Benefits:

Investment in wastewater services has helped to reduce waterborne infectious diseases in American Indian and Alaska Native communities.

Environmental Benefits:

Since 2003, more than 69,000 tribal homes have been provided with wastewater services. Investment in wastewater infrastructure protects and restores water quality. It improves the health of the ecosystem for wildlife and fish, important subsistence food sources for many American Indian and Alaska Native people.

Economic Benefits:

Water infrastructure projects stimulate local economies and create jobs in tribal communities.

The Clean Water Indian Set-Aside (CWISA) Grant Program funds wastewater infrastructure for federally recognized American Indian and Alaska Native (AI/AN) populations. EPA uses the Indian Health Service (IHS) Sanitation Deficiency System priority lists to identify and select high priority projects for funding. The Program typically funds the construction or repair of septic tanks and/or drain fields, wastewater treatment plants, lagoons, and lift stations, and pipe laying projects.

This report highlights the program accomplishments for fiscal year 2013. In 2013 alone, EPA's \$27.5 million helped provide 6,696 households with new or improved access to wastewater services. Since the Program's inception in 1986, \$428 million in CWISA Grant Program funding has helped finance a total of 1,222 projects. Between 2003¹ and 2013, in coordination with other federal partners, EPA provided 69,783 tribal homes with access to basic wastewater sanitation. At current funding levels, EPA and its federal partners plan to provide cumulatively 77,700 AI/AN homes with access to basic sanitation by 2015.

To allow EPA additional flexibility to fund the highest priority projects, EPA recently implemented the ability to transfer funds

between the Clean Water Indian Set Aside Grant Program and the Drinking Water Infrastructure Grant –Tribal Set Aside program. This change will help EPA target funds to the highest need in an area, increase regulatory compliance at tribal public water systems, improve water quality and increase access to safe drinking water and basic sanitation in Indian Country.

Investment in water infrastructure stimulates local economies and creates jobs directly and indirectly². The Rural Community Assistance Partnership (RCAP) estimates that for every \$1 billion spent on such investment, about 28,500 water industry jobs are created. Every dollar invested helps the national gross domestic product grow by \$6.5 in the long term³.

Safe sanitation facilities improve public health by lowering the incidences of waterborne infectious disease. The gastroenteric and post-neonatal death rates among the AI/AN people have been reduced significantly, primarily because of increased access to safe drinking water supplies and sanitary waste disposal systems^{4,5}. For instance, between 1998 and 2006, the annual infectious disease age-



adjusted hospitalization rate for AI/AN people decreased by 18%, with infants younger than one year of age showing the largest decrease (48%)⁵.

However more work is needed to meet the demand. Currently, 12% of AI/AN homes lack access to safe drinking water and/or wastewater facilities⁶, a figure far behind the non-tribal homes in the United States. A 2011 IHS report identified 2,660 feasible drinking water and clean water infrastructure projects in AI/AN communities that need investment, and estimated the total cost of these projects to be more than \$1.4 billion⁷. The disparity in the access to wastewater facilities leads to public health disparities. Research finds the age-adjusted hospitalization rate for AI/AN people in 2004-2006 was approximately 6% greater than the national average, and the infant infectious disease hospitalization rate for AI/AN people was 28% greater than the national average⁵.

EPA works with the U.S. Department of Agriculture - Rural Development, Department of Health and Human Services through IHS, Department of Housing and Urban Development, and Department of the Interior through the Bureau of Indian Affairs to provide and maintain sanitation facilities to AI/AN homes. These organizations are also collaborating to streamline processes and improve sustainability in Indian Country. The federal agencies recently signed a Memorandum of Understanding renewing

their commitment to coordinate and share resources to provide sustainable, long-term access to safe drinking water and basic sanitation in Indian Country⁸. An output of this partnership include the new multi-agency Preliminary Engineering Report (PER), which aims to simplify the application processes of multiple federal funding sources for communities seeking loans or grants from Federal Agencies. The guidance document will help communities identify the basic information needed to meet PER requirements across Federal Agencies, eliminating potential duplication of efforts⁹.

For more information : www.epa.gov/cwisa

1. Year the program started tracking the measures.
2. Direct jobs are jobs created by the water industry (construction, operator, manufacturing sector). Indirect jobs are jobs created by other businesses/industries that came into existence due to the economic growth the water industry created.
3. RCAP infographic, *Water Infrastructure Creates Jobs*, available online at http://www.rcap.org/sites/default/files/rcap-files/rcap_water-jobs_infographic.pdf
4. IHS (2011), *Public Law 86-121 Annual Report for 2011*, available online at <http://www.ihs.gov/dsfc/documents/SFCAnnualReport2011.pdf>.
5. Robert C. Holman, Anianne M Folkema, Rosalyn J. Singleton, John T. Redd, Krista Y. Christensen, Claudia A Steiner, Lawrence B Schonberger, Thomas W. Hennessey, James E. Cheek (2011), *Disparities in Infectious Disease Hospitalizations for American Indian/Alaska Native People*, Public Health Rep. 2011 Jul-Aug; 126(4): 508-521, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3115210/>
6. Indian Health Service Sanitation Tracking and Reporting System (IHS-STARS)
7. IHS annual reports available online <http://www.ihs.gov/dsfc/index.cfm?module=documents>
8. Memorandum of understanding available online at <http://www.epa.gov/tp/trprogrms/2013-if-memorandum-of-understanding.pdf>
9. USDA, EPA, IHS, HUD (January 2013), Interagency Memorandum, available online at <http://www.epa.gov/tp/trprogrms/preliminary-engineering-report-508.pdf>

PROJECT SUCCESSES IN 2013

Klawock, Alaska

Excessive inflow and infiltration in Bay View subdivision in Klawock, AK regularly brought more wastewater to Klawock's wastewater system than it could safely treat. High tide events would also bring seawater infiltration into the system which corroded pipes. As a result, the wastewater treatment plant's approved capacity was often exceeded, especially during rain events where the plant was receiving double the approved capacity. The excessive flow into and out of the system was increasing the maintenance costs and causing public health threats. By replacing the sewer mains, the flow into the wastewater treatment plant was reduced by approximately 30%, meeting the system's capacity limit. As a result, sludge production has been reduced by 20%, decreasing pressure and operating costs at the water treatment plant and avoiding costly upgrades to increase capacity.



Workers replacing sewer mains

Pueblo of Santa Clara, New Mexico



Before

The failing 10.7-acre lagoon system of the Santa Clara Wastewater Treatment Plant in Pueblo of Santa Clara, New Mexico was constructed with old clay liners that were leaking. This presented an immediate threat to groundwater, located just 6 feet below grade, and a potential threat to a local

drinking water well, located 3.6 miles downstream of the lagoon system. IHS assisted the Pueblo with drilling monitoring wells that indicated high levels of nitrate in the groundwater. Administered by IHS and jointly funded by CWISA and IHS, this project developed an advanced wastewater treatment system that reduced both the nitrogen levels in the effluent and leaks from the lagoon cells. The project installed a 6-acre high-density polyethylene (HDPE) liner in the system's first lagoon cell and a 1.2-acre HDPE liner in the abutting percolation cell to minimize system leaks. The cells allow for the treatment of wastewater effluent and in addition, 49 bio-domes were installed to further reduce the total nitrogen effluent to less than 10mg/l¹. The completed project serves approximately 383 tribal homes and helped improve the quality of local groundwater to protect public health.



After

1. EPA recommends, in order to protect public health, nitrate in drinking water shouldn't exceed 10mg/l.