ANNUAL REPORT

2015

The Sanitation Facilities Construction Program of the Indian Health Service
NOTE TO THE READER:

This is the annual report published by the Indian Health Service Sanitation Facilities Construction (SFC) Program. Detailed information concerning the SFC Program is available on the website, http://www.dsfc.ihs.gov.

Additional questions regarding the SFC Program can be directed to Headquarters or Area Offices by writing to the following address:

Indian Health Service
Office of Environmental Health and Engineering
Division of Sanitation Facilities Construction
5600 Fishers Lane
MS:10N14C
Rockville, MD 20857

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Cover photo: Navajo Engineering and Construction Authority crew installing a pressure reduction valve for a water distribution system in Cottonwood, Arizona.
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This report is intended to provide a description of how the Indian Health Service Sanitation Facilities Construction (SFC) Program is implemented and how the work completed during Fiscal Year 2015 has impacted American Indians and Alaska Natives in culturally diverse and oftentimes remote areas—from Alaska to Florida and from Maine to California.
The Sanitation Facility Construction Program supports the mission of the Indian Health Service to raise the health status of American Indian and Alaska Native (AI/AN) people to the highest possible level through the provision of sanitation facilities that help ensure Tribal communities have access to safe drinking water and waste disposal. The SFC Program is an integral part of the IHS disease prevention effort that impacts over 398,000 AI/AN homes.
Since the passage of the Indian Sanitation Facilities Act (Public Law 86-121) in 1959, the SFC Program has worked in partnership with Tribal governments and other Federal agencies to construct essential sanitation facilities and provide technical assistance that supports the operation and maintenance of those facilities.

The components of the SFC Program include:

1. Development and maintenance of an inventory of sanitation deficiencies in AI/AN communities to be used by IHS and to inform Congress.

2. Provision of environmental engineering assistance with utility master planning and sanitary surveys.

3. Development of multi-agency-funded sanitation projects, accomplishment of interagency coordination, assistance with grant applications, and leveraging of IHS funds.

4. Provision of water supply and waste disposal facilities.

5. Provision of professional engineering design and/or construction services for water supply and waste disposal facilities.

6. Provision of technical consultation and training to improve the operation and maintenance of Tribally owned water supply and waste disposal systems.

7. Advocacy for Tribes during the development of policies, regulations, and programs.

8. Assistance to Tribes with sanitation facility emergencies.

The SFC Program is unusual among Federal programs because IHS personnel typically live close to Tribal communities and work cooperatively with Tribes in Program delivery. Enhancing Tribal capabilities and building partnerships based on mutual respect are the major keys to the success of the SFC Program. As a result of these cooperative efforts, many Tribes have developed the administrative and technical capabilities to construct their own sanitation facilities with engineering support from IHS.
The foresight of the U.S. Public Health Service and Congress helped a generation of AI/AN children escape the hardship and poor health that accompany life without access to safe drinking water and waste disposal. Today, most Indian people need not fear becoming unable to carry water into their homes. The initial step toward addressing this deficiency was the enactment of Public Law (P.L.) 86-121, which authorized the Surgeon General to construct safe water supplies and sanitary waste disposal facilities for AI/AN homes and communities. The law’s passage came only four years after the creation of the Division of Indian Health, which later became the Indian Health Service. Over the succeeding years, the authority vested in the Surgeon General was transferred to the Secretary, Health, Education, and Welfare, then to the Secretary of Health and Human Services and, in 1988, to the Director, IHS. A time line summary of the legislation that created the current SFC Program and impacts to its implementation is included in Table 1 below.
Table 1: Key Legislative Acts Impacting Indian Sanitation Facility Construction

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NAME</th>
<th>CITATION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959</td>
<td>Indian Sanitation Facilities Act</td>
<td>P.L. 86-121</td>
<td>Congress authorized the Surgeon General to construct essential sanitation facilities for Al/AN homes and communities.</td>
</tr>
<tr>
<td>1976</td>
<td>Indian Health Care Improvement Act and amendments</td>
<td>P.L. 94-437</td>
<td>Implemented Federal responsibility for the care and education of Indian people by improving the services and facilities of Federal Indian health programs and encouraging maximum participation of Indians in those programs. Also established the requirement for an annual report to be submitted by the Secretary of Health and Human Services to the President on the level of sanitation deficiencies and the funds necessary to address those deficiencies.</td>
</tr>
<tr>
<td>1988</td>
<td>Indian Health Care Improvement Act and amendments</td>
<td>P.L. 100-713 (amended Section 302 of P.L. 94-437)</td>
<td>Congress reaffirmed the need for provision of safe water supply systems and sanitary sewage and solid waste disposal systems serving Indian homes as primarily a health consideration and function.</td>
</tr>
<tr>
<td>1992</td>
<td>Indian Health Care Improvement Act and amendments</td>
<td>P.L. 102-573 (amended Section 302 of P.L. 94-437)</td>
<td>Authorized the Secretary to provide funds to support the cost of operating, managing, and maintaining the facilities provided. Also established the definitions for the sanitation deficiency levels.</td>
</tr>
<tr>
<td>1999</td>
<td>Indian Self-Determination and Education Assistance Act</td>
<td>P.L. 93-638, as amended</td>
<td>Congress recognized the importance of Tribal decision-making in Tribal affairs by giving Federally recognized Tribes the option of entering into self-governance contracts and compacts to gain more autonomy in the management and delivery of their health care programs.</td>
</tr>
<tr>
<td>2009</td>
<td>Indian Health Care Improvement Act of 2009</td>
<td>P.L. 111-148 Section 10221 enacted Section 1790 into law</td>
<td>Congress reaffirmed the need for the provision of necessary sanitation facilities and services, including financial and technical assistance in the establishment, training, and equipping of utility organizations to operate and maintain the facilities provided, as well as operation and maintenance assistance for Tribal sanitation facilities, when necessary, to avoid a health hazard or to protect the Federal investment in sanitation facilities.</td>
</tr>
</tbody>
</table>
The SFC Program is part of the IHS Office of Environmental Health and Engineering (OEHE). SFC Program activities are carried out by engineers, engineering technicians, administrative staff, and skilled construction workers. In FY 2015 a total of 524 engineers, technicians and support staff were used to implement the SFC Program, of which over 98% are located in IHS Areas. These staff endeavor to provide sanitation facilities and technical assistance for federally recognized Tribes and Tribal organizations located in 38 states.
The Program’s Headquarters component, located in Rockville, Maryland, assists the Area Offices by allocating project funding, establishing policies, reviewing Area program implementation practices to ensure consistent and equitable program implementation nationwide, and collaborating with other Federal agencies. The SFC Programs in the 12 Areas are led by their respective SFC Program Area Directors. Depending on the size and geography of the Area, the program may have District and Field Offices. The hierarchy and leadership of these offices are reflected in the organization chart in Figure 1.

Figure 1: SFC Program Organization Chart
SFC projects can be managed by IHS directly (Direct Service), or they can be managed by Tribes who elect to use Title I or Title V authorization under P.L. 93-638, the Indian Self-Determination and Education Assistance Act, as amended. The overall SFC goals, eligibility criteria, and project funding priorities remain the same, regardless of the delivery methods chosen by a Tribe. A list of the Tribes that have elected to manage the SFC Program under a Title I or V of P.L. 93-638 is included in Table 2 below.

Table 2: Tribes or Tribal Organizations in FY 2015 Managing the SFC Program Under Title I or Title V of P.L. 93-638, as Amended

<table>
<thead>
<tr>
<th>AREA</th>
<th>TRIBE / TRIBAL ORGANIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>Alaska Native Tribal Health Consortium^</td>
</tr>
<tr>
<td>Bemidji</td>
<td>Grand Traverse Band of Ottawa and Chippewa Indians^</td>
</tr>
<tr>
<td>Billings</td>
<td>Confederated Tribes of Salish &amp; Kootenai (Flathead)^</td>
</tr>
<tr>
<td></td>
<td>Rocky Boys (Chippewa-Cree)^</td>
</tr>
<tr>
<td>California</td>
<td>Mashantucket Pequot Tribal Nation^</td>
</tr>
<tr>
<td></td>
<td>Mississippi Band of Choctaw Indians^</td>
</tr>
<tr>
<td></td>
<td>Saint Regis Mohawk Tribe^</td>
</tr>
<tr>
<td></td>
<td>Eastern Band of Cherokee Indian^</td>
</tr>
<tr>
<td>Nashville</td>
<td>Hoppa Valley Tribe^</td>
</tr>
<tr>
<td>Navajo</td>
<td>Navajo Nation*</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>Absentee Shawnee Tribe of Oklahoma^</td>
</tr>
<tr>
<td></td>
<td>Cherokee Nation of Oklahoma^</td>
</tr>
<tr>
<td></td>
<td>Chickasaw Nation of Oklahoma^</td>
</tr>
<tr>
<td></td>
<td>Chocataw Nation of Oklahoma^</td>
</tr>
<tr>
<td></td>
<td>Citizen Potawatomi Nation^</td>
</tr>
<tr>
<td></td>
<td>Modoc Tribe of Oklahoma^</td>
</tr>
<tr>
<td></td>
<td>Seminole Nation of Oklahoma^</td>
</tr>
<tr>
<td></td>
<td>Wyandotte Tribe of Oklahoma^</td>
</tr>
<tr>
<td>Phoenix</td>
<td>Gila River Pima-Maricopa Indian Community^</td>
</tr>
<tr>
<td>Portland</td>
<td>Lummi Tribe ^</td>
</tr>
</tbody>
</table>

*Title 1; ^ Title V
Tribal Involvement

The SFC Program employs a cooperative approach for planning, designing and constructing sanitation facilities serving AI/AN communities. Each project is initiated at the request of a Tribe or Tribal organization, and coordination is maintained throughout project planning, design and construction. The SFC Program works to ensure that Tribal utilities and homeowners have the necessary training to appropriately operate and maintain the facilities prior to transferring the facilities to be operated and maintained.

Needs Identification

The Indian Health Care Improvement Act (IHCIA) requires IHS to develop a methodology for determining sanitation deficiencies, classify the level of sanitation deficiency for each project, implement a prioritization system for comparing sanitation facility needs, and determine the amount of funds needed to address these deficiencies. Accordingly, the SFC Program annually estimates the total need for safe and adequate sanitation facilities for AI/AN homes and communities, following program guidelines described in the *Sanitation Deficiency System Guide for Reporting Sanitation Deficiencies for Indian Homes and Communities (SDS Guidelines)*.

Water, sewer, and solid waste sanitation deficiencies included in the annual assessment are identified solely for AI/AN homes. Deficiencies for commercial and industrial facilities and non-Indian homes cannot be addressed by the IHS under P.L. 86-121 and are not included in this report. In addition, municipalities and communities organized under the laws of a State are not typically considered Indian communities, even though there may be eligible AI/AN people living there. The provision of community-type sanitation facilities for such Indian homes is generally considered a responsibility of the non-Indian community, and the needs are not identified as sanitation deficiencies.
In an effort to reflect the relative impact on health of various water supply, sewage disposal, and solid waste deficiencies, the IHCIA defined the sanitation deficiency levels as follows:

**Level I (DL 1):** The deficiency level describing an Indian Tribe or community with a sanitation system that complies with all applicable water supply and pollution control laws, and in which the deficiencies relate to routine replacement, repair, or maintenance needs.

**Level II (DL 2):** The deficiency level describing an Indian Tribe or community with a sanitation system that complies with all applicable water supply and pollution control laws, and in which the deficiencies relate to capital improvements that are necessary to improve those facilities in order to meet the needs of the Tribe or community for domestic sanitation facilities.

**Level III (DL 3):** The deficiency level describing an Indian Tribe or community with a sanitation system that has an inadequate or partial water supply and a sewage disposal facility that either does not comply with applicable water supply and pollution control laws or has no solid waste disposal.

**Level IV (DL 4):** The deficiency level describing an Indian Tribe or community with a sanitation system that lacks either a safe water supply system or a sewage disposal system.

**Level V (DL 5):** The deficiency level describing an Indian Tribe or community that lacks a safe water supply system and a sewage disposal system.
Sanitation deficiencies are reported as proposed projects or project phases. A project’s deficiency level is determined by an assessment of the sanitation issue by IHS and Tribal staff. Each individual project or project phase may not necessarily bring the sanitation deficiencies impacting the Tribal community to a level I or better. However, the goal is that the combination of all projects reported for each community will bring the community’s deficiency level to DL 1 or better.

In each Area, projects to address the identified sanitation deficiencies are evaluated against eight factors: health impact, deficiency level, adequate previous service, capital cost, local Tribal priority, operations and maintenance capability, contributions, and local conditions. Areas assign points to each project based on these factors. The points are summed to arrive at an overall project score. The projects are rank ordered and funded in priority order (high to low) each year with the available funds allocated by IHS and contributed from other funding agencies.
At the end of FY 2015, there were a total of 398,762 AI/AN homes included in the IHS data system. Figure 2 provides a scaled visual comparison of the number of homes in the IHS data system at the various deficiency levels. These homes are represented by the area of Circle A in Figure 2.
Of these homes, 190,697 were identified as needing some form of sanitation facility improvement (classified as DL 2, 3, 4 or 5 using the methodology described above). These homes are represented by the area of Circle B. The area of Circle C represents the 144,706 AI/AN homes without access to adequate sanitation facilities (DL 3, 4 or 5). The area of Circle D represents the 26,018 AI/AN homes without access to a safe water supply system and/or a safe sewage disposal system (DL 4 and 5).

Figure 2: Comparison of Homes Requiring Sanitation Facility Improvements
Figure 3 provides the home counts by IHS Area and Deficiency Level.

Figure 3: Number of Homes Requiring Sanitation Facility Improvements by Area
At the end of FY 2015 the total cost estimate to raise all Indian Tribes and communities to a Deficiency Level 1 was in excess of $2.66 billion. Figure 4 shows this cost separated by IHS Area.

Figure 4: Total Data Base Cost to Raise Indian Tribes and Communities to a Deficiency Level 1
Projects with high capital costs on a per-home-served basis are considered infeasible and are not considered when IHS Headquarters allocates appropriated funds to the Areas. In FY 2015 the total database of Agency-identified sanitation deficiencies included 2,878 projects. Of these projects, 2,224 (77%) were feasible, and 654 (23%) were infeasible. Figure 5 shows the total cost organized by project feasibility and deficiency level. Figure 6 shows the total cost organized by project feasibility and type of facilities required (water, wastewater or solid waste).

Figure 5. Estimated Cost to Address Sanitation Deficiencies by Deficiency Level
In FY 2015 the SFC Program received $79 million in appropriated project funding and over $80 million in contributed project funding from other Federal, State and Tribal entities. With these funds 358 new projects were funded in 2015 that benefited 180 Tribes and served over 27,800 Tribal homes.  

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1 Count based on data from the Housing Inventory Tracking System.
2 These results do not include projects funded in previous fiscal years that received FY 2015 funding.
At the end of FY 2015, the SFC Program had 3,809 active construction projects and had completed 772 final construction reports during the year. The average project undertaken by the SFC Program took 3.74 years to complete construction following agreement with the Tribe. A summary of this information is included in Table 3.

Table 3: SFC Program National Overview: FY 2015 Year at a Glance

<table>
<thead>
<tr>
<th>PROGRAM POPULATION</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Eligible Tribes</td>
<td>567</td>
</tr>
<tr>
<td>Tribal Home Count</td>
<td>398,762</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SANITATION FACILITY NEEDS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanitation Facilities Project Cost</td>
<td>$2,658,747,415</td>
</tr>
<tr>
<td>Tribal Homes Needing New or Improved Sanitation Facilities (% total eligible AI/AN homes)</td>
<td>190,697 (48%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESOURCES AVAILABLE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>IHS Area Project Funds</td>
<td>$77,673,000</td>
</tr>
<tr>
<td>IHS Special &amp; Emergency Project Funds</td>
<td>$1,750,000</td>
</tr>
<tr>
<td>Contributed Project Funds</td>
<td>$80,086,742</td>
</tr>
<tr>
<td>Number of Engineers</td>
<td>228</td>
</tr>
<tr>
<td>Number of Technicians</td>
<td>182</td>
</tr>
<tr>
<td>Number of Support Staff</td>
<td>91</td>
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</table>

<table>
<thead>
<tr>
<th>PROJECT WORKLOAD/OUTPUT</th>
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</thead>
<tbody>
<tr>
<td>Regular Projects Funded</td>
<td>358</td>
</tr>
<tr>
<td>Active Construction Projects</td>
<td>3,809</td>
</tr>
<tr>
<td>Final Reports Completed</td>
<td>772</td>
</tr>
<tr>
<td>Project Durations (years)</td>
<td>3.74</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>PROGRAM IMPACT</th>
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</thead>
<tbody>
<tr>
<td>Tribes Benefiting</td>
<td>180</td>
</tr>
<tr>
<td>Tribal Homes Served</td>
<td>27,865</td>
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</tbody>
</table>

1^Total database cost for DL 2 to 5 projects.
The priorities of the SFC Program during FY 2015 were:

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>OUTCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving SFC Program Data Quality</td>
<td>Internal reviews ensured complete and accurate data supported the reported sanitation facility needs and documented construction project progress, allowing the Program to improve technical assistance delivery to Tribes and reduce project durations.</td>
</tr>
<tr>
<td>Program Guidance Revisions</td>
<td>Clarified guidelines to assist Program staff and Tribes to understand the limits of project funding and requirements for complete data reporting.</td>
</tr>
<tr>
<td>Interagency Coordination</td>
<td>Streamlined Federal programmatic requirements and data sharing to improve the ability of the SFC Program to construct sanitation facilities and promote sustainable practices that support the provision of safe drinking water and waste disposal for Tribal communities. Additional information about this collaboration can be found here: <a href="http://www.epa.gov/tp/trprograms/infra-water.htm">http://www.epa.gov/tp/trprograms/infra-water.htm</a></td>
</tr>
<tr>
<td>Operation and Maintenance Technical Support</td>
<td>Increased data gathering and analysis to identify the operation and maintenance support needs and developed a strategic approach to help guide technical assistance provided by the SFC Program to maximize protection of the Federal investment in sanitation facilities for Indian Tribes and communities.</td>
</tr>
</tbody>
</table>
AREA ACCOMPLISHMENTS AND FOCUS AREAS
ACCOMPLISHMENTS

During FY 2015 after years of studying, planning, and coordinating, 75 Native homes on the west side of Kwethluk had access to warm showers, safe drinking water, and flushing toilets in their homes. Projects were funded in 2011 and 2012 to connect these and other homes to the community water and sewer system. Approximately 75 Tribal homes on the east side of the community were connected in 2014. What is normally convenient and easy to come by in larger cities is quite an undertaking for engineers and construction personnel working in remote areas of Alaska. The construction of this multi-phase project in Kwethluk required six years, and planning started long before that. Approximately 15 homes still need water and sewer lines and the installation of showers, toilets, and sinks. The construction crew is currently working on those homes and hopes to connect them to the community system by the end of 2016.

This year, engineers and representative from Alaska traveled to Kivalina for the final inspection of their demonstration pilot project for a non-piped, in-home sanitation system. The project retrofitted nine homes with low-cost sanitation improvements that can be moved with the community to a new location. Over the next year, the project will monitor homeowner acceptance, health benefits and feasibility for other Northern coastal communities.

Since the completion of construction, homeowners in Kivalina have been actively engaged in the pilot project and shared information with the team, leading to modifications and system improvements. The average water usage per person in each home ranged between 3 and 5 gallons per day from the water system in addition to supplementing water from other sources. It is expected that residents will continue to increase their water use as they learn to fully adapt to the new systems.
FOCUS AREAS
Climate change has introduced a substantial challenge to maintaining in home sanitary service to communities in Alaska. Thawing ground and permafrost have increased movement between utilities and the homes they serve. Communities and water plant operators noted the need for innovative solutions to address the way service connections are constructed.

Area program staff answered this call with an innovation called the “through wall disconnect” that allows a flexible connection at the point of in home water and sewer service to protect the utilities from freeze and thaw cycles. This retrofitted connection has been successfully fielded in Noorvik, Kotlik, Kobuk, Savoonga, Chevak, Russian Mission, and Scammon Bay, with many of the connections now weathering well into their fourth Alaskan winter.

ALASKA AREA: FY 2015 YEAR AT A GLANCE

<table>
<thead>
<tr>
<th>AREA POPULATION</th>
<th>212</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible Tribes</td>
<td></td>
</tr>
<tr>
<td>Tribal Home Count</td>
<td>17,133</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SANITATION FACILITY NEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanitation Facilities Project Cost</td>
</tr>
<tr>
<td>Tribal Homes Needing New or Improved Sanitation Facilities (% total eligible AI/AN homes)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESOURCES AVAILABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHS Project Funds</td>
</tr>
<tr>
<td>Contributed Project Funds</td>
</tr>
<tr>
<td>Number of Engineers</td>
</tr>
<tr>
<td>Number of Technicians</td>
</tr>
<tr>
<td>Number of Support Staff</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROJECT WORKLOAD/OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects Funded</td>
</tr>
<tr>
<td>Active Construction Projects</td>
</tr>
<tr>
<td>Final Reports Completed</td>
</tr>
<tr>
<td>Average Project Durations (years)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROGRAM IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribes Benefiting</td>
</tr>
<tr>
<td>Number of Tribal Homes Served</td>
</tr>
</tbody>
</table>

*Total database cost for DL 2 to 5 projects.
ACCOMPLISHMENTS

During FY 2015 the Area continued to work with the Mescalero Apache Tribe, located in southeastern New Mexico, to provide Tribal homes with water and sewer service. Starting in 2013, the Tribe secured approximately 150 excessed housing units from a nearby military base (Ft. Bliss) and has been placing them throughout the reservation for individual homeowners. IHS coordinated closely with several Tribal departments (utility, land, historic preservation, and natural resources) to identify feasible areas for water and sewer service within the extents of the existing community utilities. As a result of the increased number of requests for service and in order to better facilitate and expedite this work the Area hired a term engineer. This approach helped to ensure Tribe homes could be quickly provided with water and waste water service. Obstacles such as rock, clay soils and culturally sensitive areas made designing and installing the needed facilities a challenge.

During FY 2014 the US Environmental Protection Agency Drinking Water Tribal Set Aside Program funded the replacement of the gas chlorination system with an on-site chlorine generation system for the Towaoc water system on the Ute Mountain Ute Indian Reservation in Towaoc, Colorado. This public water system serves approximately 500 Tribal homes. The newly installed system eliminated the need for the Tribal utility to transport, handle and store gas chlorine because the newly installed equipment generates chlorine on site. This change has improved worker safety conditions for the Tribal operators and nearby Tribal homeowners. The installation was completed during 2015 and the Tribal operators are now monitoring the effects of the new chlorination system and making adjustments as required to achieve optimal disinfection and remain in compliance with drinking water standards.
FOCUS AREAS

Each year, the Area constructs projects with almost the same amount of contributed funds as the IHS funds allocated to the Area. That means the Area is always looking for ways to scope projects that can be funded by multiple contributors. Our engineering staff coordinate very closely with funding agencies like EPA and USDA to make sure project documents are prepared to meet their requirements. The Area continues to focus on project closeouts to ensure project activities are documented in a timely fashion.

ALBUQUERQUE AREA:
FY 2015 YEAR AT A GLANCE

<table>
<thead>
<tr>
<th>AREA POPULATION</th>
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<tbody>
<tr>
<td>Eligible Tribes</td>
<td>24</td>
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<tr>
<td>Tribal Home Count</td>
<td>15,154</td>
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<table>
<thead>
<tr>
<th>SANITATION FACILITY NEEDS</th>
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<tbody>
<tr>
<td>Sanitation Facilities Project Cost</td>
<td>$135,955,299</td>
</tr>
<tr>
<td>Tribal Homes Needing New or Improved Sanitation Facilities (% total eligible AI/AN homes)</td>
<td>12,774 (84%)</td>
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<tr>
<td>IHS Project Funds</td>
<td>$3,040,000</td>
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<td>Contributed Project Funds</td>
<td>$3,380,703</td>
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<td>Number of Engineers</td>
<td>13</td>
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<td>Number of Technicians</td>
<td>7</td>
</tr>
<tr>
<td>Number of Support Staff</td>
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<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>Projects Funded</td>
<td>17</td>
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<tr>
<td>Active Construction Projects</td>
<td>83</td>
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<tr>
<td>Final Reports Completed</td>
<td>68</td>
</tr>
<tr>
<td>Average Project Durations (years)</td>
<td>2.29</td>
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</table>

<table>
<thead>
<tr>
<th>PROGRAM IMPACT</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Tribes Benefiting</td>
<td>12</td>
</tr>
<tr>
<td>Tribal Homes Served</td>
<td>1,274</td>
</tr>
</tbody>
</table>

*Total database cost for DL 2 to 5 projects.
ACCOMPLISHMENTS

The Area managed 41 sanitation facility construction projects funded in previous fiscal years to completion. These projects provided service to over 4,300 Native American homes at a cost of $11 Million.

The Area hosted two Operation & Maintenance (O&M) trainings and processed 239 requests from operators to attend various trainings. Maintaining access to training resources is an important means of ensuring the sanitation facilities constructed by the IHS are adequately operated and maintained and continue to provide the intended public health protections. As a result of these efforts, Area staff have observed an increase in the number of certified operators, fewer requests for emergency technical assistance, and a trend toward fewer reported EPA violations. For example, there were 15 water operators and 8 wastewater operators who obtained new or increased levels of certification in 2015. Additionally, reported EPA violations for one Tribe alone were reduced from 845 in 2011 to 45 in 2015.
FOCUS AREAS

The Area serves 34 Tribes over a three state area, with the needs of the Tribes surpassing the resources available. The Area is balancing the planning, design, and project management of safe water and sewer facilities to serve Tribal homes while also working to reduce the current project workload and backlog of final reports. Ensuring the sustainability of Tribal operation and maintenance programs is often a major challenge as most Tribal systems do not charge for services. The Area continues to work on motivating and educating Tribal leaders on the benefits of self sustaining utility practices.

BEMIDJI AREA: FY 2015 YEAR AT A GLANCE

<table>
<thead>
<tr>
<th>AREA POPULATION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible Tribes</td>
<td>34</td>
</tr>
<tr>
<td>Tribal Home Count</td>
<td>24,987</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SANITATION FACILITY NEEDS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanitation Facilities Project Cost $1</td>
<td>$131,700,292</td>
</tr>
<tr>
<td>Tribal Homes Needing New or Improved Sanitation Facilities (% total eligible AI/AN homes)</td>
<td>11,277 (45%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESOURCES AVAILABLE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>IHS Project Funds</td>
<td>$5,187,000</td>
</tr>
<tr>
<td>Contributed Project Funds</td>
<td>$10,084,299</td>
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<tr>
<td>Number of Engineers</td>
<td>25</td>
</tr>
<tr>
<td>Number of Technicians</td>
<td>14</td>
</tr>
<tr>
<td>Number of Support Staff</td>
<td>5</td>
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<table>
<thead>
<tr>
<th>PROJECT WORKLOAD/OUTPUT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects Funded</td>
<td>30</td>
</tr>
<tr>
<td>Active Construction Projects</td>
<td>261</td>
</tr>
<tr>
<td>Final Reports Completed</td>
<td>143</td>
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<tr>
<td>Average Project Durations (Years)</td>
<td>3.30</td>
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<table>
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<th>PROGRAM IMPACT</th>
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</thead>
<tbody>
<tr>
<td>Tribes Benefiting</td>
<td>24</td>
</tr>
<tr>
<td>Tribal Homes Served</td>
<td>2,721</td>
</tr>
</tbody>
</table>

1Total database cost for DL 2 to 5 projects.
ACCOMPLISHMENTS

In cooperation with the U.S. Environmental Protection Agency (EPA), the Area was able to improve the delivery of technical assistance to Tribal operation and maintenance providers through the hiring of two IHS Tribal Utility Consultants. These new hires worked with the Area’s Tribes to identify needed improvements to treatment processes in a water treatment plant, aid a Tribal utility to complete their public notification requirements under EPA’s drinking water Lead and Copper Rule, assist a Tribal utility to develop an approach for the use of Geographic Information System (GIS) data as part of managing maintenance on installed sanitation infrastructure, and provide recommendations to address safety and operational concerns at a Tribally owned solid waste transfer station.

The Area also worked cooperatively with the U.S. Department of Agriculture and EPA to complete the renovation of the Ft. Belknap Water Treatment Plant which serves 360 Tribal homes. The Fort Belknap surface water treatment plant was incapable of removing organic contaminants to a sufficient level, and consequently the system experienced disinfection byproduct levels in excess of EPA’s maximum contaminant levels. The improvements are eliminating the excess disinfection byproducts, making the water safe to drink.
FOCUS AREAS

The remoteness of the Tribal reservations in the Area makes it difficult to find and keep qualified utility operators. Keeping qualified utility operators becomes a problem as most Tribal utility organizations do not charge an appropriate amount for services and are unable to pay qualified staff an industry-standard wage. Without qualified staff, utility departments are unsustainable. The Area continues to provide O&M assistance, training, and guidance for the available Tribal utility personnel. The Area goal is to work with Tribal leadership and emphasize the benefits of self-sustaining utility practices.

BILLINGS AREA: FY 2015 YEAR AT A GLANCE

<table>
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<tr>
<th>AREA POPULATION</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Eligible Tribes</td>
<td>11</td>
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<tr>
<td>Tribal Home Count</td>
<td>12,339</td>
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</table>

<table>
<thead>
<tr>
<th>SANITATION FACILITY NEEDS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanitation Facilities Project Cost¹</td>
<td>$66,219,463</td>
</tr>
<tr>
<td>Tribal Homes Needing New or Improved Sanitation Facilities (% total eligible AI/AN homes)</td>
<td>9,023 (73%)</td>
</tr>
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</table>

<table>
<thead>
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<th>RESOURCES AVAILABLE</th>
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<tbody>
<tr>
<td>IHS Project Funds</td>
<td>$3,982,000</td>
</tr>
<tr>
<td>Contributed Project Funds</td>
<td>$2,432,462</td>
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<tr>
<td>Number of Engineers</td>
<td>12</td>
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<tr>
<td>Number of Technicians</td>
<td>11</td>
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<tr>
<td>Number of Support Staff</td>
<td>8</td>
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</table>

<table>
<thead>
<tr>
<th>PROJECT WORKLOAD/OUTPUT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects Funded</td>
<td>25</td>
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<tr>
<td>Active Projects</td>
<td>141</td>
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<td>Final Reports Completed</td>
<td>71</td>
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<tr>
<td>Average Project Durations (Years)</td>
<td>2.67</td>
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<table>
<thead>
<tr>
<th>PROGRAM IMPACT</th>
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<tbody>
<tr>
<td>Number of Tribes Benefiting</td>
<td>9</td>
</tr>
<tr>
<td>Number of Tribal Homes Served</td>
<td>1,986</td>
</tr>
</tbody>
</table>

¹Total database cost for DL 2 to 5 projects.
ACCOMPLISHMENTS

The Area continued to assess and serve Tribes impacted by drought conditions throughout the State and to partner with other agencies and stakeholders including the Governor’s Office of Tribal Affairs, the California Office of Emergency Services, the California Department of Water Resources, the U.S. Environmental Protection Agency, the U.S. Department of Agriculture, and the U.S. Department of Housing and Urban Development. Collectively, these agencies provided over $3 million to Tribes for drought-related projects in 2015. Improving wells for Tribes was a top priority due to deteriorating hydrogeologic conditions exacerbated by the drought.

For example, on the Tule River Reservation, a hydrogeological study identified potential drinking water well sites needed to supplement the Tribe’s drinking water system stressed by the drought. A Tribal force account crew drilled a new well in the Black Mountain area of the Reservation, which provided an estimated yield of 180 gallons per minute of new drinking water. This new source represents approximately 40% of the total water supply demand for the 286 Tribal homes. Funding for the project totaling $399,000 was made available through the Area, IHS Headquarters, and the California Department of Water Resources.
FOCUS AREAS

The fourth year of a persistent drought (and the driest year on record), compounded by wildfires around the State, heightened sanitation infrastructure needs for numerous Tribes throughout California in 2015. The Area continued its assessments of 148 Tribal drinking water systems to ascertain those communities suffering the greatest impacts from the drought. Efforts included developing a drought summary map, identifying those Tribes in need of drought contingency plans, inter agency meetings, and assisting with project planning, funding and construction of infrastructure projects. Currently, 12 Tribal water systems are identified as high risk for being out of water in 2016 due to the drought, while 16 Tribes are at the moderate risk level. The Area has identified 62 drought related projects with a total cost need of $34 million.

CALIFORNIA AREA: FY 2015 YEAR AT A GLANCE

<table>
<thead>
<tr>
<th>AREA POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible Tribes</td>
</tr>
<tr>
<td>Tribal Home Count</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SANITATION FACILITY NEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanitation Facilities Project Cost</td>
</tr>
<tr>
<td>Tribal Homes Needing New or Improved Sanitation Facilities (% total eligible AI/AN homes)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESOURCES AVAILABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHS Project Funds</td>
</tr>
<tr>
<td>Contributed Project Funds</td>
</tr>
<tr>
<td>Number of Engineers</td>
</tr>
<tr>
<td>Number of Technicians</td>
</tr>
<tr>
<td>Number of Support Staff</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROJECT WORKLOAD/OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects Funded</td>
</tr>
<tr>
<td>Number of Active Construction Projects</td>
</tr>
<tr>
<td>Final Reports Completed</td>
</tr>
<tr>
<td>Average Project Durations (Years)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROGRAM IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribes Benefiting</td>
</tr>
<tr>
<td>Tribal Homes Served</td>
</tr>
</tbody>
</table>

1Total database cost for DL 2 to 5 projects.
ACCOMPLISHMENTS

The Area funded 38 construction projects in FY 2015 with IHS and contributed funding for a total of approximately $15 Million. The Mandaree community sewer main replacement project on the Fort Berthold Reservation was one of these projects. The existing sewage collection system in Mandaree is experiencing major infiltration issues that negatively impact the capacity of system, so a planning effort was undertaken to video inspect all of the mains in June 2014. Inspection reports indicated major deficiencies in the system, including joint separation, offset joints, horizontal and vertical deformities, and broken and collapsed pipe. The deficiencies were causing sewage to back up into homes and the local high school. This project was jointly funded by the Three Affiliated Tribes and the Indian Health Service for $1.25 million to repair the deficient areas.

The Area managed roughly 256 active construction projects and worked on closing out more than 100 projects for which construction was complete. In FY 2015, 35 projects were considered complete and ready for closeout activities. These projects expended approximately $22 million from previous years’ funds. One noteworthy project in this category was the lagoon relocation project on the Spirit Lake Reservation in St. Michael, ND. The existing wastewater facilities were dangerously close to the lake and biologically overloaded. A cooperative effort between the Tribe, IHS, U.S. Department of Agriculture and the U.S. Department of Housing and Urban Development provided $2.75 million to relocate the failing system. Construction was complete in the fall of 2015 with only minor construction issues.
FOCUS AREAS

The Area made a concerted effort towards filling fifteen (15) personnel vacancies throughout the field, district, and Area offices during FY 2015. In addition, construction control, design engineer, and licensed survey positions were added to the staffing pattern. The Area Division of Sanitation Facilities Construction (DSFC) management collaborated closely with the Area Personnel Office to reduce the time required to backfill positions by nearly half. The Area DSFC program now consists of 65 full time positions throughout ten (10) offices.

The Area also focused on recruiting engineers in a number of ways, starting with building a foundation of relationships with the university programs and personnel. Great Plains Engineers present at American Society of Civil Engineers College chapter meetings, provide mentorship for senior design projects, email professors and the engineering programs pertaining to positions, and attend engineering career fairs at local universities. The Area recruits, hires, and mentors as many as eight (8) externs through the U.S. Public Health Service Commissioned Corps Junior Commissioned Officer Student Extern Program each year.

GREAT PLAINS AREA:
FY 2015 YEAR AT A GLANCE

<table>
<thead>
<tr>
<th>AREA POPULATION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible Tribes</td>
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<tr>
<td>Tribal Home Count</td>
<td>25,129</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SANITATION FACILITY NEEDS</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Sanitation Facilities Project Cost</td>
<td>$222,456,593</td>
</tr>
<tr>
<td>Tribal Homes Needing New or Improved Sanitation Facilities (% of total eligible AI/AN homes)</td>
<td>19,601 (78%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESOURCES AVAILABLE</th>
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</thead>
<tbody>
<tr>
<td>IHS Project Funds</td>
<td>$8,225,000</td>
</tr>
<tr>
<td>Contributed Project Funds</td>
<td>$11,594,626</td>
</tr>
<tr>
<td>Number of Engineers</td>
<td>34</td>
</tr>
<tr>
<td>Number of Technicians</td>
<td>21</td>
</tr>
<tr>
<td>Number of Support Staff</td>
<td>10</td>
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</table>

<table>
<thead>
<tr>
<th>PROJECT WORKLOAD/OUTPUT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects Funded</td>
<td>38</td>
</tr>
<tr>
<td>Active Construction Projects</td>
<td>256</td>
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<tr>
<td>Final Reports Completed</td>
<td>109</td>
</tr>
<tr>
<td>Average Project Durations (Years)</td>
<td>3.24</td>
</tr>
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<table>
<thead>
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<th>PROGRAM IMPACT</th>
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</thead>
<tbody>
<tr>
<td>Tribes Benefiting</td>
<td>14</td>
</tr>
<tr>
<td>Tribal Homes Served</td>
<td>2,877</td>
</tr>
</tbody>
</table>

*Total database cost for DL 2 to 5 projects.
ACCOMPLISHMENTS

The Area achieved its goal to reduce travel-related challenges by opening a new field office in Mashpee, MA with the objective of improving Sanitation Facility Construction services to the New England Tribes located in Massachusetts, Rhode Island, and Connecticut. The New England Tribes were previously served by the Bangor, ME field office which posed challenges due to travel restrictions and response times. The Area collaborated with the U.S. Environmental Protection Agency Region 1 to jointly fund an engineering position in Mashpee, MA and a new engineer now serves in a dual role as a project engineer and Tribal utility consultant. The new field office and engineering position have had a positive impact on the level of service provided to the New England Tribes, especially in the area of utility operation and maintenance, as the new engineer has taken on a hands-on approach to working with local Tribal utility staff.

In FY 2015, the Area funded community water main replacement projects at the Seneca Nation of Indians and the Eastern Band of Cherokee Indians that will provide improved water service to 530 homes and 436 homes, respectively, and a community sewer main improvement project at the Chitimacha Tribe of Louisiana that will reduce infiltration/inflow into the sewer system and provide improved sewer service to 249 homes.
FOCUS AREAS
The Area continues to focus on developing new strategies to improve the level of services provided to its diverse service area that includes 14 States from Texas to Florida to Maine. One special focus area will include duplicating the Area’s success in Mashpee, MA by opening a new field office and “forward deploying” an engineer in the westernmost part of New York State.

NASHVILLE AREA: FY 2015 YEAR AT A GLANCE

<table>
<thead>
<tr>
<th>AREA POPULATION</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Eligible Tribes</td>
<td>30</td>
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<tr>
<td>Tribal Homes</td>
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<table>
<thead>
<tr>
<th>SANITATION FACILITY NEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanitation Facilities Project Cost</td>
</tr>
<tr>
<td>Number of Tribal Homes Needing New or Improved Sanitation Facilities (% total eligible AI/AN homes)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESOURCES AVAILABLE</th>
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</thead>
<tbody>
<tr>
<td>IHS Project Funds Received</td>
</tr>
<tr>
<td>Contributed Project Funds</td>
</tr>
<tr>
<td>Number of Engineers</td>
</tr>
<tr>
<td>Number of Technicians</td>
</tr>
<tr>
<td>Number of Support Staff</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROJECT WORKLOAD/OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Projects Funded</td>
</tr>
<tr>
<td>Number of Active Construction Projects</td>
</tr>
<tr>
<td>Final Reports Completed</td>
</tr>
<tr>
<td>Average Project Durations (Years)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROGRAM IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribes Benefiting</td>
</tr>
<tr>
<td>Tribal Homes Served</td>
</tr>
</tbody>
</table>

*Total database cost for DL 2 to 5 projects.
ACCOMPLISHMENTS
Sanitation facility construction continued at a high rate in the Navajo Area with $23 million in construction expenditures from funds spanning several fiscal years. The work completed in FY 2015 resulted in 97 miles of installed water main with diameters from 2” to 10”; 12.6 miles of 4” sewer service line; 197 houses plumbed; 616 septic tank and drain field installations; 74 cistern water systems; and 551 household water service connections. In addition, formal final inspections were completed for 25 community water and wastewater projects. Several difficult older projects were completed and contributed to a higher than normal average project duration.

Administratively, the Area staff completed the planning and design of $21.5M in new projects through the execution of Project Summaries and Memoranda of Agreement, fully obligating the FY 2015 IHS and contributed funds. Area staff also made significant improvements on final report completion and continued work on maintaining the Home Inventory Tracking System information for the 57,000+ homes in the Area.

FOCUS AREAS
The number of Tribal home in need of sanitation facilities is greater in the Area than in any other within the Indian Health Service. The Area has identified over 4,500 American Indian homes without access to safe drinking water and/or waste water disposal facilities. A primary focus of the Area is to find ways to provide service to these homes by accurately identify the needs, planning, designing, and constructing facilities with the resources available.

The Area has had challenges recruiting and retaining experienced staff
The Area has had challenges recruiting and retaining experienced staff to complete the work of planning, designing and constructing projects to meet this need. The Area continues to recruit and attract junior engineers that seek hands on experience serving populations that have never had piped water or sewer facilities in their homes. Additionally, the process of obtaining rights of way across the varying land ownership types on the reservation is time consuming and hinders progress to quickly provide access to the needed sanitation facilities. The Navajo Area makes every effort to limit these situations with well scoped projects and planning activities to identify the various land ownership types early in the project development phase and to design the proposed facilities to avoid or minimize the impact on those lands as much as possible.

NAVAJO AREA: FY 2015 YEAR AT A GLANCE

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<tbody>
<tr>
<td>Eligible Tribes</td>
<td>2</td>
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<tr>
<td>Tribal Homes</td>
<td>57,569</td>
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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Sanitation Facilities Project Cost</td>
<td>$576,405,541</td>
</tr>
<tr>
<td>Tribal Homes Needing New or Improved Sanitation Facilities (% total eligible AI/AN homes)</td>
<td>49,249 (86%)</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>RESOURCES AVAILABLE</th>
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</thead>
<tbody>
<tr>
<td>IHS Project Funds</td>
<td>$15,900,000</td>
</tr>
<tr>
<td>Contributed Project Funds</td>
<td>$5,013,000</td>
</tr>
<tr>
<td>Number of Engineers</td>
<td>33</td>
</tr>
<tr>
<td>Number of Technicians</td>
<td>66</td>
</tr>
<tr>
<td>Number of Support Staff</td>
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</thead>
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<tr>
<td>Projects Funded</td>
<td>61</td>
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<td>124</td>
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<td>Average Project Durations (Years)</td>
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<tbody>
<tr>
<td>Tribes Benefiting</td>
<td>1</td>
</tr>
<tr>
<td>Tribal Homes Served</td>
<td>746</td>
</tr>
</tbody>
</table>

'Total database cost for DL 2 to 5 projects.
ACCOMPLISHMENTS

During FY 2015, the Area assisted the Tribes located in Oklahoma, Kansas, Richardson County in Nebraska, and Maverick County in Texas.

One project funded in FY 2015 will serve members of the Kickapoo Traditional Tribe of Texas by providing potable water supply and wastewater disposal infrastructure to a group of Tribally owned homes located within the 5-Acre Subdivision in Maverick County, Texas. Maverick County runs adjacent to the Rio Grande River, and since the 5-Acre Subdivision was new construction, it had no existing water supply or wastewater disposal facilities installed.

The City of Anadarko Water Treatment Plant is an example of a project funded in FY 2015 that will have a significant impact. This project was a combined effort of the Indian Health Service, the Environmental Protection Agency, and the City of Anadarko. The water treatment plant serves a total of 1,013 Tribal homes which comprise over 40% of the 2,371 service connections on the system. This renovation was necessary to correct effluent valves within the plant that were not closing properly after opening, causing a drinking water quality violation, issued by the Oklahoma Department of Environmental Quality. In total, repairs included: replacement of seven filter effluent (or outgoing water) valves; replacement of five pneumatic (or compressed air) controllers on influent (or incoming water) valves; replacement of controllers on backwash (a method used to keep filters clean) water supply valves; and replacement of the backwash control valve, with a conversion to an electric actuator (mechanism responsible for opening and closing the valve).
Additionally, Indian Health Service Emergency and Special project funding was used to serve 190 Cherokee Nation homes with an 8 inch water main replacement for the Cherokee Rural Water District #7 at the Baron Fork Creek crossing, southeast of Tahlequah, Oklahoma. An influx of rain caused flooding that destroyed the previous water line that bridged the Baron Fork Creek.

FOCUS AREAS

Since the Area is so vast, it is understandably difficult to stay ahead of the diverse needs of the numerous Tribes that are located within the Area’s boundaries. The Area has over 135,000 Native American homes dispersed throughout the State of Oklahoma, and as a result keeping the Tribal home inventory database up to date with accurate home counts to capture the Area’s total need will remain a focus.

**OKLAHOMA CITY AREA:**

**FY 2015 YEAR AT A GLANCE**

<table>
<thead>
<tr>
<th>AREA POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible Tribes</td>
</tr>
<tr>
<td>Tribal Homes</td>
</tr>
</tbody>
</table>

**SANITATION FACILITY NEEDS**

| Sanitation Facilities Project Cost¹ | $56,208,643 |
| Tribal Homes Needing New or Improved Sanitation Facilities (% total eligible AI/AN homes) | 33,980 (24%) |

**RESOURCES AVAILABLE**

| IHS Project Funds               | $9,377,000 |
| Contributed Project Funds       | $4,415,821 |
| Number of Engineers             | 13 |
| Number of Technicians           | 15 |
| Number of Support Staff         | 16 |

**PROJECT WORKLOAD/OUTPUT**

| Projects Funded | 43 |
| Number of Active Construction Projects | 343 |
| Final Reports Completed           | 72 |
| Average Project Durations (Years) | 2.87 |

**PROGRAM IMPACT**

| Tribes Benefiting | 25 |
| Tribal Homes Served | 3,489 |

¹Total database cost for DL 2 to 5 projects.
ACCOMPLISHMENTS

Project planning initiatives by the Area led to the funding of 26 new construction projects totaling $11.5 million in 2015. Approximately $5.5M of this were IHS appropriated funds while the remaining $6M were contributions from Tribes, the Environmental Protection Agency (EPA), Department of Housing and Urban Development (HUD) via Tribal housing authorities, Rural Development, and others. The largest projects by dollar value are an arsenic mitigation project on the Ft. McDowell Reservation ($2.3M) and a water system regionalization and arsenic mitigation project on the Yavapai Apache Reservation ($1.3M) these project will help ensure that 380 Tribal homes have access to drinking water the meet EPA's drinking water standards for arsenic.

Also in 2015 the Area completed construction of approximately 40 projects valued at approximately $15 million funded in previous fiscal years. A majority of these facilities were completed in partnership with Tribes who procured/managed construction via Tribal procurement contracting. These projects served all Phoenix Area Tribes across a four state region. These projects included installation of a variable frequency drive pumping system to improve water system pressure on the Bishop Paiute Reservation and installation of sewer collection system to reduce human exposure to raw sewage on the Hopi Reservation.

In addition to construction, the Area completed 38 water/sewer/solid waste system surveys documenting the condition of existing facilities and the effectiveness of the Tribal utility organizations tasked with operating them. The Area also collaborated with other technical assistance providers (Inter-Tribal Council of Arizona, Rural Community Assistance Corporation,
Nevada Rural Water Association, EPA Region 9, and Nevada Rural Development) to deliver/complete over 20 Tribal operator training and certification courses, drinking water system trouble shooting services, routine technical assistance, and assistance to four Tribes that were under EPA Administrative enforcement orders or compliance plans targeted at compliance with the Safe Drinking Water Act.

FOCUS AREAS
The Area will continue to provide technical assistance to Tribes focused on creating incentives for reasonable water use through non-construction alternatives such as metered water use rates. These approaches in some cases are a better solution to address water and wastewater needs than constructing additional facilities. Implementation of water meter rates on the Big Pine Paiute Reservation reduced water usage by 60 million gallons in the first year and negated the need for an additional water source. The Area is working with multiple Tribes to develop similar projects.

PHOENIX AREA:
FY 2015 YEAR AT A GLANCE

<table>
<thead>
<tr>
<th>AREA POPULATION</th>
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<tbody>
<tr>
<td>Eligible Tribes</td>
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<tr>
<td>Tribal Homes</td>
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<thead>
<tr>
<th>SANITATION FACILITY NEEDS</th>
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<tbody>
<tr>
<td>Sanitation Facilities Project Cost</td>
</tr>
<tr>
<td>Tribal Homes Needing New or Improved Sanitation Facilities (% total eligible AI/AN homes)</td>
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<tr>
<th>RESOURCES AVAILABLE</th>
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<tbody>
<tr>
<td>IHS Project Funds</td>
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<tr>
<td>Contributed Project Funds</td>
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<tr>
<td>Number of Engineers</td>
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<td>Number of Technicians</td>
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<td>Projects Funded</td>
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<td>Tribal Homes Served</td>
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\*Total database cost for DL 2 to 5 projects.
ACCOMPLISHMENTS

In FY 2015 new projects were funded in the Area serving the Makah Tribe, Shoshone-Bannock Tribe, Yakama Indian Nation and Quinault Tribe. These projects included construction of a community water well, construction of a gravity sewer interceptor main, renovations to a sewage lift station, and repairs to sewage collection mains. These projects will help ensure that the water system can meet the capacity demands during seasonal dry conditions, eliminate surfacing sewage and reduce the potential for human contact, and reduce the rainwater and groundwater entering the sewer system to improve the operation of existing wastewater treatment processes.

IHS and the U.S. Department of Housing and Urban Development (DHUD) jointly funded an emergency project for the Makah Tribe to make emergency repairs to the Tribe’s sewage outfall pipe that had become partially detached from the bay floor. IHS and the Tribe assembled construction documents in the summer of 2015, and the Tribe awarded construction near the end of the fiscal year.

The Area made progress on the completion of two projects jointly funded in previous years by IHS and the U.S. Environmental Protection Agency (EPA) to place new sources of water online, helping to ensure Tribal communities are supplied with water that meets the primary drinking water standards under the Safe Drinking Water Act. These projects were on the Colville Indian Reservation (serving 113 Tribal homes) and the Spokane Indian Reservation (serving 105 Tribal homes).
In 2015, the Area and EPA extended the Interagency Agreement (IA) that allows IHS to employ five additional engineers that provide utility consulting services to Tribes that own and operate public water systems. Through these staff and the IA, IHS is able to support the Tribes in their efforts to comply with the Safe Drinking Water Act and provide communities with safe domestic water supply. The IA will be in place through May 2017.

**FOCUS AREAS**

The Area serves 43 Tribes over a three State area (Washington, Oregon and Idaho). The needs of the 43 Tribes exceed available IHS funding under the IHS sanitation facility appropriation. To offset the impact of the limitations in current Federal funding and expand the reach of the IHS SFC program, Portland Area and the Tribes are working with external organizations that have the explicit purpose of facilitating multi agency project funding opportunities for water and wastewater infrastructure.

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**PORTLAND AREA:**

**FY 2015 YEAR AT A GLANCE**

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<td>Sanitation Facilities Project Cost</td>
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<td>Number of Tribal Homes Needing New or Improved Sanitation Facilities (% total eligible AI/AN homes)</td>
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<td>IHS Project Funds</td>
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<td>Number of Engineers</td>
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<tr>
<td>Number of Technicians</td>
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<tr>
<td>Tribal Homes Served</td>
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¹Total database cost for DL 2 to 5 projects.
ACCOMPLISHMENTS

Projects funded in FY 2015 will address a variety of sanitation needs in the Area, including the upgrade of nine community water systems with improved sampling taps to assist the Tohono O’odham Utility Authority (TOUA) in complying with U.S. Environmental Protection Agency (EPA) drinking water sampling requirements; replacing a deteriorated water main that provides drinking water to Sells, Arizona, the largest community on the Tohono O’odham Nation; and closing open dumps in or near seven communities on the Tohono O’odham Nation that are currently out of compliance with regulations.

During FY 2015, the Area made significant progress in addressing unserved existing homes through a partnership with the TOUA and the U.S. Department of Agriculture. Through this partnership, 22 modular bathrooms were constructed, of which 16 were provided water and sewer facilities with IHS funding to serve homes that previously lacked indoor plumbing facilities. Installation of these water and sewer facilities was accomplished under previously funded projects.

Additional highlights in FY 2015 included the installation of water and wastewater facilities to serve 24 new homes, the completion of nine design/bid packages, the drafting of sanitation facility transfer agreements and final reports for over 90 projects (pending final review), the completion of composite drawings for 13 TOUA community water and sewer systems, and the installation of replacement septic systems for 8 homes, funded through the EPA Clean Water Act Indian Set-Aside program. In addition, IHS staff assisted TOUA in successfully securing $2.4 million in EPA funding for water and wastewater infrastructure improvements.
FOCUS AREAS

The Area continues to balance planning, design, and construction work with the need to complete project closeout. Tribal right of way process changes have resulted in significant construction delays for some projects. The Area has assisted the TOUA in developing a revised procedure for obtaining rights of way; if adopted, the revised procedure, which incorporates newly published BIA guidelines for streamlining, has the potential to substantially reduce the processing time for Tribal right of way requests.

TUCSON AREA: FY 2015 YEAR AT A GLANCE

<table>
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<tbody>
<tr>
<td>Eligible Tribes</td>
<td>2</td>
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<tr>
<td>Tribal Homes</td>
<td>10,362</td>
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<tr>
<th>SANITATION FACILITY NEEDS</th>
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<tbody>
<tr>
<td>Sanitation Facilities Project Cost</td>
<td>$51,207,000</td>
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<tr>
<td>Tribal Homes Needing New or Improved Sanitation Facilities (% total eligible AI/AN homes)</td>
<td>5,013 (48%)</td>
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<table>
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<tr>
<td>IHS Project Funds</td>
<td>$1,229,000</td>
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<tr>
<td>Contributed Project Funds</td>
<td>$2,368,290</td>
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<td>Number of Engineers</td>
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<td>Number of Technicians</td>
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<tr>
<td>Number of Support Staff</td>
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<tbody>
<tr>
<td>Project Funded</td>
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<tr>
<td>Active Construction Projects</td>
<td>308</td>
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<td>Average Project Durations (Years)</td>
<td>7.94</td>
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<th>PROGRAM IMPACT</th>
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<tbody>
<tr>
<td>Tribes Benefiting</td>
<td>1</td>
</tr>
<tr>
<td>Tribal Homes Served</td>
<td>2,052</td>
</tr>
</tbody>
</table>

1Total database cost for DL 2 to 5 projects.
The ultimate goal of the SFC Program is to provide adequate water supply and waste disposal facilities for all existing Indian homes. However, there are numerous factors that will continue to create additional sanitation facility needs in the future. These factors include population growth, increasing regulations and upgrading or replacement of existing sanitation facilities when their useful design life is reached. IHS began providing water supply and waste disposal systems to AI/AN communities over 50 years ago. The aging national water and wastewater infrastructure needs have been well-documented by EPA, the Government Accountability Office, and the American Water Works Association.
Additionally, as deficiencies continue to be addressed, the remaining homes are becoming harder to reach. Serving these remote and isolated homes with long community water system extensions carries technical challenges and is very costly to build and maintain. The SFC Program will also be challenged to meet the sanitation facility needs of Tribes in the face of more stringent public health and environmental standards for public water systems, sewage treatment facilities and solid waste disposal facilities. Addressing these issues will require more technically advanced solutions that will cost more to build, operate, and maintain.

Finally, large-scale issues like increasing temperatures and heightened weather events threaten the long-term viability of coastal communities and create new technical challenges associated with existing sanitation facility installations (e.g. melting permafrost). The impact of these challenges on the operation and maintenance of sanitation facilities and the deficiencies they might cause are difficult to predict. The ability of the IHS to respond to these challenges is limited as a result of the statutory authorization to only report on current sanitation deficiencies. Yet as weather patterns and storm intensity continue to impact the sanitation facilities in the communities served by the SFC Program (particularly in Alaska and the drought-prone regions of the lower 48 states), there will be an increased need to work with senior leadership in HHS and Congress to raise awareness of these challenges and provide an appropriate response.

In the future, the technical and managerial skills of IHS and Tribal staff to design, construct, and operate needed sanitation facilities will be tested by these challenges. A true partnership among Tribes, Congress, IHS, and our partner agencies is needed if we are to meet these challenges successfully.
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