Regulatory Regimes for Drinking Water on Tribal Lands in the USA: A Description

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November 2001

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Introduction

Scope and Objectives

The specific objectives of this part of the report are to:

1. Describe the U.S. regime for regulating drinking water, and
2. Describe the water quality regulation regimes in place on the lands of three Indian tribes located in three different states.

The scope includes the legislative base, financial support programs, the roles and responsibilities of the various stakeholders involved in the regulation and provision of drinking water, and the requirements for certification of water systems and operators.

Approach

Information was obtained from officials in the U.S. Environmental Protection Agency (the U.S.EPA) who are directly involved with the regulation of drinking water. Officials contacted included staff from three regional offices and headquarters in Washington, D.C.

Supplementary information was obtained from web site searches of federal departments and agencies, as well as specific information sources for Indian tribes.

Ii. U.S. Safe Drinking Water Act

Background[1]

Drinking water quality in the U.S. is regulated by the federal Safe Drinking Water Act (SDWA) first enacted in 1974 and amended most recently in 1996.[2] The U.S. EPA is responsible for ensuring compliance with the act. The U.S. EPA established the Public Water System Supervision (PWSS) program under the act.[3] States can apply to administer their own PWSS provided these are at least as stringent as those established under the SDWA. All states except Wyoming and Washington, D.C.[4] have received such primary enforcement authority, or 'primacy'.[5]

Definitions of Public Water Systems

The SDWA is limited to defined public water systems, that is, those serving at least 25 people or 15 service connections at least 60 days out of the year. There are three types of public water systems and standards apply differently[6] depending on type and size:

1. Community Water Systems serve the same people year-round;
2. Non-Community Water Systems do not serve the same people year-round:
    - Non-Transient Non-Community Water Systems serve the same people for more than six months but not year-round (e.g. a school);
    - Transient Non-Community Water Systems serve different people for more than six months (e.g. a campground)

Further, water systems are defined by size, depending on the population served:

- small: less than 3,300 customers
- medium: between 3,300 and 50,000 customers
- large: more than 50,000 customers

Scope of the Safe Drinking Water Act

The SDWA is broad in scope. It establishes national health-based standards for drinking water to protect against naturally occurring and man-made contaminants, and sets out the requirements for water systems to test for each contaminant. The act defines the respective roles and responsibilities of the federal government, states, tribes, public water

[1] Much of the information provided in this section was provided by Ray Enyeart, Environmental Engineer, Drinking Water Protection Branch, Environmental Protection Agency, Washington, D.C.
[2] See Appendix A for a digest of the Act.
[3] The U.S. EPA also established the Underground Water Protection program (UWP) under the SDWA. The purpose of this program is to protect underground sources of drinking water by controlling underground waste injection practices. The UWP is managed similarly to the PWSS program and states can obtain 'primacy'. The focus of this report, however, is on the PWSS program.
[4] Wyoming decided not to apply for 'primacy' because of the cost involved in administering the PWSS. In the case of Washington, D.C., it was a question of the need for an arms length relationship between the regulator and the bodies being regulated. In D.C., the government itself operates the public water supply system.
[5] See Appendix B for a summary of the specific requirements for states to obtain 'primacy'.
[6] The law provides special measures for small water systems such as a reduction in the number and frequency of sampling and less onerous requirements for the distribution of annual reports for the public.

suppliers and the public. It covers the assessment and protection of source water including the control of the injection of wastes into ground water, the establishment of state water system operator training and certification programs, monitoring requirements and enforcement actions. Further, the act requires that new water systems have the necessary financial, technical and managerial capacity, and mandates water suppliers to inform consumers of serious water quality problems and provide annual public reports. The SDWA also provides for studies and research into drinking water and requires cost-benefit analyses and input from interested parties when standards are set. As well, the act establishes two funding programs relative to the PWSS program: grants for oversight functions and grants for capital investments in water systems.[7] (See below).

There are two points worthy of particular note. First, the SDWA does not require public water systems themselves to be licensed. Second, while the act does not require water systems operators to be licensed, states must have water system operator certification programs in place. While this requirement does not affect whether or not a state is granted 'primacy' under the act, there are financial penalties for not having such a program. Up to 20% of a state's grant allocation for capital investments in water systems may be lost if the state has no operator certification program.[8] It should be noted that the vast majority of water systems operators in the states are, in fact, licensed.

A related point of interest concerns the U.S. Clean Water Act. This act is complementary to the SDWA and its objective is to protect U.S. waters. It provides a framework of standards, technical tools, and financial assistance to address causes of pollution and poor water quality. The Clean Water Act deals primarily with waste disposal concerns.

Financial Assistance Programs

Grants for Oversight Activities

Grants for oversight activities include such things as site visits, technical assistance and enforcement actions, but exclude routine monitoring activities. Grants cannot exceed 75% of operating costs. About $90 million is distributed annually on the basis of a formula that takes into account the number and types of public water systems, population and land area. The minimum grant is $334,500 for states and $111,500 for the four smallest territories. [9]

Revolving Loan Fund

Under the Revolving Loan Fund, states are eligible to receive federal grants to establish State Drinking Water Revolving Loan Funds (DWSRFs). In other words, the grants are

[7] The Act also provides for a third funding program to partially offset the costs of the oversight functions associated with the UWP program (see footnote 3).
[8] The reason underlying the requirement for water system operator certification programs, yet not requiring operators to be licensed, resulted from the fact that most states already had operator certification training programs in place when the Act was amended. States were opposed to having another, national, system imposed by the federal government.
[9] Annual federal appropriations for the oversight activities for the UWP program (see footnote 3) amount to approximately $10 million.

used to endow revolving loan funds in the states. These funds provide below market-rate interest loans to public water systems for capital improvements to the water system infrastructure. The federal government provides between $750 million and $1 billion annually to states to finance the DWSRFs. The Revolving Loan Fund program is to be terminated when the total annual amount of money paid back to a state's DWSRF by the public water systems equals the amount of the annual grant provided by the federal government.

Application of SDWA on Tribal Lands

General

State laws to regulate the quality of drinking water do not apply to Indian tribal lands since a government-to-government relationship exists between federally recognized Indian tribes and the U.S. government.[10] However, with the 1986 amendments to the SDWA, Indian tribes can apply for and receive 'primacy'. To date, only one tribe, the Navajo Nation, has obtained 'primacy' (early 2001). The U.S. EPA is the regulatory authority and manages the PWSS program for other tribes.

Conditions for 'Primacy'

A tribe is required to meet to the following conditions to achieve 'primacy':[11]

1. The tribe must be recognized by the secretary of the interior, and have a governing body carrying out substantial governmental duties and powers.[12]
2. The functions to be exercised by the tribe must be within the area of the tribal government's jurisdiction.
3. The tribe can reasonably be expected to be capable of carrying out the functions to be exercised in a manner consistent with the terms and purposes of the SDWA and all applicable regulations.

Further, the tribe must:

1. Adopt drinking water regulations that are no less stringent than the National Primary Drinking Water Regulations (NPDWR).
2. Adopt and implement adequate procedures for the enforcement of such regulations, including monitoring, sanitary surveys, inspections, plan review, inventory of water systems and adequate certified laboratory availability.
3. Keep such records and make such reports as required.
4. If variances or exceptions are granted from its regulations, issue such variances and exemptions in accordance with the provisions of the NPDWR.
5. Adopt and implement an adequate plan for the provision of safe drinking water under emergency conditions.

[10] In the case of a Tribe that is not federally recognized, state laws apply to tribal lands.
[11] Federal Register Environmental Documents, November 6, 2000 (Volume 65, Number 215, page 66541-66543. (www.EPA.gov/fedrgstr/U.S. EPA-Water/2000)
[12] Article 1, section 8 of the U.S. Constitution given substance through Supreme Court decisions, treaties, legislation and Executive Orders.

Operator Certification

As noted earlier, states are required to have water system operator certification programs in place unless they are prepared to incur reductions in federal capital grant funding. The act is, however, silent on the requirement for operator certification programs on tribal lands.

This causes a dilemma as to the application of that feature of the act to tribal lands — without a national operator certification system, tribes can only obtain operator certification from state-run programs.[13] Since many Indian reservations span more than one state, there is uncertainty as to which state's certification program would be the most appropriate. As well, the development of a national certification program for Indian tribes is sensitive in light of tribal sovereignty.

It should be noted that many tribes do employ licensed water system operators. In the regions, the U.S. EPA and their sister departments and agencies use available financial levers to encourage and achieve tribal operators' certification whenever possible.

Financial Assistance

Grants for Oversight Activities

A tribal set-aside of 'up to seven per cent', or approximately $6 million, is available annually for oversight of tribal water systems and for assisting Indian tribes to develop the necessary capacity to move towards 'primacy'. These funds are allocated to the regional U.S. EPA offices on the basis of tribal population, tribal land area and number and type of tribal water systems under their jurisdiction. The categories of funding include:

1. Grants to tribes to operate, or develop, PWSS 'primacy' programs;
2. Direct usage by the U.S. EPA to operate a PWSS program in the absence of an approved tribal program;
3. Capacity development (training of operators, the development of ordinances and codes, computer equipment and systems);
4. Source water assessment and protection (including education and outreach),
5. Water systems operator certification; and
6. Assistance in applying for tribal drinking water infrastructure grants (targeted at administration and often rolled into multi-agency agreements).

Development grants also are awarded to tribes to study the feasibility of moving towards 'primacy'.

[13] There are three organizations which are not state-operated that can provide water system operator training and certification: the Inter-Tribal Council of Arizona, the Association of Boards of Certification (ABC) and the Native American Water Association. A national operator certification program for operators of water systems serving Indian tribes is currently under development by the U.S. EPA.

Revolving Loan Fund

The SDWA also allows the U.S. EPA to use 'up to one and a half per cent' of the amount annually available for the DWSRF program, to award grants to improve the water systems that serve Indian tribes. These funds are distributed through the regional offices of U.S. EPA and allocations to specific projects must be based on a quantitative approach to ranking. The federal government provides between $10 and $20 million annually for this program.

It should be noted that these are direct federal grants to specific water supply construction projects. Indian tribes are not required to set up revolving loan funds for waterworks improvements on tribal lands.

Other Federal Departments and Agencies

There are several other players in the area of providing safe drinking water to Indian tribes. The Indian Health Service (IHS) of the U.S. Department of Health and Human Services has operated a Sanitation Facilities Construction Program since 1959. This program provides for the funding of water supply and waste disposal facilities. This is not a regulatory program. The IHS maintains an inventory of deficiencies in sanitation and water supply infrastructure for use by the IHS as well as other U.S. Departments and agencies. Appropriations for the program are in the range of $100 million annually.[14]

The Bureau of Indian Affairs (BIA) in the Department of the Interior, the federal trustee for Indians, used to build water systems mainly to serve its own installations. These have now largely been turned over to tribal utilities. The bureau does, however, provide funding for schools, water supply, roads etc. Also, the Bureau of Reclamations within the department is involved in the building and control of dams and regional water supplies such as the management of the water in the Colorado River, which affects Indian tribal water.

There are other federal departments and agencies involved in funding public water supply systems. The Department of Housing and Urban Development (HUD) provides some funds for the building of houses and adequate water facilities on Indian lands. The Department of Agriculture's Rural Utilities Service provides funds for the construction of rural water supply systems.

[14] The Sanitation Facilities Construction Program of the Indian Health Service, Public Law 86-121 Annual Report for 2000, Department of Health and Human Resources, Washington, D.C.

III. Navajo Nation[15]

Background[16]

The Navajo Nation is the largest tribe in North America. Its tribal lands are about 1.6 million acres, approximately the size of the state of West Virginia. The reservation is located in northeastern Arizona and extends into western New Mexico and southern Utah.

The Navajo Nation's economy is based largely on resources, tourism and public service. Major employers include the Navajo Nation, federal and state governments, coal mines and tourism facilities.

There are approximately 140,000 people living on the reservation. The nation has an elected government with a president, a legislative body, a permanent public service, a constitution and a code of laws. The nation is organized into 73 chapters, which all have elected presidents similar to city mayors.

The Navajo Nation is the only tribe that has achieved 'primacy': it has obtained delegated authority under the SDWA.[17] The nation now has legislation, the Navajo Nation Safe Drinking Water Act (NNSDWA), which is at least as stringent as the national SDWA. As well, the Navajo has an Environmental Protection Agency (NNEPA). This entire process to obtain 'primacy' took eight years with the central issues being staff capacity, and the separation of regulatory authority from bodies being regulated.

Public Water Systems

There are about 230 water systems on the reservation that meet the definition of public water systems under the NNSDWA. These range in size from 14 to 18,000 customers. Not everyone on tribal lands has access to public water systems and many continue to haul water from unregulated sources, or get water through other means.

Roles and Responsibilities

Water Purveyors

The Navajo Nation Tribal Utility Agency (NTUA)

The NTUA is a quasi-independent utility with a board of directors. Some of the directors are sitting members of the legislature. The NTUA operates and maintains two surface water treatment plants, the largest of which serves 14,000 people. The utility also operates approximately 83 other systems that use ground water sources with the exception of two systems that purchase water from neighbouring states. The largest of these serves about 18,000 people. The NTUA is the only water purveyor on the reservation that has metered connections and charges user fees.

[15] The information on the Navajo Nation was obtained from Danny Collier, Region 9, U.S. Environmental Protection Agency, San Francisco, California.
[16] Indian Health Service web site: www.ihs.gov
[17] See Appendix C for a copy of "EPA Notice of Decision and Opportunity for Hearing".

The NTUA has an operator certification/apprenticeship/training program that trains operators to the Master Systems Operator level. It also has its own laboratory certified by the U.S. EPA to conduct analyses.

Like other purveyors of water, the utility is required by the NNSDWA to collect samples of water and report the results to the NNEPA, use appropriate water treatment techniques, and provide annual reports to the public. As well, in the event of a problem with the water, it must issue a public notification to ensure that the public is aware of the issue.

Department of Water Resources (DWR)

The DWR is a department within the Navajo Nation Division of Natural Resources. It operates 15 small ground water public water systems serving from 15 to 200 users. The department is slowly upgrading its facilities and connecting homes to NTUA public water systems, or abandoning systems altogether.

The DWR is ultimately responsible for managing water resources on the reservation. As such, it conducts studies, develops plans, approves water systems construction and issues well drilling permits. It heads an inter-departmental task force to study water related issues. Members of the task force include representation from various federal departments.

Bureau of Indian Affairs (BIA)

The BIA of the U.S. Department of the Interior operates about 50 small ground water systems serving its own facilities on the reservation. Of these, 10 use ground water purchased from the NTUA and the rest use well water from within its own compounds. The BIA, as a water purveyor, is required to comply with the NNSDWA exactly like the NTUA.

Other Water Purveyors

Two power plants operate surface water treatment plants that serve their own employees. Two coal mines also operate water systems for their own staffs. One of these has 'watering points' for local people to collect water for hauling. Several schools have their own wells and have on-site water systems operators. The remainder of the water systems on the reservation are wells operated by tourist facilities, stores and chapter houses ('city hall' type of facilities). All operators of public water systems must comply with the requirements of the NNSDWA.[18]

Regulatory Authority

Navajo Nation EPA

The NNEPA was first established in 1972 as an office of the Division of Natural Resources. Subsequently, it became a separate department charged with protecting

[18] See Appendix D for an example of an annual report of a water purveyor on Navajo tribal lands.

human health, welfare and environment. Since 1995, the NNEPA reports directly to the president of the Navajo Nation.

Since early in 2001 when the Navajo Nation received 'primacy' under the U.S. SDWA, NNEPA is accountable for ensuring NNSDWA obligations are met. The specific responsibilities include:

1. Draft revisions to the NNSDWA as necessary;
2. Keep records and report to the National Safe Drinking Water Information System;
3. Compliance surveillance (monitor and interpret public water system data),
4. Carry out sanitary surveys;
5. Review plans and specifications of proposed improvements to existing or new construction of public water systems;
6. Provide technical assistance to water purveyors; and
7. Develop and maintain an emergency water supply plan.

The jurisdiction of the NNEPA extends to all water purveyors operating public water systems as defined under the NNSDWA. This includes those operated by NTUA, BIA, schools, chapter houses, tourism facilities, etc.

The NNEPA does not have a water systems operator certification program, but it sponsors operator training and certification on the Navajo Nation through the Inter-Tribal Council of Arizona. Recent revisions to the NNSDWA included operator certification provisions that would permit the implementation of such a training and certification program on the reservation.

While waterworks are currently not required to be licensed under the NNSDWA or the U.S. SDWA, the recent revisions to the NNSDWA would allow the NNEPA to issue permits to water purveyors for a fee.

The NNEPA has an agreement with the U.S. EPA that gives the NNEPA the necessary authority to enforce the provisions of the NNSDWA. However, if the NNEPA concludes that the required enforcement action is beyond its capability, the U.S. EPA will carry out the necessary action, such as laying formal charges. This is similar to the agreements developed with individual state authorities. It should be noted that prior to the Navajo Nation obtaining 'primacy', the U.S. EPA encouraged public education and provided technical assistance to minimize the need to take formal enforcement actions. Results were generally very good. The NNEPA is being encouraged by the U.S. EPA to use a similar approach to achieve compliance.

Financial Assistance

The regional office of U.S. EPA has provided grants to the Navajo Nation to assist them in developing the necessary financial, administrative and technical capacity to obtain 'primacy'. The nation is also eligible for grants for oversight activities (excluding

monitoring activities) and receives $334,500 annually — the minimum grant available under the program.

The financing of new public water systems or improvements to existing ones may be financed from a variety of sources, including the U.S. EPA, HIS and, possibly, the BIA and HUD.

Unregulated Water Sources

The Navajo Nation is currently pursuing a grant from the regional U.S. EPA to fund a consultant to study the use of hauled water, and identify possible solutions.

Issues

During the eight years leading to 'primacy', regional U.S. EPA staff and tribal officials grappled with the central issue of availability and capacity of trained personnel. Staffing remains an issue because of the need for professional engineers and scientists, and the fact there are few Navajo who meet the necessary requirements.

A second concern deals with the NNEPA being a department reporting to the president of the Navajo Nation, yet being required to oversee the operations of the NTUA and the DWR. While the current arrangement may be appropriate on paper, it may become a difficult situation in cases where some enforcement action becomes necessary.

A third issue relates to the apparent lack of a focal point for central planning and development functions that can provide an overview of anticipated future water needs and assist in providing for an orderly construction program. The U.S. EPA, the Navajo Nation (the NNEPA, DWR and NTUA), the BIA and the IHS all have financial or technical responsibilities, which affect public water systems construction activities.

A fourth issue deals with the difficulties experienced by the majority of rural water systems in trying to cover costs through user fees. Generally, the cost of providing water to sparsely populated areas is so high that it makes the necessary cost-recovery user fee structure prohibitive. This is an important issue for the Navajo since its tribal lands are very large, and with the exception of major centres, population density is low.

IV. STANDING ROCK SIOUX[19]

Background[20]

The tribal lands of the Standing Rock Sioux stretch from central South Dakota to south central North Dakota. The reservation consists of 2.3 million acres of sparsely populated prairie. There are eight tribal communities and several municipalities on the reservation.

The local economy is based primarily on cattle ranching and farming, some light manufacturing, tourism (including a casino) and public services.

The population of the Standing Rock Sioux reservation is just over 6,000. The Standing Rock Sioux Tribe has a constitution (1914), an elected council and a code of laws. It has a public service, although staff may change completely as the result of an election. The tribal council consists of 14 members, plus the tribal chairperson, vice-chairperson and secretary. Elected members serve four years, and elections are staggered every two years and provide for a degree of continuity. The tribal chairperson serves as the chief executive officer of the tribe, and has specific duties defined both by the constitution and by custom.

Standing Rock is interested in achieving 'primacy' under the SDWA in the near future. To date, the tribe has been recognized as having 'Treatment as a State' status under the SDWA (1989). As well, it has begun to develop a tribal drinking water code to be used if, and when, it is granted 'primacy'.

Public Water Systems

There are 12 public water systems on the reservation, five of which are regulated directly by the U.S. EPA. The remaining systems are regulated under the laws of North and South Dakota. All these water systems are small; that is, they serve populations under 3,300.

Ground water is the main source of drinking water for most of the public water systems on tribal lands. Two surface water treatment plants draw water from Lake Oahe whose water is impounded from the Missouri River. One of these treatment plants, located at Fort Yates, serves a population of about 2,000. It also provides drinking water to smaller surrounding communities as well as a casino and hotel complex. The second surface water treatment plant provides water to the community of Wakpala with a population of about 200.

[19] The information on the Standing Rock Sioux was obtained from Gary Carlson, Region 8 Tribal PWSS Program, U. S. Environmental Protection agency, Denver, Colorado.
[20] See also American Indian Relief Council web site www.airc.org

Roles and Responsibilities

Water Purveyors

Water purveyors are required by the U.S. SDWA to collect water samples and report laboratory results to the regional offices of the U.S. EPA, use appropriate water treatment techniques and regimes and provide annual reports to the public. As well, they must issue public notifications in the event of water quality problems.

As noted earlier in this report, there is no requirement under the SDWA for establishing programs for certifying water systems operators on tribal lands. Nevertheless, many operators on the reservation are certified. In large part, this has been achieved with the cooperation of the federal Bureau of Reclamation (BOR) of the Department of Interior that manages the waters of the Missouri River. Under a cooperative agreement[21] between BOR and the tribe, the cost of operating and maintaining the public water systems on the reservation is provided by the BOR. The agreement also requires that water systems operators be certified.

At present, water systems operator training and certification is only available through state certification programs: There are no inter-tribal organizations providing such training *in the area* of the Standing Rock Sioux. As mentioned earlier, the U.S. EPA is developing a national training and certification program to provide such services for all tribes.

It should be noted that the entire cost of operating the public water systems on the reservation is borne by the BOR. Water purveyors on the reservation do not charge user fees.

Regulatory Authority

The U.S. EPA (Region 8) is the regulatory authority for five of the public water systems on the reservation. The regulatory authorities for the remaining seven water systems are the states of North and South Dakota, both of which have 'primacy' under the SDWA. The specific responsibilities of the regulatory bodies are to:

1. Carry out compliance surveillance (monitor performance, interpret public water systems data and enforcement);
2. Keep records and report information to the National Safe Drinking Water Information System;
3. Undertake sanitary surveys;[22]
4. Review plans and specifications of proposed improvements to existing or new construction of public water systems;
5. Certify laboratories and establish testing protocols;
6. Provide technical assistance to water purveyors; and
7. Develop and maintain an emergency water supply plan.

[21] The details of the Agreement are not publicly available.

[22] Sanitary surveys are thorough and detailed inspections of all aspects of public water systems operations. See Appendix E for the Sanitary Survey form used by U.S. EPA Region 8.

Formal enforcement actions are rare as the regional staff of the U.S. EPA work closely with the tribe, and provide technical assistance to water purveyors. There are regional guidelines for working with Indian tribes to ensure compliance with the regulations. These provide for an escalation of actions unless the water purveyor takes remedial action. The approach of providing education and technical assistance has proven fruitful in avoiding serious problems with water quality and avoiding formal enforcement actions.

Also, source water assessment, or source water protection programs, are not required by law on tribal lands. While the regional staff of the U.S. EPA promotes such programs, progress has been slow. There are indications that certain problems may exist, resulting from septic and wastewater lagoon contamination of ground water sources.

Capacity Development

One of the requirements for being granted 'primacy' relates to "the capacity of the tribe to carry out the functions to be exercised in a manner consistent with the terms and purposes of the SDWA and all applicable regulations". These requirements are very broad and include technical, financial, and management skills and experience.

Regional staff of the U.S. EPA are working with the tribe on two fronts to assist the tribe in developing the requisite capacity to manage its own PWSS program. First, in its day-to-day interaction with tribal officials and water systems operators, regional staff offer on-site training and technical assistance. Regional staff are guided by expected capacities for the core elements of the PWSS program.[23] As well, the regional office of U.S. EPA provides regular workshops and training events for water system operators and managers, tribal staff and for staff of the IHS and BOR.

Second, the U.S. EPA regional staff are working on developing an approach for a longer term sustained effort at developing the necessary capacities for managing the PWSS program. This approach would be subject to discussion with the tribe and could form the basis for a more formal understanding for developing capacity.[24]

Costs

Rough estimates by the U.S. EPA regional staff suggest that if the tribe obtained 'primacy', it would require approximately one and a half permanent staff and $80,000 to $100,000 annually to perform the oversight functions required by the SDWA. A rough approximation indicates that two staff with the required training could provide adequate supervision for between five and 20 public water systems.

Financial Assistance

The regional office of the U.S. EPA works with its federal partners to package grants and low-cost loans, and work towards a one-window approach to financing the construction

[23] See Appendix F for a draft document of the Core Elements of PWSS Program-Expected Capacities.
[24] See Appendix G for an early draft of a generic type longer-term capacity development approach.

and operation of water supply systems. As in the case of the Navajo Nation, financing needs may be met through a variety of sources, among these the U.S. EPA, IHS, HUD, BOR and BIA. Although this system does not work perfectly, there has been considerable progress made.

Issues

A key issue relates to a number of outstanding jurisdictional decisions concerning the respective roles and responsibilities of the regulatory authority. This is the result of having three regulatory authorities operating on the reservation. This situation is sometimes aggravated by the absence of good working relationships between the state governments and the tribal government.

A second issue concerns the lack of symmetry between the application of the SDWA to states and to tribes. This too can increase tension between states and tribes especially when state regulated water purveyors operate on tribal lands. An example of this has already been mentioned — tribes are not required to establish water systems operator training and certification programs on tribal lands. Another example relates to the protection of source water. In this case also, states are required to have such programs in place, but tribes are not.

V. EASTERN BAND OF CHEROKEE OF NORTH CAROLINA[25]

Background[26]

The tribal lands of the Eastern Band of Cherokee are located in western North Carolina, adjacent to the Great Smokey Mountains National Park. The land comprises about 57,000 acres, most of which are mountainous, forested and sparsely inhabited. Approximately 2,000 acres is residential land. Economic activity is based primarily on resources and tourism, including a casino.

There are about 10,000 people living on the reservation. Since the early 1800's the tribe has had democratic governments with an elected chief, a vice-chief, a 12-member council, and a public service. The tribe has a written constitution and a code of law.

Public Water Systems

There are 27 public water systems on the reservation:

1. Community Water Systems:
   - One medium sized system with a surface water treatment facility operated by the Cherokee Water System and it serves just under 4500 customers.
   - One small system that uses well water with under 200 customers.

2. Non-Transient Non-Community Systems:
   - Two well-based systems serving a day care facility and a community centre with a population ranging from 65 to 120

3. Transient Non-Community Systems :
   - 23 systems, including five churches (25-60 people served), two community centres (25-64 people served) and 16 campgrounds, serving between 30 and 700 people. Four of the campground systems use spring and reservoir systems. The remainder of the water systems uses wells.

Roles and Responsibilities

Water Purveyors

Cherokee Government: Public Works Department

The Public Works Department of the tribal government has a public utilities section and is in fact the tribal utility. It includes a water and sewage program that operates the water systems owned by the tribe. This includes the two community water systems, the two non-transient non-community systems and the two transient non-community systems that

[25] Information on the Eastern Band of Cherokee of North Carolina was obtained from Dan O'Lone (and colleagues), Indian Lands Coordinator, Drinking Water Section , Region 4, U. S. Environmental Protection Agency, Atlanta, Georgia

[26] Indian Health Service web site (www.ihs.gov)

serve community centres. Certified operators staff the department's operations and maintenance organizations.[27]

The tribe has established a Utilities Commission with four members appointed by the council to oversee the operations and directions of the public utilities section for the benefit of all residents and businesses. Members of the Utilities Commission are private citizens and business owners not currently active in tribal elective office.

The water and sewer program is considered a tribal 'enterprise', that is, a source of revenue for the tribal government. Revenues are, however, generally less than expenses. Nevertheless, the goal is to become financially self-sufficient. At present, any shortfall in operations is made up by council appropriations.

While the tribe does not have laws of its own regarding safe drinking water, the Public Works Department has established water quality standards, and has developed a reservation-specific source water protection plan. These are in addition to the requirements of the SDWA.

The tribal government operates a U.S. EPA certified laboratory on the reservation which conducts bacteriological analysis for its own waterworks as well as providing contractual services to other water works on the reservation. It also coordinates sampling with commercial laboratories for samples the tribal laboratory is not certified to do. The laboratory helps smaller water systems with public notices and repeat samples when required.

Over the years, U.S. EPA and IHS have funded a number of assessments of tribal water sources. Some of these, including a source water assessment plan, have been done by U.S. EPA and tribal staff, supplemented by the support of contractors. The U.S. EPA has recently funded a reservation-wide hydraulic assessment of the Cherokee Water System to assist in the location of future facilities.

The responsibilities of the tribe-owned water systems are the same as those set out earlier for the Navajo and the Standing Rock Sioux. These are:

- regular testing of the water as required under the SDWA;
- properly treating the water;
- reporting problems and issuing boil water notifications if necessary; and
- providing annual reports to the public.

Other Water Purveyors

[27] Operators are certified either through individual state programs or through EPA recognized administered programs offered by the Inter-Tribal Council of Arizona or the Native American Water Association. A consortium of 24 tribes along the eastern seaboard and the Gulf of Mexico is in the process of developing their own operator certification program.

The transient non-community systems operated by churches and campground owners are responsible for meeting the requirements of the SDWA similar to the tribal utility. Neither the BIA nor the IHS operates any water systems on the reservation.

Regulatory Authority

The U.S. EPA is the regulatory authority for the public water systems on the reservation. Its role and responsibilities are the same as those set out for the Standing Rock Sioux and it ensures that the obligations of the SDWA are met. Thus U.S. EPA staff conduct sanitary surveys, carry out water source assessments, monitor compliance with the act, etc.

U.S. EPA staff is also responsible for taking formal enforcement actions such as civil suits. While U.S. EPA staff resorted to such actions in the past, the emphasis is now largely on providing assistance, particularly technical expertise, to ensure water quality meets standards. This approach has been very successful.

Public

While the public-at-large is assigned a significant role in the provision of safe drinking water under the SDWA, it has been the experience of U.S. EPA staff that the public only gets involved when there is a problem and people get sick.

Funding and Assistance

Other than the U.S. EPA, the two other principal federal agencies involved in the provision of safe drinking water on the reservation are the BIA and the IHS. Neither of these operates regulatory programs but they provide funding and technical expertise in the development, design and construction of water supply systems.

Additional funding for the capital cost of upgrading or building a new water supply system may also be derived from other sources, such as the Rural Utilities Service (Department of Agriculture) and HUD.[28] There is frequent inter-agency cooperation in putting together financial packages for the construction of water systems. These funds are strictly for capital investment and are not to be used for on-going operations and maintenance.[29]The Eastern Band of Cherokee of North Carolina have been able to pull together sizeable projects using funding from diverse sources, such as the U.S. EPA, IHS, HUD, the U.S. Department of Agriculture, the U.S. Department of Commerce and the National Park Service.

The 1996 amendments to the SDWA included a requirement for an assessment of a tribe's 'capacity' (technical, managerial and financial) before EPA construction funding could be provided to upgrade water system infrastructure. To meet the requirements of

[28]The base line for capital projects is the sanitary survey from which 5-year plans are developed.

[29] Normally operating costs would be offset by user-fees but on the majority of reservations, as in other rural and remote areas, the operating cost of providing safe drinking water are often prohibitive. Also, the rural isolation of many tribal members and the concern over sovereignty has made the connection to state water suppliers impractical. Most tribes in the U.S. Region 4 do charge user fees but these do not cover the entire operating cost and additional costs are covered from other revenue sources such as casino earnings.

the act, the chief has to certify that an adequate revenue stream will be made available for the utility's operations (Financial Assurance Statement). Further, in cooperation with the utility, the U.S. EPA makes an assessment of its technical and managerial capability. This entails coming to an agreement about how the utility will run its operation, and what they are capable of doing.

This part of the act has been used by the regional U.S. EPA to provide grants to improve the capacity of the tribe. The types of capacity building projects that have been undertaken include rate studies, the development of billing and infrastructure inventory systems and engineering studies.

Unregulated Water Sources

The IHS provides funding for the installation of wells, septic tanks and drain field systems. The IHS spends about $2 million a year to provide such facilities for remote locations on the reservation. Over the years, a large portion of IHS funding has been used to remove houses from unprotected springs and stream sources.

However, a large number of people on the reservation use springs or private wells that are not regulated by the U.S. EPA or the tribe. This situation is expected to continue for the foreseeable future since large numbers of new houses are provided each year to remedy the current housing shortage on the reservation.

Issues

One central concern is how far the U.S. EPA can go in enforcing the requirements of the SDWA on tribal lands operating under a sovereign government-to-government relationship with the U.S. It is not clear where the boundaries lie. For example, if there is a water quality violation and the tribe does not wish to address it, it is uncertain how far the U.S. EPA could go to have the situation remedied.

A second concern relates to the technical, managerial and financial capacity of Indian tribes to operate water systems on tribal lands. This issue includes concern over the lack of training received by tribal water system operators.[30] The issue of capacity is complex, varies from tribe to tribe, and will require sustained efforts over many years.

A third issue concerns the lack of quality control over water drawn from springs or private wells used by individuals.

[30] This situation has been improving over time in the U.S. EPA Region 4.

Vi. Issues and Observations

Four principal issues arise out of this review of the U.S. regulatory regime on Indian tribal lands for safe drinking water. These issues relate to the sovereignty of Indian tribes, governance, capacity and financing, and the provision of safe drinking water for users of very small waterworks and individual water sources.

Sovereign Indian Tribes

In discussions with U.S. EPA staff the most frequently raised concern was the government-to-government relationship between the federal government and Indian tribes. The sovereignty of Indian tribes creates a relationship that is significantly different than that which exists between the federal government and the states. This has affected the regulation of safe drinking water on tribal lands in two ways. First, the SDWA is not applied symmetrically to states and tribes. Two examples of this have been noted earlier. States are required to have established water system operator training and certification programs or else their access to federal capital grants may be reduced. States are also required to have water source protection plans in place. Indian tribes are not subject to either of these requirements. This situation tends to strain relations between the states and the Indian tribes located within their borders, especially in cases where a state regulates a water system that provides drinking water to a tribe.

Second, the government-to-government relationship between the federal government and Indian tribes introduces a significant element of uncertainty for U.S. EPA staff charged with the regulatory functions of the SDWA on tribal lands. This applies to all tribes except the Navajo Nation that has obtained 'primacy'. The uncertainty causes concern about how far U.S. EPA staff can go to enforce the requirements of the SDWA. In many cases, the provision of technical assistance, public education and training events are successful in improving the delivery of safe drinking water on tribal lands. Notwithstanding, some U.S. EPA staff believe that a blind eye is turned to violations of the provisions of the act on tribal lands because of the sensitive nature of the relationship between the federal government and Indian tribes.

Governance

The separation between a regulatory authority and the organizations being regulated is fundamental to ensure appropriate and effective regulation. This holds true for the application of the SDWA on tribal lands. Only the Navajo Nation has been given the authority to carry out the regulatory functions of the SDWA on its lands and that tribe is the largest in the U.S. Even so, questions still remain about the degree of separation between the regulatory authority and the water suppliers being regulated on the Navajo Nation lands. Other, smaller tribes will face difficulties in establishing an appropriate separation between the regulator and those regulated since most water suppliers on tribal lands are owned by the tribes.

Capacity and Financing

For a tribe to be granted 'primacy', the SDWA the tribe to be reasonably capable of carrying out the functions required by the terms and purposes of the SDWA and all applicable regulations. This translates into managerial, technical and financial capacity; such capacity is relatively scarce. There are few tribal members that have the necessary educational background to undertake technical or scientific training. As well, there tends to be significant turnover of staff, making the task of training more difficult. The training and certification of water system operators on tribal lands has been a particularly thorny issue because of the absence of any legislative requirements for such training on tribal lands, as well as the lack of appropriate training.

Further, the majority of Indian tribes do not have the financial resources available to mount a regulatory program or to sustain the operations of water systems. This is particularly difficult for tribes that are sparsely populated and cover large territories. Similar to non-Indian lands, the provision of safe drinking water to rural areas is costly, and user fees only partially offset operating costs. The financial assistance programs provided under the SDWA and from other federal departments provide significant financial assistance to tribes to build capacity for oversight responsibilities and the construction of new or improved water works. However, tribes may simply not have the additional funding required to cover the difference between actual costs and the funds provided.

Unregulated Water Sources

In general, water systems covered by the SDWA on tribal lands serve customers who live in urban like centres. Many, if not most, people who live on tribal lands obtain drinking water from unregulated sources, either from individual wells and springs, or they haul water from various water points. These water sources are entirely unregulated by both tribes and the federal government. Some tribes, notably the Navajo Nation, are concerned about this situation and are undertaking studies to determine what action can be taken to remedy the situation.

APPENDIX A

UNDERSTANDING THE SAFE DRINKING WATER ACT

U.S. Environmental Protection Agency

Overview:

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nationís public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources ñ rivers, lakes, reservoirs, springs, and ground water wells. (SDWA does not regulate private wells which serve fewer than 25 individuals.) SDWA authorizes the United States Environmental Protection Agency (USEPA) to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. USEPA, states, and water systems then work together to make sure that these standards are met.

Millions of Americans receive high quality drinking water every day from their public water systems, (which may be publicly or privately owned). Nonetheless, drinking water safety cannot be taken for granted. There are a number of threats to drinking water: improperly disposed of chemicals; animal wastes; pesticides; human wastes; wastes injected deep underground; and naturally-occurring substances can all contaminate drinking water. Likewise, drinking water that is not properly treated or disinfected, or which travels through an improperly maintained distribution system, may also pose a health risk.

Originally, SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap.

Roles and Responsibilities:

SDWA applies to every public water system in the United States. There are currently more than 170,000 public water systems providing water to almost all Americans at some time in their lives. The responsibility for making sure these public water systems provide safe drinking water is divided among USEPA, states, tribes, water systems, and the public. SDWA provides a framework in which these parties work together to protect this valuable resource. USEPA sets national standards for drinking water based on sound science to protect against health risks, considering available technology and costs. These National Primary Drinking Water Regulations set enforceable maximum contaminant levels for particular contaminants in drinking water or required ways to treat water to remove contaminants. Each standard also includes requirements for water systems to test for contaminants in the water to make sure standards are achieved. In addition to setting these standards, USEPA provides guidance, assistance, and public information about drinking water, collects drinking water data, and oversees state drinking water programs.

The most direct oversight of water systems is conducted by state drinking water programs. States can apply to USEPA for ìprimacy,î the authority to implement SDWA within their jurisdictions, if they can show that they will adopt standards at least as stringent as USEPAís and make sure water systems meet these standards. All states and territories, except Wyoming and the District of Columbia, have received primacy. While no Indian tribe has yet applied for and received primacy, four tribes currently receive ìtreatment as a stateî status, and are eligible for primacy. States, or USEPA acting as a primacy agent, make sure water systems test for contaminants, review plans for water system improvements, conduct on-site inspections and sanitary surveys, provide training and technical assistance, and take action against water systems not meeting standards.

All public water systems must have at least 15 service connections or serve at least 25 people per day for 60 days of the year.

Drinking water standards apply to water systems differently based on their type and size:

- Community Water System (there are approximately 55,000) ñ A public water system that serves the same people year-round. Most residences including homes, apartments, and condominiums in cities, small towns, and mobile home parks are served by Community Water Systems.
- Non-Community Water System ñ A public water system that serves the public but does not serve the same people year-round. There are two types of non-community systems:
  - Non-Transient Non-Community Water System (there are approximately 20,000) ñ A non-community water system that serves the same people more than six months per year, but not year-round, for example, a school with its own water supply is considered a non-transient system.
  - Transient non-community water system (there are approximately 95,000) ñ A non-community water system that serves the public but not the same individuals for more than six months, for example, a rest area or campground may be considered a transient water system.

To ensure that drinking water is safe, SDWA sets up multiple barriers against pollution. These barriers include: source water protection, treatment, distribution system integrity, and public information. Public water systems are responsible for ensuring that contaminants in tap water do not exceed the standards. Water systems treat the water, and must test their water frequently for specified contaminants and report the results to states. If a water system is not meeting these standards, it is the water supplierís responsibility to notify its customers. Many water suppliers now are also required to prepare annual reports for their customers. The public is responsible for helping local water suppliers to set priorities, make decisions on funding and system improvements, and establish programs to protect drinking water sources. Water systems across the nation rely on citizen advisory committees, rate boards, volunteers, and civic leaders to actively protect this resource in every community in America.

Protection and Prevention:

Essential components of safe drinking water include protection and prevention. States and water suppliers must conduct assessments of water sources to see where they may be vulnerable to contamination. Water systems may also voluntarily adopt programs to protect their watershed or wellhead and states can use legal authorities from other laws to prevent pollution. SDWA mandates that states have programs to certify water system operators and make sure that new water systems have the technical, financial, and managerial capacity to provide safe drinking water.

SDWA also sets a framework for the Underground Injection Control (UIC) program to control the injection of wastes into ground water. USEPA and states implement the UIC program, which sets standards for safe waste injection practices and bans certain types of injection altogether. All of these programs help prevent the contamination of drinking water.

USEPA sets primary drinking water standards through a three-step process:

First, USEPA identifies contaminants that may adversely affect public health and occur in drinking water with a frequency and at levels that pose a threat to public health. USEPA identifies these contaminants for further study, and determines contaminants to potentially regulate. Second, USEPA determines a maximum contaminant level goal for contaminants it decides to regulate. This goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. These goals allow for a margin of safety . Third, USEPA specifies a maximum contaminant level, the maximum permissible level of a contaminant in drinking water which is delivered to any user of a public water system. These levels are enforceable standards, and are set as close to the goals as feasible. SDWA defines feasible as the level that may be achieved with the use of the best technology, treatment techniques, and other means which USEPA finds (after examination for efficiency under field conditions) are available, taking cost into consideration. When it is not economically or technically feasible to set a maximum level, or when there is no reliable or economic method to detect contaminants in the water, USEPA instead sets a required Treatment Technique which specifies a way to treat the water to remove contaminants.

Setting National Drinking Water Standards:

USEPA sets national standards for tap water which help ensure consistent quality in our nationís water supply. USEPA prioritizes contaminants for potential regulation based on risk and how often they occur in water supplies. (To aid in this effort, certain water systems monitor for the presence of contaminants for which no national standards currently exist and collect information on their occurrence). USEPA sets a health goal based on risk (including risks to the most sensitive people, e.g., infants, children, pregnant women, the elderly, and the immuno-compromised). USEPA then sets a legal limit for the contaminant in drinking water or a required treatment technique ñ this limit or treatment technique is set to be as close to the health goal as feasible. USEPA also performs a cost-benefit analysis and obtains input from interested parties when setting standards. USEPA is currently evaluating the risks from several specific health concerns, including: microbial contaminants (e.g., Cryptosporidium); the byproducts of drinking water disinfection; radon; arsenic; and water systems that donít currently disinfect their water but get it from a potentially vulnerable ground water source.

Funding and Assistance:

USEPA provides grants to implement state drinking water programs, and to help each state set up a special fund to assist public water systems in financing the costs of improvements (called the drinking water state revolving fund). Small water systems are given special consideration, since small systems may have a more difficult time paying for system improvements due to their smaller customer base. Accordingly, USEPA and states provide them with extra assistance (including training and funding) as well as allowing, on a caseby- case basis, alternate water treatments that are less expensive, but still protective of public health.

Compliance and Enforcement:

National drinking water standards are legally enforceable, which means that both USEPA and states can take enforcement actions against water systems not meeting safety standards. USEPA and states may issue administrative orders, take legal actions, or fine utilities. USEPA and states also work to increase water systemsí understanding of, and compliance with, standards.

Public Information:

SDWA recognizes that since everyone drinks water, everyone has the right to know whatís in it and where it comes from. All water suppliers must notify consumers quickly when there is a serious problem with water quality. Water systems serving the same people year-round must provide annual consumer confidence reports on the source and quality of their tap water. States and USEPA must prepare annual summary reports of water system compliance with drinking water safety standards and make these reports available to the public. The public must have a chance to be involved in developing source water assessment programs, state plans to use drinking water state revolving loan funds, state capacity development plans, and state operator certification programs.

1996 SDWA Amendment Highlights:

Consumer Confidence Reports
All community water systems must prepare and distribute annual reports about the water they provide, including information on detected contaminants, possible health effects, and the waterís source.

Cost-Benefit Analysis
USEPA must conduct a thorough cost-benefit analysis for every new standard to determine whether the benefits of a drinking water standard justify the costs.

Drinking Water State Revolving Fund
States can use this fund to help water systems make infrastructure or management improvements or to help systems assess and protect their source water.

Microbial Contaminants and Disinfection Byproducts
USEPA is required to strengthen protection for microbial contaminants, including Cryptosporidium, while strengthening control over the byproducts of chemical disinfection. Two new drinking water rules in November 1998 addressed these issues; others will follow.

Operator Certification
Water system operators must be certified to ensure that systems are operated safely. USEPA issued guidelines in February 1999 specifying minimum standards for the certification and recertification of the operators of community and nontransient, noncommunity water systems.

Public Information & Consultation
SDWA emphasizes that consumers have a right to know what is in their drinking water, where it comes from, how it is treated, and how to help protect it. USEPA distributes public information materials (through its Safe Drinking Water Hotline, Safewater web site, and Water Resource Center) and holds public meetings, working with states, tribes, water systems, and environmental and civic groups, to encourage public involvement.

Small Water Systems
Small water systems are given special consideration and resources under SDWA, to make sure they have the managerial, financial, and technical ability to comply with drinking water standards.

Source Water Assessment Programs
Every state must conduct an assessment of its sources of drinking water (rivers, lakes, reservoirs, springs, and ground water wells) to identify significant potential sources of contamination and to determine how susceptible the sources are to these threats.

For More Information:

To learn more about the Safe Drinking Water Act or drinking water in general, call the Safe Drinking Water Hotline at 1-800-426-4791, or visit USEPAís Office of Ground Water and Drinking Water web site: http:// www.epa.gov/safewater/.

APPENDIX B

REQUIREMENTS FOR STATES TO OBTAIN PRIMARY SUPERVISORY AUTHORITY UNDER THE SAFE DRINKING WATER ACT

U.S. Environmental Protection Agency

Primacy

Ths Safe Drinking Water Act (SDWA) includes a requirement that EPA establish and enforce standards (*MCLs*, *treatment techniques*, *monitoring*) that public drinking water systems must adhere to. States and Indian Tribes are given primary enforcement responsibility (e.g. primacy) for public water systems in their State if they meet certain requirements. EPA recently released revisions to the primacy requirements.

Applicable Law, Regulations and Guidance

- Safe Drinking Water Act, 1974, as amended in 1986 and 1996
- Primacy Regulations 40CFR142, Subpart B, 1976, as amended in 1986
- State Programs Priority Guidance (1992)
- Revisions to Primacy Requirements (1998), 63 FR 23362 to be codified at 40CFR142

Requirements for State Primacy (from 40CFR142, Subp. B)

- The State must have regulations for contaminants regulated by the *national primary drinking water regulations* that are no less stringent than the regulations promulgated by EPA. States have up to 2 years to develop regulations after new regulations are released by EPA.
- The State must have adopted and be implementing procedures for the enforcement of State regulations.
- The State must maintain an inventory of public water systems in the State.
- The State must have a program to conduct *sanitary surveys* of the systems in the State.
- The State must have a program to certify laboratories that will analyze water samples required by the regulations.
- The State must have a laboratory that will serve as the State's "principal" lab, that is certified by EPA.
- The State must have a program to ensure that new, or modified, systems will be capable of complying with State primary drinking water regulations.
- The State must have adequate enforcement authority to compel water systems to comply with NPDWRs, including:
    - the authority to sue in court;
    - right to enter and inspect water system facilities;
    - authority to require systems to keep records and release them to the State;
    - authority to require systems to notify the public of any system violation of the State requirements; and
    - authority to assess civil or criminal penalties for violations of the State Primary Drinking Water Regulations and Public Notification requirements.
- The State must have adequate recordkeeping and reporting requirements.
- The State must have adequate *variance* and *exemption* requirements as stringent as EPA's, if the State chooses to allow variances or exemptions.
- The State must have an adequate plan to provide for safe drinking water in emergencies like a natural disaster.
- The State must have adopted authority to assess administrative penalties for violations of their approved primacy program.

Revisions to Primacy Requirements

Revisions to the Primacy Rules were published in the Federal Register in April 1998.

Revised October 8, *1998* http://www.epa.gov/OGWDW/pws/primacy.htm

APPENDIX C

NOTICE OF DECISION AND OPPORTUNITY FOR HEARING PUBLIC WATER SYSTEM SUPERVISION PROGRAM PRIMARY ENFORCEMENT RESPONSIBILITY APPROVAL FOR THE NAVAJO NATION

U.S. Environmental Protection Agency

Federal Register: November 6, 2000 (Volume 65, Number 215). Page 66541-66543. From the Federal Register Online

ENVIRONMENTAL PROTECTION AGENCY [FRL-6896-5]
Public Water System Supervision Program; Primary Enforcement Responsibility Approval for the Navajo Nation
AGENCY: Environmental Protection Agency (EPA).
ACTION: Notice of decision and opportunity for hearing.

This public notice is issued pursuant to section 1413 of the Safe Drinking Water Act (``Act'') and section 142.10 of the National Primary Drinking Water Regulation (40 CFR part 142).

An application has been received from the Navajo Nation, through the Director, Navajo Nation Environmental Protection Agency, requesting that the Navajo Nation Environmental Protection [[Page 66542]] Agency be granted primary enforcement responsibility for the public water systems within the Navajo Nation pursuant to section 1413 of the Act. Section 1451 of the Act and 40 CFR 142.72 authorize EPA to delegate to Indian tribes primary enforcement responsibility for public water systems, pursuant to section 1413 of the Act, if the Indian tribe meets the following criteria:

(A) The Indian Tribe is recognized by the Secretary of the Interior and has a governing body carrying out substantial governmental duties and powers;
(B) The functions to be exercised by the Indian Tribe are within the area of the Tribal Government's jurisdiction; and
(C) The Indian Tribe is reasonably expected to be capable, in the Administrator's judgment, of carrying out the functions to be exercised in a manner consistent with the terms and purposes of (the Act) and of all applicable regulations.

Section 1451(b)(1) of the Act, 42 U.S.C. 300j-11(b)(1), see also 40 CFR 142.72. Pursuant to section 1451 of the Act and 40 CFR 142.72, EPA has determined that the Navajo Nation, through the Navajo Nation Environmental Protection Agency, is eligible to apply for primary enforcement responsibility for public water systems within the Navajo Nation. EPA has also determined that the Navajo Nation, through the Navajo Nation Environmental Protection Agency has met all conditions of the Act and regulations promulgated pursuant to the Act for the assumption of primary enforcement responsibility for public water systems within the Navajo Nation.

Specifically the Navajo Nation:

(1) Has adopted drinking water regulations which are no less stringent than the National Primary Drinking Water Regulations;
(2) Has adopted and will implement adequate procedures for the enforcement of such regulations, including adequate monitoring, sanitary surveys, inspections, plan review, inventory of water systems, and adequate certified laboratory availability;
(3) Will keep such records and make such reports as required;
(4) If it permits variances or exemptions from the requirements of its regulations, will issue such variances and exemptions in accordance with the provisions of the National Primary Drinking Water Regulations; and
(5) Has adopted and can implement an adequate plan for the provision of safe drinking water under emergency conditions.

All interested parties are invited to submit written comments or to request a public hearing on EPA's determination. Written comments and/ or requests for a public hearing must be submitted by December 6, 2000 to the Regional Administrator at the address shown below. Any request for a public hearing shall include the following information:

(1) The name, address, and telephone number of the individual, organization, or other entity requesting a

hearing;
(2) a brief statement of the requesting person's interest in the Regional Administrator's determination and of information that the requesting person intends to submit at such hearing; and
(3) the signature of the individual making the request, or, if the request is made on behalf of an organization or other entity, the signature of the responsible official of the organization or other entity.

Frivolous or insubstantial requests for a hearing may be denied by the Regional Administrator. If a substantial request for public hearing is made by December 6, 2000, a public hearing will be held. The Regional Administrator will give further notice in the Federal Register and a newspaper or newspapers of general circulation within the Navajo Nation of any hearing to be held pursuant to a request submitted by an interested party, or on her own motion. Notice of the hearing shall be given not less than fifteen (15) days prior to the time scheduled for the hearing. Notice will be sent to the person requesting the hearing and to the Navajo Nation. Notice of the hearing will include a statement of the purpose of the hearing, information regarding the time and location for the hearing, and the address and telephone number of an office at which interested persons may obtain further information concerning the hearing. After receiving the record of the hearing, the Regional Administrator will issue an order affirming or rescinding the determination. If the determination is affirmed, it shall become effective as of the date of the order. If no timely and appropriate request for a hearing is received and the Regional Administrator does not elect to hold a hearing on her own motion, this determination shall become effective on December 6, 2000.

Based on the language of section 1413 of the Act, EPA has long implemented the determination to approve a state, and now a tribal, application for primary enforcement responsibility for public water systems as an ``adjudication'' rather than a ``rulemaking'' under the Administrative Procedure Act (APA), 5 U.S.C. 551 et seq. The same is true of applications for state and tribal program revisions. For this reason, the statutes and Executive Orders that apply to rulemaking action are not applicable here. Among these are provisions of the Regulatory Flexibility Act (RFA), 5 U.S.C. 601 et seq. Under the RFA, whenever a federal agency proposes or promulgates a rule under section 553 of the APA, after being required by that section or any other law to publish a general notice of proposed rulemaking, the agency must prepare a regulatory flexibility analysis for the rule, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. If the agency does not certify the rule, the regulatory flexibility analysis must describe and assess the impact of a rule on small entities affected by the rule. Even if a state or tribal primary enforcement responsibility application or revision were a ``rule'' subject to the RFA, EPA would certify that the approval or revision of the state's or the tribe's program would not have a significant economic impact on a substantial number of small entities. EPA's action to approve a primary enforcement responsibility application or revision merely recognizes a program that has already been enacted as a matter of state or tribal law. It would, therefore, impose no additional obligations upon those subject to the state's or tribe's program. Accordingly, the Regional Administrator would certify that the approval of primary enforcement responsibility of the Navajo Nation, if a ``rule,'' would not have a significant economic impact on a substantial number of small entities.

ADDRESSES: All documents relating to this determination are available for inspection between the hours of 8:30 a.m. and 4 p.m., Monday through Friday, at the following offices: Navajo Nation Environmental Protection Agency, Fairground Building No. W-008-042, Window Rock, Arizona 86515; and EPA, Region IX, Water Division, Drinking Water Office (WTR-6), 75 Hawthorne Street, San Francisco, California 94105.

FOR FURTHER INFORMATION CONTACT: To submit comments or request further information, contact Danny Collier, Region IX, at the San Francisco address given above; telephone (415) 744-1856. (Sections 1413 and 1451 of the Safe Drinking Water Act, as amended, 42 U.S.C. 300g-2 and 311j-11; and 40 CFR 142.10 and 142.72) [[Page 66543]] Dated: October 23, 2000. Felicia Marcus, Regional Administrator, Region 9. [FR Doc. 00-28418 Filed 11-3-00; 8:45 am] BILLING CODE 6560-50-P

APPENDIX D

WATER QUALITY CONFIDENCE REPORT

Navajo Water Company Inc.

Water Quality

Consumer Confidence Report

Water System Name - Navajo Water Co., Inc.
(CCR) 1428 (Year) 1999

Navajo Water Co., Inc.

Chaparral Pines, Laguna Estates and Summer Pines

1999 Annual Water-Quality Report

Public Water Systems 09-000, 09-030, 09-039

Dear Customer: We are pleased to present a summary of the quality of the water provided to you during the past year. The Safe Drinking Water Act (SDWA) requires that utilities issue an annual "Consumer Confidence" report to customers in addition to other notices that may be required by law. This report details where our water comes from, what it contains, and the risks our water testing and treatment are designed to prevent. Navajo Water Co., Inc. is committed to providing you with the safest and most reliable water supply. Informed consumers are our best allies in maintaining safe drinking water.

Navajo Water Co., Inc.'s drinking water meets or surpasses all federal and state drinking-water standards.

Overview

Navajo Water Co., Inc offers a 7 days per week, 24-hour customer service line; open on weekends and holidays. this customer service line provides Navajo customers the choice of automated account access or the option to speak to a customer service representative any time.

Water Source

Navajo Water Co., Inc.'s source of supply is exclusively ground water. Three (3) well sites are two (2) storage tanks servie the Laguna Estates, Summer Pines and Chaparral Pines Water systems, which are not interconnected.

An Explanation of the Water-Quality Data Table

The chart in this report provides representative analytical results of water samples, collected in 1998 from our system. Please note the following definitions:

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

The data presented in this report is from the most recent testing done in accordance with regulations.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirement that a water system must follow.

Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Key To Table

AL = Action Level
MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
MFL = million fibers per liter
mrem/year = millirems per year (a measure of radiation absorbed by the body)
NTU = Nephelometric Turbidity Units
pci/l = picocuries per liter (a measure of radioactivity)
ppm = parts per million, or milligrams per liter (mg/l)
ppb = parts per billion, or micrograms per liter (µg/l)
ppt = parts per trillion, or nanograms per liter
ppq = parts per quadrillion, or picograms per liter
TT = Treatment Technique

Unregulated Contaminants
Required Additional Health Information

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water.

The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

National Primary Drinking Water Regulation Compliance

For more information please contact our 24-hour customer service center at (800) 270-6084

Revised September 1999

APPENDIX E

SANITARY SURVEY FORM

U.S. Environmental Protection Agency,
Region 8, Denver, Colorado

U.S. EPA Region VIII (8P-W-MS)
999 18th Street, Suite 300
Denver, CO 80202-2466
1-800-227-8917/(303) 312-6731

Sanitary Survey

The following abbreviations will be used throughout this document: NI = No Information NA = Not Applicable NR = Not Requested

Water system:	
PWS ID#:	

Surveyor:	
Survey date:	

EXECUTIVE SUMMARY

Summary

Background

Include a description of how the system has been developed and expanded. Include project information.

Deficiencies/Recommendations

ADMINISTRATIVE DATA

Water System No. (PWS ID#)		Name of PWS			
Classification	☐ SW ☐ GW	☐ Community ☐ Non-community	☐ Non-transient non-community	Owner	☐ Tribal ☐ Private
Mailing address				County	
Physical location and directions				Phone #	
Prior survey date			GWUDISW assessment date		
By whom			Score		
Comments					

POINTS OF CONTACT

Owner or person legally responsible						Title	
Name						Business ph#	
Address Line 1						Emergency ph#	
Address Line 2						Fax	
City		State		Zip		E-mail	

Utility Board Chair or Operator						Title	
Name						Business ph#	
Address Line 1						Emergency ph#	
Address Line 2						Fax	
City		State		Zip		E-mail	

Operator(s)							
Operator name				Operator name			
Certification type		Certif. date		Certification type		Certif. date	
Operator name				Operator name			
Certification type		Certif. date		Certification type		Certif. date	
Operator name				Operator name			
Certification type		Certif. date		Certification type		Certif. date	

Person contacted for survey		Phone	
IHS Team Member		Phone	
Comments			

SERVICE DATA

Service Area(s)	☐ School	☐ Daycare centre	☐ Restaurant	☐ Tribal building	☐ Service station	☐ Other

(check all that apply)	☐ Mobile home park	☐ Campground	☐ Medical facility	☐ Recreation area	☐ Hotel/motel						
	☐ Residential areas	☐ Other residential area	☐ Casino resort	☐ Other non-transient area	☐ Other transient area						
Period open	☐ Year-round	Or	From	/	Period qualified as PWS	Or From	/	Water usage (gal/day)			
			To	/		To	/	Water lost (gal/day)			
Population	High		Year round		Water usage per person/day			Water sold to	Name		
	Low		Avg. daily		*(Community systems only)*			(consec. sys)	PWS ID#		
Number of Service Connections			Number of service connections by type		Residential	Meter type (check one) ☐ Metered	☐ Unmetered	☐ Metered & unmetered			
					Commercial	☐ Metered	☐ Unmetered	☐ Metered & unmetered			

Any service interruptions?	☐ No Yes... ☐ During the part year ☐ During the past 5 years
When	
Where	
Why	
Duration	
Comments	

SOURCE DATA **Complete only those sections that apply to the system and check "NA" box for others** *Include map or drawing of distribution sys.*

Has there been a source water protection survey?	
If yes, provide agency and date	

Consecutive Systems ☐ NA

Water purchased from				Source type	Ground		Surface
Is there another PWS consecutive to this one?	☐ Yes ☐ No	If yes, name				PWS ID#	
If a water hauler is involved:	a) Do they haul only water?		b) If their source is a surface source, is a disinfection residual remaining at time of delivery?		☐ Yes ☐ no		
c) How do they disinfect their tank?				d) How often do they disinfect their tank?			
e) What other customers do they have?				f) Is there backflow prevention on tank's hose?	☐ Yes ☐ No		
				g) Are dust caps on the fill points?	☐ Yes ☐ No		
Does this PWS have booster disinfection?							

Wells ☐ NA

Nature of recharge area		How is access to recharge area controlled?	
Are abandoned wells possible sources of pollution?	☐ Yes ☐ No		
Formation and/or rock type (if available)		Geologic name of aquifer system	
Other nearby sources of potential pollution			
Comments			

Current and Abandoned Wells ☐ NA **(Include wells that are candidates for abandonment)** ***Copy this page as needed for additional wells.***

Well Name or #					
In Service/Not in Service?					
Location Lat/Long					
Section/Town/Range					
Housed?					
Pitless adapter?					
Pit Vault Present?					
Working drain or sump pump?					
Open or closed?					
Covered?					
Date drilled					
Well depth (ft.)					
Hole size (in.)					
Casing Size					
Depth					
12" above ground?					
Perforations Size					
Type					
Total #					
Depth					
Pump Set at?					
Type					
Rate of flow (gpm)					
Well Head Properly sealed?					
Subject to flooding?					
Vent Facing downward?					
Screened?					
18" above ground?					
Raw water sampling tap Present?					
Where is it?					

Include well log(s) if available.

Comments

Springs and Infiltration Galleries ☐ NA

Name/Number		Location		Section		Yield (gpm)	
Describe supply intake		Latitude		Township		Subject to flooding?	☐ Yes ☐ No
		Longitude		Range			
Subject to surface infiltration?	☐ Yes ☐ No	How is access controlled?					
Sources of potential pollution		Nature of recharge area					
		Are there seasonal or other conditions which change water quality?			☐ Yes ☐ No		
How is collection chamber constructed?		If yes, describe					

Comments

Streams ☐ NA

Name/Number		Location		Section		Rate of flow (in gal.)	
Describe supply intake		Latitude		Township			
		Longitude		Range			
Nature of watershed		How is watershed protected?					
Frequency of intake inspection		Sources of potential pollution		Is there surface treatment of contained water?	☐ Yes ☐ No		
Date of last inspection		(nature/distance from intake)					
Are there multiple intakes at different levels?	☐ Yes ☐ No	Are the intakes screened?		Is the area around intake restricted?	☐ Yes ☐ No		
If yes, describe		☐ Yes ☐ No		Radius (ft.)			
Are there seasonal or other conditions which change water quality?	☐ Yes ☐ No						
If yes, describe							

Comments

Reservoirs and Lakes ☐ NA

Name/Number		Location		Section		Area and Volume	
Nature of watershed		Latitude		Township			
How is watershed protected?		Longitude		Range			
Frequency of intake inspection		Sources of potential pollution		Is there surface treatment of contained water?	☐ Yes ☐ No		
Date of last inspection		(nature/distance from intake)					
Are there multiple intakes at different levels?	☐ Yes ☐ No	Are there seasonal or other conditions which change water quality?			☐ Yes ☐ No		
If yes, describe		If yes, describe.					
Is area around intake restricted?	☐ Yes ☐ No	Are the intakes screened?					
Radius (ft.)		☐ Yes ☐ No					

Comments	

TRANSMISSION DATA, RAW WATER

Name or designation		Point of origin		Point of termination	
Date in service	Length	Diameter	Material	Pressure range	
Flow rate (gpm)	Controls and/or PRVs (describe)				
Condition	ARVs (number)				
Pump station subject to flooding? ☐ Yes ☐ No ☐ NA	If yes, describe causes, and identify whether natural or other:				
Any breaks in the last 2 years? ☐ Yes ☐ No					
If yes, describe					

Pumps

Pump #	Type/Material	Standby	Flow Rate	Condition
Comments				

WATER TREATMENT DATA

Plant/Office location and directions	Location		Section	
	Latitude		Township	
	Longitude		Range	

Plant schematic readily available and up-to-date? ☐ Yes ☐ No	Date plant put on line		Daily output (gal./day)	Design	Average	Maximum
	Latest modifications					

Pre-treatment Chemicals used	Dosage	Purpose	Where injected	Do any chemicals and/or additives contain acrylamide or epichlorohydrin? ☐ Yes ☐ No

If acrylamide or epichlorohydrin is used, does the combination of dosage & monomer level meet the following levels:

Acrylamide = 0.05% dosed at 1 ppm (or equivalent) ☐ Yes ☐ No

Epichlorohydrin = 0.01% dosed at 20 ppm (or equivalent) ☐ Yes ☐ No

Do you have any documentation/certification from your manufacturer to support this? (Attach copy of document.) ☐ Yes ☐ No

Filtration	Type	Media	Length of filter runs	Backwash determining factor(s):			
				Turbidity		Auto. setting	
				Head loss		Other	

Gals./backwash	Percentage loss of finished water for backwash	Any violation of finished water turbidity in the last year? ☐ Yes ☐ No

Has turbidity been measured after a flush?		Are turbidity meters calibrated and working?	☐ Yes ☐ No
If yes, provide most recent measurement		C/T value assigned by EPA *	

*If C/T value hasn't been assigned, complete C/T calculation spread sheet in Appendix.

Comments

Disinfection

Method	Dosage	Point of application	Is there standby disinfection equipment?	☐ Yes ☐ No
			...in good working order?	☐ Yes ☐ No
			If not, are critical spare parts on hand or available?	☐ Yes ☐ No

	Yes	No	Notes	What is the free chlorine residual at the entry point to the distribution system?
Is disinfectant residual being monitored?				
Have TTHMs been evaluated?				
Have there been any interruptions in disinfection in the past year?				
Is the facility subject to flooding?				

If PWS is subject to the SWTR, what is the contact time (before the 1st user in the system)?

Does this meet required logs of inactivation? ☐ Yes ☐ No (Attach PWS's written calculations/documentation)

If PWS is subject to the SWTR, is residual detectable at taps at the end of the distribution system? ☐ Yes ☐ No

Comments

Fluoridation

Is system adjusting the natural fluoride level? ☐ Yes ☐ No If yes, answer the following questions.

What chemicals are used?	☐ Sodium fluoride	☐ Sodium fluorosilicate	☐ Fluorosilic acid	Are fluoride analysis results recorded daily? ☐ Yes ☐ No
Analysis results are reported to:	☐ CDC	☐ State	☐ HIS ☐ Other:	Does system participate in monthly split sampling? ☐ Yes ☐ No

Has a trained operator been designated responsible for each fluoridation system?	Fluoride feed pump	☐ Plant power	☐ Flow meter	☐ Control Valve
(trained = 6 hours of fluoridation training) ☐ Yes ☐ No	interlocked to:	☐ High service pump	☐ Raw water pump	☐ Flow Switch

Fluoride feed pump has secondary flow control via a:	Fluoride injection system has anti-siphon protection at:	Pump discharge	Injection Point
☐ Flow switch ☐ Pressure device		☐ Yes ☐ No	☐ Yes ☐ No

If fluorosilic acid is being used: Acid is being injected at full strength (23-25%)	☐ Yes ☐ No	Scales are used to track daily total weight of acid injected
Maximum 7 day supply of acid connected to suction side of chemical feed pump	☐ Yes ☐ No	☐ Yes ☐ No

Comments

TREATMENT OBJECTIVES & PROCESSES

Describe the drinking water treatment processes -- use a separate description for each facility or situation (e.g., if ground water is treated by different processes than is surface water, describe both the SW treatment plant and the GW treatment plant). Use the treatment codes from the attached list, preferably listed in the order that the water flows through them.

Example:

Facility	Treatment Objective	Treatment Process	Code
Surface Water Treatment Plant	Particulate Removal	Coagulation	P240
" "	Corrosion Control	Inhibitor, Polyphosphate	C447

Facility	Treatment Objective	Treatment Process	Code

The first letter of each code is the objective of the treatment:

B = Disinfection By-products Control
C = Corrosion Control
D = Disinfection
E = Dechlorination
F = Iron Removal
I = Inorganics Removal
M = Manganese Removal
O = Organics Removal
P = Particulate Removal
R = Radionuclides Removal
S = Softening (hardness removal)
T = Taste/Odor Control
Z = Other

CODE - PROCESS
B121 - Activated Carbon, Granular
B125 - Activated Carbon, Powdered
B141 - Aeration, Cascade
B143 - Aeration, Diffused
B145 - Aeration, Packed Tower
B147 - Aeration, Slat Tray
B149 - Aeration, Spray
B160 - Algae Control
B200 - Chloramines
B220 - Chlorine Dioxide
B240 - Coagulation
B344 - Filtration, Pressure Sand
B345 - Filtration, Rapid Sand
B360 - Flocculation
B500 - Lime - Soda Ash Addition
B541 - Ozonation, Post
B543 - Ozonation, Pre
B600 - Rapid Mix
B640 - Reverse Osmosis
B660 - Sedimentation
B720 - Ultraviolet Radiation
B741 - pH Adjustment, Post
B742 - pH Adjustment, Pre
C441 - Inhibitor, Bimetallic Phosphate
C443 - Inhibitor, Hexametaphosphate
D200 - Chloramines
D220 - Chlorine Dioxide
D346 - Filtration, Slow Sand
D401 - Gaseous Chlorination, Post
D403 - Gaseous Chlorination, Pre
D421 - Hypochlorination, Post
D423 - Hypochlorination, Pre
D541 - Ozonation, Post
D543 - Ozonation, Pre
D720 - Ultraviolet Radiation
E121 - Activated Carbon, Granular
E141 - Aeration, Cascade
E143 - Aeration, Diffused
E145 - Aeration, Packed Tower
E147 - Aeration, Slat Tray
E149 - Aeration, Spray
E620 - Reducing Agents
E623 - Reducing Agents, Sodium Bisulfate
E625 - Reducing Agent, Sodium Sulfite
E627 - Reducing Agent, Sulfur Dioxide
F141 - Aeration, Cascade
F143 - Aeration, Diffused
F145 - Aeration, Packed Tower
F147 - Aeration, Slat Tray
F149 - Aeration, Spray
F300 - Distillation
F343 - Filtration, Greensand
F344 - Filtration, Pressure Sand
F345 - Filtration, Rapid Sand
F403 - Gaseous Chlorination, Pre
F423 - Hypochlorination, Pre
F543 - Ozonation, Pre
F560 - Permanganate
F580 - Peroxide
F640 - Reverse Osmosis
F660 - Sedimentation
F680 - Sequestration
F700 - Sludge Treatment
F740 - pH Adjustment
F742 - pH Adjustment, Pre
I100 - Activated Alumina
I121 - Activated Carbon, Granular
I180 - Bone Char
I240 - Coagulation
I300 - Distillation
I600 - Rapid Mix
I640 - Reverse Osmosis
I660 - Sedimentation
I680 - Sequestration
I700 - Sludge Treatment
I742 - pH Adjustment, Pre
M300 - Distillation
M343 - Filtration, Greensand
M403 - Gaseous Chlorination, Pre
M423 - Hypochlorination, Pre
M543 - Ozonation, Pre
M640 - Reverse Osmosis
M680 - Sequestration
N000 - No Treatment/Not Applicable
N997 - Treatment Applied at Plant
N998 - Treatment Applied at Point of Entry
O121 - Activated Carbon, Granular
O125 - Activated Carbon, Powdered
O141 - Aeration, Cascade
O143 - Aeration, Diffused
O145 - Aeration, Packed Tower
O147 - Aeration, Slat Tray
O149 - Aeration, Spray
O160 - Algae Control
O240 - Coagulation
O300 - Distillation
O345 - Filtration, Rapid Sand
O360 - Flocculation
O403 - Gaseous Chlorination, Pre
O423 - Hypochlorination, Pre
O543 - Ozonation, Pre
O560 - Permanganate
O580 - Peroxide
O620 - Reducing Agents
O640 - Reverse Osmosis
O660 - Sedimentation
O742 - pH Adjustment, Pre
P240 - Coagulation
P300 - Distillation
P341 - Filtration, Cartridge
P342 - Filtration, Diatomaceous Earth
P344 - Filtration, Pressure Sand
P345 - Filtration, Rapid Sand
P346 - Filtration, Slow Sand
P347 - Filtration, Ultrafiltration
R100 - Activated Alumina
R121 - Activated Carbon, Granular
R141 - Aeration, Cascade
R143 - Aeration, Diffused
R145 - Aeration, Packed Tower
R147 - Aeration, Slat Tray
R149 - Aeration, Spray
R180 - Bone Char
R240 - Coagulation
R300 - Distillation
R320 - Electrodialysis
R344 - Filtration, Pressure Sand
R345 - Filtration, Rapid Sand
R360 - Flocculation
R460 - Ion Exchange
R500 - Lime-Soda Ash Addition
R600 - Rapid Mix
R640 - Reverse Osmosis
R660 - Sedimentation
R680 - Sequestration
R700 - Sludge Treatment
R742 - pH Adjustment, Pre
S240 - Coagulation
S300 - Distillation
S344 - Filtration, Pressure Sand
S345 - Filtration, Rapid Sand
S360 - Flocculation
S460 - Ion Exchange
S500 - Lime-Soda Ash Addition
S600 - Rapid Mix
S640 - Reverse Osmosis
S660 - Sedimentation
S680 - Sequestration
S700 - Sludge Treatment
S742 - pH Adjustment, Pre
T121 - Activated Carbon, Granular
T125 - Activated Carbon, Powdered
T141 - Aeration, Cascade
T143 - Aeration, Diffused
T145 - Aeration, Packed Tower
T147 - Aeration, Slat Tray
T149 - Aeration, Spray
T160 - Algae Control
T403 - Gaseous Chlorination, Pre
T423 - Hypochlorination, Pre

C445 - Inhibitor, Orthophosphate
C447 - Inhibitor, Polyphosphate
C449 - Inhibitor, Silicate
C680 - Sequestration
C740 - pH Adjustment
C741 - pH Adjustment, Post
I320 - Electrodialysis
I344 - Filtration, Pressure Sand
I345 - Filtration, Rapid Sand
I360 - Flocculation
I460 - Ion Exchange
I500 - Lime - Soda Ash Addition
P360 - Flocculation
P520 - Microscreening
P600 - Rapid Mix
P660 - Sedimentation
P700 Sludge Treatment
P742 - pH Adjustment, Pre
T543 - Ozonation, Pre
T560 - Permanganate
T580 - Peroxide
P348 - Filtered
P349 - Unfiltered -- Successfully Avoiding
N350 - Unfiltered, but Required to Filter

TRANSMISSION DATA, TREATED WATER

Service area or designation				Date in service	
Point of origin		Point of termination		Length	
Diameter		Material		Pressure range		Flow rate (gpm)	
Controls and/or PRVs (describe)			ARVs		Condition	
Any breaks in the last 2 years?	☐ Yes ☐ No			Is pump station subject to flooding?	☐ Yes ☐ No
If yes, describe					

Pumps

Pump #	Type/Material	Standby	Flow Rate	Condition
Comments				

STORAGE DATA, TREATED WATER -- TANKS AND CISTERNS

Copy this page as needed for additional tanks.

Tank Name or #	
Location	
Style and Material	
Capacity (gal.)	
Total days of supply	
Date(s) in service	

Subject to flooding?	
Structurally sound?	
Well-maintained?	
Overflow lines:	
Turned downward?	
Covered or screened?	
3 diam. above ground?	
Air Vents	
Turned down?	
Covered or screened?	
Drain & Cleanout lines	
Turned down?	
Covered or screened?	
3 diam. above ground?	
Can tank be isolated?	
Storage	
Covered/enclosed?	
Safety Measures	
Tank last cleaned?	
Disinfected after repair?	
Community served	
Comments	

DISTRIBUTION DATA

Lines	Origin	Material	Inside Diameter		Length
Main Lines					
Dist Lines					
Svc Lines					

Does this PWS have any asbestos pipe in its distribution?	☐ Yes ☐ No	Is there sufficient earth cover to protect the mains from frost damage/heavy loads?	☐ Yes ☐ No
Are materials of mains designed and selected to resist corrosion, electrolysis, and deterioration?	☐ Yes ☐ No	Has the PWS had problems due to this? ☐ Yes ☐ No If this PWS serves any stock-watering tanks, is there backflow prevention?	☐ Yes ☐ No ☐ NA
Is there a plan for future installation & testing of backflow prevention devices in vulnerable portions of the distrib system?	☐ Yes ☐ No	Dead Ends: How Many? Is there a program to eliminate these dead ends where feasible?	☐ Yes ☐ No ☐ NA
Comments			

Pressure zones	Pressure	Control		
Area	Range	Auto	Manual	Remote

Is there adequate pressure (at least 20 psi) in the distribution system under all conditions of flow? ☐ Yes ☐ No

Comments

Cross Connection Control

Location	Type	Size	Last Tested

Date of cross connection control training for operator

Is there interconnection with any other system? ☐ Yes ☐ No Describe

Comments

GENERAL MAINTENANCE

Is there an adequate maintenance program? ☐ Yes ☐ No Describe

Are gate valves exercised? ☐ Yes ☐ No

Are as-builts updated? ☐ Yes ☐ No

How often is system flushed?

Is there a formal plan for routine inspection and maintenance of pumps & motors? ☐ Yes ☐ No

Is there a written program or schedule for routine preventive maintenance for the entire facility (including storage, maintenance facilities) and exercising critical valves/fire hydrants?

Conducted by PWS personnel or a qualified pump contractor? No ☐ Yes ☐ No If yes, describe

Is there a log of all breaks and extent of repairs? ☐ Yes ☐ No

Is there a system for assuring inventory of essential spare parts and back-up equipment?

☐ Yes ☐ No Describe

Is PWS in contact with contractors and vendors to assure prompt priority service? ☐ Yes ☐ No

Comments

SAFETY AND SECURITY DATA

Is there a safety program defining measures to be taken if someone is injured? ☐ Yes ☐ No *If yes, attach copy.*

Are there written operating procedures for both routine and emergency system operations? ☐ Yes ☐ No *If yes, attach copy.*

Security	Fenced	Locked	How Often Patrolled		Fenced	Locked	How Often Patrolled
Wells **Well #**				Pump Houses			

Well #				Storage Shed for Chemicals			
Springs & Infiltration Galleries				Treatment Plant			
Stream intakes				Storage Tanks			
Reservoirs/Lakes				Manholes & Vaults			

Is access to all facilities restricted to authorized personnel?	☐ Yes ☐ No
Comments	

Confined Spaces

Is there a confined spaces policy?	☐ Yes ☐ No	Has there been training?	☐ Yes ☐ No	Is adequate equipment available?	☐ Yes ☐ No
Is operator fully aware of OSHA confined spaces regulations?	☐ Yes ☐ No				
Comments					

Chlorine Safety ☐ NA

Is there ongoing chlorine safety training for all water system personnel?	☐ Yes ☐ No
Describe	

	Yes	No	Comments
Are chlorine room doors ... posted with warnings?			
do they open outward?			
do they open to the exterior of the building?			
all equipped with crash bars and viewports?			
Is there a leak detector in the chlorine room with an audible alarm?			
Are chlorine feed and storage areas isolated from other facilities?			
Are chlorine areas adequately ventilated?			
Are all chlorine cylinders adequately restrained?			
Are self-contained breathing units... readily available for use in chlorine emergencies?			
where are they stored?			
Are water system personnel adequately trained in the use and maintenance of the self-contained breathing apparatus?			
Are chlorine leak kits available?			
Are all personnel trained in proper use of chlorine leak kits?			
Comments			

Chemical Safety

	Yes	No	Comments

Do operators understand the risks and safety measures involved in handling chemicals?			
Are all treatment chemicals and maintenance supplies properly stored?			
Are oxidizers, corrosives, and flammables stored in separate areas and in closed, marked containers?			
Are flammables appropriately stored, away from combustion sources?			
Are areas where solvents, aerosols and chemicals are used adequately ventilated?			
Are adequate masks, protective clothing & safety equipment provided & required?			
Are all personnel trained in proper handling of all utilized chemicals and materials?			
Are they familiar with the MSDS sheets			
Are bulk storage areas physically isolated from treatment areas to prevent spills from entering treated or untreated water?			
Is the fire department familiar with the facilities and their contents?			

Comments

EMERGENCY RESPONSE

Is there an emergency power source...	for the source?	☐ Yes	☐ No	☐ NA	for transmission system (raw water)?	☐ Yes	☐ No	☐ NA
for the disinfection equipment?	☐ Yes	☐ No	☐ NA	for transmission sys (treated water)?	☐ Yes	☐ No	☐ NA	for distribution system? ☐ Yes ☐ No ☐ NA
If there is an emergency power, is source a generator or local electricity supplier?					Is emergency power source sufficient to supply			
Is emergency power exercised routinely under load conditions, for at least 30 mins at a time?	☐ Yes	☐ No			100% of the avg. daily demand of the system?	☐ Yes	☐ No	☐ NA
Has the local electric utility been made aware of any generator(s)?	☐ Yes	☐ No	☐ NA					
Describe emergency response plan(s), including any procedures for handling ruptures, chemical overfeeds or acts of terrorism.								
Is there a plan in place to provide temporary water in the event of an emergency?	☐ Yes	☐ No			If yes, when was plan last updated?			
Describe								
Comments								

MONITORING AND RECORDS

Number of bacteria samples per month required		Sample siting plan submitted to EPA?	☐ Yes	☐ No	Are copies of monitoring results, sys. records & plans...	
Is sampling procedure adequate?	☐ Yes	☐ No			retained on the premises?	☐ Yes ☐ No
Does operator know what to do in the event of MCL exceedance or TC+ report?	☐ Yes	☐ No			current?	☐ Yes ☐ No
Are extra bottles available in the event of repeat sampling for coliform?	☐ Yes	☐ No			available to the surveyor?	☐ Yes ☐ No
Are there records and data management systems for system operating and maintenance data, for regulatory compliance and for system management and admin?	☐ Yes	☐ No				
Describe						
Any reports of waterborne disease?	☐ Yes ☐ No					
If yes, give dates and describe each report of bacteriology						
Violations (w/in last 2 yrs.)						

Date	Type(s)	Agency action	System response

Comments

Samples Taken During Survey

Type	Results	Are appropriate test kits and reagents available for daily monitoring?	☐ Yes ☐ No
		What certified lab(s) does sample testing?	

Next tests due…	Asbestos	Inorganic chemicals		VOCs	SOCs	Total trihalomethanes*		Lead and copper*		Radionuclides*	

Comments

*Sample in the distribution system

NOTE: All chemicals except those marked with an "" should be sampled at the entry point to the distribution system after treatment.*

Attach to this report any available system maps or diagrams.

APPENDIX

C/T Calculation spread sheet

APPENDIX F

DRAFT
CORE ELEMENTS OF PUBLIC WATER SYSTEM SUPERVISION PROGRAM: EXPECTED CAPACITY

U.S. Environmental Protection Agency,
Region 8, Denver, Colorado

A typical delegated PWSS Program must have staff with education, expertise and experience such that all the described program elements are covered.

To help ensure continuity of a delegated Tribal PWSS Program in the event of staff turnover, there must be a combination of specific background experiences, skills and education described in this document among the staff. A minimum of two program staff are needed to fullfill this requirement. When hiring program staff, the expected level of experience and expertise noted below should be addressed to the maximum extent possible. Using these examples will also help determine those training needs required to bring staff up to full capability for implementing and managing a drinking water primacy program.

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1. **Primacy Revisions** Revise approved Tribal primacy program as changes are made at the Federal level, to remain at least as stringent as the National Primary Drinking Water Regulations, and meet special requirements of 40 CFR ' 142.16. *Source:* 40 CFR ' 142.10(a), ' 142.12 and ' 142.16 *Measured by:* Timely and appropriate program revisions	**Basic:** Tribal Drinking Water Program is revised as applicable for new regulations, and final approvable package is submitted to EPA prior to statutory deadline. **NOTE: This applies to a PWSS Program that has previously been delegated to a tribe.**	Staff must be thoroughly familiar with the federal regulation being promulgated. Requires working knowledge of both tribal ordinances/ regulations and federal regs, to ensure stringency is being followed as tribal revisions proceed. Familiarity (certification preferred) with DW operations is necessary to ensure program implementation can be accomplished, or if operating changes will be required to comply with the new rule(s).
2. **Records and Reporting** Keep accurate records and submit required reports. This includes maintenance of an inventory of public drinking water systems, and the recordkeeping and reporting requirements in	**Basic:** Required reports submitted to SDWIS within 60 days of the end of the compliance period. Major data management problems revealed in any data verification corrected within 6 months.	Data management experience and record keeping skills are required. Tribal Staff must have working knowledge of

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40 CFR ' 142.14 & 15. *Source:* 40 CFR ' 142.10(b)(1), ' 142.14 , ' 142.15, ' 142.16 *Measured by:* Accuracy of records and timely reporting		computers, plus other training as necessary for SDWIS-related, detail-oriented work. Academic requirements include experience and/or degree in public health, environmental science, or similar background that will ensure regulatory compliance and public health protection is maintained at all times. Experience is required for interpretation of analytical data, and compliance with MCL=s.
3. **Surveillance of PWS Compliance** Maintain surveillance of PWS compliance with MCL's and public notice, recordkeeping and reporting, monitoring, and treatment technique requirements. Follow up violations with appropriate assistance and enforcement, which are further procedures to assure that PWS's produce and distribute safe drinking water. *Source:* 40 CFR ' 142.10(b) *Measured by*: Level of PWS compliance with tribal primary drinking water regulations as based on good data. Timeliness	**Basic:** Maintain adequate staff capable of routinely monitoring and interpreting in-coming PWS data. Determine compliance with Tribal drinking water regulations, perform recordkeeping and reporting, and initiate follow-up. Accuracy and timeliness of required reporting to EPA (SDWIS), and analyses of enforcement actions and compliance levels show that violators are addressed and compliance improves. Enforcement and compliance assistance is appropriately escalated for those PWS's that are repeat violators. The fixed-base SNC/Exceptions targets are returned to compliance, or given formal enforcement actions as negotiated each year between the tribe and EPA.	Degree and/or experience in Environmental Science, or public health background, math and science as major emphasis. Tribal staff must be capable of deciphering incoming laboratory data, and make compliance determinations based on regulatory language. Staff must have the ability to determine compliance and commence enforcement action(s) as necessary. Staff

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of and appropriateness of enforcement.		must have the knowledge and experience required to render direct technical assistance to water systems, or have the ability to interpret technical assistance needs and provide and/or oversee contractor assistance.
4. **Source Water Protection** To be determined *Source:* *Measured by:*	**Basic:** To be determined	
5. **Sanitary Survey Program** Implement a sanitary survey program as one procedure to assure that public water systems (PWS's) produce and distribute safe drinking water, with priority given to PWS's not in compliance with the primary drinking water regulations. *Source:* 40 CFR ' 142.10(b)(2) *Measured by:* Quality of completed surveys, level of follow-up provided to those drinking water systems with identified problems.	**Basic:** Sanitary Surveys (SSs) are conducted on an on-going basis. SS reports contain complete description of facility, including vulnerability of sources to contamination and identification of sanitary defects. SS reports trigger follow-up on those systems identified as having serious deficiencies, and deficiencies are corrected.	Tribal staff must have the ability to perform sanitary surveys. Staff must be knowledgeable about vulnerability of regulated PWS=s on the Reservation and susceptibility of water systems to contamination sources. Skills and expertise associated with a degree in engineering, science, or public health are required. Knowledge of water treatment

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		plant operations is also required, along with a working knowledge of the National Primary Drinking Water Regulations including: MCL=s, public notice requirements, record keeping and reporting, monitoring requirements and treatment techniques. Staff must be skilled in techniques to bring non-compliant PWS=s into compliance with all applicable regulations. Knowledge of enforcement techniques and escalation, along with Tribal court legal procedures. required.
6. **Plan and Spec Review** Implement a plan and construction review program as one procedure to assure that PWSs produce and distribute safe drinking water. *Source:* 40 CFR ' 142.10(b)(5) *Measured by:* New or substantially modified public water system facilities that are capable of compliance with the tribal primary drinking water regulations.	**Basic:** Tribe must develop standards (subject to EPA review), or defer to 10 State Standards. Tribe may contract out Plan and Specification implementation to an independent contractor, IHS, or other capable entity. Tribe must substantiate this via MOA or written contract- approved by EPA. EPA must be given an opportunity to Acheck-off@ on all plans and specs. No new or substantially modified public water systems are out of compliance with the primary drinking water regulations. Accommodate new technologies (without compromising public health protection). Identify, and discourage or recommend	Tribal staff must be experienced in the design and specifications of drinking water treatment facilities and distribution, to the extent that work done by contractors can be evaluated. This requires engineering experience, or extensive water treatment plant operations skills with background in engineering and plan and specification

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	alternatives for, potentially non-viable public water systems.	(reading and interpreting design plans). Management skills, coupled with the above will allow staff to evaluate viability of water systems, and allow for recommendations for alternatives for those systems that may not be operationally sound.
7. **Laboratory Certification** Assure adequate certified laboratory capability *Source:* 40 CFR ' 142.10(b)(3)(I), (4) *Measured by:* EPA certified laboratory facilities.	**Basic:** Existence of EPA certified lab capability, or coverage through reciprocity agreement(s) with other EPA certified labs. Certifications are based on assessment of lab's analyses of performance evaluation (PE) samples and on-site PE evaluations performed by a qualified professional.	Tribal staff must have the capability to determine which labs to accept results from for the purposes of determining compliance by PWS=s under tribal drinking water regulatory authority, and which lab results are not in compliance and could result in litigation in court. Staff may have to be capable of running a laboratory reciprocity program to satisfy the requirement for availability of multiple labs for use by all regulated PWS=s on the Reservation. Staff will be expected to know which analytical results to accept for

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		compliance purposes and what level of expertise must be maintained in the program. This type of expertise comes from background/degree in the sciences, biology , chemistry and public health sciences.
8. **Operator Training and Certification** Encourage and support operator training and certification to assure that PWS's produce and distribute safe drinking water. *Source:* 40 CFR ' 141.70(c), ' 142.16 *Measured by:* Level of effort to assure adequacy of certified operators	**Basic:** Tribe provides on-going support for certified operators and supports technical assistance regarding operator qualifications. The tribe actively promotes the necessity for qualified/certified operators. The tribe supports operator training opportunities.	Tribal regulatory staff must be thoroughly familiar with the requirements associated with certification requirements for operators of water treatment facilities, and/or be certified themselves. Education and experience in water treatment operations and wastewater treatment are most often required for familiarity with operator qualifications.
9. **Emergency Plan** Maintain a plan for the provision of safe drinking water for use during drinking water emergencies. In the event of an actual emergency, effectively implement the plan. *Source:* 40 CFR ' 142.10(e)	**Basic:** Existence of a written emergency plan.	Tribal Staff must be familiar with public health issues, how to recognize drinking water emergencies, and how to minimize the impact of contamination of drinking water sources. Also, background and

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Measured by: Existence of an emergency plan and effectiveness in emergencies.		expertise in recognizing public health threats in drinking water by introduction of contaminants, chemical makeup of those contaminants, and mitigation techniques is required. Working knowledge of fate and transport of contaminants in water is necessary to handle emergency contamination. Public speaking skills, and background in water chemistry is required for briefing upper management and the public in an emergency drinking water contamination situation. Degree/experience in chemistry, engineering, or the sciences is necessary.
10. **Technical Assistance** Maintain expertise and provide technical assistance (as required) to PWS's in the provision of safe drinking water. *Source:* 40 CFR ' 142.10(b) *Measured by:* Ability of tribe to provide, and adequacy of technical assistance provided	**Basic:** Maintain staff with professional expertise in drinking water. Provide access to training and conferences to keep staff expertise up to date. Respond to requests for information from PWS's, consumers and the general public.	Tribal staff must have a working knowledge of drinking water treatment. Degree/experience in sciences, engineering, or public health is necessary. Certification in drinking water treatment is highly recommended.

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		Management skills are necessary if contractors are utilized for application of technical assistance. Staff must be capable of determining the capability of technical assistance providers, and whether said assistance will put the PWS back into compliance with the regulations.
Program Management/Partnership		
1. **Authorization** Tribal authority adequate to compel compliance with the tribal primary drinking water regulations in appropriate cases.		Tribal staff must be thoroughly familiar with tribal statutory authority, have the ability to recognize the requirements for

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Source: 40 CFR 142.10(b)(6) Measured by: Existence of appropriate tribal ordinance/law.		new regulations, and be able to craft new draft regulations as required.
2. **Resource Levels** Maintain appropriate funding at agreed upon level *Source:* Measured by: Appropriate level (match) of funding for program		Tribal staff must be familiar with the levels of funding available for the PWSS Program, track program expenditures, and provide tribal leaders with alternative ways of funding program requirements.
3. **Strategic Planning** With EPA, tribe jointly plans and prioritizes program activities which address tribal and federal priorities and initiatives. *Source:* Measured by: Participation in strategic planning and prioritization process		Tribal staff must be thoroughly familiar with specific program requirements, individual PWS priorities and needs, and be capable of strategizing ways of providing technical assistance and keeping PWS=s in compliance with regulations. Program staff must be capable of re-prioritizing strategy as needs and resources change. Working with and through EPA Oversight Project Officer(s) is essential to meeting delegated program needs and changing

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		requirements.
4. **Financial Accountability** *Source:* As described in Federal regulations Measured by: Capability for financial accountability		Tribal staff must be capable of accounting for all program expenditures, for grant requirements, and tribal and EPA accountability.
5. **Program Guidance/Agreements** With EPA, tribe jointly develops and maintains applicable program priority guidance, EA, Quality Assurance Plan, and other operating guidance. *Source:* Measured by: How drinking water problems are resolved, and program priorities are set, including monitoring regimes, consistent with the base minimum requirements set forth in the drinking water priorities guidance and each unique situation encountered within the Reservation.		Tribal Staff must have the expertise to recognize applicable program priorities, enforcement requirements and appropriate escalation where necessary, and master general operating principles. Other regulatory situations encountered, such as helping PWS=s with problem solving, and monitoring requirements are accomplished by staff who are experienced in engineering and/or have science and public health related backgrounds.
6. **Coordination of Joint Activities** A high level of coordination and cooperation between tribal and EPA staff is maintained, assuring successful and effective administration of the program. Coordination includes		Requires staff capable of maintaining coordination within the regulated PWS=s, but also with EPA staff and

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evaluation of desirable technical support and targets for joint efforts. *Source:* Measured by: Degree of program activity to avoid non-compliance, including expanded sanitary survey programs, small system viability initiatives, and operator certification.		management.
7. **Program Communication** Maintains frequent/open communication with EPA regarding changes in program capability, changes in tribal government, modification of resource levels, emergency situations. *Source:* Measured by: Openness of communication between EPA and tribal personnel		Staff must be experienced and capable of effective communication both within the tribal divisions of government, but also with EPA staff and management. Program status, all changes that will change delegation, resources, and any assistance required must be communicated to EPA.
8. **Information Transfer** Tribe provides information to EPA regarding key activities as discussed in the annual review. Examples include final decisions regarding variances/waivers, enforcement actions, mid-year report summarization, program self-assessment, etc. *Source:*		Tribal staff must be able to continue with portions of the regulations that allow variances/waivers, enforcement, once delegation occurs. This requires expertise in regulatory interpretation, operations expertise, and other science-

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Measured by: Level and timeliness of information regarding key activities		related experience and background.
9. **Public Involvement** Involves public as appropriate. Includes a system in place to respond to requests for information and complaints or concerns from the public. *Source:* Measured by: Information given to consumers about the quality of their drinking water, so they can better participate in solutions to problems.		Tribal staff must be capable of effectively communicating with the regulated public. Information regarding both tribal and federal regulations must be accurate and relayed to the public in a responsible manner. Interpretations of regulations is a common requirement of regulatory staff. Staff must be capable of interpreting analytical results for the public, including information regarding enforcement proceedings. Staff must at all times be familiar with the quality of drinking water, and produce a report each year describing the quality of the drinking water and other information.

Specialized skills and expertise necessary to implement and manage a regulatory drinking water program:

1. Working knowledge of the Safe Drinking Water Act and implementing regulations

2. Ability to identify situations that would lead to prevention of drinking water contamination, and the ability to provide assistance to water systems with coming into compliance with drinking water regulations

3. Ability to conduct technical surveys and investigate problems at drinking water facilities (e.g., sanitary surveys, enforcement related inspections)

4. Ability to provide professional advice and guidance to quickly solve problems and/or emergencies related to unsafe water, be able to provide special assistance to public water systems with chronic problems, and have the ability to bring these systems into compliance with the regulations (e.g., identify operators that are unfamiliar with water treatment plant operations)

5. Ability to interpret and communicate technical and complex water treatment information to water plant operators and managers, and staff of local agencies, federal officials, laboratory personnel and others

6. Ability to compile, evaluate, and maintain physical, microbiological, chemical and radiological drinking water quality data to determine compliance with regulations

7. Capacity to ensure the review and analyses of complex corrosion control plans submitted by water systems takes place

8. Ability to consult and advise technical specialists and experts, on conventional and state-of-the-art design and operation, and other innovations in water treatment facilities

9. Ability to provide technical, financial, and other program advise and assistance to PWS's on projects relating to drinking water systems, infrastructure and maintenance (longer range goal for experienced regulatory staff)

Other highly desirable skills and expertise needed to implement and manage a regulatory drinking water program:

1. Ability to identifiy and evaluate unregulated contaminants that are most prevalent in drinking water and present the most serious threats to public health (ability of staff to assist in productive prevention and effective control).

2. Ability to provide assistance to PWS's with self-assessment materials and help evaluate the capacity of their drinking water facilities.

3. Possess the expertise necessary to provide adequate training to PWS operators and managers.

4. Ability to apply good "people skills", ability to prioritize work, and have the ability to communicate orally and in writing, including the ability to interpret and/or write technical documents.

Some Examples of how the above skills and expertise can be gained:

1. Degree and/or equivalent course work that leads to a degree in Environmental Science, Engineering, Life Scientist, Chemistry, Environmental Protection (emphasis on core science, math or engineering courses)

    * Relevant engineering courses include: environmental engineering, sanitary engineering, water/wastewater treatment plant design, civil engineering

2. Other relevant experience:

    * Water treatment plant operations and maintenance

    * Working with routine to complex problems associated with the supply, treatment, distribution and monitoring of drinking water

* Experience/background working with contaminants in drinking water, and investigating and applying best available technology for treatment

* Degree, course work, training or experience working with water chemistry and/or related issues

* Regulatory experience working with the Safe Drinking Water Act (SDWA) (including experience working with various Rules such as: Lead/Copper, Radon, Inorganic and Organic Chemicals, Volatile Organic Chemicals, Surface Water Treatment Rule)

* Training or experience working with water sampling and analyses, and treatment technologies for various water contaminants, disinfectants, and disinfection by-products

* Certification as a Water Treatment Plant Operator

APPENDIX G

PUBLIC WATER SYSTEM SUPERVISION PROGRAM IMPLEMENTATION CAPACITY: A DRAFT PROPOSAL FOR PARTNERSHIP PROJECT

U.S. Environmental Protection Agency,
Region 8, Denver, Colorado

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Generic Tribal Partnership For Implementation Workplan

PUBLIC WATER SYSTEM SUPERVISION PROGRAM IMPLEMENTATION CAPACITY

Draft: 4/27/01

Note: The preface (approximately 7 pages) of this document is undergoing an internal Region 8 review, therefore are not included in this draft. When the review is complete, the entire document will be available for further external review and comment.

Included here is the work plan portion of a document which, when complete, will be a draft outline of a capacity-building partnership between the Standing Rock Sioux Tribe and EPA Region 8. This partnership is to develop the Tribe=s capacity to implement the Federal PWSS Program on the Standing Rock Sioux Reservation. The completed document, a Proposal For Partnership Project, will include a background of the need and purpose for a partnership, a brief description of the partnership, the goals, and the core requirements of a PWSS Program and how we plan to meet them (guiding principles). An MOA with the Tribe will be drafted at a later date as part of the capacity-building partnership.

For further information please contact: Gary Carlson, Tribal PWSS Program Team Leader
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A. Year One

During the **first year** of the partnership the tribal PWSS Program implementation requirements will be primarily maintained by Region 8 direct implementation staff. All enforcement activities related to monitoring surveillance and applicable compliance

determinations will be the direct responsibility of EPA staff.

FIRST YEAR ACTIVITY	ACTIVITY LEVEL
Resource Levels	EPA and tribe will establish interim program funding and adequate staffing to fulfill the requirements of the partnership
Detailed assessment of capacity needs	EPA and tribal staff will jointly assess the capacity needs of the tribal staff and develop a detailed strategy to address these needs
Purchase required computers and software	
Obtain federal credentials	Tribe and/or applicable staff will take the necessary steps required to obtain federal credentials.
Begin training and appropriate academic courses	Tribal staff must acquire specific data management and record keeping skills, and develop a working knowledge of computers, plus other training as necessary for proficiency with the National Safe Drinking Water Information System (SDWIS). Staff must also have the knowledge and experience required to render direct technical assistance to water systems, or have the ability to interpret technical assistance needs and provide and/or oversee contractor assistance. This training/expertise can be obtained through a degree and/or experience in environmental science, engineering or public health course work or background.
Initial Training Requirements (Specific to Drinking Water Operations)	Tribal staff (those training to become the regulatory arm of the tribal government, i.e., staff implementing a delegated drinking water program at some point in the future) must be familiar with the requirements associated with water treatment operator certification, and preferably be certified themselves. Education and experience in water treatment operations and wastewater treatment are most often required for familiarity with these operator qualifications. During the initial year of the partnership, emphasis will be put on these requirements. Accordingly, arrangements will be made to provide training for staff throughout the term of the partnership, and beyond. Additionally, the on-going education and experience gained in water treatment operations and wastewater treatment through this

FIRST YEAR ACTIVITY	ACTIVITY LEVEL
	partnership will foster familiarity with these operator qualifications.
Data Management/Records and Reporting	Tribal staff must be capable of maintaining accurate records and submitting reports on analytical data received as a result of laboratory analyses of water samples taken by individual public water systems which may be under the tribe=s (eventual) jurisdiction. Therefore, for the purposes of training during the partnership, tribal staff will maintain a Amock@ database of compliance monitoring data (duplicate of all applicable Areal time@ data reported and maintained by EPA PWSS Program during the trial period) until such time as it is determined that, with appropriate oversight by Regional staff, tribal staff are ready to maintain Areal-time@ computerized data, and are capable of reporting all data to the national Safe Drinking Water Information System (SDWIS) database. Tribal reporting will be accomplished by tribal staff providing applicable data to EPA Region 8, where data will be uploaded to SDWIS by Regional MSU Program database staff. Specific details on how this will be accomplished will be worked out via a detailed work plan with each tribe as a partnership program is developed.
Accompany EPA staff on sanitary surveys	During the first year of the partnership, tribal staff will be accompanying Region 8 staff on sanitary survey inspections, and by showing federal credentials during these inspections, staff will begin the process of identifying themselves as agents of the federal government. This initial tribal staff contact, when accompanied by federal EPA staff will help establish a relationship with the regulated public that will foster confidence in future relationships in the absence of EPA staff.
Source Water Protection	Initiate tribal staff on the benefits of source water protection on the Reservation. Although a voluntary program in Indian Country, the expertise gained by tribal staff training in Source Water Protection principles will prove beneficial to the long-term protection of public health on the Reservation. Begin planning for short and

FIRST YEAR ACTIVITY	ACTIVITY LEVEL
	longer-term goals necessary for source water protection plan.
Financial Accountability	Tribal staff will be afforded an opportunity to develop expertise in accounting for all program expenditures, and fulfilling all existing and any new grant requirements, in accordance with applicable federal regulations.
Program Guidance/Agreements	With EPA, tribal staff will begin to develop the fundamentals of developing applicable PWSS Program priority guidance, quality assurance and operating guidance. Tribal staff will begin to build on in-house expertise to recognize applicable program priorities, enforcement requirements, and operating principles.
Program Communication	Jointly, EPA and tribal staff will **establish the groundwork** for frequent and open communication regarding changes in program capability, changes in tribal government, modification of resource levels, and emergency situations that develop- all critical for effective implementation of a federal PWSS program. Accordingly, tribal staff will become experienced and capable of effective communication both within the tribal divisions of government and with EPA.
Public Involvement	A successful capacity partnership between the Tribe and EPA must also involve the public, both at large and on the Reservation. The public must be informed about the partnership, and kept updated as the partnership progresses. This is especially important as tribal staff interact with regulated PWS=s and the citizens being served by those water systems. Tribal staff must also be capable of effectively responding to requests for information and complaints or concerns from the public. Information regarding both tribal and federal regulations must be accurately relayed to the public in a responsible manner. Tribal staff must be capable of interpreting analytical results for the general public, and at all times be ready to work with regulated PWS's responding to drinking water quality complaints in their water systems. During the first year of the partnership, these principles and ideas will be imparted to tribal staff .

FIRST YEAR ACTIVITY	ACTIVITY LEVEL
Begin writing and/or revising applicable tribal code to meet federal stringency requirements.	In addition to training on federal drinking water standards, staff will be trained to develop and implement their own tribal Code. First year activity in the partnership will enable tribal staff to begin the first steps toward developing and/or revising their tribal Code to be as stringent as federal regulations. EPA staff will work closely with tribal staff at this level to assist in the recognition and initial steps toward developing/revising the necessary regulations to enable the tribe to eventually be delegated primary enforcement responsibility for the PWSS Program.

B. Year Two

During the **second year** of the partnership, PWSS Program implementation requirements will be primarily maintained by Region 8 direct implementation staff, with substantial input from tribal staff. Tribal staff will become increasingly capable of determining when a regulatory violation occurs, increasing the understanding of the enforcement techniques and escalation process as it occurs within the federal system. EPA staff will continue to lead all enforcement contact and follow-up through year two, with the accompaniment, observation and assistance of tribal staff. All enforcement activities related to monitoring surveillance and applicable compliance determinations will remain the direct responsibility of EPA staff.
The level of program oversight by EPA Region 8 staff during the partnership will be determined by the ability shown by tribal staff during the initial two to three years of training.

SECOND YEAR ACTIVITY	ACTIVITY LEVEL
Resource Levels	EPA and tribe will continue to address program funding and staffing requirements to fulfill partnership elements.
Assess staff capacity and note and/or complete necessary revisions. Obtain federal credentials for key staff, if not already accomplished previously.	EPA and/or tribe address unmet or new tribal capacity needs. Tribal staff obtain necessary federal credentials.

SECOND YEAR ACTIVITY	ACTIVITY LEVEL
Purchase necessary computer equipment and software not previously obtained.	Training on this equipment will be provided as necessary.
On-going training	Tribal staff will continue with on-going PWSS program training requirements as applicable. EPA staff, Indian Health Service staff, contractors, and other sources will be utilized as necessary to provide training. Tribal staff will also obtain on-going training and course work available through tribal colleges (where available), or other sources.
Data Management	With ongoing training by EPA staff, tribal staff will continue to maintain accurate records and submit reports on analytical data received as a result of laboratory analyses of water samples taken by individual public water systems. These PWS=s will be those listed on EPA=s current inventory (PWS=s located in Indian Country). Sometime during year one, whereby a Amock@ database of compliance monitoring data (as described in year one activity level) is used, the tribe will have transitioned to Areal-time@ computerized data. Second year activity level will include on-going oversight and training by EPA, and a continuation of the activities from year one. The tribe will continue reporting all data to the national Safe Drinking Water Information System (SDWIS) database via Regional database staff.
Sanitary Survey Program	Tribal staff will continue to accompany Region 8 staff on scheduled sanitary surveys. Tribal staff will actively participate in the survey process by continuing to fill out reports, forms, and other required paperwork. As in year one, tribal staff will show federal credentials (if in possession of credentials) during the surveys. Doing so affords tribal staff an on-going opportunity to establish a relationship with the regulated public that will foster confidence in future relationships in the absence of EPA staff. Year two of the partnership will further enhance the knowledge acquired by tribal staff of water treatment plant operations, and application of regulations. This experience will continue to increase over the duration of the partnership, along with an increasing working

SECOND YEAR ACTIVITY	ACTIVITY LEVEL
	knowledge of the National Primary Drinking Water Regulations. If not completed during year one, appropriate tribal staff will attend and complete a Sanitary Survey Training course.
Source Water Protection	If the tribe is willing to participate, initialize steps for source water protection plan. This can include a wellhead protection plan (if applicable), and other implementation plans as may have been outlined in year one.
Maintain surveillance of public water system compliance with the maximum contaminant levels as required by the National Primary Drinking Water Regulations	EPA establish requirements for expertise and methodology for tribal staff to maintain surveillance of PWS=s. Tribal staff begin training to track PWS compliance with public notice requirements, monitoring (and scheduling), and treatment technique requirements. Tribal staff begin training to decipher incoming laboratory data and making compliance determinations based on regulatory language. Staff will begin to gain experience and knowledge required to render direct technical assistance to water systems, or have the ability to interpret technical assistance needs and provide and/or oversee contractor assistance. In addition to on-the-job training, tribal staff can gain the required expertise through course work or degree in environmental sciences, math or science, or public health background.
Plan and Specification Reviews	Tribal staff will become familiar with the requirements for the design and specifications on the Reservation for new or modified drinking water treatment facilities and distribution systems, to the extent that work done by contractors can be evaluated by tribal staff. Staff will be required to gain experience in engineering principles, blueprint interpretation, map reading, and extensive water treatment plant operations skills. A background in engineering and plan and specification, coupled with management skills will allow staff to evaluate viability of water systems, and provide recommendations for alternatives for those drinking water systems that may not be operationally sound.
Laboratory Certification	Tribal staff will be trained to accept for reporting purposes, data received from drinking water certified laboratories. Tribal staff will become capable of

SECOND YEAR ACTIVITY	ACTIVITY LEVEL
	administering a laboratory reciprocity program to satisfy the requirement for availability of multiple labs for use by all regulated PWS=s on the Reservation. Staff will be trained to know which analytical results to accept for compliance purposes and what level of expertise must be maintained in the program.
Operator Training and Certification	Tribal staff must become thoroughly familiar with the requirements associated with drinking water operator certification requirements. It is highly recommended staff be certified themselves. Education and experience in water treatment operations is a must, and will be emphasized in the partnership.
Emergency Plan	Tribal staff will become familiar with the necessity for preparation and maintenance of a plan for the provision of safe drinking water for use during drinking water emergencies. Staff will become familiar with public health issues, how to recognize drinking water emergencies, and how to minimize the impact of contamination of drinking water sources. Background and expertise in recognizing public health threats in drinking water by introduction of contaminants, chemical makeup of those contaminants, and mitigation techniques will be emphasized during this year of the partnership. Along with experience gained on the job, public speaking, science, and water chemistry will be emphasized as preparatory staff course work for providing this level of information to all involved parties, including the general public.
Technical Assistance	In keeping with the requirement for tribal staff to possess a working knowledge of drinking water treatment, EPA will emphasize training in drinking water treatment operations. Staff must be capable of providing assistance to PWS=s, or have the knowledge level required to oversee contractors providing technical assistance. Management skills are necessary if contractors are used for technical assistance to PWS=s. Staff must be capable of determining the capability of technical assistance providers, and whether said assistance will put the PWS back into compliance with the regulations.

SECOND YEAR ACTIVITY	ACTIVITY LEVEL
Strategic Planning	Through EPA assistance and training, tribal staff will become familiar with the importance of joint planning and prioritizing program activities which address tribal and federal priorities and initiatives. Working with and through EPA staff, tribal staff will be introduced to, and become familiar with specific PWSS program requirements, individual PWS priorities and needs, and begin to assist EPA staff with strategizing ways of providing technical assistance to regulated tribal drinking water systems. This partnership activity is essential for keeping PWS's in compliance with federal drinking water regulations. Through this initial experience, tribal staff will become capable of re-prioritizing program strategy as needs and resources change, and emphasizing the need for coordinating these changes with EPA staff.
Financial Accountability	Tribal staff will be afforded an opportunity to develop expanded expertise in accounting for all program expenditures, and fulfilling grant requirements, in accordance with applicable federal regulations.
Program Guidance/Agreements	With EPA, tribal staff will continue developing the fundamentals of applicable PWSS Program priority guidance, quality assurance and operating guidance. Tribal staff will continue building in-house expertise to recognize applicable program priorities, enforcement requirements, and program operating principles.
Coordination of Joint Activities	Emphasis will be placed on developing and maintaining a high level of coordination and cooperation between tribal and EPA staff. This will help ensure successful and effective administration of the partnership and eventually the program. Coordination will involve evaluation of desirable/necessary technical support for regulated PWS=s on the Reservation and will help ensure a joint effort is maintained.
Program Communication	Jointly, EPA and tribal staff will continue working for frequent and open communication regarding changes in program capability, changes in tribal government, modification of resource levels, and emergency situations that develop- all critical for effective implementation of a

SECOND YEAR ACTIVITY	ACTIVITY LEVEL
	federal PWSS program. Accordingly, tribal staff will continue to gain experience at effective communication both within the tribal divisions of government and with EPA.
Public Involvement	The regulated PWS=s and the general public will be kept informed about the EPA/tribal partnership, and updated as the partnership progresses. Tribal staff interaction with the public will be emphasized as staff interact with regulated PWS=s and the citizens being served by those water systems. Tribal staff will increase the capability for effectively responding to requests for information, and to more effectively respond to complaints or concerns from the public. Information regarding both tribal and federal regulations will be accurately relayed to the public in a responsible manner. Tribal staff will become more capable of interpreting analytical results for the general public, and with EPA staff lead, will begin to work with regulated PWS's responding to drinking water quality complaints in their water systems.
Continue writing and/or revising applicable tribal code to meet federal stringency requirements.	EPA will continue to assist and train, where necessary, tribal staff on federal drinking water standards. EPA staff will assist the tribe develop and/or revise tribal Code for eventual implementation on the Reservation. Tribal staff will lead the development and/or revisions necessary to ensure the tribal Code is as stringent as federal regulations. EPA staff will work closely with tribal staff to ensure the adequacy of this process.

C. Year Three

During the **third year** of the partnership, the lead for PWSS Program implementation requirements will be the primary responsibility of the tribal staff, with substantial input and oversight from EPA staff. All enforcement activities related to monitoring surveillance and applicable compliance determinations will be the direct responsibility of EPA staff, with increasing involvement from tribal staff in the form of on-going training in enforcement activities. EPA staff will continue to lead all enforcement,

however, during year three, tribal staff involvement with investigations, data verification, and other necessary casework, will increase. Tribal staff, will, at this point, be capable of determining violations of the National Primary Drinking Water Regulations, and will be more familiar with enforcement techniques and enforcement escalation within the federal system.
The level of program oversight by EPA Region 8 staff during the partnership term will be determined by the ability shown by tribal staff during the initial two to three years of training.

THIRD YEAR ACTIVITY	ACTIVITY LEVEL
Resource Levels	EPA and tribe will continue to address program funding and staffing requirements to fulfill partnership elements.
Assess Capacity Needs	Major capacity needs should be assessed and planning completed at this point, revise as needed.
On-going Training and Provision of Technical Assistance to PWS=s	On-going training as necessary to address program requirements. EPA staff, Indian Health Service staff, contractors, and other sources will be utilized as necessary to provide training. Tribal staff will continue to seek course work available through tribal colleges (where available), or other sources.
Records and Reporting	On-going as required by regulation. Third year activity level will see continued on-going oversight and training by EPA as necessary. All issues and problems encountered by tribal staff will be discussed with EPA staff on an on-going basis. The tribe will continue reporting all data to the national Safe Drinking Water Information System (SDWIS) database via Regional database staff. Required reports will be submitted to SDWIS within 60 days of the end of the compliance period.
Surveillance of PWS Reporting	Continuation of surveillance by tribal staff, of public water system compliance with the maximum contaminant levels as required by the National Primary Drinking Water Regulations. Tribal staff will take more of the lead on tracking PWS compliance with public notice requirements, monitoring (and scheduling), and treatment technique requirements. With EPA staff backup, tribal staff will, based on regulatory language, decipher incoming laboratory data and determine compliance with federal

THIRD YEAR ACTIVITY	ACTIVITY LEVEL
	drinking water regulations, perform record keeping and reporting, and initiate follow-up. With continued assistance from EPA and other technical experts, tribal staff will provide more sophisticated technical assistance to water systems than that provided in year two, or continue to provide information on those needs to a contractor who will provide direct assistance to water systems.
Sanitary Survey Program	Tribal staff will conduct sanitary surveys as required (if sanitary survey training has been completed, otherwise proceed as shown in year two), with EPA staff available by phone for clarification on field issues, and to assist with required forms and applicable paperwork. If necessary, EPA staff will provide backup, through field presence, or otherwise assist with issues as requested by tribal staff while conducting sanitary surveys.
Source Water Protection	Continue with steps for source water protection plan as decided in year two. This can include a wellhead protection plan (if applicable), and other implementation plans as may have been outlined in years one and two. Implementation of the plan if applicable.
Plan and Spec Review	Staff will continue to gain experience in engineering principles, blueprint interpretation, map reading, or extensive water treatment plant operations skills so that staff may either review plans and specs in-house, or be familiar enough with the principles involved, to oversee contract work. A background in engineering and plan and specification, coupled with management skills will allow staff to evaluate viability of water systems, and provide recommendations for alternatives for those drinking water systems that may not be operationally sound.
Laboratory Certification	Tribal staff will continue to train and apply all experience gained on interpretation of analytical results received from certified drinking water laboratories. Staff must know the status of certification of laboratories used by PWS=s for analyses of drinking water samples. Staff will become proficient in administering a laboratory reciprocity program to satisfy program requirements.
Operator Training and	Tribal staff will continue with any necessary training to be familiar with the requirements associated with drinking

THIRD YEAR ACTIVITY	ACTIVITY LEVEL
Certification	water operator certification requirements. Tribal staff will strive to become certified, if not already.
Emergency Plan	Tribal staff will continue training on, and become more familiar with public health issues, including more detailed recognition of drinking water emergencies and how to respond. Staff will continue to actively engage in drinking water emergencies, taking the lead in working to minimize the impact of contamination. Staff will continue working toward improving background and expertise in mitigating public health threats in drinking water through introduction of contaminants, and become increasingly familiar with the makeup of those contaminants.
Technical Assistance	Tribal staff will continue training toward possessing a thorough working knowledge of drinking water treatment. This expertise is necessary to enable tribal staff to provide assistance to regulated PWS=s, or oversee contractors that may be utilized.
Strategic Planning	Tribal staff will be increasingly more proficient at jointly planning and prioritizing program activities. At this level, tribal staff should be initiating activities with EPA staff to troubleshoot specific program requirements, identify specific PWS priorities and needs, and be familiar with operator training needs. Staff should increasingly be taking the lead and assisting EPA staff with strategizing and improving ways of providing technical assistance to PWS=s
Financial Accountability	Tribal staff will continue to expand expertise levels in accounting for all program expenditures, and fulfilling grant requirements, in accordance with applicable federal regulations. At year three, tribal staff should be fully trained and show demonstrable experience in accounting for all aspects of program expenditures, and short and long-range planning that may be impacted.
Program Guidance/Agreements	With EPA, the Tribe will continue to gain first hand experience in developing and maintaining applicable PWSS Program priority guidance, quality assurance and operating guidance. Tribal staff will continue building on expertise which will enable recognition of changing program priorities, enforcement requirements, and help master

THIRD YEAR ACTIVITY	ACTIVITY LEVEL
	general operating principles.
Coordination of Joint Activities	During year three, a high level of coordination and cooperation between Tribal and EPA staff should become evident. Coordination at this level ensures successful and effective administration of the program. Coordination includes evaluation of desirable/necessary technical support for regulated PWS's on the Reservation and helps ensure a joint effort is maintained.
Program Communication	Year three will continue to focus on frequent and open communication between EPA and tribal staff regarding changes in program capability, changes in tribal government, modification of resource levels, and emergency situations that develop. All are crucial for effective implementation of a federal PWSS program. Accordingly, tribal staff must maintain a level of experience making effective, unencumbered communication possible both within the tribal divisions of government and with EPA.
Public Involvement	Tribal staff will involve the public, both at large and on the Reservation, to a greater degree than in previous years of the partnership. The public will be kept informed about the partnership, and updated as the partnership progresses. This is especially important as tribal staff interact with regulated PWS=s and the citizens being served by those water systems. Tribal staff will become increasingly capable of effectively responding to requests for information and complaints or concerns from the public. Information regarding both tribal and federal regulations must be accurately relayed to the public in a responsible manner. Tribal staff will become more capable of interpreting analytical results for the general public, and will be ready to work with regulated PWS's responding to drinking water quality complaints in their water systems.
Tribal Code Development/Revision	As new federal regulations are promulgated, EPA will continue to assist the tribe make necessary changes in the tribal Code, ensuring the Code remains as stringent as federal regulations. In addition, Tribal staff will begin to develop a working knowledge of the Tribal Code (if applicable).

D. Year Four

During the **fourth year** of the partnership, the lead for PWSS Program implementation requirements will be the primary responsibility of the tribal staff, with moderate to minimal input and oversight from EPA staff. The level of program oversight by EPA Region 8 staff during the partnership is increasingly determined by the ability shown by tribal staff during the initial two to three years of training. EPA=s goal for PWSS program oversight is to be minimal after year four (i.e., minimum required by law/regulation).

All enforcement activities related to monitoring surveillance and applicable compliance determinations still remains the direct responsibility of EPA staff, with a higher level of training for tribal staff in the form of on-going training in enforcement activities. Until such time as the tribe is delegated primary enforcement authority, the responsibility and lead for enforcement and all follow-up remains with EPA.

FOURTH YEAR ACTIVITY	ACTIVITY LEVEL
Resource Levels	Each year, and periodically, EPA and tribe will address program funding and staffing requirements to fulfill partnership elements.
Assess Capacity Needs	On-going as necessary
Records and Reporting	On-going as required by regulation. Fourth year activity level will see continued on-going oversight and training by EPA as necessary. All issues and problems encountered by tribal staff will be discussed with EPA staff on an on-going basis. The tribe will continue reporting all data to the national Safe Drinking Water Information System (SDWIS) database via Regional database staff. Tribal staff should be capable at this point of taking the lead on troubleshooting database issues, and, with EPA staff input, resolving reporting problems. Tribal staff will submit required reports to SDWIS within 60 days of the end of the compliance period. Major data management problems revealed in any data verification will be corrected within 6 months.
Surveillance of PWS Reporting	Continuation of surveillance by tribal staff, of public water system compliance with the maximum contaminant levels as required by the National Primary Drinking Water Regulations. Tribal staff will lead tracking PWS compliance with public notice requirements, monitoring (and scheduling), and treatment technique requirements. With limited EPA staff backup, tribal staff will decipher all incoming laboratory data and make compliance determinations based on regulatory language. With continued, but limited assistance from EPA and other technical experts, tribal staff will provide more sophisticated technical assistance to water systems, or provide information on those needs to a contractor who will provide direct assistance to the water system. Tribal staff will continue to oversee all technical assistance provided to PWSs within the Reservation.
Source Water Protection	Continue with steps for source water protection according to mutually agreed upon program partnership plan. With limited assistance from EPA and other providers, tribal staff will implement a source water protection program, including all assessments (implemented if tribe chooses to do so, since the program is voluntary). A source water program can include a wellhead protection plan (if

FOURTH YEAR ACTIVITY	ACTIVITY LEVEL
	applicable), and other implementation plans as may have been outlined previously.
Sanitary Survey Program	Tribal staff will continue to conduct sanitary surveys as required (sanitary survey training will be completed), with EPA staff available for clarification on field issues, and to assist with required forms and applicable paperwork. If necessary, EPA staff will provide backup, or assist with issues as requested by tribal staff. Sanitary Survey reports will be complete, including all information such as complete inventory information, facility description/diagram, vulnerability of sources to contamination and identification of sanitary defects. Tribal staff will follow-up on those systems identified as having serious deficiencies, and deficiencies will be corrected.
Plan and Spec Review	Staff will continue to gain experience in engineering principles, blueprint interpretation, map reading, or extensive water treatment plant operations skills so that staff may either review plans and specs in-house, or be familiar enough with the principles involved, to oversee contract work. If contracting out to an independent contractor, IHS, or other entity, tribal staff must substantiate this via MOA or written contract- approved by EPA. EPA will provide input from an oversight role only, but must be given an opportunity to Acheck off@ on all plans and specs. Tribal staff will develop tribal standards for use on the Reservation, or defer to A10 State Standards@. Tribal staff will ensure no new or substantially modified public water systems are out of compliance with the primary drinking water regulations. New technologies will be accommodated without compromising public health protection.
Laboratory Certification	Tribal staff will continue to interpret analytical results received from certified drinking water laboratories. Staff will continue tracking certification status of laboratories used by PWS=s for analyses of drinking water samples. Staff will remain proficient in administering a laboratory reciprocity program to satisfy program requirements.
Operator Training and Certification	Tribal staff will continue on-going training and will be familiar with the requirements associated with drinking water operator certification requirements. Staff will

FOURTH YEAR ACTIVITY	ACTIVITY LEVEL
	continue efforts to become certified, if not already. Along with EPA and other trainers, staff will participate in training water system operators and assist in efforts to certify those tribal operators not certified.
Emergency Plan	Tribal staff will be thoroughly familiar with and capable of implementing the emergency plan. Additionally, staff will continue training on, and will be more familiar with public health issues, including detailed recognition of drinking water emergencies and how to respond. Staff will take the lead (with EPA participation) on responding to drinking water emergencies. Tribal staff will continue to improve background and expertise in mitigating public health threats in drinking water through introduction of contaminants, and become increasingly familiar with the makeup of those contaminants.
Technical Assistance	Tribal staff will continue training and developing expertise and knowledge of drinking water treatment. Staff will continue providing direct technical assistance to regulated PWS=s, and possess the skill level to oversee contractors providing technical assistance if necessary.
Strategic Planning	Tribal staff will be proficient at jointly planning and prioritizing program activities with EPA staff. Tribal staff will initiate activities with EPA staff, troubleshoot specific program requirements, identify specific PWS priorities and needs, and identify and assist with operator training needs. Tribal staff will lead this activity, and with limited EPA staff assistance, strategize to improve communication and technical assistance provided to PWS=s.
Financial Accountability	Tribal staff will be capable of accounting for all program expenditures, and fulfilling grant requirements, in accordance with applicable federal regulations. Staff will continue to account for all aspects of program expenditures, and provide program short and long-range planning.
Program Guidance/Agreements	Tribal staff will maintain previously planned PWSS Program priority guidance, quality assurance and operating guidance. Tribal staff will continue building on expertise which will enable recognition of changing program priorities, enforcement requirements, and help

FOURTH YEAR ACTIVITY	ACTIVITY LEVEL
	master general operating principles.
Coordination of Joint Activities	During year four, a high level of coordination and cooperation between Tribal and EPA staff will exist. Coordination at this level ensures continued successful and effective administration of the program. Coordination includes evaluation of desirable/necessary technical support for regulated PWS's on the Reservation and helps ensure a joint effort is maintained.
Program Communication	Year four will demonstrate frequent and open communication between EPA and tribal staff regarding changes in program capability, changes in tribal government, modification of resource levels, and emergency situations that develop. All are crucial for effective implementation of a federal PWSS program. Accordingly, tribal staff will become more experienced at making effective, unencumbered communication possible both within the tribal divisions of government and with EPA. With EPA staff assistance, tribal staff will identify and recommend ways of improving any areas of weakness.
Public Involvement	Tribal staff will continue involving the public, both at large and on the Reservation, as necessary and required by regulation. Tribal staff will keep the public informed about on-going changes and progress of the partnership. Interaction between tribal staff and regulated PWS=s, and the citizens being served by those water systems will be at a high level. Tribal staff will capable of effectively responding to requests for information and complaints or concerns from the public. Information regarding both tribal and federal regulations will be accurately relayed to the public in a responsible manner. Tribal staff will capable of interpreting analytical results for the general public, and will be ready to work with regulated PWS's responding to drinking water quality complaints in their water systems.
Tribal Code Development/Revision	On-going revisions to the tribal Code will be completed as necessary (as federal regulations are revised). Tribal staff will ensure the Code is as stringent as federal regulations. Tribal staff will possess a working knowledge of the tribal Code, and will implement the Code according to partnership agreements and program requirements.

E. Year Five

During the **fifth year** of the partnership, the lead for PWSS Program implementation requirements will be the responsibility of the tribal staff, with limited input and minimum program oversight from EPA staff. The level of program oversight by EPA Region 8 staff during the partnership is determined by the ability shown by tribal staff as the partnership progresses. EPA=s goal for PWSS program oversight is to be minimal after year four (i.e., minimum required by law/regulation).

All enforcement activities related to monitoring surveillance and applicable compliance determinations still remains the direct responsibility of EPA staff, with a higher level of training for tribal staff in the form of on-going training in enforcement activities. Until such time as the tribe is delegated primary enforcement authority, the responsibility and lead for enforcement and all follow-up remains with EPA.

YEAR FIVE ACTIVITY	ACTIVITY LEVEL
Resource Levels	Continue with periodic assessment. EPA and tribe will fulfill on-going program funding and staffing requirements as necessary. Program partnership funding sources will be explored on an on-going basis.
Assess Capacity Needs	On-going. Adjustments and changes made as necessary.
Records and Reporting	On-going as required by regulation. Maintain level of expertise described in year four. Continued on-going oversight and training by EPA as necessary. All issues and problems encountered by tribal staff will be discussed with EPA staff as necessary. The tribe will continue reporting all data to the national Safe Drinking Water Information System (SDWIS) database via Regional database staff, unless changes and/or upgrades are made during the interim to the federal system. Changes will be made as necessary to the tribal system to ensure compatibility. Tribal staff will troubleshoot database issues, and, with EPA staff input, resolve reporting problems in a timely manner.
Surveillance of PWS Reporting	Maintain level of expertise described in year four. Continuation of surveillance by tribal staff, of public water system compliance with the maximum contaminant levels as required by the National Primary Drinking Water Regulations. Tribal staff will be the lead in tracking PWS compliance with public notice requirements, monitoring

YEAR FIVE ACTIVITY	ACTIVITY LEVEL
	(and scheduling), and treatment technique requirements. With limited EPA staff backup, tribal staff will decipher all incoming laboratory data and make compliance determinations based on regulatory language. With continued, but limited assistance from EPA and other technical experts, tribal staff will provide sophisticated technical assistance to water systems, or provide information on those needs to a contractor who will provide direct assistance to the water system. Tribal staff will oversee technical assistance providers.
Source Water Protection	Continue with steps for source water protection according to mutually agreed upon program partnership plan. With limited assistance from EPA and other providers, tribal staff will implement a source water protection program, including all assessments (implemented if tribe chooses to do so, since the program is voluntary). A source water program can include a wellhead protection plan (if applicable), and other implementation plans as may have been outlined previously.
Sanitary Survey Program	Tribal staff will continue to conduct sanitary surveys as required (sanitary survey training will be completed), with EPA staff available for clarification on field issues, and to assist with required forms and applicable paperwork. If necessary, EPA staff will provide backup, or assist with issues as requested by tribal staff.
Plan and Spec Review	Staff will continue to gain experience in engineering principles, blueprint interpretation, map reading, or extensive water treatment plant operations skills so that staff may either review plans and specs in-house, or be familiar enough with the principles involved, to oversee contract work. Continue with activities as described in year four. EPA will provide input from an oversight role only.
Laboratory Certification	Tribal staff will continue to interpret analytical results received from certified drinking water laboratories. Staff will continue tracking certification status of laboratories used by PWS=s for analyses of drinking water samples. Staff will remain proficient in administering a laboratory reciprocity program to satisfy program requirements.
Operator Training and Certification	Tribal staff will continue on-going training and will be familiar with the requirements associated with drinking water operator certification requirements. Tribal staff will continue efforts to become certified, if not already. Along with EPA and other trainers, tribal staff will participate in

YEAR FIVE ACTIVITY	ACTIVITY LEVEL
	training of water system operators and assist in efforts to certify those tribal operators not certified.
Emergency Plan	Tribal staff will be thoroughly familiar with and capable of implementing the emergency plan. Additionally, staff will continue training on, and will be more familiar with public health issues, including detailed recognition of drinking water emergencies and how to respond. Staff will take the lead (with EPA participation) on responding to drinking water emergencies. Tribal staff will continue to improve background and expertise in mitigating public health threats in drinking water through introduction of contaminants, and become increasingly familiar with the makeup of those contaminants.
Technical Assistance	Tribal staff will continue training and increasing expertise and knowledge of drinking water treatment. Staff will provide direct technical assistance to regulated PWS=s, or possess the skill level necessary to oversee contractors providing technical assistance.
Strategic Planning	Tribal staff will be proficient at jointly planning and prioritizing program activities with EPA staff. Tribal staff will initiate activities with EPA staff, troubleshoot specific program requirements, identify specific PWS priorities and needs, and identify and assist with operator training needs. Tribal staff will lead this activity, and with limited EPA staff assistance, strategize to improve communication and technical assistance provided to PWS=s.
Financial Accountability	Tribal staff will be capable of accounting for all program expenditures, and fulfilling grant requirements, in accordance with applicable federal regulations. At year five, tribal staff will account for all aspects of program expenditures, and provide program short and long-range planning.
Program Guidance/Agreements	Tribal staff will maintain previously planned PWSS Program priority guidance, quality assurance and operating guidance. Tribal staff will continue building on expertise which will enable recognition of changing program priorities, enforcement requirements, and help master general operating principles.
Coordination of Joint	During year five, a high level of coordination and cooperation between Tribal and EPA staff will exist.

YEAR FIVE ACTIVITY	ACTIVITY LEVEL
Activities	Coordination at this level ensures continued successful and effective administration of the program. Coordination includes evaluation of desirable/necessary technical support for regulated PWS's on the Reservation and helps ensure a joint effort is maintained.
Program Communication	Maintain and demonstrate frequent and open communication between EPA and tribal staff regarding changes in program capability, changes in tribal government, modification of resource levels, and emergency situations that develop. Accordingly, tribal staff will effectively communicate within the tribal divisions of government and with EPA. With limited EPA staff involvement, tribal staff will improve identified areas of weakness in the PWSS program.
Public Involvement	Tribal staff will continue to involve the public, both at large and on the Reservation, as necessary and required by regulation. Tribal staff will keep the public informed about on-going changes and progress of the partnership. Interaction between tribal staff and regulated PWS=s, and the citizens being served by those water systems will continue at a high level. Tribal staff will effectively respond to requests for information and complaints or concerns from the public. Information regarding both tribal and federal regulations will be accurately relayed to the public in a responsible manner. Tribal staff will interpret analytical results for the general public, and work with regulated PWS's responding to drinking water quality complaints in their water systems.
Tribal Code Revision	On-going revisions to the tribal Code will be completed as necessary (as federal regulations are revised). Tribal staff will ensure the Code is as stringent as federal regulations. Tribal staff will implement the Code according to partnership agreements and program requirements.

F. Year Six

During the **sixth year** of the partnership, the lead for PWSS Program implementation requirements will continue to be the responsibility of the tribal staff, with limited input and minimum program oversight from EPA staff. The level of program oversight by EPA Region 8 staff during the partnership is

determined by the ability shown by tribal staff as the partnership progresses. EPA=s goal for PWSS program oversight is to be minimal after year four (i.e., minimum required by law/regulation).

All enforcement activities related to monitoring surveillance and applicable compliance determinations still remains the direct responsibility of EPA staff, with a higher level of on-going training for tribal staff in enforcement activities. Until such time as the tribe is delegated primary enforcement authority, the responsibility and lead for enforcement and all follow-up remains with EPA.

YEAR SIX ACTIVITY	ACTIVITY LEVEL
Resource Levels	Assess and make changes as necessary. EPA and tribe will fulfill on-going program funding and staffing requirements as necessary. Partnership funding sources will be explored on an on-going basis.
Assess Capacity Needs	On-going. Adjustments and changes made as necessary.
Records and Reporting	On-going from year five, all regulatory requirements will be met. Maintain level of expertise described in year five. Continued on-going oversight and training by EPA as necessary. All issues and problems encountered by tribal staff will be discussed with EPA staff as necessary. The tribe will continue reporting all data to the national Safe Drinking Water Information System (SDWIS) database via Regional database staff, unless changes and/or upgrades are made during the interim to the federal system. Changes will be made as necessary to the tribal system to ensure compatibility. Tribal staff will troubleshoot database issues, and, with EPA staff input, resolve reporting problems in a timely manner.
Surveillance of PWS Reporting	Maintain level of expertise from year five. All regulatory requirements will be met. Continuation of surveillance by tribal staff, of public water system compliance with the maximum contaminant levels as required by the National Primary Drinking Water Regulations. Tribal staff will be the lead for tracking PWS compliance with public notice requirements, monitoring (and scheduling), and treatment technique requirements. With limited EPA staff backup, tribal staff will decipher all incoming laboratory data and make compliance determinations based on regulatory language. With continued, but limited assistance from EPA and other technical experts, tribal staff will provide sophisticated technical assistance to water systems, or provide information on those needs to a contractor who will provide

YEAR SIX ACTIVITY	ACTIVITY LEVEL
	direct assistance to the water system. Tribal staff will oversee technical assistance providers.
Source Water Protection	Continue with implementation of source water protection program according to mutually agreed upon program partnership plan (implemented if tribe chooses to do so, since the program is voluntary). If applicable, (with limited assistance from EPA and other providers) tribal staff will implement the source water protection program, including all assessments, and all wellhead protection measures.
Sanitary Survey Program	Maintain level of expertise from year five. Tribal staff will continue to conduct sanitary surveys as required (sanitary survey training will be completed), with EPA staff available for clarification on field issues, and to assist with required forms and applicable paperwork. If necessary, EPA staff will provide assistance as requested by tribal staff.
Plan and Spec Review	Maintain level of expertise from year five. Staff will continue to gain experience in engineering principles, blueprint interpretation, map reading, or extensive water treatment plant operations skills so that staff may either review plans and specs in-house, or be familiar enough with the principles involved, to oversee contract work. EPA will continue to provide input in an oversight role only.
Laboratory Certification	As in year five, tribal staff will continue to interpret analytical results received from certified drinking water laboratories. Staff will continue tracking certification status of laboratories used by PWS=s for analyses of drinking water samples. Staff will remain proficient in administering a laboratory reciprocity program to satisfy program requirements.
Operator Training and Certification	Tribal staff will continue on-going training and will be thoroughly familiar with the requirements associated with drinking water operator certification requirements. If not previously certified, tribal staff will continue efforts to become certified. Along with EPA and other trainers, tribal staff will participate in training of water system operators and assist in efforts to certify those tribal operators not certified.
Emergency Plan	Tribal staff will be thoroughly familiar with, and capable of implementing the emergency plan if necessary. Additionally, staff will continue training on, and will maintain expertise with public health issues, including detailed recognition of drinking water emergencies and proper response. Staff will

YEAR SIX ACTIVITY	ACTIVITY LEVEL
	lead (with EPA participation or advice) the response to drinking water emergencies on the Reservation. Tribal staff will continue to improve background and expertise in mitigating public health threats in drinking water through introduction of contaminants, and will be familiar with the makeup of those contaminants.
Technical Assistance	Tribal staff will maintain and build on skill levels from year five. Tribal staff will continue training to gain expertise in drinking water treatment and new technologies. Staff will provide direct technical assistance to regulated PWS=s, or oversee contractors providing technical assistance.
Strategic Planning	Tribal staff will maintain proficiency at jointly planning and prioritizing program activities with EPA staff. Tribal staff will initiate activities with EPA staff, troubleshoot specific program requirements, identify specific PWS priorities and needs, and identify and assist with operator training needs. Tribal staff will lead this activity, and with limited EPA staff assistance, strategize to improve communication and technical assistance provided to PWS=s.
Financial Accountability	Tribal staff will account for all program expenditures, fulfill grant requirements, in accordance with applicable federal regulations. Tribal staff will account for all aspects of program expenditures, and provide program short and long-range planning.
Program Guidance/Agreements	Tribal staff will maintain previously planned PWSS Program priority guidance, quality assurance and operating guidance. Tribal staff will continue building on expertise which will enable staff to change program priorities as necessary, gain experience in enforcement requirements and escalation processes, and master general operating principles.
Coordination of Joint Activities	A high level of coordination and cooperation between Tribal and EPA staff will continue to be maintained. Coordination at this level ensures continued successful and effective administration of the program. Coordination includes evaluation of desirable/necessary technical support for regulated PWS's on the Reservation and helps ensure a joint

YEAR SIX ACTIVITY	ACTIVITY LEVEL
	effort is maintained.
Program Communication	Maintain and continue to demonstrate frequent and open communication between EPA and tribal staff regarding changes in program capability, changes in tribal government, modification of resource levels, and emergency situations that develop. Tribal staff will effectively communicate within the tribal divisions of government and with EPA. With limited EPA staff involvement, tribal staff will improve identified areas of weakness in the PWSS program.
Public Involvement	Tribal staff will continue to involve the public, both at large and on the Reservation, as necessary and required by regulation. Tribal staff will keep the public informed about on-going changes and progress of the partnership. Interaction between tribal staff and regulated PWS=s, and the citizens being served by those water systems will be at a high level. Tribal staff will capable of effectively responding to requests for information and complaints or concerns from the public. Information regarding both tribal and federal regulations will be accurately relayed to the public in a responsible manner. Tribal staff will interpret analytical results for the general public, and will work with regulated PWS's responding to drinking water quality complaints in their water systems.
Tribal Code Revision	On-going revisions to the tribal Code will be made as necessary (as federal regulations are revised). Tribal staff will ensure the Code is as stringent as federal regulations. Tribal staff will implement the Code according to partnership agreements and program requirements.

G. Year Seven

During the **seventh year** of the partnership, the lead for PWSS Program implementation requirements will continue to be the responsibility of the tribal staff, with limited input and minimum program oversight from EPA staff. The level of program oversight by EPA Region 8 staff during the partnership is determined by the ability shown by tribal staff as the partnership progresses. EPA=s goal for PWSS program oversight is to be minimal after year four (i.e., minimum required by law/regulation).

All enforcement activities related to monitoring surveillance and applicable compliance determinations still remains the direct responsibility of EPA staff, with a higher level of on-going training for tribal staff in enforcement activities. Until such time as the tribe is delegated primary enforcement authority, the responsibility and lead for enforcement and all follow-up remains with EPA

YEAR SEVEN ACTIVITY	ACTIVITY LEVEL
Resource Levels	Maintain appropriate funding at agreed upon level. Assess and make changes as necessary.
Assess Capacity Needs	Revise as necessary
Records and Reporting	Keep accurate records and submit required reports. This includes maintenance of an inventory of public water drinking water systems, and the record keeping and reporting requirements in the federal regulations (40 CFR ' 142.14 and 142.15).
Surveillance of PWS Reporting	Maintain surveillance of PWS compliance with MCL=s and public notice, record keeping and reporting, monitoring, and treatment techniques requirements. Follow up violations with appropriate assistance and coordination with EPA on enforcement, which are further procedures to assure that PWS=s produce and distribute safe drinking water.
Source Water Protection	Maintain implementation from year six (if tribe is participating in source water protection program)
Sanitary Survey Program	Implement a sanitary survey program as one procedure to assure that PWS=s produce and distribute safe drinking water, with priority given to PWS=s not in compliance with drinking water regulations.
Plan and Spec Review	Implement a plan and construction review program as one procedure to assure that PWS=s produce and distribute safe drinking water.
Laboratory Certification	Assure adequate certified laboratory capability
Operator Training and Certification	Encourage and support operator training and certification to assure that PWS=s produce and distribute safe drinking water.
Emergency Plan	Maintain a plan for the provision of safe drinking water for use during drinking water emergencies. In the event of an

YEAR SEVEN ACTIVITY	ACTIVITY LEVEL
	actual emergency, effectively implement the plan.
Technical Assistance	Maintain expertise and provide technical assistance (as required) to PWS=s in the provision of safe drinking water.
Strategic Planning	With EPA, tribe continues to jointly plan and prioritize program activities which address tribal and federal priorities and initiatives.
Financial Accountability	Tribal staff continue to remain fully accountable for all program expenditures
Program Guidance/Agreements	With EPA, tribal staff jointly develops and maintains applicable program priority guidance, Quality Assurance Plan, and other operating guidance.
Coordination of Joint Activities	A high level of coordination and cooperation between tribal and EPA staff is maintained, assuring successful and effective administration of the program. Coordination includes evaluation of desirable technical support and targets joint efforts.
Program Communication	Frequent and open communication between EPA and tribal staff is maintained, regarding changes in program capability, changes in tribal government, modification of resource levels, and emergency situations.
Public Involvement	The public is involved as appropriate. A system is in place to respond to requests for information and complaints or concerns from the public. Quality information is given to consumers about the quality of their drinking water, so they can better participate in solutions to problems.
Tribal Code Revisions	On-going revisions to the tribal Code will be made as necessary (as federal regulations are revised). Tribal staff will ensure the Code is as stringent as federal regulations. Tribal staff will implement the Code according to partnership agreements and program requirements.