

2 ROLES AND RESPONSIBILITIES

Overview

Ground water protection within the NNEPA occurs through a coordinated effort between various NNEPA departments - the "Air / Toxics department", "Waste Regulatory & Compliance Department", "Surface & Ground Water Protection Department", and the "Criminal Enforcement." (See NNEPA Organizational Chart in Appendix F-1).

Public water system purveyors have the primary responsibility for developing and implementing local wellhead protection programs. It is essential that public water system purveyors work with the NNEPA to ensure effective implementation. The NNEPA is responsible for providing technical assistance and outreach and have regulatory responsibilities for many of the potential sources of ground water contamination identified during the inventory process.

Duties of PWSs regarding development & implementation of WHP

All public water systems are currently required to prepare wellhead protection planning documents. Local wellhead protection programs are to be developed and implemented by all public water system purveyors using ground water or springs as a source water.

The wellhead protection program portion of a water system's planning document should contain, at a minimum, the following elements:

1. A completed vulnerability assessment;
2. Wellhead protection areas delineated for each well, wellfield, or spring with the one, five and ten year time of travel boundaries marked, or boundaries established using alternate criteria approved by the NNEPA-PWSSP in those settings where ground water time of travel is not a reasonable delineation criteria;
3. A list of known and potential ground water contaminant sources located within the defined WHPA(s) that may pose a threat to the water bearing zone (aquifer) utilized by the well, spring or wellfield. The list shall be updated every two years. A description of how the inventory of potential contaminant sources was done and how it will be updated should be included;
4. Documentation of purveyor's notification to all owners/operators of known and potential sources of ground water contamination within the WHPA boundaries;

5. Documentation of purveyor's notification to regulatory agencies and chapter governments of the boundaries of the WHPA(s) and the finding of the WHPA inventory;
6. A contingency plan for providing an adequate supply of potable water in the event that contamination results in the temporary or permanent loss of the principal source of supply; and
7. Documentation of coordination with local emergency responders (including police, fire, and health departments), including notification of WHPA boundaries, results of susceptibility assessment, inventory findings, and contingency plan.

Duties of Navajo Nation Chapter and Local Governments

The majority of the responsibility for implementing wellhead protection lies at the local level. On the Navajo Nation, most land use planning occurs at the local government level. Purveyors of public water systems and the communities dependent on their water supplies have a strong interest in protection the drinking water resource. This may be accomplished by strong educational programs, use of Best Management Practices and other non-regulatory approaches.

In some settings, adopting zoning ordinances or codes which limit activities around the water supply, setting design or operating standards for facilities located within the wellhead protection area, or other regulatory approaches may be needed. Local chapter officials with land use authorities will select and implement the necessary steps to protect the community's water supply. Local departments of community development or similar local planning agencies have a key role in assuring that wellhead protection programs are integrated in the overall planning occurring within the community. An excellent summary of the common measures used in local wellhead programs can be found in the US EPA document: *Wellhead Protection : Tools for Local Governments*. Copies can be obtained from EPA Region IX's Office of Water (Appendix G).

Wellhead protection areas can be identified as a type of critical aquifer recharge area. A local wellhead protection program can serve as a mechanism to protect critical aquifer recharge areas. The converse is also true: declaration of a wellhead protection areas as a critical recharge area subject to local regulations and policies to protect such areas is a useful component of a local wellhead protection program.

Duties of Local Wellhead Protection Committees

Due to the fact that many wellhead protection areas will lie, at least in part, outside of the jurisdiction of the purveyor, interjurisdictional cooperation is essential for effective wellhead protection. To help resolve multi-jurisdictional issues, a Local Wellhead

Protection Committee should be established very early in the process. Representatives from all affected jurisdictions, regulatory agencies, and other constituencies (private sector, citizen groups, media) should be participants. In many settings a local chapter government agency is most appropriate as the designated land agency of the committee. Existing groups in the community such as the Grazing Committee or a Water Utility Coordinating Committee may serve as the nucleus of a local wellhead protection committee. In areas with multiple small to medium sized public water systems, a high degree of coordination is essential. Coordinators of local chapter government programs such as watershed management and growth management need to be involved in local wellhead protection implementation efforts beginning in the very early stages. Coordinating efforts may provide significant cost savings when delineating and inventorying.

Local wellhead protection committees' roles may vary depending on the chapter they are located in. In some chapters, the local wellhead protection committee may play a major role in almost every aspect of wellhead protection—from coordinating delineation and inventory efforts to prioritizing potential contaminant sources and developing management approaches. In other areas, it may be appropriate for the committee to focus primarily upon development of protective strategies, leaving the delineation and inventory up to individual purveyors.

Duties of Public Health Service Departments (IHS-OEHE, CHRs, etc.)

Indian Health Service (IHS) departments have authority and responsibility for protection of public health. The majority of IHS departments maintain records on individual septic systems that were funded. Most IHS departments have assumed some level of responsibility of focusing on public water supplies and drinking water systems.

In some chapters, the IHS department may agree to play a lead role in helping to implement wellhead protection. IHS department wellhead protection activities may include assisting in the inventory process, acting as an advocate to the local chapter political jurisdictions, or providing technical assistance to purveyors of small public water systems.

Duties of Interagency Water Programs

During the past several years it has been recognized that ground water protection would be more effective if implementation efforts were better coordinated between programs, agencies and various levels of government (federal, tribal, state, local, and chapter). There is further recognition that there are discrepancies between programs, possible gaps in control mechanisms, and some duplicative use of limited ground water protection resources.

On February 23, 2001 an initial interagency water resources coordinating group meeting was held, partially in response to this lack of coordination. A document was also

developed by the Navajo Nation Department of Water Resources Management called "Water Resource Development Strategy For the Navajo Nation", July 17, 2000. Subsequent to this initial meeting, a group or task force was formalized, which established a regular meeting schedule, and developed a set of goals and objectives. The "task force" consists of participating agencies including state and federal agencies, local chapters and the Navajo Nation (Appendix G). A primary goal of the task force is to provide a forum at which ground and surface water related issues, programs or activities with interjurisdictional implications can be examined.

The task force can serve as a primary mechanism to address cross-program and cross-agency issues which can integrate wellhead protection implementation.

Duties of NNEPA PWSSP

The NNEPA PWSSP is responsible for protecting the public health by assuring a safe and reliable drinking water supply. NNEPA PWSSP implements drinking water protection through monitoring compliance and regulation on water supplies, pollution prevention efforts and a cooperative relationship with water utilities and the Indian Health Service (IHS) area offices. NNEPA PWSSP has primary responsibility for implementation of the federal Wellhead Protection Program requirements and other components of the Navajo Nation Safe Drinking Water Act (NNSDWA), and establishes monitoring and planning requirements for public water systems.

On the Navajo Nation, with some exceptions, a public water system is defined as any system, excluding a system serving only one single-family residence, providing piped water for human consumption. Public water systems are those systems which meet the federal definition of a public water supply (15 or more connections, or 25 or more persons served). A more complete definition of public water systems can be found in the Navajo Nation Primary Drinking Water Regulations (NNPDWR).

The NNEPA PWSSP will soon be responsible for the oversight of the design/engineering of public water systems. The NNEPA PWSSP is responsible for the operational functions of public water systems to deliver safe drinking water. The NNEPA PWSSP maintains an inventory of public water supply wells and their legal locations. Operational reports containing use and drawdown information are submitted to the NNEPA PWSSP from the IHS or the Navajo Nation Water Resources Department. The NNEPA PWSSP can provide public access to water quality monitoring data, engineering pump tests, Sanitary Survey reports, and evaluations or assessments of the area surrounding well sites through reports, including completed vulnerability assessment survey forms.

The wellhead protection program is established within the NNEPA PWSSP under Pollution Prevention. NNEPA PWSSPs wellhead protection functions in coordinating development with other NNEPA programs, working with appropriate agencies to ensure technical soundness, organizing public meetings and citizen participation efforts, acting as a central repository for information on source identification and control, developing

technical assistance documents, and assist in funding activities if needed. The NNEPA PWSSP wellhead protection program serves as the principal contact for any entity seeking general information on wellhead protection or the wellhead protection program within the Navajo Nation. Wellhead protection questions that are water system-specific should be directed to the NNEPA PWSSP staff (Appendix F-2).

The NNEPA PWSSP works with other NNEPA Programs, Navajo Nation departments, and others to identify pollution prevention/risk reduction technical assistance information available for potential contaminant sources located within wellhead protection areas. Mechanisms are in place to expedite the transfer of this information to potential contaminant sources, through Geographic Information Systems (GIS). NNEPA is also working with a variety of agencies to identify types or classes of potential contaminant sources which lack pollution prevention/risk reduction technical assistance so the need can be noted and addressed as rapidly as possible.

One of the NNEPA PWSSPs primary roles is to serve as the lead for wellhead protection implementation. As lead, the NNEPA PWSSP coordinates and promotes pollution control and prevention measures within wellhead protection areas. Coordination efforts include hosting interagency meetings and conducting workshops on the Wellhead Protection Program, helping develop interagency agreements when deemed appropriate, and actively participating in the task force for water resource strategic planning.

The NNEPA PWSSP also offers technical assistance for such tasks as evaluating the potential for ground water contamination from facilities/activities within a designated wellhead protection area, and assisting in the development of management and contingency plans. In addition, the NNEPA PWSSP serves as a point of contact for information on actions which can be taken at the local chapter level to minimize the probability of contamination.

Duties of other NNEPA Programs

The NNEPA is the primary environmental protection agency on the Navajo Nation that consists of some programs that are able to seek delegation from the Federal USEPA with other programs that are non-delegable. So far, the NNEPA PWSSP SDWA program is the only Navajo Nation program to obtain Primacy or delegated authorities from the USEPA as of December 6, 2000. As a result, the NNEPA PWSSP has a significant role in implementing the Navajo Nations Wellhead Protection Program with coordination efforts between other NNEPA programs. These include the NNEPA Surface and Ground Water Protection Department (PWSSP, UIC, Water Quality, and NNPDES programs); Waste Regulatory and Compliance Department (Hazardous Waste, RCRP, and Superfund programs); Air/Toxics Department (Air Quality, Pesticide, Asbestos, and Radon programs); and Criminal Enforcement. All of these departments have active roles in the task for water resources strategic planning.

The NNEPA Resource Conservation and Recovery Program, Solid Waste, Program offers technical assistance to chapter governments on waste management and pollution prevention issues. Under the Resource Conservation and Recovery Act (RCRA), the Hazardous Waste program also manages small quantity generators of hazardous wastes, those that fall below thresholds regulated under the USEPA's Hazardous Waste Regulations. A primary objective of wellhead protection is to implement pollution prevention and risk reduction measures within wellhead protection areas. For this reason, the Solid and Hazardous Waste Programs have key roles in technical assistance outreach efforts as potential sources of ground water contamination are identified.

To elaborate on the **NNEPA Hazardous Waste Program and discuss the Toxics Department**, these are responsible for administering the federal RCRA program and providing pollution prevention assistance to businesses and entities on the Navajo Nation. These programs and NNEPA PWSSPs Wellhead Protection Program may jointly implement a pollution prevention grant from EPA to target technical assistance to RCRA facilities within wellhead protection areas. Under these programs, there is the "Emergency Spill Response" section that works with the Navajo Nation Fire Departments, the Navajo Nation Police Department and the Navajo Nation Emergency Management Department to develop Standard Operating Procedures (SOP) for emergency first responders to use when reacting to a chemical spill or potential release within susceptible ground water areas.

The **NNEPA Pesticides Program** responsibilities, as they pertain to ground water protection, include: regulating confined animal operations and farm operations; pesticide registration, usage, storage, and application; and regulation of commercial fertilizer storage, transportation, and use. The NNEPA Pesticides Program has the responsibility of implementing USEPA regulations on pesticide and agriculture and chemical use. The NNEPA Pesticides Program will work with several Cooperative Extensions (New Mexico State University, University of Arizona, Utah State University, and the Dinè College), NNEPA Water Quality, NNEPA PWSSP and other appropriate agencies to develop BMPs for agricultural operations located within wellhead protection areas determined to be potential contaminant sources.

The **NNEPA - Surface and Ground Water Protection Department** oversees several programs which relate to wellhead protection and the protection of water quality, including the Underground Injection Control (UIC) program and the Water Quality program which is close to administering Navajo Nation Water Quality Standards. Wellhead protection areas located in susceptible hydrogeologic settings may be classified as "Special Protection Areas" as defined by Water Quality Standards. This enables the NNEPA to establish additional discharge or monitoring requirements on permitted facilities discharging to water sources. Please reference the Water Quality Standards for more details on Special Protection Area designations.

The NNEPA - Surface and Ground Water Protection Department is also in the lead role for management and control of both point and non-point sources of pollution. As potential contaminant sources are identified within delineated wellhead protection areas, the NNEPA Surface and Ground Water Protection Department will work with other NNEPA programs and appropriate agencies and programs to provide technical assistance to the identified party(s) in order to minimize or eliminate the risk of water source contamination.

Regarding NNEPA financial assistance, currently there has not yet been any revolving funds to support source water pollution prevention activities. There are plans for revolving accounts based on permit applications and fees for specific NNEPA programs. However, states do provide several million dollars in the form of competitive grants to local governments for water quality protection efforts, as well as water pollution control projects, for both facilities and activities. These funds can be used to help implement local wellhead protection programs.

Duties of the Navajo Nation Department of Water Resources Management

The Navajo Nation Department of Water Resources Management (NNWRM) is the lead in water management and is promoting the "Water Resource Development Strategy For the Navajo Nation" document. This document is an important complement to the NNEPA PWSSP Wellhead Protection Program. The Navajo Nation Department of Water Resources has been established to protect water quantity and to some extent water quality, and manage the resource over a large area and for all beneficial uses (not just drinking water). Wellhead protection can be an important component of the "Water Resource Development Strategy For the Navajo Nation"; serving as an initial starting point for implementation efforts. For more details on the "Water Resource Development Strategy For the Navajo Nation", contact the NNWRM (Appendix G).

The NNWRM is also responsible for ground water rights, permitting well drillers, performing hydrologic studies on each ground water basin, recognizes the licensing of ground water/observation and monitoring well drillers and other programs relating to ground water management and protection.

The NNWRM maintains an inventory of wells on the Navajo Nation including public and private water supplies along with Livestock wells. The inventory contains locational information such as legal descriptions and latitude/longitude. Well construction descriptions and lithologic data are submitted by the well driller and maintained. This information may be valuable to public water systems as they model their wellhead protection areas or conduct potential source inventories (locating abandoned wells for example).

Duties of Cooperative Extension Programs

Cooperative Extension programs have educational centers at some chapter communities on the Navajo Nation. Area agents provide direct technical assistance and information to community residents on many environmental issues, including water quality. Agents can help develop local wellhead programs and, based on available resources, will have a significant role during program implementation.

Duties of other Natural Resource Programs (USDA Soil Conservation Service (NRCS), BIA Natural Resources, etc.)

Conservation programs are responsible for helping land owners and land management officials learn and adopt Best Management Practices (BMPs), including those that reduce or eliminate the leaching of pollutants into ground water supplies. These BMPs are directed at land use practices such as agriculture, development or storm water runoff. BMP development activities are carried out in coordination with other federal, tribal, state, or local agencies that may exercise regulatory authority over aspects of these land use categories. These BMPs are usually promulgated through education, technical and other voluntary approaches.

The USDA NRCS and the Navajo Area BIA maintains inventory information on soil conditions and land use patterns across the Navajo Nation. The NNEPA PWSSP will be requesting that this data be available to help identify potential non-point sources of pollution that could impact drinking water wells.

Local land management officials (district, chapter or otherwise) may identify site specific activities that have the potential to contaminate ground water, and can participate in development of local wellhead programs. They would be responsible for promoting ground water protective BMPs; therefore they will have a significant role during implementation of local wellhead programs.

Duties of Federal Agencies

Although the Wellhead Protection Program is a Navajo Nation program, there is a role for federal agencies. The **U.S. Environmental Protection Agency (EPA)** is the lead federal agency for wellhead protection. EPA reviews and approves state and tribal wellhead protection programs. EPA provides federal funding, develops technical assistance documents, hosts workshops, and provides wellhead protection demonstration grant monies to local governments. In addition, if a federal facility is located within a delineated wellhead protection area, EPA can be a liaison between the local program and the federal facility, ensuring that the federal facility takes the appropriate steps to minimize or prevent ground water contamination.

The **Natural Resources Conservation Service (NRCS)** (formerly known as Soil Conservation Service - SCS) of the U.S. Department of Agriculture may offer technical assistance for groundwater quality protection to landowners or land managers located within wellhead protection areas. Also, under the 1990 Federal Farm Bill, the USDA can enroll some agricultural areas located within wellhead protection areas in its Conservation Reserve Program. The NRCS is also an excellent source of technical information concerning water quality protection from agricultural operations.

The **United States Geological Survey (USGS)** is a research oriented agency with considerable technical expertise in ground water hydrogeology. USGS has collected detailed information on the geology of various formations and on subsurface hydrologic conditions. The USGS works with communities in modeling hydrogeologic settings. These studies often provide the technical information needed to delineate wellhead protection areas as well as aid in data collection and analysis. Other ground water quality studies done by the USGS may also assist in protecting ground water quality.

The **Bureau of Indian Affairs (BIA)** has five agency offices on the Navajo Nation and a central Regional office in Gallup, New Mexico. The BIA has a natural resources program that includes protection with respect to water. With federal trustee responsibility to the Navajo Nation, the BIA agency offices can integrate wellhead protection into their natural resources protection efforts and implement this program at agency levels. The BIA has a strong Reclamation program with considerable technical expertise in soil and water conservation.

Navajo Nation Environmental Protection Agency Wellhead Protection Program and Federal Facilities

Under the SDWA Amendments of 1986, any department or agency of the federal government with jurisdiction over any potential source of contaminant within wellhead protection areas is subject to, and must comply with, all requirements of the State or Tribal Wellhead Protection Program.

The NNEPA PWSSP will contact all federal agencies with land management responsibilities on the Navajo Nation, educate them on wellhead protection and how it may potentially affect their activities. BIA public water systems and other federal areas with water system installations should have wellhead protection area delineations developed. Federal facilities determined to have control of areas located within a delineated wellhead protection area (from either an adjacent public water supply or from their own public water supply) will be expected to comply with all applicable rules and regulations. Federal facilities will be encouraged to develop their own rules and regulations above and beyond the minimum legal requirements to protect the Navajo Nation's ground water and drinking water resources.

NNEPA Wellhead Protection Program and Navajo Nation Chapters

The NNEPA PWSSP will assist the Navajo Nation Chapters by providing technical assistance upon request. Navajo Nation Chapters may be eligible for federal water quality grants and loans. The NNEPA PWSSP will work with other tribes and states to address interjurisdictional questions when wellhead protection areas cross Navajo Nation boundaries. Both NNEPA PWSSP and the Indian Health Service offer technical and possibly financial assistance to systems for wellhead protection implementation efforts.