



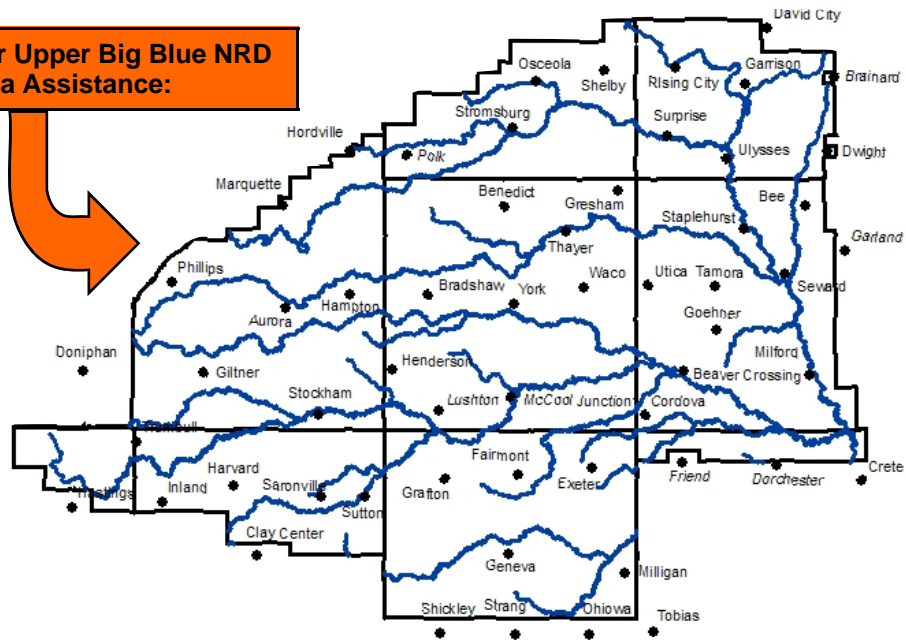
UPPER BIG BLUE NATURAL RESOURCES DISTRICT PROGRAMS

WATER MANAGEMENT

Wellhead Protection Area Assistance:

This program supports and enhances the establishment and management of Wellhead Protection Areas (WHPAs) in the Upper Big Blue Natural Resources District and neighboring communities in Adams, Butler, Clay, Fillmore, Hall, Hamilton, Polk, Saline, Seward and York Counties.

Communities Eligible for Upper Big Blue NRD Wellhead Protection Area Assistance:



Objectives for Wellhead Protection Area Assistance:

1. Facilitate WHPA delineation, contaminant source inventories and development of WHPA management plans for public water suppliers within the District and neighboring communities.
2. Provide advanced, focused assistance to a limited number of communities within the District and neighboring communities, concentrating on communities which have established WHPAs and a commitment to ongoing management within the WHPAs.
3. Provide technical assistance to communities by gathering, interpreting and delivering technical information required for WHPA activities.
4. Coordinate and enhance assistance for protecting community drinking water supplies under various programs such as Nebraska's Non-point Source Management Program, Source Water Assessment and Protection, the Mandates Management Initiative and related efforts.
5. Implementation of possible Phase II or Phase III Water Quality Management Areas within the District where source of contamination is due to non-point sources.
6. Assist in protection of water quality in and around WHPAs through the use of current District programs such as water well decommissioning, vadose zone and soil sampling, water sampling and analysis, GIS and GPS mapping capabilities, chemigation, free nitrate testing, etc.

Anticipated Results for Wellhead Protection Area Assistance:

1. Gather sufficient technical information to delineate WHPAs for all the communities and public water suppliers within the District and neighboring communities.
2. Contaminant source inventories for approximately 50% of public water suppliers with delineated WHPAs within the region.
3. Long term WHPA management plans for approximately six suppliers within the District and neighboring communities.
4. Increased technical assistance/information dissemination to communities at all stages of WHPA development and implementation.
5. Improved coordination of ongoing efforts involving protection of drinking water supplies.

Wellhead Protection Area (WHPA) Management Assistance

The NRD assists communities with establishment and management of Wellhead Protection Areas (WHPAs) throughout the Upper Big Blue Natural Resources District and neighboring communities in Adams, Butler, Clay, Fillmore, Hamilton, Polk, Saline, Seward and York counties. Objectives for this program include:

1. Delineate the Wellhead Protection Area (WHPA):

Wellhead areas are identified using computer map models that show where the public drinking water supply is expected to come from over the next 20 years. The Nebraska Department of Environmental Quality (NDEQ) and some Natural Resources Districts (NRDs) are doing this work for public water suppliers for free. Contact NDEQ if you do not have a WHPA map for your public water supply system and they will provide you with one.

2. Inventory Potential Sources of Contamination:

NDEQ offers for free “*The Contaminant Source Inventory Guidebook for Nebraska*” to help conduct the inventory. NDEQ will train inventory workers. Nebraska Rural Water Association (NeRWA) will help small communities (<10,000 population) with inventories. Also, some Natural Resources Districts are helping public water suppliers with inventories and management plans.

3. Managing Potential Contamination Sources:

This includes educating community members about potential pollution sources, enacting local ordinances, closing abandoned wells, and working with the Natural Resources District (NRD), UNL Cooperative Extension and crop consultants to encourage Best Management Practices (BMPs) on WHPA lands in and around towns and villages. BMPs are procedures used by home owners and agricultural producers to safeguard against pollution. BMPs include careful watering and irrigation, pesticide and fertilizer application on lawns, gardens and fields.

*Closing Abandoned Wells: Sealing abandoned wells is an important preventative step in establishing the WHPA. Abandoned wells are a high-risk source that can allow pollutants into our ground water. The NRD has funds to help pay for the cost of permanently sealing abandoned wells, both in urban and rural areas.

*Adopt Zoning Ordinances: Town/village boards can adopt or adapt ordinances and zoning provisions applicable to the Wellhead Protection Area. Some examples might be: Adopting Wellhead Protection Area boundaries; adopting setback distances from public supply wells for potential contaminant sources; and zoning an area as strictly residential, with no new domestic wells or septic tanks allowed without permits.

4. Develop Emergency & Contingency Plans:

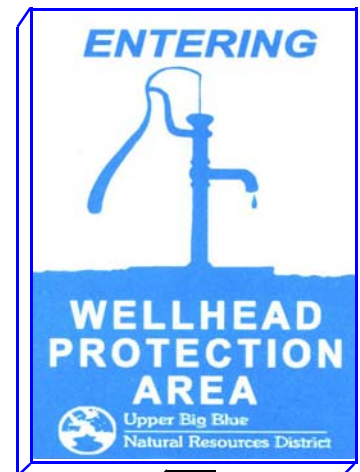
The program is designed to plan ahead for possible well failure due to contamination, natural disaster, mechanical problems, etc. Plans are set for both short and long term needs.

5. Plan Ahead for New Wells:

New wells may eventually be needed as a community grows or as existing wells age. Decision making in a non-emergency setting will be easier than trying to plan in a crises.

6. Keeping the Public Informed, Educated and Involved:

Public awareness and involvement is essential to make the process a success. Public participation allows community residents to take pride in protecting their drinking water.



Currently, several communities are in various stages of WHPA planning including Benedict, Seward, Doniphan, Henderson, Fairmont, McCool Junction, Osceola, Grafton, and Harvard.

Wellhead Protection Area Program is a Sweeping Success

Upper Big Blue NRD

SPECIAL REPORT

FY2008

Have you seen any blue and white wellhead signs that are next to villages and towns as you drive through them? Have you wondered what they are and what do they mean?

The Wellhead Protection Program has been around for a long time. It originated with The Safe Water Drinking Act in 1986. The Environmental Protection Agency (EPA) laid out the framework and started contacting individual states in 1992 for Wellhead Protection pilot programs. The EPA funded several programs in the next few years and then began giving grants to various agencies to assist with wellhead programs.

In 2000, the Upper Big Blue Natural Resources District received a grant for three years to help villages and towns in our District. After the grant was fully expended, the Upper Big Blue NRD Board of Directors thought that this was a valuable program. In turn, the NRD Board continued to designate support for the program in order to continue to assist towns, villages and cities (no matter what their size) throughout the District.

As of June 2006, the Upper Big Blue NRD has been able to help 18 towns, villages and cities to complete their Wellhead Protection plans and several more are in various stages of completion.

The Little Blue Natural Resources District (headquartered in Davenport, Nebraska) has also been assisting towns in their District. As of June 2006, Daryl Andersen, Water Resources Specialist at the Little Blue NRD, has assisted 14 towns to complete their wellhead plans. *Remarkably, between both the Upper Big Blue and Little Blue NRDs, Daryl and Russ have been responsible for spearheading over one-half of Nebraska's approved Wellhead Protection plans.*



Pictured left to right, Russ Gierhart, Water Resources Technician of the Upper Big Blue NRD and Daryl Andersen, Water Resources Specialist of the Little Blue NRD, install a Wellhead Protection Program sign outside of Shickley, Nebraska. These two men combined have accounted for creating Wellhead Protection plans for over one-half of the State of Nebraska's total approved plans.

One reason why all these communities have been interested in creating Wellhead Protection plans is that they have been easier to accomplish because of the technical assistance provided by Daryl and Russ, such as helping guide communities through the public hearing process, or facilitating the process for the plans to be “grandfathered” in if at some future date they become more complicated to complete. In fact, over \$500,000 in grants have been initially awarded to some of these communities — from such entities as The Nebraska Department of Environmental Quality and The Nebraska Environmental Trust — to help fund the completion of Wellhead Protection plans.

WHPA