

## Source Water Protection Planning

by Barney Whatley  
Source Water Specialist

There are six steps that need to be taken when developing a source water protection plan, and they are all essential and several of them, should be completed simultaneously. The six steps are: delineating the source water protection area; inventorying potential sources of contamination; managing the potential sources of contamination; planning for emergencies and contingencies; planning for new sources of water; and public education and involvement.

As a result of the 1996 amendments to the Safe Drinking Water Act, the Nebraska Department of Environmental Quality (NDEQ) was tasked with developing source water assessments for all public water supply owners. These assessments were completed and furnished to all public water supply owners by May of 2003. These assessments delineated the source water protection area for the systems based on computer models incorporating pumping data and ground formations near the wells. NDEQ will update the delineations and the protection areas as needed when wells are added or removed from the system.

These assessments also included any contaminant sources that are in the NDEQ database, which include licensed facilities and reported spills. The Department of Natural Resources (DNR) also has a database of all registered wells within the protection area which need to be considered. An onsite contaminant source inventory is also required to locate and list other sources, including abandoned wells, onsite fuel, chemical and grain storage, unregistered domestic and irrigation wells and feed lots, etc.

Once the contaminant inventory is completed, the task of managing the sources that have been located can begin. The local NRD has cost share programs that can be utilized for abandoning wells, soil and water conservation and other best management practices. UNL extension offices have publications to assist homeowners in landscaping practices that conserve water and limit fertilization. If the water supply owner is a village or city, zoning regulations can be utilized to limit or prevent land use practices that are harmful to the future water supply.

Emergency and contingency planning should incorporate all foreseeable natural and man-made events that could contaminate the water supply. Part of this process needs to be looking at new sources of water in case the current source becomes unusable for any reason. Testing existing wells near the system for contaminants can assist in determining possible sites for new well fields, should that become necessary.

Throughout all of this process, the public needs to be kept informed and invited to offer input and suggestions on how to protect the drinking water source. This includes those who drink the system water as well as those who own land within the source water protection area. Many farmers and ranchers move into town when they retire, so they too have a personal interest in keeping the water supply safe. Encouraging best management practices on the farm and in town is much better than passing laws and regulations to prohibit people from using their property as they see fit. This is America, the land of the free, after all.