

SOURCE WATER Assessment Program

What You Need to Know About
Your Source of Drinking Water

It is important to note that a susceptibility rating of higher does not imply poor water quality. Susceptibility is an indication of a public water supply's potential to become contaminated.

Why Were the Source Water Assessments Completed?

Through amendments of the national Safe Drinking Water Act, Congress required all states to implement a Source Water Assessment Program. The intent of the amendments was that the source water assessments would be used as a planning tool for protecting public drinking water sources. The PWS Section encourages federal, state and local programs, interested parties and public water system owners to use the assessment results to prioritize efforts to reduce or eliminate the potential contamination threat. Information about how to protect your source of drinking water is also available on the PWS Section's Web site.

How to Get a Copy of Your Source Water Assessment Report

Completed assessment results are summarized in a report for each public water supply system in the state. These reports are available to the public on the PWS Section's Web site.

If you have any questions or concerns, please contact the Source Water Assessment Program at (919) 715-2633 or by e-mail at swap@ncmail.net.

**Public Water Supply Section
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The state Public Water Supply Section has assessed the susceptibility of public drinking water sources to contamination. A map-based application was developed to delineate, inventory and rank the state's more than 9,000 public drinking water sources.

The purpose of this brochure is to provide a general overview of the source water assessment process. A more detailed description of the assessments along with reports and maps can be found on the PWS Section's Web site: <http://swap.deh.enr.state.nc.us/swap>.

What is a Source Water Assessment?

A source water assessment is an evaluation of how susceptible a drinking water source is to contamination.

The three basic steps to completing an assessment are to:

1. Delineate the assessment area(s),
2. Inventory potential contaminants, and
3. Determine the susceptibility of each source to contamination.

Delineation of Source Water Assessment Areas

To delineate the source water areas, the PWS Section built upon existing protection programs for ground and surface water sources. These include the state's Wellhead Protection (WHP) Program and the Water Supply Watershed Protection (WSWP) Program.

Wellhead Protection Program

A WHP area is the surface and subsurface area surrounding a well or well field that supplies a public water system, through which contaminants are likely to move toward and reach. The PWS Section uses the methods described in the state's approved WHP Program to delineate source water assessment areas for all public water supply wells.

Water Supply Watershed Protection Program

The N.C. Division of Water Quality is responsible for managing the standards and classifications of all water supply watersheds. The water supply watershed boundaries and methods established by the WSWP program are used as a basis to define source water assessment areas for all public surface water intakes. Additional information regarding the WSWP Program can be found online at: <http://h2o.enr.state.nc.us/wswp/index.html>.

Potential Contaminant Inventory

To inventory potential contamination sources, the PWS Section reviewed relevant, available sources of existing data at federal, state and local levels. Sixteen statewide databases containing usable geographic information related to potential contamination sources were obtained. The contaminant inventory includes such things as underground storage tank facilities, hazardous waste storage and treatment sites, old solid waste dumps and permitted wastewater outfalls.

Susceptibility Determination

The overall susceptibility determination evaluates the potential for a drinking water source to become contaminated. A susceptibility rating of higher, moderate or lower for each source is determined by combining the results of the inherent vulnerability rating and contaminant rating for each intake.

Inherent Vulnerability Rating

Inherent vulnerability refers to the physical characteristics and existing conditions of the watershed or aquifer. The inherent vulnerability rating of ground water sources is determined based on an evaluation of aquifer characteristics, well integrity and construction quality, and unsaturated zone characteristics. The inherent vulnerability rating of surface water sources is determined based on an evaluation of the watershed classification, intake location, raw water quality data (i.e., turbidity and total coliform) and watershed characteristics (i.e., average annual precipitation, land slope, land use, land cover, and groundwater contribution).

Contaminant Rating

The contaminant rating is based on an evaluation of the density of potential contaminant sources and their proximity to the public water supply intake within the delineated assessment area.

