

## Illinois EPA Ambient Groundwater Monitoring Network Factsheet

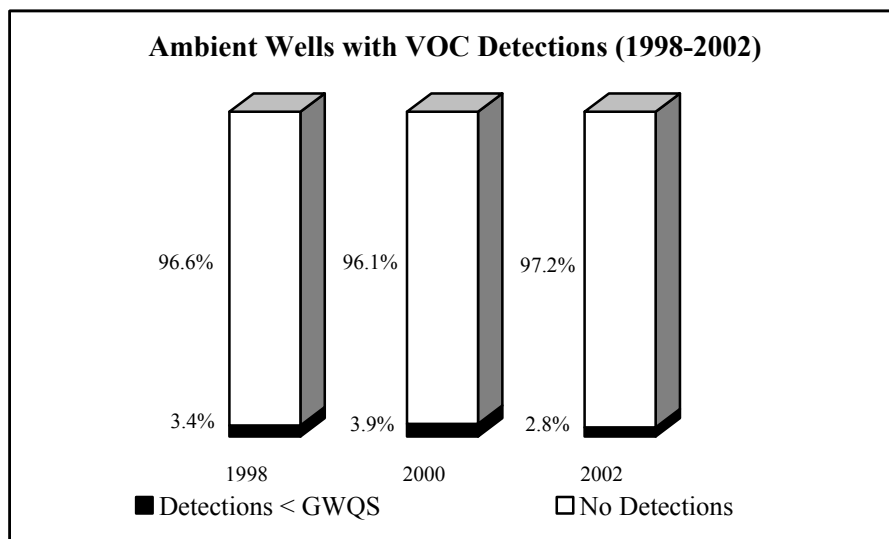
The Illinois EPA operates an Ambient Groundwater Monitoring Network consisting of approximately 350 Community Water Supply (CWS) wells. The goal of this network is to represent the detection of pesticides and other chemical contamination in the entire population of CWS wells across the state.

The Ambient Network is designed to:

- Provide an overview of the groundwater conditions in the CWS wells in Illinois;
- Provide an overview of the groundwater conditions in major aquifers in Illinois;
- Establish baselines of water quality within the major aquifers in Illinois;
- Identify trends in groundwater quality in the major aquifers in Illinois; and
- Evaluate the long-term effectiveness of Clean and Safe Drinking Water Act program activities in protecting groundwater resources in Illinois.

There are approximately 3,300 active Community Water Supply wells (CWS wells) in Illinois. Since it is not practical for Illinois EPA personnel to sample all of these wells on a regular basis, a statistical approach was developed to represent the entire population of CWS wells. The Ambient Network wells were randomly selected and stratified using three different variables: depth, aquifer, and surficial vulnerability. The network was also designed to reduce bias caused by the specific location of the well and the time of year that the sampling was done. The wells have been sampled within a fixed three-week time frame every other year since 1996 (from 1993-1995 sampling was done within a fixed three-week time frame every year). Samples are analyzed for inorganic chemicals (IOC), synthetic organic pesticides (SOC), and volatile organic/aromatic compounds (VOC).

The Illinois EPA uses the data collected from the Ambient Network to meet various state and federal reporting requirements, including the Illinois Groundwater Protection Program Assessment (IGPA) and the Illinois Water Quality Report (305(b)). For example, the graph below shows the rate of detections for VOCs in the Ambient Network for the 1998 - 2002 sampling periods.



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## Location of Illinois EPA's Ambient Network Wells

