

# SOURCE WATER ASSESSMENTS AND THE KENTUCKY LONG-RANGE COUNTY WATER SUPPLY PLANNING PROGRAM

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## SUMMARY

At present, water agencies are focusing on Source Water Assessments across the country due to the requirements of the 1996 Safe Drinking Water Act amendments. In the future, the hope is that these assessments will lead to "source water protection". However, for us to be truly effective in understanding and protecting our drinking water supplies, both of these goals (and all the steps involved in accomplishing them) should be looked at in a larger context where both quantity and quality issues are embodied in a holistic framework regarding present and future drinking water supplies.

Looking at water supplies with this mindset requires planning: short-range planning and long-range planning. It also requires a continuous planning process. A single plan is a snapshot in time projected into the future. To be effective, the planning process must take another snapshot at some time into that future, make corrections, and project that second snapshot into its own future, and so forth.

The Commonwealth of Kentucky has embarked on such a continuous planning process. This presentation will give you an overview of the process and how it relates to the current focus of Source Water Assessment.

### Long-Range Water Supply Plans

In 1990, the Kentucky General Assembly passed a law requiring all counties to develop a Long Range Water Supply Plan. Phase I of these plans requires an adequacy assessment of water suppliers for a 20-year planning period, balancing projected demand against present or planned supplies. Each water system is designated as adequate or inadequate for the 20-year period, during both normal and drought conditions. An inadequacy can be due to insufficient water, poor water quality or infrastructure (intakes, pumps, distribution lines, treatment capability, etc.) limitations. Also in Phase I, a watershed (surface water supplies) or recharge (groundwater supplies) protection area must be delineated on one of the eight maps

required in each plan.

In Phase II of the County Water Supply Plans, all potential sources of contamination in the protection area must be identified and located on another map, and each potential source must be assessed as to how likely it is that a contaminant from that source will reach the water supply.

Also, a contingency plan must be included to explain the measures that will be taken if a contamination, or other, event necessitates closure of a treatment plant. A survey of present protections for the protection area is made and recommendations are included for further actions needed to protect the water supplies.

Also in Phase II, for any system that is designated inadequate in Phase I, a set of alternatives to resolve the inadequacy must be developed. Then, through the leadership of a planning council, and with public participation, a preferred alternative to resolve the inadequacy must be presented. The planning council must include local officials and water system operators and can include other interested parties whose input would be beneficial to development and implementation of a plan that is appropriate for local conditions. For any system that will be inadequate during drought conditions, a Water Shortage Response Plan must be included.

### Source Water Assessment Program

In 1996, amendments to the federal Safe Drinking Water Act required that all states develop a Source Water Assessment Program (SWAP) and submit it for Environmental Protection Agency (EPA) approval by February of 1999. The main requirements of the SWAP are (1) delineation of supply protection areas, (2) an inventory of potential sources of contamination, and (3) a relative analysis of the susceptibility of the water systems to contaminants from those sources. As you can see, all of these SWAP requirements are included as requirements in Kentucky's long range County Water Supply Plans. Therefore, the Kentucky Division of Water submitted those parts of our ongoing program to EPA as the Kentucky

SWAP in July of 1997 and was granted EPA approval of the program in late September of 1998. We are the first state in the nation to receive such approval.

The deadline for each county to have an approved Water Supply Plan in Kentucky is July 15, 1999. Without such approval, a county will have difficulty accessing federal funds for any project impacting water. At present, 85 counties have received approval for Phase I plans, with 17 more submitted for review. Twenty-eight Phase II county plans are approved and three more are under review. Most plans (118 out of 120) are being developed by personnel from the 15 Area Development Districts.