SUPPLEMENTARY INFORMATION:

I. Background

Subsection 1424(e) of the Federal Safe Drinking Water Act (Pub.L. 93-523, as amended) states if the Administrator determines on his own initiative or upon petition, that an area has an aquifer which is the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health, he shall publish notice of that determination in the Federal Register. After the publication of any such notice, no commitment for federal financial assistance (through a grant, contract, loan guarantee, or otherwise) may be entered into for any project which the Administrator determines may contaminate such aquifer through a recharge zone so as to create a significant hazard to public health, but a commitment for Federal financial assistance may, if authorized under another provision of law, be entered into to plan or design the project to assure that it will not so contaminate the aquifer.

(Note: Effective March 9, 1987, authority to make a Sole Source Aquifer Designation Determination was delegated to the U.S. EPA Regional Administrators.)

II. Petition Background

In October 1990, EPA received a petition from Spencerville Dumpbusters, Inc. (the petitioner) which described a primary and secondary proposed area for designation; on July 26, 1991, EPA received additional information requested of the petitioner, and the petition was determined to be complete. To ensure a hydrogeologically defensible boundary, EPA revised the boundary of the proposed designated area to include the secondary petition area. Subsequent information on boundaries were submitted by the petitioner and discussed with EPA. EPA modified this second petitioner-generated map to arrive at a final boundary for designation.

III. Public Participation and Comment

On October 13, 1991, EPA published a 30-day public notice of the proposed SSA designation in a local newspaper, the Lima News. Of the 17 written comments submitted in response to this notice, 13 requested that a public meeting and hearing be held to discuss the proposed designation. Therefore, a combined public informational meeting and hearing was held in Lima, Ohio, on December 17, 1991, which was attended by about 90 people. A total of 49 comments were received from 35 persons during the three-month public comment period. A responsiveness summary addressing comments, dated March 2, 1992, was provided to those who commented.

IV. Basis for Determination

Among the factors to be considered by EPA in connection with the designation of an aquifer under Subsection 1424(e) are: (1) Whether the aquifer is the area’s sole or principal source of drinking water, and (2) Whether contamination of the aquifer would create a significant hazard to public health. On the basis of technical information reasonably available to EPA, the Regional Administrator has made the following findings, which are the basis for the determination noted above:

1. The ACACAS currently serves as the sole source of drinking water for approximately 90% of the 30,000 residents of Allen, Auglaize, Mercer, Van Wert, and Putnam Counties.
2. There is no existing alternative drinking water source or combination of sources which provides 50 percent or more of the drinking water to the designated area, nor is there any technically and economically feasible potential source or combination of sources capable of replacing the drinking water needs of the communities and individuals that presently rely on the aquifer.
V. Description of the Allen County Area Combined Aquifer System; Hydrogeology; Use; Recharge Boundaries

The ACACAS is a combined aquifer system consisting of a carbonate bedrock aquifer (dolomite and limestone) of Silurian geologic age and the overlying unconsolidated materials of glacial origin deposited about 12,000 years ago during the most recent episode of glaciation of the North American continent. The glacier left behind a heterogeneous deposit of rocks, gravel, sand, silt, and clay, called till. The till ranges in thickness from 0 to 50 feet or more, generally increasing from north to south within the designated area. The bedrock aquifer is comprised of three major lithologic units. From bottom to top they are: The Lockport Group, the Greenfield Formation, and the Tymochtee Formation. The thicknesses of these three units in the petition area average approximately 190, 45, and 100 feet or less, respectively. Underlying the Lockport dolomite is the relatively impermeable Rochester shale, which transmits very little water and thus is considered an aquitard.

The aquifer system is recharged primarily by precipitation percolating downward through the unconsolidated deposits into the dolomite bedrock. Most wells in the area draw ground water from the upper 50 feet of the bedrock aquifer. In some areas, however, sand and gravel lacustrine deposits and sandier portions of the glacial till (e.g., former beach ridges and sandy lenses within the till) are tapped by shallow wells which provide sufficient water for local needs. The upper bedrock aquifer and the localized unconsolidated aquifers may be considered one system inasmuch as they both share essentially the same recharge area.

This aquifer system supplies ground water for human, agricultural, and livestock needs. Total ground water withdrawal from public and private water supply wells tapping the ACACAS is estimated to average approximately 3 to 4 million gallons per day. This resource is the most technically and economically feasible source of drinking water in the area. In fact, over 90 percent of the water used in the designated area is drawn from the ACACAS. The ACACAS is recharged primarily by precipitation infiltrating from the land surface.

Maps of the designated area are available from the U.S. EPA, Region 5, Ground Water Protection Branch.

VI. Alternative Sources

Comparative analyses were conducted of the technical and economic feasibility of possible alternative drinking water sources to the ACACAS. Cost analyses were performed for all of these potential alternative sources. The costs for water distribution system and/or treatment plant improvements would far exceed SSA guidance thresholds for economic feasibility. Therefore, these sources are not feasible alternatives to the water presently supplied by the ACACAS.

VII. Information Used in the Determination

The information used in this determination includes the petition, published State and federal reports, maps, and various technical publications. The petition file is available to the public and may be inspected during normal business hours at the U.S. Environmental Protection Agency, Region 5, Ground Water Protection Branch, 77 West Jackson Boulevard, 16th Floor, Chicago, Illinois 60604.

VIII. Project Reviews

EPA- Region V has Memorandum of Understanding (MOU) with other federal agencies which may in the future provide financial assistance to projects in the ACACAS designated area. Relevant MOUs will be updated to include the ACACAS designated area. Interagency procedures have been developed through which EPA will be notified of proposed commitments of funding by federal agencies for projects which could contaminate the ACACAS. EPA will evaluate such projects and, where necessary, conduct in-depth reviews including solicitation of public comments where appropriate. Should the Administrator determine that a project may contaminate the aquifer through its recharge zone so as to create a significant hazard to public health, no commitment of federal financial assistance may be made. However, a commitment of federal financial assistance may, if authorized under another provision of law, be made to plan or redesign the project to ensure that it will not so contaminate the aquifer.

Although the project review process cannot be delegated, EPA will rely to the maximum extent possible on existing or future State and local control mechanisms in protecting the ground water quality of the ACACAS. Included in the review of any federal financially assisted project will be coordination with State and local agencies. Their comments will be given full consideration, and the federal review process will attempt to complement and support State and local ground water protection mechanisms.

IX. Conclusion

Today’s action provides for a review by EPA of federally financially assisted projects proposed within the designated area for their potential to impact ground water.


Valdas V. Adamkus. 
Regional Administrator.

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