Sole Source Aquifer Petition; Final Determination; Catawaba Island, OH

AGENCY: U.S. Environmental Protection Agency.

ACTION: Notice of final determination.

SUMMARY: Notice is hereby given that, pursuant to section 1424(e) of the Safe Drinking Water Act, the U.S. Environmental Protection Agency (EPA) Region V Administrator has determined that the Bass Islands Dolomite Aquifer, which underlies Catawaba Island Township in Ottawa County, Ohio, hereafter called the Bass Islands Aquifer, is the sole or principal source of drinking water for Catawaba Island Township and that this aquifer, if contaminated, would create a significant hazard to public health. As a result of this action, all Federal financially assisted projects constructed in the Bass Island Aquifer area and its principal recharge zone will be subject to EPA’s review to ensure that these projects are designed and constructed such that they do not create a significant hazard to public health.

DATES: This determination shall be promulgated for purposes of judicial review at 1:00 p.m. Eastern time on October 16, 1987.

ADDRESSEES: The data on which these findings are based are available to the public and may be inspected during normal business hours at the U.S. Environmental Protection Agency, Office of Ground Water 5WG-TUB8, 230 S. Dearborn Street, Chicago, Illinois 60604.


SUPPLEMENTARY INFORMATION:

I. Background

Section 1424(e) of the Safe Drinking Water Act (42 U.S.C. 300f, 300h-3(e), Pub.L. 93-523) states:

“(e) 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.”

Among the factors to be considered by the U.S. EPA in connection with the designation of an area under section 1424(e) are: (1) whether the Bass Island 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 available to this Agency, the Regional Administrator has made the following findings, which are the bases for the determination noted above:

1. The Bass Island Aquifer currently serves as the “sole source” of drinking water for approximately 4,600 permanent residents, 7,100 seasonal residents, and up to 20,000 transient users.

2. Catawaba Island Township is a peninsula which extends into Lake Erie. However, due to the absence on the peninsula of a central water distribution system, Lake Erie water is not available for use as a source of drinking water. 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 available cost-effective potential source capable of supplying the drinking water demands for the Catawaba Township community that are presently supplied by the aquifer.

3. The Bass Islands Aquifer is an unconfined to semi-confined aquifer that transmits water along joints and solution cavities, which are common
features in the dolomite bedrock. The majority of the area residents draw their drinking water from private wells which are typically 30 to 60 feet deep. Because of the ease by which water is transmitted through the relatively large conduits in the bedrock, downward migration of surface of near-surface contaminants to the saturated zone could occur in a relatively short time, with little opportunity for attenuation of the contaminants. Sources for such contamination include, but are not limited to: (A) Effluent from residential or commercial sewage disposal sites, (B) use and improper storage of agricultural chemicals, (C) leaking underground storage tanks, (D) leachments of fertilizers associated with golf course maintenance. Should any of the above sources of contamination enter the public water supply, there could be a significant negative effect on drinking water quality with a consequent adverse effect on public health.

III. Description of the Bass Islands Aquifer, Along With Its Recharge Zone

The Bass Islands Aquifer is a bedrock aquifer consisting of jointed and brecciated dolomite (a calcium-magnesium carbonate rock) which also contains many solution cavities. The joints and cavities provide the conduits along which ground water is transmitted to any wells that intersect them. The dolomite formation is approximately 100 -120 feet thick, and is underlain by the anhydrite-rich Salina Group. Water wells which penetrate as deep as the Salina Group encounter sulfur-rich water due to the calcium sulfate composition of anhydrite.

Principal recharge of the aquifer is due mainly to infiltration of precipitation through the soils and unsaturated bedrock. Therefore, the entire surface of the designated area is the effective recharge zone. However, because of the undeveloped nature of the center of the area, and because of the presence of karst sinkholes, ponds and collapse features, this portion of the recharge area not only contributes a larger volume to recharge, it is potentially a more vulnerable location for contaminants to enter the aquifer.

The review area for Federal financially assisted projects will be the entire peninsula north of the 580 foot contour (which marks the contact between the Bass Islands Dolomite and the Salina Group) on the USGS 7 ½ minute topographic map called the Gypsum Quadrangle, Ohio.

IV. Information Utilized in Determination

The information utilized in this determination includes the petition, written and verbal comments submitted by the public and various technical publications. The above data are available to the public and may be inspected during normal business hours at the U.S. Environmental Protection Agency, Region V, Office of Ground Water, 230 S. Dearborn (5WG-TUB8), Chicago, Illinois 60604.

V. Project Review

EPA Region V is working with the Federal agencies that may in the future provide financial assistance to projects in the area of concern. Interagency procedures and Memoranda of Understanding will be developed through which EPA will be notified of proposed commitments of funding by Federal agencies for projects which could contaminate the Bass Islands Aquifer, upon which Catawaba Island Township depends for its sole or principal source water supply. EPA will evaluate such projects and, where necessary, conduct an in-depth review, including soliciting public comments where appropriate. Should the Regional 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 for Federal financial assistance may be made. However, a commitment for Federal financial assistance may, if authorized under another provision of law, be made to plan or design the project to ensure that it will not so contaminate the aquifer.

Although the project review process cannot be delegated, the U.S. Environmental Protection Agency will rely to the maximum extent possible on existing or future State and local control mechanisms in protecting the ground water quality of the Bass Islands Aquifer. Included in the review of any Federal financially assisted project will be the coordination with the 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.

VI. Summary and Discussion of Public Comments

The primary issues that came out of the public comment period revolve around a pending sewer project which is being planned for Catawaba Island Township by the Ottawa County Commissioners. Catawaba Island is number one on the Ohio EPA priority list for funds to unsewered areas. Federal funds have been set aside for, but not yet committed to the project. The county is concerned that Sole Source designation would delay approval of funding and/or necessitate costly modifications to the construction plans. EPA response was that this is a possibility, but that the fact of a pending sewer project was not germane to a finding as to the eligibility of the aquifer for designation.
The petitioners are concerned about the possible effects that trench blasting for the sewer could have on the quality-quantity of their water. EPA response was that this concern, again, was something to be addressed in a project review, and did not impact on a designation decision.

Neither the County, the public, nor any other entity submitted comments which substantially refuted the data provided in the petition. Based on this data, and verified thru technical review, the area proposed for designation was determined to be dependent upon one aquifer for its sole or principal drinking water source and which aquifer, if contaminated, would pose a serious threat to the health of the residents of Catawaba Island Township.

**VII. Economic and Regulatory Impact**

Pursuant to the provisions of the Regulatory Flexibility Act (RFA), 5 U.S.C. 605(b), I hereby certify that the attached rule will not have a significant impact on a substantial number of small entities. For purposes of this Certification, the “small entity” shall have the same meaning as given in section 601 of the RFA. This action is only applicable to the Catawaba Island Township area.

The only affected entities will be those area-based businesses, organizations or governmental jurisdictions that request Federal financial assistance for projects which have the potential to contaminate the aquifer so as to create a significant hazard to public health. EPA does not expect to be reviewing small isolated commitments of financial assistance on an individual basis, unless a cumulative impact on the aquifer is anticipated; accordingly, the number of affected small entities will be minimal.

For those small entities which are subject to review, the impact to today’s action will not be significant. Most projects subject to this review will be preceded by a ground water impact assessment required pursuant to other Federal laws, such as the National Environmental Policy Act (NEPA) as amended 42 U.S.C. 431, et seq. Integration of those related review procedures with Sole Source Aquifer review will allow EPA and other Federal agencies to avoid delay of duplication of effort in approving financial assistance, thus minimizing any adverse effect on those small entities which are affected. Finally, today’s action does not prevent grants of Federal financial assistance which may be available to any affected small entity in order to pay for the redesign of the project to assure protection of the aquifer.

Under Executive Order 12291, EPA must judge whether a regulation is “major” and, therefore, subject to the requirement of a Regulatory Impact Analysis. This regulation is not major because it will not have an annual effect of $100 million or more on the economy, will not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of United States enterprises to compete in domestic or export markets. Today’s action only affects the Bass Islands Aquifer and the Catawaba Island Township, Ohio area. It provides an additional review of ground water protection measures, incorporating State and local measures, whenever possible, for only those projects which request Federal financial assistance.


Frank M. Covington.
*Acting Regional Administrator.*

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