

ILLINOIS POLLUTION CONTROL BOARD
April 29, 1982

VILLAGE OF BLOOMINGDALE, and URBAN)
DEVELOPMENT AND INVESTMENT CORPORATION,)
)
Petitioners,)
)
v.) PCB 81-207
)
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,)
)
Respondent.)

OPINION AND ORDER OF THE BOARD (by J. Anderson):

This matter comes before the Board on the December 30, 1981 petition for variance filed by the Village of Bloomingdale (Village) and Urban Investment and Development Corporation (Urban Investment). The Petitioners seek a variance from the 1 mg/l barium limitation of Rule 304(B)(4) of Chapter 6: Public Water Supplies until January 1, 1984, with an interim limit of 4 mg/l.

On February 8, 1982 the Illinois Environmental Protection Agency (Agency) filed its Recommendation in support of the grant of variance, with conditions, until January 1, 1984. On February 17, 1982, the Board ordered that hearing in this matter be held, as neither the petition nor recommendation addressed a concern that was raised in an untimely filed objection about the effects upon the levels of individual wells. On April 16, 1982 a hearing was held at which members of the public were present and participated. While the parties had indicated their intent to submit briefs following the hearing, as decision in this matter is due today the Board is deciding the case without benefit of briefs.

The Village of Bloomingdale, DuPage County, supplies water to its population of approximately 13,000 citizens from three deep wells (Nos. 2, 7, and 8) and one shallow well (No. 5). Urban Investment installed well #8 in accordance with an annexation agreement with the Village. All the wells are interconnected with the Village's distribution system. Well #8 at the well head was found to contain 3.54 mg/l of barium (Ex. G) and barium levels ranging from 1.03 to 4.75 mg/l were found in numerous samples of the well's finished water before blending collected in 1980 and 1981 (Ex. H).

In 1979, Urban Investment announced plans to construct a shopping center that, in accordance with the annexation agreement,

required that Urban Investment install an additional well (Pet. 6, 7, R16-18).

Meanwhile, the Village has achieved compliance with the barium standard by a program of back-blending its three low barium wells into a reservoir so as to dilute the water produced from well #8. In order to maintain an adequate water supply, the blending operation could occur only during four off-peak hours, although the well was designed to produce on a continuous basis (Pet., R. 19-22).

The Village concluded that its present blending program was unsatisfactory because the Village needs more water capacity than the program allows. It considered a number of other alternatives. Drilling another deep well as a replacement for well #8 was rejected because of the distinct possibility that such a new well also would have excess barium. In addition, the Village and Urban Investment would incur projected capital costs of \$600,000 and yearly operating costs of \$145,940. Zeolite softening was rejected because of projected expenditures of \$400,000 in capital costs and \$70,000 in yearly operating costs. In this regard Bloomingdale noted that it had a first allocation for 2.012 mgd (which appears to be about 38% of their present capacity) of Lake Michigan water commencing in 1985, and that current indications are that Bloomingdale may receive this water by 1990, resulting in a loss of \$820,000 in zeolite softening costs (Pet. p. 12).

The Village is proposing to utilize a third alternative, the installation of a shallow blending well that could be piped directly to the reservoir for the purpose of diluting the water from well #8, instead of using the other wells in the system. It was brought out at hearing that up to three shallow wells might have to be installed to reach the needed 1500 gpm (R. 72). This option would leave a margin of 520 gpm for emergency use or malfunctions. Capital costs are about \$250,000 and yearly operating costs about \$62,000. Estimated completion time for the project, based on a starting date of January 15, 1982, is November 1, 1983 with operation commencing on January 1, 1984.

The hearing focused on the concerns of citizens living in Keeneyville, an unincorporated community adjacent to Bloomingdale. They have had a long standing concern that the Village's shallow wells will draw down an already threatened aquifer into which their individual wells tap (Willis Ex. A, Budzik Ex. B), and they specifically were concerned about the effect that the new shopping center would have. Apparently they have been seeking a legal binder from the Village to protect the people in the unincorporated area with individual shallow wells (R. 114-123).

Leondard A. Lindstrom, the Agency's Aurora Regional Manager of the Public Water Supply Division, asserted that this variance "has nothing to do with whether [the Village] can drill deep wells or shallow wells, or anything like that," (R. 100) because "the

law on water is the law of capture right now. Whoever gets the water can have it" (R. 108).

Tom Budzik, one of the homeowners whose private well water is drawn from the limestone aquifer that is hydrogeologically interconnected with the sand and gravel aquifer that the Village proposes to use, stated "We do not want Urban Investment and Bloomingdale to resolve their barium problem at the expense of our well water" (R. 115).

The Board need not address the issue of water rights per se. The homeowners' worries about possible added costs to get water are as legitimate a concern in this case as are the concerns of Urban Investment and the Village to utilize the option that is least costly to them, but is the only stated option that might possibly affect the homeowners.

Essentially, the Village is requesting a variance to solve the water needs of the growing community by temporarily going out of compliance with the barium standard in order to establish the least costly program to achieve both their needs and compliance with the barium standard. In response to the concerns of the citizens present, the Village noted a) that the private wells are at too great a distance for a drawdown to occur and b) that an observation well would be maintained "for probably a year" after the new well is in operation, and monitoring beyond that time would depend upon whether any unexpected problems occurred (R. 80-83, 92). The Village pointed out that shallow wells in a formation that drains too quickly would be useless to them (R. 80, 81). The Village stated that the utilization of well #8 and the shallow well would be solely dedicated to the blending operation and might be used only six hours/day if the Village did not grow (R. 83). In the Village's petition, one of its alleged hardships was that the present restriction on the use of well #8 to 4 hours rather than 24 hours reduced its supply capacity by a factor of 6, (Pet. 5, 6). Finally, the Village noted that there have been no complaints about its use of shallow Well #5 from homeowners in a subdivision whose private wells use the same limestone formation, (R. 89, 90).

Other hardships asserted by the Village are:

a) because well #8 is operating at only 17% rather than the full capacity to comply with the barium standard, Urban Investment has lost \$498,000 and the Village \$18,758 yearly,

b) because of the repumping at night for blending, there are added energy costs of \$6,022/year,

c) because of inadequate supplies during the blending operation, the system does not always comply with the "assuredly ...adequate in quantity" provisions of Section 18 of the Act, because it has inadequate backup capacity in case of malfunctions.

The Agency does not disagree with the facts and assertions presented by the Village. The Agency recommends that variance relief be made available only through January 1, 1984, the deadline for exemptions under §1416 of the Safe Drinking Water Act (SDWA).

In light of the Village's difficulties in maintaining a sufficient water supply while complying with the barium standard and the fact that the elevated consumption of barium until a new blending system is installed is unlikely to threaten human health, the Board finds that denial of variance would impose an arbitrary or unreasonable hardship. The economic hardship to the homeowners using private wells is speculative at this time. However, the Board will include a condition in its Order to provide some reassurance to all concerned, including the Petitioners, namely, that the results during a one-year monitoring effort after the shallow wells commence operation be made available upon request. The requested variance from Rule 304(B)(4) of Chapter 6 is hereby granted until January 1, 1984, subject to conditions as outlined in this order.

ORDER

1. Petitioner, the Village of Bloomingdale and the Illinois Urban Investment and Development Corporation, are hereby granted variance from the 1.0 mg/l barium standard of Rule 304(B)(4) of Chapter 6: Public Water Supplies until January 1, 1984, subject to the following conditions:

a) Petitioner shall take all reasonable measures to minimize the level of barium in its finished water during the period when the Petitioner cannot avoid exceeding the barium standard during the installation of a new blending program. In no event shall the barium level be allowed to exceed 4.0 mg/l.

b) Pursuant to Rule 313(D)(1) of Chapter 6, in its first set of water bills or within three months after the date of this Order, whichever occurs first, and every three months thereafter, Petitioner will send to each user of its public water supply a written notice to the effect that Petitioner has been granted a variance from the barium standards by the Pollution Control Board. The notice shall state the average barium content including available results from samples taken since the last notice period.

c) Petitioner shall maintain an observation well and test the water level at least monthly for one year after any new shallow water supply well commences operations. The Village shall maintain the results of such monitoring and shall make such information available to the public upon request.

2. Within forty-five days of the date of this Order, Petitioner shall execute and forward to the Illinois Environmental Protection Agency, Enforcement Programs, 2200 Churchill Road, Springfield, Illinois 62706, a Certificate of Acceptance and Agreement to be bound to all terms and conditions of this variance. This forty-five day period shall be held in abeyance for any period this matter is being appealed. The form of the certificate shall be as follows:

CERTIFICATE

I, (We), _____, having read the Order of the Illinois Pollution Control Board in PCB 81-207, dated _____, understand and accept the said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.

Petitioner

By: Authorize Ageny

Title

Date

IT IS SO ORDERED.

Board Member Goodman concurred.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control hereby certify that the above Opinion and Order were adopted on the 29th day of April, 1982 by a vote of 5-0.

Christan L. Moffett
Christan L. Moffett, Clerk
Illinois Pollution Control Board