

ILLINOIS POLLUTION CONTROL BOARD
March 25, 1976

VILLAGE OF STEWARDSON,)	
)	
Petitioner,)	
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)	
)	
v.)	PCB 75-445
)	
)	
ENVIRONMENTAL PROTECTION AGENCY,)	
)	
Respondent.)	

OPINION AND ORDER OF THE BOARD (by Mr. Dumelle):

On November 14, 1975 the Village of Stewardson, Illinois (Village) filed before this Board a petition for variance from Rules 203(c) and 402 of the Board's Water Pollution Control Regulations. On November 26, 1975 this Board ordered the Village to supply additional information. Petitioner filed an amended petition for variance on January 2, 1976. On February 10, 1976 the Environmental Protection Agency (Agency) filed its Recommendation. The Agency recommends that the petition be granted subject to two conditions.

The Village, with a population of 729 in 1970, presently has no sewage treatment plant. On October 21, 1975 the Village was offered a State grant for the purpose of constructing a sewage collection system and treatment plant to replace the present individual septic tanks and tile fields. However, this grant offer is conditioned upon the Village receiving a Variance from the Water Quality Standard for phosphorus, Rule 203(c). The proposed sewage treatment plant will contribute to a violation of this Rule unless a phosphorus removal facility, at an estimated cost of \$105,000.00 is installed.

The Village's amended petition provides cost estimates for two alternatives to phosphorus removal. The first alternative is a discharge, via force main, to the Wabash Basin. The second alternative is effluent disposal by land application. However, the Village estimates the cost of the alternatives at \$224,700 and \$249,000 respectively. It is therefore clear that phosphorus removal would be the least costly method if needed.

The issue in this matter, therefore, is whether compliance with the phosphorus standards would impose an arbitrary or unreasonable hardship upon the Village of Stewardson. The

additional construction and operating costs demonstrate a definite hardship. However, this hardship must be balanced against the adverse environmental effects which may be caused by operation of the proposed plant.

The effluent from the Village's plant will be discharged into Wolfe Creek, which is a tributary of Big Creek and the Kaskaskia River, which then flows into Carlyle Reservoir. Rule 203(c) sets the Water Quality Standard for phosphorus for reservoirs and lakes, and streams flowing into any reservoir or lake so as not to exceed 0.05 mg/l. Rule 402 provides that no effluent shall, alone or in combination with other sources, cause a violation of any such water quality standard. Both Big Creek and the Kaskaskia River are in violation of the 0.05 mg/l standard. The Agency calculates an average phosphorus level of the Kaskaskia River to be 0.29 mg/l, almost six times the phosphorus standard. There is no question that the Village's proposed discharge would contribute to the violation of the standard.

However, the Village states (and the Agency agrees) that the phosphorus contribution from the proposed plant would be insignificant. The Agency calculates that the proposed discharge would represent a 0.17% increase of phosphorus in the Kaskaskia River. Such an increase may, indeed, be insignificant. However, such a comparison ignores the possibility that Stewardson's contribution will be of the largely algae-stimulating orthophosphate type compared to the stream load of phosphorus bound to soil particles, (hence not growth stimulating to algae). If this is the case, the Village's effluent could contribute to an increase of algae in the Carlyle Reservoir. Therefore, while the Village's proposed discharge would appear to be insignificant, it is quite possible that at some future date a determination will be made that such a contribution may cause adverse environmental effects.

The Board will grant a variance from the cited regulations for a period of one year so that the grant can be made and the plant built. Further, the Board will require that provision be made in the sewage plant design for phosphorus removal facilities (adequate space, blanked pipe flanges, etc., to facilitate installation) should it be found necessary at some future date.

This Opinion constitutes the Board's findings of fact and conclusions of law.

ORDER

Petitioner Village of Stewardson is hereby granted a variance from Rules 203(c) and 402 of the Board's Water Pollution Control

Regulations for one year, from the date of this order, subject to the following conditions:

The proposed sewage treatment plant shall be designed and constructed so as to allow for the possible future installation of phosphorus removal facilities.

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 25th day of March, 1976 by a vote of 4-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board