

Illinois Pollution Control Board
April 14, 1971

In the matter of)
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) # R 71-2
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Revisions of Mississippi River)
Standards for Turbidity,)
Dissolved Solids and Inorganic)
Solids)

Opinion of the Board (by Mr. Currie):

On December 23, 1970 Mr. Robert Hartley of the Federal Environmental Protection Agency sent to the Pollution Control Board a summary of exceptions to the Illinois interstate water quality standards. The letter contained the following:

"SWB-12, 13. Specifically remaining to be resolved on the Mississippi SWB-12 and SWB-13 are compliance schedules for secondary treatment and the inclusion of turbidity and dissolved solids criteria. In addition in SWB-13, Zone 2 should include inorganic solids".

At its January 6, 1971 meeting the Board proposed revisions to SWB-12 and SWB-13 designed to extend to the entire river the prohibitions on turbidity and inorganic solids which had applied only to the portion opposite Iowa. The revision also added a limit for dissolved solids of 500 mg/l as a monthly average and 750 mg/l at any time that's identical to that specified for water supply sectors of all other Illinois waters.

In accordance with the Statute, the Board held a public hearing on February 16, 1971 in Edwardsville on the proposed revision. At that hearing Mr. Ernest Bennett of the Bureau of Water Pollution Control, Illinois Environmental Protection Agency testified in support of the proposed revisions as follows:

"Mr. Currie: Mr. Bennett, what is the reason why deposits of inorganic solids should be avoided?

Mr. Bennett: . . . Certainly the deposition of inorganic solids on the bottom can change the aquatic environment . . . for instance in a dredging operation, you work up inorganic solids, then deposit them downstream, you can alter the aquatic habitat.

Mr. Currie: So that you could, among other things, have a detrimental effect on the bottom biota by covering up their habitat?

Mr. Bennett: Right, definitely, Of course, the additional turbidity, either organic or inorganic in the stream, causes an esthetic degradation of the stream, that is, appearance and so on of turbidity.

Mr. Currie: And might the turbidity also interfere with fish life in some way?

Mr. Bennett: If a sufficiently high level, yes. The turbidity in the stream produces pot hills which would otherwise affect fish as well as destroying their food source.

Mr. Currie: And I take it turbidity would interfere with the passage of light to the lower areas?

Mr. Bennett: Yes.

Mr. Currie: And interfere with photosynthesis in the water as well?

Mr. Bennett: Yes, again, when we are talking of the Mississippi River, our water is sufficiently deep that light penetration at the bottom is of little consequence.

Mr. Currie: But turbidity would reduce the depth to which the light would penetrate and therefore the depth at which photosynthesis can take place?

Mr. Bennett: This is correct.

In summary, the revisions consist of minor changes in SWB-12 and SWB-13 to bring those regulations into conformity with those covering all other Illinois streams.

I, Regina E. Ryan, do certify that the Board has adopted the above opinion this 14th day of April, 1971.

