

What are some possible approaches in minimizing eutrophication?

First of all, it is easier to prevent cultural eutrophication than to cure it. This presupposes an awareness of the problem and proper development around water courses in zoning residential, industrial, or recreational areas. The *remedial* approaches which are possible include: (1) diversion of sewage or other nutrient sources away from the lake or stream involved; (2) dredging of bottom muds containing concentrated nutrients; (3) removal of rough fish which stir up nutrients from sediment and/or cultivation of plankton-eating fish which are later removed; (4) harvesting of weeds or algae; (5) low-flow augmentation to increase flushing and aid in dilution; (6) the use of chemicals to control algal growth; (7) the removal of nutrients from wastewater prior to discharge, etc.

Will you summarize your outlook on the problem of eutrophication?

I'm basically encouraged by the recent increased interest in eutrophication. This is a big first step in organizing to control it. I'm somewhat concerned, however, that many people may be misled in thinking there are simple solutions. Eutrophication is basically a recreational and aesthetic problem. Our approach to counteracting it must be realistic. We can't expect to get into a 300-horsepower auto, drive along a four-lane highway, and step off into the wilderness. But we can begin increased efforts to learn more about eutrophication and how to combat it. Our technical people have a responsibility to provide decision makers with enough factual information, including the economic considerations involved. Unlike rivers and streams, our lakes are not apt to be cleaned up rapidly by pollution abatement practices alone since there is more restricted circulation. But we've got to begin now to increase our efforts in: (1) realistically assessing the condition of our lakes and (2) setting priorities on where we want to spend our dollars in eliminating nutrients.

Mr. McCARTHY. Thank you very much.

As usual, you have made a great contribution and we are very grateful.

Mr. KINNEY. It is a pleasure.

Mr. McCARTHY. Next is Alexander B. Hawes, American Waterways Operators, Inc.

Mr. Hawes, we are delighted to have you here. You have an associate with you.

STATEMENT OF ALEXANDER B. HAWES ON BEHALF OF THE AMERICAN WATERWAYS OPERATORS, INC.; ACCOMPANIED BY MARKHAM BALL

Mr. HAWES. Thank you, Mr. Chairman and members of the committee. I have with me Mr. Markham Ball of our office. We are counsel to American Waterways Operators.

The American Waterways Operators, Inc., which I shall refer to as AWO, welcomes this opportunity to present certain comments on the legislation being considered by this committee to regulate waste and oil pollution from vessels.

Before giving these comments, I should like briefly to identify AWO. It is the national trade association that represents the interests of, and includes in its membership, water carriers of all types operating on U.S. inland waterways, and carriers operating tugs and barges in coastwise and intercoastal trade.

CONTROL OF POLLUTION FROM VESSELS

With respect to H.R. 13923, AWO has these comments:

1. *Uniformity of regulation.*—It is of the utmost importance that regulations and required equipment relating to waste from vessels