US Army Corps
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Station

Zebra Mussel Research Technical Notes

August 1993

Use of a Water-Level Transmitter Not Affected by Zebra Mussel Infestations

Background

Zebra mussels can quickly attach to and clog sensing devices that must stay in water, such as pressure transducers, thermistors, and water-level transmitters. If these devices become fouled with zebra mussels or other organisms, it is likely that they will transmit faulty data. Since these devices are sensitive and easily damaged, every effort should be made to avoid removing them from the water for cleaning unless absolutely necessary. In addition, there is the added expense of having maintenance personnel regularly examine and clean these probes. Personnel of the U.S. Army Engineer District, Nashville, are investigating the use of a water-level transmitter that could be less susceptible to zebra mussel fouling than another model currently in use.

Purpose

The purpose of this technical note is to report on a water-level transmitter that could be less susceptible to zebra mussel infestations than conventional models.

Additional information

This technical note was prepared by Dr. Andrew C. Miller, U.S. Army Engineer Waterways Experiment Station (WES), and Mr. Richard Nimmo, Nashville District. For more information, contact Mr. Nimmo, (615) 736-5607, or Mr. John Case, (615) 736-5607. Dr. Ed A. Theriot, WES, (601) 634-2678, is Manager of the Zebra Mussel Research Program.

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Proposed water-level transmitter

Personnel of the Nashville District are investigating the use of an admittance-to-current, flexible, probe-type water-level transmitter as an alternative to a pressure-type probe. The transmitter, supplied by Drexelbrook Engineering Company, has a probe length that can be field modified. Its zero and span controls are field adjustable for the particular level range. In addition, the probe is not affected by humidity, and the manufacturer states that it is unaffected by temperature changes or buildup of materials. It is possible that the probe will be relatively unaffected by attached zebra mussels.

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Summary Personnel of the Nashville District installed these water-level transmitters at Cheatham and Kentucky Lock during fall 1992. The probes will be examined periodically to determine if they are affected by zebra mussels.