



OFFICE OF ENVIRONMENTAL PROGRAMS  
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

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TTY FOR DEAF: Balto. Area 383-7555  
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Adele Wilzack, R.N., M.S., Secretary

William M. Eichbaum, Assistant Secretary

March 30, 1987

CERTIFIED MAIL

Return Receipt Requested

James D. Tadlock, Captain U.S.N.  
Commanding Officer  
Naval Ordnance Station  
Indian Head, Maryland 20640-5000

Dear Captain Tadlock:

On March 13, 1987 representatives of the Waste Management Administration met with Station and CHESDIV personnel to discuss the Aquatic Assessment Plan of Mattawoman Creek submitted by the Navy on February 2, 1987. The purpose of the meeting was to reconcile comments and suggestions that we had made about the proposed study. Our consensus opinion was that the proposal presented did not contain sufficient detail for us to determine if the results obtained by the studies could be manipulated statistically. The Navy questioned the need for the number of samples and parameters. Based on the discussions at the meeting, the Navy will re-submit the proposal with the changes described below.

A. General Changes

1. Include a map(s) showing the location of the sample stations.
2. Make sure analytical methods conform to EPA standards (Test Methods for Evaluating Solid Waste, SW-846). Where possible atomic absorption, furnace method should be used for metal analysis.
3. Include a narrative describing the study design and statistical approach expected to be use to analyze the data.

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#### B. Fish, Aquatics Study Portion

1. Aquatic organisms should be collected at three locations: near Marsh Island, on the Mattawoman upstream of Marsh Island, and on the Nanjemoy for a reference.
2. Mercury data should be collected on more than just two species. Natural variation may prevent the collection of one (or more species) in a given year. We suggest that at least four fin fish be collected and analyzed in the first year. Species selection should consider trophic levels.
3. Composites of fish should be done by year class (i.e., same size or weight). Analysis should be performed on whole fish or filet as practical.
4. For each sampling run dissolved oxygen, temperature, and conductivity/salinity should also be collected. The Marsh Island site and Nanjemoy site should have similar physical parameters.

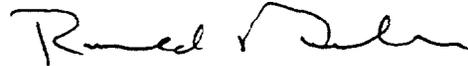
#### C. Water Column and Sediment Samples

1. Based on review of previous water column sampling, only Mercury was detected at levels above background; therefore, only mercury needs to be sampled in the water column.
2. During the meeting, we discussed using enrichment techniques in sediment analysis. The top five centimeters of sediment should be analyzed for Fe, Hg, Ag, Cd, Pb, and As at Sites 11 and 15 (note Zn is dropped). One sample in the Nanjemoy should also be collected each year.
3. The analysis of sediments should include percent water, sand, silt, and clay. We are interested in sampling the detritus layer of sediments and consider values of percent silt and clay above 50% dry bases to be indicative of detritus.

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We expect to receive a revised study plan within twenty days of your receipt of this letter. Should you have any further questions, please contact Mr. Larry Ramsey at (301) 225-5701 or Mr. Bill Schmidt at (301) 225-5731.

Sincerely,



Ronald Nelson, Director  
Waste Management Administration

RN/lak

cc: Mr. William E. Chicca  
Mr. Art Caple  
Mr. Alvin L. Bowles  
Mr. Reid J. Rosnick  
Mr. Eli Reinharz  
Mr. Butch Dye  
Mr. Larry Ramsey  
Mr. Bill Schmidt