# Chester conservation directors tour the Bay

CHESAPEAKE BAY — "Chesapeake Bay is shallower than I thought!"

Has the Bay always been this shallow?"

"The corn fields came down to the water's edge. There are water grasses growing there. Why shouldn't they be dead from the run-off of the corn fields?"

These and many more questions were raised and discussed when the Directors of the Chester County Conservation District recently spent the day taking an 'on-sea' look at Chesapeake Bay. The Directors wanted to see for themselves the expanse of water that has been the focus of a seven year, $27 million study. The watershed is now being targeted for a multi-million dollar nutrient reduction program.

The harvest of fish and shell fish from the Bay has declined dramatically in the past 20 years. Water grasses and other vegetation that the harvest depends on – have disappeared. The fishing industry that utilized the Bay is slowly withering away.

The $27 million study alleges that the nitrates, phosphates, potash and trace minerals being eroded from farmer's fields and flushed from dairy, poultry, pig and beef operations are the major causes of the decline. Conservation Districts in the watershed are gearing up to locate the "worst-cases" contributing to the demise of the Bay harvest. Farmers with potential nutrient run-off will be encouraged to use the multi-million dollar subsidy program for the construction of nutrient-containing facilities.

Directors on the day-long trip were Charles Harris, Cochranville; Pownall Jones, Toughkenamon; Robert Hodge, West Chester; Jenny Russell, Lewisville and Harold Kulp, Pottstown. Elbert Wells, SCS,USDA accompanied the Directors. Elizabeth Hodge served as skipper on the trip.

Cruising down the Sassafras River in the 37-foot sloop Contrail, the group saw the bay grasses along the shore. Boat speeds were limited to six miles per hour or less to reduce the erosion of the river banks. It was pointed out that large yachets and excessive speeds causes high wave action. This, and wind caused waves, had undermined sections of the banks along the Bay shore. Directors recognized that some of the silt in the Bay must have come from natural sources.

Sailing across the Bay, the changes in water depth were noted. Five to ten or fifteen feet was common. It was necessary to stay in the marked channel to avoid grounding. Crossing the shipping channel toward Harve-de-Grace, MD., depth increased to forty feet. The navigation charts indicated as little as one and two feet depth of water in upper sections of the Bay.

Veteran Chesapeake Bay watchers suggest that Hurricanes Agnes and Hazel did much to upset the ecology of the watershed streams feeding into the Bay. Gulleys and scars were started which feed silt and sediment into the Bay. It will take years for them to reach an equilibrium and heal.

Dr. Tony Mazzaccaro, Assistant Director of the Maryland Extension's Marine Advisory Program, speaking at a recent meeting in Maryland, contended that a principal source of phosphorus is detergents used in laundries. It finds its way into the sewage and ultimately into the waters of the Bay. He also linked the change from farming to urbanization as part of the problem. He indicated that the Bay watershed has lost 24 percent of its agricultural cropland, 39 percent of its pasture land and 13 percent of its forests to suburbia.

Mazaccaro pointed out that more people mean more sewage. And sewage plants don't clean the effluent, they disinfect it. He estimates that 70 percent of the treatment plants in the Bay area are substandard.

Long time Bay watermen have been quoted in the Cecil Whig as saying that the state had used herbicides to kill the grasses so that they would not foul up the motorboat propellers. The waterman say that exhausts, bilge cleaners and toilet chemicals continue the devastation of aquatic life in bay.

Jenny Russell and Pownall Jones collected water samples for testing by the Algal Virual Research Center, Landenberg, PA. Marjorie Kraus, Research Director for the Center will check them for pollution and virulence. Other samples were taken to compare sediment loadings now with loadings collected next spring. Probing in the boat channel found very little sediment accumulation.

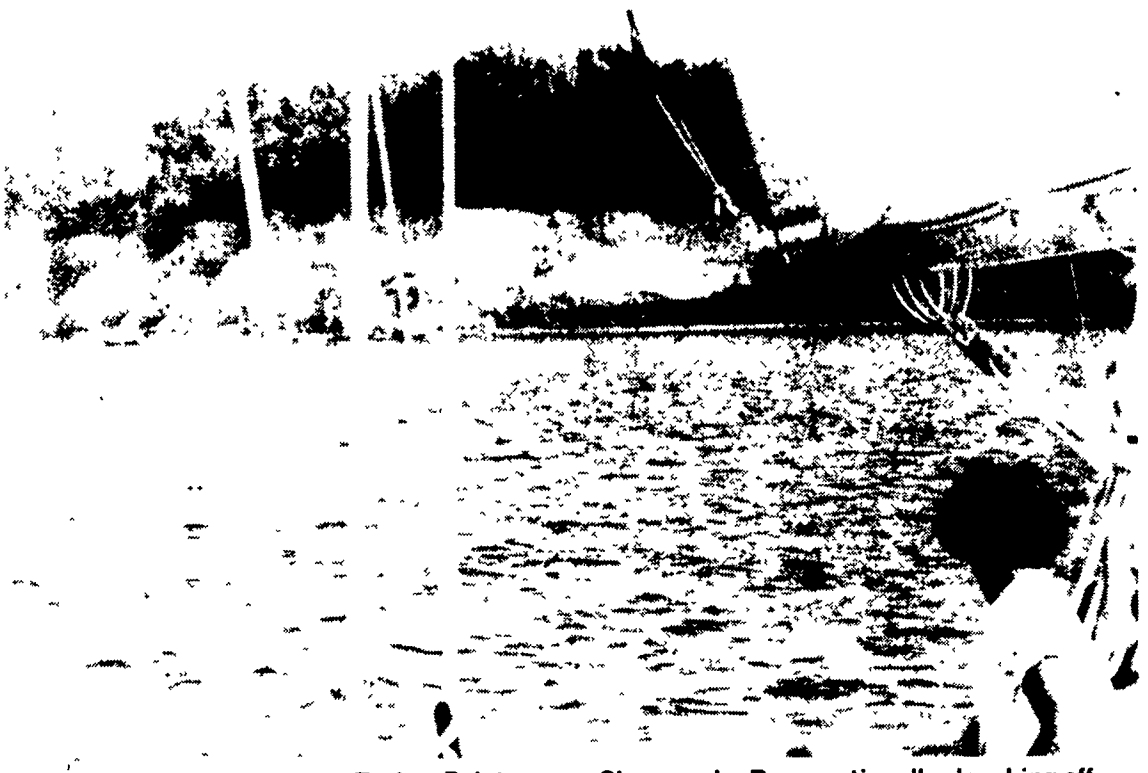
A passing tug, pushing two stone-laden barges, kicked up turbid water in its wake. The currents from the thrust of the propeller apparently reached the bottom and forced mud to the surface. A radio call to the Captain of the tug revealed that the stone was to be used for the construction of a ship mooring facility near Philadelphia. The stone was quarried near Port Deposit, Md. It had to travel the length of Chesapeake Bay, out into the Atlantic ocean and back up Delaware Bay, over 400 miles, to reach its destination.

This day, being the first day of Goose season, several blinds and decoy sets were spotted. A number of geese had been harvested by the middle of the day. They were displayed on the fantail of the tender.

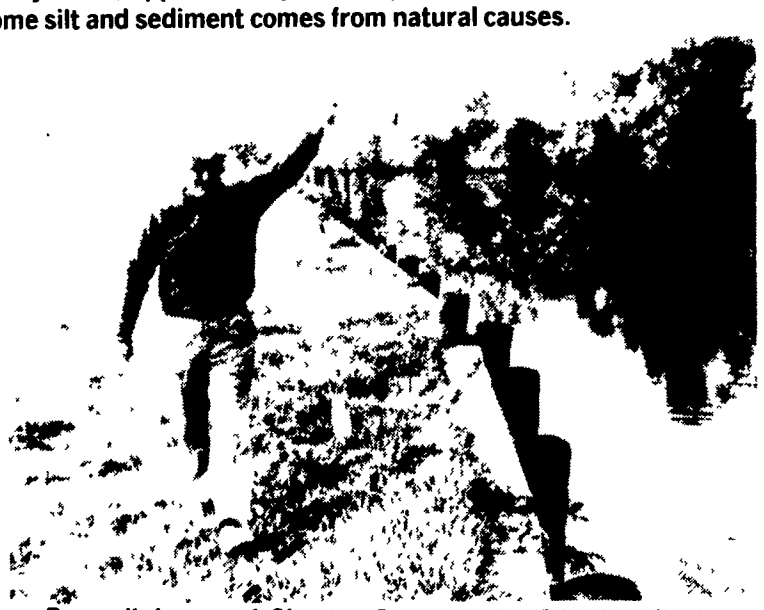
Conservation District Directors appreciated the trip. "It gave me a better perspective of what we are concerned about–it's clean water and not damaging neighboring property. Even though that property may be many miles away from us," Charles Harris said. "Some farmer's group should do an investigation of the dumping areas," Bob Hodge suggested. Apparently, there are areas in the Bay where scows have dumped various types of wastes during years past. Does anyone know what has been dumped? The Army Corps of Engineers might have some information Hodge said.

"The Bay is large and the interrelationships complex," Pownall Jones pointed out. "The Chespeake Bay watershed has always been intensively farmed. Has farming changed so much in the past 20 years as to upset the Bay," Harold Kulp asked? "Perhaps there should be additional analysis of the rivers feeding the Bay to pinpoint possible over-normal contributions from any of them," Jenny Russell suggested. "A biological study of bottom sediments might indicate factors now being overlooked."

The District Directors are now in a better position to consider and evaluate proposed programs for Chesapeake Bay that will impact Chester County agriculture, participants said.



Raw steep banks near Turkey Point, upper Chesapeake Bay, continually sloughing off into the Bay, indicate that some silt and sediment comes from natural causes.



Pownall Jones, of Chester Conservation District, displays water sample from Elk River below Elkton, Md. Sample will be tested.

Some 180 tons of stone were placed by a bayside farmer to prevent scouring from the discharge of a field waterway into the Chesapeake Bay. Chester County conservation directors examine project.

Sediment samples are taken from the bottom of Chesapeake Bay during Chester conservation directors' tour. Bob Hodge holds pail while Elbert Wells releases sample. Jenny Russell stands on boat's transom to take water sample for testing at Algal Virual Research Labs. Harold Kulp, left, and Pownall Jones look on.

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