

Chesapeake Bay cleanup - it's now or never

TILGHMAN ISLAND, Md. — If they could get the Bay back the way it was when Russell Dize was young and started following the water, you could wade out chin deep and still see your feet.

Then, you could even see 10 feet down on a clear spring day. You could watch the bay grasses growing on the bottom. You could sight out oysters just by looking down and tonging down to the bottom. That was the Chesapeake—"crown jewel" of America's estuaries—25 years ago.

Now you can seldom see down more than a couple of feet. Now most of the grasses and oysters have disappeared. In a 42-year-old waterman's lifetime, the pollution line "has been moving down the Bay like a cloud," south toward the Virginia waters.

Low Oxygen Levels

"My father dredged oysters at Swan Point in the upper Bay. Now we have to take small seed oysters from down here up there," says Dize, who like his father is captain of a stately skipjack, traditional workboat of the Maryland bay oyster dredger and part of the last commercial fleet still under sail in the country.

"Waterman may not have the scientific knowledge, but we can tell 'bad water.' When it comes in, the crabs and finfish move away from it. But the oysters and clams can't. We can see that below 20 feet in our area of the Bay, nothing's alive."

In the main part of the Bay, the amount of water with very low or no dissolved oxygen has increased about 15-fold between 1950 and 1980.

"When you've lost the grasses (which provide a vital habitat for many bay creatures), you've started losing everything, from striped bass to diving ducks. And



Tiny fishing village of Tylerton, Md. clings to the shore of Smith Island in the Chesapeake Bay. Smith and nearby Virginia's Tangier Island are the last of the Bay's inhabited

offshore islands. For 300 years, inhabitants have lived off the bounty of the Bay. Erosion and pollution now threaten that existence.

when you lose everything, the watermen will be gone."

Three generations of Dizes were on board when the 52-foot Kathryn—a gilded eaglehead on her bow and a gold ball atop her single tall mast—took first prize in the skipjack race at the 1983 Chesapeake Appreciation Days.

As one of about 15,000 watermen who follow the water year round, Russell Dize spends from sunup to sundown on his boat in the winter oystering season. "In good years, you could catch your quota and quit by noon." In the summer, he's out clamming in the morning, and buying and selling the Bay's famous Atlantic blue crabs in the afternoon for his seafood company,

which operates from this tiny fishing community.

"When I was a kid, one of the biggest finfish operations on the Bay was right here. Today you can't buy a fish on this island," Dize said. Even oysters, which started the boom in the Bay's seafood business in the late 19th century and still are its most valuable resource, have declined from a high of 15 million bushels a year to fewer than 2.5 million.

Shad and Striped Bass

Up the Bay at Rock Hall, one of the first places hit by the effects of pollution, waterman Larry Simms used to make a living from white shad in the 1960s. "I've seen it go from a lucrative business to

nothing. We can't even catch them, they're so scarce. The same thing's happening to the striped bass." Known locally as rockfish, striped bass is the most prized and valued of the Bay's finfish. It hasn't had a good spawning year since 1970. This year Maryland imposed harvesting restrictions on rockfish.

Now when Simms takes out his 46-foot workboat, Dawn, he goes clamming. "Clams are about the only thing we have left around here. Me, I'd rather be fishing," he complains.

Watermen and marine scientists agree that murky water, vanishing grasses, and declining fish stocks are true signals of what's gone wrong.

"I've been to a lot of meetings, the town meetings when Walter Cronkite came down to the Eastern Shore. They say the population may double by the year 2020. I don't think the Bay can stand it," observed Dize. "It's so easy to say we can clean it up. Everybody's Chesapeake conscious today. But how can you stop what's coming?"

The Bay is riding the crest of the biggest cleanup wave in its history. The goal is to restore it to a generation ago, the mid-1950s. The deadline set is the end of the century; the cost, billions.

"If we miss this chance, we'll never do it. The next 10 years are the most critical in the last 10,000," said William C. Baker, president of the Chesapeake Bay Foundation, set up in the mid-1960s when pollution problems first became a major concern.

Special Resource

The U.S. Environmental Protection Agency last year completed a \$27 million, seven-year study of the Bay that will serve as the framework for action. The data EPA amassed on the Chesapeake forms one of the largest informational banks on an estuary in the world.

Calling the Bay "a special national resource," President Reagan committed \$10 million to it next fiscal year. It was the first time the Chesapeake cleanup had been mentioned in a State of the Union address.

In the most comprehensive bay program in Maryland history, Gov. Harry Hughes got the legislature to approve an additional \$36.3 million this year, including creation of a controversial state commission that would oversee all future development along the Bay's immediate shoreline. Acknowledging that Maryland puts the greatest stress on the Chesapeake, Hughes said the state should take the lead in the cleanup. Virginia, the only other state

with bay shoreline, this year for the first time specifically earmarked money for the Chesapeake—\$10.4 million primarily for control of harmful agricultural runoff and sewage discharge.

So complex is the cleanup problem that Maryland is considering turning over its share of the \$10 million in federal funds to Pennsylvania, whose Susquehanna River carries much of the farmland runoff into the Bay.

The question is whether all this effort will be enough to "catch up for past pollution and at the same time sustain the Bay against a rising tide of new pressures," observed L. Eugene Cronin, director of the Chesapeake Research Consortium.

"This is one of the most difficult areas of the country for an estuary like the Bay to be located and expect to survive," Baker said. People put incredible demands on it—for homes on its shorefront, marinas at water's edge, and pleasure boats on its waters. The Bay is one of the largest recreational marine spots on the East Coast and one of the biggest commercial port areas. About 3,000 ships a year sail up the Chesapeake to the port of Baltimore, and another 3,000 pass through its southern entrance to the port at Hampton Roads, Va.

Too Many Nutrients

Population in the Chesapeake region increased nearly 50 percent between 1950 and 1980 to 12.7 million. There was a 182 percent rise in the amount of land converted to urban, suburban, and residential uses, although this still totals less than 15 percent of the land in the region. More than 5,000 permits for discharging into bay waters are now issued to industrial and municipal facilities. Another two million people are expected to move in by the year 2000. Both ports plan major expansions, dredging deeper channels to bring in bigger ships.

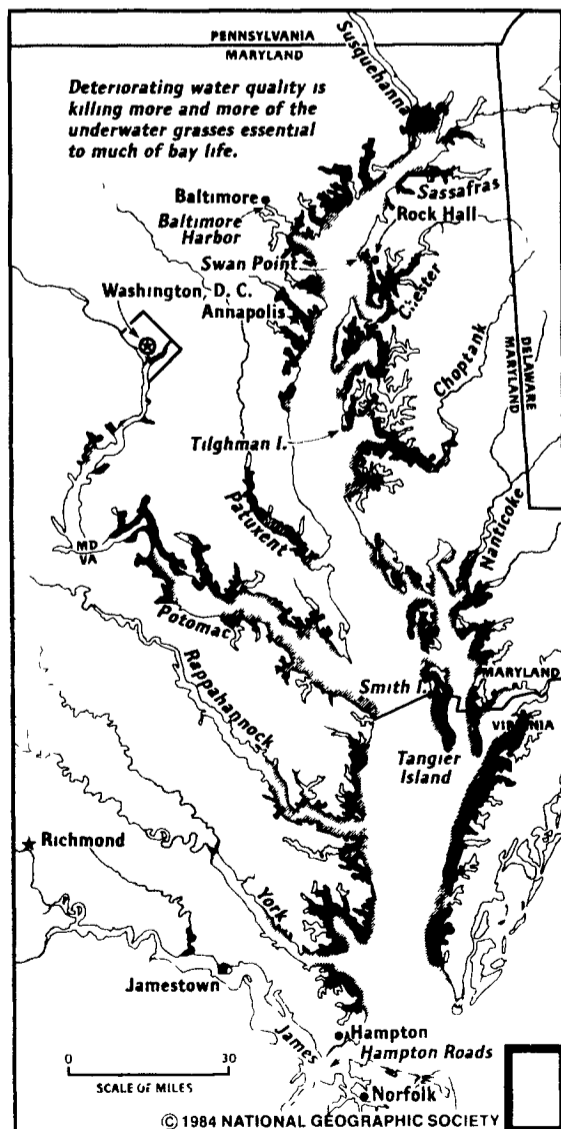
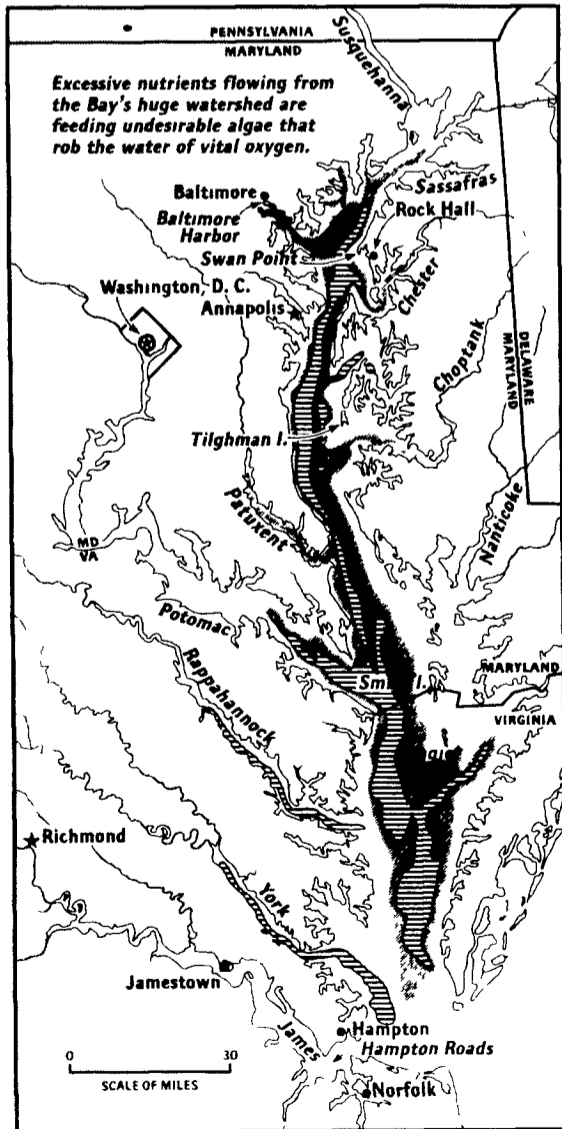
As a result of what's going on on shore, the Bay is not only taking in toxic substances and sediments, but too many nutrients as well.

Nitrogen flows in primarily from farmland runoff; phosphorus, from sewage treatment plants, which flush about 1.5 billion gallons of treated sewage a day into the Bay.

The combination is too much of a good thing. Excessive nitrogen and phosphorus stimulate the growth of large, undesirable blooms of algae, which in turn decay and use up the oxygen that other bay creatures need.

EPA also detected more than 300 organic compounds in bay waters. Most were toxic. Baker, whose in-

CHESAPEAKE BAY



Low Dissolved Oxygen

- LOW LEVELS IN 1950 (INCLUDES BLACK AREAS)
- LOW LEVELS IN 1980
- WATER WITH NO DISSOLVED OXYGEN IN 1980

Underwater Grasses

- EXTENT OF GRASSES IN 1965 (INCLUDES 1980 AREAS)
 - REMAINING GRASSES IN 1980
- DATA FROM THE ENVIRONMENTAL PROTECTION AGENCY 1983