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Tainted waters

Despite a generation of efforts to clean up the Chesapeake, development and farming along Maryland's rivers still foul the bay

By Rona Kobell

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BENEDICT

First of two parts

Walter Boynton knows all there is to know about the Patuxent River - how to find its guts and marshes, where it shifts from suburban stream into bay-like vastness, when the tide is slack and when it rises.

But you don't need to be a University of Maryland biologist to see that the river is in trouble. As Boynton steers his boat underneath the Route 231 bridge near this Charles County town, a thin white film covers the water - part of a miles-long algae bloom.

He lifts a dredge from the water to examine a sample of the bottom. His crew recoils at the stench, like that of rotten eggs. Nothing is living in this muck - none of the small clams, crabs or oysters that used to make the river their home. It is the deadest part of a dead zone, with oxygen levels far below what's needed to sustain life.

"Frankly, in all my years, I don't ever remember seeing the oxygen that low here," said Boynton, 61, a researcher at the university's Center for Environmental Science. Nitrogen pollution is feeding the noxious algae, which suck oxygen from the water and suffocate creatures below.

In the 25 years since Maryland, Pennsylvania and Virginia signed a historic agreement to clean up the Chesapeake Bay, the three states and the federal government have spent several billion dollars on the effort. Yet, the bay in many respects is as bad as or worse than when they started. Maryland researchers give its water quality a score of 40 out of 100 - a far poorer grade than the 55 it got for 1986.

The degradation of Maryland's rivers is a main reason for this decline. In Anne Arundel County, bacteria and nitrogen from human waste pour into the Severn River from thousands of septic tanks. In Southern Maryland, development now lines the shores of the

Patuxent, sending nitrogen-laden runoff into the river. On the Eastern Shore, fertilizer from farms continues its assault on the Choptank.

Maryland's leaders have long blamed other states for the Chesapeake's problems. They point out that much of the bay's pollution flows in from the Susquehanna River, largely from Pennsylvania farms. Another source is the Potomac, which meanders through Virginia, West Virginia and Washington.

But several of the bay's most impaired rivers are almost entirely within Maryland. And the blame for their precarious health, scientists say, rests squarely on the shoulders of state and local politicians who have allowed harmful land-use practices to flourish.

"I'm not worried about the pace of the cleanup. I'm worried that we're not even moving in the right direction," said William Dennison, a vice president at the Center for Environmental Science.

In 1985, the Patuxent was taking on about 14,000 pounds of sediment. By 2006, that figure had shot up to nearly 40,000 pounds, according to the U.S. Geological Survey. The nitrogen flowing into the Choptank totaled about 200,000 pounds in 1985. In 2006, the river had more than twice that amount.

The Severn and its sister rivers in Anne Arundel have fared no better. University of Maryland researchers estimate their water clarity would have scored 38 out of 100 in 1986. Twenty years later, that grade dropped to a 23.

The impact of this pollution is not simply a matter of environmental righteousness, a sense that residents of the watershed must save the bay because it's the right thing to do. A bay on the brink is a bay where people cannot swim, where boaters won't sail, where no one wants to catch the few fish still alive.

Already in the Chesapeake, watermen are pulling up pots of dead crabs from fouled water. Many kinds of fish, such as yellow perch, are largely gone from the rivers where they once spawned. Nearly every major species that once made the bay a great protein factory has dwindled - costing the region at least $135 million in lost catch alone, according to University of Maryland economist Doug Lipton.

It is clear, scientists say, what steps should be taken to improve the bay's health. But the proposals rarely get serious consideration in Annapolis.

Environmentalists have pushed for limits on how and where new houses can be built, but home-builder groups and local governments are loath to give up control. Some lawmakers pushed for mandatory limits on farm pollution, but lobbyists and rural legislators gutted the bill. And a measure to require nitrogen-removal technology for new septic systems was dead on arrival in the Capitol.

Some in Annapolis say government is doing what it can to protect the Chesapeake. "We

all treasure the bay. We all want to do the best we can to stop its deterioration. But it's difficult because all of these things cost money," said Jim Peck, director of research at the Maryland Municipal League.

Gov. Martin O'Malley argues that realistically, measures to stem pollution require consensus-building and compromise, that change takes time and is accomplished in stages that span administrations.

"It's like building a cathedral," O'Malley said in an interview, citing as part of the work several measures he has pushed. "Each of us tries to build our piece of this activity."

But Gerald Winegrad, a former state senator who has pushed for pollution-control reforms, argues that state officials have roundly failed to take forceful action to rescue the bay. "We haven't done the bold things yet," Winegrad said. "How bad does it have to get before we get bold?"

The Severn: septic tanks

Valerie Washington comes to Bonaparte Beach every week looking for litter, pet droppings, pools of muddy runoff - anything that could influence how much bacteria is reaching the Severn River.

Gingerly, she lowers a small glass jar into the river, fills it with greenish-brown water and quickly closes the lid.

The flight-attendant-turned-biology-student will repeat this procedure at different beaches about a dozen times before noon - when the samples must be in a closet-sized lab at Anne Arundel Community College.

There, microbiologist Sally Hornor will analyze the bacteria counts and post the results on the Web. And thousands of people who live along the Severn will know whether it's safe to swim in the river.

Two days after a summer rain, the answer is a definite no. At Bonaparte Beach, the level of enterococci bacteria - sickening germs typically found in human waste - is nearly twice the amount that Anne Arundel County has declared safe. At Riverside Drive Beach, the count is three times higher than the safe threshold.

These bacteria have made the Severn - a bucolic river that was the soul of summer for a generation of Marylanders - off-limits to swimmers during certain times of the year. But they are not the only force hurting the river.

Enterococci is a close cousin of nitrogen, the bay's major polluter. Both are excreted in human waste - which flows into the Severn through the thousands of septic tanks along its banks.

In Anne Arundel County, more than 40,000 homes rely on septics, a waste management

method nearly as primitive as the outhouse. The number is higher than in any other county in the state. And nearly a third of Anne Arundel's septics are along the Severn.

"We've been dumping our waste for years in this water," said Thomas H. Miller, a regional director for the University of Maryland's Cooperative Extension Service. "Our hair should be up on our back, and we should be looking at this."

In some parts of the state, septics have become a major source of water pollution. Overall, they account for only about 5 percent of the nitrogen in the Chesapeake, far less than what comes from farms and development.

But in once-rural areas such as Crownsville and Severna Park, septics are a big part of the story. They deliver more than a quarter of the nitrogen entering the Severn.

The problem isn't the flushed solids. They remain in a holding tank. But the wastewater does not. It flows - untreated - into a drain field, where it is absorbed into the groundwater and then seeps into the river. One gallon of septic waste delivers about 15 times as much nitrogen to a river as a gallon of treated sewage.

The reliance on septics along the Severn stems from the area's history as a resort community. As recently as 30 years ago, families from Baltimore and Washington summered at riverside cottages, crabbing and swimming. But when Route 97 shortened the drive, the area became a suburb. The cottages came down. In their place, newcomers put up fancy homes to live in year-round.

"The new people built a huge new house," Hornor said, "but they kept the septic system."

As whole new developments were built, they too had to rely on septics, because sewer service was never extended to them.

Anne Arundel officials didn't know how many septic systems the county had, or where they were, until about three years ago, when they began charging homeowners $2.50 a month under the state's new flush tax.

What they found, said county public works director Ronald Bowen, was "a real eye-opener." Officials counted more than 40,000 septics. Countywide, those systems delivered an estimated 881,000 pounds of nitrogen to waterways in 2005 - compared to 747,865 pounds from treatment plants.

Bowen is convinced that all septics, whether they work properly or not, ultimately fail the rivers. He wants to extend sewage service to neighborhoods that rely on septic systems. But the county can't force existing communities to accept the service.

"We're not in a position right now to go to a community and tell them, 'We're going to make you pay. We're going to make you connect,'" Bowen said.

"But now that we have a better understanding, I think we should be looking more closely at all of our new growth. We need to recognize that, if we're going to approve new communities on septics, at the very least, they should be nitrogen-removing systems."

The Maryland Department of the Environment will cover the roughly $10,000 cost of adding a nitrogen-removal device to septic systems, with priority given to waterfront homes. That technology would cut the pollution in half. There is funding for 600 upgrades a year. Out of 420,000 septic systems throughout the state, just 230 homeowners have used the program.

In 1999, Miller and others pushed a bill that would have required the de-nitrification systems for septics serving new homes. The measure failed amid opposition from builders and Realtors, who argued it would add too much to the cost of a new home. Since then, more than 70,000 new septic tanks have been installed in the state.

MDE officials say they don't plan to seek such legislation again. "It's our hope that there are plenty of people out there who want to do this voluntarily," said water management director Jay Sakai.

Frederick Kelly, who patrols the Severn as its "riverkeeper," believes the county and the state need to take a hard look at the septic problem. And he says that's not the only area where government is falling down on the job.

Waterfront construction continues unabated along the Severn, allowing sediment to wash into the river despite laws designed to guard against such pollution. Like algae, the chocolate-brown dirt blocks the light that bay grasses need and ultimately kills marine life.

"They're selling these houses for $1 million, and they're destroying the very attribute that makes them desirable," Kelly said. "The people will move here, and they'll realize there are no fish, no life."

The Choptank: farms

Tom Simpson steers his Chevrolet Suburban over the Kent Narrows bridge, then heads north of the U.S. 50-Route 301 split. Within a few miles, all trace of waterfront is gone, all the condos and golf courses left behind.

This is not the Eastern Shore the tourists come to see, with lighthouses and boutiques. This is Chicken Country, with long squat houses filled with thousands of growing birds behind waves of wheat.

Here, corn fields sit on one side of the winding lanes, green peas poke out of the soil on the other. It's a miniature Iowa, transplanted whole onto a ragged peninsula just a two-hour drive from Washington and Baltimore.

Simpson, who recently retired from the University of Maryland's agriculture college, has

spent a lifetime wending his way through these lands. From his window, it's hard to believe something so lovely could be so destructive.

Yet, agriculture remains the single largest source of bay pollution.

When it rains, nitrogen and phosphorus - two of the main ingredients in both store-bought fertilizer and chicken manure - run off the fields and into creeks. Some of that pollution will reach the Chesapeake via the Choptank River, a 68-mile tributary that twists through Queen Anne's, Talbot, Caroline and Dorchester counties.

More of that pollution is reaching the Choptank now than when the bay cleanup started. Since 1985, the nitrogen flowing into the Choptank has doubled. Phosphorus and sediments have nearly tripled, according to the U.S. Geological Survey, which monitors the river near Greensboro.

Some of that can be attributed to all the new pavement and sewage treatment plants that have come with the Delmarva Peninsula's growth. But much of it still comes from farms.

"The farmers are shooting for the best yield they can get, and in the process, they leak nitrogen," Simpson said. "It's frustrating to me, because these are good people. But they're dealing with the expectation of the market."

Unlike septic tanks, farm pollution has been the subject of much discussion in Annapolis over the years. But no one seems eager to regulate farmers, who are seen as salt-of-the-earth good guys. Aesthetically, many people would rather see a farm by the side of the road than the townhouses that could come if the owner sold the land. The O'Malley administration has proposed new rules to govern the storage and handling of manure by Maryland's largest chicken growers, but the regulations would not affect most farmers who use manure as fertilizer.

"You can take chicken manure and agricultural waste and drop it with impunity," said Winegrad, the former state senator.

The problem is that farming and conservation are fundamentally at odds. Farmers want to plant - and thus fertilize - every acre of land because that is how they make money. The bay is better served if they leave some fallow, particularly near water.

Government programs have tried to close the gap by paying farmers to plant buffers and cover crops to soak up excess fertilizer. But often, the funds aren't enough, said Jeffrey Lape, executive director of the Chesapeake Bay Program, the federal-state agency overseeing bay cleanup.

"It's tough to walk out to a farmer struggling to get by and say, 'You know, I think you need a bigger buffer,'" Lape said. "He'll look at me and say, 'You have just killed my profit margin.'"

Maryland's approach has been to urge farmers to voluntarily use conservation practices and, as an incentive, to pay them for taking certain steps. The successes - and limits - of this approach are evident on John Hammer's 362-acre farm in Greensboro.

From a scientist's perspective, Hammer is doing a lot right. He doesn't till his soil. He's planted a grass strip between his chicken houses to absorb runoff, as well as a tree buffer to protect the river. He pays a consultant to help write a "nutrient management plan" to calibrate just how much fertilizer he will need. He says he follows the plan to the letter.

Despite the care he takes, Hammer, like many farmers these days, is depending more on chicken manure to fertilize his beans and corn. He gets the manure for free from the chickens he raises, making it far cheaper than buying fertilizer.

Manure has a hidden cost, however. It is loaded with phosphorus, a chemical that has proved toxic to bay life. To get the nitrogen they need from the manure, farmers end up applying more phosphorus than the soil can ever absorb.

Less pollution would run off Hammer's fields if he planted cover crops - crops intended solely for the purpose of absorbing nutrients left in a field after the cash crop is harvested. But Hammer says he needs to keep his fields planted with a fertilized cash crop, green beans. A state program would reimburse him for part of the cost of planting cover; it would not compensate for lost profit.

This year, the state will pay farmers $18 million to plant cover crops - more than three times what it spent two years ago. The extra money is meant both to reach more farmers and to pay them more.

Some environmental groups say more money is not enough. They say the state needs a tough new law on nutrient management plans, enforced by the Maryland Department of the Environment instead of the farm-friendly agriculture department, to force farmers to limit fertilizer use. Environmental inspectors could visit a farm, test the soil, and determine if a farmer was applying more phosphorus than his plan dictated. That way, they could force a farmer to get in compliance and issue stiff fines if he didn't.

But farmers, who often teeter on the edge of profitability, say they need flexibility to manage their land. Many have threatened to sell to developers if tough new mandates come to pass.

Winegrad, at least, is willing to take that chance.

"I have challenged people to show me a major achievement in the history of the United States through a voluntary program," Winegrad said, "and no one has ever found one."

The Patuxent: growth

For a time, the Patuxent River looked like it would be the bay cleanup movement's success story - a river rescued from certain death by a band of Southern Maryland

activists.

Three decades ago, they sued to force the state and federal governments to stop allowing pollution to be dumped into their river by sewage plants serving Baltimore and Washington. Eventually, the plants were fixed - and the Patuxent rebounded. Bay grasses were so plentiful that children pulled them up to make wigs. When the locust blooms came in spring, the crabs ran once again.

Bernie Fowler couldn't believe it. The genteel fellow who made his living renting out rowboats on tiny Broomes Island was witnessing the rebirth he had dreamed about. "I was just so happy, I was jumping up and down for joy," said Fowler, now 84, who as a county commissioner helped lead the lawsuit. "I figured we had turned the corner."

Today, the Patuxent is tied with the Severn and other Anne Arundel rivers for the most polluted in the Chesapeake Bay. Algae blooms, like the one Boynton found near the Route 231 bridge, are common. Large portions of the river are a muddy brown, the result of sediments pouring in from development. Even in rural parts, there are no grasses left and hardly any crabs.

The river is dying. And this time, Patuxent activists can't blame the urban counties upstream. Southern Maryland has become part of the problem.

Tens of thousands of people have moved to Calvert County alone. Its miles of beautiful shoreline have become home for people like Burt Lahn, a career Coast Guard employee who rises at 4 a.m. each day to catch a bus to Washington. The former Howard County resident says his three-hour commute is worth it. "This is the paradise I was looking for," said Lahn, who lives in one of Broomes Island's new homes.

Lahn's neighbor, Bruce Pitt, bought a lot on a one-time strawberry field when his family outgrew their house in Virginia. The IT consultant says he likes being within driving distance of the Washington area, where he has many clients.

"The people are nice down here," he said. "I've got six kids, and this is a great place for them."

Thirty years ago, Calvert County had 20,000 residents. Today, it has nearly five times as many. Traffic has tripled on Route 4, the county's spine. Residents are not only driving to Washington. Many go south to the Patuxent Naval Air Station, which now employs more than 17,000 people.

The problem isn't just that the county grew, but how it grew. In the 1980s, Calvert zoning rules limited builders to one house per 5 acres in rural areas. Contractors rushed to carve up farms and forests into developments that - because of the big lots - destroyed huge swaths of open space.

"The way they were building, they were consuming a tremendous amount of land," said

Karen Edgecombe of the Chestnut Trails Land Trust, a local land conservation group.

Along the water, new residents sheared away trees to build mansions, piers and decks - violating the spirit, if not the letter, of Maryland's 1984 Critical Area Law. The law does not prohibit building along the shoreline, but it does limit how close to the water and how much of a footprint a house can have.

Calvert County now has dozens of shopping centers, too, filled with Chinese restaurants and Curves gyms. They have risen from the forests where Fowler and his friends used to hunt for quail, and the river is the poorer for it.

The forest acted as a sponge to absorb nitrogen. The newly paved surfaces are more like a chute, carrying what runs off the land into waterways. Rain picks up fertilizer from lawns, as well as nitrogen from exhaust pipes and deposits it into the Patuxent and, later, the bay.

During the past couple of years, Calvert County officials decided they needed to slow the onslaught. They have changed rural zoning to one house per 20 acres - a standard so stringent officials say they hope it will channel development to town centers, as Smart Growth principles suggest.

Calvert is the only Maryland county to announce that it will cap growth, allowing no more than 37,000 homes to be built. With just fewer than 31,000 now, planning director Gregory Bowen expects to approach the cap by 2030.

Bowen cautions that the policies will lead to change only over time. New laws "don't affect the development you see today. They affect the development you see some time from now," he said.

Patuxent activist Jennifer Bevan-Dangel said the early sprawl persuaded Calvert residents that they needed growth controls. Though developers dislike the cap, she applauds it.

"Everyone's watching Calvert County and wondering, 'Will this work?'" she said.

The rest of the area, she said, hasn't followed suit. Sprawl continues to spread in St. Mary's and Charles counties.

Even if Calvert's new policies help the river, old-timers know they can never bring back the ambience of villages like Broomes Island - places where everyone knew each other by the sound of their boat motors.

From his porch, Hezekiah "Duck" Elliott can still see the locust blossoms in the spring. They no longer signal that the crabs are running; even if they did, hardly any watermen are left to notice. Elliott, 81, works only part time. Most others have long since retired.

He is doubtful that decades of damage can be undone. "If you get the grasses back, you'll

get the crabs back, and the minnows back," Elliott said. "But how are you going to get anything back?"

The bay: 'bad water'

All that pollution from Maryland's rivers eventually makes its way to the Chesapeake. Pat Norris knows that all too well. This summer, the veteran waterman steered his workboat to a spot off Point Lookout, near Maryland's southern tip, where he had set his crab pots. He pulled them up to find they were filled with dead crabs.

Norris has worked the bay for nearly 20 years, and he has long known about "bad water" - oxygen-deprived swaths where little can live. But this was the first week in July. He had never seen bad water so early, or in so many places.

"It's disheartening," he said, "to say the least."

During the past 25 years, several billion dollars in state and federal funds have gone to bay cleanup programs. A large chunk of that - including money from Maryland's landmark flush tax - has paid for improvements to sewage treatment plants. Other money has gone to farmers to plant cover crops and conserve land.

Environmental experts say those steps have helped to hold the line - that the bay would be in even worse shape without them. But it has not gotten better.

Population growth is bringing increased pavement to the landscape, as well as increased loads to treatment plants. Treated wastewater is cleaner than it was a decade ago, but there's more of it. Farms remain the bay's single biggest polluter.

No one is suggesting that governments halt development or outlaw farming. But many environmentalists say that officials in the six-state watershed - especially Maryland - could do much more to stop pollution from development and farms, not just pay to clean it up.

"Every politician will say, 'I'm for the Chesapeake Bay.' But when it comes time to vote, they won't protect it," said Kelly, the Severn riverkeeper. "It's just not a high enough priority. There's no political will."

tomorrow

Politics has failed Maryland's rivers, as farmers, homeowners, developers and local government have thwarted reforms.

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Weak laws

Lawmakers stop short of enacting effective environmental safeguards

By Timothy B. Wheeler

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Second of two parts

If the Chesapeake Bay were a hospital patient, it would need major surgery, not just a tweak to the medicine it's been getting. After 25 years of cleanup efforts, the bay is barely holding its own against the tide of people who have moved into the region - drawn to the very body of water they're fouling.

The prognosis is not encouraging, with Maryland's population expected to grow by another million-plus people in the next 20 years.

The Chesapeake is so large, its ultimate recovery depends on actions by all the states whose waters drain into it. But scientists and advocates say there are steps Maryland could take on its own to revive its rivers - and thus the bay.

Most experts agree, for instance, that there must be a sharp reduction in polluted runoff from farms.

Tough limits on suburban sprawl also are needed, they say, to preserve the forests, meadows and wetlands that naturally filter out pollutants before they can reach the bay. And as part of that, the proliferation of household septic systems that leak pollution into creeks and rivers has to stop.

It's unclear whether those measures will get much consideration in the State House next year, even though no one disputes that they would help the bay. State and local officials have flinched in the past at ordering such steps because of what they would cost. Not just in dollars, but in the restrictions on farmers, builders and homeowners.

Farmers don't want to be told what to do with their land, saying tough regulations will drive them out of business. Builders say restrictions will put housing prices out of reach of working families.

And suburban homebuyers don't want to be told they can't have a house with a two-car

garage on a one-acre lot, even if the bay suffers from such outsized development and all the driving it induces.

"We are the problem. All of us are the problem," says Gov. Martin O'Malley, who campaigned two years ago on a pledge to step up the bay restoration effort.

"We all agree conceptually that we shouldn't build on farmlands, woodlands and wetlands," O'Malley said in an interview. "[But] once the development's there and it's our kid that's going through the third grade, we want to be sure there's a new school there. We want to be sure that there's a traffic light and plenty of big roads so that we don't have to wait to get out of our development in the morning."

And so lawmakers in Annapolis compromise. In deference to the bay's popularity, they rarely kill bills to help the Chesapeake, but they water them down to satisfy those whose interests would be hurt. Environmental advocates praise the results as "good first steps," but they have not been enough to improve the health of the bay and its tributaries.

During the past two decades, the water quality of key Maryland rivers - and the bay as a whole - has actually worsened, according to the University of Maryland Center for Environmental Science. The amount of sediment in the Patuxent River has nearly tripled, and nitrogen pollution in the Choptank River is twice as high, the U.S. Geological Survey found.

"Everybody's in favor of healing the Chesapeake Bay until it comes to doing their part," observes Del. James W. Hubbard, a Prince George's County Democrat.

The lack of progress frustrates activists, who say Maryland's reputation as a national leader in environmental protection is in jeopardy.

"We simply can't be compromising down as much as we are," says Dru Schmidt-Perkins, director of the environmental group 1000 Friends of Maryland. "We don't have time anymore."

Regulating farmers

Some advocates argue that the Chesapeake will not get better unless the state starts telling farmers what to do - imposing strict limits on how much fertilizer they can apply to their fields, with inspectors actually checking farms to make sure.

It has been a decade since anyone seriously proposed doing that. A scare over fish kills and reports of human illness on the Eastern Shore generated public pressure to crack down on farm runoff, the leading source of river pollution there. But Gov. Parris N. Glendening's proposal drew an outcry from farmers, who said such a law would threaten their ability to earn a living. The General Assembly rewrote the legislation to create an essentially voluntary program in which farms can draw up their own plans for limiting runoff.

Today, with agriculture still the single largest source of bay pollution, some are renewing their call for tough new farm rules to clean up the bay.

"Tell me where something like this has been accomplished without regulations," says Donald F. Boesch, president of the University of Maryland Center for Environmental Science.

Boesch, who has studied coastal restoration efforts worldwide, says he's unaware of any that achieved significant improvements without stricter farm controls than Maryland has. Denmark, for instance, has cut in half the nutrient pollution from its sizable farming industry by requiring farmers to take specified steps as a condition of getting any crop subsidies, he said.

But the head of the Maryland Farm Bureau says farmers are already taking steps to control pollution and the state should look elsewhere to help the bay. "We've done our share," says Michael Phipps, a Calvert County farmer and the Farm Bureau president.

Phipps points out that raising food is a chancy and difficult business. If farmers are faced with onerous government regulation, he predicts, many would just quit and sell their land to developers. "Farmers have enough worries," he says.

The Chesapeake Bay Foundation, the largest environmental group in the region, has split with other activists in supporting a cooperative approach with farmers. It has for several years lobbied hard for financial programs to encourage farmers to curtail polluted runoff voluntarily. Partly as a result, the emphasis in government discussion of farm pollution has shifted to increasing money for such programs.

The best way to get farmers to adopt pollution controls "is to have the farmer want to do them and be able to do them," says William C. Baker, the bay foundation president.

The O'Malley administration has more than doubled, to $18 million, the total the state will pay farmers to plant "cover crops" - grains, such as oats and barley, planted to soak up fertilizer left in a field after the primary crop has been harvested. The administration also plans to use some of a new $25 million "bay trust fund" to help farmers to reduce pollution.

Even more money to promote conservation could be on the way from Congress, which authorized $400 million over the next 10 years to be paid to farmers in the six-state bay region. It's not clear whether that money will survive efforts by the Bush administration and some in Congress to cut it.

With more state money being offered to farmers, some are suggesting that it's time to demand more of them.

"You need both a carrot and a stick," says Gerald Winegrad, former state senator from Annapolis, who says that the millions already paid out to farmers over the years to get

them to control pollution voluntarily have had no measurable effect. "If you only have carrots, the bay is going to continue to decline."

Even a farm advocate says that with additional money available for farmers, the state may be in a better position to require some changes.

"There comes a point in time where you have to say, 'Enough is enough. You've got to do this on this field or that field,'" says Russell B. Brinsfield, executive director of the University of Maryland's Center for Agro-Ecology and a part-time farmer. "I think we're headed there."

Recently, the O'Malley administration did propose new regulations on how the state's largest poultry farmers handle their chicken manure, a major source of the nutrients fouling Eastern Shore rivers. The idea was first broached a decade ago but abandoned in the face of opposition both from the chicken farmers and the poultry industry. The latest draft of the rules will get hearings in November.

The administration has not proposed new "nutrient management" regulations for crop farmers.

Though their numbers have faded, farmers remain a potent lobby in Annapolis, buttressed by nostalgia for the state's rural past and by their enduring image as plucky producers of the food we eat.

'Pave the bay'

Daunting as farm pollution may be, consider this:

More than 100 acres of woodlands are bulldozed daily around the Chesapeake to make way for houses, roads and parking lots, according to the federal government. Regionwide, new asphalt and concrete claim an area the size of Baltimore every two years. A bumper sticker that reads "Pave the Bay" might more honestly describe our behavior.

What's needed, advocates say, are strict curbs on new development, especially near the bay and its tributaries. Growth needs to be concentrated more tightly in and around existing cities and towns.

"At some point, we're going to have to put lines on a map [and say] where we want growth to occur and where we want open space maintained," the bay foundation's Baker contends.

But others say there's a limit to how much government can tell people where to live or what they can do with their property.

"You can't push the envelope of regulation unreasonably because you risk citizen backlash," says David Bliden, executive director of the Maryland Association of Counties. In Anne Arundel County, for instance, complaints from waterfront property

owners recently prompted officials to table plans to crack down on shoreline building projects.

The state has regulated shoreline development for 24 years, but it's up to the counties to enforce that law - and often, critics say, they don't. Illegal buildings or additions sometimes go up before a county even knows this has happened.

The legislature approved an O'Malley administration bill this year to strengthen the law and its enforcement, after much compromise. It's too soon to say if it will fix the problems.

Maryland's 1997 "Smart Growth" law was designed to contain sprawl, but in many ways has failed, even its champions agree. Towns and counties comply with the mandate to draw "growth areas" where they want to channel development - but those areas may spread across farms and forestland.

O'Malley has pledged to reform state growth laws next year. He has not said what he'll propose.

"I think we've nibbled at the edges of how we grow," says Del. Maggie McIntosh, a Baltimore Democrat and chairwoman of the House Environmental Matters Committee. What we need, she says, is "real 'smart growth.'"

Maryland's Smart Growth law uses state money as a carrot to encourage more compact development. Counties, cities and towns identify where they plan to grow, and those areas get priority for state money for roads, sewer and other infrastructure. Local officials can still permit development elsewhere, but they won't get state money to serve those communities.

Environmentalists say, though, the law has loopholes. The state still pays to build schools in outlying areas. Counties and towns aren't required to draw small growth areas that preserve open space. And the carrot isn't big enough - builders and advocates agree that more money must be spent to make the designated areas attractive to home buyers.

County officials are expected to fight any proposal to give the state more say over development, arguing that such decisions should be made by those closest to the voters. And builders point out that little is being done to curb polluted runoff from existing homes.

"You can't say, 'If we don't build one more house, thank God, we'll be able to clean up the bay,'" says Kathleen Maloney of the Maryland State Builders Association. "It's a multi-faceted problem."

Some local officials aren't waiting for state action. Queen Anne's County now requires nitrogen-removing septic systems for new homes built near the water. And all septic systems must be pumped out every five years, to ensure they're working as well as they

can.

"We realize if you really want something to happen, unfortunately, regulation is necessary quite often," says Eric Wargotz, president of the Eastern Shore county's commissioners.

The General Assembly balked at requiring statewide regulation of septic systems in 1999. Instead, four years ago, lawmakers set up a fund to provide grants to upgrade old septic systems to make them less polluting. Only a fraction of eligible homeowners have taken advantage of the grants.

O'Malley administration officials say they're looking at how to get more septic system owners to replace their old, polluting tanks.

And the governor says he will unveil a plan for preserving what he calls the "greenprint" of the state - its forests, wetlands and open land.

"I think we're going to make some great strides in the six years ahead, I do," says O'Malley. "I think we're all going to be proud to look over our shoulders."

Waning commitment?

Still, Harry R. Hughes can't hide his dismay.

As Maryland's governor, he helped launch the bay restoration effort 25 years ago. The public was alarmed by a federal report saying the Chesapeake was dying, and Hughes seized upon the opportunity to act. He boosted funding for bay cleanup efforts and steered a batch of laws through the General Assembly, including the then-pioneering shoreline development restrictions.

By now, "I expected and hoped we'd be further along," the 81-year-old former governor says.

He recalls that back then, people called out at parades urging him to "Save the bay! Save the bay!" Hughes thinks the public today is less engaged in the cause.

"I do think it's waned over the years," he says of the public's commitment to cleaning up the Chesapeake. "It needs to be rejuvenated."

But Hughes says he believes Marylanders still love the bay, and will make sacrifices if their leaders make the case for action.

"If they're convinced whatever help is asked for is going to restore the bay, I think they'll go along," he says.

Baltimore Sun reporter Greg Garland contributed to this article.

cleanup efforts

Here are some key Maryland laws that have been passed as part of the Chesapeake Bay cleanup effort:

CRITICAL AREA: Passed in 1984, the Critical Area law restricts development within 1,000 feet of the bay and its tidal tributaries. It also prohibits building or clearing vegetation within 100 feet of the water. But counties have often failed to enforce the law, critics say. And the 1,000-foot provision still allowed development of some pristine waterfront. The General Assembly voted this year to strengthen the law, after many compromises. The shoreline building setback was doubled to 200 feet, but enforcement remains in local hands.

SMART GROWTH: Passed in 1997, the law is designed to encourage more compact development by steering state money for roads, sewers and other infrastructure to designated growth areas. But critics say local officials drew growth boundaries well beyond existing city and town borders. And the state continues to pay for new schools in outlying areas. The governor says he will propose legislation to strengthen the law.

FARM POLLUTION: Prompted by a scare over fish kills and reports of human illness around rivers polluted by farm runoff, legislation was proposed in 1998 to limit how much fertilizer farmers could use. The General Assembly passed a significantly weakened bill - allowing farms to draw their own "nutrient management" plans, extending deadlines for compliance, and reducing penalties and enforcement.

FLUSH FEE: In an attempt to boost the bay cleanup effort, lawmakers in 2004 approved a "flush tax" on sewer users and septic system owners proposed by Gov. Robert L. Ehrlich Jr. The $2.50 monthly fee on sewer bills has generated $60 million per year for upgrading sewage treatment plants, a major source of nutrients fouling the bay. A $30 annual fee charged to homeowners on septic systems has raised $12 million a year to help pay farmers to plant pollution-preventing "cover crops." The fee also pays for grants to improve septic systems.

BAY TRUST FUND: In 2007, the General Assembly agreed to earmark $50 million for projects aimed at reducing polluted runoff from farms and pavement. Budget woes prompted lawmakers to cut the fund to $25 million.

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Bay restoration efforts show few positive results after 25 years

By PAMELA WOOD, Staff Writer

Published December 07, 2008

In December 1983, more than 700 people gathered in Northern Virginia to talk about how to clean up the Chesapeake Bay.

The conference was a big deal and highly anticipated. It drew top officials and interested activists, and even famed oceanographer Jacques Cousteau showed up.

At the end of the three-day conference, top officials from Maryland, Virginia and Pennsylvania put pen to paper and created a bay cleanup effort that continues today.

That very first Chesapeake Bay Agreement said very little. Basically, the governors agreed to meet regularly and establish a bay office in Annapolis.

But people were excited.

"Hope up after bay summit," read the headline in The Capital the next day.

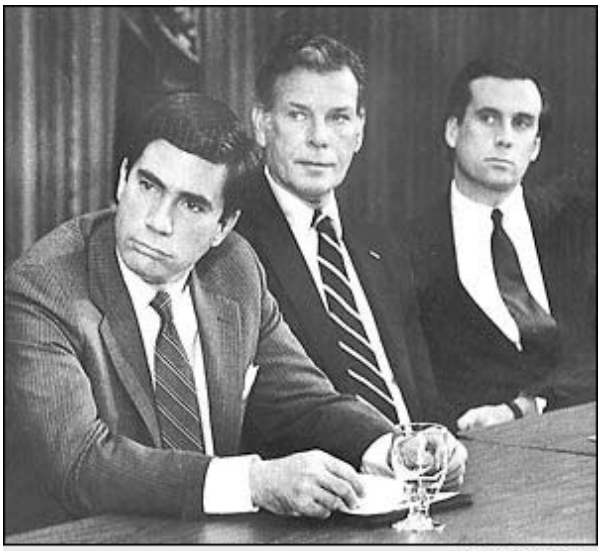
"Everybody was hopeful," recalled Gerald Winegrad, who at the time was a Democratic state senator representing Annapolis. "It was a can-do atmosphere. It wasn't just show-and-tell."

That 1983 agreement set the stage for 25 years of repeated promises by politicians to some day restore the Chesapeake Bay's health. Subsequent agreements were signed with great fanfare in 1987 and 2000.

All these years later, however, the bay is no closer to being healthy.

It's not a total loss, but it's far from the glory days when fish and oysters were abundant and people weren't afraid to go swimming in bacteria-filled waters.

And new problems have emerged that vex politicians and scientists: nasty lesions that kill rockfish, unexplained bacteria spikes closing swimming holes and an ever-increasing number of hard surfaces that send pollutants rushing into the bay.



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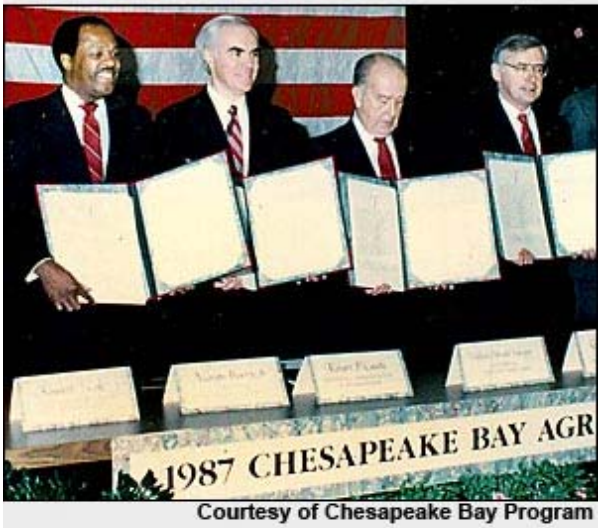

Courtesy of Chesapeake Bay Program

Capital file photo

Along the way, the price tag for saving the bay has grown by leaps and bounds.

And with the latest round of promises coming due in 2010 - and a candid acknowledgment that they won't be met - bay restoration is at a crossroads.

The latest missed deadline could lead to the federal government taking the reins of the effort and forcing more changes, even though the feds have been loathe to do so before. And a threatened lawsuit from the Chesapeake Bay Foundation could force federal action, too.

One thing is for certain: the largely voluntary efforts of the past 25 years aren't working as intended.

TOP: From left, Virginia Gov. Charles Robb, Maryland Gov. Harry R. Hughes and Pennsylvania Lt. Gov. William Scranton III attend a three-day bay conference in Fairfax in 1983. The conference included the signing of the first-ever Chesapeake Bay Agreement on Dec. 9, 1983. **TOP-MIDDLE:** A series of officials gather at the Baltimore Convention Center in 1987 to sign a second Chesapeake Bay Agreement. The group includes, from left, D.C. Mayor Marion Barry; Pennsylvania Gov. Robert P. Casey; Maryland Gov. William Donald Schaefer and Virginia Gov. Gerald Baliles. **BOTTOM-MIDDLE:** The setting for the next bay agreement in 2000 — called Chesapeake 2000 — was Herrington Harbour South in Anne Arundel County. Here, Maryland Gov. Parris N. Glendening talks about the agreement with Carol Browner, head of the U.S. Environmental Protection Agency. **BOTTOM:** Though no new bay agreements have been forged since 2000, government leaders continue to meet annually to make promises on the bay cleanup. Last month, Maryland Gov. Martin O'Malley, center, was joined at a meeting at Union Station in Washington by D.C. Mayor Adrian Fenty, left, and Virginia Gov. Tim Kaine, right.

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EXPERT OPINIONS

The Capital posed the same question to key people inside and outside of the official bay restoration effort: Are you optimistic or pessimistic about the future of bay restoration? Here's what they had to say.

Dr. Walter Boynton, professor, University of Maryland Center for Environmental Science:
"I could make a pretty good

case for optimism. Or I could get out of bed on the other side and make a case for pessimism ... It is possible to restore this estuary so it would have many features — certainly not all — that people value. It's not an impossible problem. But if it was easy, it probably would have been done."

Dr. Donald F. Boesch, president, University of Maryland Center for Environmental Science:
"By nature, I'm a 'glass half full' kind of person. I'm not one that would be disconsolate with the fact we haven't made more progress ... You can't put this thing off forever because if you don't achieve restoration success in a reasonably short period of time, then it can be very difficult."

Jeff Lape, Environmental Protection Agency official and director of the Chesapeake Bay Program:
"Probably tempered optimism. The basic reality is more and more people are moving into the bay watershed each year. We continue as a society — although we are seeing changes — to want big cars, big houses, big lots, more roads, more rooftops, more pavement. Another part of the tempered reaction is economic times. But optimism that we can help people understand that not only can we, but we must, make the tough decisions about what we're going to do for the watershed and the bay."

Will Baker, president of the nonprofit Chesapeake Bay

Foundation:
“The Chesapeake Bay Foundation is absolutely determined to contribute to the restoration of the Chesapeake Bay. We have to be optimistic or we wouldn’t be trying ... If we can’t save Chesapeake Bay, what hope is there for solving complex environmental problems anywhere?”

Gerald Winegrad, former state senator and professor, University of Maryland School of Public Policy:
“I used to be an optimist and a realist and now I’m a pessimist and an idealist. Right now, I do not see the public awareness and concern, nor the political courage, for the bold, even radical, changes needed ... It’s hard to overcome the pessimism.”

Dr. Howard Ernst, author and political science professor, Naval Academy:
“It’s the first time since I’ve been studying this that I’ve been optimistic, because we have seen people who made a career with the existing program condemn it ... There’s never been a better political environment for the types of changes people are talking about.”

WHAT'S THE PROBLEM?

The biggest threat to the Chesapeake Bay is an overabundance of nutrients and sediments.

Nutrients — nitrogen and

phosphorus — drive the growth of algae blooms that suck life-sustaining oxygen from the water. Sediment is tiny particles of dirt that cloud the water and smother grasses and oysters.

Nutrients and sediment come from residential and farm fertilizer, sewage plants and septic systems, air pollution from power plants and vehicles, construction sites and dirty urban and suburban stormwater runoff.

On top of that, the bay has problems with bacteria spikes, toxic runoff, overfishing, diseases that harm aquatic life, hardened shorelines, loss of forests and loss of water-filtering wetlands.

To bring the bay's pollution goals to 1950s levels — before there was significant development — there needs to be a 162.4 million pound reduction in nitrogen, a 14.36 million pound reduction in phosphorus and a 1.69 million ton reduction in sediment, according to the Chesapeake Bay Program.

From 1985 to 2007, 47 percent of the nitrogen goal was achieved, 62 percent of the phosphorus goal was a achieved and 64 percent of the sediment goal was met, according to estimates by the Chesapeake Bay Program.

But the goals are legally supposed to be met by 2010, and officials have been candid in admitting the goals won't be met. That will trigger stricter limits and a cleanup plan

called a “total maximum daily load.” Critics, however, aren’t sure if that’s enough to restore the bay’s health.

Harry R. Hughes, who was Maryland's governor at the time of the first bay agreement, is fond of recalling that he told people at the time to be patient - bay cleanup wasn't going to happen overnight.

But he - and everyone else - never expected it would take this long.

Mr. Winegrad said that looking back, it's still a little stunning to realize that all that hope turned into very little improvement in the bay's health.

"You're just thinking like, 'Oh my God, how did we fail?' "

Nutrient overload

The Chesapeake Bay has been intently researched since the 1970s, and some studies and restoration efforts go farther back than that.

All the science distills the Chesapeake Bay's problems to one key fact: we're putting too many nutrients in the water.

Nutrients, like food, are a good thing, explained Dr. Walter Boynton, a professor at the University of Maryland's Chesapeake Biological Lab in Solomons. Nutrients help living things grow.

But in the Chesapeake, nutrients are too much of a good thing.

An overload of nitrogen and phosphorus from sewage plants, septic systems, air pollution from cars and power plants, farm and residential fertilizer and polluted runoff spurs the runaway growth of algae.

The algae blooms block light from reaching vital underwater grasses. And eventually they rob the water of dissolved oxygen that fish, crabs and shellfish need to survive.

The result is the bay's famous oxygen-deprived "dead zones" that appear in the summertime.

"The Chesapeake Bay is obese. It has a nutrient obesity problem," Dr. Boynton said. "And like being overweight, it's a really hard thing to fix."

Scientists and politicians know what to do to reduce nutrient pollution. They've known for decades: improve sewage plants and septic systems; get farmers to reduce fertilizer use, add plants around their fields and plant winter cover crops; modernize antiquated stormwater systems and require better controls for new development.

Also, they say we need to limit the amount of new pavement and rooftops allowed and require better emissions controls on power plants and cars.

But the politics and policies to get those changes going haven't kept pace with the science - at least not often enough, many say.

There have been some successes, at least in Maryland: A 1980s ban on phosphorus in laundry detergent sponsored by Mr. Winegrad led to significant reductions, and soon phosphorus will be phased out of dishwasher soap, too. Former Gov. Robert L. Ehrlich Jr.'s "flush fee" is collecting hundreds of millions of dollars for sewage plant modernization, septic upgrades and cover crops. Power plants are adding pollution controls to comply with the state's Healthy Air Act.

But those successes fall short of what needs to be done, acknowledge both insiders and watchdogs of the official bay restoration effort.

Jeff Lape is a longtime Environmental Protection Agency employee who heads the Chesapeake Bay Program office in Eastport. His office is the coordinating body for the multi-state and multi-government cleanup partnership that was created in 1983.

Though he puts a positive spin on the restoration, he, too acknowledges more needs to be done.

Mr. Lape said the key success of the bay program is that all the scientists from various institutions and all the policymakers have been able to figure out what works and what doesn't.

"It's an incredibly strong partnership with the best science in the world that helps us understand this ecosystem," he said.

Mr. Lape said increasing restoration efforts will result in better water quality. That will

take money and sacrifice.

"We all share the frustration of the lack of progress with respect to ecosystem health," he said. "We know if we had not made those commitments 25 years ago, we'd be in serious shape with the bay ... We've made important progress, but barely kept pace with increased population in the watershed.

Carrots and sticks

But few people share Mr. Lape's positive attitude.

Scientists like Dr. Boynton of the University of Maryland express doubts about the accomplishments of the bay program.

"To the extent we haven't gotten what we want - a vastly improved bay - you could call it disappointing at best," said Dr. Boynton, who has worked on bay issues since the 1970s.

He acknowledges, though, that many people have been "busting their butts" for a long time, doing their best to help the bay despite long odds and lack of funding.

Dr. Howard Ernst, an author and Naval Academy professor, was one of the first to sound the alarm with his 2003 book, "Chesapeake Bay Blues."

At the time, he was something of a lone voice in the wilderness, the only one willing to criticize the bay program.

"What I wrote in 2003 was heresy and now it's become conventional wisdom," said Dr. Ernst, who is working on a book about bay politics titled, "The Political Dead Zone."

Even the Chesapeake Bay Foundation, which normally favors trying to collaborate and compromise to move things forward, is becoming more vocal about the failings of the bay program partnership.

The Bay Ridge-based foundation is partnering with watermen and others in threatening to sue the EPA, saying it has failed in its duty to ensure the bay meets guidelines in the Clean Water Act.

"We've got to put the 'protection' back in the Environmental Protection Agency," said

Will Baker, longtime president of the bay foundation.

The way the bay program partnership is set up doesn't allow for long-term efforts to restore the bay, he said. Governors and presidents come and go, yet the bay's problems persist.

The ultimate solution would be to have stronger enforcement of the Clean Water Act and other environmental laws, Mr. Baker said. Twenty-five years has shown that the bay can't be saved without strong enforcement.

On that point, the Chesapeake Bay Foundation and Dr. Ernst - who are often at odds - agree.

Dr. Ernst said there needs to be both carrots and sticks used to help the bay. By carrots, he means money and grants. By sticks, he means pollution caps that have consequences.

"We've grown fat on the carrots, but we haven't used the sticks," he said.

Changes in store

More sticks could be coming once the 2010 deadlines are officially missed.

The deadline was set as the result of a Clean Water Act settlement from the late 1990s. The EPA promised to set the goals and work with the states to get the bay off the list of the nation's "impaired waters" by 2010.

If that doesn't happen - and it won't - the federal government will have to set strict pollution limits called a Total Maximum Daily Load. Violating those limits could have consequences.

In theory, local governments could be forced to halt new construction or sewer system hookups if pollution is too high. Or farmers could be required to take steps to reduce nutrient-laden runoff, instead of being asked to participate in voluntary programs.

But no one knows for sure what those limits will be or exactly how they'll be enforced.

Given that uncertainty, many agree more needs to be done.

There's growing support for scrapping the bay program partnership as it is, and

replacing it with something from the EPA that has more authority to crack down on polluters and pressure local governments to help the bay more.

"The structure of the bay program is too weak to work," said Mr. Winegrad, the former state senator who now is a professor at the University of Maryland School of Public Policy.

Adds Dr. Ernst: "The problem is not that it was doomed to fail, but it failed to evolve. It has to evolve from being voluntary to being enforceable."

Tipping point

Exactly what happens to the bay program could be decided with the change in leadership in Washington. Bay advocates hope President-elect Barack Obama will put a stronger emphasis on the environment than President George W. Bush has.

At the state level, Maryland Gov. Martin O'Malley and Virginia Gov. Tim Kaine have shown strong interest in the Chesapeake Bay. They've worked together on blue crab issues and have signaled a desire to do more for the environment.

They're all Democrats, as are Washington, D.C., Mayor Adrian Fenty and Pennsylvania Gov. Ed Rendell, whose jurisdictions also drain into the bay.

Dr. Ernst said perhaps "the stars are aligned" for meaningful restructuring of the bay cleanup effort.

Whatever changes are made, there's a strong sense of urgency.

Dr. Donald F. Boesch, president of the University of Maryland Center for Environmental Science, said the bay is resilient and has shown it can rebound when pollution is decreased.

But the bay doesn't have a limitless ability to recover, Dr. Boesch said. He fears we could reach a tipping point where it's too late to rescue the bay.

"You can't put this thing off forever because if you don't achieve restoration success in a reasonably short period of time, then it can be very difficult," he said. "The longer you wait, the harder it gets."

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SCIENTISTS AND POLICY LEADERS FOR THE BAY

December 8, 2008
Annapolis, Maryland

On December 3, 2008, 20 distinguished Bay scientists and policy leaders, each with decades of experience on Chesapeake Bay issues, met in Annapolis to discuss the current state of Bay restoration. These scientists and policy leaders were unanimous that the current structure and efforts under the formal Bay Program are not succeeding and the Bay's health is declining, not improving. The group resolved to suggest changes to assure a restored Chesapeake Bay and after a day of free and full discussion, agreed on the following:

STATEMENT ON CHESAPEAKE BAY RESTORATION
CURRENT BAY PROGRAM IS NOT WORKING:
MANDATORY ENFORCEABLE MEASURES NEEDED

We have concluded that after 25 years of effort, the formal Bay Program and the restoration efforts under the voluntary, collaborative approach currently in place have not worked. We recognize that many people, organizations, and government entities have worked diligently to restore the Bay, which would be worse without their actions. But in the face of significant population growth and expanding development, these efforts have been insufficient and are failing. Water quality is declining or not improving in much of the Bay and its rivers, and living resources continue to decline.

We must transition from the voluntary collaborative approach in place for 25 years to a more comprehensive regulatory program that would establish mandatory, enforceable measures for meeting the nutrient, sediment, and toxic chemical reductions needed to remove all Bay waters from the Clean Water Act impaired waters list.

These measures should be fully implemented and enforced so our children can safely swim, fish, and enjoy the Bay as their grandparents once did. The required reductions of nutrients, sediment, and toxic chemicals must be based on quantitative, scientific standards, have enforceable limits, precise monitoring, and substantive sanctions for noncompliance. We believe that the core of this new approach to Bay restoration should be the principles that clean water is a <u>right</u> of all citizens and that <u>polluters should pay</u>.

ACTIONS NECESSARY TO RESTORE THE BAY

AXIOMS FOR RESTORING THE BAY

1. Reduce individual pollution from everyone in the watershed.
2. Change development patterns through state and local land use legislation and establish a policy of no net loss of forest and wetlands.
3. Require mandatory controls and increased accountability to reduce agricultural pollutants, including enhanced nutrient management and better manure management.
4. Require stronger protection and management of Bay fisheries necessary for a healthy ecosystem.
5. Require pollution reductions on a river-by-river basis to fully implement the tributary strategies.
6. Assure that the U.S. EPA and other federal agencies give Chesapeake Bay restoration the highest and most urgent priority in funding, enforcement of existing laws, new regulatory actions, and in forming a new and effective approach and organizational structure for Bay restoration with state governments and other key officials.

THE ABOVE STATEMENT AND CALL FOR ACTION IS AGREED UPON BY THE FOLLOWING SIGNATORIES* ON THIS 8TH DAY OF DECEMBER 2008, ON THE EVE OF THE 25TH ANNIVERSARY OF THE SIGNING OF THE FIRST BAY AGREEMENT:

Walter Boynton, Ph.D.
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University of Maryland, Center for Environmental Science
Solomons, Maryland

Thomas W. Simpson, Ph.D.
Executive Director, Water Stewardship, Inc.
Professor, University of Maryland
Annapolis, Maryland

William C. Dennison, Ph.D.
Vice President for Science Application
University of Maryland, Center for Environmental Science
Horn Point Laboratory
Cambridge, Maryland

Howard Ernst, Ph.D.
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Thomas R. Fisher, Ph.D.
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Richard Pritzlaff, President
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Charlie Stek
Chief Environmental Staffer, U.S. Senator Paul Sarbanes (Retired)
Highland, Maryland

Senator Joseph D. Tydings, J.D.
U.S. Senator (1965-1971)
Jarrettsville, MARYLAND

Senator Bernie Fowler
Maryland Senator (1983-1994)
Dares Beach, Maryland

Senator Gerald W. Winegrad, J.D.
Maryland Senator (1983-1995), Delegate (1978-1983)
Adjunct Professor, School of Public Policy,
University of Maryland
Annapolis, Maryland

* THE VIEWS EXPRESSED IN THIS DOCUMENT PRESENT THE PERSONAL VIEWS OF THE SIGNATORIES AND NOT NECESSARILY THE VIEWS OF THEIR EMPLOYERS.

Where We Live
by Steve Carr

Scientists in Wonderland

Now everybody knows the Chesapeake has a problem

The headline was laughable. “Experts — Chesapeake Bay Program Has Failed.”

Commemorating the 25th anniversary of the Chesapeake Bay Agreement, the experts dragged their collective soapbox to Annapolis and stood on it to announce that the Bay Program’s collaborative approach — based on a regional framework and the voluntary kindness of strangers — has been an abysmal failure. Apparently, trickle down doesn’t work when it comes to improving the water quality of Chesapeake Bay.

The experts are now crowing for mandatory, enforceable measures to require the Bay states to meet the nutrient, sediment and toxic chemical reductions agreed to back in 1983, when fixing the Bay seemed possible and politicians gladly promised that our children would inherit a healthy Chesapeake.

“The current Bay Program and restoration efforts have been insufficient and are failing to achieve water quality to assure healthy populations of oysters, clams and finfish,” exclaimed Bill Dennison, a veteran scientist from the University of Maryland Center for Environmental Science at Horn Point.

“We must act quickly to transition from the voluntary collaborative approach that has failed to a comprehensive regulatory program that addresses the prime sources of nutrient and sediment pollution, or watch the bay die a death of 1,000 cuts,” Dennison continued. “Drastic change is called for.”

Who are these experts now sounding this long overdue alarm?

Mostly scientists. The same scientists who have suckled the government tit for decades, pumping out study after study, monitoring every aspect of the Bay’s demise and blowing their collective smoke in everyone’s faces.

In any given year, 75 percent of Bay Program dollars go to funding scientific research. The Budget Steering Committee, the scientists who control the Bay Program purse strings, have refused to fund pretty much anything but more science and professional double-talk.

I tried to fix the Bay Program for years. My modest proposal was that federal dollars should go to local governments for on-the-ground restoration projects. I had this crazy idea that since all of the problems killing the Bay are initiated at the local level, we should focus our attention there.

Annapolis Mayor Ellen Moyer and I proposed a circuit rider — someone with actual local government experience — be hired to help local governments around the entire Chesapeake, especially far afield in rural parts of the region, get greener. We were told there wasn’t enough money. We were asking for $100,000 out of $25 million.

Where did all that money go? Installing smart buoys, producing predictive models, monitoring for nitrogen and phosphorus and justifying to Congress why the taxpayers should keep throwing money at the Bay.

Now the scientists are the ones condemning the Bay Program. The nerve! After helping to sponge up nearly $625 million over the course of the last quarter-century studying and putzing around, the scientists are finally tired of all this waste.

“We in the scientific community have seen strong evidence in our research that efforts to reduce nutrients and sediment over the past 25 years are not succeeding,” said Walter Boynton of the Chesapeake Biological Laboratory in Solomons.

Let me get this straight. We have known what was killing the Bay for 25 years, but everyone — including Dr. Boynton and Dr. Dennison — has been studying the problem — until even they have grown sick of the sham.

I attended the Maryland Water Monitoring Conference in Baltimore last week just for laughs. There Dr. Boynton and other scientists warned that there would not be more government money for restoration projects because the scientific community isn’t sure we can show that restoration efforts actually improve water quality.

Say what?

This is like Alice in Wonderland, and Wonderland is the Bay Program.

My old friend Howard Ernst, who teaches political science at the Naval Academy and who wrote Chesapeake Bay Blues, captured the madness. “The Bay is not dying because we do not know what is wrong,” he said.

“The Bay is dying a slow death because the current approach to regional environmental management has left the area with nonbinding agreements instead of enforceable laws, goals instead of pollution limits, an environmental bureaucracy that lacks enforcement powers and a severely impaired ecosystem that shows no sign of systemic improvement.”

And, I might add, too many scientists padding their rabbit holes.

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ENVIRONMENTAL WORKING GROUP THE POWER OF INFORMATION

Published on Environmental Working Group (http://www.ewg.org)

News Release - Historic Date, Historic Mess

On 25th Anniversary of Chesapeake Bay Agreement, Haphazard Spending of Farm Funds Hobbles Bay Clean Up

Published December 8, 2008

WASHINGTON, December 8, 2008 – For a quarter century, environmentalists, farmers, and government officials from six states have relied on sporadic, "random acts of conservation" to mitigate the unintended damage these agriculture activities have had on the once majestic Chesapeake Bay. These voluntary efforts, while producing some clean-up successes, have largely left the Bay polluted as agricultural fertilizers, manure and soil erosion remain the single largest source of pollution.

A new review of Maryland's farm conservation programs by the Environmental Working Group (EWG), uncovered a lack of targeting or accounting of critical environmental expenditures. More than $180 million in state and federal conservation funds have been spent in Maryland over the past 14 years, yet neither state or federal authorities could identify specific locations where the majority of the money was spent or site-specific pollution problems that the spending addressed.

Recently, the O'Malley administration, through the BayStat initiative, has taken important steps to change this haphazard approach to agricultural pollution prevention spending.

"EWG applauds the Governor's actions and hopes they continue to move forward in their efforts to do what is needed to clean up the Bay," said EWG Senior Agriculture Analyst Michelle Perez. "Indeed, if it truly succeeds in targeting funds and solving problems, O'Malley's initiative could become a model for the entire nation. This is a welcome change because like the rest of the nation, Maryland has not systematically targeted agricultural pollution prevention funds to areas of greatest need nor has the state analyzed the impacts of its spending on curbing pollution from agriculture."

December 9, 2008 marks the 25th anniversary when Maryland, Virginia, Pennsylvania, the District of Columbia and the Environmental Protection Agency made the first of a series of promises to clean up and protect the Chesapeake Bay. While the original voluntary approach was designed and agreed to with the best of intentions, it has failed to achieve an acceptable level of clean up, leaving one of the country's most economically important bodies of water heavily polluted. Even when New York, West Virginia and Delaware joined the Agreement after the third version was signed in 2000 and hailed as a "model" for regional partnership and innovative policies, the states stuck with the failed voluntary effort.

As early as 1985, the Chesapeake Bay Commission, which advises the Bay states, publicly questioned whether these voluntary agricultural programs alone were sufficient "to stem the flow of nutrients and sediments leaving our farmlands and entering our waterways, or are regulatory measures called for?"

As for agricultural regulations, Perez said, "People expect their food to be produced in a way that protects the air and water we all share. We need agricultural regulations that are smart, creative and precision-guided to achieve maximum effect with minimum costs and bureaucratic red tape for the farmer. Farmers should be able to make a good living even as they reduce the unintended pollution generated by their operations."

In addition to important regulatory measures for agriculture, EWG advocates the need for enforceable environmental standards for business developments, septic tanks and sewage treatment facilities operating in the Bay region. “Regulations merely reflect a minimum environmental standard citizens expect from all activities inadvertently harming the Bay,” added Perez.

Bay states cannot wait afford to wait another 25 years to adopt common sense principles for dealing with agriculture’s contribution to Chesapeake Bay pollution and should:

1. Identify the highest priority watersheds in their states where implementation of the most cost-effective farm practices would reduce the pollution to the Bay.
2. Design smart and enforceable minimum environmental standards that will achieve the necessary pollution reduction goals in these targeted watersheds.
3. Commit to spending conservation cost-share funds in these targeted watersheds to help achieve the regulations and go beyond the minimum requirements.
4. Track the locations of cost-share practices and conduct an annual evaluation of targeting and tracking efforts.

# # #

EWG is a nonprofit research organization based in Washington, DC that uses the power of information to protect human health and the environment. EWG’s farm subsidy database and related reports and analysis can be found at www.mulchblog.com [1]

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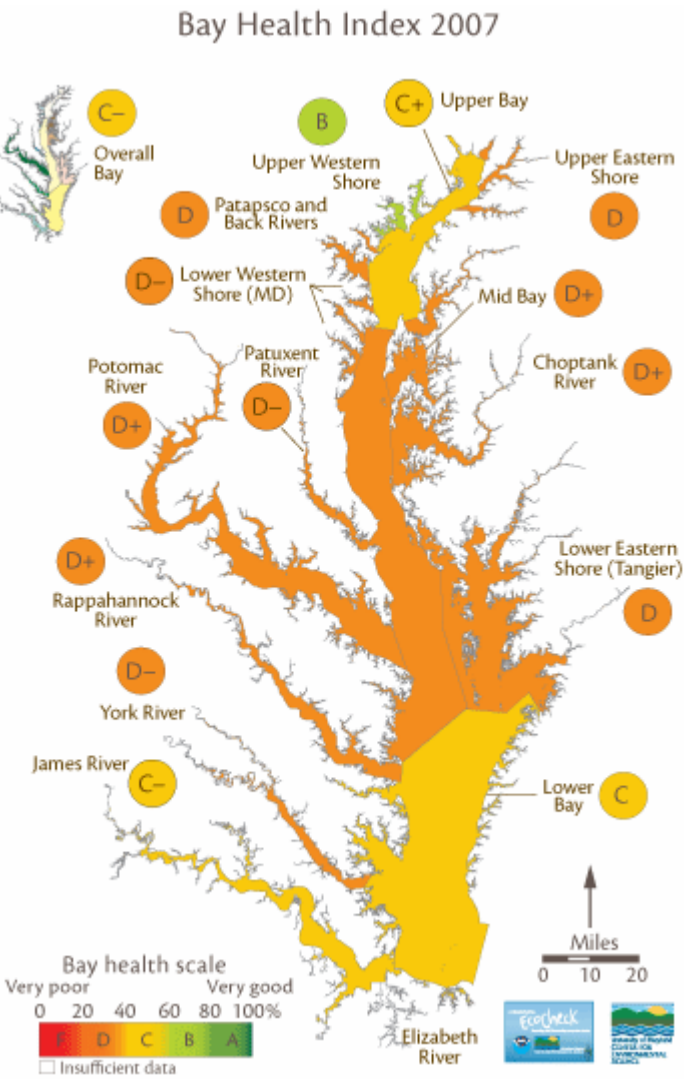
[1] http://www.mulchblog.com

The bay cleanup's rocky silver anniversary



Some things apparently don't get better with age. On the eve of the 25th anniversary of the launch of the Chesapeake Bay restoration effort, a group of scientists, "policy wonks" and activists warned that the bay is getting worse, not better, and needs a new, more aggressive commitment to cleaning it up. I wrote a **story** about it in **The Baltimore Sun**.

Members of the group gathered at a restaurant in Annapolis yesterday to release their statement calling restoration efforts to date insufficient and failing to achieve improvements in water quality and in populations of oysters, crabs and fish.

The problem, the group said, is that the largely voluntary, collaborative approach that state and federal leaders have taken to restoring the bay has failed to make headway against the tide of development and population growth in the bay region. The result, said the scientists in the group, has been worsening water quality in the bay and much of its rivers.

The effort, launched amid a surge of popular concern for the bay in December 1983, has struggled in the decades since. Governors of Maryland, Virginia, and Pennsylvania and the Environmental Protection Agency agreed in 1987 to reduce nutrient pollution fouling the bay 40 percent by 2000, only to miss that goal. They gave themselves another decade to hit their target, but now acknowledge they still won't even be close by the 2010 deadline.

If these criticisms of the bay cleanup sound familiar, they should. Earlier this fall, Rona Kobell and I reported in *The Baltimore Sun* on the bay restoration's struggles. (**Part1** & **Part2**.) Pamela Wood of the *Annapolis Capital* contributed another good analysis on Sunday. You can read it **here**.)

"What kind of a legacy are we leaving?" asked Gerald Winegrad, a former Anne Arundel County legislator and activist who called the group together last week to hammer out its position statement. "How bad does it have to get before we stop the politics of postponement?"

Howard Ernst, associate professor of political science at the Naval Academy and author of *Chesapeake Bay Blues*, a critical look at the bay restoration, suggested that the bay partnership -once touted as an international model of ecosystem rehabilitation - has proven inadequate to the task and needs to be discarded in favor of a mandatory, enforceable regimen.

"The light-green approach to regional environmental management has left the area with nonbinding agreements instead of enforceable laws, goals instead of pollution limits, an environmental bureaucracy that lacks enforcement powers and a severely impaired ecosystem that shows no sign of systemic improvement," he said.

Ernst said he'd like to do away with the **Chesapeake Executive Council**, the rotating cast of state and local elected officials and EPA administrator who set goals and deadlines for the restoration effort, and replace it with a bay restoration authority set up by Congress, with legal clout to set enforceable targets and impose penalties for failure to comply.

Others in the group, though, were not willing to go beyond a more general statement that the restoration needs mandatory, enforcable measures.

Even a few of the original group's members apparently weren't comfortable with the statement released yesterday, general as it was. Winegrad acknowledged that as many as 20 of the 23 people attending last weeks' meeting had signaled their willingness to sign onto the public statement. Only 16 names were on the statement handed reporters.

Winegrad said one, a representative of the **Chesapeake Bay Foundation**, which has favored cooperation with farmers to regulating them, told him he could not get approval in time from the Annapolis-based environmental group. The others evidently indicated they were uncomfortable to varying degrees with how the statement called for reducing agricultural pollutants by requiring farmers to employ prescribed conservation measures.

Farming has been a political "third rail" in the bay cleanup, with elected leaders in Maryland, in particular, unwilling to order farmers to take steps needed to reduce polluted runoff. Growers adamantly maintain they are good stewards of the land and the bay, and reject scientific findings that runoff of fertilizer and animal manure from farms remains the largest single source of nutrients fouling the bay.

Efforts lately have focused on directing more state and federal funds to pay farmers to employ conservation measures. But another report, released yesterday on the eve of the bay effort's anniversary, suggests that officials have failed to ensure that the millions in public funds funneled so far to farm conservation were well spent.

A review of Maryland's farm conservation programs by the **Environmental Working Group** found "a lack of targeting or accounting of critical environmental expenditures," the Washington-based environmental group reported. "More than $180 million in state and federal conservation funds have been spent in Maryland over the past 14 years," it went on, "yet neither state or federal authorities could identify specific locations where the majority of the money was spent or site-specific pollution problems that the spending addressed."

The O'Malley administration has attempted through its **BayStat** statistical analysis program to remedy what EWG called "this haphazard approach" to financing agricultural pollution controls.

"This is a welcome change because like the rest of the nation, Maryland has not systematically targeted agricultural pollution prevention funds to areas of greatest need nor has the state analyzed the impacts of its spending on curbing pollution from agriculture," the working group said.

Besides appealing for stricter farm pollution accountability, EWG urged enforceable environmental standards for business developments, septic tanks and sewage treatment facilities operating in the Bay region. To read the entire statement, go **here**.

For more on the bay's health, depicted in the graphic above, go **here**.

Posted by **Tim Wheeler** on December 9, 2008 6:00 AM | **Permalink**

CHESAPEAKE BAY

Scientists Urge More Aggressive Cleanup

Stepped-Up Regulation Backed as 25-Year Effort Fails to Meet Long-Term Deadlines

By David A. Fahrenthold
Washington Post Staff Writer
Tuesday, December 9, 2008; Page B02

A group of scientists who study the Chesapeake Bay took on a new role -- environmental activism -- yesterday, when they made an unusual appeal to revamp the bay's government-led cleanup effort.

THIS STORY

- **CHESAPEAKE BAY: Scientists Urge More Aggressive Cleanup**

That effort began 25 years ago today, with an agreement signed by three governors, the mayor of Washington and the administrator of the U.S. Environmental Protection Agency. Now, the program has spent nearly $6 billion but has failed to deliver the healthy estuary that was promised.

Yesterday, the scientists joined with environmentalists and former Maryland officials to call for a major change. They said the current effort -- which relies largely on encouraging voluntary measures, such as reimbursing farmers or septic tank owners who reduce pollution -- should be scrapped.

In its place, they proposed using tougher regulations to force the bay's polluters to clean up.

"People are not buying in. They are not doing the right thing," said Walter R. Boynton, a professor at the University of Maryland's Chesapeake Biological Laboratory since 1978. "At this stage, we need to use a much heavier hand."

That call, made during a news conference in Annapolis, comes at what may be the lowest point for the Chesapeake cleanup, which involves state, federal and local authorities and is coordinated by the EPA.

Despite a quarter-century of work, the bay's biggest problem -- pollution-driven "dead zones," where fish and crabs can't breathe -- has not significantly improved. Officials with the EPA's Chesapeake Bay Program Office concede that the cleanup won't meet its next major deadline, which requires a much cleaner estuary by 2010.

At a meeting of the cleanup's leaders this month, governors and EPA officials said they would stop setting long-term deadlines and focus instead on short-term goals.

Unsatisfied, a coalition of environmentalists and watermen's groups is still threatening a lawsuit.

"Our expectations have collapsed, along with the Chesapeake Bay," said former Maryland state senator Gerald W. Winegrad (D-Anne Arundel), who has given slideshow presentations about the bay's decline to audiences around Maryland.

In addition to Boynton, the bay scientists at yesterday's news conference included Thomas R. Fisher, a professor at the University of Maryland Center for Environmental Science, and Thomas W. Simpson, a former U-Md. professor.

Boynton cited a recent long-term study of the Patuxent River, which showed that some contamination is backwashing upstream into the river. After being polluted by its tributaries for centuries, the Chesapeake is dirty enough to return the favor.

"This is a really disastrous trend. Truly awful," Boynton said. He said such developments had inspired the scientists to make their case publicly.

The proposal unveiled yesterday contained few specifics. But no matter what form it takes, increased regulation of farms, septic tanks and city storm sewers is likely to be a hard sell.

Yesterday, a spokeswoman for the Maryland Farm Bureau said new regulations would be a serious financial burden on farmers.

"That is not going to fly for some time," said U.S. Rep. Wayne T. Gilchrest (R-Md.), who is leaving office after nine terms. But Gilchrest said such a proposal might lead to an important debate. "What can happen is a discussion about why the bay is dying," he said.

Yesterday, officials in the Maryland and Virginia governments said they would consider the ideas, as did U.S. Sen. Barbara A. Mikulski (D-Md.), who has been active on bay issues.

Jeffrey L. Lape, head of the EPA's bay program, spoke at yesterday's news conference, promising the scientists and activists that he would work to improve the cleanup.

Later, EPA spokesman Travis Loop said it would be counterproductive to scrap the bay program and start over. "It would kind of take the regional restoration effort back to square one, and that's not what's needed at this point," he said.

Broken Promises on the Bay

Chesapeake Progress Reports Painted 'Too Rosy a Picture' As Pollution Reduction Deadlines Passed Unmet

By David A. Fahrenthold
Washington Post Staff Writer
Saturday, December 27, 2008; Page A01

Government administrators in charge of an almost $6 billion cleanup of the Chesapeake Bay tried to conceal for years that their effort was failing -- even issuing reports overstating their progress -- to preserve the flow of federal and state money to the project, former officials say.

- The cleanup, which had its 25th anniversary this month, seems doomed to miss its second official deadline for achieving major reductions in pollution by 2010.

The goal of rescuing North America's largest estuary was formally entrusted in 1983 to a group of federal, state and local authorities under the loose guidance of the U.S. Environmental Protection Agency. The task: controlling runoff from 4.8 million acres of farmland, installing upgrades at more than 400 sewage plants and managing the catch of more than 11,000 licensed watermen.

But the agencies charged with the cleanup have never mustered enough legal muscle or political will to overcome opposition from the agricultural and fishing industries and other interests.

Instead of strengthening their tactics, though, they tried to make the cleanup effort look less hopeless than it was.

That picture emerges from internal documents and from interviews with current and former officials involved in the cleanup, including two who served as director of the EPA's Chesapeake Bay Program Office, the closest thing to a "bay czar" that the decentralized effort has.

William Matuszeski, who headed the program from 1991 to 2001, described how the program repeatedly released data that exaggerated its success, hoping to influence Congress. His successor, Rebecca W. Hanmer, said she was instructed by regional leaders in 2002 not to acknowledge that the effort would fall short of its 2010 goals.

"To protect appropriations you were getting, you had to show progress," Matuszeski said. "So I think we had to overstate our progress." Several state governors said they were unaware of inflated data, and another EPA official disputed Matuszeski's account.

The cleanup's failure has prompted a coalition of environmentalists and scientists this month to call for replacing the EPA's approach with firm regulations on farms, sewer plants and developers. A group of watermen has joined environmentalists in threatening a lawsuit, hoping a judge can force the EPA to quicken the pace of the cleanup.

For the bay, the consequences are clear: The vast marsh-rimmed estuary has just as many pollution-driven "dead zones" as it did in the 1980s and less of the life -- crabs, oysters, watermen -- that made it famous.

"It'll always be beautiful," said Bernie Fowler, 84, a former waterman, county commissioner and state senator from Calvert County, who has argued for cleaning the bay since 1970. "But there's nothing out there living."

The 1980s and 1990s

For centuries, the Chesapeake was an environmental superconductor: 200 miles of nutrient-rich water, full of sturgeon and ducks and enormous reefs of oysters.

Watermen and disease depleted its creatures, and farms, sewage plants and suburban storm drains polluted its water. They sent down a mix of manure, human waste and fertilizer that fed algae blooms, which depleted the water's oxygen.

In most cases, officials knew how to reduce this pollution. But almost from the beginning, they struggled to implement these measures on the appropriate scale (*see "Scenes of an Effort Impeded," Page A8*).

"The science has been clear. The solutions have been very straightforward," said William C. Baker, president of the nonprofit Chesapeake Bay Foundation. "And yet the public policy has not followed the science."

The government effort to fix all this formally began Dec. 9, 1983, when the governors of Maryland, Virginia and Pennsylvania, the District's mayor and the EPA administrator signed a short agreement promising to work together for the bay. In 1987, the leaders set the bay's first deadline: They pledged to reduce nitrogen and phosphorus by 40 percent by 2000.

Soon after, officials banned phosphorus-rich phosphates from laundry detergent. They suspended fishing for rockfish and pushed sewage plants to reduce the pollution they dumped into rivers. In public, it seemed that the cleanup was working.

In fact, that's what the EPA said: "Pollution abatement programs are working," a "State of the Chesapeake Bay" report said in 1995.

Two years later, the EPA's Chesapeake office predicted that the bay cleanup would meet one key deadline: "The Baywide goal for phosphorus reduction will be met by the year 2000," it said, in a "reevaluation" of progress so far.

Internal documents from the Chesapeake Bay Commission, a group of state legislators that helps lead the cleanup, show a different view.

"In a nutshell, I don't entirely trust the reevaluation," Ann Pesiri Swanson, the commission's executive director, wrote in a 1997 briefing memo for the commission's chair. The EPA figures, Swanson wrote, "project a rosy picture. Monitoring indicates a longer row-to-hoe before we meet success."

In reality, Matuszeski, head of the EPA Chesapeake Bay program at the time, said the cleanup effort was struggling. Despite progress on sewage plants, state and federal agencies had done little to tackle pollution from farms, septic tanks and city storm sewers.

"There wasn't enough going on, and there wasn't enough money behind it, and there wasn't enough regulation behind it," Matuszeski said. He said, for instance, that Maryland officials had rejected his general suggestion to put tighter rules on farms.

But, Matuszeski said, the EPA program was worried about losing congressional and state funding, which would jeopardize even the modest progress that was being made: "As public officials, you are driven by the idea that the American people like to be part of a winning team."

So the program published statistics, drawn from computer models, that showed pollution reductions that might occur in the future. They were not a snapshot of the bay as it really was -- in fact, Matuszeski said, the EPA did not know exactly how clean the bay really was, because it lacked adequate monitoring equipment.

But, he said, it was clear that the model's version of the Chesapeake was healthier than the real one.

"We had results that promised us future effects," Matuszeski said. But publicly, he said, "They were presented as 'effects,' and the assumption was that they were real-time."

Others within the cleanup's leadership had different opinions about what these numbers represented. Richard Batiuk, the EPA Chesapeake Bay Program Office's current associate director for science, said there was no intent to exaggerate: "Did we inaccurately apply that model? No."

Three governors who served during that period -- George Allen and James S. Gilmore III (R) from Virginia and Parris N. Glendening (D) of Maryland -- said they were unaware that the EPA's data had exaggerated its success. "That's disturbing to hear that," Allen said. "All indications we had were that progress is being made."

Within the Chesapeake Bay Commission, executive director Swanson said she knew EPA was "telling the happy side of the story." But, she added, "I don't think people were intentionally misleading."

W. Tayloe Murphy Jr., who in 1997 was a Virginia state legislator and the bay commission's chairman, said he could understand why officials would overstate their success.

"To keep what funding you've got, you don't want to say that you just failed. So I think, from time to time, there was a little rosier picture painted," he said. "We never came out and said that the bay program office is painting too rosy a picture. . . . We probably gave some slack to EPA, because we didn't blame them for the lack of progress."

During this period, the EPA bay program's funding hovered between $19.9 and $22.5 million a year. But, when 2000 came, the deadline was missed. The cleanup had succeeded in reducing phosphorus only by 25 percent and nitrogen only by 13 percent, according to today's EPA estimates.

In response, the group of state and federal leaders made an even bolder promise: the "Chesapeake 2000 Agreement." They would cut pollution more than they had pledged in 1987 and have the Chesapeake removed from an EPA list of "impaired waters" by 2010.

The 2000s

In the years after the agreement, Maryland passed a "flush tax," which used fees on sewage and septic users to fund anti-pollution measures. Virginia's legislature borrowed $250 million to work on sewage plants. In Pennsylvania, new tax-credit programs funneled money to make improvements on farms.

But overall, the cleanup was still in low gear.

The EPA's Chesapeake office was focused on a massive scientific exercise: mapping 78 sub-sections of the bay and estimating how clean the water should be in each. That took three years. After states mapped out "tributary strategies" to comply with the new goals, the price tag for the cleanup grew to $28 billion.

That price tag was so high, environmentalists and officials said, it was like having no plan at all.

"We don't really have yet a truly viable plan to save the bay," said J. Charles Fox, who was Maryland secretary of natural resources from 2001 to 2003.

Hanmer, who succeeded Matuszeski as head of the EPA Chesapeake office, said she knew early in her tenure that the cleanup effort was probably moving too slowly to meet its 2010 goal.

"Is the program and the public going to be well-served by our stopping and trying to renegotiate the bay agreement?" the cleanup's leaders asked themselves, she said. She said they decided there was no way to meet the deadline without exceeding the law or

turning to stricter regulations that would force farmers to go under. "We made the decision, no."

Leaders also decided not to say publicly that the effort was so far off track. Hanmer said she was told not to do so in 2002 by the Chesapeake Executive Council, which includes regional governors, the EPA administrator and the head of the bay commission. "They maintained that we should say it was doable," she said.

"For us to declare defeat would mean that we would have no chance . . . of convincing the legislators to give us financing," Hanmer said. "Rather than declare defeat, we should work harder."

Glendening, who attended the meeting as Maryland governor, said he did not recall this. Swanson, of the bay commission, remembered the council's choice differently: not as an order to keep something secret, but rather as a decision not to focus publicly on the cleanup's long-shot prospects.

"They chose not to dub it a failure," she said. "They wanted to keep trying. And the more they could maintain a hope, the more they could motivate policymakers to do the right thing."

Three years later, Hanmer was asked by a Washington Post reporter if the 2010 goals would be met. "I'm certainly not going to tell you that we can't meet it," she said.

At the bay commission, Swanson said she remembered a similar decision being made in a committee of high-ranking staff members about 2002.

"I don't think in 2002, there was a cost" to not revealing the depth of the cleanup's problems, she said. "I think that, by 2005, 2006, you know, we should have made more . . . perhaps [we] could have recognized it more publicly."

In 2004, a Washington Post report revealed that the EPA was still using computer-modeling data to produce overly optimistic progress reports. A subsequent report by the U.S. Government Accountability Office found that the EPA program "downplays the deteriorated condition of the bay" by using modeling data instead of information from real-world water monitoring. The GAO did not say the numbers were exaggerated on purpose.

Hanmer said these numbers "had not been a focus of my personal attention" but that she was not aware of any attempts to deceive. After the GAO report, she said, the effort began using more data drawn from monitoring of the bay.

In January 2007, the EPA said the 2010 deadline wouldn't be met. At last count, total phosphorus had fallen 30 percent and nitrogen 22 percent -- still less than promised in the 1987 agreement.

Now

Last month, the current leaders of the cleanup -- the governors of Virginia and Maryland, the District mayor and the EPA administrator -- pledged to give the effort new urgency, setting short-term goals and creating consequences if they are missed.

The EPA also says it is time for a change. Current EPA bay program director Jeffrey L. Lape said the cleanup did not have enough money or legal muscle for its task.

"You lack the tools, programs and authorities to get the job done," Lape said. He was paraphrasing a July report from the EPA's inspector general: "I agree with that."

Despite that, EPA officials said they would not call the cleanup effort a failure.

They said that, in total, the cleanup had cut pollution from more than 150 sewage plants, reducing their output of one key pollutant by 60 percent. They have curtailed toxic dumping, restored 12,500 acres of wetlands and increased the number of the Chesapeake's beleaguered rockfish by 15 times.

"We would have said we'd failed if we'd done absolutely nothing, against the face of population" growth, Batiuk said. But 4.3 million residents have moved into the Chesapeake's watershed since 1980, a population increase of 34 percent. Each one brought pollution.

While the Chesapeake effort has struggled, other cleanups have made history. The Hudson River has more oxygen, Boston Harbor is less septic and Tampa Bay has seen its underwater grasses come back. These jobs were easier, of course: The Hudson's watershed is the biggest of the three, and it is still one-fifth the size of the Chesapeake's.

Today, leaders around the Chesapeake are grappling with square-one questions, including: How badly does the public really want this?

"There's a difference between the idea of 'I want to have a clean bay,' and what it might require me to change [about] the way I have to live my life," said Frank W. Dawson III, who oversees bay restoration for the Maryland Department of Natural Resources. "We collectively, as a society, may not be able to understand . . . the sacrifices necessary to get there."

The bay's last crab harvest was about 39 million pounds, about 60 percent less than in 1983.

Its last oyster harvest was about 470,000 pounds, or 96 percent less.

This summer, about 17 percent of its water had lowered oxygen levels.

That was the cheeriest indicator of the three: After a quarter-century of work, the bay was just about as dead.

EPA Called A 'Negative Factor' in Bay Cleanup

A new report by the Chesapeake Bay Foundation criticizes federal action and wants more enforcement to stabilize marine life. (By Linda Davidson -- The Washington Post)
Buy Photo

By Ashley Halsey III
Washington Post Staff Writer
Tuesday, December 30, 2008; Page B01

Chesapeake Bay's iconic and profitable blue crabs face suffocation, hunger and cannibalism as dead zones continue to expand across the estuary, draining oxygen from the water and killing off enough clams and worms to feed 60 million crabs.

That bleak assessment came yesterday in a new report from the Chesapeake Bay Foundation, the nonprofit environmental group that monitors the bay and the multimillion-dollar industries it supports.

The foundation's president, William C. Baker, said that without critical support from the Environmental Protection Agency, efforts by states to clean up the bay will continue to falter.

"They have been undercut by the EPA, which has been worse than missing in action," Baker said. "They have been a negative factor. They have not been enforcing the Clean Water Act. They have relaxed restrictions on air pollution, specifically on coal-fired power plants, and they've cut back on funding to states for things like sewage treatment plant improvements, and that's the low-hanging fruit when it comes to pollution."

The Washington Post reported over the weekend that government administrators of bay cleanup efforts tried to conceal for years that their efforts were failing, to maintain a continued flow of federal and state money for the project.

The dramatic decline of the crab population in less than two decades -- from 791 million in 1990 to 260 million in 2007 -- has been well documented, but the foundation's report quantifies for the first time that 75,000 metric tons of the food that crabs eat are being lost each year as the dead zones expand and shift through the bay.

Those oxygen-deprived zones send crabs fleeing into more shallow waters, where they turn to cannibalism for lack of food, are gobbled up by predators or are caught in crab pots. Sometimes they literally crawl out of the water to breathe.

That desperate migration is a temporary bonanza for watermen, who set their pots in increasingly shallow depths to catch crabs herded by a shift in the dead zone. But there is a long-term price: As occasional lucky day-crabbers fill their wicker baskets, watermen are harvesting crabs at a faster pace than nature can replenish them, so the annual catch continues to drop.

The declining harvest has resulted in a 40 percent drop since 1998 in the number of people who hold crabbing-related jobs, costing Maryland and Virginia $640 million between 1998 and 2006, according to Virginia Institute of Marine Science data cited in the report.

The report was produced by foundation staff members Bill Goldsborough, fisheries program director, and senior writer Tom Pelton, who interviewed 12 scientists and other Chesapeake Bay authorities.

They concluded that the decline of the crab population can be reversed only through a combination of stringent pollution controls and enforceable limits on the number of crabs taken by watermen each year.

The report says the EPA and three bay-region states -- Virginia, Maryland and Pennsylvania -- should set limits on the maximum amount of polluting nitrogen, phosphorus and sediment from runoff and septic fields that the bay can tolerate in a given day.

Federal and state agencies should better enforce clean water laws, the report says, particularly for sewage treatment plants and farms whose fertilizer runoff contributes to dead zones. New laws and regulations are needed to replace Clean Air Act provisions that were scaled back by the Bush administration.

In a statement yesterday, Benjamin H. Grumbles, the EPA's assistant administrator for water, said, "EPA wants a cleaner and healthier Bay and is committed to holding polluters accountable and to using all the right tools to accelerate and sustain progress with our many partners throughout the entire watershed."

Baker sounded optimistic about prospects for environmental gains under President-elect Barack Obama and about Obama's EPA nominees. He dismissed the notion that hard economic times present a challenge to potentially costly environmental programs.

"Economic stimulus efforts always have improved the environment rather than been a drag on it," Baker said. "Things like sewage treatment plant improvements put people to

work. And if we have to build more roads, let's make them the best roads environmentally possible."

Baker said that when nature has a hand in what flows into the bay, the results have been dramatic; in drought years, lack of rainfall cuts polluting runoff and sewage treatment plants emit less because they aren't burdened with storm runoff.

"We've seen the bay do some pretty remarkable bounce-backs," Baker said. "The [crab] species will respond pretty dramatically to improved water quality."