It May Be Too Late to Save Bay in Florida

Escambia Waters Reportedly Dying Under a Deluge of Industry-Blamed Pollutants

BY KENNETH REICH
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PENSACOLA, Fla.—For many years, while the authorities were unaware or reluctant to believe it, and the offenders wouldn't admit it, pollutants slowly accumulated in Escambia-Pensacola Bay.

Industries discharged nutrients that were not even regarded as pollutants at the time. Up the Escambia River, in Alabama, waste discharges were hardly regulated. The sewage-treatment plants in Pensacola and nearby municipalities were inadequate.

Unnoticed sludge deposits accumulated on the bottom of the bay in many places and abnormal algae growth occurred in others. A railroad trestle and dredging reduced circulation and the cleansing effect of the tides. There were *warnings*, of course — small fish kills a decade ago, a federal ban on taking *oysters from parts* of the bay.

State and federal inquiries *began*. A pollution enforcement conference met in January. Seven industries were *cited* by the state for allegedly violating what regulations there were. *Local newspapers* became concerned.

Shrimp Vanish

There was a $1 million-a-year shrimping industry in the bay. Five years ago, white shrimp disappeared. Last year, brown shrimp went, *leaving only* the Gulf variety. On Aug. 5, 35 small private shrimp boats put *out for a day's* work. They returned with only 330 pounds among them. Two years ago, each would have brought in 600 to 1,000 pounds.

Disaster became apparent to all when millions of fish died early last month—the 31st and most serious fish kill recorded in the bay in 1970. Dead, sickly Menhaden covered four miles of water. And a ranking official of the Federal Water Pollution Control Administration admitted privately that it may be too late to save Escambia Bay. "We *don't* have the money or authority to deal with the situation," he said.

"I've been involved in this pollution for many years," said Joseph Patti, owner of a small seafood company, in an interview. He has been fishing in Escambia Bay and other nearby coastal waters since 1919.

"I was in Mobile Bay before they killed it. They always say, 'We're investigating.' They're still investigating when we haven't got anything left. That makes me sick to my stomach.

"They say, 'We're investigating.' They've been investigating for five years and they haven't done anything. The bay is gone —not only shrimp, but mackerel, pompano—gone out of the bay, and they're *still investigating*.

"The papers (the Pensacola News and Journal) do a good job, but my opinion is the manufacturers stand back and laugh about it. If you don't make them do something, they're not going to do nothing."

Claims Action

In a letter dated Sept. 17, W. J. Campbell, superintendent of personnel and industrial relations for the Monsanto Co. textile plant at Pensacola, wrote, "We are genuinely concerned about the pollution of Escambia River and Bay and have, since before this plant was built (in 1949), continued that concern with action — not just talk . . .

"At the time of the federal survey (last January) our plant was already operating facilities which prevent 97% of the biochemical oxygen demand (BOD) in our waste streams from entering the effluent into Escambia River," Campbell said.

"Since the survey, the total organic carbon and total Kjehldahl nitrogen discharge levels have been reduced approximately 50% and phosphates are approaching the levels recommended in the federal report."

The 175-page FWPCA report to which he referred had labeled Monsanto "the largest waste source" in terms of BOD for Escambia River and Bay.

It said BOD discharged by the plant amounted to 10,100 pounds per day, or 41% of all BOD entering the waters. In addition, the plant was said to be daily discharging 3,900 pounds of organic carbon, 1,875 pounds of Kjehldahl nitrogen, 1,101 pounds of ammonia nitrogen, 1,331 pounds of nitrate, 421 pounds of phosphate and 261 pounds of orthophosphate. Furthermore, it was discharging 50 million gallons a day of heated water that was increasing surface waters immediately adjacent to the outfall by 19.5 degrees Farenheit.

Responding to the report at a public hearing, Walter T. Cline, Monsanto plant manager, said the company was "fully aware of its responsibilities as a corporate citizen in this community."

But two weeks later, in a written response to the federal authorities, the company found "serious error in logic," lack of "adequate definition and/or indication of relevance" and lack of "any demonstration of . . . casual relationship" in much of the report.

Fish Kills?

The company also questioned the accuracy and cause of fish kills and noted the report "suggests a decline in the 'recreational use' of the Bay, but offers no data in support of the proposition."

Finally, to a recommendation in the federal report that a waste-interception system be constructed around the entire bay with waste removal to be achieved by a central facility, Monsanto argued that "Serious consideration of the proposal must await cost studies, technical feasibility studies and estimates on time to accomplish the objectives established in terms of the water quality criteria established for the Bay." It cautioned, "Land acquisition alone would likely feature a substantial investment."

At another point in its written response to the government, Monsanto declared, "There is but one reasonable constitutional basis for the Federal Water Pollution Control Act, and that rests in the power to regulate interstate commerce. However broadly this power may be construed, there is no support for the proposition that the United States may regulate the biochemical uses of Florida state waters on ground: looking solely to the public health and welfare . . ."

A separate report by the U.S. Bureau of Commercial Fisheries' local center for Estuarine and Menhaden Research said: "We first detected residues of Aroclor 1254 (a light yellow viscous oil with a chlorine content of 54%) in animal tissue in April, 1969, at a newly established pesticide-monitoring station in Escambia Bay.

"Subsequent sampling in this area showed residues of the chemical in water, sediment, fish, blue crabs and shrimp. We traced one source of Aroclor 1254 to outfall of Monsanto . . . Aroclor reportedly entered the plant's effluent

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fluid. High concentrations occured when this was corrected . . .

"We have determined that continuous exposure to five parts per billion Aera for 12½ to the water for 30 days killed 72% of a test population of commercial shrimp."

Like Monsanto, American Cyanamid's plant on the east shore of Escambia Bay was among the seven industries cited by the state of Florida for alleged pollution violations.

At last winter's enforcement conference, Gilbert J. Kenngott, the plant manager, objected to references in the federal report to a chemical called acrylonitrile.

"Cyanamid has made numerous analyses of our effluent," Kenngott said. "Our results indicated acrylonitrile at a concentration of about 30 milligrams per liter—far less than cited in this report, based on one analysis apparently. Since acrylonitrile is not detectable in the Bay adjacent to our disperser nozzles, we are confident this has no harmful effect on fish life.

"This is supported by our observations that no dead fish were present within one to two miles of our outfall line at the time fish kills were reported in the northeast section of Escambia Bay."

Murray Stein, FWPCA's assistant commissioner for enforcement, contested the company analysis and then went on: "Now, the question that we raise is: Sure there were no fish being killed near the point of the plant discharge, but there was no evidence there were any five fish to be killed either, and the point is you are just saying there were no fish killed there.

Conditions Change

"When you get a fish kill, you get it in the marginal place where the fish remain alive and certain conditions change where those fish are killed."

at a point almost directly opposite American Cyanamid and Escambia Bay Chemical," said Mr. Ray B. Geiger, 76, in a letter to the FWPCA. "Once my whole family enjoyed the swimming in the clear water with sandy bottom and sandy beaches, where now you would wade in sludge. We longed oysters midway across the channel. We caught in half an hour enough speckled trout for a supper on the beach.

"Now, there is no clean water to swim in. I cannot let my dog wade in the shallows, for his ankles develop a skin eruption.

"There are no oysters! There are no speckled trout in our area. After one of these fish kills, a rookery, near my home, of about 25 egrets, little blue herons, and great blues were wiped out from eating these fish. It is rather heartbreaking to see the old lovely bay become a death trap . . ."

Mrs. Charles F. Smith Jr. of Pensacola testified at the enforcement conference, "The latter part of the summer (of 1969) my children had to stop swimming. They were caught one time in effluent which I knew was raw sewage.

"On repeated occasions when the wind is out of the southeast and the tide incoming, evidence that the (Pensacola municipal) treatment plant is dumping is very noticeable. Foam and solid substances are readily visible floating throughout the top layers of the water."

Had to Quit

Until the summer of 1970, Lawrence Patone operated his own small fishing boat on the waters of Escambia Bay. He had been working there men on it, shrimping, since 1948.

"Last year, the shrimp dropped down to half," he said in an interview. "This year, it was down to a tenth. I was going further into the hole. So I just had to quit, had to tie it up . . .

"I'll tell you another thing. You don't see any more porpoises in the bay. Whatever this thing is, it's hurting the porpoises."

on on the largest retail seafood market in Pensacola, moved to a visitor. "Our business is off the last two months. People come in and ask when I get the fish.

"Why, I remember when people used to come out of Birmingham, 200 or 300 miles inland, and I used to pack up boxes of fish—25 or 30 pounds for them. Now, I can get by with half the help."

Hightower said he could see little point in writing about the situation. "It's going to take more than just that to fight these big companies," he said. "They've got men up in Washington and all that."

Joe Blanchard, regional fisheries biologist for the Florida Game and Fresh Water Fish Commission, told the enforcement conference of conditions in the Escambia River:

"Fishermen's success . . . has decreased yearly. Fewer boats now utilize the river and . . . the reduction of rental boats is in the neighborhood of 50%. A number of fish camps have gone out of business."

Few Fishermen

On several 70-mile trips up the river, the most fishermen counted on any one trip was seven, he said.

"Several different bacteria and diseases were isolated from fish of the Escambia River," Blanchard added. "The most prevalent was Columnaris, described by Auburn University as being a secondary infection, quite possibly resulting from pollution aggravation. This was a similar syndrome to that which caused huge sores on the fish of Escambia Bay."

One suggestion made by state and federal authorities was that old pilings be removed from underneath the Louisville and Nashville Railroad trestle that crosses Escambia Bay. As new pilings were put in over the years, the old ones had been left in place. Studies indicated these were inhibiting circulation of water induced by tidal action.

On the urging of Florida Gov. Claude R. Kirk Jr., L&N's president ordered removal of the existing pilings and 1,500 pilings more were taken out.

But this summer, fish kills, which previously had been mainly confined to the area inwards of the trestle had moved beyond it.

"What they've done is open the gates of a swimming pool and let it extend all over the bay," chuckled Clyde Hightower, owner of Hightower's Seafood Co. Another boat owner said: "The sludge here stayed bunched up behind the trestle, it has moved down to Pensacola Bay."

Removal Harmful?

Asked about this, John R. Thoman, southeast regional director of the FWPCA, said Hightower could be "absolutely correct." Removing the pilings conceivably could have "created worse conditions in the lower basin," he said.

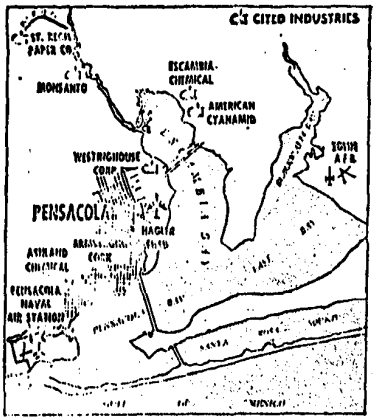
A spokesman for the Alabama Water Improvement Commission, the state agency charged with enforcing pollution safeguards, told the enforcement conference that the commission could not agree with the FWPCA report that the Container Corp. of America plant at Brewton, Ala., 63 miles up the Escambia and Conecuh rivers, was a significant contributor to Escambia Bay pollution.

However, the spokesman, J. L. Crockett Jr., admitted the color from Container Corp.'s discharge was still observable at the Florida state line, a few miles from where the river empties into the bay.

He said the Alabama commission—six of whose 11 members serve out in industries subject to its regulations—did not think the 91% reduction of BOD the federal report recommended for Container Corp. was feasible. (The corporation is currently discharging 7,420 pounds of BOD daily.)

And he submitted a statement on behalf of the commission which concluded, "We are quite con-

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POLLUTED—Area polluted by discharge of waste. Times map by Patrick Lynch

cerned over the inference in the FWPCA report that further increases in existing or new discharges of BOD to Escambia Bay cannot be permitted. If this be the case, growth and development along the Escambia River and Bay, and perhaps the lower Conecuh River, may well come to a halt."

Earlier, when Pensacola City Manager William H. Law had raised a similar point, FWPCA Regional Director Thoman replied: "You can't continue to put industry into the Pensacola area that continually adds increments of carbon, nitrogen and phosphorus into the system and expect it to be an unpolluted system. Now, this is something that just cannot happen."

Even if all the waste discharges were stopped tomorrow, it would still be a long time before Escambia Bay would be rid of pollution, Thoman said in an interview last week. "We're stuck with a damned bad situation," the federal official said. "Neither the state nor we have the money or the means to get in there and get the bottom materials, the sludge, out of there, or keep the fish out."

Thoman said that because of a small tide in the bay, natural cleansing probably would take many years. "We could have 11 fish kills next year," he said.

The money for sludge removal will have to come from Congress or the Florida Legislature, he said, and while he wouldn't put a price tag on it, he talked of "very significant amounts of money" and hinted at more than $100 million.

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