



Atlantic Coast of Long Island, Fire Island Inlet to Montauk Point, New York



Storm Damage Reduction Reformulation Study



Baymen Interviews

Prepared for the U.S. Army Corps of Engineers

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BAYMEN INTERVIEWS

INTRODUCTION

The Army Corps of Engineers (ACOE) is conducting a Reformulation Study for shore protection and storm damage along the south shore of Long Island, New York, from Fire Island Inlet to Montauk Point. The study area, approximately 83 miles long, is located entirely in Suffolk County, New York, and includes the barrier islands, the Atlantic Ocean shorelines, the adjacent backbay areas of Great South Bay, Moriches Bay and Shinnecock Bay, and the bay shoreline of Long Island.

Beach erosion, Atlantic Ocean storm surge, wave impacts, barrier island overwash and overtopping have narrowed the width of the barrier island, and impacted the natural dune system. These events have allowed overwash of salt water and breaches that affect back bay hydrographic parameters such as hydrodynamics, salinity, temperature, circulation, and bay residence times of these water bodies. The purpose of studying these aspects of the bay in relation to the breaches is to conclude how the interactions, and with the presence or absence of breaches, how the estuary will fare in its ability to support healthy populations of marine life. This information will be used to assess the potential impacts of any approaches developed during the Reformulation Study.

OBJECTIVE

Allee King Rosen & Fleming, Inc. interviewed commercial fisherman and clammers (also known as baymen) who work in Great South, Moriches and Shinnecock Bays and the surrounding embayments to obtain anecdotal information about existing and historical conditions in the bay. The interviews were informal, but followed a script to ensure that all of the desired information was obtained. The interview questionnaire is attached. These interviews took place in January 1999, during a Baymen's Association meeting, at the Fisherman's Forum (a two-day trade show and lecture event at a local community college), and on the telephone. Each bayman encountered was questioned about his history as a bayman, and how each has seen environmental, e.g., water quality, and changes in the bays where each has harvested fish and/or shellfish. The baymen were very frank and open, but requested anonymity. Their answers and comments were recorded and summarized below.

SUMMARY OF INDIVIDUAL BAYMENS' COMMENTS

Each paragraph below represents a summarized account of information and anecdotes gathered from each bayman. These discussions are presented unedited and unchallenged. Some of the assertions are not factually correct, but are what the individual believes.

Bayman 1: The breach agreement allows the government to fill in any breach, but breaches are the best things for the bay, and hopefully they will continue. Pike's and Little Pike's Inlets were the two breaches. After the breach in the fall of 1992, water quality improved tremendously in Moriches Bay, and the scallop population soared. Without a doubt the breach made the water cleaner and clearer; breaches also make a very productive bottom. The Brookhaven Baymen's Association fought to keep the breach open because of the excellent water quality in the west end

of Moriches Bay. The West End Baymen's Association also pushed to keep the breaches open, but the consultants for West Hampton Dunes threatened this association's president by saying if you support the baymen we're going to publicize that Moriches Bay is loaded with transformers that fell off the telephone poles and put PCB's (polychlorinated biphenyls) in the water. The pressure to fill in the breach and build houses back on the beach was so great that anything was said to make that happen, and not to make this area part of the National Seashore. Now there is a breach agreement that any breakthrough will be closed. The water quality declined after each breach was closed. This bayman stated that the argument used to close the breaches was that the elevated salinity harmed finfish and shellfish; however, the area around Shinnecock Inlet supports the same species, and the salinity does not have a detrimental effect on them.

Bayman 2: One baymen stated, "No flushing makes a dead sea." Quantuk Bay, between Moriches and Shinnecock Bays, is always brown. The flushing is not good in Quantuk Bay, and in the summer the brown tide percolates and turns the water brown. There is seasonal shellfishing in the winter months, but you can't make a day's pay, and the clams don't look healthy. There is not enough oxygen for the clams on the bottom. Clams need to have a frequent flushing over them, and a soft and clean bottom without silt build-up. Dredging occurred in the 1970's in Quantuk Bay. Suffolk County had 2 dredges back then, but one has been sold. After dredging, productivity was high for at least 10 years. The year after the breach, in the spring, there was an abundance of clams. After the breach was closed, the clams were gone. Houses are being built on drained salt marshes where clams used to grow. This bayman's major concerns were the loss of habitat for both fish and shellfish, which use the estuary as a nursery, and an increase in pollution, which further damages the remaining habitat. He believes additional flushing in the bay would stabilize conditions enough so that marine organisms would flourish.

Bayman 3: The brown tide in 1985 killed a lot of eel grass beds. All the canals had eel grass until the brown tide. Most of the eel grass is gone now; approximately 80,000 acres of eel grass have been destroyed. There is no eel grass in Davis Park, Watch Hill, or Moriches Inlet. Quantuk Bay, the Brookhaven Baymen's area, was loaded with eel grass. The water is very dirty; light cannot penetrate the murky water to help the eel grass grow. Fish have no place to hide from predators and be protected. Shellfish have a hard time setting if there is no eel grass. Now the common marine plants are certain types of seaweeds which are indicators of pollution.

Bayman 4: Tube worms, which create masses of calcareous tubes in which to live, cover the bottom of Quantuk Bay. Baymen call this "worm coral". When there was flushing in the bays, these worms were not dominant. Now these slimy masses are everywhere, and they rip our nets. The scallop population was also decimated after the brown tide. Without the Baymen's Association transplanting them, there would be none. Southampton Town Baymen's Association has a grant from the multi-millionaire Louis Bacon, who owns Robin's Island, to plant scallops in lantern nets in the back of Scallop Pond. The study is to see if they will survive if they are not reachable by predators. Baymen say if 1/4-1/2 inch scallops are placed in eel grass in the bay, they will grow and multiply. Any smaller than this and they will not spawn. If there is a brown tide, they usually will not survive either. Southampton Trustees buy the scallops and the baymen plant them; some are eaten, some die, some survive.

Bayman 5: Before the 1938 hurricane created Shinnecock Inlet, Shinnecock Bay's only source of salt water was Moriches Bay. It was like Mecox Bay. There wasn't much flush here. It used to stink from the lack of flushing. There were also crabs because of the brackish water before the 1938 hurricane. The trouble is getting the crab spawn to survive. After the breach you could get 30-40 bushels of blue crab/day. Tiana Bay had a good set of blue claw crabs 3 years

ago. One bayman found 1 bushels of pregnant female blue claws. He left them in the bay so that the spawn would have a chance to survive, but the spawn died anyway. Yet the spider and sand crab spawn lived that same year. Before the 1938 hurricane, there were so many flounder that there was not enough food for them, and none of the flounders grew bigger than your hand. After the hurricane when the inlet was created, the flounders started to grow, but there were fewer of them. Now there are hardly any flounders. Striped bass have made a comeback since the moratorium on the size of the commercial catch of striped bass, and flounder is one of the bass's favorite food items. Now flounders are very hard to find. Baymen say sport fishermen, who push for regulations on striped bass, don't care about a balanced ecosystem. Recreational fishermen say commercial fishermen are taking all of the flounder, but it is predation by the explosive striped bass population that is seriously threatening the flounder. Recreational fishermen are enjoying the abundance of striped bass and the money they make from catching them.

Bayman 6: Baymen are currently allowed only 90-100 tags per year for striped bass. With the striped bass population exploding, baymen are angry and frustrated with this limit. Diseases and tumors are becoming more common on these fish, and they are feasting on other commercially important species, e.g., flounder, making flounder scarce and in need of protection. Striped bass laws are keeping sport fisherman happy, but commercial fisherman are angry because striped bass are eating all the flounder. Seals are also eating flounder, as well as protected cormorants; and neither of these species have natural predators. The flounder are suffering. There is a chain reaction in the marine food web. If a species is protected, eventually it could exceed normal population levels, prey on existing species to a dangerous extent, and the ecosystem could be overrun with one species, consuming and altering the habitats of other species. Weakfish also have catch limits now.

Bayman 7: Soft clams and oysters were the common shellfish in the 1940's in Moriches, Tiana, and Shinnecock Bays. Before the 1938 hurricane, Shinnecock Bay didn't have hard clams, just soft clams and oysters. You could go, as one bayman did, right after school and catch 5 bushels. In those 5 bushels, he had only 3 hard chowder clams. The chowders, he said, now populated these bays, not the cherries and the necks. Then oysters began to disappear. The only places to find oysters in Shinnecock Bay were 1/4 mile east of the inlet, near a small island, and just west of the Ponquogue Bridge, 1/2 mile east of the inlet. The high salinity in these areas was perfect for oyster growth. This bayman said we need another hurricane to stir up the bottom of the bays.

Bayman 8: One bayman said during the 1970's and early 1980's, he consistently knew where and during what time of the year to go to certain areas to find our catch. He used to only go shellfishing in Moriches Bay. Another bayman went to Shinnecock Bay for two months every summer. Now baymen must go wherever we can find clams to get a day's wages. Seasonal cycles of fishing exclusively in one area no longer exist. Now baymen go wherever he can find a catch to make a living; therefore, baymen need to go all over. Baymen use trailers to haul our boats around because we must go wherever there's a catch. Baymen say their days have always been long and tiresome, but now their hard work isn't even rewarded with a good catch. The days are as physically demanding as they used to be, however, they are catching less and less.

Bayman 9: Another commented that years ago, duck farms were common along the bay. Duck farm sewage promoted the growth of clams in the bay. The nitrogen in duck waste enriched the bays. Since the duck farms closed, there hasn't been enough nitrogen in the bays. At certain times in the spring, nitrates are good for the bay and the organisms living in it, yet this element is now missing in large quantities, and productivity is low. It usually takes three to four times

longer for clams to mature in Great South Bay than Shinnecock Bay. The water in Shinnecock Bay looks cleaner, but it seems devoid of life. With the loss of farmland and increased development, nutrients are not available for the shellfish. Only one to two percent of scallops survive. In 1994 scallops were present in Shinnecock Bay in the area near the highway. But for approximately 15 years prior to that year, scallops were very difficult to find. Today, we plant scallops in Shinnecock Bay, and any scallops retrieved from the bay are believed to be the ones planted. This bayman from Sag Harbor recalled 1980 as a good year for catching scallops.

Bayman 10: A bayman who pursues a number of other interests, believes that Shinnecock Bay has significant potential for shellfish production. In 1910, Peconic and Shinnecock Bays supplied 1/3 of the scallops to the whole country. There has been a 90% decline in our shellfish productivity. He stated adding nitrates to the bay during certain times of the year would increase the productivity of the bay. Peconic Bay has a 2-month residence time (flushing time), so there would be time for the nutrients to work. The brown tide filled the niche of other algae not being present. He thinks the closing of the duck farms and treating of this and other waste with chemicals has reduced the nitrogen input to the bay. He added the duck farm drainage from the 1.5 million ducks fertilized the bay and fed the shellfish. The nitrogen is desirable, and in an effort to eliminate bacteria, the bay lost nitrogen. The brown tide is a result of low nitrogen conditions. He stated this industry is at the same stage the farmers were when they realized they had to fertilize their crops; he thinks we have to “fertilize” the bay somehow to increase the quantity of fish and shellfish for harvest.

Bayman 11: A clamman for 30 years in Patchogue, says there is no water flow in Great South Bay. After the breach there was good clamming and fishing. There is no flushing now. There was flushing and growth during that time, but there’s no flushing now. Well-flushed areas support life, but stagnant areas do not. Here it takes four to five years to harvest shellfish. It only takes 2 years in the Staten Island area. For the last six to eight years he hasn’t been able to get chowder clams in Great South Bay. He used to be able to get 25 bushels in a day in Great South Bay. Conditions are better on the North Shore. The water quality is good in Southold because of the six to seven foot tide, where Patchogue has only a 2-ft tide.

Bayman 12: A Peconic Bay lobsterman stated this bay has been destroyed by the discharge from the sewage treatment plant. He also said that in the 1970's you could scallop in Peconic Bay, but the first year the plant opened, the scallop population rapidly declined. He added most baymen believe the plant was the main reason for the decline of the scallop fishery.

Bayman 13: A lobsterman off Montauk Point stated the water quality around Montauk has improved. However, since the brown tide in 1985, the scallop fishery in the bays has declined.

Bayman 14: Another bayman stated, if Shinnecock Inlet closed, the fisherman couldn’t catch bluefish, mackerel, bass, etc. Water quality is improving in Peconic and Gardiner’s Bays. There are laws and regulations on eels, flounder, blackfish, and other local commercially valuable species. Sport fishermen are pushing regulations, which are hurting the commercial fisherman.

Bayman 15: The change in water quality occurred after Pikes Breach. Fishing improved at this time and the fish were plentiful. A sixth generation bayman recalled pollution increasing and water quality decreasing through the years. He said, many baymen think something in the water, e.g., pesticide, is keeping the shellfish from surviving, and believe more inlets are needed to increase flushing and diffuse and dilute pollution levels.

Bayman 16: One bayman said he never saw the bottom of Bellport Bay until the breach occurred. The last good year for water quality and harvesting shellfish was 1994. You could find

quahogs, scallops, and razor and soft-shell clams. There were massive amounts of clams. One bayman got approximately 20 bags of shellfish in 45 minutes. He couldn't scoop them up fast enough. Fishing was also good for approximately 1 year after the breach.

Bayman 17: Additionally, a bayman said in the spring, people are draining their old chlorinated pool water into the bay. They don't want to pay to have the water legally removed. Therefore, chlorine is killing life in the bay. Additionally, lawn fertilizers, detergents, and storm water runoff were also noted as pollutants present in the estuary.

Bayman 18: A bayman who has netted fish from Babylon to Montauk for the last 22 years has over the past 8 to 10 years noticed a brown sticky gunk or slime adhering to his net that is worse the closer to shore he trolls. After 2 runs he travels into deeper water to rinse the gunk off. He commented that he is particularly sensitive to the material, it causes a rash and burns his skin if he is not careful to wear extra thick gloves and wash them frequently. Several other baymen in the same group mentioned they had the same experience with the slime, only one other was stung by it, but they knew of many other baymen who were. The consensus was the sting affected the fair skinned baymen more readily.

CONCLUSION

The following summarizes the beliefs of the baymen. Although many subjects were discussed during the interviews, the main themes that emerged are that the bays have benefited from the flushing associated with breaching and that making a living as a bayman has become increasingly difficult and the catch less productive over the years. Baymen indicated to us that water quality in the bays and their catches have steadily declined over the last 15 to 20 years. The exception to the decline in water quality and marine life abundance was when the Pike's Inlet breach occurred. Several of the long-time baymen believe that the hurricane of 1938 greatly improved the flushing and the water quality in the bays. One claimed that the shellfish changed from soft clams and oyster before the hurricane of 1938 to hard clams after the hurricane. The baymen did not correlate improvement in water quality and shellfish population to anything other than breaching which leads to greater flushing in the bays.

The baymen generally believe that runoff and pollution, i.e., pesticides and fertilizers, are major factors causing deterioration in water quality and the decline of marine life and productivity in the bays. However, there is no agreement about the causes. Some believe that the demise of the duck farms has reduced nitrogen, and therefore productivity in the bays. Others believe that lawn and other runoff from developed areas has increased nitrogen and led to the deterioration of water quality. In both cases however, they attribute the demise of the eel grass beds necessary for the breeding of the fish and the brown tides have destroyed the shellfishing to the decline in water quality from development activity in areas draining to the bays.

Overall, the baymen feel that their lives have changed clearly for the worse over the years. Environmental regulations and exclusion from many former-fishing areas have placed what they consider to be harsh limits on their livelihood. The moratorium on commercial fishing of striped bass is a particular sore point in itself, and also because the predatory striped bass have greatly reduced the flounder population. In addition, the baymen expressed the view that many restrictions on commercial fishing favor the recreational fishing industry and unduly burden the baymen. Almost all of the baymen state that they have to work longer, harder hours and catch fewer fish and shellfish. Increased development, population, and pollution have decreased the quality of this once highly fertile and productive environment, which they feel can be improved by increasing the flushing of the bays.