

December 10, 2012

Mr. Jonathan Jarvis  
Director, National Parks Service  
US Department of the Interior  
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Washington, D.C. 20240

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Dear Director Jarvis:

Thank you and your staff for the vital work by the National Park Service and the Fire Island National Seashore in response to impacts resulting from Hurricane Sandy. In the wake of the storm, we all face significant issues and challenging decisions concerning how and where we rebuild. Of all places, the Fire Island National Seashore is perhaps most uniquely positioned to become a local and national model for adaptation in a climate changing world.

Over the last decade, The Nature Conservancy has invested millions of dollars in restoration, monitoring, and advancing ecosystem-based management principles within Great South Bay. Since 2004 we have owned and managed over 13,400 acres of submerged lands in Great South Bay, roughly 4 square miles of which lies within the jurisdiction of the Fire Island National Seashore (FINS). We are writing now to provide comment and context for the ongoing discussions concerning the potential for a decision by FINS, New York State Department of Environmental Conservation (NYS DEC), and the Army Corps of Engineers (ACOE) to either manually close the breach within the Otis Pike High Dunes Wilderness Area at Old Inlet, or to let it evolve naturally.

The NYS Breach Contingency Plan was designed as an interim framework to aid rapid decision making during emergency situations. Its focus is on methods of immediately closing breaches through an expedited process with waivers of the thoughtful review and permitting requirements typically required of similar projects under non-emergency circumstances. We believe that the outdated NYS Breach Contingency Plan falls short of providing for the option that is most appropriate in this current situation because it fails to acknowledge the long-term desired conditions and resilience of Great South Bay and Long Island's barrier island network given our modern understanding of water quality, estuarine ecology, and current projections of sea level rise and climate change. More recent scientific assessments point to many benefits of having a breach at Old Inlet. Many agency experts and coastal scientists on the ad-hoc Critical Response Team as well as the vast majority of Great South Bay stakeholders know this to be true. Yet we have serious concerns that agency leaders may feel that they are constrained in their decision making options due to the outdated NYS Breach Contingency Plan.

Although storm ravaged communities on Long Island are clearly still struggling, the perceived emergency situation in relation to this breach no longer exists, and thus there is no need to hastily react as if it were an emergency. Fortunately, timely analyses and dissemination of monitoring results has confirmed that the breach at Old Inlet poses no risk to community flooding.

Now that we know this situation is not an emergency, we believe it is incumbent on NYS, FINS, and ACOE to include current science and consider the goals and objectives of other state-endorsed plans such as the South Shore Estuary Reserve Comprehensive Management Plan as part of the decision making process. The required cost benefit analysis should at a minimum include an option that does not artificially close the breach and where the direct and indirect economic and ecological benefits resulting from a healthy bay due to increased tidal flushing are included. The benefits that a flowing breach provides in terms of avoiding future ice damage and future flood damage during westerly winds should also be considered, as should additional projected costs of a policy that calls for subsequent repeated breach closures in light of current climate and sea level rise projections. Allowing for natural evolution of this breach, even if it is not projected to close in its own in the next three months, needs to be a viable option for consideration. We confidently assert that this is the best and most cost effective option for nature as well as for Great South Bay coastal communities.

Results of pre- and post-breach monitoring of dissolved nutrients, phytoplankton, and pathogen levels will eventually provide more documentation that five weeks of increased oceanic water circulation in eastern Great South Bay is already relieving the estuary of its chronic pre-storm water quality impairments as well helping to dissipate the additional deluge of storm-caused contamination from petroleum products, toxic household chemicals, and inundated septic systems.

In the following pages, we provide evidence and examples that lead us to conclude that artificial closure of the breach at Old Inlet would represent a government action that will directly result in environmental damage, negative human health impacts, and will actually increase risk to coastal properties of eastern Great South Bay. Conversely, allowing the breach to naturally evolve, even if it is not projected to close on its own in the next 3 months, will have long lasting beneficial impacts without requiring state or federal construction expenditures.



**Wide spread post-storm oil and gas slicks in Great South Bay are evidence of the slug of Sandy induced water contamination that is being mitigated by increased oceanic flushing through the Old Inlet breach.**

We want to emphasize that there is no conflict between the best solution for nature and the best solution for people. Staff, members, and supporters of The Nature Conservancy on Long Island live and work in flood prone coastal areas of Long Island. Many have been deeply personally impacted by storm impacts to their homes and communities. We would not be advocating for the breach to stay open if scientific assessments showed that it posed a serious threat to the life, property, and/or safety of the nearby waterfront communities where we live and work.

We believe that it is important to begin this discussion by distinguishing the different circumstances surrounding this current breach in Great South Bay/Fire Island National Seashore's Wilderness Area to the circumstances that existed in 1992-93 in Moriches Bay/West Hampton Dunes, which form the basis of the guidance justification of the interim NYS Breach Contingency Plan. It is also worth noting that at the time of its inception in 1996, the NYS Breach Contingency plan was expected to be superseded by a more thoughtful and comprehensive plan by 2007, yet as of the end of 2012 this has not yet occurred.

It is well documented that the long shore drift of sand along the south shore of Long Island is from east to west. The images below show the groins and development that distinguish the different circumstances that existed in West Hampton Dunes after the 1992 storm (left) as compared to the circumstances that exist now in the Otis Pike High Dunes Fire Wilderness Area at Fire Island National Seashore (right). Although severe coastal storms induced the waves and storm surge in both circumstances, it was the inappropriate and incomplete groin field that starved the beach in West Hampton Dunes in 1992 and contributed to breach growth in subsequent storms. In addition the damage to homes and infrastructure occurred in West Hampton Dunes because there were homes and infrastructure on the barrier beach.

Unlike the 1992 West Hampton Dunes circumstances, there are no groins or obstructions to long shore transport of sand to the east of the breach at old inlet, and there are over 5 miles of wide, unpopulated wilderness to the west. Thus no barrier island homes or infrastructure are threatened by the current breach. Additionally, as discussed in more detail in subsequent sections, Great South Bay is much larger than Moriches Bay and the increased oceanic water exchange caused by a breach in Great South Bay results in undetectable changes in the water levels at high tide, posing no threat to increased flood risk of bayside communities. While it is well documented that breaches at this location do not persist for long periods of time<sup>1</sup>, our assessment is that should this breach persist, it would not be detrimental and would actually have many benefits.



**West Hampton Dunes 1992 (left) represents a distinctly different situation than Old Inlet 2012 (right), thus it is inappropriate to use the circumstances in 1992 to justify artificial breach closure at Old Inlet in 2012. East is at the top of the photos with the Atlantic Ocean to the right.**

<sup>1</sup> Allen, J. R., LaBash, C. L., & Psuty, N. P. (2002). Historical and Recent Shoreline Changes, Impacts of Moriches Inlet, and Relevance to Island Breaching at Fire Island National Seashore, NY. Boston, MA: National Park Service, Northeast Region.

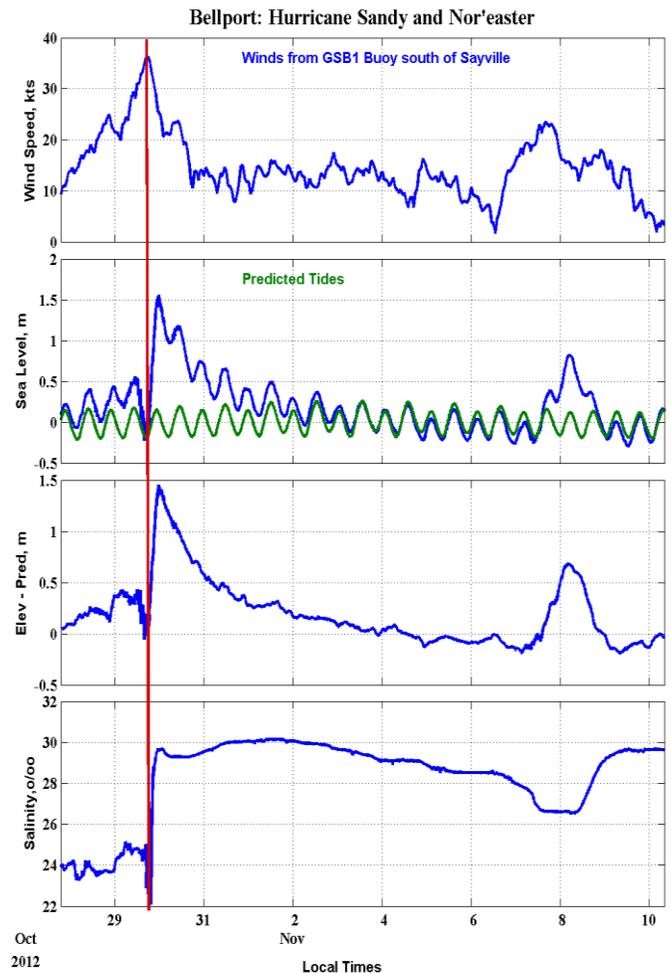
On December 1, 2012 a public meeting was held in the community of Bellport (the closest community to the breach). Roughly 300 people were in attendance and several hundred more were turned away by the fire marshal due to concern over exceeding room capacity. There is clearly high community interest in this topic and the decisions that will be made. At this meeting, the pre- and post-storm monitoring results presented by Dr. Charlie Flagg, the physical oceanographer at Stony Brook University's School of Marine and Atmospheric Science, working on this project unequivocally showed several important findings that substantiate that the breach is not harming neighboring communities, and in fact it is benefiting communities in multiple ways.

### **Breach not a flooding threat**

Fortunately, public monitoring investments made by New York State are allowing for detailed comparisons of physical oceanographic characteristics of Great South Bay before, during, and after Hurricane Sandy. Monitoring results, as presented by Dr. Flagg show that after the storm, tidal ranges in Bellport Bay returned to normal, indicating no increased risk of flooding bay side properties. This is consistent with previous computer models which predicted that a much larger sustained inlet at this same location would increase bay water levels at high tide by a relatively undetectable 0.2 - 0.4 inches<sup>2</sup>. To put this in perspective, the NYS Sea Level Rise Task Force (2010) found that sea level at the Battery in NYC has risen by 4 - 6 inches since 1960. Current conservative projections estimate an additional rise in sea level of 2 - 5 inches by the 2020s. Thus while changes in the height of the tides due to the breach are undetectable, the impacts of global sea level rise, which will occur in Great South Bay irrespective of the number of barrier beach inlets, is and will continue to have serious impacts to all of Long Island's low lying coastal communities.

### **Breach actually reduces flooding risk**

Due to the shape and pre-breach inlet configuration of Great South Bay, prolonged westerly winds typically drove water levels higher in the eastern part of the bay and caused flooding. Conversely easterly winds drove water away from the eastern bay exposing bay bottom and making some areas impossible to navigate during low tides. Stony Brook University's weather and tide monitoring data have already shown that the breach at Old Inlet has altered these dynamics in ways that are beneficial to eastern Great South Bay communities. The reason for this is that the breach at Old Inlet acts as a pressure valve, so that when severe or prolonged westerly winds force water into the eastern bay they are discharged through the breach

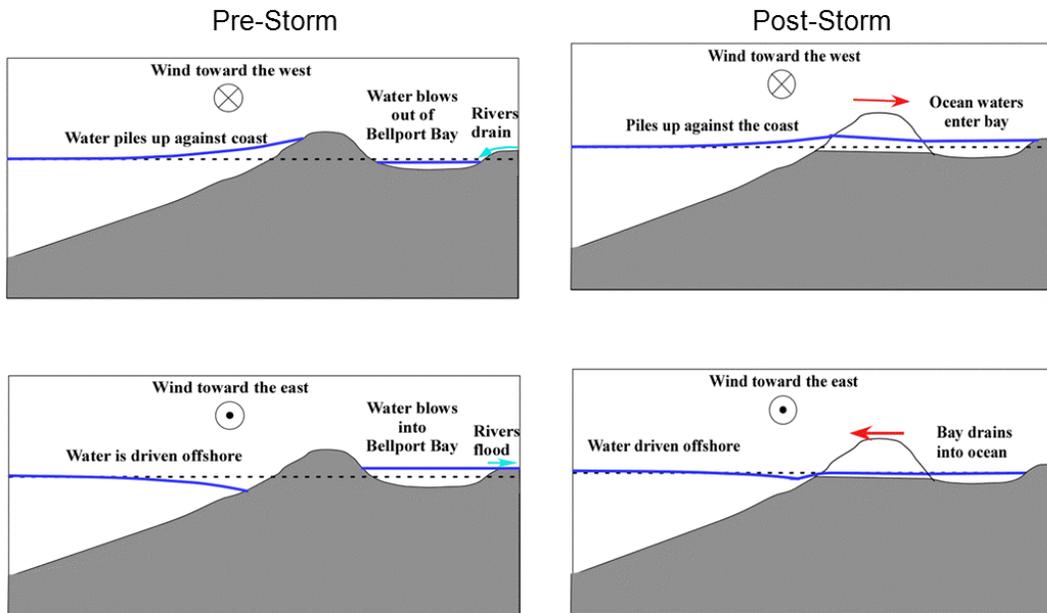


**Data from Stony Brook University monitoring shows tides and water levels returned to normal after Hurricane Sandy and the subsequent nor'easter. The chart at bottom also shows the rise of salinity after the breach occurred (Flagg, 2012).**

<sup>2</sup> Conley, D. (2000). Numerical Modeling of Fire Island Storm Breach Impacts upon Circulation and Water Quality of Great South Bay. Stony Brook, NY: Marine Sciences Research Center.

rather than inundating low lying coastal properties. This alleviates flooding. During severe or prolonged easterly winds depressed water levels in the eastern bay are now pulling in clean ocean water. This will keep the eastern bay from drying up at low tide but is not posing any additional flood risk to communities. A government action to artificially close the breach at Old Inlet would return eastern Great South Bay back to conditions that increase the propensity for flooding during west winds. An artificially closed breach would no longer act as a safety valve, putting coastal properties at greater risk than they currently are with the breach open.

Wave and Water Level Set Up at Eastern End of Great South Bay



**Left: Illustrative comparison of how water levels set up on the ocean side and within the eastern end of Great South Bay before and after the breach at old inlet. Previous to the breach, winds from the west (bottom) would flood the eastern end of the bay. Currently the breach allows the water that would normally flood this end of the bay to drain into the ocean (bottom right).**

### Increased oceanic water exchange

Eastern Great South Bay is currently about 4 – 6 parts per thousand saltier than it was prior to the breach proving that as models predicted, a breach in this location would increase water circulation and oceanic water exchange, reducing the bays residence time by as much 50% or more<sup>2</sup>. In very general terms this means that over time eastern Great South Bay will exhibit several properties that are more similar to the area adjacent to Fire Island Inlet. On its own, the change in salinity is within the acceptable range of the plants and animals that currently reside in and migrate through the area. However, the increased circulation and exchange of bay and ocean water will be beneficial to both nature and people in many ways including water temperature moderation, dilution of land derived nutrients and pathogens, and decreased bay water residence time.

### Winter ice and property damage reduction

Waters in the nearshore Atlantic Ocean are more moderate than the shallow waters of eastern Great South Bay meaning that in the heat of summer the ocean is several degrees cooler, and in the middle of winter, the ocean is several degrees warmer. During cold winters, areas of Long Island's south shore bays with poor oceanic water exchange, including Bellport Bay, typically become covered in ice flows. Yet freezing rarely occurs in and around inlets where the water is warmer and the currents are stronger. The most recent year with significant ice cover in Great South Bay was 2010. Ice causes significant coastal property damage because it encases docks, piers, and boat basins, snapping and tearing them apart when weather causes the ice flows and their contents to shift. During years like 2010, millions of dollars in ice damage occurs to private and public property, including town marinas and publicly financed navigation markers.

The breach at Old Inlet will result in warmer winter bay water temperatures reducing ice cover that stands to save millions of dollars needed to repair docks and bulkheads after a cold winter. Conversely, a government decision to artificially close the old inlet breach will put coastal properties at greater risk of ice damage.

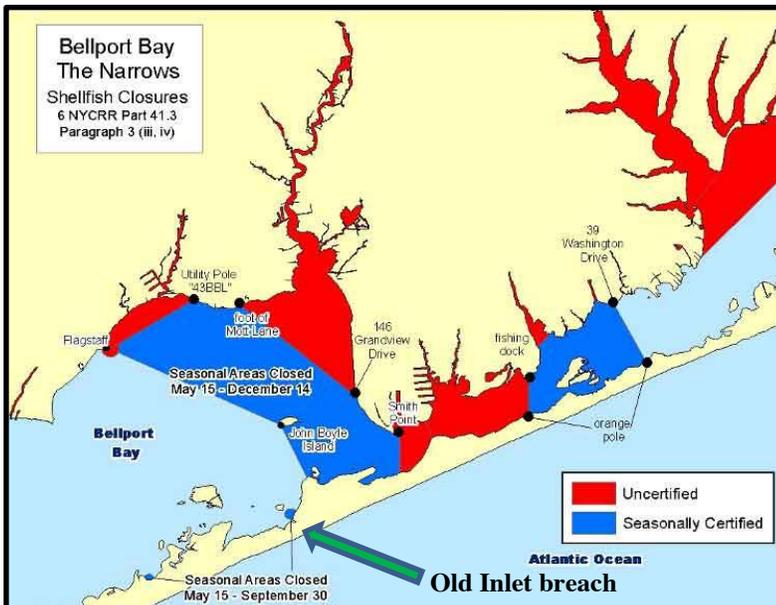
**Improvements in water quality**

Unfortunately, over the last several decades impacts from land derived water pollution, in particular nitrogen and pathogens have been impacting eastern Great South Bay in terms of fostering chronic harmful algae blooms (brown and red tides), loading pathogens at levels that exceed human safety standards, eliminating essential fish habitat (seagrass), and deteriorating shellfisheries. As a result of these dire conditions, in 2009 New York State and Senator Schumer petitioned the US Commerce Secretary to declare a federal fishery disaster, and in 2010 the Great South Bay was, in fact, added to the EPA’s 303(d) list for nutrient impairment and harmful algae blooms. Sadly, most of Great South Bay east of the breach at Old Inlet has been seasonally or fully uncertified for shellfishing year-round due to the threat that water-borne pathogens pose to human health. Eliminating the sources of water pollution in Great South Bay is, of course, the ultimate long-term solution to solving these problems, but this will take time and significant financial resources. In the short-term, the new breach in the Otis Pike High Dunes Wilderness Area at Fire Island National Seashore is mitigating many of the symptoms of nutrient and pathogen loading and diluting the myriad of other contaminants such as oil and gasoline that were released during Hurricane Sandy.



**Nitrogen loading from the Great South Bay watershed fuels harmful algae blooms like this fish killing *Cochlodinium polykrikoides* which was first detected in Great South Bay in 2011.**

**Dilution of land-derived pathogens benefits fisheries and human health**



**Some of the pathogen impacted areas in eastern Great South Bay and Narrow Bay are anticipated to become certified again as ocean circulation increases.**

Insufficient storm water catch basins, inadequately functioning coastal septic systems, and poor water circulation contribute to elevated water-borne pathogens in a large amount of areas in Bellport Bay and Narrow Bay. Human health threats related to pathogen levels have resulted in shellfishing closures in much of this area. So long as the breach is flowing, increased circulation and ocean water exchange through the new breach is currently and will continue to lower pathogen levels in these areas. Once NYS DEC confirms areas where pathogen levels have consistently declined they can begin the process for recertification of shellfishing areas. The shallow areas of eastern Bellport Bay are ideal for recreational clamming which is a popular

and culturally important family activity on Long Island<sup>3</sup>. Commercial shellfishing has historically been important in this area and 2011 revisions to commercial clamming regulations assure future sustainability. Reducing pathogen levels in surface waters is mandated by EPA and is a high priority for New York State, Suffolk County, Brookhaven Township, and the South Shore Estuary Reserve. A government decision to artificially close the breach at Old Inlet would be contrary to the objectives of all the agencies to reduce pathogen levels and would reverse the improvements already made by having a flowing breach at Old Inlet.

### **Improving the bay's resilience to brown and red tides**

Since the mid 1980s periodic brown tides in Great South Bay have been implicated in a series of negative impacts including the death and reduced condition and spawning of shellfish and diebacks of beneficial plants like eelgrass. More recently toxic red tides have been documented, including a fish and shellfish killing variety (*Cochlodinium polykrikoides*), that first appeared in Great South Bay in 2011. The conditions that facilitate these algae species to bloom are directly related to nutrient loading and water residence time. In eastern Great South Bay the majority of nutrient loading originates from residential septic systems<sup>4</sup>. In their summary of twenty years of research on the brown tide algae (*Aureococcus anophagefferens*), Gobler *et al.* (2005)<sup>5</sup> conclude that increased tidal exchange and oceanic mixing, would make Great South Bay less prone to brown tides citing comparisons to the dissipation of problematic green tides that occurred with the opening and subsequent stabilization of Moriches Inlet. Recent increased occurrence of two different toxic red tides in the South Shore Estuary Reserve raises the stakes of elevated dissolved nitrogen levels in terms of the overall health of Great South Bay, the productivity of its fisheries, and even economic losses and human health threats posed by paralytic and diuretic shellfish poisonings. There is momentum for initiatives aimed to reduce nitrogen loading of Suffolk County's groundwater but even if reduction programs were implemented today positive impacts to surface waters would not be immediate. However a flowing breach at Old Inlet would expedite the recovery from many of the symptoms of high nitrogen loading of this shallow poorly flushed bay, perhaps the most obvious of which is reducing the propensity for harmful algae blooms to take hold and persist. Conversely, a government decision to artificially close this breach would increase bay water residence time, decrease bay/ocean water exchange and make Great South Bay more susceptible to harmful algae blooms.

### **Expansion of seagrass, an essential fish habitat**

Seagrass, also known as Submerged Aquatic Vegetation is an essential habitat for a long list of important fish and wildlife, including some of New York States most valuable sport and commercial fishery resources. As such, in 2012 Governor Cuomo and the New York State legislature passed the New York State Seagrass Protection Act aimed at protecting and restoring conditions for seagrass in Long Island bays. The sandy flats of Bellport Bay and the larger Great South Bay were once densely covered with submerged aquatic vegetation, primarily eelgrass (*Zoster marina*). However, overtime the cumulative impacts of nitrogen loading, peak summer water temperatures, and the accumulation of decomposing organic sediments have made eastern Great South Bay much less hospitable for eelgrass<sup>6,7</sup>. Currently, the places where eelgrass is still able to persist in Great South Bay are within a 5 mile radius of Fire Island Inlet where higher ocean water exchange improves water clarity, moderates peak summer water temperatures, dilutes dissolved nutrients, and where swifter currents export fine particulate organic matter. In 2009 the final report of the NYS Seagrass Taskforce concluded that increased flushing from additional

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<sup>3</sup> Greene, G. T. (2009). Recreational clamming survey of Great South Bay, NY. Cashin Associates. PC Hauppauge NY.

<sup>4</sup> Kinney, E. L. and I. Valiela. (2011). Nitrogen loading to Great South Bay: Land use, sources, retention, and transport from land to Bay. *Journal of Coastal Research* 27: 672-686.

<sup>5</sup> Gobler, C.J., D.J. Lonsdale, G.L. Boyer. (2005). A review of the causes, effects, and potential management of harmful brown tide blooms caused by *A. anophagefferens*. *Estuaries* 28: 726-749.

<sup>6</sup> B. Peterson, Seagrass researcher at Stony Brook University's School of Marine and Atmospheric Sciences, Personal communication December 2012

<sup>7</sup> NYS Seagrass Taskforce Report

inlets along Long Island's south shore bays could alleviate declining trends in eelgrass coverage. Seagrass researcher Dr. Bradley Peterson, at Stony Brook University, has testified that eelgrass is now completely gone at the SeaGrassNet monitoring site less than a half mile away from the Old Inlet breach, indicative of a serious decline in eelgrass coverage in eastern Great South Bay that has been trending for several years<sup>8</sup>. The eelgrass that is still viable in western Great South Bay is particularly resilient<sup>9</sup> and will provide a nearby source of seed for eelgrass recovery as the breach at Old Inlet continues to improve conditions over time (such as improved water clarity, lowered dissolved nutrients, moderation of peak summer water temperature, less frequent brown tides, and fresh submerged sand platforms for re-colonization) in the eastern bay. Evidence of post-breach eelgrass re-colonization exists from within Cape Cod National Seashore where a breach reconfigured the inlet into Pleasant Bay and there was a resultant 25% increase in eelgrass cover in Little Pleasant Bay<sup>10</sup>. However, should there be a government decision to artificially close the breach at Old Inlet it will make the conditions for eelgrass in eastern Great South Bay less hospitable, an action that would directly conflict with the intentions of the 2012 New York State Seagrass Protection Act and the objectives of the South Shore Estuary Reserve Comprehensive Management Plan.

### **Improving conditions for shellfish**

Great South Bay has historically been known for its abundance of several species of economically important shellfish (oysters, bay scallops, and hard clams). However, the recent collapse of what was once the most important hard clam fishery in the US, combined with modern understanding of the ecological importance of shellfish as a foundational species in shallow coastal estuaries, has made hard clam restoration a high priority<sup>11</sup>. As such, the towns of Brookhaven, Islip, and Babylon, Suffolk County, the State of New York, and NOAA, together with The Nature Conservancy have committed millions of dollars towards Great South Bay hard clam restoration efforts over the past 9 years<sup>12</sup>. While it is probable that a flowing breach and higher salinity water would provide a conduit and more hospitable environment for some shellfish predators such as moon snails, whelk, and sea stars, the reduction of chronic harmful algae blooms, influx of larger oceanic phytoplankton species, moderation of peak summer and winter water temperatures, and increased water circulation would all be beneficial to the condition, growth, and spawning of hard clams and other shellfish species<sup>13</sup>. In fact, these conditions combined with a resurgence of eelgrass would likely enable eastern Great South Bay once again to support bay scallops. The research and monitoring that has been done in Great South Bay for the past 9 years as part of the hard clam restoration efforts provide an excellent baseline to observe ecological responses to having a flowing breach at Old Inlet. Restoring healthy self-sustaining levels of shellfish to Great South Bay has significant positive ecologic and economic ramifications. For the private and public investors who have contributed resources to meet these objectives, the breach at Old Inlet represents an enormous boost in terms of the timeline and probability for success. Should there be a government decision to artificially close the breach at Old Inlet it would be counterproductive to all of the public and private expenditures made towards restoring shellfish in Great South Bay.

### **Distribution of finfish**

There is a long list of transient fish that migrate through Great South Bay and fishing is a significant component of the water dependent economy of Great South Bay communities. Most fish species within Great South Bay are transient between ocean and bay and are thus tolerant of the salinity increase in the

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<sup>8</sup> S. Schott, Cornell Cooperative Extension unpublished data

<sup>9</sup> Short, F. T., Klien, A. S., Burdick, D., & Moore, G. E. (2012). The Eelgrass Resource of Southern New England and New York: Science in Support of Restoration.

<sup>10</sup> Neckles, H. A., Kopp, B. S., Peterson, B. J., & Pooler, P. S. (2012). Integrating Scales of Seagrass Monitoring to Meet Conservation Needs. *Estuaries and Coasts*, 23-46.

<sup>11</sup> Greene, G.T (2011). Final report to the Suffolk County Hard Clam Restoration Working Group. Casshin Associates, Hauppauge NY. [www.GSBclams.org](http://www.GSBclams.org)

<sup>12</sup> LoBue C.P, and M. Bortman (2011) Hard Clams, Hard Lessons: The Shellfish Renaissance. *Solutions Journal* Vol 2:1 pp 82-88

<sup>13</sup> Tanski, J., Bokuniewicz, H., & Schlenk, C. (2001). Impacts of Barrier Island Breaches on Selected Biological Resources of Great South Bay, New York. Stony Brook, New York: New York Sea Grant.

eastern bay caused by a flowing breach at Old Inlet<sup>13</sup>. Projected increases in eelgrass coverage and decline in fish-killing red tides would benefit most fish species. In the 1980s winter flounder was the most abundant sportfish in Great South Bay; yet today assessments show that in summer, these fish are scarce in the bay except around eelgrass beds near Fire Island Inlet<sup>14</sup>. Thus it is possible that a second Great South Bay inlet could provide an additional seasonal refuge for winter flounder. Most predatory fish tend to congregate near inlets and it is therefore likely that a flowing breach at Old Inlet would increase predatory fish abundance in eastern Great South Bay<sup>13</sup>. This would likely result in more recreational fishing in eastern Great South Bay, perhaps drawing some local anglers away from the often crowded Fire Island and Moriches Inlets. New York State, Suffolk County, and Brookhaven Township have all been working to restore diadromous fish access to the middle and upper stretches of the Carmans River which is roughly 3 miles from the breach at Old Inlet. Although it is uncertain how a flowing breach would impact these efforts, allowing the breach to progress naturally is widely supported by community organizations represented at the Carmans River Partnership<sup>15</sup>.

### **Recovery of protected and endangered shorebirds**

Barrier island breach events, such as occurred at Old Inlet, result in the creation of overwash fans and bayside flats, which are critical habitat for migratory and nesting shorebirds. As a resident breeder, the federally threatened and New York State endangered piping plover (*Charadrius melodus*) utilizes early successional beach habitat for nesting. Along with US Fish and Wildlife Service, many other local, state, and federal agencies have been working to protect and rebuild piping plover populations. It has been documented that the natural breaching of both Moriches and Shinnecock Inlets in the in 1930s resulted in increases in the number nesting pairs of piping plovers<sup>16</sup>. More recently in the winter of 1992-1993, the breaches at West Hampton Dunes resulted in a sand spit and intertidal flats that quickly became home to 5 breeding pairs of piping plovers in the spring of 1993<sup>17</sup>. A small colony of NYS threatened least terns (*Sterna antillarum*) also colonized the new sand spit which is also an important foraging, roosting and staging habitat for a multitude of other migrating shorebirds. Since there is no longer an emergency surrounding the breach at Old Inlet, a government decision to artificially close the breach without a thoughtful review of the impacts to threatened and endangered shorebirds seems to be inconsistent to the mission of NYS DEC, the National Park Service, and the US Fish and Wildlife Service.

In conclusion, our assessments show that artificially closing the breach at Old Inlet would not only be detrimental to the Fire Island National Seashore, it would also be detrimental to the ecology, economy, and quality of life in and around eastern Great South Bay communities. A government decision to artificially close the current breach at Old Inlet would be counter to a long list of publicly acknowledged goals of the South Shore Estuary Reserve Comprehensive Management Plan, would be inconsistent with recommendations for ecosystem-based management presented to the nine state agencies represented on the New York State Ocean and Great Lakes Ecosystem Conservation Council, and would be inconsistent with the designation of the Otis Pike Fire Island High Dune Wilderness Area as part of the National Wilderness Preservation System. In all likelihood the breach will eventually close on its own overtime and thus certainly does not warrant the expenditure of public funds that are desperately needed elsewhere. As highlighted in this document, even if the breach does not close immediately its persistence does not warrant emergency status, it does not pose a threat to life and property, and there are numerous benefits of it remaining open.

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<sup>14</sup> Frisk, M.G. (2009) The status of winter flounder in Long Island Bays. Spring presentation to the NYS Marine Resources Advisory Council. Bethpage State Park, New York

<sup>15</sup> Discussions at Carmans River Partnership meeting November 30, 2012

<sup>16</sup> Wilcox, L. (1959) A twenty year banding study of the piping plover. Auk 76: 129-152

<sup>17</sup> Cohen, J., and L Houghton, and D. Fraser (2007). Nesting Density and Reproductive Success of Piping Plovers in Response to Storm- and Human-Created Habitat Changes. Wildlife Monographs 173:1-24

An open navigable inlet in this location was a historically important feature significant to the founding of the Bellport community. However, we are cognizant that the current breach represents a change compared to the last several decades and that change is not always universally embraced immediately. It is important to highlight that although fears of increased flood risk are certainly understandable, they are not consistent with the scientific data and analysis. We are aware that a permanent or intermittent breach at Old Inlet would interfere with driving along the outer beach of the Otis Pike Fire Island High Dunes Wilderness Area. We are however confident that concerns raised about loss of off-season emergency access to Davis Park through the wilderness area could be addressed by updating that community's emergency response plan. We are also confident that concerns about loss of off-season recreational fishing access will be overshadowed in the recreational fishing community by appreciation for the ecological benefits that the breach will have to essential fish habitat and enthusiasm for revived recreational fishing opportunities within eastern Great South Bay.

All of us at The Nature Conservancy are enthusiastically willing to support and participate in post-breach ecological monitoring in Great South Bay. We have many relevant data sets to use as baselines which we will certainly make accessible. These include annual bay-wide maps of shellfish abundance, seagrass distribution, maps of sediment characteristics, phytoplankton species assessments, hard clam condition and spawning data, and an island-wide network of salt marsh elevation monitoring stations. We also have established a coastal resilience toolkit ([www.coastalresilience.org](http://www.coastalresilience.org)) which may be useful for future planning in light of sea level rise and climate projections. In closing, we ask that the ACOE, NYS Department of State, NYS DEC, FINS and any other relevant agencies reconvene as soon as possible to update the New York State Breach Contingency Plan to include modern science and options that are more consistent with goals and objectives outlined in other plans and legislation that reference desired future conditions in the South Shore Estuary Reserve. Thank you for your consideration of this important issue at this very busy and stressful time. As always, we value our essential working relationship with all state and federal agency partners, and look forward to continuing the dialogue on this important topic.

Sincerely,



Nancy Kelley  
Executive Director  
The Nature Conservancy, Long Island

Cc: Honorable C. Schumer, US Senator  
Honorable T. Bishop, US Congressman  
D. Reidenbach, Regional Director, NPS  
C. Soller, Superintendent, FINS  
Colonel P. E. Owen, Commander, ACOE NY District  
Lieutenant Colonel M. Clancy, ACOE NY District  
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