

**SUFFOLK COUNTY**  
**NORTH SHORE COASTAL EROSION TASK FORCE**



**REPORT TO THE SUFFOLK COUNTY LEGISLATURE**

**JUNE 18, 2015**

**HAUPPAUGE, NY**

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# Report of the North Shore Coastal Erosion Task Force

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## **I. Members:**

- 1) The County Legislator from the 6th Legislative District, who shall serve as Chair;
- 2) The Director of the Division of Planning in the Department of Economic Development and Planning, or his or her designee;
- 3) The District Manager of the Soil and Water Conservation District, or his or her designee;
- 4) The Commissioner of the Department of Public Works, or his or her designee;
- 5) A representative from the New York State Department of Environmental Conservation;
- 6) A representative of the National Resources Conservation Service of the United States Department of Agriculture who specializes in plant material;
- 7) The representative from the federal congressional First District of New York, or his or her designee; and
- 8) A representative of Stony Brook University, School of Marine and Atmospheric Sciences (SoMAS);

## **II. Objective of the Task Force:**

The task force was created by Resolution 701-2014: Establishing a Suffolk County North Shore Coastal Erosion Task Force. This legislation was sponsored by Legislator Sarah S. Anker.

The purpose of the task force was to develop strategies to protect the infrastructure and environment of Long Island's North Shore from coastal erosion.

## **III. Information Discussed by the Task Force:**

The Task Force met three times to discuss the current impacts of erosion on the north shore. The task force specifically addressed current north shore areas experiencing severe coastal erosion, researched potential actions that can be taken to address the issue of erosion, and discussed current available funding resources.

During the first meeting on November 3, 2014, it was strongly recommended that new maps showing high erosion areas be made in order to designate high priority areas. It was determined that vegetation alone would be an ineffective tactic in stabilizing the toe of the bluff as the scouring force of tidal action and storm events would easily overwhelm the buffering capacity of vegetation. It was further discussed that obtaining permits for bulkheads can take time and be expensive for homeowners. Structures built by homeowners without permits can risk further damage to the property and neighboring properties.

During the second meeting on February 8, 2015, Henry Bokuniewicz of Stony Brook University's School of Atmospheric Science was nominated for the position of Vice-Chair of the task force. He discussed his New York Sea Grant application in order to

research erosion and technologies to address the ongoing issue of erosion. The task force also discussed other funding sources including FEMA's post Sandy Funds and the Long Island Sound Study.

During the third meeting on April 29, 2015, several questions were answered in regards to the steps residents can take for protection against erosion on their property. It was discussed that each homeowner's situation may require a different approach. In undeveloped areas it is recommended to place structures away from high risk zones. Developed areas should consider raising any existing structures that could magnify damage. Furthermore, coastline residents should avoid the following: adding unnecessary extra weight atop of the bluff( i.e. structures, fences, landscaping, pools) to properties, increasing impermeable surfaces, disturbing vegetation, allowing surface water to travel over the top and down the face of the bluff, irrigating the bluff, building too close to the bluff edge, depositing landscape debris on the bluff, and/or unnecessarily disrupting natural transport of sand.

The desire to hold community forums was once again brought forward as a way to inform the public and provide resources for erosion protection. The status of letters being sent to the DEC regarding the new erosion maps was discussed. Legislator Sarah Anker stated that she will reach out to the local municipalities to meet and discuss joint efforts to combat erosion.

#### **IV. Conclusion of the North Shore Coastal Erosion Task Force**

The task force determined that the most important factors were the creation and dissemination of new erosion maps by the NYS DEC to pinpoint high priority areas. Legislator Sarah Anker contacted the NYS DEC in an effort to expedite the maps. It was decided a community forum will be established allowing residents to contact the task force as well as receive information and resources so that they may better protect their homes from erosion. It was determined that each homeowner's situation is unique, so there is no one method for dealing with erosion. It was recommended that New York State look into the establishment of a sediment budget to help build up our beaches.

In conclusion, it was determined that a community meeting with local towns and villages would be organized, as well as a local meeting with residents and members of the task force.

# **North Shore Erosion Task Force**

**November 3, 2014- 9:30am**

**Clerks Conference Room, William H. Rogers Legislature Building, Hauppauge, NY  
Jurisdiction: IR 2014-1697, Establishing a Suffolk County North Shore Coastal Erosion Task Force.**

**Next Meeting Date: January/February 2015-- to be scheduled.**

## **Members:**

Legislator Sarah Anker, Chair

DeWitt Davies, Chief Environmental Analyst, Suffolk County Planning

Gil Anderson, Commissioner, Suffolk County Department of Public Works

Paul TeNyenhuis, District Manager, Suffolk County Soil and Water Conservation District

Polly Weigand, Senior Soil District Technician, Suffolk County Soil and Water Conservation District

Adam Santiago and William Doyle, Representative from the 1st Congressional District

Eric Star, New York State Department of Environmental Conservation

Jay Tanski, Coastal Processes and Facilities Specialist, New York Sea Grant

Henry Bokuniewicz, Professor, Stony Brook University School of Marine and Atmospheric Sciences, Vice- Chair of the North Shore Coastal Erosion Task Force

**Introduction:** As Chair of the North Shore Coastal Erosion Task Force, Legislator Anker began the meeting by establishing that the North Shore of Suffolk County requires additional attention in regards to erosion. The effects of Superstorm Sandy and Hurricane Irene have impacted the infrastructure and environmental stability of Suffolk County's North Shore.

Eric Star of the New York State Department of Environmental Conservation (NYSDEC) mentioned that one of the challenges the North Shore faces is the protection of private property. As with many erosion cases on the South Shore, the Federal government has stepped in to protect public property, buying land to protect the Great South Bay. The North Shore tends to be mainly private properties and homes. The Army Corps of Engineers has two areas that are of interest in Suffolk County, which include Asharoken and Southold. These areas are being studied because the Federal government may have interest in repairing them to build resiliency. This rebuilding comes with a cost sharing component, as mentioned by Adam Santiago of Congressman Bishop's office. Mr. Santiago noted that Army Corps projects need a sponsor and in many instances the county will partner as the sponsor.

Legislator Anker inquired as to the possibility of creating coastal erosion maps to illustrate areas of high priority. She mentioned that scientific data and future projections of the coastline are necessary to understanding preventative measures. In response to Legislator Anker's question, Mr. Star explained that the NYSDEC is currently in the process of re-mapping coastal erosion. Coastal erosion maps exist from the 1980s but the landscape has changed since that time. The maps will be used as jurisdiction for the bulkhead permitting process (Article 34, NYS Environmental Law). The North Shore maps are expected to be completed before the South Shore maps. The new maps will also show recession rate.

Legislator Anker questioned whether vegetation is a viable option to prevent erosion along North Shore bluff. Professor Bokuniewicz explained that undercutting during storms will remove the vegetation. Jay Tanski of New York Sea Grant also mentioned that plants cannot withstand storm waves if the fetch is too large, so for areas with high wave energy, vegetation is not recommended, pointing out that wave energy is a major contributing factor to coastal erosion. The toe must be considered to address this issue.

The Task Force went on to discuss the ways in which preventing erosion can be very costly to the homeowner, and Mr. Star reminded the group that the cost of repairing a bulkhead can be more expensive than the cost of the home itself. DeWitt Davies of Suffolk County Planning said that many of the bluffs along the North Shore of Suffolk County are approximately 100 feet tall and a massive, very costly structure would be necessary to protect cliffs of that size. Mr. Star suggested educating homeowners of the importance of insuring their homes. Mr. Santiago advised steering homeowners with insurance questions to the New York State Department of Finance, as the department assisted Long Islanders with the August 12<sup>th</sup> and August 13<sup>th</sup> flooding. Mr. Santiago reminded the group that the response to every disaster starts local and ends local and that a Federal Declaration of Disaster will not happen overnight, but still must be made.

Legislator Anker asked Mr. Star to briefly explain the NYSDEC's process of issuing bulkhead permits and why the process can be lengthy. She reminded the task force that time is very limited in some cases and that while residents wait to receive their permits, they may be forced to implement their own methods to protect their homes. Mr. Star mentioned that in issuing the permits, the NYSDEC considers whether the resident can move their property back and whether the bluff is actually eroding. Mr. Star mentioned that while the North Shore is comprised of privately owned lots, the homeowners may not actually own the toe region of the bluff and structures built without permits can unintentionally damage neighboring properties. Paul TeNyenhuis of the Suffolk County Soil and Water Conservation District mentioned that some Suffolk County townships, such as the Town of Smithtown and Town of Southold, do not allow bulkheads for this reason. Mr. Santiago recommended the group create a menu showing pros and cons of erosion prevention methods, but Mr. Star advised that the NYSDEC does not design projects for residents as there are liability issues that could arise. He also mentioned that the NYSDEC has erosion prevention information for homeowners on its website.

Mr. Santiago asked whether the county's GIS specialists can create a map of North Shore coastal erosion, in the interim of the NYSDEC maps being completed. Mr. Davies said that he may be able to work with cartographers at the county to create maps. Gil Anderson agreed, noting that the size of the area being mapped may make the task more difficult, but that the mapping could be done. Legislator Anker mentioned that she would like to see if the maps from the NYSDEC could be expedited. Mr. Star advised that the maps are product of the state, under Joseph Martens, Commissioner of the NYSDEC. Mr. Star also noted that the website [www.historicaerials.com](http://www.historicaerials.com) is a very good reference as well.

In response to Legislator Anker's request for maps, Polly Weigand of the Suffolk County Soil and Water Conservation District also added that Suffolk County Soil and Water Conservation District has historical maps and that the department could assist in completing new maps. Mr.

TeNyenhuis informed the task force that Soil and Water completed a study in the 1960's to show soil loss. This study showed that there could be a loss 2 feet per year prior to sea level rise which has undoubtedly occurred. However, the department may need some personnel assistance. Legislator Anker requested that Soil and Water work in cooperation with Stony Brook University to find capable graduate students to assist in the mapping.

**Conclusion:**

Legislator Anker noted that at the very least, the North Shore Erosion Task Force can provide erosion maps to raise awareness and show that this issue requires immediate attention. She also announced that she would like for the task force to provide a community forum, possibly in the summer or fall of 2015, to provide residents with the findings of the task force. Mr. Tanski mentioned that his office has a packet for homeowners regarding Low Cost Share Prevention, a Sea Grant funded brochure, created to educate South Shore residents about the coastal landscape, which Ms. Weigand noted was a helpful resource. Legislator Anker suggested that a similar brochure be created for North Shore residents and tasked Mr. Tanski and Ms. Weigand with finding the cost of a brochure for the North Shore and requested that Mr. Tanski provide the members of the task force with information for Low Cost Share Prevention.

# **North Shore Erosion Task Force**

**February 8, 2015- 9:30am**

**Clerks Conference Room, William H. Rogers Legislature Building, Hauppauge, NY  
Jurisdiction: IR 2014-1697, Establishing a Suffolk County North Shore Coastal Erosion Task Force.**

**Next Meeting Date: April 29, 2015**

## **Members in Attendance:**

Legislator Sarah Anker, Chair

Henry Bokuniewicz, Professor, Stony Brook University School of Marine and Atmospheric Sciences (Vice-Chair)

DeWitt Davies, Chief Environmental Analyst, Suffolk County Planning

Paul TeNyenhuis, District Manager, Suffolk County Soil and Water

Polly Weigand, Senior Soil District Technician, Suffolk County Soil and Water Conservation District

William Doyle, U.S. Congressman Lee Zeldin's Office

Jay Tanski, Coastal Processes and Facilities Specialist, New York Sea Grant

**Introduction:** Legislator Anker began the meeting by nominating and accepting Henry Bokuniewicz as the Vice-Chair of the Task Force. Legislator Anker recapped what was discussed at the previous meeting pertaining to getting information together to make public and educate people about coastal erosion. She also discussed the importance of having a community forum that would provide information to residents. Also, it was discussed that the DEC would work on expediting the coastal hazard-mapping project.

Henry discussed his New York Sea Grant application and the research that will come from it. He spoke about how costly these projects are. They cost about \$45,000 a year for student based projects, but we need more for the project. The project he is looking to work on would research and develop technologies to address erosion. Also, it would look at bluff erosion as a broader topic. The Task Force also discussed alternative funding options like the Long Island Sound Study and potentially FEMA post-sandy funds.

Jay mentioned the work he has done with the South Shore, where he has worked on low cost shore protection initiatives and also passed around brochures that included a list of contractors that can be used for bluff repair work. Legislator Anker inquired about being able to disseminate the South Shore brochures to North Shore residents as well. Jay said the contractor lists have to be updated before doing so. Polly suggested having an undergraduate student assist with updating that information at the New York Sea Grant. Jay pointed out that this would require a great deal of oversight and supervision.

Legislator Anker spoke about the fact that the current primary goal is to get the DEC maps expedited. Henry discussed that the maps for the North Shore are already completed, but have not been disseminated. Henry advocated having community meeting soon in order to show the public what will come from the Task Force meetings. William Doyle suggested that we contact the local state representatives to have them call on the DEC to expedite the maps. He also inquired about whether or not we have any projects that can fix current damage.

Legislator Anker discussed the importance of addressing the problem generally and distribute information to the general public. Mr. Doyle pointed out that some of the bluffs require repair. For example, in Sound Beach, the Town of Brookhaven has started repairing bluffs on town property, and there have been FEMA funds allocated towards work like that. Legislator Anker wanted to focus on the bigger issues, since the Town is only able to work on a portion of town owned bluff damage.

The Task Force continued the discussion of having interns help with the Sea Grant contractor's list. However, Jay pointed out that a major problem with having the interns work on extensive projects like this one is that it will take a very long time given the fact that they will have limited hours to work. The Task Force agreed that the first step is to make sure that a letter is sent to DEC to expedite the release of the hazard-mapping project.

**Conclusion:** Legislator Anker said she would take the lead on the letter to DEC for the maps. Polly and Jay agreed to work together to recruit interns for necessary projects. Upon receiving the maps, Legislator Anker suggested that we work on putting the information together to send out to the public.

# **North Shore Erosion Task Force**

**April 29, 2015- 9:00am**

**Clerks Conference Room, William H. Rogers Legislature Building, Hauppauge, NY**

**Jurisdiction: IR 2014-1697, Establishing a Suffolk County North Shore Coastal Erosion Task Force.**

## **Members Present:**

Legislator Sarah S. Anker, Chair

Henry Bokuniewicz, Vice-Chair- SOMAS Stony Brook University

Jay Tanski, NYS Sea Grant

Eric Star, NYSDEC

Susan Filipowich, Suffolk County Department of Planning

Paul TeNyenhuis, Suffolk County Soil and Water

Polly Weigand, Senior Soil District Technician, Suffolk County Soil and Water Conservation District

Bill Doyle, Congressman Lee Zeldin's Office

Robert Polaski, Suffolk County Department of Public Works

## **Overview of February's meeting**

- A brief overview of the meeting was provided.
- Three topic questions from February's meeting were discussed:
  - What are the best ways to combat erosion?

It was discussed that there is no "best" way to combat erosion. However, depending on the situation and factors, residents can provide structural and non-structural support to their bluffs.

    - If dealing with undeveloped areas, the best alternative is to place development away from erosion and flooding hazards.
    - In some cases, it may be possible to move or raise existing structures to prevent damage.
    - If the area must be protected, non-structural and structural engineering solutions should be evaluated in terms of costs, impacts and desired level of protection. Beach nourishment and dune building can be used at community regional level (these approaches are not usually that effective for individual property owners) if there is an accessible and adequate source of sediment. On the North Shore environmental restrictions on "borrow areas" may preclude using offshore sediment sources.
    - Shore armoring or process altering structural approaches may be needed for individual property owners where beach nourishment/dune building may not be feasible due to scale or on regional basis for high value property with severe erosion problems.
  - What should residents who live along the coastline avoid doing with their property?
    - Adding unnecessary weight to top or face of bluff such as building a pool, and various other structures near the edge of the bluff.
    - Disturbing ground cover vegetation on bluff by throwing debris over top.
    - Allowing surface water to run over face of bluff.
    - Overwatering bluffs with clay layers that channel water to the face of the bluff.

- Building too close to the bluff edge.
- Unnecessarily disrupting the natural transport of sand without mitigating potential impacts.
- Please provide two important facts and/ or resources pertaining to erosion on Long Island
  - North Shore bluff erosion is complicated by the fact that the bluffs supply material to the beaches. Stopping erosion may deprive beaches of sand.
  - To properly manage North Shore bluff erosion the state should develop a sediment budget that could be used to identify site specific appropriate approaches for protecting property.

### **Determining methods for coastal erosion remediation**

- Members discussed potential actions to be taken on coastal erosion
  - Funding Resources: *per Bill Doyle (Congressman Lee Zeldin's office)*
    - FEMA funding was only available after Sandy
    - Current funding can be obtained through local municipalities such as the Public Assistance Block Grant offered at the town level.
    - Residents should contact their local state representatives to assist them on funding program.
    - In addition, residents should contact their local town to get an application for the Public Assistance Block Grant- they must meet requirements of public use though.
- DEC Coastal Erosion Hazard Area map (Letter to Commissioner Martens)
  - The board had sent a letter to Commissioner Martens regarding the status of the Coastal Erosion Hazard Area (CEHA) map. Eric Star from NYSDEC discussed the current status of the maps and how some local municipalities have coastal hazard programs and locally certified coastal hazard programs already in place. It was discussed that if a municipal program is in place, residents would not get permits from the DEC, but rather from their local municipality.

### **Discussion on how to deliver findings to community**

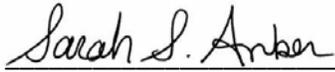
- The board discussed ways to distribute the findings to the community. It was decided to plan a community forum in August. This meeting will include the members of the task force, and will provide resources and services for local residents who live along the North Shore of Suffolk County.
- Additionally, Legislator Anker will reach out to Suffolk County's local municipalities to facilitate a meeting to discuss their efforts in combatting coastal erosion and storm water run-off.

### **Closing Remarks**

Legislator Anker thanked the members of the board for their commitment to addressing coastal erosion issues along the North Shore of Suffolk County. It was discussed that the findings from the task force will be disseminated to residents and to legislative offices that run along the North Shore. Additionally, the community forum was briefly discussed and members agreed to provide information for the meeting through a PowerPoint (Soil and Water, SOMAS, Seagrass) and various other resources.

Additional action items were discussed such as a video that Soil and Water would provide regarding steps homeowners can take to address coastal erosion and how to build a more stable bluff. This video would be presented to homeowners. It was also discussed that DPW will get a list of at risk homes that have potential structural damage due to coastal erosion, so that the board can create a priority list.

Report Approved by:



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Sarah S. Anker  
Suffolk County Legislator  
Sixth Legislative District

Date: June 18, 2015