

**Present:** Chairman Jay Putnam, Vice Chair DeeDee Holt, Paul Chamberlin, Billie Bates, John Geiger, Conservation Agent Kristin Andres and Secretary Mary Fougere,

**Absent:** Commissioners Carol Scott and Robert Lear

**325 Fox Hill Road, Eastward Ho, SE 10-2534:** The hearing was re-opened for a Notice of Intent for proposed shorefront protection along the expansive shoreline of Eastward Ho! golf club. Roy Okurowski of Coastal Engineering Company, Inc and Jack Farrell represented the applicant. John Ramsey of Applied Coastal, Consultant for the Commission, had submitted a report dated February 16, 2010 completed after an on-site shoreline visit in January 2010. Ms Andres offered photographs taken on-site on January 22, 2010. The plans of record for the discussion are a set of plans "Latest **Date 2/5/2009 with revision dates 4/17/2009 on sheet 3 of 12 and sheet 12 of 12.**" Mr. Ramsey offered generalized remarks regarding the entire proposal and had sent the Commissioners a series of three photographs of the site; the photographs showed distances of the golf course playing areas from the top of the coastal bank and serve as guidelines when considering bank stabilization proposals for the future. From the audience, Coastal Resources Director Ted Keon noted that the yellow delineation line in the photographs is the toe of the bank, not the top of the bank. Besides looking at eroding areas, Mr. Ramsey had observed areas that would benefit from nourishment: His comments included the following:

- \* There appears to have been additional erosion on the western end of the two existing revetments
- \* The erosion rate will probably slow down in the next couple of years as the coastal system stabilizes from the new break in the outer beach. The coastline will then stabilize. Coastal Banks react to storm events as a normal coastal process and this has been a particularly storm- active winter.
- \* There are some areas where beach nourishment could be completed pro-actively to preserve sediment sources for the beaches and the intertidal area.

Commissioner Chamberlin questioned what specific information is necessary before coastal experts feel confident in recommending the use of rock armoring or any other engineered structure. Mr. Ramsey stated that there are a number of issues on this one shoreline and while the Club will have to realize that this is a period of altered tidal change, the system will equalize and there are areas of Eastward Ho! that will improve. Clearly, the protection of golf course infrastructure property is not addressed in regulatory data as is pre-1978 dwelling, but in this case is a viable part of the community that the club members are adamant about protecting. This filing requires that the Commission make a determination regarding how much allowable erosion is adequate before the applicant is allowed to secure their "line in the sand". Lastly, this project also has opportunities for nourishment to be added as a way to address erosion. Areas 7 & 8 where the beach has lowered (west of the large revetments) keeping a sediment supply through nourishment of the up drift may be a viable alternative to building rock returns at the ends of the existing rock revetments. The existing fiber rolls,

although eroded, have held for many years and there is no evidence that they should be replaced with rock end scour.

Ms Andres circulated a photograph of wire-encased damaged fiber rolls to augment the on-going discussions at Commission hearings regarding the use of wire in beach front erosion control projects.

Commissioner Chamberlin noted that the performance standards for coastal bank revetments require that the applicant demonstrated that other means of erosion control have been tried, such as nourishment or fiber rolls with nourishment & planting, and have failed. There is no evidence that this has occurred. Mr. Ramsey has stressed that pro-active mitigation would benefit some areas of Eastward Ho!'s coastline. Discussion ensued regarding the compatible sediment use when nourishing. Mr. Ramsey stated that in a sample of the sand from this site, it is evident that there is coarse gravel lag and the applicant should be encouraged to mitigate using sand with rounded stone.

Jack Farrell expressed his agreement with many of the points made by Mr. Ramsey and admitted that this application process has been a learning process for club members including himself. He disagreed with Mr. Ramsey's assessment of Area #7 that a revetment would be a last course of action for this area since there is over 261 ft of land between the toe of the bank and the golf course playing field. According to Mr. Farrell, the area between the bank and the playing field is the "dump" area and is an integral part of the operation of the course. Preserving the bank in front of the dump is vital. Ms Andres noted that although the operation of the dump area has changed and there is not as much volume of stockpiled materials and debris (stumps, leaves, etc) the Club has tried to re-locate it over the years to no avail.

Mr. Okurowski circulated a handout showing elevations of the areas of bank as a rebuttal to the discussion regarding the necessity of protecting areas of the coastline where golf course playing areas are from 47 feet to 261 ft from the toe of the bank. He felt that the distances shown in the aerial photos produced by Mr. Ramsey should be put in perspective when considering the bank angles. He reminded the Commission that are varying degrees of many coastal processes going on along this vast shore-line. Since Area 4 is relatively stable and has a 3:1 slope, this area was used as a baseline. The red line on the plan shows the "land in the sand" described by Mr. Ramsey; the location of the redline takes the angle of the existing slopes into consideration when comparing the distances Mr. Ramsey shown on the aerial shots. Commissioner Chamberlin stated that Mr. Ramsey simply provided the numbers that were asked of the applicant that is always provided in shoreline protection applications, which is the distance of the object to be protected from the top of the bank. He was not getting the Commission to provide a value judgment on which conditions in the field may change and therefore determine which areas of the shoreline need immediate protection.

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The Commission agreed that it would be necessary to review the proposal by area, in order to assess whether they can reach a consensus on the various components of the proposal and determine the outer limit as to what can be permitted. The Chair felt that an additional meeting would be necessary to review work protocols for each site. The Commission held a thorough discussion of each area as shown on the set of plans beginning at the easterly end of the property and working west. Ms Andres stressed the need for the Commission to understand and feel confident that the applicant has demonstrated need and that there is a requirement to be consistent with decisions made for this property. There will be many more applications to follow this one requesting wire encased fiber rolls and failure of same. CZM regards soft solutions as nourishment and vegetation, fiber rolls are a compromise solution.

- \* Area 1 & 2- There is a question whether the work on the bank requires re-grading. MR. Ramsey had questioned whether there is existing vegetation that would be removed during re-grading. MR. Okurowski stated that there is no intent to excavate the bank to install the proposed fiber rolls; minimal excavation work would be required. The Commission questioned the extent of the scarp.
- \* Nourishment would be added after the installation of the work. The Chair questioned whether the addition of fill would de-stabilize the bank
- \* There is no intent of allowing damaged wire to remain on the beaches; the club will take full responsibility to police the fiber rolls
- \* Area 3- There is nothing new proposed, this is the area where nesting birds were observed in the bank
- \* Area 4- Area between the two existing revetments. –The applicant has not changed the proposal from the original plan. The return at the west end of the existing revetment may have to be tapered as end scour protection. The Commission noted that there is a denuded bank to the west ; there is underlayment of filter fabric proposed, but some Commissioners asked if “chasing the end scour with a rock return ” will result in the building of a revetment in the future
- \* Area 5- Nourishment proposed, no change in proposal
- \* Area 6- Nourishment and turf mat proposed- no change in proposal
- \* Area 7- 155 Linear ft of new rock revetment, turf mat and bank regrading proposed. MHW runs along the front of the nourishment in this section, extreme high water is behind the proposed rocks
- \* Area 8- A new dune is proposed and a fiber roll return at the end of the existing revetment to build up the public beach. Again, fiber rolls are nourished close to edge of water

Mr. Farrell would arrange a meeting with representatives of the Chatham Yacht Club to discuss the overall plan of Eastward Ho and to coordinate proposed work with that of the Club.

Mr. Farrell stated that there are some shortcomings in the plan but that the overall design was completed to avoid a Chapter 91 license application at this time

Commissioner Chamberlin questioned whether the Club would consider simply a reduction in the proposal specifically by constructing revetment returns and supplying of nourishment to several areas. He expressed that several homeowners have been required to present soft solutions for their properties as a first step to shorefront protection and he sees this major request for revetments without proof of alternate solutions as unfair to those property owners. Additionally, there has been no documentation that Eastward Ho! has ever nourished any of the areas in a maintenance program.

In response, Mr. Farrell stated that the Club Members feel strongly that they need what they are asking for, and do not intend to reduce the extent of the proposal.

Commissioner Geiger stated while he understood Commissioner Chamberlin's concerns, it may be beneficial in the long run to establish the "line in the sand" for the Club, possibly with some overdesign, in order allow a comprehensive shoreline project as a baseline for the future. The Commission expressed their disappointment that a shoreline management plan had not been submitted prior to this application to demonstrate need. A phased-in approach will not be considered by Club Members.

To date, there has been no detailed nourishment plan for any areas presented to the Commission for consideration. The plan needs to specify access to the project site and amounts of nourishment proposed. Maintenance of beach profiles well below MHW is a concern specifically in areas 7 & 8 where nourishment is proposed at the edge of MHW. There have been generalized remarks from the applicant but no data regarding volume of sand, access to work areas, monitoring plans and maintenance provisions as determined by trigger points and beach profiles. It was noted by the Commission that it may be prudent to measure the volume of change and establish trigger points using Extreme High Water as a reference instead of Mean High Water. Planting plans have not been provided, to date and the sand source has not been verified.

**The hearing was continued to March 24, 2010.**

**Adjourn:** It was moved, seconded and unanimously voted to adjourn the meeting at 7:10 PM.

Respectfully submitted,  
Mary Fougere