

Present: Chairman Jay Putnam, Carol Scott, Paul Chamberlin, Billie Bates, Robert Lear, John Geiger, Conservation Agent Krisitn Andres and Secretary Mary Fougere.

Absent: Commissioner DeeDee Holt.

The following hearings were re-scheduled as noted below, at the applicant's request:

- ✓ **110 Old Salt Works Road, Goodrich Chatham Realty Trust, Joseph Marzilli, Trustee, SE 10-2582:** Continued to February 3, 2010
- ✓ **594 Shore Road, G Warren// Victoria Chane, SE 10-2596:** Continued to February 3, 2010
- ✓ **14 Homestead Lane East, Hayden L Griswold, Jr Trustee & Marjorie C Griswold Rev Trust-owner/applicants, SE 10-2585:** Continued to February 3, 2010
- ✓ **227 Vineyard Avenue, Stephen/Lisa Turnblom, SE 10-2580:** Continued to February 17, 2010
- ✓ **72 Main Street, Marion Fischer, SE 10-2606:** Continued to February 17, 2010
- ✓ **20 Shore Road, Richard E Pinckert, Trustee under Indenture of Trust of Richard E Pinckert and Nell N Pinckert , Trustee under Indenture of Trust of Nell N Pinckert, SE 10-2593:** Continued to February 3, 2010

Rt 28 at Linden Tree Lane, Massachusetts Department of Transportation(Mass DOT)- Highway Division- District 5: The hearing was opened for a Request for Determination of Applicability (RDA) for the proposed installation of deep sump catch basin, flared end outlet and stone rip erosion control pad at the duck pond corner of Rt 28 at Linden Tree Lane. Thomas Maguire//MASS DOT represented the applicant. There is no requirement for (Mass Highway) MassDot to notify abutters.

About a year ago, MASSDOT replaced a collapsed manhole and a broken pipe in the road layout of Linden Tree Lane. The stormwaters collected from 5 catchbasins now flow into a manhole and is directed to a drainage catch basin that empties into the ditch; the ditch directs stormwaters underground until the waters reach the Oyster Pond. The abutter, Mr. Streibert, had since expressed his concern that the existing Duck Pond may dry now that there is no flow to the pond.

Mr. Maguire circulated a revised sketch plan showing the location of a large tree that would remain. In response to Mr. Streibert's concern, the design, as proposed will direct stormwaters to a new deep sump catch basin. A new pipe will direct flow from the existing catch basin and the old pipe will be plugged.

In a memo dated January 20, 2010, Dr Robert Duncanson advised the following:

- The proposed deep sump catch basin should be cleaned on a regular basis
- The proposed drainage structures should be located so as to avoid disturbing the large tree and its root zone
- The proposed pipe flared end and rip rap should be underlain with filter fabric
- The rip rap should be cleaned/maintained on a regular basis

It was moved, seconded and voted for a Negative Determination with the condition that a work protocol be submitted to the Commission before the start of work and the comments from Dr Duncanson's memo be incorporated into the proposal.

52 Nickerson Lane, Stratford Wallace, Trustee, 52 Nickerson Lane LLC, SE 10-2598: The hearing was re-opened for a proposed Request to Amend existing Order of Conditions under SE 10-2598 to include drainage structures and roofline changes at 52 Nickerson Lane. No one was present to represent the applicant.

Mr. Andres was in receipt of an email and revised site plan from the John Schnaible of Coastal Engineering Co detailing the proposed mowing/maintenance of the Association are adjacent to this property.

The ZBA approved the proposal on January 14, 2010; **it was moved, seconded and voted to close the hearing.**

442 Old Harbor Road, 444 Old Harbor Road, 440 Old Harbor Road & 594 Shore Road, David Morgan, Swan Hill Condominium Association, Michael/ Elizabeth Reilly & G Warren/Victoria Chane, SE 10-2611: The hearing was opened for a Notice of Intent (NOI) for the proposed bulkhead replacement, erosion control and nourishment at 442, 444& 440 Old Harbor Rd and 594 Shore Road. Roy Okurowski of Coastal Engineering Company Inc represented the applicant and returned the abutter notification cards. He stated that under a previous filing several years ago, the replacement of an existing, deteriorated timber bulkhead and the construction of an extension to the bulkhead was permitted under SE 10-2247. That permit was issued to protect a pre-1978 house and was extended; the work completed in October 2009. There was also a beach nourishment plan that was approved in October 2009; the nourishment restored the beach to pre-existing conditions. The properties on either side of the bulkhead were nourished in Fall 2009.

Before Coastal Engineering signed off the wall construction, they noticed that the new wall is being undermined from the back; all the nourishment material is being pulled out from the back. Mr. Okurowski stated that since the fall of 2009, the tides are getting higher. The week before the hearing there have been three over-eight ft tides; this equates to 7.5 elevation using NGVD data. The area is in an AE 11 zone, relatively sheltered from wave action.

The proposal calls for returns to be constructed on the northern and southern ends of the existing wall, within the property bounds of the Morgan property. The returns will be buried and nourished and the Morgan walking easement to the water will be maintained. The returns will be lag-bolted in to the existing structure. The Commission agreed that annual nourishment will be important to this site, but that the proposed 20 cu yds of nourishment proposed annually may not be enough. Discussion ensued regarding trigger points to determine the need for nourishment and the necessity for the applicant to maintain nourishment on the Chane property. This was stipulated in the Order under SE 10-2247, maintenance of nourishment.

It was moved, seconded and voted to close the hearing. It was agreed that the Maintenance Agreement from the Order of Conditions under SE 10-2247 would be incorporated into this project.

101 Morris Island Road, 101 Morris Island Road LLC, SE 10-2612: The hearing was opened for an NOI for the proposed demolition of existing dwelling and pool; proposed construction of new dwelling and pool at 101 Morris Island Road. David Clark of Clark Engineering LLC, David Hawk of Hawk Design and Peter Polhemus of Polhemus Savery DaSilva represented the applicant; Mr. Clark returned the abutter notification cards. The entire site is a resource area.

According to Mr. Clark the entire site is within the 100-yr Flood Plain, elevation 10.0. There are three inland wetlands also: one to the northeast on the other side of Dune Dr, one drainage ditch leading out to Stage Harbor on the other side of Morris Island Road and one wetland directly south and on the property.

A new Title 5 septic system with IA technology using drip-irrigation type design for the leaching field will be installed. This is being proposed to better meet the setbacks to the isolated wetland and to the depth of groundwater.

Mr. Hawk stated that the proposed project significantly reduces the hardscape, the pool will be removed and replaced, the retaining wall on the southern side of the property will be removed, the existing pool area will be re-graded to a 3:1 slope and fill will be removed. A lot of asphalt within the 50-ft NDZ to the wetlands will be removed.

Mitigation has been provided as follows per Mr. Hawk:

- The pool deck and brick walks will be dry set
- Plantings are proposed all around the perimeter of the new dwelling; within 50-ft NDZs, all plantings will be native cultivars
- The new driveway will have a pervious surface
- The cedars, Rose of Sharon and existing pines on the southern edge of the property (near the existing pool area) will remain
- Lawn area will not be significantly increased, but will be rotated to keep children farther from roadways. The existing house is surrounded by mowed lawn, there is very little, if any, habitat

Commissioner Chamberlin felt it appeared that there is more sequestered area in the proposed plan when comparing to the existing conditions. The pool fence is actually a yard fence and is not conducive to wildlife habitat.

The hearing was continued to March 3, 2010 for the following:

- **Work protocol**
- **Calculations showing the difference in sequestered area**
- **Information on the type of proposed pool**
- **Information regarding invasive plan management**

201 Old Harbor Road, Thor Magnus/Katherine Skahan, SE 10-2613: The hearing was opened for an NOI for the proposed demolition of existing cottage and shed; proposed re-construction of cottage and shed in same footprints at 201 Old Harbor Road. Robin Wilcox of Sweetser Engineering represented the applicant and returned the abutter notification cards. He stated that the shed and back (cottage) building are in dire need of repair. Since the existing

buildings are not square, the plan shows two sets of measurements, the new slab foundations in essentially the same footprints will be square so the old and new footprints are not exact.

The buildings are located in the No-Disturb Zone (NDZ) to a vegetated wetland. Mr. Wilcox explained that if the buildings were to be moved, there would be a problem in that the existing utilities are already in place. Moving the shed out of the NDZ will encroach on the leaching part of the newly installed septic system, although Mr. Wilcox was willing to approach the applicant with the suggestion. The applicant intends to demolish and rebuild the existing main dwelling on the same footprint in a couple years.

The excavated material may be temporarily stored over the septic system.

Commissioners Scott, Bates and Lear felt that moving the shed outside of the NDZ would enable the applicant to save more trees that may be destroyed for the excavation.

The hearing was continued to February 17, 2010 for the following:

- **Landscape plan for the area that will be disturbed for excavation and rebuilding; the area is currently habitat and will have to be restored**
- **Verification whether applicant will consider moving the shed**
- **Number of trees that will be removed**

236 Stage Neck Road, Edward/Joyce Hough, SE 10-2601: The hearing was re-opened for an NOI for the proposed construction of seasonal pier & float at 236 Stage Neck Road. William Riley, Esquire and David Clark of Clark Engineering LLC represented the applicant. The Commission was in receipt of "Eelgrass Survey Review" dated January 2010 provided by Martha Craig Rheinhardt, M.S, P W S. Ms Rheinhardt had been hired as a consultant by the Commission to review the data provided by Jack Vaccaro, Vaccaro Environmental Consulting.

Mr. Riley summarized the last hearing and stated that he felt that the applicant has supplied adequate information on the location of eelgrass through the eelgrass survey conducted in winter of 2009. The result of their survey show that although there is some sparse eelgrass vegetation south of the proposed pier, there is no eelgrass located in the specific location of the proposed pier. Additionally, the state had provided information on their survey conducted in 2000 and 2003. According to Mr. Riley, the state information agrees with Mr. Vaccaro's in that there is no eelgrass in this area and further, there is very little probability that the eelgrass will re-establish in this area due to the current that flows in this channel. Ms Rheindart stated that there are two documented causes for eelgrass loss; physical disturbance including boat traffic, mooring location etc and loss of water quality. She referenced a report by the Massachusetts Estuaries Project in which the Oyster River was an area of review for this report. It is well documented that the loss of eelgrass in the Oyster River is due to nutrient loading causing poor water quality and not by traffic.

Mr. Riley maintained that there is no performance standard that would deny a pier in this area. The applicant is willing to accept a permit to install the dock that would include a Special Condition that an eelgrass survey be conducted in May to verify the findings. Further, he felt that all the consultants including Mr. Vaccaro, Charlie Costello from DEP and Ms Rheinhardt agreed that the methodology for examining the bottom was valid, and he acknowledged the problem that the survey was not conducted during the proper season.

Ms Rheinhardt based her evaluation on this proposed dock site on three things:

- Historic eelgrass extent in the Oyster River
- Potential for recovery
- Methodology as stipulated in the Vaccaro report

In response to a question from Commissioner Chamberlin whether eelgrass restoration occurs once water quality is improved, Ms Rheinhardt stated that the scientific literature points to that conclusion where there are existing eelgrass beds or historic evidence of eelgrass. The Division of Marine Fisheries is conducting on-going testing in areas where water quality has improved by re-vegetating eelgrass areas. In the Oyster River, historic mapping has shown large masses in 1951 and then loss before 1994. There have been significant studies in Plymouth Bay that concludes once the water quality is improved, the eelgrass does come back. There is no studies detailing the size that the eelgrass bed has to be for eelgrass to recover.

It is well known and documented that Eelgrass growth and development depends on sunlight. There is no comparison studies available that documents the effects of shading and intermittent light from water structures on the spread of eelgrass.

DEP tries to map eelgrass in June, July when the biomass is at its peak. Biomass is lowest from November to May. Commissioner Lear questioned whether the Riley suggestion of conducting an eelgrass survey in May is appropriate. Commissioner Chamberlin asked if there was no evidence of eelgrass in December, whether it would be true in July-August. Ms Rheinhardt felt that she could not be certain that lack of eelgrass biomass in December is an accurate assessment of the area in peak growing season, especially in historic eelgrass areas.

From the audience, Tony Murphy, from the South Coastal Harbor Plan Committee, stated that dock applicants are unique in that they seek approval for a private structure in the public waterway. Given the fact that the town is on the threshold of improving water quality and since the Oyster River was historically, an active shellfish area, stressed the need for water quality improvement to occur without the added traffic, shading etc.

MS Andres noted that the town has embarked on water quality improvement via construction of stormwater controls. The benefit of this work is evident in the Oyster Pond where shellfishing beds are now opened after only two years of treatment.

From the audience, George Olmsted of the South Coastal Harbor Planning Committee stated that over a two-year period, the Committee has assessed the impact of piers and docks and human use on the various shoreline areas. They have assigned a numerical ranking. The recommendation from the Committee is a ban on new docks and piers inside the Stage Harbor Complex. Within that area, the Oyster River is the most congested. There are 18 private piers and docks, there are two commercial marinas that own floats that are leased to boaters and the Barnhill Town Landing that is heavily used. He compared boating in the Oyster River to driving a car in Manhattan at noon on any given day. A document has been drafted as a warrant article as an amendment to the Chatham Bylaw to limit this area. He encouraged the Commission not to exacerbate the already congested area. Mr. Riley countered by saying that the wishes of the Stage Harbor Planning Committee do not supercede the performance standards of the wetlands regulations.

Ms Andres asked that the importance of eelgrass to shellfish habitat be addressed by Ms Rheinhardt. Ms Rheinhardt referenced work completed by Dr Mark Fonseca, a recognized expert on eelgrass and its importance to shellfish habitat. Without eelgrass beds, scallops and other shellfish would not be harvested. Although Mr. Riley states that there is no eelgrass in the immediate area of the proposed pier, there is evidence of eelgrass 50-ft away. The substrate soils in the whole area are the same so it is reasonable to conclude that eelgrass may come back, based on soil conditions. Dr Fonseca's report also addresses the manner of eelgrass growth through shoots and seeds.

Richard Hosmer submitted a comment letter dated December 14, 2009 in opposition to the project and a photo of eelgrass from the 1980-'s.

Scheduled on ZBA agenda for Feb 11, 2010; Mr. Riley stated that Mr. Clark will be submitting a revised plan showing the re- location of the proposed pier to the north, the location of moorings. The hearing was continued to February 3, 2010 in order to review the revised plan prior to writing a comment letter to ZBA.

227 Woodland Way, William Marsh-applicant, Walden Woods Nominee Trust-owner, SE 10-2604:

The hearing was re-opened for an NOI for the proposed construction of new, single-family dwelling with granite steps to Ryder's Cove at 227 Woodland Way. Susan LaDue//Eastward Companies represented the applicant. She had supplied the Commissioners with a revised plan, narrative and planting plan prior to the meeting.

The changes to the proposal include the following :

- The proposed granite steps have been removed from the proposal.
- The revised site plan shows that the proposed new dwelling has been pulled further back from the coastal bank
- Drywells have been eliminated; the applicant will utilize French drains for storm water control

It was moved, seconded and voted to close the hearing.

75 Squanto Drive, Douglas/Cheryl Gorman, SE 10-2592: The hearing was re-opened for an NOI for the proposed removal of existing dwelling and garage and proposed construction of new dwelling and garage and proposed re-location of existing septic tank at 87 Squanto Drive. Stephanie Sequin of Ryder & Wilcox, Inc represented the applicant. She stated that although the proposal had been approved by the ZBA on January 14, 2010, there was a condition attached that will require the Commission's review.

The ZBA felt that the new deck should be kept to a maximum width of 12-ft. This could be accomplished by "molding" the deck to the house contours rather than "squaring" it off as in the original plan. The proposed deck would extend across the entire front of the house, farther away from the top of the coastal bank. The deck size will increase by 108 sq ft with these changes.

The mitigation area will remain the same.

The Commission continued the hearing to January 27, 2010 to review the revised plans and decide whether enough mitigation is proposed for the increased deck size.

29 Manamock Road, Manamock Realty Trust-owner, Richard/Stefi Chilton-applicants, SE 10-2599: The hearing was re-opened for an NOI for the proposed construction of addition to existing single family home at 29 Manamock Road. William Riley, Esquire represented the applicant. He stated that the hearing has been continued on the ZBA agenda to Mar 11, 2010; the applicant has revised the plans and copies will be provided to the Commission for their review.

The Conservation hearing was continued to February 17, 2010

184 Mill Creek Road, John Gillis, SE 10-2567: The hearing was re-opened for an NOI for the proposed demolition of existing dwelling; proposed construction of new dwelling with Title 5 Sewage Disposal System; proposed re-establishment of driveway and parking at 184 Mill Creek Road. David Clark of Clark Engineering LLC and Sam Streibert of Streibert Associates represented the applicant. Mr. Clark had submitted revised plans prior to the hearing showing that almost 2000 sq ft of lot area will be saved from clear-cutting by using the new septic design for the leaching field. This will eliminate the extensive excavation in the rear yard as well.

The Commission reviewed the landscape sketch provided by Mr. Streibert. He stated that the applicant will be giving up most of the front yard for mitigation planting areas. The darker areas shown on his plan will be areas of flush cutting of trees and some vegetation for construction purposes.

A letter dated January 5, 2010 from Dr David Beauchamp who is opposed to the project, was read into the record.

The hearing was continued to April 7, 2010.

The following projects were approved under Administrative Review:

- **73 Crosswind Farm Rd, Eldredge:** Removal of pine from pond
- **103 Queen Anne Road, Smith:** Removal of storm damage & vines
- **35 Northgate Rd, MAnteiga:** Installation of split rail fencing
- **811 Fox Hill Road, Murray:** Removal of storm damaged branches, etc

Chatham & Harwich Newcomers Club: The Conservation agent and the Assistant Conservation Agent have been asked to conduct an informative meeting and discussion on invasive plants, on January 21, 2009.

Annual Report: The annual report is being finalized this week, anyone with contributions should send them to Ms Andres.

Landscape Contractor Workshop: The Assistant Conservation Agent Lara Slifka is beginning work on organizing another contractor workshop for February or March. Subject matter has yet to be determined but the format will be similar to one held two years ago, which was very successful.

Zoning Bylaw Amendment Article: The Commission would like to have the Conservation Lands under their jurisdiction to be re-zoned to Municipal Conservation in order to facilitate work on public access to many of the parcels.

The Commissioners will send their thoughts on the subject to MS Andres, who is formulating the wording of the article.

Reminder: Public Meeting and Discussion will be held at the Community Center January 21, 2010 at 7 PM on Wildfire Prevention. The town has Management Plans in place for two of the town owned forest areas.

There will be guest speakers from Barnstable County Extension Service and the National Park Service.

Reminder: The shoreline walk at Eastward Ho! will be on January 22, 2010 beginning at 1 PM. Consultant John Ramsey will be present.

Adjourn: It was moved, seconded and voted to adjourn the meeting at 9:45 PM.

Respectfully submitted
Mary Fougere, Secretary