#### CONSERVATION COMMISSION MINUTES

## August 6, 2015 ~ 7 pm ~ Lower Conference Room, Bourne Town Hall

Chm. Gray called meeting to order at 7:00 pm and explained the Commission's procedure pursuant to the Wetland Protection Act M.G.L. c. 131, s. 40 and the Bourne Wetland Protection Bylaw Article 3.7.

Note: Chm. Gray addresses the audience in regards to recording a public hearing. If anyone wishes to record a public meeting, they are free to do so, however, it must be known by the Board and the public. All cell phones are to be placed on vibrate or turned off during the meeting.

Members present: Chm. Gray, V. Chm., Martha Craig Rheinhardt, Betsy Peter Holmes, Kiebala, Rob Palumbo, Susan Weston, Thomas Ligor and Associate Member Paul Szwed

Michael Rausch of Bourne Enterprise recording tonight's meeting.

## **Requests for Determination of Applicability**

Richard Selby CC15-30

134 Wings Neck Road, Pocasset

Install a natural gas service connection within a VE Flood Zone and within 100 feet of a Wetland Resource Area

Mr. Selby representing: He is seeking to install natural gas on his property and has provided documentation as well as existing conditions plans for the property.

Brendan Mullaney – this is an existing, developed lot. It is a simple project which is in the flood zone and prompted this application. No concerns with the project.

No board comments. No public comment.

Palumbo moved and seconded by Holmes a Negative Two Determination. Unanimous vote.

#### 2) Pocasset Mobile Home Park

CC15-31

Brad Holmes, Environmental Consulting & Restoration, LLC

117-149 Barlows Landing Road

Replace existing access way and install waste water facility components within 100 feet of a Wetland Resource Area

Chm. Gray recused himself from discussion and vote. He turned the meeting over to V. Chm. Marth Craig Rheinhardt.

Mr. Brad Holmes – filed an application to request the restoration of gravel access way. The project involves the installation of a new treatment system for the park.

Brendan Mullaney – only a small portion of this project is within the jurisdiction of the Commission; the majority of the components are outside. The vegetated wetland is based on the vegetation present and could be considered marginal conditions – this is what prompted the application. The system would be a vast improvement over current existing conditions. Applicant went to Natural Heritage who has done a full turtle survey. No other concerns with the project.

No board comments. No public comment.

Holmes moved and seconded by Ligor a Negative Two Determination. Unanimous vote.

# 3) Bruce & Shirley Bradley

CC15-32

Barbara Frappier, Warwick & Associates, Inc.

75 Tahanto Road, Pocasset

Perform repairs to existing concrete seawall within an AE Flood Zone and within 100 feet of a Wetland Resource Area

Chm. Gray is back chairing the meeting.

Barbara Frappier representing - the seawall is in need of repair. Applicant plans to excavate sink holes and replant on top. Steps will be removed and replaced with granite steps. Applicant seeks to repair what is already there and is applying for a Chapter 91 permit. All work done by hand at low water.

Brendan Mullaney – applicant is being proactive with regard to the maintenance of the wall. Work will be done over the winter in small chunks at a time. Work is minor and done by hand. Overall, it is a relatively simple plan. No concerns with the project.

No board comment. No public comment.

Palumbo moved and seconded by Weston a Negative Two Determination. Unanimous vote.

4) Dana Pickup
CC15-33
SAME
49 Holt Road, Buzzards Bay
Construct a sunroom within an AE Flood Zone

#### **Hearing Under State Act Only**

Dana Pickup - seeking approval for a 12'x12' addition to the existing house. The proposed sunroom to be positioned on the rear portion of the house.

Brendan Mullaney – proposed work is in the flood zone only; there are no other jurisdictional resource areas within 100 FT. The footings will be done by hand. No other concerns with the project.

No board comment. No public comment.

Ligor moved and seconded by Kiebala a Negative Two Determination. Unanimous vote.

#### **Notice of Intent**

Pinnacle Site Contractors, LLC SE7-1915
JC Engineering, Inc.

O Crab Rock Way, Sagamore Beach ("The Strand" below Indian Trail)
Construct a 760-foot long stone revetment and perform coastal bank stabilization within a VE Flood Zone and within a Wetland Resource Area (Continued from 7/16/15)

Chm. Gray recused himself from discussion and vote at this time and turned meeting over to Robert Palumbo.

Kathleen Connolly, Environmental Attorney on behalf of the 6 property owners.

Palumbo asked if anything new has been submitted since the last hearing.

Atty. Connolly explained they have reviewed the peer review reports as well as letters that were submitted and have tweaked the plans tonight to address some of those issues. Nothing new has been filed and that tonight they are presenting a revised plan to review. She gave a brief background of the properties and proposed project. Serious erosion threatens the properties along the bluff. Property owners are willing to pay for costs, but ultimately need the Commission's approval to proceed, as well as the Town of Bourne who owns the property. Without the restoration, properties will slide off the bluff and line the beach with debris. The alternatives analysis shows owners have tried many other solutions before that did not work and that has brought us to what is presented tonight. From 1995 through 2013, homeowners have attempted softer solutions including hay bales, plantings, irrigation, fencing, etc., spending over \$140,000 on these attempts before applying for the revetment. Jim O'Connell's report notes that non-structural erosion control methods have not worked. Revetments have been shown to be successful – for example the Sagamore Beach revetments that were built in 2013. The relevant law here, which is also cited in Jim O'Connell's report, is 310 CMR 10.30 (3), which allows for a coastal engineering structure on a coastal bank to protect buildings prior to August 10, 1978. 5 of the 6 properties here were constructed well before that date. The proposed

project meets all the criteria under these regulations. There has been support for this project from the Bourne Board of Selectmen and the North Sagamore Water District. If nothing is done, there will be a substantial clean up for the town and damaged infrastructure that will have to be dealt with.

Attorney Connolly explains a memo from Town Counsel Robert Troy regarding Orders of Condition for 4 of the 6 properties that do not apply to the parcel where the work is proposed, and therefore do not prohibit this type of structure on the bank. In addition, the Bourne Finance Committee and Town Meeting both voted in support of this project. The project has been revised to address concerns in the reports as well as concerns from neighbors.

Don Perry – we have been working with reports received on 4/6/15 and 4/24/15 from Jim O'Connell and the most recent report was received from Greg Berman on July 1. We have worked to address issues for this significant and important project. We also received a letter from residents that we have used to come up with a solution. We have revised our design - a cobble berm is now proposed at the southern end of the revetment for 105 feet. After that there is 135 feet of a sand container system in front of the house #2 Indian Trail. This will be a mac bag system that will transition into a stone revetment for 540 feet that runs to the end of house #22 and then transitions into a cobble berm.

Mr. Stan Humphries - reviewed highlights of his letter, including initial volume of beach nourishment, annual monitoring and maintenance, and address the alternatives the peer review had touched on. Sediment source and sediment transport processes make this area very unique, lends itself to widest beaches anywhere in the vicinity. Cobble berm significance is the placement at the end of the harder structures. Additional sediment and excavated material will be used to install the revetment. Regarding the coastal wetland restriction order that has been brought up – the revetment has been moved landward into the toe of the bank so there is no work will be proposed in the coastal beach. 500 cubic yards of bank sediment will be removed and can be deposited along the toe or at either end.

Two pier reviews go through calculations to get volume annually for nourishment. It is not required by regulation that nourishment is required for coastal engineering structures. Episodic, storm induced erosion is the main cause cause of erosion. Sediment from the banks plays a role in the amount of material going into the environment and the beach. The banks to the north are significant and large volumes of material come towards this location. Sediment can also come from offshore and be deposited in this location.

Annual nourishment and maintenance will be done with this project. Need to address the condition of cobble berms - during storms, it is anticipated the material will be eroded and need to be replaced on an annual basis. Also lack of potential of a high tide beach due to subsequent storms. Trigger mechanism is proposed at elevation 9 so that if the beach drops below elevation 9 in the spring that volume of material is proposed to bring the beach back to this elevation. This is similar to a project approved further down Sagamore Beach. Regarding

alternatives, time has essentially run out to show any other alternatives – this is a case where time is wasting and a revetment can be permitted here.

Palumbo – opened up to questions from Commission members. Stated this was the first time members were seeing these plans and additional information.

Attorney Connolly – we understand this is the first time members are seeing this – we went through the consultants reports thoroughly and addressed all the items, not expecting the Commission to make a decision at this time.

Ligor – asked how you get around activities prohibited under the wetlands restriction order – you cannot place rock on this beach and if so, he asked how deep into the side of the bank. Mr. Perry said the toe is at elevation 7 and the beach elevation will be 12. They will be digging into the bank within 1 to 2 feet of the beach.

Palumbo – summarized that the applicant's plan as going into the bank, this is to get it out of the beach. He asked about the effectiveness of the cobble and determination of the length of the cobble. Humphries – predominant wave action out of the northeast, the wave action is a result of the wrapping around of waves and predominant impacts on the south side. The berm is 120 feet long and 5 feet wide on the south and 15 feet to the north. It will likely have to be replaced on an annual basis. It is a soft engineering method to address end scour. Perry – there is a cobble berm already in the area of the stairs.

Craig Rheinhardt – asked about extending the cobble berm the entire way and also about an alternatives analysis that hasn't been provided. Humphries - The size of the cobble berm that would be needed is quite large and not feasible. Perry – the berm would be very large and would not provide the needed protection to this embankment. Humphries – there is also concern about access to the site to bring material and disruption to the beach.

Mr. Perry – the annual beach nourishment plan addresses where it is transported. The proposal is a monitoring system annually. If not needed, it eliminates that activity. If it does, there is a mechanism that allows nourishment to happen.

Craig Rheinhardt – asked about the down drift beaches and what the adverse effect is and how would we know. Humphries – goes back to the amount of material coming into this area. It would be difficult to measure. There can be a monitoring program to come back to the Commission, request to extend permit for an additional three (3) years and then back after six (6) years. It would involve a large study to monitor.

Ligor – asked what is the danger of the toe being undercut during storms. John Churchill – toe stones will be at elevation 7 and the beach will be maintained at 9, so there is a 2 foot buffer. From a design standpoint, the toe stones are meant to be imbedded into the bank. This is above the mean high water mark and that is why a soft solution won't work – this is pounded

during a nor'easter, this is not an everyday occurrence. Solution we have is a stone revetment, which works very well.

Ligor – how can we be sure homeowners will hold up there end by re-nourishing the beach?

Brendan Mullaney – documents have been reviewed by counsel; they can be attached to the deed and if conditions not met, the board can then go through the normal measures of enforcement.

Attorney Connolly – there are legal ways we can handle this. Conditions can be placed in perpetuity. We can make a deed reference for these properties that references the Order of Conditions. We can also look into a performance bond or restriction to secure that they will follow the conditions.

Palumbo – one of the existing Orders states that the house will be moved.

Craig Rheinhardt – the Orders on three of the properties states that no coastal engineering structures can be built on an eroding bank. This is one of the problems we are wrestling with – the Commission specifically said that no coastal engineering structures can be built on the eroding bank, and now we're being asked on those Orders to look aside.

Palumbo – Commission was told in the past that there won't be a problem with this bank, and now we're being told differently.

Atty. Connolley – agrees with Town Counsel, orders of conditions goes to the private properties, project is proposed on town land. Palumbo - they don't have the bank; the Town has the bank. The intent of the Commission was to put the Conditions on the eroding bank at that time. Atty. Connolly - That can still be valid, but this is an entirely separate filing. The Commission has the authority to approve this project.

Weston – how is the soft approach going to work in front of #2 and not work on the other properties?

Perry – it's a much shorter term solution. It's been the unusual couple seasons with major storms- there is an interruption to activity on the beach if we don't secure this toe. To have this as an on-going major construction project is not preferable – we are proposing the revetment in front of the 5 properties that will be allowed, we don't really have other options.

Humphries – there is about 20 feet of coastal bank on these properties. We had discussed a sheet pile bulkhead on their properties but that wasn't allowed because of the old orders and would have been very difficult to construct.

Palumbo – what about the erosion at the top of the bank?

Perry - explained witnessing two part effect where the significant erosion at the crest of the bank mostly happening during the freeze/thaw in the spring as well as significant erosion during winter storms which is bringing in the whole slope back in and no more toe to support. The thawing and heavy rains, without the support of the toe, breaks off at the top and causes the pushing and receding. The same thing happened on Sagamore Road after the 2013 storms. We installed their walls and did plantings and have had no erosion since then. Securing the toe will prevent any sliding above.

Brendan Mullaney – there has been a thorough effort to address issues regarding the project in the consultants report and letters received on the project. He feels this is a concerted effort and the plan is better than the original. From a regulatory standpoint, the Commission can review what can and cannot be approved. This will take a bit of time to thoroughly go through the new information.

Perry – explained they have worked with a team of professionals to address all the issues that have been raised and they have attempted to bring forward a project that will be good for the homeowners, town, beach, and the environment.

Holmes – asked if the applicant calculated the sea level rise over 10 year span. Humphries said there is a commitment proposed to maintain the beach and there were discussions of lowering the revetment. It is being proposed above the current flood zone elevation

Atty. O'Connell – the Atty. Robert Troy and Mr. Mark Bergeron letters have been submitted for the record.

Holmes – asked if there are calculated costs for homeowners? Mr. Humphries to calculate the costs.

Weston – asked about the restriction order and if moving the project into the bank would meet this requirement? Mullaney – when the program was established, wetlands were identified and labeled as restricted or not – in this case the bank, or sea cliff" is not restricted on the maps but the beach is. It appears if no work is proposed on the beach they would be in compliance, we may want additional clarification on this.

Craig Rheinhardt – Commission wants to protect the houses, but also must protect the beach and bank not just in this area but in the surrounding area. Read section of Mr. O'Connell's report into the record regarding potential impacts outside the project area. The beach nourishment is at the base of the seawalls. What would happen outside the project area?

Churchill – the beach nourishment will be placed in front of the seawall and allowed to migrate south.

Mr. Perry – monitoring is not outlined in the new proposal at this time; it is a general concept at this time. The thought was to have a condition worked out with the Commission.

Holmes – asked about the cobblestone replacement cost. Mr. Perry doesn't have at this time.

Brendan Mullaney – the cobble berm is sacrificial to protect the ends of the structure.

Craig Rheinhardt – asked about the sand container system and why it couldn't be used for the whole project.

Perry – read a section of Mr. Humphries letter regarding alternatives and why this would not work. Explained the macbag system that is proposed in front of #2 Indian Trail.

Kiebala – asked about the path and how close the structure will be installed. Perry - said a 5 FT shelf will be adjacent to the stairs and then shore up with cobble and then would freeform to wrap and come under the stairs.

Weston – would like to see an alternative analysis of sand containers instead of a revetment.

Palumbo – we understand homeoners want to protect their homes, we not only have to look at the impact on the beach, but we also have to consider what is legally appropriate under the regulations. The board welcomes comments, but to keep in mind that we know the beach is important and it is our charge to protect it and we also sympathize with people use the beach as well as the homeowner.

#### <u>Discussion with the Public</u>

Dan Ready – thanked the board for bringing Greg Bergman into the discussion and asked the board to move expeditiously.

Richard Regnante – submitted two-page letter dated 7/19/15 from the 41 residents of Sagamore Highlands neighborhood and read into record which rejects the underdeveloped proposal for stone revetments. We have time to do a project and want to be part of the process.

Jim Mulvey – the board was asked to clarify the bounds of the Town Conservation land. Who owns the results going forward; who is legally responsibility for the conditions that are set?

Palumbo - both sides will need to look into the agreement that will be required.

Atty. O'Connell – the applicant is Pinnacle on behalf of the 6 property owners. The order of conditions issued with conditions specifying properties by address with current owners which are recorded with the Registry of Deed and run with the land. We will also put a deed reference which lists book and page of order of conditions. Performance bonds may be recommended to include in the findings. If applicant agrees, it can be done.

Weston – asked how a deed reference and this not their land, is that legal and how are they held liable. Atty. Connolly said you need town approval. The Commission can include the applicant be owner or requesting permission on behalf of the owner once the board determines what it substantially wants it to be done. Will work with Town Counsel to clarify this.

Brendan Mullaney – the Order of Conditions can go with property owned by the town and referenced properties through a proper legally executed document, the minutiae will be worked out. This is not the issue at hand at this point, rather the project itself.

Ray Jussaume – asked about a computer rendering of what this project looks like. Also, he is a taxpayer and his property values are tied to the beach. If this goes through, wants to see a third party to monitor the beach for replenishment. Mr. Perry said this is the exact project constructed further to the south on multiple properties. The cobble berm can be seen to the north in Plymouth.

Keith Jones – family has had property since 1947 in area, has seen substantial changes to the beach. Whatever is used, we can't look at something built 3 years ago. If water continues to rise, it could be prohibitive for anyone to own property on the strand. Also wants to come down hard on enforcement. Who is going to define the toe, since it changes yearly.

Gregory Cummings, 8 Indian Trail – bought house 4 years ago, would like to leave a legacy to his kids, behooves him to hear people say they don't care about the land. We love the beach and have people who come to the B & B for the beach. Has paid a lot and is willing to pay more. We all need to come together and work together to take care of this and not attack each other.

Scott Richards, 12 Indian Trail – we all love the beach. Letter talks about full-time residents, lives in Chicago for his job. Family has lived in town for a long time, we are looking to protect the beach.

Palumbo – Commission will need time to review.

Atty. Connolly – we will agree to a continuance to September 3rd.

Craig Rheinhardt – requested the applicant develop a monitoring plan, beach nourishment, cost, treatment of the bank and revetment maintenance and what that would entail. Material should be submitted to the board before the meeting.

Perry – we can provide, bank is sort of a moving target and may be different now than when we go to construct.

Holmes moved and seconded by Ligor to continue to 9/3 at the applicant's request. Unanimous vote.

## **Certificate of Compliance**

1)Mark & Mary O'Donnell DEP File Number SE7-1796 Barbara Frappier, Warwick & Associates, Inc. 6 Quiet Cove Lane, Monument Beach

Construct an addition and renovate existing dwelling, including new Titel V septic system, mitigation planting, grading, landscaping, utilities and other appurtenances within AE and VE Flood Zones, within 100 feet of a Wetland Resource Area and within the 200 foot Riverfront Area

Brendan Mullaney – site inspection was made, compliance has been determined and recommends the board to grant Certificate.

Weston moved and seconded by Holmes to grant Certificate of Compliance. Unanimous vote.

#### **Other Business**

None.

### Adjourn

Palumbo moved and seconded by Craig Rheinhardt to adjourn. Unanimous vote. Meeting adjourned at 9:30 pm.

Respectfully submitted – Lisa Groezinger, sec.