

**October 1, 2012**

**The regular meeting of the Mayor and Council of the Borough of Bay Head was held on October 1, 2012 at 7:00 pm in the Council Chambers of the Borough Hall.**

**Mayor Curtis called the meeting to order and welcomed everyone. He asked everyone to stand and join in the Pledge of Allegiance to the Flag.**

**The roll was called for attendance. Present were Mayor Curtis and Councilmembers DeFilippis, Green, Barnes, Glass, Magory, Lyons and Borough Attorney, Jean L. Cipriani.**

**Mayor Curtis read the following statement:**

**Ladies and gentlemen, pursuant to the applicable portions of the New Jersey Open Public Meetings Act, adequate notice of this meeting has been given. This meeting is listed on an annual schedule of meetings of this Governing Body which was posted in the main corridor of the Borough Hall and was published in *The Ocean Star*.**

**Councilmember Barnes moved to approve the minutes of August 20, 2012 and September 4, 2012. The motion was seconded by Councilmember Green and pass on roll call vote. YEAS: DeFilippis, Green, Barnes, Glass, Magory. Councilmember Lyons did not vote on the August 20<sup>th</sup> minutes but did vote yea on the September 4<sup>th</sup> minutes.**

**Mayor Curtis stated the evening would begin with a presentation and asked Councilmember Green to make the introduction.**

**Councilmember Green introduced Thomas O. Herrington, Ph. D, Associate Professor & Assistant Director at the Center for Maritime Systems, Stevens Institute of Technology and his associate Omar Lopez who conducted a study last year on our beaches and groin system.**

**Dr. Herrington: This study was conducted under New Jersey Coastal Funding Bill, which provides Stevens Institute of Technology 2 percent of stable funding monies for shore protection, which allows us to work on behalf of the municipalities for issues with coastal protection, coastal sustainability and coastal processes they may have. This kind of project falls right into what our service was set up to do. We have worked with the Borough on three other issues. We were approached to take a look at the situation with Karge Street and a repair at Mount Street. At this time, we decided that it would be better to look at the entire system as a whole to understand how the groins, individually and combined, interact to stabilize the shoreline here along the Boroughs beaches. The study started with the historic shoreline information that is available here, the NJ DEP data base of shoreline position which goes back to 1842 up through the 1970's and then we have 20 aerial photographs we have looked at up to 2010. What we used this information to do was to look at the long-term shoreline change which, most people living in New**

Jersey realize their shorelines are eroding. So over time there has been a recession of the shoreline from Cape May to Sandy Hook and that shoreline recession varies depending on where you are. We have seen recession of maybe 150 feet between 1868 and the worst in 1944 for this area. We have seasonal changes and there's a natural fluctuation of 25 to 50 feet. We also know if you go out and look at the structures at any given time you can see a buildup of sediment on one side of them and a recession on the other. That is due to wave climate and for the most part the transfer of sediment here moves from south to north over the long term although that can reverse. We've used these two pieces of information, the long-term shoreline recession and this kind of oscillatory change across the structure, to do a mathematical analysis of the data. What the mathematical analysis does is that it looks for patterns in the data and it determines which is more important, the long term recession or the oscillation around the structures. As it turns out 66 percent of the changes we see on your coast are due to long-term recession. The other 20 percent is related to the groin structures themselves. The two that have the most significant impact on your beach are the Howe Street groin and the Osborne Avenue groin. The groins were originally put in place in the 1920's. Some disappeared for awhile, some were rebuilt in different places so that by the 1940's you had the groin field you have here today. The Howe Street groin was significantly reinforced in the 1960's. The other groins Karge – the wooden ones are really efficient at stopping the sand when it tries to move the other way. The last 5 percent of the shoreline viability occurs when the small groins catch the sand that tries to move from north to south. The groin field itself, when you look at the whole groin field, has certainly stabilized the shoreline for your beach. We can see that when we look up drift and down drift. It's our recommendation that because they are functioning, that we maintain what we have. That would benefit the Borough in the long-term. It would be best for the Borough to put effort into fixing and maintaining the current groin fields, which have effectively helped to maintain the shoreline over the years. We would suggest the Borough get involved with a program the U.S. Army Corps of Engineers newest shoreline change model system, called the Coastal Model System, which helps evaluate groin fields. The positive is, that it is the top of the line evaluation systems but it is still being refined. Omar has been working with the model and plans to use it to simulate, in a computer model, what would happen if we changed the groin field.

**Councilmember DeFilippis:** Some of the groins north of us, Spring Lake, Sea Girt when they did the replenishment they notched those groins. How is that different than what you are saying here?

**Mr. Herrington:** The difference with that project is that they have a long term shore line nourishment program in Monmouth County. They know the sand will move north and every six years they will go in and rebuild the beach. The groins in Monmouth County were never built as a group but as individual projects.

**Councilmember DeFilippis:** Wouldn't we want to do the same by notching the groins to allow the sand to move equally?

**Mr. Herrington:** Yes, you could. Most are low enough and you do have transport across the groin except for Howe Street. That is the one we are interested in looking at and if it would be notched you could create a more uniform shoreline but I would hesitate to say that is the answer. For certain the communities to the south side would see a reduction in beach width and we want to make sure that reduction isn't going to be significant enough to create problems where you didn't have them before. I think you saw that with the collapse of the groin at Harris/Bridge Street.

**Councilmember Green:** The Karge Street groin is in need of repair. Should timber be used or are there other applications that are now being looked at for groin repair?

**Dr. Herrington:** With slat structures like that, steel is sometimes used but in a marine environment that is a challenge. Some have tried a plastic type panel but they bend a lot more. The next stage up is to cover with rock and that makes a much more significant structure. The research now looks at groins to be low profile – able to be over top but high enough to maintain enough sediment to keep your shore line as stable as you can. What you have for most of your groin system functions very well and that would be something that you would want to maintain.

**Councilmember Magory:** As I understood from your report, the groins we have, with the exception of Howe Street, are really functioning in the way you would expect modern groins to be designed where they are slowing the movement of sand and allow the passage of sand. The only thing that we could expect from groins is to try and stabilize what we currently have not really increase the amount of sand on the beach and we are still going to experience, no matter what we do, that 60% erosion that is a natural occurrence along the New Jersey coast. The Howe Street groin maybe giving us an issue in the way it is designed today and I don't know whether or not the other groins north of that are stopping some of that erosion.

**Dr. Herrington:** It does a little bit. Right now the size of the Howe Street groin kind of overwhelms the groins to the south so their contribution is quite low.

**Councilmember Magory:** How much beach have we lost over the last 50 years?

**Dr. Herrington:** Approximately 60 feet, in part due to things like sea level rising along with long term erosion.

**Mayor Curtis called for Reports of Standing Committees.**

**Councilmember DeFilippis, Public Works, had no report.**

**Councilmember Green, Parks, Grounds and Recreation, had no report.**

**Councilmember Magory:** So the primary focus then is how or whether or not something should be done with Howe.

**Dr. Herrington:** This time we were asked to focus on Karge to see if that should be repaired and we did find that it does play a role in stabilizing the north beach. The Howe Street groin and it does show up as the most significant structure.

**Councilmember Magory:** So the purpose of what we should look for is to stabilize as much as we possibly can because natural erosion is still going to occur and, no matter what happens, we're going to lose beach here.

**Dr. Herrington:** Most of the coast line in Ocean County is under Federal study. Should one of those projects be built, the benefit to you is that material may end up here. As of now there are no funded projects.

**Mayor Curtis:** How difficult would it be to break down the Howe Street groin and distribute some of those rocks to Karge or some other groin?

**Dr. Herrington:** It could be done – they are heavy – not sure of the cost.

**Mayor Curtis:** Would it help to move them?

**Dr. Herrington:** I would think the easiest and most beneficial thing to do would be to repair the wooden groin at Karge.

**Mayor Curtis:** What would happen if we were to just let it further deteriorate and ultimately go away?

**Dr. Herrington:** You would lose the stability, the material would go to Osborne and the beach would recede over the long term so you would have a narrow beach there.

**Councilmember Green:** There is a groin between Karge and North, which appears occasional but is often buried, is it functioning at all?

**Dr. Herrington:** Only when it is exposed.

**Councilmember Lyons:** What is more important in the retention of sand, the length of the jetty or space in between the jetty?

**Dr. Herrington:** It is the spacing and length. In a perfect world you could design the width of beach you want by how far apart the groins are, how long and how high. In this case we know we don't have any sediment in the system so here we look to design the less impact able system. Optimal would be 1,000 foot spacing between and we don't like to bring the tips past the seasonal fluctuation of the sand bars.

**Mayor Curtis** opened the discussion to the public.

**Bob Applegate, Bridge Avenue:** Osborne groin is now beginning to deteriorate and needs attention. I was on Council a number of years ago and we had the same issue and without repairs there could be legal issues. You need to make a decision – either take them out or repair them.

**Tom Gage, 49 Twilight Road:** Bay Head has a lot of history which we can assist you with – we had a very bad experience with notching a groin at Harris Street. We tried to put a geo tube in and it lasted about a month until that broke through. Finally when that was repaired about four or five years ago that beach rebuilt itself. Karge Street broke through about eighteen years ago quite severely. The two houses north of Harris Street totally washed out almost to the front – we had to close that beach off because it was so bad. Once that was repaired the beach came back quite rapidly. The last two years the narrowest beach we have had in town is south of Karge down to Harris Street. Fifty years ago Bay Head beaches were 1/3 the size that they are today. You could not walk from Osborne Avenue to North Street at high tide. Where the dunes are now was a boardwalk. At high tide you had to sit under the boardwalk because there was no beach to sit on. Bay Head has actually built up and I feel it has a lot to do with the groin system that we put in 1962. I am very much in favor of making repairs because we have the history of where we did make repairs it worked and where we haven't repaired we have a problem.

**Dr. Herrington:** I agree. I think your system is completely now in tune with the structure. For better or worse it is not a natural beach any longer.

**Joe Goryeb, 345 East Avenue:** I attest to what you are saying about the narrowest stretch of beaches right where we are. This summer during a high tide there was virtually no dry sand for sunbathers. I don't think it is an accident and I took a picture of the groin this morning at Karge and it is more of a hole than a groin and it is deteriorating very rapidly over the years. We have been talking about this for awhile. I strongly urge you to move forward.

**Stan Niedzwiecki, 42 Johnson:** If the problems what we have could be corrected by the Army Corps of Engineers extending the inlet another mile out into the Atlantic, would that help us at all?

**Dr. Herrington:** It would create a significant issue on the Manasquan side. I am not sure there is a federal interest in doing that.

**Councilmember DeFilippis:** They did exactly what Stan is talking about at the Barnegat Inlet.

**Dr. Herrington:** That was done for navigation safety issue.

**Bob Hein, 204 East Avenue:** Glad to hear your presentation. Meetings years ago the consensus I was drawing was that groins are bad, the beach will come and go as is. I am hearing a different discussion here which is one I always believed is that the groins do exactly what you say

**they do. Osborne groin is starting to come apart. The jetties really do count and now is the time to fix what we have.**

**Councilmember Green: Thank you Dr. Herrington and Mr. Lopez for your time this evening. This has been a very informative, very helpful presentation. We appreciate you coming down and spending the time this evening with us. Also thank your team who did the surveying.**

**Mayor Curtis: We would also like to thank the residents who came because they are very interested in this beach.**

**Mayor Curtis called for Committee Reports.**

**Councilmember Barnes, Legal and Planning, had no report.**

**Councilmember Glass, Public Safety, read the monthly Police Report. A copy of the report is attached to these minutes.**

**Councilmember Glass: Chief how was the drug take back?**

**Chief Hoffman: It was very light.**

**Councilmember Magory, Public Services, read the Zoning Officer and Construction Official report for the month of September. A copy of the report is attached to these minutes.**

**Councilmember Lyons, Finance, had no report.**

**Mayor Curtis called for Clerk's Correspondence.**

**Mrs. Applegate offered a request from the Bay Head Business Association for permission to hold their annual Halloween Parade on Sunday, October 28<sup>th</sup> 11:30 am to 1 pm.**

**Councilmember Glass moved to approve the request. This motion was seconded by Councilmember Magory and passed on roll call vote. YEAS: DeFilippis, Green, Barnes, Glass, Magory, Lyons. NAYS: None.**

**Mayor Curtis called for Unfinished Business.**

**Councilmember Barnes: Over 300 residents have registered for the Instant Emergency Alert system. I want to encourage everyone to do so. If you need assistance please contact me.**

**Councilmember DeFilippis: Tomorrow Bob Hein and three others are going to pick up the 1996 2½ ton emergency vehicle which we are obtaining from the US Government.**

**Mayor Curtis: This will replace the big blue truck and will be stored under cover at the recycle center.**

**Mayor Curtis called for New Business and Resolutions.**

**Councilmember Lyons: Each of you has received and reviewed the 2012 Best Practices Inventory Program Checklist for CY 2012/SFY 2013. I want you to know our town has passed with flying colors and will receive 100% State Aid funding.**

**Councilmember Lyons moved authorizing the Municipal Clerk to submit the Best Practice Public Meeting Certification Form that the Governing Body has reviewed the completed Best Practice Inventory at a public meeting. The motion was seconded by Councilmember Magory and passed on roll call vote. YEAS: DeFilippis, Green, Barnes, Glass, Magory, Lyons. NAYS: None. A copy of the worksheet and certification form is attached to these minutes**

**Councilmember Barnes offered Resolution 2012-111 designating official depositories for the Borough of Bay Head.**

**Councilmember Green offered Resolution 2012-112 authorizing the acceptance of \$1,000 donated by Kate Shea Foundation for 2012 to be used as part of the 2012 Mayor's Wellness Campaign known as "Go Bay Head".**

**Councilmember Green offered Resolution 2012-113 authorizing the acceptance of \$1,000 donated by Kate Shea Foundation for 2012 to be used to purchase police bullet-proof safety vests and promote the community's focus on officer safety.**

**Councilmember DeFilippis offered Resolution 2012-114 authorizing the execution of addendum no. 2 to the contract with Stacey Contracting, Inc., for design and construction services for the 2010 Sanitary Sewer Rehabilitation Project – Lake Avenue.**

**Councilmember DeFilippis offered Resolution 2012-115 approving the submission of a grant application and execute a grant agreement with the New Jersey Department of Transportation for roadway improvements to Western Avenue, Holly Avenue, Karge Street, Goetze Street, Twilight Road, Bristol Place and Clayton Avenue.**

**Councilmember DeFilippis offered Resolution 2012-116 awarding a contract to T & T Commonwealth Construction Co., Inc. for 2012 Sanitary Sewer Clean-Out Installation Route 35 corridor.**

**Councilmember DeFilippis offered Resolution 2012-117 authorizing the execution of an addendum to the contract with Brick Township Municipal Utilities Authority for Design and Construction Management Services for the 2010 Sanitary Sewer Rehabilitation Project – Lake Avenue.**

**Councilmember Glass offered Resolution 2012-118 authorizing the receipt of bids for the purchase of one (1) 2012-2013 rescue style engine/pumper for Bay Head Fire Co. #1.**

**Councilmember Lyons offered Resolution 2012-119 authorizing refunds for overpayments of property or sewer taxes.**

**Councilmember Barnes offered Resolution 2012-120 amending Resolution 2012-75 providing for salaries and compensation of Borough Officials and employees for 2012.**

**Councilmember Barnes offered Resolution 2012-121 support of the passage of A640/S180 by the Legislature.**

**Councilmember Green moved the above resolutions be approved. The motion was seconded by Councilmember Glass and passed on roll call vote. YEAS: DeFilippis, Green, Barnes, Glass, Magory, Lyons. NAYS: None. A copy of each resolution is attached to these minutes.**

**Mayor Curtis opened the meeting for Public Discussion.**

**Councilmember Green thanked everyone for their participation and interest in the presentation by Dr. Herrington.**

**Bob Applegate: I would like to thank D'Arcy Green, Mayor and Council for having Dr. Herrington here tonight, he gave an excellent presentation. I know it is a constant issue debating the groins and what to do with them but I personally think they serve a purpose. Bay Head is a seashore resort and the beach is a tremendous asset to the town and maintaining the beach to its maximum – I think it really helps to retain the property values of our homes in town – it makes the town a very special place.**

**Mr. Niedzwiecki: Councilmember Green tonight you offered two resolutions giving a total of \$2,000 from Kate Shea – where is the other \$2,000?**

**Mayor Curtis: Fire and First Aid.**

**Mr. Niedzwiecki: Councilmember Glass – is there going to be a committee reviewing the bids that come in for the fire truck?**

**Councilmember Glass: Yes.**

**Mr. Niedzwiecki: Who is on the committee?**

**Councilmember Glass: Myself, Mayor, John DeFilippis, Fred Applegate, Chief.**

**Mr. Hein: Should we look into some sort of projection machine for presentations?**

**Councilmember Green: It is only occasionally that we need it and it is very expensive. In the past, if we have known ahead of time the equipment is borrowed from Bay Head School.**

**Councilmember Magory: I have some equipment and I will donate it.**

**Mr. Niedzwiecki: We do need an audio system.**



**Councilmember Green: We are starting our budget sessions and that is on the list. We have received one proposal and if we have a few pennies we may have it before the end of the year.**

**There being no further comments Councilmember Lyons moved to approve the vouchers for payment, which motion was seconded by Councilmember Glass and passed on roll call vote. YEAS: DeFilippis, Green, Barnes, Glass, Magory, Lyons. NAYS: None. A list of the vouchers is attached to these minutes.**

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**Patricia M. Applegate, RMC  
Municipal Clerk**

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**William W. Curtis, Mayor**