

**CRC Study of Feasibility and Advisability of the Use of Terminal Groins**  
**Public Hearing #2**  
**Kill Devil Hills Town Hall**  
**December 16, 2009**

Jim Gregson, Director Division of Coastal Management, welcomed all in attendance and stated this is the second of five public hearings on the terminal groin study that was mandated by House Bill 709. The contractor the Department hired to conduct the study, Moffatt and Nichol, will have a brief presentation and then the public hearing will be opened. CRC Commissioner Renee Cahoon will be the hearing officer. DCM Staff, the contractor and a subcontractor will be available to answer questions after the hearing.

Johnny Martin of Moffatt and Nichol stated direction was given to the Coastal Resources Commission in House Bill 709 to conduct a study on the feasibility and advisability of the use of terminal groin structures as erosion control devices. The items listed in the Bill to be considered during the study were the scientific data regarding the effectiveness of terminal groins constructed in North Carolina and other states in controlling erosion, scientific data regarding the impact of terminal groins on the environment and natural wildlife habitats, information regarding the engineering techniques used to construct terminal groins, current and projected economic impacts, costs of construction and maintenance of terminal groins, and whether the potential use of terminal groins should be limited to navigable dredged inlet channels. The legislation asked for three public hearings but we will conduct five. A report is due no later than April 1 to the ERC and the General Assembly. Moffatt and Nichol will lead the study performing the coastal engineering tasks, Dial Cordy will help with the environmental portion, Dr. Duncan Fitzgerald of Boston University will help with the coastal geology aspects, and Dr. Chris Dumas will help with the economics. The CRC and CRAC have been involved and have provided guidance to the project team during the study. The project team is responsible for coming up with technical study to look at the effectiveness of these structures. The CRC and CRAC will take the study and make the final policy recommendations. The Science Panel has been helping with the study. They have helped select the sites that will be studied and have done peer review on the methodologies on the aspects of the different tasks. Oregon Inlet and Fort Macon are the sites selected in North Carolina. John's Pass, Captiva Island and Amelia Island are the sites selected in Florida. The Division has a section on the Coastal Management website under "What's New" which has all of the information loaded. Any written comments should be sent to Jim Gregson. A draft report will be out by February 1. The final report will be submitted to the CRC by March 1. The CRC and CRAC will have their recommendations for the ERC and General Assembly by April 1.

Jim Gregson stated the schedule of upcoming science panel meetings, the upcoming public hearing dates, CRC meetings, and any comments received are on the DCM website.

Renee Cahoon stated she urges everyone in attendance to speak tonight. There were only originally three public hearings and Dare County was added later. *The public hearing was opened at this time and the following comments were received.*

Jan DeBleu, Cape Hatteras Coastkeeper for the North Carolina Coastal Federation, stated I would like to thank you and others who made it possible for the hearing to be held in Dare County because we were being left out at one point. I wanted to start by saying that our understanding at the Coastal Federation is that the study is to look at terminal groins at the end of islands and not at the end of littoral cells. There was some question about that. A littoral cell could be on a beach. But as made clear in a letter by Senator Basnight to the CRC the intent of the legislation became very clear. Terminal groin means at the end of an island such as the terminal groins at Ocean City Maryland or at Oregon Inlet. These are terminal groins. At the end of beach it is just a groin. There are massive differences in what that means. Are we looking at stabilizing inlets, stabilizing the end of islands, or are we looking at embarking on a rocking the beach project like they have in New Jersey and Maryland and places to the north? I wanted to enter into the hearing some documents. The first document is from the terminal groin built in Ocean City Maryland on the inlet 1934-1935. It caused severe erosion on Assateague Island to the South to the point that Assateague Island actually eroded inland. Where you once had barrier islands out even with each other on a longitudinal line, now Assateague Island is much further over to the west because of the erosion caused by the terminal groin at that inlet. This document has photos that show this. Some other documents that I found that are not known quite so well to the population are the D.O.T. photos of Oregon Inlet taken from 1990, before the terminal groin was constructed, and on into 2006. There are probably some later ones but I haven't unearthed those yet. What I want you to see and to pay attention to here is the very high vegetated area just south of where the terminal groin is being built. It is a very thin area of the island, but you can see very clearly that it is vegetated and stable. In 1990 when there is no groin the system is just fine. The next photo is taken February 1991 when the groin is in the process of being built and will actually extend out into the ocean. You still have a lot of stable vegetation. The next photo was taken in February 2002. The groin is in place and as you can see erosion is starting to develop south of the groin and instead of a stable vegetation line we have dune fields that have been caused by erosion right along the beaches. It may be that there would have been some erosion anyway, but this particular erosion was being caused in spite of the fact that the Army Corps of Engineers has been renourishing this beach from dredge spoil taken from Oregon Inlet. Consistently there have been hundreds of thousands of cubic yards of sand put on this beach and yet the erosion has been absolutely severe downstream from the groin. The next photo is Oregon Inlet in June 2004 and as you can see the vegetation has been overwashed by sand. Finally we have 2006 where you have an entire dune field where you once had stable vegetation. I wanted to submit these tonight as evidence that terminal groins do cause erosion downstream and they will continue to cause erosion downstream. I know that the science panel is looking at trying to do some sort of sand bypass, but it is an uphill climb. The Coastal Federation feels very strongly that the best way to control or manage a barrier island is to allow it to be open and natural.

Bob Oakes, 319 S. Virginia Dare Trail, stated I am the Mayor of Nags Head. To me a picture is worth a thousand words. The Virginian Pilot hit it pretty well with the sandbags that are on the beach in South Nags Head. That is a result of our natural erosion processes at work and the

Town would like to support the potential use of terminal groins and I have a letter to that effect which I will read to you all. It is addressed to Bob Emory, the Chair of the North Carolina Coastal Resources Commission. Dear Mr. Emory, the Town of Nags Head Board of Commissioners supports the study and use of terminal groins as a sand management and beach nourishment preservation tool. In conjunction with a nourishment project a terminal groin has the potential to better protect our beach and retain sand that we've placed on the beach. A terminal groin can be a valuable tool for our community and other coastal communities that seek to preserve their beaches. The State of North Carolina is authorizing constructive terminal groins in select cases. With proper environmental considerations, terminal groins at the end of littoral cells can become a part of our beach and sand management plan for the coast of North Carolina. Please consider the dramatic potential improvement and the effectiveness and longevity of a local beach nourishment project with the addition of a terminal groin to anchor such a project. Sincerely, Bob Oakes, Mayor, Town of Nags Head. A picture is worth a thousand words and this is one of our alternatives if we don't do beach nourishment. With respect to the Senator, the legislation said at the end of littoral cells so I am looking for one at the end of South Nags Head to assist in retaining a future beach nourishment project for the Town.

Willo Kelly stated she is speaking on behalf of Willo Kelly, citizen of Nags Head. I also work for the Outer Banks Association of Realtors and the Outer Banks Home Builders Association as their government affairs director, but those two organizations will be submitting written comments separately. I am here as a citizen, but given the fact that in my job I've been exposed to a lot of meetings on the issue of erosion, beach nourishment, etc. Johnny Martin and I know each other very well due to several meetings over the past year such as the Beach and Inlet Management Plan, Ocean Policy draft report meetings, etc. What struck me as kind of unusual but interesting in developing the Beach and Inlet Management Plan it was based on current state policy which does not allow hardened structures at all. So our current state policy allows beach nourishment or retreat. I think Jan DeBleu mentioned at a meeting that we also need to add in relocate because our options are such now that retreat is not an option and we need to look at relocation. With regard to the statement made by Jan that we need to allow our barrier island to remain natural and open; one of the comments that I made at the Beach and Inlet Management Plan Meetings was that you see a map and see red dots all over and you need to take into account Coastal Habitat Protection Plan and species and we tend to forget the human species factor of all of this. We do live here and people have lived here for years and generations and we tend to overlook that and think the option is to relocate and that is not as easy as it sounds. And it is not as easy as let's go to Hatteras and tell everybody that you need to start thinking of moving now. We need to look at other options that are available to us. Terminal groins are an option as an erosion control measure. I think we certainly need to support that. After that, there are other technological advances out there that are being used in Australia, California, and Hawaii with breakwater systems and whatnot. What is made today is certainly different than what was used in 1935 or 1990. We need to look at how we can look at the balance between man and his environment and protect what we have and allow the human species to survive here. There is infrastructure in place. When do we say enough is enough for that sand to continue to erode and come up to the beach road? Then once it overwashes the beach road then the people on the west side of the highway will see that this is a huge concern and we need to do something now. I am in total support of terminal groins.

John Ratzenberger stated I live in South Nags Head and I didn't intend to say anything, but I'd feel bad if you all didn't get a little something after having made the effort to come up here. Thank you very much for coming. I am not going to offer any emotional advice or any scientific advice or anything, but there are a whole bunch of us down there in South Nags Head who obviously see Mayor Oakes picture on a daily basis. We just kind of wonder in discussing amongst ourselves why a terminal groin at the north end of Oregon Inlet, theoretically terminal groins hold sand in the north and scour on the south, why that wouldn't also solve the problem of Oregon Inlet filling up. We are at the mercy of the Corps of Engineers ever having money to dredge it. If they can't dredge it then all the fishing industry and the boat industry in Wanchese has got problems. From the simple citizen's point of view, that sounds like an ideal test case. It's not at the south end eating up the beach. It's on the north side maybe keeping the inlet clear and letting our fishing boats out in there. We have had to take them all the way down to Ocracoke to get out. You know all the problems there. We are turning all of our fish into Virginia Beach and they get the catch count. It's a bad deal. That is my input. We would love to see an experiment done at the north end of the Oregon Inlet.

Keith Sawyer stated I live at 10351 S. Colony S. Drive in South Nags Head. I am in favor of terminal groins, but they need to be on the north side of Oregon Inlet. Not on the south side on the North end of Pea Island. That's not going to benefit us any. And there needs to be more than just one. One is going to be a great big help, but there needs to be more up the coast to the state line. So I am all in favor for it, but I believe the placement of them need to be at the north end of Oregon Inlet.

The public hearing was closed.