

NC COASTAL RESOURCES COMMISSION (CRC)
September 15-17, 2010
NOAA/NCNERR Auditorium
Beaufort, NC

Present CRC Members

Bob Emory, Chairman

Joan Weld, Vice-Chair (absent 9/17/10)

Chuck Bissette

Renee Cahoon

Charles Elam

David Webster (absent 9/17/10)

Jamin Simmons

James Leutze (absent 9/15/10, 9/17/10, present at 10:15 a.m. 9/16/10))

Melvin Shepard

Ed Mitchell (absent 9/17/10)

Lee Wynns

Bill Peele (absent 9/16/10, 9/17/10)

Jerry Old (present at 3:20 p.m. 9/15/10)

Present CRAC Members

Dara Royal, Chair

Frank Rush (Co-Chair)

Bob Shupe

Charles Jones

Tim Tabak

Richard Newman

Dave Weaver

Bill Morrison

Wayne Howell

J. Michael Moore

Harry Simmons

Debbie Smith

Judy Hills

Tracy Skrabal

Spencer Rogers

Joe Lassiter

Lee Padrick

Anne Deaton

Phil Harris

Travis Marshall

Present Attorney General's Office Members

Jennie Hauser

Allen Jernigan

Ward Zimmerman

CALL TO ORDER/ROLL CALL

Chairman Emory called the meeting to order and reminded Commissioners of the need to state any conflicts due to Executive Order Number One and also the State Government Ethics Act. Commissioners Bissette, Cahoon, and Simmons read their Evaluation of Statements of Economic Interest as required by the State Ethics Commission.

Angela Willis called the roll. Veronica Carter, Patrick Joyce, and James Leutze were absent. There were no conflicts or appearances of conflict declared by Commissioners. Based upon this roll call, Chairman Emory declared a quorum.

MINUTES

Melvin Shepard made a motion to approve the July 15, 2010 CRC meeting minutes. Ed Mitchell seconded the motion. The motion passed unanimously (Weld, Bissette, Cahoon, Elam, Webster, Peele, Shepard, Mitchell, Simmons, Wynns) (Old absent for vote).

EXECUTIVE SECRETARY'S REPORT

DCM Director Jim Gregson gave the following report.

Hurricane Earl

Hurricane Earl had little impact on the coast when it came through earlier this month. Although it was a very large storm, Earl only brushed the coast, causing no significant damage or beach erosion. Bald Head Island will be providing an update as there was more erosion than what we initially thought. Highway 12 in the Outer Banks did require some minor repairs, and DCM staff worked with DOT to quickly obtain any needed CAMA authorizations. Prior to the storm, DCM closed five coastal reserve sites to visitors in an effort to protect public safety. Four of those sites were reopened the day after the storm passed, and the final one, Buxton Woods on Hatteras Island, was reopened the following week once staff were able to assess damage and clear some roads and trails. Although the hurricane did not turn out to be a significant problem for North Carolina, I am very proud of the way DCM staff prepared for the storm and their quick action to assess damages. We are currently keeping an eye on the projected tracks for Hurricanes Igor and Julia, although right now it does not look like they will impact North Carolina.

NOAA Meeting

North Carolina will host the NOAA Southeastern Regional Meeting here on Pivers Island November 8-10. This meeting was formerly known as the Southern and Caribbean Regional meeting that involves the southeastern states, the Gulf states and the Caribbean territories. Due to a lot of states not being able to travel, NOAA felt it was prudent to scale it back to just the southeastern states. This meeting will bring together coastal managers from North Carolina, South Carolina, Georgia and Florida, plus officials from NOAA, other federal agencies and local government officials. The meeting will allow coastal managers to share information and hear from their colleagues on important regional and national issues.

Aquarium Public Meeting

DCM's public beach and coastal waterfront access grant program has recently received a grant proposal from the NC Aquarium. The request would help the Aquariums acquire a parcel of land along the oceanfront in Carolina Beach with the intended purpose being the construction of an ocean educational fishing pier. The CRC will hold a public hearing on Wednesday, October 20 from 6:00 – 7:00 p.m. at the Carolina Beach Town Hall, Council Chambers, to receive comments for consideration by DENR. A copy of the grant application is available for review at the Carolina Beach Town Hall, the NC Aquarium at Fort Fisher and on DCM's website.

Take a Child Outside/Estuaries Day

Later this month, DCM's Coastal Reserve Program will offer field trips to the Rachel Carson component of the North Carolina National Estuarine Research Reserve in recognition of Take a Child Outside Week and National Estuaries Day. These events are free, but reservations are required. On September 25, in partnership with the North Carolina Maritime Museum, the Reserve Program will host a National Estuaries Day and National Public Lands Day celebration

at the Maritime Museum at 315 Front Street in Beaufort. The event includes a variety of activities for all ages, including a field trip to the Rachel Carson Reserve, a Big Sweep estuary clean-up, and an education tent. In celebration of Take a Child Outside Week, nature hikes will be offered from 4:00-5:00 p.m. September 27-29. Participants will leave from the reserve facility here on Pivers Island and take a short boat ride to the Rachel Carson Reserve. Once on the island, participants will observe some of the unique estuarine habitats, plants and animals found there. Each trip will be led by the reserve's education staff. Contact the Rachel Carson reserves staff to make reservations for either event.

NOAA Launches Coastal Interviews from the States

NOAA's National Ocean Service Website has launched a series of interviews the Office of Ocean and Coastal Resource Management did with several Coastal Zone and National Estuarine Research Reserve Managers entitled *America's Coasts...A View from the States*. In the series, these managers share their perspectives on the value and challenges facing our nation's coasts. The first interview, *A Glimpse of the Coast*, features N.C.'s Reserve Manager, Rebecca Ellin. The interviews can be accessed on NOAA's website.

Eddy Davis

Coastal Resources Advisory Council member Eddy Davis, who represented the Mideast Commission, passed away unexpectedly in June. Eddy was involved in the planning profession in North Carolina for close to 20 years most recently as Planning, Economic Development and Community Services director for the Mid-East Commission in Washington, N.C. and also as a planner for the Pitt and Johnston County planning departments. The Division staff would like to extend its sincere sympathy to Eddy's family and friends.

Staff News

Please join me in congratulating Buckridge Reserve site manager Woody Webster and his wife Katie on the arrival of their son Samuel Lee on August 7. DCM staff would like to extend our deepest sympathy to Elizabeth City planner, Charlan Owens, on the death of her father.

CHAIRMAN'S COMMENTS

Chairman Emory stated we will be reviewing the report of the Coastal Habitat Protection Plan. Anne Deaton will make the report and this will require Commission action. We had a rescheduled stakeholder meeting on sandbags this morning. We received a lot of good input from a number of different people on options that we can consider as we determine our next steps on sandbags in North Carolina. We have a couple of interesting and challenging topics on our agenda for this meeting. Dave Owens will be here from the North Carolina School of Government to discuss the CAMA Statute and achieving a balance between economics and environmental protection.

VARIANCES

Urbon (CRC VR-10-04) – Ocean Isle Beach, Oceanfront Setback

Ward Zimmerman of the Attorney General's Office represented Staff. Mr. Zimmerman stated this variance request is about an ocean setback requirement and an exception to the general ocean setback rule for a single family residence. The residence is on Ocean Isle Beach, Brunswick County. Mr. Zimmerman reviewed the stipulated facts of this variance request. The

setback for this residence would be sixty feet. A static vegetation line exception has been applied for by Ocean Isle Beach and was granted by the CRC. This exception states that no portion of a building or structure including roof, overhangs and elevated portions that are cantilevered, knee-braced or otherwise extended beyond the support of pilings or footings extend oceanward of the landward most adjacent building or structure. The Petitioners purchased their property in 2002. Their property is in an ocean hazard area of environmental concern. The Town of Ocean Isle Beach came before the CRC in January 2010 and was granted a static line exception. At that point this property went from being unbuildable to buildable. Staff and Petitioners disagree on all four statutory criteria. Mr. Zimmerman stated that Mr. Urbon is present today.

Mr. Urbon stated I have worked with the Town of Ocean Isle Beach to move the line back to be in line with the home to the east. My home is 850 square feet but also includes a 165 foot deck. A twenty-two foot depth is not normal for a 2010 house and is not economically feasible. It would be hard to get financing. It is not a big enough house for the area. The intent of this rule is to allow people to build a normal home under 2,500 square feet. I intend to build only a 2,200 or 2,300 square foot home plus some porches. I disagree with the Staff on the criteria. My conditions are peculiar due to the house next door and this is the cause of the hardship to my property. I bought the house and it was not rebuildable. I appreciate the fact that it is rebuildable now and I have waited eight years for that. I knew when I bought the property that it would be possible to improve it. I did not create this hardship. I would like the CRC to approve the proposal as I submitted it because I believe it is reasonable.

Joan Weld made a motion to support Staff's position that strict application of the rules would not create an unnecessary hardship. Melvin Shepard seconded the motion. The motion passed unanimously (Peele, Mitchell, Webster, Simmons, Wynns, Weld, Shepard, Elam, Cahoon, Bisette, Old).

Joan Weld made a motion to support Staff's position that hardships do not result from conditions peculiar to the property. Melvin Shepard seconded the motion. The motion passed with nine votes in favor (Peele, Webster, Simmons, Wynns, Weld, Shepard, Cahoon, Bisette, Old) and two opposed (Mitchell, Elam).

Melvin Shepard made a motion to support Staff's position that hardships result from action taken by the Petitioner. Joan Weld seconded the motion. The motion passed unanimously (Peele, Mitchell, Webster, Simmons, Wynns, Weld, Shepard, Elam, Cahoon, Bisette, Old).

Joan Weld made a motion to support Staff's position that this variance request is not consistent with the spirit, purpose and intent of the rules, would not secure the public safety; and would not preserve substantial justice. Melvin Shepard seconded the motion. The motion passed unanimously (Peele, Mitchell, Webster, Simmons, Wynns, Weld, Shepard, Elam, Cahoon, Bisette, Old).

This variance request was denied.

Town of Sunset Beach (CRC-VR 10-06) – Dredging for Boat Ramp

Ward Zimmerman of the Attorney General's Office stated Mike Isenberg, Attorney for the Town of Sunset Beach, and Gary Parker, Town Administrator for the Town of Sunset Beach, are both present. Mr. Zimmerman stated the Town of Sunset Beach is asking to build a public boat access in a primary nursery area. This access will be in the place of the old swing bridge. The specific rule that is at the center of this issue is 15A NCAC 07H .0208(b)(1) which states navigation channels, canals and boat basins shall be aligned or located so as to avoid primary nursery areas, shellfish beds, and beds of submerged aquatic vegetation. This area is considered a primary nursery area. This project is situated within three AEC's. The Town of Sunset Beach owns the property and they have an adjoining piece of property that will come together at the conclusion of the new bridge being built by the state that will total 1.77 acres. This would be the only true public water access for the Town of Sunset Beach. The Town of Sunset Beach has been working with the North Carolina Wildlife Resources Commission. Staff is in agreement with the Town on all four statutory criteria and supports the proposal as proposed.

Mike Isenberg, Attorney for the Town of Sunset Beach, stated I represent the Petitioner. We believe the memorandum prepared by Mr. Zimmerman along with the stipulated facts and the response from the Division of Coastal Management sets forth the basis for the request and shows that we do meet the statutory criteria for the issuance of the variance. This is a project that the Town has proposed in partnership with the Wildlife Resources Commission. The WRC is involved in designing and constructing the project. Mr. Isenberg reviewed the stipulated facts which he contends supports the granting of the variance request. The entire shoreline of the Atlantic Intracoastal Waterway within the Town of Sunset Beach is primary nursery area. The only public water access that we have in the corporate limits of Sunset Beach has been removed by the State of North Carolina in the construction of the new bridge. The old swing bridge will be removed and the proposed boat ramp will be located within the footprint of the old swing bridge. Marsh land will be restored and will increase other primary nursery area when the swing bridge is removed. The DMF does not oppose this project as long as the excavation takes place within the footprint of the old bridge. The WRC does not oppose the project due to the already disturbed nature of the site. No adjacent property owner has objected to the project. DCM has agreed that we meet all four criteria. The Town believes public safety will be promoted by improved parking at this previously unimproved access site. Without the project there will be very little availability of public water access in our area. Granting this variance will also promote the public water access goals of the State as expressed in CAMA.

Chuck Bissette stated that this project has not gone out for bid. Commissioner Bissette stated that his company would likely bid on the construction. To avoid a conflict of interest or an appearance of conflict, Commissioner Bissette recused himself from discussion and voting.

Melvin Shepard made a motion to support Staff's position that strict application of the rules will cause the Petitioner unnecessary hardship. Jerry Old seconded the motion. The motion passed unanimously (Peele, Mitchell, Webster, Simmons, Wynns, Weld, Shepard, Elam, Cahoon, Old).

Renee Cahoon made a motion to support Staff's position that hardships result from conditions peculiar to the petitioner's property. Ed Mitchell seconded the motion. The motion passed unanimously (Peele, Mitchell, Webster, Simmons, Wynns, Weld, Shepard, Elam, Cahoon, Old).

Melvin Shepard made a motion to support Staff's position that the hardships do not result from actions taken by the Petitioner. Jerry Old seconded the motion. The motion passed unanimously (Peele, Mitchell, Webster, Simmons, Wynns, Weld, Shepard, Elam, Cahoon, Old).

Melvin Shepard made a motion to support Staff's position that the variance request will be consistent with the spirit, purpose and intent of the rules; will secure public safety and welfare; and will preserve substantial justice. Commissioner Shepard added the condition that the shellfish from this location be removed from the immediate area. Bill Peele seconded the motion. The motion passed unanimously (Peele, Mitchell, Webster, Simmons, Wynns, Weld, Shepard, Elam, Cahoon, Old).

This variance request was granted.

PRESENTATIONS

Terminal Groin Discussion

Bob Emory

Chairman Emory stated Renee Cahoon asked at the last Commission meeting if we could revisit the terminal groin discussion. This will be a discussion to allow Commissioners to give their perspective on what our report to the ERC said. Renee Cahoon stated in March we had a six hour discussion on the terminal groin report. She further stated that she believed that we were taking a stand either for or against terminal groins which was why we had an 8-5 vote. In speaking with some members of the House there is a belief that the CRC did not give a recommendation. Renee stated that she takes exception to that because we did give some positive statements and asked that if it was the desire of the General Assembly to lift some of the limitations then certain factors should be effectively met. We are limited with the tools in our toolbox in the State of North Carolina and the Senate has twice passed some groin legislation. The House has not passed it. Renee stated that she is prepared, in her role as Commissioner, to give them a recommendation. We spent \$240,000.00 plus and made no recommendation and as a tax payer I would not endorse that. We made a statement that "terminal groins have been shown to be able to anchor the ends of barrier islands adjacent to inlets if associated with long term beach maintenance. They can likely protect some property at risk, but not all properties." That is a positive statement because we specifically studied inlet areas. I speak from the viewpoint of representing local governments and there are local governments here today that would like to see us take some action even if it is to permit through the variance process, should the General Assembly decide to give us that mechanism. All inlets in North Carolina have been manipulated and are not natural anymore. In this time of economic duress as well as climate change we are all seeing the effects that one tool in the toolbox does not necessarily meet the needs of all the communities. We are having a sandbag discussion and we all realize that sandbags are temporary and in some cases cause just as much damage as they do protection. We

need to be more active in our endorsement or non-endorsement instead of a middle of the road approach.

Chairman Emory stated this was a report on a report without recommendation. The General Assembly made the use of hardened structures along the North Carolina shoreline illegal. Prior to that it was within the CRC's purview and we had regulations that didn't allow them, but we could have allowed them through a variance. Last year the General Assembly directed us to do a study on the advisability and feasibility of groins. They gave us very little time and no money to accomplish the study. The Department had to scramble to find some money. The contractor did a good job, the Division did a good job, the Commission did a good job, and the Science Panel weighed in as best as they could in the process. We should remember the limitations associated with that study. We were limited to looking at projects that were already in place and sixty percent of those projects were in other states. In most cases the inlets that were looked at were heavily engineered and heavily managed. It was hard to distinguish the effect of groins from all the other things that were going on in those inlets. There was no new data collected. The data on resource impacts, such as birds and fish, was limited because the sites that we studied were construction projects. They didn't necessarily collect the data that would have been helpful to do a full analysis. That is one of the reasons that our findings were inconclusive. Some of the questions we were asked had little or no data available to answer them. The study in the end was inconclusive. Terminal groins can anchor the ends of islands. That was made clear in the report and I don't think anyone doubts that. On the other side of the inlet, the report said that the results are hard to predict. The report said that on the side of the inlet where the groin was placed erosion was decreased or accretion took place, but on the other side the impacts were mixed. We also learned that groins are expensive to put in and very expensive to remove. That told me that doing a study in a hurry with limited money ran into a lack of data and it is not anything to lead me to believe that we should abandon our long-standing approach to hardened structures on the shoreline of North Carolina which has been to not allow them. The CRC basically told the General Assembly if they want to see groins in North Carolina then there are some things that they should think about and there are some things that they should require.

Melvin Shepard stated the contractor did not recommend anything. I was disappointed in the vote. What I wanted was for it to be more negative. After the vote was taken, I realized that we ended up with a vote just like the report we got. We didn't make a recommendation.

Benjamin Simmons stated that every inlet will have a different result. The CRC gave the report to the General Assembly and said that we have no action because the science is inconclusive. The only way you are going to get conclusive science is to let the town apply for a terminal groin, let them spend the money, do a report and decide whether it is worthwhile or not. We did not take a stance neither for nor against.

Chuck Bissette stated that he thought the report was a negative report because we have said that if the General Assembly wants to lift the limitations specific to groins then they must effectively meet several criteria. We have a list that nobody can meet.

Joan Weld stated we have been at this for a very long time. This was a tough and critical decision. I cannot imagine how from this report that one can take deductive reasoning and read

the reports from the individuals from the Science Panel and continue to get terms like inconclusive, inconsistency, and lack of data and make a recommendation. This process has gone on for so long and I would hope we could move on to some of the more critical issues that we will face in the near future. The Chairman was right in that we did not make a recommendation.

Bill Peele stated he was disappointed with the vote. We have a big responsibility to the citizens of the state of North Carolina and we didn't stand up to that during the vote. If we need to study it more, then we need to do it instead of making a mistake of spending the money on a groin and then spending money to take it out. The tax money that we are spending is everybody's money. We were not looking at our responsibilities as a Commission but instead we were looking at individual opinions and we need to refocus.

Melvin Shepard stated we need to put this to bed as far as a Commission is concerned and let whatever happens happen.

Ed Mitchell asked if we could do a site specific study. He further stated that the Commission should keep an open mind to studies that come in in the future.

CRAC UPDATE

Dara Royal, Co-Chair, stated this was our first meeting since March. The NCBIWA conference will be held November 15-16 at the Blockade Runner Resort in Wrightsville Beach. The CRAC had a moment of silence for CRAC member Eddy Davis who passed away unexpectedly in June. The CRAC talked about our ability to participate with the CRC under the current meeting format. Some of our members expressed strong satisfaction with their opportunity to be directly involved in all of the discussions, but this format does not allow for as much in depth discussion as we had in subcommittees and does not afford enough time for fully considering the issues. The general feeling is the combined format that utilizes subcommittees and committees of the whole would work well. We had a long discussion about the sandbag policy as a prelude to the full discussion with the CRC. Our members liked Robin Smith's idea of an umbrella permit for local government and Spencer Roger's point that sandbags cannot be considered in isolation from the structures they protect. We had a presentation from Jeff Warren on inlet hazard areas and we continue to have reservations about proposed size limits and other use standards.

PRESENTATIONS

Water Access and Marine Industry Fund
Louis Daniel, Director DMF

Louis Daniel stated DMF was given twenty million dollars for waterfront access. The waterfront access committee which had been set up by the General Assembly had established four priority funding areas. These areas were public docking facilities, public boat ramps, fishing access and other marine industry facilities. We issued a request for proposals to see what we might get. We developed a selection criteria. We wanted to be consistent with the access study report and wanted to make sure we had good coast-wide geographic representations. The criteria we set up required a state agency to take ownership. That took a lot of time to set up. We also wanted these sites to be multi-purpose and multi-use. We also looked at counties of economic distress.

We wanted to preserve traditional waterfront access and make sure that we had funding partners. We also wanted to make sure that we had long-term maintenance plans. We did not want any of the projects to require a variance from the CRC. Out of 170 pre-proposals we requested 24 full proposals. We ended up with 20 formal presentations.

Senate Bill 646, which was the waterfront access coordinating committee bill, set up a group of division directors, wildlife resources executive director, and Sea Grant. This was a good group to guide in making the decisions. This group was to review the proposals and make recommendations. A citizen advisory panel was set up to do the first run through of the proposals. The proposals then went on to the Seafood and Aquaculture Committee and then onto the Parks and Recreation Trust Fund Board to get the final approval. We ended up with six projects from the Northeast, four in the central area of the coast, and three in the Southeast. Property values in the Southeast are extraordinary and that is why this area only received three projects. The Northeast was where the greatest need was for access. The total value of the projects exceeded 71 million dollars. At this point all of the properties that we funded have been purchased. Our ability to construct things right now is limited, but my hope is that since we have the property they will be protected for waterfront access in the future.

Sandbag Overview/Update (CRC 10-29)

Mike Lopazanski

***Renee Cahoon and Jim Leutze recused themselves from discussion and voting on this item.*

Mike Lopazanski stated we have been under a sandbag removal moratorium which expired September 1. The Division was in the process of following up with enforcement action that identified several properties that were the most egregious violations of the Commission's rules for allowing sandbags. The Legislative moratorium put an end to that, but not the enforcement of other actions. DCM needs direction from the Commission on how to proceed with enforcement of the existing rules.

The CRC began to look at the use of sandbags shortly after the shoreline hardening ban following the recommendations of the Outer Banks Erosion Task Force. This no longer allowed for permanent erosion control structures. There was a desire on the part of the Commission to allow property owners some other means of temporarily protecting their intermittently threatened structures from oceanfront erosion. These temporary measures included beach nourishment, sandbags, beach pushing or beach bulldozing. This intent was to allow these temporary structures to protect the structure for a short period of time until it could be relocated or the effects of a short-term erosion event could be reversed. Early Division directors would get requests from property owners to utilize sandbags for a six to nine month period following a storm just to give the beach time to rebuild. This was the original intent of these structures. Ordinarily when you hear the word temporary you would think that a time limit applied to these projects. However, when we first allowed these to be used due to staffing considerations and the limitations on the types of structures that were allowed to be protected, it was determined that the ephemeral nature of the bags themselves would be a more practical method of ensuring their eventual removal. When the rule was first developed in 1985 the rule stated that the bags were

to be covered with sand and if they were not covered for more than a six month period they were to be removed. This became an enforcement issue for DCM in that it required continuous monitoring. It was also unclear on how continuous the exposure of the bags needed to be to trigger an enforcement action. Sandbags have been used to protect homes, hotels, septic systems, and roads. By 1987, the use of erosion control structures became prolific enough that the CRC began to investigate the overall effects that sandbags were having on the beach and considered requiring the relocation or demolition of structures within two to three years of being designated as imminently threatened. During the 1990's the CRC began receiving numerous complaints from citizens about sandbags. In addition to their appearance, citizens complained that the bags interfered with public use of the beach and that they were being fortified to become massive, immovable structures. In 1994, the Division staff conducted an inventory which showed that we had about 15,000 linear feet of ocean shoreline protected by sandbags and some had been in place for as long as eight years. While most of the structures complied with the standards, there were others that were installed without authorization. The analysis that we provided to the Commission outlined the problems with the sandbag rules including what types of structures could be protected, when do sandbags interfere with public use of the beach, monitoring the burial, limitations on width but not on height, and most importantly on how long temporary was. In 1995, the CRC made some amendments to the rules where they addressed the size and physical location of the bags as well as the burial condition. The amendments also addressed the temporary issue with a two or five year limit. The Commission also added a provision that if a sandbag structure was located in a community actively pursuing beach nourishment then they could remain in place for five years. It was also decided that we would restrict the use of sandbags to one time per property. At that time most of the beachfront communities qualified for beach nourishment extensions. The hurricanes in the mid to late 1990's caused the CRC to extend the deadline for removal to September 1998 in counties that were declared federal disaster areas. There were also situations where the CRC granted variances to several of the property owners. The CRC then extended the deadline for sandbag removal until August 2001. Since most of the sandbags were to be removed in 2000, DCM staff began preparing to notify property owners. At that time our records indicated that there were 141 sandbag structures subject to be removed. We thought that was a low number, since prior to 1996 local governments were responsible for permitting sandbags and oftentimes the records were lacking. We did a follow up inventory of sandbags following hurricane Floyd which showed about 236 projects. In January 2000, Dare County submitted a petition for rulemaking to the CRC that requested properties protected by sandbags in communities pursuing beach nourishment projects be given an additional extension until 2006. The CRC Science Panel on Coastal Hazards reviewed the request and recommended granting the extension, but only for sandbag structures that conformed to the size limits in the rules. The CRC refined what was meant by actively pursuing beach nourishment projects. Given the time that it takes to get a beach nourishment project the CRC granted a coast-wide extension until May 2008. By 2005, the extent of beach nourishment along the coast presented compliance enforcement challenges for DCM. Many sandbag structures were not removed prior to the beach nourishment projects and many of the bags became buried but were technically out of compliance with the rules because while they were covered they were not vegetated. It also became common to find sandbag structures that were interlaced across properties. These long sandbag structures often had varying expiration dates, depending on when they were installed. In 2006, the six foot height limitation became an issue as property owners were allowed to maintain the six foot

height of the bags as they sank into the sand. During erosion events, the sand was washed away and some of these structures would greatly exceed the six foot limitation. In response to these enforcement problems, the CRC directed staff to begin measuring the structure height from the base as opposed to the top of the sand. As May 2008 approached, DCM again began preparing to notify property owners that sandbag structures were going to need to be removed. The CRC discussed the use of degradable materials as a means of ensuring the eventual removal of sandbags from the oceanfront. DCM did some research into this which revealed that there are certain issues associated with the use of biodegradable textiles for sandbags. In November 2007, while considering what to do about the approaching deadline, the CRC looked at the rule and the length of time that sandbags have been out on the beach and ultimately decided that the course of action was to enforce the current rule. This prompted the Division to send letters to 371 property owners notifying them that the May 1 deadline was approaching. In March 2008, we began to conduct an inventory of sandbag structures. We also developed a prioritization scheme for these structures that was based on compliance with the rules and the degree to which they presented an impediment to beach access. The Commission found merit in a request for a provision for inlet hazard areas. As part of a reaction to the enforcement efforts, DCM received notice of about 29 requests for variances for sandbags. These never made it to the Commission due to discussions about stipulated facts. We also had a subcommittee at the time that was looking at a comprehensive beach management strategy. That subcommittee recommended precluding the use of bags from single family exemption which allowed exemption from setbacks. We also started talking about alternatives to sandbag structure design. In July 2008, the CRC amended the rules for inlet hazard areas in which we now allow an eight year time limit on sandbags if they are located in an inlet hazard area in a community that is seeking an inlet relocation project. We also amended the rules to require removal of the bags when they are no longer needed. We changed the multiple use of sandbags in inlet hazard areas and now allow you to have them as many times as necessary if the structure becomes imminently threatened again. We have also added additional criteria that can be used to judge whether or not a community is actively pursuing beach nourishment or inlet relocation. In September 2008, DCM sent notice to 20 of the 150 property owners that had exceeded their time limits. These were the structures that were the most out of compliance with CRC rules. There were a couple of storms in September 2008 that uncovered a lot of sandbag structures. In October the CRC allowed bags that had been previously covered and vegetated but were exposed due to the storms to be recovered under an emergency general permit. During this time there were other legal efforts going on related to the original property owners that were notified that their structures needed to be removed. In January 2009, an ALJ dismissed a stay of enforcement by the eighteen recipients of sandbag removal letters. This prompted the Division to send notices of violation to these property owners. In August 2009, the Legislature established a moratorium on removal of sandbags in communities pursuing beach nourishment or inlet relocation. While this moratorium prevented the Division from requiring the removal based on time limits it did not affect our ability to take enforcement action on other aspects of the CRC's rules. Several structures have been removed in Dare County when the houses were condemned or the sandbags were deemed unnecessary. Five of the structures have been demolished, two of the structures have been relocated, nine are condemned, one is abandoned and condemned, and two are occupied.

Charles Elam stated the Commission should seriously consider not issuing any more sandbag permits knowing that we are creating the next situation that we are currently in. Bob Emory

stated there was a concept discussed at the stakeholder meeting that was loosely defined, but the Commission should hear about it.

Harry Simmons stated the idea was that one size does not fit all. Let the local governments control how sandbags work within their jurisdiction. Mr. Simmons further stated that Robin Smith had called it an umbrella permit to give the local governments the responsibility. Let each town see what works for them instead of trying to apply some massive, coast-wide effort towards removing sandbags. Sandbags have worked well in some places and in other places a simple terminal groin would fix the inlets. South Nags Head is another matter, but let Nags Head figure out how to deal with Nags Head. The State may have to participate in some funding for some of it, but why not let the local governments take care of their own.

Robin Smith stated that this was a concept discussion. This was not in place of making some sort of decision about enforcement. There are two different issues here. The first is what to do about enforcement in the short-term and the other is what to do about managing use of sandbags going forward. This basic idea was making a distinction between how we manage individually installed sandbags on individual lots and the standards for installation and removal versus another model for community based permitting as we do for beach bulldozing so it becomes more of an umbrella permit for the local government with conditions attached to it.

Jerry Old made a motion that the CRC direct Staff to move forward with sandbag enforcement and resume the actions being taken prior to the Legislative Moratorium. Jamin Simmons seconded the motion. The motion passed unanimously (Mitchell, Webster, Simmons, Wynns, Weld, Shepard, Elam, Bissette, Old) (Leutze, Cahoon abstained).

Use of Geotextile Tubes for Temporary Erosion Control (CRC 10-30)
Tancred Miller

Tancred Miller stated this is a follow up from a presentation Spencer Rogers gave at the last meeting about the use of geotextile tubes as an alternate to sandbags for erosion control on private property. Spencer stated at the last meeting that there is a difficulty in enforcing the structure size and configuration. He also stated there is a problem with litter and debris as these bags become damaged or abandoned and there is an impact on adjacent beaches and neighboring properties as sandbag structures have a large footprint and can refract wave energy. Spencer stated there were advantages to using a single geotube. The first was with a single bag it would be easier to enforce the structure height, width and configuration. There is also less fabric involved and less impact since there is a smaller footprint. There is also a lower initial cost to install the geotube. The geotube configuration has a central tube, a scour apron on either side, and anchor tubes on each end to try to prevent the tube from rolling. The anchors are prohibited under current CRC rules. If there was a desire to move forward with this then the rule would have to be changed. Geotextile tubes are installed then covered and vegetated.

DCM did some research looking at the experiences of other states and countries and found that they are relatively untested at the scale of an individual lot. Usually they are installed at much greater lengths in major municipal projects. They could be a mile or more long as a single project. There is not much in the literature that shows how they would perform on a small scale.

They are typically installed in excavated trenches. They don't sit on the beach as our sandbags do. It is virtually impossible to keep them covered up and vegetated. Even though they go in initially in a trench, over a short period of time they become uncovered and require constant maintenance to get them recovered which is an expense. There is an additional complication with the CRC rules when it comes to excavating the beach. Sometimes these structures are put in under a dune and our dune protection regulations are very stringent. Since these are meant to go in at least partially buried, that could be an issue for a property owner who wants a full six feet of protection. If he gets a tube that is six feet high and it has to be buried at least two feet then he only has four feet above grade. A major problem with the tubes is that any damage to the tube (puncture or tear) will result in the total failure of that structure. With sandbags, if you lose a bag or two you may get some shifting but you still have protection remaining. Navigation around these sandbag structures is a big concern. A single tube would be a lot harder to get over or around as compared to sandbags. In New Jersey and Texas they have found that the scour pads and tubes have not performed particularly well. The tubes still roll and shift and there is a lot of scour. The scour pads tend to settle out so they might to a good job of anchoring but they don't do a good job of preventing scour. The beach profile where these have been used is a lot flatter than we have in North Carolina and there is a threat of rolling which is a safety concern.

Staff is not opposed to trying the tubes. The CRC would have to see if the benefits outweigh the risks. If a willing property owner would come forward, understanding the risks and safety concerns and understanding that if the geotube fails then it would be their burden to pull it out, that would be the best trial. Since the tube is a large sandbag, the CRC has the authority under CAMA to regulate the sandbag program. The tubes would violate the CRC's regulations about size requirements and anchoring provisions. DCM's recommendation is that the CRC not make a change in the rules, but it could be worthwhile to do on a test case which could be approved through the variance process.

Spencer Rogers stated that he concurs with the Staff's recommendations. Many of these tubes will be just as bad or in many cases worse than what we have already. This isn't technology that was common at the time the sandbag rules were adopted. With the sandbag problems, this solves a few of them but not all of them. This was merely suggested as an option.

50% Rule (7J .0210 – replacement of Existing Structures)

Roy Brownlow

Roy Brownlow stated in March 2006, DCM Staff was requested to review 7J .0210 because of some contested case hearings that came before the CRC. The CRC adopted a new rule that became effective August 1, 2007. The new rule was broken down into two categories, non-water dependent structures and water dependent structures. The main reason we categorized it into two structures is that you cannot look at docks and piers the same way you do homes and businesses. By breaking it down into two categories Staff can go out into the field after a storm or other event and quickly make the determination as to whether it is maintenance/repair or new development needing a permit. The recent contested case involved repair versus replacement of a pier structure. It raised some questions about Staff's interpretation of the current rule.

G.S. 113A-103(5)b.5 exempts maintenance and repair from CAMA permit requirements, excluding replacement. CRC rule 7J .0210 is consistent with that General Statute. The rule states that the replacement of structures is considered development and requires a permit. The rule then goes forward to provide criteria for repair and replacement. If the proposed work to rehabilitate structures that are nonconforming with current rules is deemed to be replacement then the proposed work on the structure would have to comply with the rules. The rule may preclude replacing a nonconforming structure if the replacement is not consistent with the rules. In 7J .0210(2)(a) in the case of fixed docks, piers and platforms, the proposed work is considered replacement if it enlarges the structure or if more than 50% of the framing and structural components are replaced in order to rehabilitate the structure to its pre-damaged condition. Staff's interpretation is that the rule lists common structural items listed in typical pier and platform construction such as beams, girders, joists, stringers and pilings. These framing items are found on nearly every pier, dock or platform constructed. Items not considered in the 50% determination would be components such as decking boards, bracing or handrails. These items may or may not occur in typical pier construction. During the drafting of the rule in 2006, it was discussed with the policy staff, the AG's office and field staff and it was decided to use a literal count of the actual framing members to make a 50% determination rather than using a square foot area. Staff does not consider replacement of the decking boards on piers, docks or platforms as development. Under the current rule decking boards are not included in the count of framing members because not all piers, docks or platforms utilize the wooden or similar slatted boards. If a pier owner needs to replace more than 50% of the actual number of the structural members found in typical pier construction such as the beams, girders, joists, stringers or pilings or any combination thereof then the work is considered replacement and would require a CAMA development permit. DCM staff has been using the current rule since March 2007 to make repair versus replacement determinations on a regular basis without complications or issue. Staff does not recommend any changes to the rule at this time.

PUBLIC INPUT AND COMMENT

Renee McCullen stated my partners and I own the undeveloped south end of Topsail Island which is adjacent to the New Topsail Inlet. Based on the CRC and Science Panel meetings I have attended over the last few years, you have all done your due diligence in exploring different methodologies to potentially use in the management of the inlet hazard area. The question remains what methodology should the CRC use in regulating development. My concern is if you decide to use the proposed 30 year risk line as part of your rules it will be too restricting and severely impact the value of our property. Based on information provided by the Science Panel at the July meeting their assumption in front of the 30 year risk line stands a very high probability of being on the beach in 30 years due to erosion. My issue with the risk line is where it curves across our property away from the shoreline. Does this indeed accurately reflect future risk? New Topsail Inlet is a migrating inlet that has demonstrated consistent southwest accretion which makes it extremely unique. According to the inlet hazard report, New Topsail Inlet in the past 275 years has migrated an average of 125 feet per year. This translates into 6.5 miles of migration. To put this into perspective, in the early 1700's the land that the entire town of Topsail Beach sits on today didn't exist nor did two miles of Surf City. I understand the Science Panel only included data from the last 30 years in their calculation of the risk line in an attempt to factor in the inlet's migration; however, where the risk line curves across the island it doesn't accurately reflect the risk in 30 years in this situation. To test the accuracy of a formula or

methodology that is used to predict the future all you need to do is apply the methodology to history where you already know the outcomes. You can see the proposed 30 year risk line on the first page of the handout. Page two of your handout shows an overlay of the 1949 shoreline. For this discussion, let's apply the 30 year risk line to the 1949 shoreline at Clark Avenue and see what happens in 30 years. As you will see on page three when you examine the aerial photograph from 1979 all development from Clark Avenue to Trout Street where the 1949 shoreline existed is in excellent shape along with all the new development that occurred on the accreting portion of the island. Projecting another 30 years forward to 2009, the only property I can determine that has been lost in the inlet hazard area is six houses during Hurricane Fran that were oceanfront. This is the key take away, in 60 years no interior house in the inlet hazard area has been lost due to inlet shoreline changes. To summarize, the 30 year risk line may be valid in some inlets and not in others. I think it is obvious that the formula used isn't predictive of future risk at New Topsail Inlet and should not be used to regulate development as it could dramatically decrease the potential property value. Thank you for your time and this opportunity to share my feedback.

Steve Foster stated I am the Town Manager at North Topsail Beach. The Mayor asked me to speak today in regard to the inlet hazard area. The Mayor feels like the inlet hazard area carries a stigma that goes along with it and could have a very negative impact on property values. He also feels like the people in these areas have not been adequately notified as to the impact of what this is and that the lines of these hazard areas are somewhat arbitrary and capricious. He would like to convey his concerns to this group. I am a property owner at the Town of Oak Island. I will be included in one of these inlet hazard areas and I feel like probably 99.9% of the property owners in these projected areas have not been notified or know anything about what an inlet hazard area is. There is even further concern after hearing the conversation this morning about piers and what you can and can't do should they be destroyed. I would guess that in the Town of Oak Island in this projected area there are probably at least 40-50 of these and they don't understand or know anything about the consequences should these piers be destroyed. As a property owner I would also like to say that there is such a thing as the camel's nose getting into the tent. We feel like this could be just the beginning of additional regulations that are warranted or unwarranted or whatever, but another layer of regulation that could happen down the road is not to the best benefit of property owners in the area. What we are talking about is the potential effect of hundreds of millions of dollars of property and with very little notification to these folks of what the potential impacts it could have. Thank you very much.

Dennison Breese of Coastal Coanda Research stated Hurricane Earl recently passed our coast. It was a very large, very dangerous storm. We had approximately 10-15 foot surf on the entire coast of North Carolina. Beach erosion was very limited. After the storm I went to the National Weather Service in Newport. The total rain precipitation for the entire coast of North Carolina was looked at. Over a three day period we had very large surf on the entire coast and the only significant erosion, although Rudi told me about some in Emerald Isle and there was some at the north end of Topsail, but the significant erosion from that enormous storm was concentrated from Ocracoke north clear past the Virginia border. The erosion is all concentrated exactly where the rain fell. What this all means is that erosion can be controlled and managed on land. We can take engineering measures on land to stop a majority of erosion. What I would request is that you appoint a committee to look at our shore research.

PUBLIC HEARINGS

15A NCAC 07H .0106 – General Definitions

No comments received.

15A NCAC 07H .0208(b)(13) – Use Standards (Wind Energy Facilities)

No comments received.

15A NCAC 07M .0400 – Coastal Energy Policies

No comments received.

PRESENTATIONS

CAMA Presentation

Dave Owens

Dave Owens, UNC School of Government, stated this is about how to balance resource protection and economic impacts of that and economic development needs. This was intentionally and deliberately left open in the Coastal Area Management Act. Part of that relates to the history of how this Act came about in a relatively different fashion than many other environmental and natural resource programs. In the late 1960's and early 70's when these things were being discussed, there were two major tracks of thought as to how to deal with these issues. The traditional track was taking a look at the individual resources and devising management programs that were single purposed aimed at maximizing resource protection. These were largely science driven. These individual resources were assigned to single purpose agencies that would deal with a particular resource and maximize how that resource is managed and protected. At the state level we had a number of those things going on with the Dredge and Fill Law in 1969, the Wetland Waters in 1971, the Sedimentation Control Act, and the Mining Act. We had state counterparts for a lot of those federal programs that were single resource specific and single objective approaches. Bubbling along at about the same time nationally was a different approach that would attempt to look at a broad resource as a whole and look at economic pressures, the kinds of development and use you wanted to secure, the kind of resource protection you would want to deal with that would address a variety of environmental factors. This was to be done on a more regional basis. The leading intellectual piece of that was the American Law Institute's model land development code that was being developed in the late 1960's and early 70's which was pushing that kind of approach. Not very many states or local governments jumped on that bandwagon. Although in 1973 as CAMA was being developed, that was seen by most folks as the wave of the future. The North Carolina Legislature decided that this was the approach that should be taken with CAMA. CAMA was originally envisioned as a first step. The first cut at CAMA went back and took the first approach. It largely said that we should do this with a model we know. Let's put decision making in the hands of the professionals in the Department, let's make this science driven and treat it more like some of our traditional environmental programs. The Blue Ribbon Committee that developed the first draft of CAMA took that approach. The Legislature took a look at the first draft and didn't like it for a variety of reasons. In 1974 they revised the Act that went more to the second approach. There

were a couple of key reasons the Legislature did this. The first was straight politics. The Bill wasn't going to pass as a straight environmental protection law. There simply weren't the votes to get it through the General Assembly if all you are doing is maximizing resource protection. It also wasn't going to happen because there wasn't a stronger role for local governments. If you ran this as a state centered operation there weren't the votes to get it out of the General Assembly. A couple of the changes that were made to CAMA to get it passed went more into the second approach. One of the approaches was creating a Commission and assigning significant decision making responsibility to the Commission, providing it with technical staff that would provide the science and expertise necessary. It also recognized that the choice of how you balance environmental and economic factors is inherently a policy choice. It needs to be informed by science but there is not a scientific answer to many of these questions. The science gives you factors to consider, but it doesn't answer the question of where should we strike this balance. Instead of putting it in the hands of professional staff, let's put this in the hands of an appointed Commission. Let's make sure the Commission has a balance of interests. The Act clearly spells out the experience and interests to make up the Commission. That was intentionally done to make sure the various interests affected by these decisions would be a part of the discussion. Another important piece of this was the role of the local land use plans. This turned out to be the Commission's first year and a half of work. The notion was that we can do AECs and regulations to deal with the most critical areas, but if we want to get a handle on how the coast is going to grow and develop over a long period of time you have to get the local government actively engaged in working on that at a local level. It was no accident that from the outset planning was a co-equal branch with the regulatory program in the conceptualization and design of CAMA. As the Commission was doing its regulations and planning standards and policy statements, there were key things the Commission was thinking about to find the appropriate balance. The Commission wanted to be very explicit about looking at multiple objectives. When we do a rule it is going to have impacts on a lot of different objectives. The first thing to think about is why we are doing this and what are we trying to accomplish. Secondly it is very important to think about long-term environmental and economic impacts of any decision. The public, the press and legislators think about the implications in the near term. The Commission has to think about the implications down the road. A big part of what the Commission does is think about the economic implications and environmental implications for a wide range of folks over a long period of time. If that is not brought into the decision making then you have a problem. The Commission initially did a lot of its work in the blind. The Commission and the Staff have really enhanced this over the years. More information and analysis on the short and long-term implications of decisions take place. One of the first things the Commission had to wrestle with was how much wetland alteration someone should be able to do. The Commission decided fairly quickly that it is not in the best long-term interest of fisheries and resources to turn marshes into mobile home parks. You can do it, but it isn't a good idea. A choice was made that the resource value was such and the economic implications of not protecting the resource and the alternatives if we do impose such a rule are relatively modest so this is a simple, easy rule to do. You cannot, with minor exceptions, fill coastal wetlands. A much harder issue was the oceanfront setbacks. The Commission had to decide how far back it had to be. The first stab the Commission took, before it had time to do analysis, was to say that you had to be behind the crest of the frontal dune. This proved not to be a workable operational setback definition. That rule was only designed to last a year or two while the Commission thought about what the setback should be. Rules were adopted that are fairly similar to what is

in place now. There were a lot of issues where there were different impacts on different interests. There is not a single public interest that the Commission looks at. The Commission looks at multiple interests and multiple factors and trying to figure out what those impacts are and what they should be. When the Commission adopted its oceanfront setback regulation it had no idea what the economic impact would be. Two years after it was adopted, the Commission found out that 856 lots on the oceanfront were unbuildable as a result of the rule. The Commission decided to look at other management tools. The Commission directed the staff to send a letter to each property owner and ask if they were interested in selling these lots. Only four of these property owners responded, but not one lot was purchased. This is the kind of issue the Commission has to wrestle with with all rules. If you look at the findings and purposes of CAMA it says orderly and balanced protection. There are ideas built in structurally to the Act and to the Commission's charge that you are supposed to consider. You look at the economic benefits from doing resource protection, the economic costs of doing resource protection, the impact on various users, and balancing these considerations. Ultimately the balancing and policy choices are in the Commission's hands.

Inlet Hazard Area Rule Options and Discussion (CRC 10-31) Jeff Warren

Jeff Warren stated in 1978 a report defined the original inlet hazard boundaries. There were some minor amendments to these in the early 1980's, but this is the report that is quoted in the rules. This was a report that had a ten year statistical projection. The inlet hazard areas technically went out of date in 1988. In 1999, the Science Panel made a long list of recommendations to the CRC. One of those recommendations was to go back and revisit and redefine the inlet hazard areas. There are many cases where the inlet has completely migrated out of the hazard area or where it is closed or obviously not big enough because there is inlet based erosion happening adjacent to the original box. What we are dealing with is 22 years later. If we had the same data and the same knowledge about the inlets back in 1978 that we have today the boxes that we are presenting today would look the same. I would recommend for those that have not seen this report that we released in May to review the methodology that the Science Panel and the Division worked closely on over multiple years. The first hurdle is to say we have the old boxes that are out of date and do some new boxes. We have to address the rule that addresses the inlet hazard boundaries for the AEC. This study focused on the twelve developed inlets. Some of our other inlets are in undeveloped parts of the seashore. It is important to look at what you can currently do inside the boxes. The boxes were released years ago and when people saw the new boxes they panicked because they didn't know what was going to go on in those boxes. In many cases the boxes double or triple in size. They were taking the existing rules and applying them to the new boxes. Staff has continued to say that the box changes cannot go forward without changing what you can do inside of them. There is a limitation on commercial and multi-family development. You will recall in your previous setback rules that these types of development were treated differently in the setbacks. There is a development density provision in the rule that is a challenge in many locations because they are completely built out. The ocean setback is based on the adjacent OEA erosion rate. The current maps we have from 1998 are actually the rates immediately outside of the inlet box. DCM and the Science Panel have said that we need to actually use the erosion rates on the shoreline in the inlet

hazard area just like we do on the oceanfront. There was also a provision that you could not use the single family exception. It is no longer appropriate to call it the single family exception because it just deals with any structure and not the use of it. We have come up with some draft rules as a starting point to help frame this discussion. DCM would like something concrete to take to the towns to discuss with them.

The purpose of the inlet hazard area is to define an area that is under different influences than the oceanfront. It is appropriate to make sure that there is no encroachment toward the ocean around the inlets because the inlet will move back and forth. One management objective is to hold the line on development. The second thing is to look at size restrictions. It is addressed in the current rule but it is only based on use and not size. To be consistent with the setback rules you need to look at the size of the development because the hazard is the same. When you look at a size limitation make it across the board floor area. Chairman Emory and DCM staff have talked about increasing it to 10,000 square feet. At 5,000 square feet the setback doubles. In some ways you are allowing larger structures than currently allowable, but only for commercial and multi-family. At 5,000 square feet it will be twice as far from the oceanfront based on a setback. A size limit addresses density. A density limit may not be necessary any more. In the proposed rule language it isn't in there. A grandfather provision is in the proposed rule language for properties that are currently not in an IHA but will be. If they happen to be greater than 10,000 square feet then they would be allowed to rebuild but would have to meet the appropriate setback. Currently you cannot use the .0309 exception in an inlet hazard area. This rule has been revised with additional restrictions of a 2,000 square foot total floor area when you can't meet the current setback. Since you can still use that in the adjacent OEA if you go into the IHA then you should be able to continue to use this. You currently can use the post-CAMA grandfather exception in the IHA. We would suggest continuing to use that. You currently can use the static line exception in the IHA and we would recommend that you still be able to use this. Limiting a static line exception would be a hindrance. The erosion rates would use the actual erosion rate instead of the adjacent OEA. The current setback reference point is the vegetation line. As the Science Panel has pointed out, the vegetation line can swing wildly over a very short period of time. We would suggest in addition to measuring the setback from the vegetation line you should also look at the landward most adjacent structure and that would help give you an area where you can't have oceanward encroachment. Swimming pools can currently go oceanward of the setback. Swimming pools would not be allowed in the setback in the inlet hazard areas because we are seeing a lot of problems in areas where people want to sandbag their pools. There is a provision in the rule for swimming pools. In the OEA you can only use sandbags once ever. In the IHA you can use them up to eight years if there is an inlet relocation project or an inlet study going on. You can get sandbags more than once as long as the community continues to pursue an inlet management strategy. The sandbag provision is not in this rule; it has already been addressed in another rule.

Jeff stated there is situation with another rule. Mad Inlet closed in the early 1990's and is considered an inlet hazard area. The new report does not contain one for Mad Inlet. In January the CRC made some changes to the OEA language and the unvegetated beach language. To give some relief to Sunset Beach and the properties affected by the Mad River Inlet AEC, DCM would propose that the Commission allow us to change the rule language you have already approved to go to public hearing to not consider Mad Inlet in and IHA.

Jim Leutze made a motion to remove Mad Inlet from the inlet hazard area. Jerry Old seconded the motion. The motion passed unanimously (Leutze, Mitchell, Webster, Simmons, Wynns, Weld, Shepard, Elam, Cahoon, Old) (Bissette absent from vote).

Melvin Shepard made a motion that Jeff Warren go out to the affected communities as outlined in memorandum CRC 10-31 to discuss the inlet hazard areas and proposed rule language. A change should also be made in the proposal to change “hazard” to “erodible”. Jerry Old seconded the motion. The motion passed unanimously (Leutze, Mitchell, Webster, Simmons, Wynns, Weld, Shepard, Elam, Old) (Bissette, Cahoon absent for vote).

DCM Estuarine Shoreline Mapping Initiative (CRC 10-32) Scott Geis

Scott Geis stated this initiative is a multi-year, DCM led initiative that is aimed at understanding the nature of the estuarine shoreline as well as development activity occurring on it. This project was thought up because we noticed we were having certain issues in terms of dealing with a digital representation of the estuarine shoreline. Current mapping technologies were deficient in this area. We found there was not a shoreline that existed for the state that was accurate. Our sister agencies were using, on a case-by-case basis, site specific shorelines to initiate their projects. There are larger datasets that have a shoreline, however when you get into the nuts and bolts they are not detailed enough for management purposes. We wanted to delineate accurate shorelines that would help us quantify the mileage of specific shoreline types as well as come up with a number for structures that had been permitted along the shoreline. We also thought we could begin to understand the cumulative effects of development along the shoreline. This project was conceptualized with a CGIA pilot project where they tried to automate a shoreline through a GIS application. That was done from December 2006 through June 2007. What we found was the automated processes were not as accurate as we would like them to be. To begin understanding how to go about this process we came up with an estuarine shoreline mapping summit in December 2007. This was an effort to understand the benefit the shoreline could have to our sister agencies as well as DCM. It was also an effort to discuss existing efforts and data and imagery that was out there. The guidance we received from that meeting was that DCM should go forward and create a methodology because no one else was undertaking this kind of effort and it would be a useful product. We created a methodology after that meeting and circulated it to a subset of the summit. We talked about constraints of different satellite photos, the types of shorelines we wanted to capture, and the various structures we wanted to capture. The methodology looks to delineate a statewide estuarine shoreline that is contiguous from one county to the next. We are proceeding on a county by county basis. The final product will be three layers. The first is the estuarine shoreline, polygon structures that would be docks and piers, and linear structures such as bulkheads and jetties. We have found that we can employ the most recent datasets available. We had a preference for color imagery versus black and white. We had to use multiple imagery datasets because we found that any type of state flyover was done at a generally courser resolution. We did not standardize the project on a county by county basis for tidal range or for years the image was flown. We talked about different types of shorelines. We have five shoreline types that we came up with. Three are natural and two are

manmade. As we went forward we decided that we also needed to come up with some rules. We wanted to make sure that the process was systematic, reliable and easily replicable for others who might want to adopt the methodology. The general rule is to approximate the land water, vegetation water, or structure water interface. We felt there would be consistency no matter who we contracted with to digitize the shoreline. We have six completed counties that represent over 2,000 miles of shoreline. These were completed through a contract with ECU. Tyrrell County is the only shoreline that we are comfortable releasing at the moment and we are working on getting the rest of these completed shorelines ready for release. There are seven additional counties that are still under contract with ECU and they will complete the northern chunk of the Albemarle-Pamlico system. We have two counties that are being done in house. They were started by DCM and we now have two temporary interns from NC State working on them. We are also working on an amendment to our contract with ECU to add in four additional counties in the southern area. The northern counties should be completed by June 30, 2011. The results for Tyrrell County showed 313 total miles which is predominantly swamp forest. The second most predominant type of shoreline was marsh. We can begin to think up some research questions for this. What is the effect of modified shorelines in these areas? The importance of this is teasing out development trends to see if there is a need for a specific structure in the area or show consumer preferences for erosion control structures. We also have a major initiative that we are launching about alternatives to vertical structures. We can analyze the trends that are going on and look at how we are permitting structures throughout the coast.

Coastal Habitat Protection Plan Five Year Update and Approval Anne Deaton

Anne Deaton stated Jimmy Johnson presented the revised CHPP and recommendations at the last meeting. The first plan was approved in 2005. The update was done by compiling new information from the literature, asking for information from agencies, and from university researchers. A significant part of the CHPP Team is the DCM Staff and they provide a lot of help. There were three public meetings in June. The attendance was on the low side, but we received a lot of good input. One of the common things we heard was that people were happy with the Plan and thought it was effective. Some of the more specific comments were requests to strengthen some of the wording. There was also a lot of talk about encouraging low impact development. One of the other comments was to address failing septic tanks and the effects they have on the environment. We took all of the comments and gave it to the CHPP Steering Committee. After considering all of the comments, they felt that all of the other significant comments were addressed in the wording that we already had in our recommendations. The Steering Committee did agree to make one change to recommendation 3.4 to “prefer alternatives to vertical shoreline stabilization”. That was the only change made to the recommendations table that you received at your last CRC meeting. If this Plan is approved, we would be operating for the next five years with the same four goals that we had in 2005. Those include improving the effectiveness of existing rules, identify and designate strategic habitat areas, to protect habitat from physical impacts, and to protect and enhance water quality. The changes that have occurred to the recommendations dealt mostly with climate change, restoring additional habitats, increase water quality technology, and monitor coastal stormwater rules to see if they are effective. One other addition was made to the text based on the comments but did not affect the

recommendations. If approved, the CHPP will go to the Department for a thirty day review period and then it goes to the Joint Legislative Committee for Seafood and Aquaculture for approval. We are currently working under the 2009-2011 CHPP implementation plan.

Charles Elam made a motion to approve the CHPP update. Melvin Shepard seconded the motion. The motion passed with five votes in favor (Shepard, Elam, Cahoon, Bissette, Old) and one opposed (Wynns)(Simmons abstained).

CICEET Project & DCM Marsh Sills Study – Update John Fear

John Fear stated these are two projects that will provide you with wonderful data in about six months. The first project was presented to you about two years ago when we first got funded. It is to look at sustainable estuarine shoreline stabilization, research, education, and public policy in North Carolina. This was funded by the CICEET Organization which is a joint NOAA/University of New Hampshire partnership. Estuarine shorelines are eroding. Coastal zone population continues to increase. We are going to have more and more people applying to stabilize their property. We have found out through numerous research projects that fringing marsh habitats provide critically important fisheries habitat and shoreline protection. Sea level rise is rising. This will impact fringing marsh habitats. In North Carolina the predominant shoreline stabilization method based on DCM permit data is vertical bulkheads. We are looking at how bulkheads interact with marsh. Salt marsh grows in a defined zone. If you get too deep then the marshes drown. If they get too dry then they get out competed by upland plants. How will it respond to sea level rise? It has two options. The first is it can obtain enough sediment to stay where it is and keep accreting and gaining ground to offset sea level rise. The second option is it can move upslope and maintain itself as the water comes up. If it can't do either of these two things then it will drown and get eroded away. What happens when there is a bulkhead present? Once we get the data we will conduct a cost-benefit analysis of the impacts including the cost of the bulkhead and the value of the property that it is protecting. This will look at the science side as well as the human economic side. We are going to construct a demonstration project at the Rachel Carson Reserve to showcase an alternative to a vertical bulkhead. The end result will be an outreach and education campaign because we have found that we do a lot of great work, but if it doesn't get out to the people that are actually making decisions and doing on the ground projects then we have wasted our time. North Carolina geologically provides an interesting case study for this work. The data we are collecting will be useful to the CRC, but also to North Carolina's sister states because this tide range is representative of the entire United States' East and Gulf coast. Within each site we have six sampling locations. We have conducted year one and two, we have completed a needs assessment for two of our target audiences, we have a draft booklet prepared for the economic analysis, and we are also working on getting our permits for the demonstration site. One of our target audiences was marine contractors. We asked them what structures they most commonly recommend and over eighty percent of the time they are recommending a bulkhead. We also asked them how they wanted to receive new information. They wanted it by online resources so we have made a big effort to put our stuff on the web and provided downloadable files so they can get the information quickly. We also did a survey of homeowners of waterfront property. We asked them what most influenced their choice of choosing a stabilization structure. We assumed they cared about costs,

but protecting the property from erosion was the most important. That opens the door to us to be able to show them other structures that work just as well. They wanted online resources as well.

The next project is the DCM marsh sill project. We have a multitude of project participants. A marsh sill is an offshore barrier of some kind, usually made of rock or oysters. The project goals are to assess whether marsh sills are performing their function as expected. When this came along 10-15 years ago it was a relatively new idea and there were some concerns that we don't understand how they are going to function. They have been in place in some places for 10-15 years so we wanted to look at them. We want to know if they have prevented erosion on the property, if they have caused any unexpected erosion or other unanticipated problems. We are also revisiting the marsh sill General Permit to see if the specific conditions the Commission referred to are still needed. It is such a public interaction situation, we wanted to ask the land owners what their perception was of the marsh sill and see if it is working. While we were on the sites we gave out data sheets to all the project participants. The team participation was amazing. The sill property owner surveys were conducted using a variety of methods. We have received about a fifty percent response rate. The report will be presented to the CRC and the other Commissions. The results should be available in six months.

Sea Level Rise Policy Discussion (CRC 10-35)

Tancred Miller

Tancred Miller stated the survey was completed in January. The Science Forum was successful in January. The next step was meant to be a policy summit. The idea behind the summit was to be very similar to the science forum where we bring together a lot of stakeholders to talk about what should go into a CRC policy on sea level rise. We have heard some thoughts about that and we think there should be a different approach to the policy discussion. The Staff has prepared a draft statement to be presented to the CRC and CRAC and if you are happy with it then we will go out to targeted groups. Following that discussion we will come back to the CRC and CRAC and let you know what we found. It could then go to public hearing to get broader input. The CRC could then do a final adoption in the summer of next year to have a formal CRC policy. The general purpose of a CRC policy is to establish generally applicable objectives and policies to be followed in the public and private use of land and water areas within the coastal area of North Carolina. The policy statements in 7M are used to establish the values and set a stage for your management objectives in 7H regulations and 7J permitting requirements. Typically they are fairly short and contain a declaration of general policy, definitions, and a series of specific policy statements. The CRC does not adopt new policies very often. Sea level rise is one of the issues that we believe is very far reaching. It touches a lot of different aspects of the program. The Science Panel said that the State should plan for one meter of sea level rise by 2100. That will affect land use plans, shoreline stabilization, Major Permits and other aspects of the program. We need a cohesive way to approach and amend regulations to account for this recommendation. It also signals the public and other agencies that the CRC recognizes the threat of sea level rise. The Commission is taking action to lead the coast and lead the State towards a planned adaptation. This is not a prohibition on development. We have prepared a draft statement. The first paragraph talks about the Commission's role. The next paragraph talks about the Commission recognizing that sea level rise is occurring as a natural hazard and that it

will intensify the challenges the Commission faces in managing the coastal area. The third paragraph talks about what sea level rise stands to do and how it will affect some of our coastal areas and resources. The next paragraph is a declaration that the Commission recognizes sea level rise as a persistent hazard that must be incorporated into all aspects of the coastal program and why it is necessary. The final paragraph is the goal of the policy. The policy statements in section .1303 highlight the subject area for the paragraph. This is where we establish what we are planning for.

Jerry Old made a motion to send the sea level rise draft policy statements to stakeholders for comment and review. Lee Wynns seconded the motion. The motion passed unanimously (Simmons, Wynns, Shepard, Elam, Cahoon, Bissette, Old).

Gates County LUP Implementation Status Report
John Thayer

John Thayer stated the 7L rules require implementation status reports from the local governments who prepare a plan using our money two years after the completion date of their plan. The Commission is not required to take any action. Gates County has submitted their status report and the Commission has been provided with a copy.

OLD/NEW Business

Chairman Emory stated the CRAC has recommended considering options for changing the meeting format. A subcommittee to look at meeting format was set up to include Bob Emory, Dara Royal, Frank Rush, Renee Cahoon, Bill Morrison and Lee Wynns.

Chairman Emory stated we have received a request to continue the dialogue with stakeholders on sandbags and beach management in general. The request came from someone representing the interests of property owners that have sandbags. We had a sandbag stakeholder meeting prior to the beginning of the CRAC meeting this week. If we continue sandbag enforcement the way we started it the first time then it would be a gradual process. As the enforcement process starts, we still have some time that we could engage the stakeholders on their concerns and get some input from them on how we go forward. Melvin Shepard stated he would like to hold a meeting looking at where to go with the sandbag program from here.

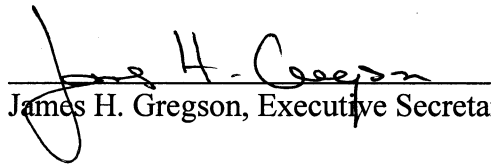
Jim Gregson stated he would like to see on the November agenda a discussion about how the Division currently regulates signage. We are a little inconsistent with how we treat signs for government agencies versus private individuals. It is clear in .0209 use standards that the CRC did intend for the installation of signs to be development. Traditionally in the past, local governments can put a regulatory sign on the beach to regulate driving or surfing and we have not required those signs to have permits as long as the posts were kept to a reasonable size. We are also in the process of installing quite a few signs on property that we own such as boundary and trail markers. DCM Staff will be applying for permits for installation of signs on our property. We have told real estate agencies that the placement of signs within areas of environmental concern is development and requires a permit. At the November meeting, DCM

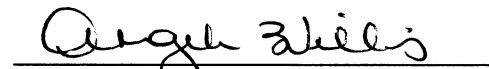
staff will bring draft rule language in 7K for activities that do not require CAMA permits and exempt certain signs by rule.

The next CRC meeting is scheduled for November 17, 18 and 19, 2010.

With no further business, the CRC adjourned.

Respectfully submitted,


James H. Gregson, Executive Secretary


Angela Willis, Recording Secretary