

UNAPPROVED
MINUTES OF SPECIAL MEETING
OF THE EMERALD ISLE BOARD OF COMMISSIONERS
MAY 29, 2002 – 9:00 A.M. - TOWN HALL

Mayor Schools started the meeting, which was an informational meeting to get started on the inlet project. The main purpose of this meeting is for the permitting agencies to come forth with whatever concerns or issues they feel need to be dealt with and for Tom Jarrett to present what the project is going to be. There will be time, at the end of the meeting, for public comment.

Self introduction was done and those present at the meeting were: Doji Marks, Emerald Isle Commissioner; Floyd Messner, Emerald Isle Commissioner; Dick Eckhardt, Commissioner, Emerald Isle; Art Schools, Mayor of Emerald Isle; Frank Rush, Town Manager of Emerald Isle; Emily Farmer, Commission of Emerald Isle; Pat McElraft, Commissioner of Emerald Isle; John Dorney, Division of Water Quality; Tere Barrett, Division of Coastal Management, Morehead City; Joanne Steenuig, Division of Water Quality, Wilmington; Keith Harris, Corps of Engineers; Larry Calame, Corps of Engineers; Mickey Sugg, Corps of Engineers; David Allen, North Carolina Wild Life; Tracy Rice, U.S. Fish & Wildlife Service; John Ellis, U.S. Fish & Wildlife Service; Ron Sechler, National Marine Fisheries Service; Ted Tyndall, Coastal Management, Morehead City; Tom Jarrett, Coastal Planning & Engineering; Cheryl Miller, Coastal Planning & Engineering; Cynthia (?), North Carolina Wildlife; Rick Monahan, Division of Marine Fisheries; Jeff Hudson, Deputy Manager, Onslow County Government; Gregory Rudolph, Carteret County Shore Protection Manager; Sam Bland, Hammocks Beach State Park. Mayor Schools introduced Carolyn Custy, who put together all todays meeting. Others attending were: Bennett Wynne, North Carolina Wildlife Resources Commission; Nicole Mihnovets, North Carolina Wildlife Resources Commission.

Tom Jarrett, Coastal Planning Engineers, Inc., took the floor and made a slide presentation on their proposal and he hoped to cover most of the aspects of the proposed project. Basically, the project is aimed at two purposes, primary purpose of this particular project is to move the inlet channel away from the Pointe area, located on the west end of Emerald Isle. The secondary purpose is to provide beach quality material to nourish a portion of the Emerald Isle shoreline. The problem with the channel is back in 1981 the channel was pretty much located in the general vicinity of where the Town would like to see it relocated. At that particular time the west end of Emerald Isle was characterized by a sand spit and there were loads of sand which was moving off the west end of Emerald Isle into the inlet and actually building up and contributing to the growth of this spit. Over a period of time the channel has moved quite rapidly, actually, to the east and has infringed upon the point and has infringed upon the point's development, located on the extreme west end of Emerald Isle. As this channel has moved over, of course, it's caused rather extensive damage and problems to the point area. Coastal Science and Engineering, who did a preliminary report for moving the inlet channel over, came up with a

rate of easterly migration of the channel of around one hundred seventy feet (170') per year from 1975 to 2001. The Corps of Engineers had a report when they looked at the movement of the channel between 1985 and 1999. That report indicated one hundred ninety feet (190') per year. The attempts by the Town and local residents to protect the end of Inlet Drive and save their private investments have obviously not been doing a very good job. The end result here doesn't seem to be a very environmentally friendly solution. The residents continue to apply more sandbags trying to save their investment and Mr. Jarrett believes preparations were just completed for additional sandbags.

The proposal is to try to reposition the channel away from the Pointe area and put it back into a location where it has historically been in the past and also take the material out of the channel, and to use it to augment or supplement the permitted beach nourishment program for Emerald Isle. At this point in time the Town design is not finalized but looking at the cut through the ebb tide delta to the inlet the town is dealing somewhere in the neighborhood of 800,000 to 1,500,000 cubic yards of sand. The permit for placement of the sand on the shoreline calls for forty-five cubic yards of material per linear foot of beach and that nourishment would begin about a mile and one half east of Bogue Inlet.

The 800,000 to 1,500,000 cubic yards of inlet material, at a placement rate of forty-five cubic yards per foot could nourish between 17,800 feet and 3,300 33,000 feet. This should cover all or a portion of Reach One, which measures 22,500 feet, again beginning a mile and a half from Bogue Inlet and possibly portions of Reach Two, just depends on the size of the channel that is ultimately selected and the size of the channel will depend upon flow characteristics and coastal concerns, that will be mentioned later on. The portions of Emerald Isle that will not be nourished or wouldn't be nourished by the inlet material will be nourished with the approved bar rim located in "A" and bar area "B-2". The work on the bar area "A" and bar area "B-2" is scheduled to begin this fall. So the determination of the channel size, location and the volume of material that will be coming out of the inlet needs to be established basically before the next phase of the Bogue Banks Project is begun. Coastal Planning Engineering has the task of coming up with a channel design recommendation prior to the issuance of the contract for the east end of Emerald Isle.

Most of the concerns over messing around with the inlet of course come with what possible impacts any modification of the inlet flow regime or channel network may have on the adjacent shorelines, may have on the estuary portions of what's called the flood tide delta, inner stream marshes. Basically, what Coastal Planning and Engineering is proposing to do in trying to come up with the impacts of a channel reorientation or channel relocation is to use Mother Nature as a model. There is a very robust photographic history of Bogue Inlet dating back to 1938 up until present. Most of this aerial photography is available through the Corps of Engineers. Coastal Planning Engineers has already obtained copies of most of those aerial photographs and have begun to digitize them into a kind of database correcting for scale and what have you. Dr. William Cleary out of the University of North Carolina at Wilmington, will be the lead scientist conducting this geomorphic analysis. C.P.E. will take that robust photographic history and come up with changes in the shoreline, position on both of the adjacent shorelines, Hammocks Beach

State Park and the west end of Emerald Isle, reaching about a mile and a half to two miles across the inlet. We will look at changes in the east and west shoulder positions, the position and orientation of the ebb tide delta channel, the shape and area of the ebb tide delta. Mr. Jarrett clarified for those who may not be familiar with the term “ebb tide delta”, that’s the ocean bar. We’ll also be looking at the flood tide delta, that’s the part inside, behind the inlet, on the windward side and then the island and other marsh areas that make up the whole flood tide environment. Mr. Jarrett said the inlet shoulders that we’re talking about are really these shorelines here. The shoreline changes that we’re mainly concerned with following some kind of channel modification, will be at Hammocks Beach State Park where there is erosion and on the west end, and Emerald Isle where there is increased erosion. A cursory examination of what’s happened in the past, 1982 the channel was pretty much again centrally located in an area where the Town may be interested in trying to place the new channel. At that particular time the extreme east end of Hammocks Beach State Park was rather wide, actually and there was a rather narrow shoreline on the extreme west end of Emerald Isle. Over time, as the channel moved over to the Pointe, what happened was that the east end of Hammocks Beach State Park eroded quite a bit, about 300 to 400 feet, but the extreme west end of Emerald Isle increased, in this case 250 to 300 feet. So what that kind of tell us, and what we expect to see when we go through the robust analysis, or the analysis of the robust data set, is that if this channel is repositioned back to some centralized location we could expect that the east end of Hammock’s Beach State Park would again build seaward and there may be some loss of shoreline on the ocean face here on the west end of Emerald Isle. But again, what will happen is that we will get a reconstruction of this spit off of the Pointe area. So there may be some sacrifice to be made in this area, some gain to be made in this area, but then again a gain to be made in the area of the Pointe

Picking a few examples from what mother nature is trying to tell us about the behavior of Bogue Inlet. In 1972 the channel occupied a very similar location to where it is today. Maybe not quite as bad as it is currently, but there was certainly a considerable amount of erosion going on and it showed the existence of a flood channel right next to the Pointe, you could see the State had placed some temporary sandbags structures there in an attempt to protect the Pointe. The ocean bar channel or the ebb tide delta channel were actually moved over a little bit to the west. By 1976 the channel had again breached through the middle of the ebb tide delta. What happened is this channel just kind of almost instantaneously repositioned itself. In 1976 the Corps actually went out and dredged Bogue Inlet without an authorization simply to provide access to the Coast Guard. They were having difficulty operating out of the Swansboro Station over here on the back side of the west end of Emerald Isle so the Corps actually went in there and did some emergency dredging. It is interesting to look at this particular picture and look at the magnitude or the size of this dredging activity compared to the overall environment that it’s working in. C.S.E. has speculated that perhaps some of this dredging activity has contributed to the build up of the volume of material on the shoals, but Mr. Jarrett said he would stand here and say that he doubted that would be very much of a factor because this dredge can only cast material 90’ to the side and can’t reach over here. A lot of material that the dredge reportedly removed was probably handled more than once. The dredge, the volumes that are reported by the Corps, range around 100, 150, maybe 200 thousand cubic yards a year, but again if you go in and look at what they are really reporting and the amount of time they had the pumps on, the

dredge down and material was going through the pumps and out the pipe, a lot of that material, cast over to the side 90' on one pass, and comes back the next time and pass over that same area and pick up that same material. When you look at actual before and after dredging surveys of the channel which tells you what the net amount of material was removed, it is probably about half of what the Corps reports. Mr. Jarrett did think any indication that this dredging activity has contributed to the buildup, apparent buildup, of material along the ebb tide delta is maybe a bit of a stretch.

From the analysis of the shoreline changes and the other changes in the inlet, we hope to come up with some kind of relationships between the channel position and the location of these north shoulders, that is the strip area on the west end of Emerald Isle at the point and the spit on the east end of Hammocks Beach State Park. Just looking at a cursory analysis of the aerial photography there would seem to be a definite relationship between the position of those particular shorelines and the inlet channel. It is not unique to Bogue Inlet. There are plenty of studies of other inlets, and some that I've done, pretty much indicate the same thing, that that channel location really drives what's going on along the adjacent shorelines because not only does it drive the shoreline position of the channel location and probably influences the shape of the spit, it also influences the shape of the ebb tide delta. When this channel is centrally located what happens over on Hammocks Beach State Park is that you have a build up of material on this side that provides some wave sheltering and current sheltering to this particular end of the island and therefore there would be a tendency for the island to actually grow seaward. On the other hand, along the west end of Emerald Isle, if you move this channel over and then this side of the ebb tide delta actually becomes smaller or actually displaces farther to the west, the west end of Emerald Isle then becomes more exposed and that's why you see a concurrent recession of the shoreline on this side when the channel is centrally located. That is a typical kind of response that we've been able to observe in many other inlets that we've studied. Those are the kinds of relationships that we'll be trying to develop, some type of numerical relationship between the channel position and shoreline behavior, the orientation of the channel and position versus the adjacent shoreline, further removed, say a mile and a half, two miles from the inlet. The channel position versus the flood tide delta chamber again, how does the shape of the ebb tide delta, how does it change with the change in channel position? Then again, going on the inside, looking at the changes in the flood tide portion of the inlet, not only Dudley Island, but any other marsh islands and sub-tidal sand flats that exist in the bay. Again, we will have an opportunity for the agencies to comment later on and we'll go into more detail, I'm trying to go through this rather hurriedly but I will allow sufficient time for the agency comments and any comments from the floor.

Getting into the Geotechnical investigations, we will be doing what we call some jet probe exploration on the ebb tide delta to try to hone in on the best channel location within that corridor that will provide the optimum material characteristics for placing on the beach. I know the quality of borrow 7, has become a major issue, not only on Bogue Banks but up and down the Coast and our main purpose here for doing the jet probe evaluations are to find these characteristics of material that would be removed with the channel relocation. The first phase of that would be to go out with what's called jet probe, that's nothing more than just a 2" pipe that

has a water jet going through it. Divers are sent down who are trained geologists and they take the probe into the bottom and as the jet washes into the sand bottom the material that is churned up around the side of the jet and they are there visually observing material that comes to the surface and sampling it as it comes to the surface so you end up with a pretty good idea of that jet probe goes all the way down to the full twenty foot depth what the composite characteristics of the material are below the surface. When I say composite, because you're not sampling a layer, a lot of the material is mixed as it comes to the surface so you end up with some idea of what a dredge would pick up if it was in there working. That material comes to the surface and is piled up around the base of the pipe, the geologist will grab samples and put them into bags and document them and then they will log in, as best they can tell, what kind of bottom layers the probe goes through on the way to the bottom.

This is the generalized plan that we have to cover that whole corridor. Again, at this stage, without focusing in on any one particular alignment, we're looking at a wide range of options where, actually in the past, the channel has had some natural position well within this corridor. So we will be doing the jet probes basically over this area here. Once the jet probes are done, then we move into the next more detailed phase of what's called "Virbracore". The "Vibracore" is again a sub-surface investigation tool that is basically a three and one half inch diameter pipe mounted on a tripod that actually vibrates. There is a big vibrator on top of it that vibrates on top and works that vibracore into the bottom and as it does there's a plastic casing inside that steel casing and material rises up and is contained within that tube. Once the tube is full, as they bring the vibracore up, and it is put up on deck of the boat, they take out the plastic liner, there may be some hidden stuff going on, they pull out the plastic liner, this is the plastic liner that's inside the steel casing, and then they actually split the core right on board the vessel so that they will have instant feedback of the characteristics of the material at that particular location. Once that material is identified, then the boat moves on to another spot and drills another core. Currently, the previous engineers, Coastal Science and Engineering, have taken ten vibracore's in the inlet. That information on the quality of the material is available. The Corps of Engineers, as part of the Bogue Banks feasibility study, is going to be taking an additional seven or eight cores, pretty much along the edge of the channel. If they haven't started already, they should be starting soon. C.P.E. will take the results of the jet probe data, existing vibracore data, the core data and combine that with five, perhaps ten more vibracores to melt down the quality of this material.

To give you some example of what I would expect to see coming out of Bogue Inlet, would be material similar to what came out of Shallotte Inlet that was placed on Ocean Isle Beach. The quality of that material should be fairly indicative of what we would expect to see coming out of Bogue Banks. After all, the material that is on the ebb tide delta is simply material washed off the beach, got trapped by the currents, and is sitting there. There shouldn't be the problem with the compatibility of that material that seemed to come up with some of the off shore bar areas.

One of the more important things we need to do in the overall design is to come up with a channel size and position that we feel will provide us with the longest-lived channel, one that

would be capable of capturing the flow and becoming a permanent deep-water channel through the inlet. That's very important because the Corps has indicated that should a relocated channel become the dominant channel then they will then focus their maintenance activities in that deep-water channel. That's not to say that that channel will stay centrally located forever because after all, if you go back and look at where the Corps have been dredging that channel over the years, it just simply followed the easterly movement of that channel over time. That little gray area that I showed the picture of is not capable of keeping that channel centrally located and the project we are formulating is simply to allow that particular dredge to go in and dredge along the deep-water channel. That particular dredge, even though it's a shallow draft dredge, still requires five and a half to six feet of water to flush. If there's not that amount of water in the channel either at high tide or low water you can't even work, so the impact of that dredging will be able to hold an alignment that's always been good. At least if you move the channel back over and you dredge a relatively deep, relatively wide channel, what we will do as part of the analysis, is look at the shoal characteristics of the relocated channel and try to predict what the long term fate of that channel will be, ultimately knowing that it will follow, of course eventually fill and begin to move to the east again, but it should involve a considerable amount of time. After all the Corps is conducting their feasibility study and I would imagine that you are also going to be looking at Bogue Inlet as a possible renewable source of beach nourishment material for the over-all Bogue Banks Project, not to say that Bogue Inlet could be the source of sand for the entire island, there is no way. The Inlet Project could serve as a source of sediment for the extreme west end of Bogue Banks and also maintain the channel in a centralized location and continue to protect the point.

The circulation model will basically model the total currents in and out of the Inlet. Flows back into the White Oak River channel and connecting channel back to the waterway will be looked at. We'll look at currents even in the waterway up into the White Oak River, so this whole estuary/ocean system will be Hydrodynamic modeled to come up with the current flow regime as dictated by the current configuration of the deltas. Then we will reposition the channel artificially in the model, we'll put an artificial channel in. Basically everything will be kept the same, but we'll model the flows and basically constituent transport surrounding, if you will, through the system to see what kind of changes that new channel would impose on current in the back bays and on the potential for impact on salinity. Then the third run, we'd actually seal off this channel, assuming that this would become the dominate channel, this feature would close, and then we would run the model again and see what kind of impact that third iteration has on the same thing, currents and flow and currents and salinity.

Mr. Jarrett introduced Cheryl Miller, who is from Boca Raton, Florida and has many years of experience working on environmental issues down there, many of which are probably a lot more complicated than the ones we deal with. Cheryl comes here today with a wealth of information, a wealth of experience, and I'll turn it over to her.

Ms. Miller said, I'm a marine biologist with Coastal Planning and Engineering. I'm actually going to go through this rather quickly. This is to give you kind of a background of what we are going to be dealing with and what needs to be addressed during the environmental impact

analysis associated with this project. Where we are right now? We are identifying the agency's and public's concerns and to insure we have client committee meeting requirements. Now there's an existing GIF for the permanent beach project. We now have to determine how to address the channel relocation and that sand as a nourishment source.

Second, environmental inventory, is to identify and characterize resources and define the baseline positions. Again the baseline position of the project area beach and surf zone has been established for the permanent beach renourishment project as well as a monitoring program having been implemented to provide information on the repopulation of the beach and surf zone. What's new for this project is the baseline condition of the ebb, which would be the ebb flood tidal shoals, as well as to determine if the existing information is adequate to define a baseline condition and to allow us to perform an impact assessment. If there isn't enough information existing for that baseline then we have to do additional studies to determine what the impact will be upon these resources. A lot of attention has been brought to human impact analysis in the recent past, very complex, complicated process that is really involved. What we're looking at in this project, project specific, is the if the channel relocation will cause human impact upon the population that will be impacted by this project.

Some of the new habitats that we have to address, that could be impacted, is the inter-tidal flats. Tidal flats come with potential loss of piping plover feeding habitat as well as for other shore birds, not just the piping plover. Tom Jarrett mentioned what a big part of the environmental impact analysis will be, as it relates to the physical changes and the habitat and how those physical changes will then possibly impact the resources within that system. So if modeling then shows potential limited impacts whether or not those limited changes are going to be significant to the organisms that live within that system. A big issue that we are going to be looking at is the compatibility suitability analysis. That's where sea turtle nesting substrates as well as repopulation or recolonization by the benthic infauna and lastly to be addressed in this analysis is then a perfect mitigation for removal, potential removal, for the intertidal habitat, whether or not this is going to be a temporary or permanent loss of inter-tidal habitat and that would then be looking at reformation of the western spit by any of the modeling.

To address the additional fish, essential fish habitat concerns associated with the channel relocation. There will be the temporary elevated turbidity effects as well as alteration of the movement pattern as well as successful inlet passage for larvae, post larvae, juveniles and adults of marine and estuarine organisms that goes through the inlet. We know right now that the existing federal navigation maintenance temporarily elevates turbidity and alters movement of life stages through the inlet. The task will need to determine whether or not this project will elevate turbidity and alteration patterns. The two new areas to be looked at for the channel relocation are coastal inlet as well as inter-tidal flats.

The final step in any environmental impact analysis is an attempt to mitigate any significant cumulative impact.

Ms. Miller opened the meeting up for discussion at this point.

Tom Jarrett, C.E.P. said maybe the easiest thing to do is just to start around the table and let each of the agencies outline or express their concerns or issues that need to be addressed at this point in time so that we can make sure that we go through the project in a proper way and that we cover all the aspects of the project that should be covered and we're not left with any big surprises when we get down toward the end, near completion of the environmental document and then all of a sudden a new issue pops up. If at all possible we would like to shake them all out today and get them out on the table anyway so that we can begin the process of sorting through and evaluating them.

Mayor Schools - Are there any special comments before we get going? There's a couple of hands in the audience that went up and what we said in the beginning was there's going to be time at the end of this meeting for public comment but during the time we are at now is really just for the permitting agencies to be putting out comments for Tom and Cheryl.

Commissioner Emily Farmer - Public comment is also extremely important. We know that there are some people in the audience who are, I see one geologist, and we absolutely need to hear any issues that you all bring up. We don't want surprises again.

Mickey Sugg, Corps of Engineers, - At this time, you don't know if this is going to be a short-term fix or a long-term fix, correct?

Tom Jarrett, C.P.E. - This is a, from the Town of Emerald Isle, it's a one time proposal. I don't believe the Town is making any plans to re-do it.

Mickey Sugg, Corps of Engineers, - Any maintenance or just basically federal?

Tom Jarrett - The Corps certainly will probably look at the Bogue Inlet as a possible combination of the existing navigation project if they can come up with a comprehensive salinization scheme. The deal would be, where the opportunity exists, to combine the navigation and the beach project.

Mickey Sugg - Are you going to let the old inlet, when you put the new channel in, how are you going to stop? Are you going to put a material in the front or just let the water take its course or?

Tom Jarrett - The plan right now, and of course as we get through the analysis and do the modeling and start looking at current velocities that will change. But right at the moment I wouldn't propose putting material in that existing channel, I would just let it shoal naturally. The indications seem to be that that's the way mother nature pretty much did it in the past and would be a breach through the ebb tide delta and the existing channel over here that would tend to close, so again, using the inlet history as a basic model we will then formulate the final plan on that, but right now I wouldn't recommend putting any material in there. You'd probably spend

your whole budget trying to close that channel.

(Unidentified agency attendee) But you will be constricting that channel down.

Tom Jarrett – Part of the analysis will be looking at what size channel is needed to capture the major part of the flow. We'll be looking at stability analysis criteria that exists with the larger tidal, tidal inlets that have been closed but those same theories are applicable even to a channel itself. So we can look at the dimensions of the channel the characteristics, input to the channel and come up with a reasonable channel design that will be big enough to assume the major part of the flow through the inlet and by doing that then this channel would become secondary channel when this one closed.

One thing Mickey Sugg pointed out that when you look at the dimensions of the channel don't let the amount of beach nourishment material dictate the size of the channel. I mean, that needs to be about as natural, don't go any deeper or wider just because you need more sand on the beach.

Tom Jarrett – I should have pointed out that the plan for grading this bar will be based on using an ocean certified pipeline dredge. For those of you are aren't familiar with that particular type of dredge, it's not like the ones that are being used to nourish the major part of Bogue Banks, those are called Hopper dredges, those are just ocean going dump trucks that move out, drag the bottom, put material into a hold and transport it to a pump out point and then pump the material ashore. A recovery suction dredge sits in one spot, you've probably seen them operating in the water while they were in Morehead City Harbor, it just swings back and forth with a recovery head on the bottom, sucking water and sand up through the pipe into, into a major pump onboard the vessel and into a pipe and onto the beach. The reason that type of plant would be used in this particular environment is simply the same problem as using the side catch dredges. The side catch dredge operates on the same principal as a hopper dredge, that is it moves with drag arms on the bottom but rather than pumping material into a hold it casts it to the side. Those vessels need adequate water depth to operate. A hopper dredge big enough to do this job would draw about 15 to 20 feet of water, comparable to the ones that dredged the Morehead City Harbor Project, Beaufort Inlet, so it's not suitable, so a pipe line dredge would be the key feature of this project. This dredge would begin on the ocean side and work it's way into the inlet from the outside in. Then the material would be pumped through a pipeline down the beach to the disposal sight. With the pumping distance varying you might use a primary, to get material all the way down the beach, but basically an ocean certified dredge can probably pump material without assistance three or four miles.

Tom Jarrett answered a question about the pipeline dredge going off shore and said– No, as far as I understand it, we're not, we didn't do the project, but as far as I know those are approved only for very shallow depth. An ocean certified pipeline dredge requires a much deeper cut in order to operate efficiently. The cutter head on the dredge is probably seven feet, eight feet in diameter. In order for him to operate efficiently he must to be able to cut down six or seven feet into the bottom so that most of his cutter head is below the surface, is sucking up

mostly sand and water. The hopper dredge can only skim the surface and it may dredge a small section on each pass. The approved borrow areas are only approved for a cut say two to three feet, maybe four, I'm not sure exactly, but those aren't conducive to the use of the pipeline dredge so unless the alternate borrow areas were modified with additional environmental studies to allow a deeper cut, those can't be used, a pipe line dredge can't be used efficiently in those areas.

Frank Rush – The Town is currently, you know we're moving forward on the eastern phase for this fall and we are investigating the possibility of amending that permit to use a pipeline dredge off shore to make a deeper cut in the earlier stages of dredging.

Tom Jarrett - There's two different firms still operating, CSE still has the main, Coastal Science and Engineering, still has the main contract to complete the Bogue Banks beach nourishment project. The Bogue Inlet Project is the one being conducted by the Town of Emerald Isle as a possible way of again, addressing the severe erosion problem at the point but then also providing a high quality source of sand for a portion of their project. If they could accomplish both goals using the inlet, then they would not then use a portion of that offshore bar area to nourish whatever western part of their shoreline could be nourished with the inlet.

Tom Jarrett – Cheryl can attest to dredging in this area, across the ebb tide delta, from my understanding, that's not really a high habitat area for the turtles, they generally like to lay around in the shale. This channel will be cut with a pipeline dredge and as Tracy Rice, U.S. Fish and Wildlife Service has pointed out, generally has a low propensity to take turtles, they do on occasion take turtles, but the instance is very rare. You will also be working in an area that is usually devoid of turtles in this area. It would be conducted during the supposed time frame when turtles have left the area. There may be some need to control the dredging period by water temperature rather than by some arbitrary date but we will certainly look at that as a confirming issue. Again, we are told that this is probably the best of all worlds in terms of you all having to nourish your beach and you're need to protect the point of the inlet and relocate the channel. You end up with high quality material that simply came right off the beach, put it back where it came from and you allow the inlet to then undergo a natural readjustment to that repositioned channel.

Commissioner Farmer - that was precisely why we wanted to see if we could get the permit modified. So that we would not be getting into the turtle takes problem.

Tom Jarrett – One thing I meant to point out. Bill Cleary and I will be attempting to get some definition of these inter tidal sand flats, but it's a very complicated deal when you go through time and you look at the changes that have gone on back here. I mean, in one particular picture you know, it's pretty clear. Yeah, there's some tidal flats but then you've got some aerial features popping up. You look back here at the flood tide shield protecting Dudley Island, now that particular feature seems to be pretty consistent throughout all the aerial photography I've looked at regardless of where this channel is. If you go forward to 1976 here's the channel right there in the position where the Town is maybe interested in putting it, yet you still have this massive sand flat out here. So, we are trying to define the aerial extent of the flood tide delta. Do

I use this channel, this photograph, or go back to another one, that the channel is kind of obscured. We will be looking at basically trying to get some kind of handle on the size of the sand spits on the aerials.

It has been noticed that the east and west estuary channel are much more open and connected. It seems to be one complete system and as the channel migrates to either east or west, those two close off. They kind of separate.

Tom Jarrett – Interesting that is pointed out because Bill Cleary suggested perhaps the maintenance dredging done in the disconnecting channel back to the waterway may influence to some extent the distribution of flow in these two channel and so actually, that was one thing we were going to look at but didn't publicize because we weren't sure what the results were going to show, whether we could use them primarily because we don't have adequate drainage back here but certainly there is a definite relationship probably between this flow and the channel location as well as possibly some influence on a dredging done on a connecting channel.

The question was asked if it is known if this is sort of simplistic but for your model and all, but I was just wondering, if you know, with these photos, what tide schedule they had, because they really affect how much you can see the shoals and all.

Tom Jarrett – It certainly does and of course you can get some idea of looking at the marsh islands and the water levels. I wouldn't stand here today and tell you that the analysis of photographic shorelines is you know, going to give you 100% correct answers. So what we have indicated to the Town were their concerns and our concerns over what's going to happen on the ocean facing beach on the west end of Emerald Isle. We are going to provide them with a predicted response, but then we are going to put some pretty wide error band around that response, because we are dealing with shoreline conditions that may on any particular photograph vary, so you have a wide error in just determining that shoreline position.

Commissioner Eckhardt, asked a question saying he wasn't quite clear on why you were starting the dredge disposal material about a mile and a half east of the west point? Why was the west point selected out, is that a hazard area or what was the reason for that.

Tom Jarrett – Actually that came out of the plan formulation that the Coastal Science and Engineering did for all of Bogue Banks but basically the reason is, if you look at this west end of Emerald Isle, we are about a mile and a half to the north. It is highly influenced by this ebb tide delta position and the channel position. That's why I say when the channel is laying over toward the point, as it is in this photograph, the west end of Emerald Isle actually differs for that mile and a half distance.

Couldn't that material have been deposited from material from Coast Guard Channel as well?

Tom Jarrett - The Corps of Engineers also places material beginning about 1,500 feet

from the inlet. This connecting channel and the waterway dredging, that beach quality material has been deposited along this section of shoreline, so the combination of the inlet impact and the disposal has pretty well stabilized this particular stretch of shoreline, and like I said, it does appear somewhat on this channel position that some of the other analysis that I have done, even back in the 1800's to present, have traditionally shown this portion of the island to be fairly stable. Again, if you move this channel then you are going to have to be concerned with what happens then. Again, the 1981 position showed that when that channel was over here this shoreline was another 250-300 feet back. Now that may be O.K. because the development may be further, far enough back to not be impacted by that but we are going to have to provide the Town with enough information so that they can make an educated and reasonable decision on whether or not, the changes that are going to occur here are worth the risk.

Mickey Sugg - I assume that sand is migrating from east to west at this end of the island?

Tom Jarrett – More than likely this sediment regime is dominant from east to west but there are very frequent and persistent reversals in the sand transport direction. There is a big influence out of the southwest so I would suspect that there is a high, not predominance necessarily, but a very substantial wave energy comes out of this direction. The wave climatologic is pretty much the question. But anyway, it does appear that in this particular area you may start to be influenced by a lot of the southwesterly transport.

Mickey Sugg - If you left the channel location like it is now, let's say you didn't do any relocation, do you think it would gradually start migrating back to the left?

Tom Jarrett – It would definitely move, not necessarily migrate, I think you look at the history of the inlet, it has a tendency to just blow out, abandon this channel and reopen another one. Some contend that the dredging activity by the Corps is maybe discouraging that, is keeping a channel with enough hydraulic efficiency to maintain that position and prevent that recurring.

Mickey Sugg - Because when you look at alternatives in your permit, I mean you would look at that, you know, location.

Tom Jarrett – I think without that you can pretty well kiss some of these buildings good-bye.

Tom Jarrett – Who is going to stand here and tell you that this thing is going to stop here, it's going to stop here, it's going to stop there. John Wells did some studies earlier on that based on his analysis, I think he did some planning studies for the Town and his analysis actually showed that there could be some risk of developing the point back in, from this point west. So, this area is very dynamic, I couldn't stand here today and tell you the thing will stop, it's not going to move again. It's pretty obvious to me that sandbags don't offer the type of protection that provides any lasting protection; they are only permitted for a couple of years anyway. Mother nature has been able to pretty well take care of it in less time than that.

Mickey Sugg - So that would be something you would have to look at?

Tom Jarrett – Soon as we look at it, we can make various ranges of, if this thing continues for another ten years, without reversing, what would be the economic impact? What would be the environmental impact? You are loosing habitat, and it's being replaced by sandbags and I don't know if sandbags are a good habitat but they sure don't look good.

Is any protection of the point is going to come indirectly from not actually placing material in there?

Tom Jarrett – I think the CSE proposal did consider placing a minimum amount of material in here but it was like 100,000 cubic yards, if I recall, my guess is that that wouldn't be worth spending the money to place it there. I would rather have all that sand and place it on the beach. Let the channel do the work.

John Kilgore, Pointe resident - I think several years ago there was 50,000 cubic yards placed right there and it lasted, what, three weeks, a month.

Tom Jarrett – Yeah. The material came from the waterway and pipe was laid along this section of the shoreline and placed there. Of course it was very fine-grained material, a lot finer grained than what you will find out here but even then it washed away. I guess you go back and look at the experience that ATM had during their initial attempt to close the abandoned Mason Inlet Channel when they reopened the new Mason Inlet, and came back one day and tried to just pump sand into the old channel they weren't very successful on that first attempt. What they actually had to do was stockpile material, move into a position, and once they had slack water, then work feverishly to fill in that hole. This channel is much too big for that when compared to Mason Inlet. Mason Inlet is not as wide so you are talking major volumes of sand and you just can't pump it in there quick enough to close it off. You could possibly go in there with some type of temporary sheetmetal wall that I think was proposed for Mason Inlet, which could then maybe seal off that flow long enough to go in and put the plug in there and then remove it. We could certainly look at that alternative, but my guess would be that it would exceed the budget constraints of the Town of Emerald Isle currently has.

Mickey Sugg - CSE, the vibrocore samples, you said they did ten? How did they come out?

Tom Jarrett – I haven't seen the results of all of them, in fact I haven't seen the results of any of them. You can question that information from them. There was some minimal amount of information provided on these core locations, i.e. Core C06, NA, that, this is right out of the report and that means "Not Analyzed" at this point in time. This particular core had a mean grain size of .56mm that is a lot courser than what you see on the ocean beach, I don't know whether that's shell or what that was. This sample here was about .3mm, that pretty much a typical mean grain size that one might find on the coast of North Carolina shores. You find a lot courser material up in the Dare County area, particularly Kill Devil Hill, Nags Head, Kitty Hawk. For

the most part, .25mm or .2 mm is a pretty decent average mean grain size one might find on the ocean beach around southeastern North Carolina. This particular core had a .4, this about a .27, this about a .2, so it's kind of interesting that some of the finer grade material was found on the off-shore portion of the ebb tide delta. Again, with the additional jet probes, with the additional vibrocores and the ones that we plan to take I'm sure that we will find that this material, when it's all mixed together, compared to characteristics of the material that's on a native beach, you won't find where your sand ended up.

A comment was made, that an island shown in the presentation, is a state owned island and managed by North Carolina Wildlife Resources Commission, there is bird nesting out there and we would like to make sure that your future cut does not go through there or get so close that it's start eroding away, or sloughing back into the new channel.

Tom Jarrett – O.K. Yeah, it looks like the natural bowel leg or deepwater portion of the channel kind of comes, of course it swings this way and we were looking at perhaps coming around that and coming off through here and not in this area, but that's good to know.

Another question asked was about the environmental impact statement done, was that under the National Environmental Policy Act or the State Environmental Policy Act and has the decision been made that it would be appropriate to do a supplement or do a new one?

Tom Jarrett – Guess that's what we're here to find out.

It is known that Coastal Management and the Corps have spoken about that particular process. When the process gets going it is thought it will be a NEPA process, than it will under the National Environmental Policy Act.

Mr. Keith Harris said it will be a NEPA document of some sort. We need to go through this process to determine all of the issues and then CAMA and I will sit down and discuss and provide feedback to the applicants on the best documents.

The State has been contacted about what the State role would be and once the Corps reviews it, similar to the consistency program and once it goes through the State steering house that would be when it would be considered complete enough for an application to come forward from the CAMA. If the legal process is gone through and it gets circulated under that consistency then we would circulate it in the steering house that way.

Perhaps you can find it, whether a supplement is appropriate or whether a whole new environmental impact statement is required, especially with the scope of the original impact statement.

The recommendation again is to look at the Department's policy as far as what triggers new SEPA documents, environmental documents. The mining of materials and or the location of the new navigational channel and we're, probably this will be a new navigational channel

compared to what they now, so we are making the determination at our level that it would be a new SEPA document or new environmental document.

Tom Jarrett - I guess the indication of a supplement was really aimed at the beach disposal part of it and the supplemental piece of that would be the compatibility of the inlet material versus, native sand, versus the compatibility of the existing barrow area and that would be the primary focus. As Cheryl Miller pointed out we have major, our area of major concern, is that we be evaluating material.

And one thing here too, again, the previous project was just for the excavation material off shore and the beach nourishment project. Now we are bringing in another component of the navigable channel issue and that just opens up a whole new can of worms that is going to need to be addressed in a new document.

A new document is needed but that's not to say that we wouldn't want to incorporate and use all previous data that's available.

Gregory Rudolph asked about looking at the Town schedule, you talk about doing this document or supplemental, whatever, and making some sort of conclusion by the fall, before you activate a contract for the rest of it.

Tom Jarrett - The deal would be that, whenever the inlet permit goes through, and whatever shoreline is covered by the inlet material then, what isn't covered would be covered by the off shore areas. If the inlet project goes belly-up without being able to get the permitting then the Town will use its fall back position to use approved off shore borrow areas to complete the beach nourishment project.

Its still going to have to be decided but it's probably going to be EIS. There are a fair amount of issues in beach placement, in and of itself, and then you add complexity of adding an additional channel, basically that's what you're talking about, through the throat of an inlet which, you know, will change the estuary and probably change the ocean. So those are two new questions.

During our discussion, a question that came into play, was with the Mason Inlet location that was an EA but it was a substantial EA with additional support. The Mason Inlet EA had so much additional support, that it was comparable to an EIS.

Mayor Schools – We've pretty much been planning in the EIS direction.

Cheryl Miller – I think it would be a time saving.

An EA for Mason Inlet was not approved. And not to say that it can't be mitigated. There is information on the beaches but not on the shores or bird habitat and if Bogue Inlet is a

crab sanctuary it is not mentioned.

But just be aware too, that, I mean this covers, speaks of concerns on the banks and also State of North Carolina concerns. Blue crabs spawn in and near inlets, red drum spawn in and near inlets, striped mullet, spotted sea trout, so there's issues there that need to be addressed in the EIS, if you're going to go that route. And also, we have FMP's for several of these species that are State FMP's too. We use the term "Critical Fish Habitat", I hate to throw in another habitat, the State species, and there will be a plan on striped mullet. Of course there is one on red drum, blue crab, be one on spotted sea trout, there's one on southern flounder, and of summer flounder, which is a very important species and also shrimp too, would be something you would want to consider as using the inlet for breeding habitats.

Just a word on EFH. First I'd like to say that I'm pleased that you all addressed EFH up front. It was a pleasant surprise. I assume you understand that there will probably be an EFH assessment necessary for this project.

Cheryl Miller – With a need for documentation, any document can serve as initiation of that process as long as you state that up front.

Yeah, that's true.

Cheryl Miller – You could of course do that rather than preparing a separate EFH assessment.

We don't have a problem with that; I would suggest that you highlight it as such though, find it and read it, we'll talk about the detail on that later.

Tom Jarrett – The first reading, the schedule we are trying to adhere to (?), in order to get into a position of, (?) position, we would pretty much like to have those documents complete by November. Is there any other source of information that could be called upon ?

But if you're looking at construction in 18 months then you do have at least a full year to get

Tom Jarrett – Sort of continue the sample during the period in which the documents (?)

Cheryl - Right. You don't need to have it all up front as long as it's before construction starts.

On the inter-tidal shoals when doing your general analysis over time it's going to be real interesting to see how it flows out in terms of the actual area or acreages of those shoals and how they change and they have certainly changed, average out over time with the changes and that would be important to us in terms of fisheries prospective.

Cheryl - We would echo that. The 1998 imagery that I have quantified the habitat and it

looks like Bogue Inlet is one of the top three inlets for bird habitat in the State.

Tom Jarrett – My guess would be that the size of those shoals probably fluctuates on a fairly dynamic equilibrium which is kind of a strange hybrid but anyway certain surface area will fall in the ebb tide delta. The ebb tide delta may change shape from the norm but if you look at the surface area it pretty much stays, within certain limits..

Rather than speculate it is suggested that you, (?)
That issue was a debated issue on habitat heightens concerns.

Tom Jarrett – It was done, and one that was high on our list to try and we did the we could.

It looks like you did a good job identifying what most folks concerns are going to be.

Tom Jarrett – Thanks to Cheryl. She got on the phone and called everybody in the world to find out what is going on. So it wasn't like this just fell out of the sky, we have done some preliminary coordination to try and get to the point of at least making a presentation that covered most of the concerns, at least that we have identified. I think the State Essential Fish Habitat issues and the Fish Management Programs are maybe some that we need to focus in on within these particular species will certainly be added to the list of things to look for and as far as the sampler probe goes, I'll have to get with Cheryl and see exactly what will be involved in that but we are allowed to continue to sample even during the coordination process of the documents and I'm sure we can probably whip that out.

One thing about the sampling, be sure whomever is sampling needs to be reminded that samplings need to be approved by agencies before you start sampling.

Tom Jarrett – O.K.

You mentioned a couple of time about trying to estimate the loss to the inner-tidal shoals and I agree with that, it's good that you put that in there. I already mentioned the island too earlier. I'd also like to know what your analysis shows is going to occur to the spit on the west end of, the point? I'd like to know the configuration that might take on, now that the inlet channel changes all the way back into there, or for the piping plovers and however ..

Tom Jarrett – That's still generally going to pretty much fall in the currents and flood and I guess we can go back and look at what it's done in the past. Again we are going to rely on the history of the inlet, again, as our physical model, of what is likely to occur after we make these changes. Now, I guess one thing to point out is I guess the depth and width of that channel. The width may not vary from what you have seen in the past but the depth will probably be a little bit deeper. Generally speaking, the channel in this area, right at the narrowest part, is going to be 18-20 feet deep . The new channel would be 16-18 feet deep across the whole width . One of the reasons for doing the hydrodynamic modeling will be to look at the initial assessment on the potential change in tidal flow that may occur initially with that cut. There could be some brief period in which perhaps the tidal crest will increase; however, the tidal crest being the total volume of water flowing through the inlet during any tidal cycle. That is usually controlled by

this minimum cross sectional area, not controlled by what's across this portion of the inlet, it's controlled by the valve back here, so if that's not altered very much, more than likely it won't change the total volume of water moving in and out but there, again, it's one of the purposes for doing the modeling.

The question was asked, if land accrues on the point area, who's land is that?

Tom Jarrett – I guess if it's deemed to be a natural, and I think in this case someone could argue but generally speaking, from my experience, the state law is, if you go out and you nourish your beach and raise it above mean high water and you use public monies to do that that newly created land becomes the property of the State. In this case, if you move the channel and you don't really do anything to physically raise or create land on the point, it just builds up as a result of the channel being moved, then I think it would vary in ownership.

Another question was asked about, a couple of people who already lost their houses there, can they come back and build?

Cheryl -If they pay taxes on the property then they can.

Tom Jarrett - It depends on how that lot is defined. If you have a lot that's platted and it's got boundaries that goes from point A to point B to point C to D, and someone maybe has retained ownership and has continued to pay their taxes, then I think they can actually claim ownership to it. If your lot though is only deeded to mean high water then it comes and goes with high water .

Cheryl -I think it's something that should be looked into, is that, if, you know, I mean I know you're not going to put any chain there or whatever, but it's going to have a natural accretion and the thing is that I think we should look into either acquiring, if it's still being paid, acquiring ownership of it or whatever to, because it's all going to be a part of - - -.

Part of that, just to the north of the end of the road is State property already. The Department of Administration already claims ownership of that, they have already jumped through the hoops or whatever, so some of that is sort of a moot point. I do know you can touch base with Joe Henderson or Bobby Poole

Tom Jarrett – Are they in this area?

Yes, in Jacksonville. I do know in that area the State owned property that they've already jumped through hoops, unfortunately I don't know the whole why's and what's about it. I would touch base with Joe Henderson or Bobby Poole, with Department of Administration, they can give you some feedback on what's already transpired.

Jeff, what happens with the first line of stable vegetation we're not re-nourishing?

I don't think, again we are talking in our view line that we talked about as far as in that area whether it's beach nourishment or deposition project, that line becomes static, but that's when the material is pumped onto the beach. I don't think this is one of those situations where we would go and get a free nourishment vegetation line, now on an oceanfront we would. There will be at that point, that the current permit now requires, that it be surveyed again prior to a deposition and it's a very short time period as to when that will be surveyed in and that becomes the static line as far as for measuring oceanfront setback. Now we are not changing on the oceanfront,. I cannot imagine that applying to the inlet area since there is no deposition taking place, that is natural buildup if you want to call that.

Commissioner Farmer asked, With the sandbags that are there now, am I right that those have to be removed?

According to the permit, and conditions on those, if they no longer become necessary, they are still under certain guidelines, and this is one of those things, most of them were issued for two years. The ones for the Town were issued for five years because of the large structure of the highway or the road and the road right-of-way. There are three criteria, and I have been dealing with Frank Rush on this, as to when sandbags can remain longer than that time period and one of the few things is whether or not if actually they, feasibility study addressed by the Corps and I know Rudy has been dealing with that and we're getting ready to talk to the Corps folks and have them make a determination as to whether or not this fits into that narrowly defined feasibility study. I don't know whether Ken knows or Steve, but that is something that we already proposed to them as to get a definition and answers as to where the Corps would feel.

Tom Jarrett – Is that being actively pursued?

Yes.

Tom Jarrett – Well, actually, all of Bogue Banks is actively pursuing it.

Cheryl - Once you get into the environmental impact and as you know with Mason Inlet there are things that you need thrown in that are not necessarily addressed in the rules. It wouldn't surprise me a whole lot to see that become a condition of an inlet relocation. When you've got other things thrown in I think at Shell Island they can't have _____ any more, that's really not something in somebody's rules, it became a bargaining tool more or less so there is nothing to say that this would follow a traditional one, two, three step.

Where does the County line run through here Frank?

Frank Rush - I don't know exactly where the County line is. He says it's right about straight down the inlet.

The old inlet or the existing one?

Bear Island.

Tom Jarrett - Bogue Inlet has pretty much been confined between these limits. Actually you go back to 1938 shoreline, where the inlet was in 1938, came out this way. This spit built up from 1938 to the early 1950's or so and pretty much stayed the same since then. I imagine when the old map makers were making maps they picked Rich Inlet. They drew a line through Rich Inlet to separate Pender and New Hanover, and no one really knows exactly where that line is. I imagine the same thing exists here, they just kind of drew a line. Whether there's ever been an actual survey, I don't know.

Tommy, if I may go ahead and try to address Emily's question as far as how long sandbags can remain and when they have to be removed. It does say that a temporary sandbag or other control structure may remain in place for up to five years in case of a road and up to two years for small structures or until May, 2008 whichever is later regardless of the size of the structure if the Community in which it is located is actively pursuing a beach nourishment project as of October 1, 2001. For purposes of this rule a community is considered to be actively pursuing a beach nourishment project if; 1) it has been issued a CAMA permit, where necessary, approving such project. That wouldn't be the case for the inlet here. I think it's pretty straightforward; 2) An ongoing feasibility study by the U.S. Army Corps of Engineers and a commitment of local money when necessary. That's the one we are going to have to look and see if we can get a clarification from the Corps on; 3) Receive a favorable economic evaluation report when a Federal project approved prior to 1986. I think #2 is the one we are looking for some feedback as to the timetable when they actually have to be removed. We are actually in that process right now.

I guess the problem that I have with that is that by 2008 getting those things out is not going to be particularly helpful for anybody.

I'll be honest, you know, some of them are coming due fairly shortly, some of the early ones, latter part of the fall.

I have no objection to them being there when the property is threatened but when the threat is, hopefully removed.

When the threat is no longer there, they have to be removed, that is a condition. When they are no longer necessary, for whatever reason.

Now that's a tough question, a tough determination to make.

That's why you get the big bucks.

Whatever, whether it's the EIS or EA, you probably are aware you are in critical habitat, so you will have to go through North Carolina(?) Fish and Wildlife Service as well as with National Marine Fisheries Service. Sometimes that is very time consuming, so you want to make sure you start on that process as soon as you can.

The Board had discussed the issue of whether we try for an EA or EIS, the Emerald Isle

Board. Our concern was that if we go for an EA we may in fact be wasting time and that we would prefer to go for an EIS. I don't know whether that's a call we can make but really what we were looking for was an expedited process with an EIS.

Tom Jarrett – We had pretty much based our proposal to the Town on the EIS.

What impact to navigation is this project going to have?

Tom Jarrett – The Town has already written a letter to the Corps about that and I guess about the only impact that the Corps, the Corps' response basically is that they are authorized to maintain the channel through Bogue Inlet through the deepest natural whatever channel.

Tom Jarrett – During the project? Probably wouldn't be really any impact because the changes that will occur in the existing bar channel won't be instantaneous. The new channel, as we envision it, will be cut from the ocean toward the bay, and it wouldn't really start to capture any flow until that final breach was made in the last portion of the new cut and once that occurs then it would probably be a navigable channel almost instantaneously. The Corps has requested Coast Guard reposition the channel markers to the new channel, of course that can take three or four months.

Will the pipeline be laid within the natural channel out there now?

Tom Jarrett – It will be submerged.

Tom Jarrett – Yes, but it would probably be laid across the deepest part of the channel and it's 18-20 feet deep there, the pipeline will be three feet in diameter.

Do you envision the side cast dredger working simultaneously with the (?)

Tom Jarrett – We could, I mean if it was necessary. There is no reason it couldn't. I'd just like to say one thing about the navigation channel. Once that is open I think it's going to be a real positive for people. Right now a lot of these commercial boats are having to go to the Beaufort Inlet and that's very expensive for them to go all the way down there. So this will open it up to commercial fishermen, until it starts closing back in, but at least for a while it will be a deeper area for them so a real positive for I think Swansboro and this area.

Tom, there is one other thing that I would like to mention, this, I don't see them here, but as far as the sister, another sister agency, Archives and History may have, would want to comment on such a project, given the history of our inlet and whatnot, so that's one you definitely want to touch base with up front too.

Tom Jarrett – We have included, at some cost a long navigational history.

Just to clarify, Emerald Isle is funding the whole project, correct? I mean, Carteret County

Afraid so.

Frank Rush – It is being funded by the Town of Emerald Isle

I didn't know if any funds were provided by the County.

Frank Rush - There is a contribution coming from the County Beach Commission to go toward the debt service of the overall bond but the project is sponsored, \$17,000,000.00 in bonds for both phases, by the Town of Emerald Isle.

I know I have met with you all once before but I just want to go ahead and state a concern that we do have at Hammocks Beach State Park that you all are aware of but just to reiterate them, mainly the concerns we heard before is loss of shoreline on the eastern end of Bear Island affecting (?) colonial nesting habitat which we do have a traditional significant population of (?) terns and black skimmers nesting on the eastern end; loss of tidal flats in the area relating to feeding, roosting; and another issue that brought further about navigation, any impact that might occur to adjacent marsh channels in terms of flow and increased sedimentation, particularly for (?) channel and the effect it may have on our navigating our ferry service and then finally, if there are negative impacts, what mitigation is planned?

Tom, sort of a follow-up on that is there any analysis, the idea of (?) the channel back (?) configuration of the marsh. I don't know the area that's covered by this (?) you can look at that as well over time (?) creek, marsh conflict behind that has changed or at risk in some fashion as to location of the inlet change.

Tom Jarrett – There is some limited (?) that it may capture the entire back bay area but for the most part the over flights that the Corps does kind of concentrates on the inlet and then kind of follows the connecting channel so for the most part the southern end of Dudley Island.

All I'm saying is that if the issue comes up of how this relocation is going to alter those estuary environments back there if you have an island that shows that they have remained constant, you know, over the years, or fairly constant, (?).

Tom Jarrett – Anyone that has any written comments, we would certainly welcome those.

Where would be the best place to send them, to the Town or to us?

Frank Rush – I would say have them sent directly to you and forward a copy on to the Town.

Tom Jarrett - Send them to the Corps and Coastal Planning & Engineering, Boca Raton, Florida, not 204 Dorchester.

As far as the process, I guess Mickey or Keith and/or Kevin, what is the next step in the process after today?

The next step for us would be to take a look at the comments and meet with the applicant and CAMA to talk about the process of addressing these comments and make sure that the game plan applicant has for addressing them would include CAMA and the Corps criteria for addressing them so you can give clear direction back to the consultant to determine the appropriate level of NEPA document, what would be necessary for us to begin our public review process. When we get that information then we would put out a public notice and get the general public's involvement and then take it from there.

Tom Jarrett – For the scoping meeting? As soon as you can get them the better but,

When do you need them?

Tom Jarrett – How about 15 June or 30 June?

30 June would be good however, especially for the public if you have comments or things that come up along the way provide those with needed time (?) the earlier the better, as far as helping to guide the out (?) information to decision on how to pursue their alternative analysis, which would be their next important step. The public process will be open for some time.

There will be two, there will be a joint publication that the Corps and Coastal Management will put out then there will be another opportunity to comment during the CAMA major permit process that will be (?). At that point in time, unfortunately, the (?) proposal has pretty much already gone through it's, defined already, so if you would have any changes it might be too late for that, or any commitment, input you might have would be too late but your comments as far as to whether or not would be permissible would still be taken into (?)

Tom Jarrett - Just to kind of clarify what's going on here. My name is Tom Jarrett, I am a retired Corps of Engineers person living in Wilmington, North Carolina. I will be serving as the project manager for the Town of Emerald Isle on their Bogue Inlet Relocation Project. The company I'm working with, Coastal Planning & Engineering, 2481 North West Boca Raton Blvd., Boca Raton, Florida 33431. Any written comments should be sent to that address, attention Ms. Cheryl Miller. Again, I will be serving as the project manager, I'm in Wilmington and available to the Town. We will be working very closely with the Town and with the folks in Florida to carry this project through. Since I am the project manager here in North Carolina, if you have any questions directed at me you can reach me, home phone 910-392-0453, cell phone 910-264-2166, e-mail address is jtomjarrett@aol.com. (?)

I'd like to put this on national, kind of a, give you a national view of this. Nobody mines tidal delta for beach nourishment, if they can do otherwise. It has happened a few times but basically a tidal delta is essentially ebb tide delta, is part of the barrier islands and when you mine, whether you dig a circular hole or trench or whether you dig a giant navigation channel, which is proposed here, the tidal delta will go back to what it was, basically, as Tom implied, not only is there a cross sectional area of the ebb tidal delta, like Tom said, but (?) we think is (?) and I think as Tom has implied, the new navigation channel will go back to what it is, to a channel of the same cross sectional area (?) that sand, what you are proposing to do is to dig a really giant navigation channel here, it is not, when this was proposed for (?) Inlet, the scientific and environmental community kind of missed it for the most part because we thought it was navigational channel scraping, but that's not what this is, this is truly mining the ebb tidal delta. This is a 600 foot wide channel and we have here, I have some extra copies of it if you wish, Boston Harbor, (?) these numbers are not necessarily comparable but this is a giant channel by national standards and the volume of water that will be far larger than this inlet needs and so it will go back, the tidal delta will go back to its original, it wants to go back to its original shape, the channel wants to go back to its original cross section area and that's what is going to happen and so we in the coastal (?) community are very concerned with this because now there are four such proposals in North Carolina and other States don't do this. The Dutch, for example, require, at least five years ago they required, over the horizon sand. If you saw the dredge, it was

too close. They required 20 kilometers of distance off shore because of the really serious potential problem to the island. What is going to happen is, if you dig this channel the way it is proposed, it is going to fill in as everybody says and that sand that is going to fill it in is sand that would have been going either to Bogue Banks or to the island to the south or somewhere, we don't know where, we can't predict this very well. A lot of the questions that are being asked here, both biological and geological, really are not very answerable. In a quantitative way can maybe give some vague idea of what, I think it is very important to understand that you are doing something that nobody is doing. This is a State policy that we feel, as geologists, not encouraging, is a very serious problem. I know your needs and I understand why you want to do this, the tidal delta sand is the cheapest possible sand, it is the best possible sand and you have all kinds of pluses because of the inlet will move away from the point. It doesn't pay, ultimately, in a generation or two, you will pay a very severe environmental price for this sand but you can't predict what that price will be. To give you some examples of Trip Island, South Carolina, the inlet between Trip Island and the next island up, which is a State Park, was dredged, its tidal delta was dredged and (?) a coastal geologist from University of South Carolina said that was the cause of the very severe erosion on Trip Island which led to a massive rock seawall. So, I hope that you will take this into consideration, and you will probably have to pay twice for the, per cubic yard to go off shore, but you should be going off shore, you should not be taking sand from this ebb tidal delta. (?) Beach, South Carolina mined their tidal delta, but they mined their flood tidal delta, and there have been studies in Holland that have shown that sand that crosses the inlet often goes back and forth, actually goes into the flood tidal delta, back out to the ebb, each inlet would be different off course, so I would recommend, if you must mine the tidal delta, I would hope you would mine the flood tidal delta in the interior and not the exterior, which is going to cause more problems. Now the flood tidal delta in (?) Beach, South Carolina is filling up, the hole that they dug, (?) is filling up very quickly, it's going to cause erosion problems (?) but it might be a decade before that happens. Already the (?) Inlet dredging channel has probably, is probably responsible for the increase rates of erosion on the whole beach. Each system is different and I urge you to take this into account and to possibly have, maybe get a panel of outside, meaning out of state, coastal scientists and engineers to evaluate this proposal, get their opinion, just for a one day meeting or something like that or maybe by mail, because I think you will find there are very broad geologic opinions (?) as well, that mining tidal deltas is a serious no-no. Thank you.

Tom Jarrett - I know we've got a least one other comment but he just went to the restroom.

Tape 2 Side B

...for the last five years, and one of the things that really bothers us is we talked about the loss of piping plover habitat, as an example. When we first bought our property in 1995 we couldn't hardly get to the beach there were so many piping plover out there. Today there are none because there's no place, habitat for them to be there, so we've lost probably 20 acres of habitat in front of our place. We, two years ago, had to move a turtle nest three times, finally down to Lands End, because of the erosion problems and today there's no turtle nest because there's no habitat for them, so, I think part of what we're talking about here is restoration of habitat. I know we enjoyed walking into Bogue Inlet and probably the 30 to 50 acres of piping plover

habitat that's not there now that was there last year and the year before because of the erosion problems that we're having. We also see a lot of boat traffic that goes in and out and if you look at the development in Carteret County and in Onslow County in this area, there's a tremendous amount of boat traffic that's going to increase going out of the inlet. It would seem that they need a better inlet to go out than what they have today, certainly a more safer one than we see the Coast Guard go in and out so many times. So, I think there's a lot of things that has the ability to benefit a lot of people and I think the Corps of Engineers two years ago, in a preliminary estimate of the, digging a channel, realigning the channel, thought that it would cost about \$10,000,000 (ten million dollars) to do that and today we have the opportunity to do that for about \$600,000 (six hundred thousand dollars) and as a businessman that's a pretty good deal. If you can do something today for six hundred thousand as opposed to ten million and with all of the benefits that are going to come and I think the thing that makes the most sense to me is that we are only talking about putting it back, the way documentation shows it used to be and we aren't leaving it alone today because the Corps is there, maintaining it in its current status so we ought to do one of two things, we ought to either move it back or get out of there and let nature take it's course, and if it did that then I think it would close up entirely, which wouldn't benefit anybody. So, I'd like to see us go back to where it was, I think we have a good opportunity now, economically, to do that, and to benefit a lot of people in the process so, and I appreciate everybody here trying to work together to do the right thing and I think that in the end that, if the right thing gets done, then we'll all benefit by it. Thank you.

Tom Jarrett – Thank you.

My name is Clark Wild, I John Kilgore's neighbor. My hat goes off to each and every one of you who are trying to seek a solution for us and your efforts are well appreciated by all of us. I think the most shocking thing that I have seen today, it really frightens me, is not that I'm going to lose my house along with half a dozen others, if you are correct in the assessment of what you are doing, we are going to lose a hundred houses up there and a hundred houses is a tremendous financial impact on the Town. I can fully appreciate the way you are going to lay that sand out because it makes good sense once we reach this so called pilot area which, quite frankly, wasn't there all that long ago, it's been building since we lost all the sand in front of our property. We are going to allow us to allow that to close back up by itself and I think we are getting a awful lot of bang for our buck. If we can satisfy the Department of Wildlife people, our environmentalists and a few others I think the dredging is a logical approach. Thank you.

Tom Jarrett – Do we have anybody else?

I'm Jim Stevenson with the Coastal Federation. Just want to make a couple of points on what I've heard today. First is, just wanted to ascertain, the word "scoping" has been bandied about a good bit today, but I understand that this is not, statutorily, a "scoping" meeting? Under the National Environmental Policy Act? Is that correct?

Tom Jarrett – That's correct.

Jim Stevenson – O.K., and that there will be a “scoping” meeting or “scoping” process publicly where I can more actively get involved in?

Yeah, If we determine that anEIS is to be done.

Jim Stevenson – Second, I wanted to reiterate that I think it’s important that, I think Mr. Suggs pointed out that, as you look at realigning the inlet that the, the least intrusive alternative should be examined, 600 feet is, as Dr. Pilkey pointed out, is extremely wide for an inlet to be dredged, altered and the depth is also significantly greater than has been dredged to date. So my suggestion, as one of your alternatives, would be the least intrusive change that needs to be made to the channel system, (?), and not look at, reading of documents that go on the back table, almost appears there’s a dual purpose, to gain sand and, I realize that may be a bi-product of the (?) of this project that must be evaluated, the environmental documents though should not be put in the driver’s seat, in fact it (?).

Third, point out that as we read the CAMA rules we are not convinced that development seaward of the inlet hazard area is permissible by the Division of Coastal Management. Maybe (?) but this is an issue we want to put out front and if we read the rules differently than some divisions, but we do plan to make this an issue because the rules do not appear to allow installation of inlets and (?) sand in those hazard areas. Ocean hazard areas it is allowed but we don’t view inlet hazard zones as (?). Public access, I don’t think that was mentioned today, that’s been a problem at the point area. They are public (?) lands, at least below the high water mark, and hard to get down there with sandbags sitting there. We hope that the plan will look at the possibilities for public access, and that the council will look at that as well. (?) something you’d like to pursue.

In terms of an EIS we urge you to require an EIS. We think some recent projects, such as basically what the Bogue Banks Renourishment Project should have benefited from an EIS. The (?) of the process, that serious problems of (?) Bogue Banks Project actually did (?) as a result of not having an EIS and full examination of the issues that were brought forth by the Coastal Federation and Fish and Wildlife Service (?).

And finally, this (?) is going to be very important to you particularly as impacts occurs to the areas of the flood tide delta and adjacent public trust points owned by the State, that’s Hammock’s Beach State Park. This is going to be an important area to determine because we really don’t know what the impact’s going to be of moving the channel and it’s going to be important to have mitigation agreements be in place to make sure the public’s land is protected.

Tom Jarrett – Any other comments?

I sure don’t pretend to know what the scope of the whole project is but I would like to address one immediate situation, fairly immediate situation, that Emily Farmer brought up and that is the sandbags at the point and, this whole question probably goes to Jeff. There was some comment a while back about the possibility of sandbags being permanent if they were covered with sand and planted with vegetation; however, we know that the water comes up to a certain point, over some portion of the sandbags so there is some percentage of sandbags that have, at a point in time, could be covered and could be planted. I don’t know what the rules are and I don’t know what that means for the future, this project, in terms of (?), how that would occur or not occur.

Tom Jarrett – Do you want to answer that Jeff?

I'll address that. Our rules do talk about sandbags are allowed to remain if they are covered with sand and stable with natural vegetation. What we are saying is that's one time they are out of the system we've got, acting as the face of a dune and functions like a dune should. How that works is difficult to say, given what our commissioners know in the past and where they will go, and a lot of this will hinge on that feasibility study. It will assist us as far as whether or not the Town is actively pursuing an on-going feasibility study. The timing, as far as, sandbags being covered with sand and natural vegetation, I'll be honest, except for those at the Town right of way, I can't imagine those other ones, that have a two year time frame, meeting that criteria, given how close the inlet is to those bags. I can't imagine they ever being to a point where we would consider that covered with sand and planted with natural vegetation, you know. Down the road, if they were allowed to remain, based on rules, and this beach had (?) who knows, but right now the channel is lapping at those bags and there is just no way that is going to take place.

Am I hearing that the road may possibly be protected?

No, what I'm saying is the road, again those sandbags are allowed to remain for five years, so they have more time period to let something work, you know. That other, two year sandbags, the road for five years, so that's the only reason I was separating those two.

Tom Jarrett – Any other comments?

I was just wondering, is there any case in point, that we can go look after, where this approach has been taken. I've heard of a couple mentioned, or some things like it but is there any case in point where this approach has been taken and has worked and has been documented over a period of time, greater than say a decade (?) or when things start to change back after (?). I'd love to get a chance to go (?)

Tom Jarrett – Yeah, there's. In this State, no. I mean the

In any state?

Tom Jarrett - Well, yeah, I think South Carolina. It's kind of a little bit different make-up. The channel or actually the inlet had to be relocated away from right next door, the channel was actually moved about a mile or so back to the north and what happened was that you obtained ebb tide delta material which didn't allow to moderate off the beach and (?) beach nourishment.
(?)

(?)
Tom Jarrett – No, it probably wasn't nearly that big. The project was simply to move the channel to another location, kind of like the Mason Inlet Project or the comparable or pretty close to the recently completed (?) Project. The one that's closest which is very (?) would be the (?) that's the (?) Inlet Project. The one that, wasn't ever proposed to be a navigation channel (?)

bar for beach nourishment, because the Corps doesn't have authority to maintain a navigation channel through (?) Inlet. So that was presented, right from where it started, as a bar for beach nourishment.

Tom Jarrett – But anyway, we are not here to debate that, but anyway, the (?) Inlet Project may or may not have some problems associated with it. I called the Corps yesterday, hoping they might have gotten the latest post project aerial photography of the inlet to see what things were going on. There have been some reports of some increased erosion down the extreme west end of Holden Beach and some folks point the finger at the new channel as being the culprit but we really won't have a real handle on that until the aerial photography comes in. It may well be, perhaps that channel might be at fault. But if you look at the history of that particular shoreline, there was a time, you'll see, that there have been some rather wide swings in its position, so if we assume that what's going on now is in fact a direct result of that channel, might be a bit (?). There are other inlets though that have been mined and not for beach nourishment. You have Beaufort Inlet that is being mined for channel navigation, you've got Oregon Inlet that's being mined for channel navigation, you've got the Cape Fear River entrance channel that's being mined navigation. Even though material perhaps isn't being managed, or hasn't been managed quite as well as it should have been in some areas, material is taken out of Oregon Inlet and put on, back in the system, on Pea Island. Unfortunately, Beaufort Inlet hasn't used that standard yet, we've been working on that. We did get (?) channel modified to include beach disposal (?) so those are not culpable to this but they correlate to this, and you can't learn by looking at those particular channels as an indication as to what may happen here.

I guess my comment, in general, is, I just moved here, (?) I wasn't planning on it until I saw how much things have changed here. I have probably about five houses down here and I'm watching things change radically. I lived on the South Jersey Shore and saw that get all screwed up, I moved to the City Shore and saw that get all screwed up, largely the result of humans trying to change Mother Nature and I have not seen a successful project yet, and as a mechanical engineer and (?) scientist (?) simulations, this is very disturbing.

Tom Jarrett – Rudy, you got comments?

Yeah, for Tom. I was just wondering, I can see that there is a lot of concern over the channel dimensions, that's going to be arbitrary. I was wondering, what's the minimum width anticipated on the pipe one dredge going in, making a turn and coming out, just to alleviate some of the fears that we have?

Tom Jarrett – Actually, the minimum width of cut for a dredge of this size is about 150 feet and the way he works, he just swings across and back so the grading depth is probably around, somewhere between 14 feet, 18 feet. Some of the earlier proposals, 18 feet. I think it could probably be a little bit shallower than that. The 150 feet is probably the minimum width, on the surface 150' width isn't a lot different than what the channel width has been in the past. This is one of those 150' wide here. The key to the whole thing though will be what minimum size channel will be necessary to capture the tidal flow and allow this channel to flow, so you are going to have competing interests here and to address this gentleman's concerns on modeling, I don't necessarily believe all the results I see or numerical models as well. We use those as a tool, as an indicator, as a judgment factor to evaluate various alternatives so the model will be

used to determine how much water the (?). In looking at the shoulder characteristics of the channel, try to come up with the minimum size needed to capture and become the dominant channel.

Is that 150' going in, turn around and come out? So is that equal 300' or can you change the swath?

Tom Jarrett – Usually the pipeline dredge doesn't go in and come out, he just goes in. He goes in, he's cutting a swath 150' wide or 400' wide, whatever. It will work its way in and then when he's done, he'll just turn it off and come out. The reason we are saying he's going to come in from the ocean side, the depths in the bay, in the approach channels back here, are not deep enough for him. He has to start out here at the 16' to 18' channel and work his way in.

What is the distance between the existing channel and the proposed channel?

Tom Jarrett – It hasn't been established. It's about 3,000' across, so you know, say 1500', 3000', but if you look at the corridor, it's within a 1000' to say 2500' but even this corridor can change as we get in and start doing a sampling and looking for a location to put this thing, because even the exact position is not as critical as the character of the material that is going to be removed and eventually placed on the beach, so if all of this material comes in basically the same and fairly uniform then certainly the positioning of that channel will be pretty much modeled after the way its been in the past. Where I've put this blue indicator on there is pretty much where, historically, the channel seems to try to relocate.

How many additional cores are you planning?

Tom Jarrett – Anywhere from five to ten.

First of all I'd like to thank all of the different agencies that came here today, State, Federal, County and presented all of their concerns to our project. I trust that since this is not a unique project, this kind of thing has been done quite a few times elsewhere, I trust that all of your concerns will be presented to Mr. Jarrett so that we can work through all of these problems and satisfy everybody and rather than come up with new concern if one is addressed but I'm sure that you'll give him all of your concerns at this time. I don't live anywhere near the sandbags or the point but I know some people down there that do and I cannot imagine anybody that would want to keep sandbags as a project beautification element. I think that is simply to protect their nest, their home. Most of us can walk away, the food chain is stuck where they are and as soon as we get some of these problems solved I'm sure they will be done away with immediately if not sooner. If this were a new channel, if there was no channel along here, I'd find myself in a very unique, even original position, of agreeing with Mr. Pilkey about the fact that we probably shouldn't cut a new channel through there but this is merely a relocation of a channel, in fact, not to disparage Mr. Jarrett's former employer, but back in 1982 showed the sign and that is just about exactly where that channel was in '82, and something else happened in '82 I believe, that's when the Corps of Engineers came, wasn't it Tom, and they started dredging in there, so they started it, helped Mother Nature in one way or another, put this channel where it is not. To protect ourselves, we are going to have to put it back where it was in that particular year.

Gentlemen mentioned New Jersey, I was in New Jersey, 20 to 25 years ago, Ocean City, they had bulldozers in the water pushing sand up toward the Boardwalk and it was so steep you had to go sideways to get on the beach. They nourished that beach, they had some problems, they nourished it and they nourished it again, now they've got a huge beautiful beach out there, they've got so much beach they have public access between the Boardwalk and the ocean. Their project is a tremendous success. Any of you that don't think so, I think that would be a good place for you to go.

Tom Jarrett – One thing I want to say, you know the main purpose of this meeting is to let the permitting agencies know what your concerns are. So we know that there are a lot of people that extremely favor this project and glad everybody showed up today. I think (?) of that's the way it is, but lets try to make the comments as brief as we can and to the point and whatever concerns you might have.

I just have a question and I hope a few others have the same questions. I would ask Mr. Jarrett to explain, using that chart up there, what the ebb delta is and what the flood tidal delta is.

Tom Jarrett – I can attempt to. The ebb tide delta is generally, O.K., first of all, water flows in the inlet and flows out of the inlet. When it flows into the inlet that's called a flood tide plain, when it flows out that's called an ebb tide, so the delta is the sand beach that is kind of outlined by these breaking waves that forms as a result of the interaction of material being carried by waves along the shore, it gets to the inlet, the interaction with the ebb current causes the material to pile up on the ocean side so the ebb tide delta would be basically from some arbitrary line, whatever you want to call it, across the tips of these islands seaward to the outer edge, that would be basically the ebb tide delta. We are kind of in a fuzzy area in here, you know, that could be flood delta, it could be ebb delta. You could actually say I want to draw a line from this beach to that beach and everything seaward from there would be ebb tide delta, again it just depends upon whose definition you want to use.

Everything seaward?

Tom Jarrett – So if you want to draw a line between that shoreline and that shoreline and say that everything seaward is the ebb tide delta, so be it. Actually, it probably includes some of this feature here. The thing that really impacts the shoreline though is the outer shape of this delta here. That's the thing that interacts with waves as they come in, see these waves coming in and breaking, depending on the shape of this feature, determines how the waves break on shore which determines then how much sand (?). So if you change that feature, you change that wave angle, you change the way it breaks on the beach, you change the sand transport, you change the shoreline. That's what the history of the inlet will tell you. The flood delta is all of these features in the bay, including some of these sand spits, these sand flats or vacuous ebb tidal shoals, well, some of them may actually be above water at low tide.

But it is also basically formed by flood tides, is that correct?

Tom Jarrett – Ebb tide, flood current carry materials in and deposit them in these shoals.

So, the professor was suggesting that I take the sand from those areas.

Tom Jarrett – Which will eventually fill up. I should answer or at least address the issue of the channel dredging as a one-time element versus channel dredging as an integral part of a complete sand management program. Certainly the Town would love to see the Corps come in and recommend a combined project that would maintain this channel in a central location, (?)dredge it to an over-size dimension that is going to (?) all that simply does though is allow you to have a collection point and recycling to save sand that came off the beach back on the beach. It's a process that being used in Mason (?) Inlet, (?) has a jetty inlet, but basically used as a collection point, the material is distributed (?) Island, Wrightsville Beach as part of that inlet (?). There is a (?) Carolina Beach Inlet that was used for collecting sand to distribute to Carolina Beach. So these inlets provide a point where you can actually begin to try to manage the movement of sediment along the Coast and not just rely on Mother Nature infrequent release of the material back into the system. So, certainly Emerald Isle's attempt here, on a one-time basis, will be a beginning with future regional sand management concepts combining navigation channel with the beach project will be something I would hope that the Corps would include. Any more comments?

I'm Jimmy Phillips. I represent fishermen, have two shrimp boats. Like you said, you talk about the dredging from the ocean in. If they would start from the in-line waterway and come this way, and I'm sure the dredging company would a whole lot rather do that, there's plenty of sand all the way, a lot of shoals, some places 10, 15, 20 feet of water then it's 4 feet of water, and that would be sand to go on the beach too, and I think it would be mighty, be the thing to do would be from the in-line waterway, with that dredge to dig his way through the inlet and then go on out, leave the channel open. Then you would have a navigable channel too. As far as fishing, digging this and no water from (?) Island to the (?) waterways still that could, for commercial. That's it.

Tom Jarrett – That's probably something that the agencies would rather comment on rather than me but generally speaking, the flood shoals and flood tide delta portion of the inlet and inner marshes are much more highly productive in terms of their importance to the overall environmental health of the system than are the ebb tide shoals. These areas, while no question, in terms of the overall importance to the ecological health of the fisheries and other shellfish resources, I would think that the (?) shoals are more important. I will yield to the agencies here to guide us on that question.

Any more comments?

How long would it take, looking at this proposal and the channel, would you anticipate the dredge to take, two months?

Tom Jarrett – Thirty-six, thirty-three, thirty some odd days to dredge, so probably, yeah, we're at 30,000 to 50,000 cubic yards an hour, so in a day, anybody got a calculator?

I'm just saying...

Tom Jarrett – We are probably talking no more than three months.

(?) looking at a moratorium of some sort, somewhere in November to the end of April.

Tom Jarrett – Yeah, the target period we were picking was, what was it, November to what was it, 30 April, somewhere around in there.

Well, we have a time (?) just trying to get the general understanding of timetable..

Tom Jarrett – I think we are well within the rule, in term of the time frame. Any more comments?

My name is John Kilgore, I live on Emerald Isle, I live at the point, I've been down there for thirteen years, I live dead on the inlet so, I guess what concerns me about all this is it's not a very definite thing. People say 300-600 feet so everybody is going to argue what's going to happen, what's not going to happen and I think it's an indefinite size, and I'm not trying, I know there are a lot of variables involved in what we are trying to do and everybody says well it might be this, it might be that, it might happen, it could happen but I can tell you from personal experience what is happening. The end of Emerald Isle is being eaten away, it's gone. I have 75 to 100 sandbags in front of my house. I live here, it's not my vacation home, my children were born here, they are going to be raised here. I'm going to live here and I understand all the different concerns but there's a huge impact that the location of this inlet has on the citizens of Emerald Isle. It affects the tourism, it affects our way of life, it affects us having (?) in a safe place. Within the last five years, two people have drowned in that inlet, young children, because it's 25 feet deep and it's about four and a half, five knots current when the tide changes around out there. Down there, when people get in that inlet somebody is going to drown again this year. There is no way for any emergency to get to the point of Emerald Isle, no way. They have to go down Black Skimmer which is 2 ½ miles. On a full moon high tide you can't get down the beach. They ain't going to get there, the people are going to die. There is no way to get to them. So, I guess, I know I understand the Division of Wildlife and everybody is concerned about the environment, I want the environment to be safe but also the person and citizens of the Town I want to be safe. I think that we also have rights, the people who live here, pay property taxes, raise our children here, have chosen this area to live, and want to live here, have, also have a right, this property down here was permitted by CAMA to be built on, CAMA permits were issued, septic tanks were issued, Town issued building permits, people built homes there. Nobody at that point in time had anything negative to say about those homes being built there. Now they are saying that it's our fault that we live there. We shouldn't be living there. People say you should never have built that house there. I didn't build that house, I bought it from a real estate agent who didn't tell me it was a hazardous area, of course they are not going to tell you. There is no law in the State of North Carolina that tells you have to disclose to a person when they are selling you a piece of property that your mess might wash away. So, you know, as the people that live there also have a right to live there and be safe and it just concerns me that we, as people of this State, this country, don't have a right, as much right as a dog gone turtle egg. I'm all for turtles, I'm all for environment, I fished for five years down here commercially, I mean, I'm all for it, but we pay the taxes, we voted on this Town, a majority vote, to raise our own taxes, to sales tax ourselves, because State and Federal government won't take care of their property. So now we

have to tax ourselves to solve the problem and all you people who live here, I would say nine out of ten of you don't live in this county, don't pay taxes in this county, it does not personally affect you, it affects us because we live here and I hope that you all can come together and think about that when you make your decision on what it is that's going to be for the good of the people of Emerald Isle. We need you help, very much and we are asking for your help, we've been asking for your help for five years, more than five years. This has been an issue that we've been concerned about, we've been begging ya'll to come down and help us. We talked to the Corps, we've spoken with the Corps, everybody that's looked, it's a bad issue, and it has not changed and it's going to continue to be bad until it affects the next row of property and the next row of property and then when is it enough destruction or loss of private property that somebody says wow, we've got a problem. Folk's we got a problem and we need your help. Thank you.

There being no more discussion, the meeting was adjourned at 3.05 P.M.

NOTE: The (?) indicates "inaudible"

In these Minutes.

Respectfully submitted,

Carolyn K. Custy
Certified Municipal Clerk