

file - DJ 500 145 -
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CESAM-PD-FP (1105-2-10a)

26 March 1992

MEMORANDUM FOR RECORD

SUBJECT: Dauphin Island, AL, Section 14's - Site Visit

1. Yesterday, 25 March 1992, the study team made the initial site visit to Dauphin Island for the Subject Section 14's. This trip was to inspect the erosion at the public use areas around Fort Gaines on the east end and the public park and fishing pier in the center of the island. With one exception, the full team made the trip; Ashford Kettler being the only one unable to come. Joe Powell, EN-DC, came also. We met with Mr. Mike Henderson, Executive Director of the Dauphin Island Park and Beach Board, in the DIPBB office. He discussed the results of a recent study, "Coastal Processes of Dauphin Island, Alabama," by S.L. Douglass and D.R. Haubner, Department of Civil Engineering, University of South Alabama. He also had an impressive array of color photographs showing their problems and a post-Frederic plan of the fishing pier that showed the shore profile then.

2. After the discussion in Henderson's office, we walked through the recreation area to the gulf shoreline. The erosion here is every bit as serious as Henderson had described it. Several members of the team were taking photographs and these can be made available to others is necessary. We walked back to the cars and drove around the front of Fort Gaines. This area shows evidence of erosion, but the turn-of-the-century revetment and groins constructed by the COE are still functioning well. There is some evidence of undermining and loss of stone, however. Henderson's data shows a large loss of sand from this area and the general appearance confirms that.

3. Stubblefield noticed that the road is in danger from erosion by overtopping flow where there is a culvert draining from the fort's moat into the gulf. We stopped for his inspection and he found that there was a large rock well inside the culvert. This rock was reducing the flow area about -50%. After our return I called Henderson and told him about the rock. They will remove it. He said that culvert was recently blocked by sand and the rock was not present when they cleared it.

4. At the park and fishing pier we found a very serious situation. The final dune is under attack on its gulf face. The pavilions on top of the dune have their south side out over the beach. The restroom building is not as bad off now but will be soon. The rear end of the fishing pier was extended shoreward recently. Henderson had showed us on his pier plan that the shoreline was in the middle of the pier when it was rebuilt after Frederic. The piling in the rear half the pier are probably too short for the present situation. The DIPBB plans to drive longer

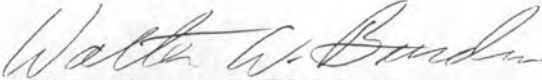
ones alongside to reinforce that end of the pier this summer. The northern tip of Sand Island is a very short distance offshore. In effect, because of the northward movement of the Dauphin Island Shoreline and the north tip of Sand Island, the pier is now well inside Pelican Passage,

5. Over lunch the team discussed possible alternatives for the Section 14's. An obvious solution at the fort would be to add to the revetment that is already protecting the structure. At the park, probably the best plan would be to have a small dredge reestablish Pelican Passage further south through Sand Island and, simultaneously, pump the dredged sand up onto the park shoreline. One immediate complication is the ownership of Sand Island. McCauley will check on that question. Stubblefield suggested that offshore breakwaters or Longard tubes might be an alternative at either location. Moseby will check on the economics, particularly those for the fort, since it is a historic structure.

6. For the benefit of several team members who did not receive them, the charge numbers for this work are as follows:

East End Dauphin Island, AL	BH434 307Y0 00022
Dauphin Island Shoreline, AL	BH435 307Y0 00022

We were allocated only \$5000 on each Section 14 to do an INITIAL APPRAISAL. This is a quick and dirty look to determine if further work is justified. Anyone who needs further guidance should let me know, ASAP!


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CF:

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