

MEMORANDUM OF MEETING

SUBJECT - Erosion problem at Dauphin Island

MEETING DATE - October 16, 1992

A brainstorming meeting, attended by members of PD-EC, PD-FP, EN-YD, OP and OP-O, was held with the goal to identify possible solutions to the subject erosion problem.

The guideline for the meeting was to assume that there were no regulatory, or monetary constraints to consider while identifying possible solutions.

There was much discussion concerning the physical characteristics and the history of the area. Two problem reaches were initially discussed. One area was the eastern tip of the island around Ft. Gaines. The other area was along the public beach. It was agreed that the plans developed earlier for the Ft. Gaines area would address the problem there, provided the locals can contribute their portion of the costs. The majority of the discussion centered around what could be done to solve the problem at the public beach.

As ideas developed regarding possible solutions it was agreed that attention should be directed toward the cause of the erosion and not simply place dredged material on the eroded beach, since the material would simply erode away in a short period of time.

Three conceptual solutions were finally identified. An off-shore breakwater along the eroded beach was considered possible. The idea was to design the structure so that the erosive forces of the waves striking the beach and the transverse currents that move the beach sands westward would be reduced. This idea was considered the most objectional due to the high costs involved, the adverse impacts (rocks) to the swimming characteristics of the beach, and doubts as to the ideas' effectiveness and useful life, since it did not address the cause of the erosion.

Another plan identified was to simply remove material from the northern end of Sand Island and place it along the eroded beach. Since the migration of Sand Island toward Dauphin Island, thereby constricting the flowpath of the westward flowing water, is considered to be the major cause of the erosion, it was thought that the enlargement of the area between the two islands would reduce the erosion potential. This plan was considered to have significant merit, but its' useful life is unknown at this time and some suspect that it may be short. The useful life would be dependent on the size of the opening dredged. The cost of the plan may be around 7 million dollars.

The third plan considered possible was to join Sand and Dauphin Islands together and dredge a new channel through Sand Island near its' southern end. The idea here would be to restore a channel that existed at sometime in the past and have the fill area between the two islands protect the beach area from erosion. This plan has drawbacks in that it would destroy the fishing capability at the fishing pier. As in the case above, the useful life is dependent on the size of the channel dredged. The migration of the portion of Sand Island remaining to the south of the new channel is expected to continue to migrate. The amount of stability the new channel would have therefore, is somewhat uncertain and its' maintenance may be required. The cost of this plan would also be about 7 million dollars.

It was also brought out in the meeting that the ownership of Sand Island may be a private party and not the state. Further, the ownership of the land to be created by filling the area between Sand and Dauphin Islands was questioned. In summary, all agreed that any plan to restore the public beach area and provide protection from future erosion for a reasonable period of time would be very expensive and cost considerably more than the cost of the property protected.

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