



DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, ALABAMA 36628-0001

REPLY TO
ATTENTION OF:
CESAM-OP-OW (1110-2-1150a)

25 March 1993

MEMORANDUM FOR Commander, USACE (CESAD-CO-O), Atlanta, GA 30335-6801

SUBJECT: Advanced Maintenance Dredging at Mobile Bay Channel, Mobile, Alabama

1. Reference ER 1130-2-307.
2. I propose the implementation of additional advanced maintenance (AM) dredging at three locations within the Mobile Bay Channel. Currently, this channel has only two feet of advanced maintenance throughout its entirety. This limited amount of advanced maintenance has contributed significantly to the difficulties that we have encountered in maintaining the channel since the deepening was completed. The Water Resources Development Act of 1986 which authorized the deepening of the channel from 40 to 45 feet, also enacted the requirement to haul all maintenance material to the Gulf. This requirement brought about a different method of maintenance dredging than existed pre-deepening; specifically, Gulf disposal is now required as opposed to previous within bay disposal by hydraulic dredges.
3. Through coordination within the District and with U.S. Army Engineer Waterways Experiment Station (CEWES), several problem areas within the bay have been identified as having rapid shoaling rates and are suitable for the construction of advanced maintenance sediment accumulation sites (SAS). CEWES has prepared a draft plan to implement an initial phase of AM in three specific problem locations, (see enclosed draft plan). The plan has been reviewed and comments are being incorporated into the final plan which should be completed within the next few weeks. Minor adjustments are to be made in the location of the southernmost test section but the final report will be essentially the same as the draft.
4. The expected benefits of performing this work will be achieved by lessening the frequency of dredging in these locations and by trapping the material in confined areas where it can be more economically dredged. The total amount of material in the three proposed sites is approximately 2.1 million cubic yards. The estimated total cost to remove this material will be approximately \$6,000,000. There will be a three-fold savings created by performing this work. First, by increasing the length of the dredging cycle, mobilization cost will be saved and the heavier bank of material removed in future maintenance cycles will be removed more economically due to its being confined. Secondly, the accumulation sites will restrict the dredging to shorter reaches so that the amount of dragging for acceptance will be lessened. This dragging is believed to

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stir up the bottom and cause false survey results which can lead to contractor claims and also unwarranted fears and concerns by the users. Thirdly, the AM areas will provide a more reliable channel. It was two and a half years after the deepening was completed before full project depths were available to the users. The benefits derived from the channel by the users equate to \$7,500,000 annually for each foot of depth between 40 and 45 feet.

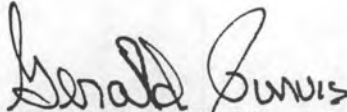
5. The Gulf disposal area is currently the only authorized disposal site for the material removed from the SAS. However, there is evidence that some of the material is suitable for use in potential beneficial use projects that are in the very preliminary stages of development. If approval is granted to perform this work, it will be carried out in stages as funding allows. The southernmost SAS will be constructed this fiscal year with the material disposed in the Gulf due to the low probability for beneficial use. The other sites contain a better quality material and will be constructed in subsequent years as funding allows. This will provide time to develop plans for a beneficial use of the material removed from the project.

6. The District's Planning Division has been asked to prepare an environmental assessment for this work using the currently authorized Gulf disposal area. As beneficial uses for this material are identified, additional EA's will be prepared as needed.

7. I request authority to implement the advance maintenance sediment accumulation sites as proposed by CEWES. The areas will be closely monitored for effectiveness and modifications applied as necessary. Funds for the first phase of this work are available within our existing FY 93 appropriations.

FOR THE COMMANDER:

Encl


GERALD T. PURVIS
Chief, Operations Division