CECW-PA/OE 17 NOV 1992

MEMORANDUM FOR MAJOR SUBORDINATE COMMANDS AND DISTRICT COMMANDS

SUBJECT: Policy Guidance Letter No. 27, Beach Fill Shore Protection Policies on Non-Federal Responsibilities and Use of Public Law 84-99 Funds

1. References.

a. ER 1105-2-100, 28 December 1990, Guidance for Conducting Civil Works Planning Studies.

b. ER 1110-2-1407, 30 November 1990, Hydraulic Design for Coastal Shore Protection Projects.

c. ER 1110-2-2902, 30 June 1989, Prescribed Procedures for the Maintenance and Operation of Shore Protection Works.

d. ER 1165-2-130, 15 June 1989, Federal Participation in Shore Protection.

e. ER 500-1-1, 11 March 1991, Natural Disaster Procedure.

2. Need for Policy Review. Recently a Federal storm damage reduction project consisting mainly of beach fill and dunes was significantly eroded by two "back to back" severe storms shortly after initial construction of the project had been physically completed, but before it had been officially turned over to local interests. This situation revealed inadequacies in current Policies on Federal participation in shore protection projects, particularly with respect to defining non-Federal responsibilities for operation, maintenance, repair, replacement, and rehabilitation (OMRR&R) and the criteria for using Public Law 84-99 funds to restore damaged Federally authorized shore protection projects. These inadequacies prompted a review of current shore protection policies and the use of Public Law 84-99 funds.

3. Application and Purpose. This guidance is applicable to "soft" shore protection projects involving protective beaches, berms, and dunes. These projects differ from other structural "hard" shore protection projects in that the protective fill material is sacrificed to provide certain levels of erosion and storm surge and wave protection to landward facilities. "Soft" shore protection projects often include some hardened features such as terminal groins.

4. Policy on Non-Federal Responsibilities for OMRR&R.

a. Problem. Under the provisions of the Water Resources Development Act of 1986 (WRDA 86) and the resulting policies, beach fill projects are formulated to provide hurricane and storm damage reduction. The construction costs of the projects are generally shared on a 65 percent Federal and 35 percent non-Federal basis subject to

certain conditions of land ownership and public use. The non-Federal sponsor must operate, maintain, repair, replace and rehabilitate the completed project. (Details on cost-sharing requirements for shore projects are contained in references 1a. and 1d.) The unique aspect of beach fill projects is the provision for continuing Federal participation in the periodic nourishment of these projects where sand is placed on the beach, berm, or dune to replenish eroded material. Periodic nourishment is considered to be construction for funding and cost sharing purposes. It is undertaken when necessary to replace storm induced losses and prevent erosion of the beach design section. The problem is in defining the non-Federal responsibility for OMRR&R as contrasted with the shared Federal and non-Federal responsibility for periodic re-nourishment of the project.

b. Definitions. The following definitions apply for OMRR&R for beach fills which are recommended for authorization with continuing Federal construction participation in periodic nourishment it is recognized that the non-Federal responsibilities at existing projects may vary from these definitions. Also, these definitions do not deal with hardened structures (groins bulkheads, sea walls, and revetments) which may be features of shore protection projects. Under current policy, for projects constructed since the passage of WRDA 86, the non-Federal sponsor is responsible for all activities related to the OMRR&R of hardened structures. This includes the OMRR&R of hardened features such as terminal groins which may be included in beach fill projects. There is no Federal continuing construction responsibility associated with hardened structures.

(1) Operations. This is the non-Federal sponsor's continuing oversight activities to assure that the beach design section provides storm damage reduction and promotes and encourages safe and healthful public enjoyment of the recreational opportunities provided by the beach fill. Operation activities would include protection of dunes, prevention of encroachments, monitoring of beach design section conditions, provision of lifeguards and beach patrols, and trash collection (see reference 1c. for more detail). Operations are a non-Federal sponsor responsibility and there is no Federal financial participation in operations activities.

(2) Maintenance, Repair, Replacement and Rehabilitation. For a beach fill there is, generally, no meaningful distinction between maintenance, repair, replacement and rehabilitation. A beach fill project is designed to provide a certain level of erosion and storm surge protection to landward facilities through the sacrifice of project fill material. The protection provided depends on the crown elevation and the amount and characteristics of sacrificial sand maintained within the project design section. The project function depends on maintenance of the horizontal and vertical dimensions of the project design section. Preservation of this design section can be achieved through a combination of the following activities which generally describe the non-Federal sponsor responsibility for maintenance, repair, replacement, and rehabilitation under the terms of the project cooperation agreement (PCA):

(a) Grading and reshaping the beach and dune using sand within the project design section.

(b) Maintenance of dune vegetation, sand fencing and dune cross-overs.

(3) Continuing Project Construction (Periodic Nourishment). The following activities may be classified as continuing project construction and may be shared as periodic nourishment under the terms of the PCA:

(a) Placement of additional sand fill to restore an advanced nourishment berm.

(b) Placement of additional sand fill on the project to restore the design section.

c. Federal Participation in the Periodic Nourishment or Replacement of Dunes. Prior to WRDA 86, many shore protection projects were formulated with two separate purposes: beach erosion control and hurricane and storm damage reduction. Different cost sharing and local cooperation requirements applied to these two purposes. Beach berms were generally cost shared as erosion protection measures. The Federal Government participated in periodic nourishment Protective dunes, on the other hand, were cost shared as hurricane and storm damage reduction features based on their use for storm surge and wave damage protection.

The local sponsor was responsible for all OMRRR, including placement of additional sand to restore the dune section. WRDA 86 established the single unified purpose of hurricane and storm protection. This PGL establishes a policy that, where protective dunes are included as part of a hurricane and storm damage reduction project, the Corps will recommend authorization for continued Federal participation in periodic nourishment of the protective dune. The rationale for this policy is that the protective dune, along with the protective beach, is part of a sacrificial storm damage reduction system where loss of material from the system during storm events is anticipated. The replacement of dune vegetation following periodic nourishment and the replacement of dune cross-overs, however, is a non-Federal responsibility. This policy does not extend to hurricane and storm damage reduction levees which do not function as sacrificial systems, or to hard features (groins, revetments, sea walls). Also, as indicated in subparagraph 4b., the non-Federal project sponsor has sole responsibility for maintenance including maintenance of dune vegetation, sand fencing and grading and reshaping the dune to the design section with available material.

d. Recognition of Periodic Nourishment Costs in Non-Federal Sponsor Financing Plan. The continuing requirement for periodic nourishment for beach fill projects must be reflected in the schedule of estimated Federal and non-Federal expenditures. This schedule is furnished to the non-Federal sponsor to prepare the sponsor's financing plan and statement of financial capability (see reference 1a. for guidance on financing plans) The assessment of the non-Federal sponsor's financial capability must include a demonstration of the sponsor's capability to meet its share of periodic nourishment costs. The sponsor must also understand that, while an “average” periodic nourishment cycle is estimated, the need for periodic nourishment is most often associated with replacement of erosive losses that occur during storm events. Therefore, the local sponsor should demonstrate the financial capability to respond quickly to periodic nourishment

requirements. This may involve establishing a contingency fund or emergency response account.

5. Policy on Use of Public Law 84-99 Funds for Restoration of Beach Fill Projects.

a. Problem. During storm events, beach fill projects are designed to sacrifice beach berms and protective dunes to dissipate wave energy and prevent erosion from reaching developed property behind the protective beach and dune system. Replacement of sand on the beach berm and dune is anticipated as part of the continuing functioning of the project. Such projects are generally authorized with continued Federal participation in the beach fill periodic nourishment. Under the provisions of the Flood and Coastal Storm Emergencies Act (Public Law 84-99 as amended) the Corps is authorized to repair and restore, at 100 percent Federal cost, Federally authorized hurricane or shore protective structures damaged or destroyed by wind, wave, or water action of other than an ordinary nature when, in the discretion of the Corps, such repair and restoration is warranted for the adequate functioning of the structure. The sacrificial nature of beach fill projects and the continuing Federal participation in periodic nourishment raises questions on the applicability of Public Law 84-99 for these projects. Additional guidance is needed on the conditions under which the Corps will repair and rehabilitate beach fills, and the limitations of the work that will be undertaken.

b. Policy.

(1) Completed Project. To be eligible for Public Law 84-99 funds, a beach fill project must be completed or must be a completed functional element of a larger project. A beach fill project or functional element is considered to be complete when it has been formally transferred to the non-Federal sponsor for OMRR&R. Public Law 84-99 funds will not be used for uncompleted projects that are eroded by storm events before they are transferred to the non-Federal sponsor. Uncompleted projects that are eroded by storm events before they are formally transferred to the non-Federal sponsor will be restored to their design dimensions using Construction, General, funds. Costs will be shared by the non-Federal sponsor as project construction costs under the terms of the PCA.

(2) Extraordinary Storm. To be eligible for use of Public Law 84-99 funds, a beach fill project must be substantially eroded by wind, wave, or water action of other than an ordinary nature. It is difficult to precisely define an “extraordinary” storm. Therefore, the determination of whether a storm qualifies as extraordinary will be made by the Director of Civil Works in consultation with the Assistant Secretary of the Army for Civil Works (ASA(CW)). The severity of the storm will be discussed in the Project Information Report which accompanies the Project Approval/Funding Request to the Director of Civil Works. The report should include a description of the damaging storm(s) in relation to established parameters for coastal storms including shoreline recession, storm surge elevation and duration, wave height, and wave interval. To the extent possible a frequency should be estimated for these parameters to provide a basis to assess the storm's severity. A description of the storm in relation to established

classification systems should also be presented.

(3) Adequate Functioning. Under the provisions of Public Law 84-99 and existing policy implementing the legislation (reference l.e.), funds are to be used to restore adequate functioning of the structure for storm damage protection. For a beach fill project, the degree of project restoration eligible for funding under Public Law 84-99 versus the periodic nourishment to be accomplished under the terms of the PCA will be decided on a case-by-case basis by the Director of Civil Works in conjunction with the ASA(CW) - The need for funding under Public Law 84-99 will be based on an assessment of the risk to life and property and the need for immediate action. In no case, however, will a beach fill project be restored with Public Law 84-99 funds beyond its pre-storm condition. Considerations in making the assessment on degree of restoration required will be discussed in the Project Information Report and include the following:

(a) Pre-Storm Conditions. The pre-storm condition of the project must be described. A beach fill project is designed to a certain level of erosion protection. In some cases, particularly where a protective dune is included, it also provides storm surge and wave damage protection. These design parameters are generally expressed as a frequency or probability. The pre-storm condition of the project with respect to its ability to meet its design parameters should be described. If the pre-storm condition of the project was not at a level that would have provided the design level of erosion, storm surge or wave protection, the volume of material in the pre-storm condition needed to restore a project to its design profile should be estimated. Replacement of this volume of material would not be eligible for funding under Public Law 84-99. Information should also be presented on the nourishment history of the project, including the estimated nourishment cycle and the date of last nourishment.

(b) Remaining Protection. The degree of erosion and storm surge protection remaining is an important factor in assessing the degree of restoration required. The severity of the event that would cause significant damages with the remaining project should be described. An assessment of the remaining property subject to damage should also be presented.

(c) Storm Season. Public Law 84-99 funds are to be used to restore adequate functioning of a project to provide protection against future storms. Therefore, an assessment of the risk of a subsequent damaging storm is an important consideration in the use of emergency funds and should be discussed in the Project Information Report. Damaging coastal storms are more frequent during certain seasons (for example the late summer and early fall hurricane season on the Gulf and east coast). The need for immediate emergency action and the extent of immediate restoration required will be influenced by whether the storm causing the damage occurs early or late in the storm season. If it is late in the storm season, and the risk of a subsequent storm in the current season low, there is no need for emergency action under Public Law 84-99. In such cases, the project should be re-nourished under the terms of the PCA.

(4) Combined Public Law 84-99 and Periodic Nourishment. In some cases the non-Federal sponsor may wish to fully restore a beach fill project where only a partial restoration is justified under the provisions of Public Law 84-99 In these cases, a cost allocation recommendation for the complete restoration project will be made between emergency response under Public Law 84-99 (100 percent Federal cost) and periodic nourishment under the terms of the project PCA. This recommended cost allocation and its rationale will be presented in the Project Information Report.

6. Regulations Modification. Regulations will be modified as required to incorporate the guidance contained in this policy letter.

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