

## CHAPTER 8 - DREDGING

8-1. Purpose. This chapter establishes the policy governing accomplishment of dredging at USACE projects.

8-2. Policy. It is the policy of the Corps of Engineers that:

a. Dredging Projects. Dredging shall be accomplished in an efficient, cost-effective, and environmentally acceptable manner to improve and maintain the Nation's waterways to make them suitable for navigation and other purposes consistent with Federal laws and regulations.

(1) The maximum practicable benefits will be obtained from materials dredged from authorized Federal navigation projects, after taking into consideration economics, engineering, and environmental requirements in accordance with applicable Federal laws and regulations (33 CFR Parts 335-338).

(2) Dredging of any and all navigation projects shall be justified to reflect the current level of navigation activity at the project, to provide rationale for the channel dimensions to be dredged, the frequency of dredging, and, as a minimum, the justification shall be in accordance with current budgetary guidance.

(3) Navigation channel depths in project authorization documents and on maps, charts or engineering site drawings shall be referred to a vertical datum in accordance with EM 1110-2-1003.

(4) In accordance with 33 USC 628, no funds appropriated for navigation projects shall be expended for dredging shoreward of harbor lines.

(5) Authorized navigation projects will be maintained to full constructed channel dimensions when feasible and justified.

(6) Allowable overdepth dredging (depth and/or width) outside the required prism is permitted to allow for inaccuracies in the dredging process. District commanders may dredge a maximum of two feet of allowable overdepth in coastal regions (to include the Great Lakes, Columbia & Lower Willamette Rivers, etc.), and in inland navigation channels. Allowable overdepth in excess of these allowances or the use of zero allowable overdepth requires the prior approval of the MSC commander.

(7) Advance maintenance dredging, to a specified depth and/or width, may be performed in critical and/or fast-shoaling areas to avoid frequent redredging and ensure the least overall cost of maintaining the project. MSC commanders are authorized to approve advance maintenance dredging for new work dredging and maintenance dredging of the project. Written justification is required. As a minimum, the justification for advance maintenance should describe historical shoaling rates, frequency of dredging, and cost analysis. Advance maintenance involving the removal of rock is not authorized under the Operation and Maintenance, General appropriation. Advance maintenance shall not be used to provide navigation channel dimensions for vessels that exceed the design limitations of the project. Before using advance maintenance, the integrity of structures adjacent to the channel and the possibility that the material in the advance maintenance portion of the channel is significantly different from maintenance material should be reviewed.

(8) Increases in navigation channel dimensions at entrances, bends, sidings, and turning places within a project to allow for free movement of boats shall be in accordance with the provisions of Section 5 of the River and Harbor Act of 14 March 1915 (33 USC 562), Section 117 of the River and Harbor Act of 13 August 1968, PL 90-483, (33 USC 562a), Section 3 of the River and Harbor Act of 1945 (33 USC 603a), or Section 224 of PL 102-580 (33 USC 2201), and shall be approved by HQUSACE.

(9) Unless otherwise provided in the project authorization documents, depths and widths provided in the project authorization will be construed as actual dredging limits and not the draft and width limits of any vessel to be accommodated. Where a width of navigation channel is specified it will be understood to mean width of bottom at project depth.

(10) Side Slopes. Side slopes may be dredged by:

(a) Dredging along the slope of the required dimension.

(b) Dredging an equivalent box cut at the base of the side slope for the required dimension. Material removed from the box cut is payable up to that amount of material above the side slope line. Before using a box cut, the integrity of structures adjacent to the channel should be reviewed.

b. Dredging Contracts. Unit price construction contracts are the preferred method of accomplishing dredging work within the Corps of Engineers. The cost effectiveness of multiple year and multiple site dredging contracts shall be analyzed in the planning of all dredging projects.

(1) The Contracting Officer shall require the contractor to remove any and all material from within the required prism as required by the contract specifications. However, at the discretion of the Contracting Officer, the contractor may be released from removing all the material in the required prism based on navigation requirements and other factors, such as: deviations from the maintained dimensions can be attributed to the inaccuracies in the surveying measurement process, material characteristics, extreme weather conditions, or when the government is at fault.

(2) EP 1130-2-520 describes allowable contract types.

c. Contract Documents. The development of contract documents is applicable to new work dredging, maintenance dredging, and dredging for other purposes such as beach nourishment, dike and levee construction, and other beneficial uses.

(1) Individuals responsible for preparation of construction contracts for dredging shall ensure that plans and specifications accurately describe the work to be accomplished, the conditions existing at the work site, the required dredging quantities for unit price contracts, the required prism, allowable overdepth, the limits of the work area, and any environmental considerations at the work site.

(2) The classification of material and the estimated quantities of material for unit price contracts to be removed from within the required prism shall be specified in the contract specifications. For unit price contracts, all quantities of material to be removed from within the required prism and any advance maintenance quantities (if applicable) shall be included in the

solicitation bid item for required dredging quantities.

(3) When provisions for allowable overdepth below the required prism are specified, the quantities shall be firmly established in the bidding documents. The removal of these quantities by the contractor are optional; however, the contractor will be paid for all material removed within the allowable overdepth prism. The required and allowable overdepth quantity of material should be included in the same bid item, and these quantities should be noted in the contract specifications. The contract specifications will state that no payment will be made for material removed outside the allowable overdepth prism.

(4) Mobilization (mob) and demobilization (demob) will normally be included as a separate bid item in dredging contract documents. If any bid reflects a disproportionate share of the total contract cost in the mob and demob item (commonly referred to as unbalanced bidding), DFARS 252.236-7004 prescribes the appropriate procedures for the contracting officer to follow.

(5) When zero allowable overdepth is specified, the documents shall clearly indicate that all material from within the required dredging prism must be removed. The contractor may dredge below the required depth to ensure that all material is removed from within the required prism; however, the contract documents will make clear that no payment will be made for yardage removed below the required prism.

(6) New work dredging plans and specifications, where hard materials exist (e.g., dense clays, rock, or manmade materials), shall have a required depth, required overdepth, and allowable overdepth, in order to ensure future maintenance of the project to the authorized dimensions.

d. Estimates of Dredging Costs. All estimates for dredging cost will be prepared in accordance with ER 1110-2-1302, Civil Works Cost Engineering, the Cost Engineer Dredge Estimating Program (CEDEP), and will contain a narrative documenting reasons for decisions and selections made by the cost engineer. It is the general policy of the U.S. Army Corps of Engineers that estimates for dredging costs will be performed by the cost engineer. Coordination between the cost engineer and the dredging program manager regarding dredging related issues or operational or maintenance procedures is recommended. Each MSC and district command that is involved in the preparation of plans and specifications for dredging solicitations, dredging cost estimates, and contract management for dredging projects should promote the development of expertise related to the dredging process within the planning, engineering, and construction-operations functions. For special cost engineering dredging problems or concerns, the use of the Corps' Regional dredge teams are recommended. The appropriate team is convened at the request of the district commander. A list of the regional geographical areas and office of the chairman for each team is referenced in Appendix H of ER 1110-2-1302.

e. Navigation Channel Conditions.

(1) Hydrographic Surveys (For Dredging Projects). The performance of hydrographic surveys in support of dredging shall be in accordance with EM 1110-2-1003, Hydrographic Surveying, and EP 1130-2-520, Chapter 8, Dredging.

(2) Channel Sweep Surveys. Sweep surveys shall be performed as necessary to locate underwater obstructions within the navigation channel limits or for final acceptance when dredging is performed in hard material (e.g., dense clays, rock, or manmade materials).

(3) Channel Clearing.

(a) ER 1105-2-100 provides the policy and procedure to perform emergency snagging and clearing work to benefit navigation, under authority of Section 3 of the River and Harbor Act approved 2 March 1945. For routine maintenance the project authorization document provides the authority for snagging and clearing for navigation.

(b) Chapter 4 of ER 1130-2-520 provides the policy and procedure for removal of wrecks and other obstructions to navigation.

f. Placement of Dredged Material. Corps of Engineer placement of dredged material policies and practices shall be in conformance with 33 CFR Parts 335-338 for operation and maintenance projects and ER 1105-2-100 for new work projects. When specifying a placement method, all alternatives including beneficial uses should be investigated in accordance with applicable laws and regulations.

g. Corps of Engineers Reserve Fleet (CERF).

(1) CERF provides for the response of private industry hopper dredges to support emergency and national defense dredging requirements. The CERF program is used to augment the Corps Minimum Fleet hopper dredges. When Corps Minimum Fleet hopper dredges are not available, and it is not feasible or practical to use routine contractual procedures for hopper dredges, then MSC/District Commanders shall seek authority from HQUSACE to activate CERF. The mechanism for implementing the CERF program is outlined in EP 1130-2-520.

(2) The CERF program shall ensure response of private industry hopper dredges without restricting a contractor's ability to compete for private dredging contracts. All contractor hopper dredges are subject to CERF activation while working under a Corps contract. CERF activation shall be used only when all other avenues to secure dredging have been exhausted.

(3) The contractor's dredge is subject to activation by the Director of Civil Works under the CERF for the remaining time on the existing contract plus 90 days for CONUS dredging. For OCONUS, the Commander, USACE, may activate a contractor's dredge for the remaining time on the existing contract plus 180 days. The actual period of the CERF contract can exceed these time limits if mutually agreeable.

(4) The contractor's hopper dredge must depart its current duty station within 72 hours of notification of CERF activation for CONUS and within ten days for OCONUS deployments. When the CERF contract is completed, the dredge shall be paid to return to the work from which it was activated (if the original contract is still in force) or to its homeport.

h. Corps of Engineers Minimum Dredge Fleet. In accordance with Public Law 95-269 (33 USC 622), the Corps of Engineers shall retain a minimum federally-owned fleet to carry out emergency and national defense work. In addition, the law requires that the minimum federally-owned fleet be kept fully operational, and maintained to technologically modern and efficient standards, including replacement as necessary. EM 1125-2-312 describes the operation of the Corps of Engineers Minimum Dredge Fleet.

i. Quality Control/Quality Assurance. Quality Control/ Quality Assurance procedures shall be established and implemented for all dredging projects in accordance with ER 1180-1-6.

j. Internal Controls. MSC and district commanders shall establish internal controls consistent with Army Regulations (AR) 11-7, Internal Review (HQUSACE Supplement 1).

k. Small Business Dredging Program. Small Business Dredging Program and the Small & Disadvantaged Business Program of the Congress, and the Small Business Administration shall be supported in compliance with Section 722 of PL 100-656, which specifies small dredging business and emerging small business dredging contract award goals. Engineer Federal Acquisition Regulation Supplement (EFARS), Subpart 19.10, provides specific guidance to facilitate meeting these goals.

l. Coordination with the Dredging Industry. It is the policy of the Corps of Engineers to provide the U.S. dredging industry with a schedule of proposed bid openings for dredging to promote increased competition for Corps dredging work. MSC commanders will hold an annual regional meeting to discuss the approaching fiscal year dredging contract schedule with Corps district representatives and representatives of the dredging industry. This meeting may be delayed until after work allowances are issued in the interest of providing accurate information. National dredging meetings will be held a minimum of once each year to allow the dredging industry the opportunity to review the national schedule of dredging contracts.

m. Local Sponsor Applicability.

(1) Title I of the Water Resources Development Act (WRDA) of 1986, PL 99-662, assigns non-Federal responsibility for project requirements. ER 1105-2-100 provides navigation project cost sharing guidance.

(2) This dredging policy shall serve as guidance for non-Federal interests to construct harbor improvements in accordance with Section 204 of WRDA of 1986. The application of Section 204 is contained in ER 1165-2-120 and ER 1165-2-124.

(3) Section 933 of WRDA of 1986, as amended by Section 35 of WRDA of 1988, and Section 207 of WRDA of 1992 provides authority for the Secretary of the Army, if requested by a state, to place beach quality sand dredged in constructing or maintaining navigation improvements on adjacent beaches if the work is deemed to be in the public interest and upon payment by such state of fifty percent of the increased cost. The Secretary is required to give consideration to a state's schedule for providing its share of funds for placement of such sand, and shall, to the maximum extent practicable, accommodate such schedule.

(4) In accordance with Section 1352, 31 USC, entitled "Limitation on Use of Appropriated Funds to Influence Certain Federal Contracting and Financial Transactions", recipients of a Federal contract, grant, or cooperative agreement, must file a certification that funds will not be used for lobbying.

(5) Section 204, Water Resources Development Act of 1992, (PL 102-580), authorizes the Secretary of the Army to carry out projects for the protection, restorations, and creation of aquatic and ecologically related habitats, including wetlands, (hereinafter referred to as ecosystem restoration projects) in connection with dredging for construction, operation, or maintenance of an authorized Federal navigation project. Projects may be undertaken upon a finding by the Secretary that the environmental, economic, and social benefits of the project, both monetary and nonmonetary, justify the cost thereof and the project would not result in environmental degradation. Project implementation is conditioned on non-Federal interests

entering into a cooperative agreement in accordance with the requirements of Section 221 of the Flood Control Act of 1970 and providing 25 percent of the cost associated with the construction of the project including provision of all lands, easements, rights-of-way, and necessary relocations. The non-Federal sponsor must also agree to pay 100 percent of the operation, maintenance, replacement, and rehabilitation costs associated with the project. The project costs are limited to incremental construction costs in excess of those costs necessary to maintain the authorized navigation project in the most cost effective way, consistent with economic, engineering, and Federal environmental criteria. An annual appropriations limit of \$15,000,000 has been legislatively established for section 204 projects.

n. Inspection of Dredging Operations. The inspection of dredging operations shall be performed for both hired labor and contract work to ensure that the plans and specifications for the work are complied with fully. EP 1130-2-520 provides guidance for the inspection of dredging operations.

### 8-3. Reporting Requirements.

a. Extensive coordination between Major Subordinate Commands (MSC), District Commands, and HQUSACE (CECW-OD) is required. Reporting dredging information such as dredging advertising schedules, post-bid data, Minimum Dredge Fleet schedules and status, and Continuation of Analysis of Dredging Costs, to HQUSACE consistently and accurately is required.

b. MSC shall review each district command report for completeness and consistency with program budgets, schedules and cost factors. District Commands shall make any necessary revisions or modifications to reports requested by CECW-OD in a timely manner.

c. When the variation in estimated quantity clause of the contract is exercised, the contract shall be modified to reflect the new expenditures. The changes made as a result of the contract modification shall be reported in accordance with the requirements of DFARS 204.671 and 204.672.

d. An after action report on emergency or national defense assignments by a Minimum Fleet vessel will be prepared by the owning district. The report shall be submitted to HQUSACE (CECW-OD) within 30 days after completion of the work.