

CHAPTER 7 ADVANCE MEASURES

7-1. Policy. USACE may perform Advance Measures prior to flooding or flood fighting activities to protect against loss of life and significant damages to urban areas and/or public facilities due to an imminent threat of unusual flooding. Advance Measures assistance may be taken prior to a flood, a hurricane or coastal storm, or a storm on an inland body of water, or a closed basin flood. In addition to the policy in Chapter 2, the following criteria and conditions must be met to provide Advance Measures assistance.

a. Requirement. An imminent threat of unusual flooding must exist to justify Advance Measures assistance from USACE. The threat must be established either by National Weather Service (NWS) forecasts or by USACE determination of unusual flooding from adverse conditions. The threat must be such that substantial damages will be incurred if preventive/protective action is not taken prior to the forecast event. Prior to beginning an Advance Measures application, other USACE authorities must also be considered. If any other USACE authority is applicable (e.g., a Section 9 of the Flood Control Act of 1946 action when releases from a Corps flood control reservoir project may cause flooding downstream), then Advance Measures may not be undertaken.

(1) Definition of Imminent Threat. A subjective, statistically supported evaluation of how quickly a threat scenario can develop, how likely that threat is to develop in a given geographical location, and how likely the threat will produce catastrophic consequences to life and improved property, which, when combined, result in a high probability of occurrence. Implicit in the threat aspect can be considerations of time (e.g., a storm front's predicted path), season (e.g., a snowpack that will melt in the coming spring runoff), or known cyclical activities (e.g., rising water levels in the Great Lakes) that occur inside of the normal Corps decision and execution cycle for small project construction.

(2) Definition of Unusual Flooding. A subjective determination that considers potential ability to approach an area's flood of record, a catastrophic level of flooding, or a greater than 50-year level of flooding.

b. USACE Supports State and Local Efforts. Advance Measures assistance will be in support of state and local ongoing or planned efforts. All activities will be coordinated with the State Emergency Management Agency or equivalent. Non-Federal interests must commit available resources (i.e., work force, supplies, equipment, funds, National Guard forces, etc.)

c. Governor's Request. A written request from the Governor is required for USACE assistance. See EP 500-1-1, paragraph 7-4.b. for requirements of the Governor's request.

d. No Assistance for Erosion Damage. Advance Measures assistance solely to prevent erosion damage is not permitted.

e. Channels. Channel clearance and dredging to restore original project design capacity is permitted if predicted flood flows cannot be passed and flooding is likely to occur.

f. Prohibition on Permanent Betterments. Advance Measures assistance will not normally be used to make a permanent modification to FCW to increase the degree of protection or capacity or to provide protection to a larger area.

g. Benefit to Cost Ratio. Projects undertaken must have a favorable BCR (i.e., > 1.0) in accordance with the Principles and Guidelines contained in Chapter 6, ER 1105-2-100, regarding National Economic Development (NED) Benefit Cost Analysis.

h. Nature of USACE Advance Measures Assistance. USACE Advance Measures assistance will be temporary in nature, technically feasible, designed to deal effectively with the specific threat, and capable of construction in time to prevent projected damages. Permanent work may be considered when the permanent project costs less or is significantly more cost effective than the temporary solution.

i. Public Sponsor Requirements. The public sponsor must agree to execute a CA, and, at no cost to USACE, when the operation is over, remove all temporary work constructed by USACE, or agree to upgrade the work to standards acceptable to USACE. In addition, the public sponsor is responsible for providing the traditional a-b-c's at its own expense.

j. Termination of USACE Assistance. USACE Advance Measures assistance will be terminated no later than when the imminent flood threat ends.

k. Assistance for Ice Jams and Ice Jam Blasting. USACE assistance regarding ice jam clearing and ice jam blasting is limited to technical assistance. Under no circumstances will USACE participate in any type of direct assistance involving ice jam blasting activities.

l. Haul Roads. Refer to paragraph 5-2.t. for policy regarding haul roads used during Advance Measures.

m. Cost Sharing. USACE will provide 100 percent of the investigative costs of Advance Measures projects. USACE will provide 100 percent of the engineering and design costs of Advance Measures projects.

(1) Temporary Construction Standard. USACE will provide 100 percent of the costs of Advance Measures projects that use a temporary standard of construction, excluding those costs addressed in paragraph 7-1.i. above.

(2) Permanent Construction Standard. Advance Measures projects using a permanent standard of construction will be cost shared at 75 percent Federal and 25 percent local. Cost sharable items include construction costs, supervision and administration (S&A) costs, costs for preparation of any required Operation and Maintenance manuals, and contingency costs for these items.

n. Project Information Reports for potential Advance Measures projects will be forwarded by the district through the division to HQUSACE (CECW-OE). Approval authority for Advance Measures projects is the Chief, Operations Division (CECW-O).

7-2. Types of Advance Measures Assistance. Advance Measures assistance may be technical and/or direct assistance. Direct assistance may only be provided as part of an approved Advance Measures project.

a. Technical Assistance. Technical assistance consists of providing technical review, advice, and/or recommendations to state and local agencies before an anticipated flood event. The following are examples of technical assistance support:

(1) Providing personnel to inspect existing FCW to identify potential problems and solutions, to evaluate conditions to determine the requirements for additional flood control protection, and to recommend the most expedient construction methods.

(2) Providing hydraulic, hydrologic, and/or geotechnical analysis.

(3) Providing information readily available at USACE districts to local entities for use in the preparation of local evacuation and/or contingency flood plans. Providing assistance in the preparation of flood fight plans.

b. Direct Assistance. Direct assistance is assistance USACE provides to supplement state and local resources, as part of an approved Advance Measures project. Direct Assistance may include supplies, equipment, and/or contracting for the construction of temporary and/or permanent flood control projects. Examples of emergency contracting work include the construction of temporary levees; the repair, strengthening, or temporary raising of levees, or other FCW; shore protection projects; or removal of stream obstructions, to include channel dredging of Federal projects to restore the design flow.

c. Contingency Planning Efforts for Potential Advance Measures Activities. Occasionally weather phenomena occur which produce a much higher than normal probability or threat of flooding which may be predicted several months in advance of occurrence or significant impact, but which may not reach the defined level of "imminent threat" or "unusual flooding". Impacts on specific locations may be unpredictable, but regional impacts may have a high likelihood of occurrence. In such situations, the Corps may provide technical and contingency planning assistance to tribal and state agencies, commensurate with the predicted weather phenomenon, based on requests for assistance from such tribal and State agencies. Based on a state-level request, assistance may also be provided to local agencies. A Governor's request is not required for contingency planning efforts. Potential Advance Measures projects that may emanate from such contingency planning assistance must be addressed as otherwise specified in this chapter and in EP 500-1-1, Chapter 7.

7-3. Eligibility.

a. Federal Projects. Advance Measures may be undertaken on Federal flood damage reduction projects that are in imminent danger of failure/overtopping if the criteria in paragraph 7-1. are met. In those instances where an FCW is in imminent danger of structural failure, Advance Measures can be employed to undertake minimum corrective action to ensure the stability, integrity, and safety of such projects.

(1) Actions under this authority are a last resort.

(2) Actions will be limited to those necessary to prevent imminent failure of a project that meets the following criteria:

(a) A failure poses a significant threat to life and/or improved property; and,

(b) The work on the project is beyond the capability of local interests and the State to perform in a timely manner.

(3) In cases where the corrective action includes work to remedy the results of inadequate maintenance by local interests, the costs for such work are a non-Federal responsibility and shall be assigned as a local cost. Repair work will not be delayed because of difficulties in obtaining funding on the public sponsor's part.

b. Corps FCW. FCW that are operated and maintained by USACE will not be pursued as Advance Measures under PL 84-99.

c. Other Federal Agency FCW's. FCW's constructed by other Federal agencies will not be pursued as Advance Measures under PL 84-99 if the constructing agency has authority to address the flood threat.

d. Non-Federal FCW's. Advance Measures may be undertaken on non-Federal flood damage reduction projects that are in imminent danger of failure/overtopping if the criteria in paragraph 7-1. are met. In those instances where an FCW is in imminent danger of structural failure, Advance Measures can be employed to undertake minimum corrective action to ensure the stability, integrity, and safety of such projects.

e. Other Situations. Construction of temporary flood damage reduction structures (normally levees) may be undertaken.

f. Potential Scenarios within which Advance Measures may apply. See EP 500-1-1, paragraph 7-3.

7-4. Funding. Funding will be in accordance with ER 11-1-320.

7-5. Procedures. Refer to EP 500-1-1, Chapter 7.

ER 500-1-1
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