<table>
<thead>
<tr>
<th>CECW-PD</th>
<th>Department of the Army</th>
<th>ER 1165-2-121</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation No.</td>
<td>U.S. Army Corps of Engineers</td>
<td>1 Nov 89</td>
</tr>
<tr>
<td>1165-2-121</td>
<td>Washington, DC 20314-1000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Water Resources Policies and Authorities</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>FLOOD CONTROL COST-SHARING REQUIREMENTS UNDER THE ABILITY-TO-PAY</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ABILITY-TO-PAY PROVISION - SECTION 103(M) OF PL 99-662</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Distribution Restriction Statement</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved for public release; distribution is unlimited.</td>
<td></td>
</tr>
</tbody>
</table>
1. **Purpose.** This regulation gives general instructions on the implementation of Section 103(m) of Public Law (PL) 99-662, 33 USC 2213, as it applies to flood control projects.

2. **Applicability.** This regulation applies to all U.S. Army Corps of Engineers Headquarters (HQUSACE) elements and field operating activities (FOA's) of the Corps of Engineers having Civil Works responsibilities.

3. **References.**
   e. ER 1165-2-29.

4. **General Policy.**
   a. Procedures described herein establish an "ability-to-pay" test which will be applied to all flood control projects. As a result of the application of the test, some projects will be cost shared by the Non-Federal interest at a lower level than the standard non-Federal share that would be required under the provisions of Section 103 of PL 99-662, 33 USC 2213. The "standard share", as used herein, refers to the non-Federal share that would apply to the project before any ability-to-pay consideration.
b. Section 103(m) requires that all cost-sharing agreements for flood control covered by the terms of Section 103(a) or 103(b) be subject to the ability-to-pay test. The test must therefore be applied not only to projects specifically authorized by Congress, but to the continuing authority projects constructed under Section 14 of the 1946 Flood Control Act (33 USC 701r), Section 205 of the 1948 Flood Control Act (33 USC 701s), and Section 208 of the 1954 Flood Control Act (33 USC 701g), all as amended.

c. The ability-to-pay test shall be conducted independently of any analysis of a project sponsor's ability to finance its ultimate share of proposed project costs. The ability to finance is addressed in a statement of financial capability which considers current borrowing constraints, alternative sources of liquidity, etc. It is, therefore, much more narrowly defined than the ability-to-pay test, which considers the underlying resource base of the community as a whole. The ability-to-pay test shall not be used to affect project scope, or to change budgetary priorities among projects competing for scarce Federal funds.

d. Any reductions in the level of non-Federal cost sharing as a result of the application of this test will be applied to construction costs only. Operations, maintenance and rehabilitation responsibilities are unaffected by the ability-to-pay test.

e. When projects are eligible for credits as outlined in ER 1165-2-29, reference 3e, the ability-to-pay test will be applied before any adjustments are made for credits. If the ability-to-pay test results in a lower non-Federal share, the allowable amount of credits will be limited by the lower share.

f. The test is based on the following principles:

(1) Since the standard non-Federal cost share is substantially less than full costs in every case, the ability-to-pay test should be structured so that reductions in the level of cost sharing will be granted in only a limited number of cases of severe economic hardship.

(2) The test should depend not only on the economic circumstances within a project area, but also on the conditions of the State(s) in which the project area is located. Although States' policies with respect to supporting local interests on flood control projects are not uniform, the State represents a potential source of financial assistance which should be considered in the analysis.
(3) The alternative level of cost sharing determined under the ability-to-pay principle should be governed in part by project benefits. If, as a result of the project, local beneficiaries receive more income, or are required to use fewer resources on flood damage repair or replacement, or on flood insurance, a portion of these resources should be available to pay for the non-Federal share, even in those cases where an analysis of current economic conditions indicates that there are relatively limited resources in the project area and its State.

(4) Since project benefits represent availability of resources in the future, but not the present, project sponsors should be permitted to defer a certain percentage of the non-Federal share whenever current economic circumstances suggest that non-Federal resources may be limited.

The Non-Federal interest may, at its discretion, waive the application of the ability-to-pay test. In this case, the Non-Federal interest shall be considered to have the ability-to-pay the standard cost share and no further economic inquiry will be required.


a. Step one, the benefits test. Determine the maximum possible reduction in the level of non-Federal cost sharing for any project.

(1) Calculate the ratio of flood control benefits (developed using the Water Resources Council's Principles and Guidelines—reference 3b to flood control costs for the project based on the discount rate which the Corps is currently using to evaluate projects. Costs include operations and maintenance as well as first costs. Divide the result by four. For example, if the project's (or separable element's) benefit-cost ratio is 1.2:1, the factor for this project equals 0.3. If a project has been authorized for construction without a benefit-cost ratio calculated in accordance with the Principles and Guidelines, determination of the ratio is a prerequisite for consideration under the ability-to-pay provision.

(2) If the factor determined in paragraph 5a(1), when expressed as a percentage, is greater than the standard level of cost sharing, the standard level will apply.

(3) If the factor determined in paragraph 5a(1), when expressed as a percentage, is less than the standard level of cost sharing, projects may be eligible for either a reduction in
the non-Federal share to this "benefits based floor" (BBF), or for a partial reduction to a share between the standard level and the BBF, as determined by the procedures in step two, paragraph 5b(5). In no case, however, will the non-Federal cost share be less than five percent.

b. **Step two, the income test.** Projects may qualify for the full amount of the reduction in cost sharing calculated in Step one, or for some fraction of the reduction in cost sharing, depending on a measure of the current economic resources of the project area and of the State or States in which the project is located.

(1) To assure consistency, the calculations in paragraph 5b(2) and (3) below will be performed by HQUSACE and distributed to all FOA's via Engineering Circulars. The information will be updated and distributed to HQUSACE and to the field as soon as new data are available. The procedures may be verified for any single county or state using the sources cited.

(2) For each of the three latest calendar years for which information is available, determine the level of per capita personal income in the State in which the project beneficiaries are located, and compare this to the national average of per capita personal income. Source: Department of Commerce, Bureau of Economic Analysis, as published yearly in the April Survey of Current Business. If the project beneficiaries are located in Alaska or Hawaii, divide the per capita personal income figure by one plus the percentage used in the Federal Government's cost of living pay differential for Federal workers who purchase local retail and who use private housing, employed in Anchorage, AK or Oahu, HI as contained in References 3c and 3d. Determine the State's per capita personal income as an index number in comparison to the national average (US = 100), and calculate the three year average of the State's index number.

(3) For each of the three latest calendar years for which information is available, determine the level of per capita personal income in the county where the project beneficiaries are located (the "project area"), and compare this to the national average of per capita personal income. Source: Department of Commerce, Bureau of Economic Analysis, as published yearly in the April Survey of Current Business. (If the project beneficiaries are located in Alaska or Hawaii, divide the county's per capita personal income figure by one plus the percentage used in the Federal Government's cost of living pay differential for Federal workers who purchase local retail and who use private housing,
employed in Anchorage, AK or Oahu, HI.) Calculate the index for the county's per capita personal income to the national average (US = 100), and calculate the three year average of the county's index number.

(4) When the project area, as determined by the location of the project's beneficiaries, includes more than one county, calculate a composite project area index by taking a weighted average of the county index numbers, the weights being equal to the relative levels of benefits received in each county. When the project area includes more than one State, the State index for the project should be calculated using the same weighting technique.

(5) Calculate an "Eligibility Factor" for the project according to the following formula:

\[ EF = a - b_1 \times \text{(State factor)} - b_2 \times \text{(area factor)} \]

If EF is one or more, the project is eligible for the full reduction in cost share to the benefits based floor. If EF is zero or less, the project is not eligible for a reduction. If EF is between zero and one, the non-Federal cost share will be reduced proportionately to an amount which is greater than the BBF but less than the standard non-Federal cost share in accordance with the procedures described in paragraph 5c below. The values of \( a \), \( b_1 \), and \( b_2 \) will be determined by HQUSACE. The parameter values will be based on the latest available data and set so that 20 percent of counties have an EF of 1.0 or more, while 66.7 percent have an EF of 0 or less. These values will be adjusted periodically as new information becomes available. Changes will be published in Engineering Circulars. The values will be set so that \( b_2 = 2 \times b_1 \), giving local income twice the weight of State income.

(6) Since estimates (available from the Bureau of Economic Analysis) of per capita personal income for Puerto Rico, Guam and other US territories are well below the national average, the eligibility factor for projects in these areas is administratively established to be equal to 1.

(7) For flood control projects sponsored by Native American tribes or villages, the EF shall be calculated using information on tribe or village income as a replacement factor for both the area and State factor (that is, multiply the replacement income factor by both \( b_1 \) and \( b_2 \) and subtract each from \( a \) in the equation in paragraph 5b(5)). The replacement factor will be tribe or village income as a percentage of the national average for the
equivalent definition of income (for example a Tribe's median family income as a percentage of the median family income for all US families). The data should be the latest available information. It is acceptable, but not required that the data be obtained from the Bureau of the Census, American Indians, Eskimos and Aleuts on Identified Reservations and in Historic Areas of Oklahoma (Excluding Urbanized Areas), Part 1, Table 10, or General Social and Economic Characteristics—United States Summary (1980), Table 252. Since both sources contain information for Native Americans living on reservations, rather than all Tribe or Village members, the sources should be used only when appropriate, or when no better information is available.

C. Application of the Ability-to-Pay Formula to the Basic Cost Sharing Provisions of Section 103. If a flood control project has a BBF which is less than the standard cost share and an EF which is greater than zero, the non-Federal cost share will be reduced. The alternative non-Federal share will be calculated and reported to the nearest one tenth of one percent. The actual reduction is determined by applying the ability-to-pay formula to the basic flood control cost-sharing provisions of Section 103 of PL 99-662, 33 USC 2213, as follows:

(1) when EF > 1, non-Federal cost share = BBF

(2) for structural projects covered by Section 103(a), when 0 < EF < 1:
   (i) if LERRD equals or exceeds 45 percent:
       non-Federal cost share = 50 - EF x (50-BBF)
   (ii) if LERRD exceeds 20 percent but is less than 45 percent:
        non-Federal cost share = (LERRD + 5) - EF x [(LERRD+5)-BBF]
   (iii) if LERRD is less than 20 percent:
        non-Federal cost share = 25 - EF x (25-BBF)

(3) For non-structural projects covered by Section 103(b), when 0 < EF< 1:
    non-Federal cost share = 25 - EF x (25-BBF)
(4) In no case, however, can the non-Federal share be less than five percent, even if the calculation made in paragraph 5c(1), (2), or (3) results in a smaller number.

(5) Note: LERRD equals the costs of lands, easements, rights-of-way, relocations, and dredged material disposal areas expressed as a percentage of total project costs. The BBF and numerical terms in the equations above are also expressed as percentages.


a. Whenever a project's Eligibility Factor exceeds zero, the project sponsor will be permitted to defer a portion of its share of flood control costs. The maximum allowable amount deferred equals the total non-Federal share less (for structural projects) five percent of total project costs and less (for all projects) any amounts for LERRD paid for or acquired by the sponsor prior to the time the LCA is signed. If, for example, the non-Federal share of a structural project = 35.0 percent (after the ability-to-pay adjustment, if any) of which 10 percent is LERRD already paid for by the local sponsor, the maximum allowable amount to be deferred = 20 percent of project flood control costs (35 percent less the five percent cash requirement, less the 10 percent LERRD already acquired). Deferred payments at the option of the sponsor will be allowed regardless of the outcome of the benefits test described in paragraph 5a whenever the Eligibility Factor exceeds zero.

b. When EF > 1, the project sponsor may defer as much as the maximum allowable amount as described in paragraph 6a.

c. When 0 < EF < 1, the sponsor may defer a fraction of the maximum allowable amount described in paragraph 6a, where the fraction equals the Eligibility Factor expressed to three decimal places. Continuing the example described in paragraph 6a, if EF = .712, total allowed deferral equals .712 x 20 percent = 14.2 percent of total project costs.

d. The deferred payment can be made in equal installments over any period of time selected by the non-Federal sponsor, provided that all repayments are made between the end of construction and thirty years thereafter. The amount repaid shall include interest during the repayment period as well as interest for the appropriate portion of the construction period for any amounts deferred prior to the end of construction. The rate of interest shall be determined in accordance with the provisions of Section 106 of PL 99-662, 33 USC 2216.
7. **Application of Test.**

a. A preliminary ability-to-pay test will be applied during the study phase of any proposed project. If the ability-to-pay cost share is lower than the standard share, the revised estimated cost share will be used for budgetary and other planning purposes.

b. The official application of the ability-to-pay test will be made at the time the Local Cooperation Agreement (LCA) between the Corps of Engineers and the non-Federal sponsor is signed. For structural flood control projects, the standard level of cost sharing will not be known until the end of the project (since the standard level as specified in Section 103(a), 33 USC 2213, includes LERRD). In this case, if the Eligibility Factor is greater than zero but less than one, the ability-to-pay non-Federal share will be determined using estimated costs.

c. The LCA for all projects subject to the ability-to-pay test will include a "Whereas" clause indicating the results of the test. If the project is eligible for a lower non-Federal share:

   (1) the revised share will be specified in the LCA (there will be no recalculation of this share once the LCA is signed).

   (2) an exhibit attached to the LCA will include the Benefits Based Floor (BBF) determined in paragraph 5a; the Eligibility Factor (EF) determined in paragraph 5b; if the Eligibility Factor is greater than zero but less than one, the estimated standard non-Federal share; and the formula used in determining the ability-to-pay share as described in paragraphs 5c(1) through 5c(4).

d. If at the time of project completion, the standard non-Federal share based on actual costs is less than the ability-to-pay share specified in the LCA, the standard share will apply.

e. For structural projects:

   (1) If the standard LERRD plus cash requirement exceeds the ability-to-pay cost share, the Federal Government will make any necessary adjustments in expenditures in the following order: first, paying any cash requirement in excess of five percent of total project costs (if any) that would, under standard cost sharing, have been the responsibility of the non-Federal sponsor; second, making payments for LERRD; and third, providing for reimbursement at the end of construction.
Federal payments for LERRD will be made only after the non-Federal payment for LERRD reaches a percentage of total project costs equal to the ability-to-pay non-Federal cost share less the five percent cash requirement. If such arrangements are necessary, the LCA should be prepared to reflect agreement on the best manner available for acquisition of those LERRD over the limiting percentage, or for reimbursing the sponsor upon completion of construction.

(2) The non-Federal sponsor will be required to provide a cash payment equal to a minimum of five percent of estimated total project costs, regardless of the outcome of the ability-to-pay test. The project sponsor shall make cash payments during construction at a rate such that the amount of non-Federal payments in each year, as a percentage of total non-Federal cash payments, equals the amount of Federal expenditures (including sunk pre-construction engineering and design costs as a first year Federal construction expenditure) as a percentage of total Federal expenditures. Total Federal expenditures include cash payments for construction and if necessary (due to ability-to-pay considerations), for LERRD, and for reimbursement to the non-Federal sponsor. Total Federal expenditures for the purpose of this calculation, do not include expenditures which allow the non-Federal sponsor to defer payment of the non-Federal share under the provisions of this rule.

f. For non-structural projects, reductions in the non-Federal cost share as a result of the ability-to-pay test will not affect the procedures for determining the non-Federal and Federal payment schedules. For non-structural projects, no specific cash payments during construction are required by law.

FOR THE COMMANDER:

ALBERT J. GENETTI, JR.
Colonel, Corps of Engineers
Chief of Staff