

reports with A-95 clearinghouses will satisfy the requirements of paragraphs 4e and 6b, Part I, OMB Circular A-95 (Appendix A). Reporting officers shall inform such clearinghouses of changes to the proposed plan resulting from approval actions by Division Engineers or the Chief of Engineers, prior to the initiation of construction.

(f) Reporting officers shall provide notification of Corps action on a proposed plan to clearinghouses which have previously reviewed such plan, within seven days of being informed of such action, concurrently or following notification of appropriate Congressional delegations and local interests. If a clearinghouse has recommended against approval of a plan, and the Chief of Engineers approves the plan, or if a clearinghouse recommends specific and major substantive changes to a plan and the plan is approved without such changes, then the reporting officer shall furnish the clearinghouse, in writing, an explanation therefore.

(g) The requirements of the Project Notification and Review System, as provided in paras (c)-(f) of this section, do not preclude additional coordination between reporting officers and clearinghouses, as provided in § 384.15 of this regulation.

#### § 384.15 Other Planning Programs.

The provisions of Parts II and IV of OMB Circular No. A-95 are applicable to Corps planning programs not included in § 384.14, but will not supersede other required and established procedures for communication and coordination between the Corps of Engineers and States, local interests and individuals. In the interest of sound, efficient planning and effective coordination, notices of study initiations, notices of public meetings, notices of report completion, reports and related documents will be furnished the appropriate clearinghouses. In addition, Division and District Engineers, or their designated representatives will be the contact with the State and areawide clearinghouses and will explore with them other general arrangements for coordination and review.

#### § 384.16 Clearinghouse Comments in Final Reports.

Reports submitted to OCE under programs covered by § 384.14 and 384.15, shall include any review comments of A-95 clearinghouses together with discussion of the consideration given the comments in reaching conclusions. Any departures from State or areawide plans as identified by the clearinghouse comments should be justified in this discussion. If no comments are received from clearinghouses, it should be so noted and report processing should continue in accordance with prescribed procedures.

#### § 384.17 Clearinghouse Coordination on Environmental Impact Statements (EIS).

The EIS, submitted to the Council on Environmental Quality (CEQ) pursuant to Section 102(2)(C) of the National Environmental Policy Act, must be accom-

panied by the views and comments of those State and local agencies authorized to develop and enforce environmental quality standards. Guidelines published by the CEQ designate the clearinghouses as an appropriate channel through which to secure the required State and local environmental agency views and comments.

(a) *Continuing Authorities Identified in § 384.14.* When required, Environmental Impact Statements, together with pertinent information on the alternatives and proposed plans, will be submitted directly to appropriate areawide clearinghouses for review and comment, as well as to the Governor or his representative. Provisions of paragraph (b) of this section are applicable for obtaining comments from State clearinghouses.

(b) *Other Planning Programs.* Letters transmitting the EIS, together with pertinent information on the alternatives and proposed plans, to the Governor or his designated representative for review and comment will request that the views and comments of the State clearinghouse be ascertained in accordance with OMB Circular No. A-95, if the State clearinghouse is not also the Governor's designated representative.

(c) *Additional Guidance.* Additional guidance on coordination of the EIS is contained in ER 1105-2-507 (33 CFR 209.410).

#### § 384.18 A-95 Liaison Officer.

The Corps Regional Representatives to the Federal Regional Councils, as designated by ER 1165-2-22, will also serve as A-95 Liaison Officers to the appropriate Council. The Liaison Officers will be the central contact point with the Council on A-95 matters as they affect the Corps Civil Works mission in the Region, in accordance with the procedures set forth in ER 1165-2-22.

#### § 384.19 Directory of A-95 Clearinghouses.

The directory of clearinghouses may be found in DA Pamphlet 210-4. A copy of OMB Circular A-95 (Revised) is provided as Appendix A of this regulation.

#### § 384.20 Effective Date.

This regulation is effective December 1, 1975, as published in the FEDERAL REGISTER on November 3, 1975 and codified as 33 CFR 384.

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[ER 1105-2-50]

### PART 263—CONTINUING AUTHORITIES PROGRAM

#### Policies and Procedures

On January 8, 1975, the Secretary of the Army, acting through the Chief of Engineers, proposed a regulation prescribing policies and procedures to implement seven legislative authorities under which the Secretary of the Army, acting through the Chief of Engineers, is authorized to plan, design and construct certain types of water resources improvements without specific Congressional authorization. These authorities have been

established by Congress to enable the Chief of Engineers to respond on a timely basis to small scale problems involving flooding obstructions to navigation, and beach erosion.

Comments were received from several Corps of Engineers field offices, the Department of the Interior, and the Georgia Department of Natural Resources, Game and Fish Division. All comments were given careful consideration, and as a result, the following changes were made:

1. § 263.11. This section has been revised to indicate the effective date.

2. § 263.14(c). The restriction on utilization of the Program for adoption of maintenance responsibilities on a non-Federal project was clarified. The language was rewritten to read: "This program may not be used for adoption of a non-Federal project for future maintenance at Federal expense."

3. § 263.15(a), 3rd line. The words "local cooperation requirements" are changed to read "legislative funding limitations". Local cooperation requirements are determined by the established policies for each purpose served by the project formulated under the Continuing Authorities Program.

4. § 263.15(b). Subparagraph (1) has been revised and changed to subparagraphs (1)-(4) to clarify the policy on costs to be included within the established legislative cost limitation, costs considered as project first costs, costs for economic analysis, and the use of Federal funds by local interests to satisfy local cooperation requirements. Subparagraph (2) has been changed to subparagraph (5).

5. § 263.15(c)(1). The statement that "charges not to exceed \$5,000 may be made against the District revolving fund" has been included; the statement is also found in § 263.17(a).

6. § 263.15(c)(2). Subparagraph has been revised to reflect the concept that only Stage 2 of the planning process is the "feasibility" study. The criterion for termination of a study "substantial public opposition" has been changed to "a lack of public support". With regard to what constitutes a "reasonable length of time for local interests to provide assurances of local cooperation," the statement "as determined by the reporting officer" has been added. OCE cannot set specific time limits since the situation is different in many States. The criteria for initiating a feasibility study have been changed as follows:

a. The requirement that there exist solutions for which "Federal participation and Corps implementation are justified" has been changed to read "Federal participation may be justified"; the Recon is not intended to result in the identification of a justified project but is only intended to provide a first look at the Federal interest in the request from non-Federal interests, except under conditions of § 263.17(b)(3).

b. The requirement that existing entities be "capable and willing to satisfy the typical local cooperation requirements for such solutions" has been changed to read "legally and financially capable of satisfying the typical local cooperation requirements for such solutions". Until a definite plan is recommended, the willingness of local interests to participate cannot be ascertained with any validity.

c. The following criterion was added to place the responsibility on the Division Engineer to not allow excessive costs for feasibility studies: "a feasibility study can be accomplished at a reasonable cost compared to the prospective benefits from solving the problems identified in the Recon."

d. A provision was added as paragraph (c)(2)(b) of this section to encourage Division



Engineers to refer any questions on Federal interest or policy to OCE prior to authorizing a feasibility study.

7. § 263.15(c)(3). The title of Stage 3 planning has been changed from "Detailed Project Design" to "Development of Recommended Plan." The first sentence has been deleted; it was considered unnecessary. The penultimate sentence has been rewritten into paragraph (g) of this section. The last sentence has been rewritten into a new paragraph (d) of this section.

8. § 263.15(f). The provisions for obtaining views of States and regional offices of Federal agencies have been changed so as to allow Division Engineers to utilize letters obtained by reporting officers from the coordination of draft reports, if the letters are current. Criteria are provided for defining the term current.

9. § 263.15(g). The first sentence revised to include the words "recommended by reporting officers" after the word "projects" and to authorize the Director of Civil Works to approve and disapprove projects for the Chief of Engineers. A new sentence has been inserted after the first sentence, as follows: "Projects will be approved on the basis of a Detailed Project Report, except in the case of emergencies under Section 14 and 3 Authorities, for which a Recon Report (developed for the recommended work) may be utilized (§ 263.17(b)(3))." The words "approval of the DPR" have been deleted from the second sentence.

10. § 263.15(j). This new paragraph, entitled *Withdrawal of Project Approval*, was added to provide the mechanism for removing approved projects from the backlog, consistent with the intent of Section 12, Public Law 93-251.

11. § 263.16(b). A sentence was added after the first sentence, which reads: "Division Engineers are responsible for insuring, through intensive management, that studies are initiated and terminated at the appropriate time, and funded at the appropriate level, for efficient use of Program funds."

12. § 263.16(c). This new paragraph was added to require reporting officers to designate Program managers and to insure that Reconns are appropriately conducted in accordance with the limited objective established by the regulation.

13. § 263.17(a). The words "Stage of the Feasibility Study" have been deleted from the title, and the words "continuation of the" have been deleted from the first sentence, consistent with § 263.13(b). The word "prior" has been inserted before the word "approval" in the penultimate sentence. A new sentence was inserted after the penultimate sentence to require justification of requests for Recon costs exceeding \$5,000.

14. § 263.17(b). The word "Continuation" has been changed to "Initiation" in the title and in the first sentence. The second and third sentences have been reorganized to become subparagraphs (2) and (3), respectively. A new subparagraph (1) has been added: "Once the Recon is completed, no further work may be accomplished without a work allowance and allotment from OCE." A new subparagraph (4) was added to read: "Except as provided in subparagraph (3) above, or when the Division Engineer desires OCE views, Recon reports will be transmitted to OCE for information only."

15. § 263.17(c). The words "consistent with the capability of the District to conduct the study" have been added to the second sentence.

16. § 263.17(e)(1). That portion of the last sentence after " \* \* \* Division Engineers" has been deleted, thereby delegating the authority to Division Engineers to waive the requirement for a public meeting.

17. § 263.17(e)(2). The paragraph has been revised to include consideration of non-

structural solutions and a "no development" plan.

18. § 263.17(e)(4). A new paragraph has been inserted entitled *Cultural Resources Survey*, and requires that a cultural resources survey be accomplished as part of the preparation of a DPR.

19. § 263.17(e)(5) vice § 263.17(e)(4). This subpara has been revised to require the reporting officer to include with the DPR an analysis to demonstrate that non-Federal entities are legally constituted and have sufficient financial capabilities to satisfy all requirements of local cooperation. The requirements for the content of a letter of intent have been also added.

20. § 263.17(f)(3) vice § 263.17(e)(5). The para has been revised to require the District Engineer, rather than the Division Engineer, to issue a public notice regarding his recommendations when a DPR is transmitted to OCE by the Division Engineer. The following provision has been inserted: "This requirement may be accomplished by the Division Engineer, at his discretion." The following has been added to the last sentence to clarify that a notice is not required for emergency work under Section 14 or 3 Authorities: " \* \* \* or when a Recon Report is submitted to OCE for project approval."

21. § 263.17(g). In the first sentence, the phrase "letter of assurances" has been changed to "letter of intent."

22. § 263.17(h). The following phrase has been added to the end of the first sentence: " \* \* \* or Recon reports when transmitted to OCE for project approval." In order to minimize the problems encountered in approving signed local cooperation agreements (see item 22 below), the following has been added after the words " \* \* \* to DAEN-CWE-B for information": " \* \* \*, and to DAEN-REA-P for review of local cooperation requirements, \* \* \*."

23. § 263.17(k). The paragraph has been revised to clarify the processing of local cooperation agreements.

24. § 263.17(l). That portion of the first sentence preceding the semicolon has been deleted as unnecessary. The requirement stated in paragraph (1)(2) of this section has been added.

25. § 263.18. In the second sentence, following the word "encouraged", the following has been added: "for specific studies and projects". Section 3 Authority has been deleted from the middle column.

26. § 263.18(b). The words "remainder of" have been deleted from the title and the completion-time objective for Section 208, 14 and 3 Authority studies has been changed from six to nine months in response to comments from field operating agencies.

27. § 263.18(f). The total completion-time objectives have been changed from 21 months to 24 months for Section 208 and 14 Authorities.

28. § 263.19(a). The paragraph has been revised to adopt a suggestion received from the field to have the DPR (main report) follow generally the guidelines for a feasibility (survey) report, with a "Design Appendix" providing the advanced engineering and design work accomplished as part of Stage 3 planning, i.e., development of the recommended plan to the extent required to proceed to plans and specifications. The second, third and fourth sentences have been revised to reflect this concept.

29. § 263.19(c). The first sentence has been revised consistent with § 263.19(a).

30. § 263.20(a). The first sentence has been deleted as unnecessary.

31. § 263.20(d). The reference has been changed from ER 11-2-2-240 to ER 11-2-201.

32. Subpart B, § 263.21. A new paragraph (d) has been added to this section.

33. Subpart B, § 263.22. A new paragraph (c) has been added to this section.

34. Subpart C, § 263.23. New paragraphs (a) and (e) have been added to this section.

35. Subpart C, § 263.24. A new paragraph (c) has been added to this section.

36. Subpart C, § 263.25. A new subparagraph has been added to para (b) and the policy has been amended to include erosion damage; a new subparagraph has been added to para (c) to define "shoreline"; and a new paragraph (d) has been added to this section.

37. Subpart D, § 263.26(c). ER 1165-2-19 has been added as a reference.

With the above changes, and additional editorial revisions, the proposed regulation is adopted as set forth below.

**Effective date.** This regulation is effective December 1, 1975.

Dated: October 1, 1975.

RUSSELL J. LAMP,

Colonel,

Corps of Engineers Executive.

#### Subpart A—General

- Sec.  
263.10 Purpose.  
263.11 Applicability and Effective Date.  
263.12 References.  
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#### Subpart B—Navigation Policy

- 263.21 Small Navigation Project Authority (Section 107).  
263.22 Authority for Snagging and Clearing for Navigation (Section 3).

#### Subpart C—Flood Control Policy

- 263.23 Small Flood Control Project Authority (Section 205).  
263.24 Authority for Snagging and Clearing for Flood Control (Section 208).  
263.25 Authority for Emergency Stream-bank and Shoreline Protection of Public Works and Nonprofit Public Services (Section 14).

#### Subpart D—Shore Protection Policy

- 263.26 Small Beach Erosion Control Project Authority (Section 103).  
263.27 Authority for Mitigation of Shore Damage Attributable to Navigation Works (Section 111).

AUTHORITY: See § 263.13.

#### Subpart A—General

##### § 263.10 Purpose.

This regulation provides policies and procedures for seven legislative authorities under which the Secretary of the Army, acting through the Chief of Engineers, is authorized to plan, design and construct certain types of water resource improvements without specific Congressional authorization.

##### § 263.11 Applicability and effective date.

This regulation is applicable to all OCE elements and all field operating agencies having Civil Works responsibilities. This regulation is effective December 1, 1975, as published in the FEDERAL REGISTER on November 3, 1975 and codified as 33 CFR 263. The provisions of this



regulation are fully applicable to studies commenced and projects initiated after the effective date. For studies underway on the effective date, reporting and approving officers shall fully consider the requirements of this regulation and shall take those actions as necessary to insure that projects are approved on the basis of criteria established by this regulation.

#### § 263.12 References.

- (a) ER 11-2-201, Civil Works Activities, Funding, Work Allowances and Transfers.
- (b) ER 405-2-680 Local Cooperation Projects.
- (c) ER 1105-2-10 Intensive Management.
- (d) ER 1105-2-402 Organization and General Content of Feasibility Reports.
- (e) ER 1105-2-403 Format and Appearance of Feasibility Reports.
- (f) ER 1105-2-502 Public Meetings (33 CFR 209.405).
- (g) ER 1105-2-507 Preparation and Coordination of Environmental Statements (33 CFR 209.410).
- (h) ER 1105-2-800 Public Involvement: General Policies (33 CFR 380).
- (i) ER 1105-2-811 A-95 Clearinghouse Coordination (33 CFR 384).
- (j) ER 1110-2-1150 Post-Authorization Studies.
- (k) ER 1165-2-18 Reimbursement for Advance Non-Federal Participation in Civil Works Projects.

#### § 263.13 Program scope.

The Continuing Authorities Program (hereafter referred to as the "Program"), consists of the following legislative authorities, which are reproduced and accompanied by policy interpretation in Subparts B, C and D.

- (a) *Small Flood Control Project Authority*, Section 205, Flood Control Act of 1948, as amended (33 USC 701s).
- (b) *Authority for Snagging and Clearing for Flood Control*, Section 208, Flood Control Act of 1954, as amended (33 USC 701g).
- (c) *Authority for Emergency Streambank and Shoreline Protection of Public Works and Nonprofit Public Services*, Section 14, Flood Control Act of 1946, as amended (33 USC 701r).
- (d) *Small Navigation Project Authority*, Section 107, River and Harbor Act of 1960, as amended (33 USC 577).
- (e) *Authority for Snagging and Clearing for Navigation*, Section 3, River and Harbor Act of 1945 (33 USC 603a).
- (f) *Small Beach Erosion Control Project Authority*, Section 103, River and Harbor Act of 1962, as amended (33 USC 426g).
- (g) *Authority for Mitigation of Shore Damages Attributable to Navigation Projects*, Section 111, River and Harbor Act of 1968 (33 USC 426i).

#### § 263.14 Program eligibility requirements.

Work funded under this Program must meet the requirements of Federal interest and Corps responsibility set forth in one of the legislative authorities referenced in § 263.13. Any project recommended must be justified under estab-

lished Federal planning criteria, must be complete in itself and must not obligate the Federal government to future work except for those cases in which maintenance by the Federal government is provided by applicable provisions of general law. Eligibility is not permitted for the following:

- (a) *Projects Specifically Authorized by Congress*. The Program will not be used to implement any portion of a project specifically authorized by Congress, including postauthorization changes to such projects. However, once a project has been completed to the full extent permitted by its Congressional authorization, this Program could be utilized to provide for a new, complete-in-itself improvement which will not impair or substantially change the purposes of the specifically authorized project.
- (b) *Existing Non-Federal Responsibility*. This Program may not be utilized for a project that would in effect nullify or change an existing condition of non-Federal responsibility required for a project specifically authorized by Congress, whether constructed or not. Such changes would require Congressional action.
- (c) *Operation and Maintenance of Non-Federal Projects*. This Program may not be used for adoption of a non-Federal project for future maintenance at Federal expense.

#### § 263.15 Program policies.

- (a) *Designation of Authority*. One of the referenced legislative authorities must be designated as the primary purpose of the project for allocation of Program funds and for determining legislative funding limitations. However, other authorized project purposes are not precluded to meet related needs as determined appropriate by the Chief of Engineers. The cost limitation of Corps participation for the designated authority will prevail regardless of the number of project purposes served. Normally, only one authority will be used for each study accomplished and each project recommended. Certain authorizations specify individual project allotment ceilings "from the appropriations for any one fiscal year." It is the intent of Congress that such specified amount be the maximum limit for Corps of Engineers expenditures at each location or individual project undertaken, without regard to time.
- (b) *Applicability of Costs to Federal and Non-Federal Shares*. Unless otherwise specified in a legislative authority (§ 263.13), cost sharing policies applicable to Congressionally authorized projects are applicable to projects recommended under this Program. Any legislative limitation on Corps participation in project costs, however, takes precedence over the apportionment of costs resulting from established cost sharing policies.
- (1) *Project First Costs*. Project first costs include all Corps of Engineers costs for investigations, design, and construction (including costs of supervision and administration) incurred subsequent to

the Division Engineer's transmittal of a Detailed Project Report or Recon Report to OCE for approval. These costs are normally those related to preparation of plans and specifications and project construction.

(2) *Federal Cost Limitation*. All Corps of Engineers costs of investigations, planning, design and construction, to include those incurred prior to transmittal of the DPR or Recon Report to OCE for approval are to be included within the cost limitation established by Congress for a particular Program authority. Expenditures of other Federal agencies under their own authorities are not to be included within this cost limitation.

(3) *Costs for Economic Analysis*. Costs to be considered as a part of the economic analysis (i.e., determination of a benefit-cost ratio), are the same as those considered in feasibility reports transmitted to Congress for authorization. In this regard, all costs incurred prior to the Division Engineer's transmittal of the Detailed Project or Recon Report to OCE for approval are considered "preauthorization study costs" and are excluded from the economic analysis.

(4) *Use of Federal Funds to Satisfy Local Cooperation Requirements*. Where the law requires that lands, easements and rights-of-way be furnished by local interests "without cost to the United States", direct contributions of other Federal agencies may not be accepted by local interests to satisfy such local cooperation requirements once local interests have furnished a letter of intent (see § 263.17(e)(5)) to the reporting officer.

(5) *Non-Federal Costs*. Local interests must agree to assume responsibility for designated items of local cooperation and for all project costs in excess of the specified Corps cost limitation, or as otherwise apportioned, to insure that expenditure of Corps funds will result in a project that is integrally complete and fully effective. If the project cost exceeds the Corps cost limit, the difference is provided by local cash contributions. Local participation requirements will not be reduced, offset, or otherwise credited for local expenditures prior to the approval of a project by the Chief of Engineers. The scope of the project may be increased, including the addition of project purposes, if local interests are willing to pay the additional costs.

(c) *The Planning Process*. Planning will be conducted generally in accordance with the 1105-2-200 series of planning regulations, adapted to this Program, as discussed in paragraph (c)(1) through (c)(3) of this section and in Appendix B.

(1) *Stage 1—Reconnaissance*. The reporting officer is delegated the authority to conduct a Reconnaissance (Recon) upon the request of a non-Federal governmental entity or official, to determine if a detailed feasibility study is warranted. Charges not to exceed \$5,000 may be made against the District revolving fund. The results of the Recon will be reported to the Division Engineer in a brief letter report; the Division Engineer will require of a reporting officer



only information considered essential for approval of proceeding with the feasibility study, as provided in paragraph (e) (2) of this section.

(2) *Stage 2—Feasibility Study (Plan Formulation).* The Division Engineer is delegated the authority to authorize the reporting officer to conduct a feasibility study, subject to availability of funds from OCE.

(1) The criteria for Division Engineer approval for initiating a feasibility study are: there is a Federal interest in the problem identified in the Recon, there exists solutions for which Federal participation may be justified under one of the Program authorities, there are existing non-Federal entities which are legally and financially capable of satisfying the typical local cooperation requirements for such solutions, and a feasibility study can be accomplished at a reasonable cost compared to the prospective benefits from solving the problems identified in the Recon.

(ii) Where a significant question arises concerning the Federal interest in a problem, the applicability of one of the Program authorities, or other policy matters, the case should be referred to DAEN-CWP or DAEN-CWO prior to authorization of a feasibility study.

(iii) The feasibility study should complete the plan formulation process, including the selection of a plan. The study should be terminated if any of the above criteria are not satisfied, if there is a lack of public support, or in the case of obtaining local assurances, that a reasonable length of time (as determined by the reporting officer) has passed without satisfactory assurances from local interests. (See also (§§ 263.17 (e) (5)).

(3) *Stage 3—Development of Recommended Plan.* This stage corresponds to Phase II AE&D for projects specifically authorized by Congress. Authority to continue the planning process from plan formulation to development of a recommended plan is delegated to the reporting officer, unless otherwise provided by implementing instructions issued by the Division Engineer, in accordance with Division responsibilities for intensive management of the program (§263.16(b)).

(d) *Review of Planning Reports.* The primary responsibility for review of all aspects of Recon reports and DPR's rests with the Division Engineer. Division Engineers (with the exception of New England and Pacific Ocean) are delegated the authority to approve the plan formulation aspects of the study and the engineering design of recommended plans, in order that the reporting officer may proceed with work on plans and specifications pending formal approval of the project by the Chief of Engineers. Review of DPRs and Recon reports by OCE will be limited to conformance of recommended plans to existing policy.

(e) *Public Involvement.* General policy and guidance on public involvement is contained in ER 1105-2-800. Requirements for public meetings are discussed further in § 263.17(e) (1). There is essen-

tially no difference in the Corps' objectives for involving and informing the public for studies and projects in this Program than for projects planned and constructed under specific Congressional authority. Since plans formulated under this Program are usually smaller in scope than those specifically authorized by Congress, planners should be able to more readily identify the affected and interested public early in the planning process and initiate a public involvement program that can be continued through plan implementation.

(f) *State and Agency Coordination.* Reporting officers should generally follow the same procedures for agency coordination as in the case of a Congressionally authorized study. Coordination with A-95 clearinghouses is discussed in ER 1105-2-811.

(1) *Section 205, 107, 103, 111 and 208 Authorities.* The views of Governors of affected States, or their designated representatives, and regional offices of appropriate Federal agencies must accompany the DPR when submitted to OCE for approval. Division Engineers shall insure that coordination letters are current and have been adequately considered in the plan formulation and review process. Letters obtained by reporting officers from the coordination of draft or final reports are to be considered current only if the dates on such letters are no more than 360 days prior to the date of submittal of the DPR to OCE, and if no significant changes have been made to the DPR which should be reviewed by the originators of such letters. Reporting officers will normally accomplish any required recoordination of reports to meet the above criteria. Division Engineers may elect, however, to obtain the views of States or Federal agencies, as deemed appropriate. The Chief of Engineers will not normally coordinate DPRs with Governors or Federal Department heads.

(2) *Section 14 and 3 Authorities.* The provisions of para (1) shall apply to the extent determined feasible by the Division Engineer. To be responsive to emergency conditions and to avoid undue delays, Division Engineers may permit coordination with States and regional offices of Federal agencies to be effected concurrently with the review of the DPR or Recon report by OCE.

(g) *Project Approval.* With the exception of projects requiring the personal attention of the Chief of Engineers, the Director of Civil Works is authorized to approve or disapprove projects under this Program, for the Chief of Engineers. Projects will be approved on the basis of a Detailed Project Report (DPR), except in the case of emergencies under Section 14 or 3 Authorities, for which a Recon report (developed for the recommended work) may be utilized, (see § 263.17(b) (3)). Prior to approving a project for construction, requirements for filing an EIS with CEQ must be satisfied, if an EIS has been prepared (ER 1105-2-507), a letter of intent for local cooperation must be obtained from non-Federal interests in accordance with § 263.17(e) (5), and views received from affected

States and regional offices of Federal agencies must be considered.

(h) *Project Construction.* Division Engineers may authorize District Engineers to commence work on plans and specifications pending project approval; however, contracts for construction shall not be entered into, nor shall funds be allocated for construction, until the Chief of Engineers has approved the project. Procedures for constructing approved projects, including the preparation of plans and specifications are generally the same as employed for Congressionally authorized projects.

(i) *Hold and Save Provision.* As provided by Sec. 9, Pub. L. 93-251 (88 Stat. 16), "The requirement \* \* \* that non-Federal interests hold and save the United States free from damages due to construction, operation, and maintenance of the project, does not include damages due to the fault or negligence of the United States or its contractors." This provision will be reflected in all "hold and save" requirements of local cooperation.

(j) *Withdrawal of Project Approval.* The Chief of Engineers may withdraw approval of a project under the Continuing Authorities Program at any time prior to the signing of a written agreement under Section 221, Public Law 91-611 (§ 263.17(k)).

(1) Reporting officers shall at least annually review approved projects on which construction has not been initiated and shall determine if such projects should remain on the backlog awaiting construction funds. A recommendation for withdrawal of project approval shall be based on the following criteria:

(i) Local interests are unwilling or unable to provide the necessary local cooperation.

(ii) The project is no longer considered the best solution to the problems of the area, considering economic, social, and environmental factors, or

(iii) The project is no longer justified under applicable Federal planning criteria.

(2) Findings which indicate that the project should remain in the backlog shall not be reported to OCE. Recommendations for withdrawal of project approval shall be transmitted to DAEN-CWP-E, C, or W, or DAEN-CWO, depending on the project authority.

(i) Recommendations shall be coordinated with local, State and Federal interests consistent with Corps public involvement objectives, prior to transmittal to OCE.

(ii) Recommendations shall be accompanied by a brief Project Information Sheet, as required under procedures for recommending project deauthorization under Section 12, Public Law 93-251.

(3) Reporting officers shall notify appropriate local, State and Congressional interests of any final action taken by OCE on recommendations for withdrawal of project approval.

(4) As in the case of project approval, withdrawal of approval may be accomplished by the Director of Civil Works, for the Chief of Engineers.



**§ 263.16 Program management responsibilities.**

(a) *Office, Chief of Engineers.* Two OCE elements will have primary responsibility for program management: DAEN-CWP (Section 205, 208, 14, 107 and 103 Authorities) and DAEN-CWO (Section 3 and 111 Authorities). These elements are responsible for the staffing of all actions required of OCE by this regulation, maintaining a list of Division and District Program coordinators (as required by paragraphs (b) and (c) of this section), and evaluating the performance of the Program.

(b) *Division Engineers.* Divisions are responsible for intensive management of the Program in accordance with ER 1105-2-10, and are delegated certain approval authorities by the Chief of Engineers, as given in § 263.15 and § 263.17 of this regulation. Division Engineers are responsible for insuring, through intensive management, that studies are initiated and terminated at the appropriate time, and funded at the appropriate level, for efficient use of Program funds. Division Engineers are to specifically designate an individual, or individuals, within the Division office, to manage and coordinate activities under the Continuing Authorities Program.

(c) *District Engineers/Operating Division Engineers.* Reporting officers are to specifically designate individuals to coordinate and manage activities under the Continuing Authorities Program. Reporting officers are responsible for insuring that the Reconnaissance investigations are conducted only to the extent required to achieve the objective established by this regulation.

**§ 263.17 Planning, design and construction procedures.**

This paragraph prescribes procedures to be followed from the initiation of a Recon to completion of construction of a project. Division Engineers are to establish milestones as deemed appropriate, in accordance with ER 1105-2-10. Unless otherwise stated, all correspondence with OCE relating to the procedures in this paragraph will be addressed to HQDA (DAEN-CWP-E, C or W) WASH DC 20314 or HQDA (DAEN-CWO) WASH DC 20314, depending on the study authority, as provided for in § 263.16(a).

(a) *Initiation of Reconnaissance.* As outlined in § 263.15(c) Recon stage is designed to provide the Division Engineer with sufficient justification for authorizing a feasibility study. Reporting officers are to notify the Division Engineer and either DAEN-CWP-A or DAEN-CWO by letter when commencing a Recon. Such letter or teletype should give the date the Recon began and an identifying name. Charges may be made against the District revolving fund in amounts not to exceed \$5,000. Exceptions to this limitation will require prior approval from DAEN-CWP or DAEN-CWO, depending on the study authority. Requests for such exceptions shall be justified by the reporting officer. The suggested scope of a Recon is more fully discussed in Appendix B. (See also ER

1105-2-811 for A-95 clearinghouse coordination requirements.)

(b) *Approval for Initiation of Feasibility Study.* The Division Engineer is the approving authority for initiation of a feasibility study, and as such, will provide reporting offices with appropriate guidance on submission of a Recon letter report in accordance with the general policy stated in § 263.15(c).

(1) Once the Recon is completed, no further work may be accomplished without a work allowance and allotment from OCE.

(2) The recommendations from a Recon may be released by reporting officers to interested parties after action has been taken by the Division Engineer on the Recon report.

(3) In the case of emergencies under Section 14 or 3 Authorities, the Division Engineer may approve a Recon Report for immediate transmittal to OCE (in five copies) for approval and funding of recommended work. In such cases, the Chief of Engineers may approve exceptions to the requirements stated in paragraph (e) (2) through (e) (5) of this section, as deemed advisable in the public interest.

(4) Except as provided in paragraph (3) of this section, or when the Division Engineer desires OCE views, Recon reports will be transmitted to OCE for information only (in two copies).

(c) *Request for Funding of Feasibility Study.* Reporting officers will request funding of an approved feasibility study, through Division Engineers, to DAEN-CWP-E, C or W or from DAEN-CWO in accordance with § 263.16(a). Requests will include the total estimated funding requirement by fiscal year for the feasibility study (including expenditures previously incurred in the Recon stage), consistent with the capability of the District to conduct the study. Requests for reimbursement for Recon expenditures when a feasibility study has not been approved will be made in a similar manner.

(d) *Issuance of Work Allowance.* Work allowances will be issued by DAEN-CWP or DAEN-CWO, as appropriate, based on available funds. Work on a feasibility study will not proceed until such work allowance has been issued. (See also Part 384 of this Chapter for A-95 clearinghouse coordination requirements.)

(e) *Completion of Feasibility Study.* Studies will be conducted in accordance with the policies given in § 263.15 and the planning process discussed in Appendix B. Division Engineers may request guidance from OCE, or schedule a Plan Formulation Review Conference with OCE, as they deem appropriate.

(1) *Public Meetings.* Public meetings are not to be considered the only technique for informing the public of the results of feasibility studies or for soliciting input from the public. However, as a matter of policy, at least one public meeting is to be held during the feasibility study, as discussed in § 209.405 of this Chapter. In certain instances, the reporting officer may feel that the Corps' objectives on public involvement have been achieved without holding a public

meeting. Omission of the minimum requirement of one public meeting is to be an exception to policy and will require prior approval from the Division Engineer.

(2) *Application of Federal Planning Criteria.* In general, all Federal planning criteria applicable to studies specifically authorized by Congress are also applicable to studies conducted under this Program. Particular attention shall be given to the consideration of nonstructural solutions, consideration of a "no development" plan, and the assessment of impacts of alternative plans. Plans are to be formulated to provide the same independent and complete-within-itself project as recommended under regular authorization procedures.

(3) *Environmental Impact Statement (EIS) Requirements.* Requirements for preparation, coordination and submittal of the EIS are contained in ER 1105-2-507. Studies conducted under Section 14 and 3 Authorities may not require an EIS, as provided in § 209.410(h) of this Chapter.

(4) *Cultural Resources Survey.* A cultural resources survey shall be accomplished for the consideration of historic and cultural resources as part of the preparation of the DPR.

(5) *Assurances of Local Cooperation.* In addition to involvement of local interests throughout the planning process, a letter of intent shall be requested for specific items of local cooperation near the completion of Stage 2 planning (§ 263.15(c) (2)). The letter of intent must be received from the non-Federal entities which will be ultimately signing a Section 221 agreement (Paragraph (k) of this section), and will be transmitted with the DPR, or Recon report in the case of emergencies under Section 14 or 3 Authorities, together with an analysis of the reporting officer to demonstrate that such non-Federal entities are legally constituted, and have sufficient financial capabilities to satisfy all requirements of local cooperation.

(i) The reporting officer shall review draft local cooperation and repayment agreements with affected non-Federal interests, advising them of currently estimated costs, anticipated timing of costs, all typical provisions of the agreement or contract, and the timing of process of entering into a final, signed agreement or contract.

(ii) The letter of intent shall include verbatim all local cooperation requirements set forth in the Detailed Project Report, or the Recon report, if utilized for project approval; shall state that a review has been made of draft agreements or contracts; shall indicate an understanding of when final project costs are to be determined by the reporting officer; and shall include the following statement:

In carrying out the specified non-Federal responsibilities for the (identification of work or project), (appropriate entity) agrees to comply with the provisions of the "Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970", Public Law 91-646,



approved 2 January 1971; and Section 221, Public Law 91-611, approved 31 December 1970, as amended.

(iii) The letter of intent shall be signed or cosigned by the chief legal officer of the political subdivision furnishing the letter to the reporting officer. When a State or a department thereof is to be the sponsor, the Attorney General of that State is the approving authority.

(f) *Submittal of Termination Letters or DPR to OCE.* (1) If a feasibility study is terminated prior to the completion of a DPR, the Division Engineer will notify by letter DAEN-CWP-E, C or W or DAEN-CWO-M, depending on the study authority; such notification is to include reasons for termination, an accounting of expenditure of study funds, and the amount of funds to be returned to OCE. Release of unobligated funds will be effected as soon as possible. Revocation of funds by OCE officially terminates the study. The reporting officer shall notify Congressional delegations and local interests when the study has been officially terminated.

(2) If the feasibility study results in a DPR, ten (10) copies of the report, and related documentation required by § 263.15(e), will be transmitted with recommendations of the Division Engineer to DAEN-CWP or DAEN-CWO, depending on the study authority (reference § 263.16(a)). Exceptions to the requirements of paragraph (e) of this section should be noted in the letter of transmittal. In the review of a DPR, Division Engineers may refer any major disagreements with reporting officers on planning matters to DAEN-CWP-E, C or W, or on technical engineering matters to DAEN-CWE-B, for resolution prior to release of public notice and submittal of the final report to OCE.

(3) Upon submittal of a Detailed Project Report to OCE, the District Engineer shall release a public notice informing the public of the proposed action. This requirement may be accomplished by the Division Engineer, at his discretion. The notice need not invite comments but will include the address of the District and Division Engineer in the event that interested parties desire to request further information or comment on the recommendations. Public notices are not required when a feasibility study is terminated without submittal of a DPR (paragraph (f)(1) of this section), or when a Recon report is submitted to OCE for project approval (paragraph (b)(3) of this section).

(g) *Work on Plans and Specifications.* Division Engineers are delegated the authority to allow District Engineers to commence work on plans and specifications pending approval of a project by the Chief of Engineers, provided a satisfactory letter of intent (§ 263.17(e)(5)) has been received from local interests. Such work may be stopped, however, if review of the DPR by OCE reveals a policy problem affecting the project or the report recommendations. Work on plans and specifications should utilize all

remaining funds from allocations for the feasibility study. Additional funds may be requested by separate letter, or included with the Division Engineer's favorable indorsement of a DPR.

(h) *OCE Review and Approval of DPR or Recon Report.* As indicated in para 7a, designated OCE elements are responsible for review, staffing and coordination of the DPR, or Recon report when transmitted to OCE for approval. Maximum reliance will be placed on the review conducted by the Division Engineer. Comments will be solicited from DAEN-CWP, DAEN-CWR, and DAEN-GCC, only as required for approval of the recommended project. In all cases, a copy of the DPR will be forwarded to DAEN-CWE-B for information, and to DAEN-REA-P for review of local cooperation requirements, upon receipt from the Division Engineer. Review of DPR's by the BERH staff may be requested at the discretion of DAEN-CWP. In such instances, the Resident Member, BERH, will be requested to submit comments on the DPR to DAEN-CWP. Project approval normally will be accomplished by the Director of Civil Works, for the Chief of Engineers, in accordance with § 263.15(g).

(i) *Notification of Interested Parties of Action by the Chief of Engineers.* Reporting officers are responsible for notification of all interested parties, including Congressional Delegations, States and local interests, of action taken by the Chief of Engineers on DPR's. Division Engineers may prescribe procedures for such notification as deemed necessary.

(j) *Request for Construction Funds.* Following receipt of DPR approval from OCE, reporting officers may submit a request for construction funds to DAEN-CWP or DAEN-CWO, depending on the Program authority, including an updated schedule of funding requirements by fiscal year based on an estimated date by which plans and specifications for the first construction contract will be completed. (See also § 263.20(a) concerning inclusion of these requests in budget submissions.)

(k) *Approval of Local Cooperation Agreement.* Prior to issuance of a work allowance by OCE for construction funds, a signed written agreement for local cooperation must be obtained and approved by the Secretary of the Army, or his designated representative, in ac-

cordance with ER 405-2-680. The signed agreement shall be transmitted to DAEN-REA-P together with a copy of the DPR or Recon report which approved the project or work.

(1) As required by ER 405-2-680, requirements of local cooperation are to be stated in the agreement verbatim from the approved project document. Any deviation shall be submitted to DAEN-CWP for approval by the Director of Civil Works, for the Chief of Engineers, prior to the reporting officer obtaining signatures on the agreement.

(2) After OCE approval of the agreement, a work allowance will be issued by DAEN-CWP or DAEN-CWO depending on the Program authority, based on availability of funds.

(1) *Completion of Project Construction (RCS DAEN-CWB-16).* Policies and procedures for projects constructed under specific Congressional authority, with the exception of budgetary submissions and funding matters, are applicable to projects constructed under this Program. At the completion of project construction, reporting officers shall:

(1) Notify DAEN-CWO or DAEN-CWP-A by letter, including a brief description of the completed project, the estimated requirements for operation and maintenance (Federal and non-Federal), the final Federal and non-Federal project costs, and the date on which the project was considered operational.

(2) Notify local interests that project construction has been completed and inform them of their operation and maintenance responsibilities and the operational characteristics of the project.

#### § 263.18 Program completion-time objectives.

To provide a Program responsive to local needs, the following target (maximum) completion time objectives are established and should be used to the extent feasible, in scheduling work and programming funds. Shortening of these objectives is encouraged for specific studies and projects when appropriate. However, high standards of planning, design and construction are not to be sacrificed. Attainment of completion-time objectives through intensive management is to be a major concern for those elements and individuals given Program management responsibilities in § 263.16 of this regulation.

#### Program authorities, Completion times in months

	205, 107, 103, and 111	208 and 14	Emergency 14 and 3 <sup>1</sup>
(a) Completion of recon and submission of funding request or negative report to OCE	2	1	2
(b) Completion of feasibility study by reporting officer and preparation of DPR	16	9	( <sup>2</sup> )
(c) Review of DPR or recon report by division engineer, (including provisions of Sec. 263.15(f))	2	1	.5
(d) Review of DPR or recon report by OCE	2	1	.5
(e) Completion of project construction (including plans and specifications), after project approval	18	12	3
(f) Total completion-time objective	40	24	6

<sup>1</sup> The decision to utilize a recon report or DPR for recommending a project under sec. 14 authority is delegated to the division engineer (Sec. 263.17(h)(3)).

<sup>2</sup> Not applicable.



**§ 263.19 Detailed project reports.**

(a) The Detailed Project Report serves a dual purpose: the report serves both as basis for approval of a project for construction by the Chief of Engineers and it serves as a basis for preparation of plans and specifications. (See exception for emergencies, § 263.17(b) (3)). The main report should reflect the plan formulation, generally in accordance with ER 1105-2-402 and ER 1105-2-403. A Design Appendix will be provided as appropriate, for more detailed information on the development of the plan, or elements of the selected plan, recommended for implementation as a Federal project by the Corps of Engineers. The Design Appendix of the report will generally meet the requirements of ER 1110-2-1150, as it pertains to Phase II AE&D studies for projects specifically authorized by Congress, except that it need not duplicate material on plan formulation covered in the main report. Other appendices should be included as required.

(b) It is anticipated that DPR's submitted for projects under Section 208 Authority will be less extensive than reports submitted under Section 205, 107, 103 and 111 Authorities, and that DPR's submitted for projects under Section 14 Authority will be further abbreviated due to simplicity of the project. The important point is that the planning process should be generally considered the same for studies conducted under all Program authorities; the plan formulation portion of the DPR should reflect this process and the rationale for arriving at the selected plan and recommendations for Federal participation.

(c) The level of detail and extent of engineering work reflected in the design Appendix must be sufficient to proceed directly to plans and specifications. In the event that the need arises for feature design memoranda on selected aspects of the project, such requirements should be identified in the letter of transmittal accompanying the DPR when submitted to OCE.

**§ 263.20 Program funding.**

(a) *Program Budget.* Initial consideration of estimated project construction requirements (including funds for plans and specifications), should be given in the first Program budget submission following completion of Stage 2 planning (§ 263.15(c)(2)). OCE elements designated in § 263.16(a) are responsible for issuing Program budget guidance to field operating agencies, formulating appropriate program budgets from field submissions, and submitting such budgets to DAEN-CWB.

(b) *Use of Program Funds.* Funds appropriated by Congress under the legislative authorities of this Program will be utilized by the Corps of Engineers in conducting studies approved by Division Engineers, and in constructing projects approved by the Chief of Engineers. This does not preclude the use of private architect-engineer firms or other consultant services in Program implementation. No grants of Program funds will be made

to local interests for conducting studies or constructing projects, nor shall contributions be made for features or benefits of projects constructed by another agency or by local interests. Reimbursement to local interests for work undertaken by them on an approved project normally will not be authorized; however, if the situation warrants consideration of such a provision, the procedures contained in ER 1165-2-18 may be followed to request OCE approval in advance of such action by local interests.

(c) *Requests for Funds.* Procedures for requesting Program funds are contained in § 263.17. Generally, requests will be made in four instances: after approval by Division Engineer to proceed with a feasibility study, after submission of a DPR to OCE and approval of the Division Engineer to proceed with plans and specifications, after OCE approval of a DPR for proceeding with project construction, and in other cases as required to revise the preceding requests. In the case of requesting funds for plans and specifications and project construction, deviations from amounts estimated in previous budget submissions, or contained in current approved Program budgets, will be briefly explained.

(d) *Retention, Revocation and Transfer of Funds.* Unobligated funds will be reported to DAEN-CWP-A or DAEN-CWO, depending on the study authority under which the funds were allotted, as soon as final costs for studies or construction are determined. When work on a study, plans and specifications, or project construction must be suspended for an unknown period of time, or suspended for an extended period, the above OCE elements are to be notified immediately by letter with the Division Engineer's recommendation regarding retention or revocation of unobligated funds held in that particular account. The authority for transfers and reporting requirements are contained in ER 11-2-201.

**Subpart B—Navigation Policy**

**§ 263.21 Small navigation project authority.**

(a) *Legislative Authority.* Section 107 of the River and Harbor Act of 1960, as amended by Section 310 of the River and Harbor Act of 1965 and by Section 112 of the River and Harbor Act of 1970, states as follows:

(a) The Secretary of the Army is authorized to allot from any appropriations hereafter made for rivers and harbors not to exceed \$25,000,000 for any one fiscal year for the construction of small river and harbor improvement projects not specifically authorized by Congress which will result in substantial benefits to navigation and which can be operated consistently with appropriate and economic use of the waters of the Nation for other purposes, when in the opinion of the Chief of Engineers such work is advisable, if benefits are in excess of the costs.

(b) Not more than \$1,000,000 shall be allotted for the construction of a project under this section at any single locality and the amount allotted shall be sufficient to complete the Federal participation in the project under this section.

(c) Local interests shall provide without cost to the United States all necessary lands,

easements and rights-of-way for all projects to be constructed under the authority of this section. In addition, local interests may be required to hold and save the United States free from damages that may result from the construction and maintenance of the project, and may be required to provide such additional local cooperation as the Chief of Engineers deems appropriate. A State, county, municipality or other responsible local entity shall give assurance satisfactory to the Chief of Engineers that such conditions of cooperation as are required will be accomplished.

(d) Non-Federal interests may be required to share in the cost of the project to the extent that the Chief of Engineers deems that such cost should not be borne by the Federal Government in view of the recreational or otherwise special or local nature of the project benefits.

(e) Each project for which money is allotted under this section shall be complete in itself and not commit the United States to any additional improvement to insure its successful operation other than routine maintenance, and except as may result from the normal procedure apply to projects authorized after submission of survey reports and projects constructed under the authority of this section shall be considered as authorized projects.

(f) This section shall apply to, but not be limited to, the provision of low water access navigation channels from the existing channel of the Mississippi River to harbor areas heretofore or now established and located along the Mississippi River.

(b) *Operation and Maintenance Responsibility.* Projects for navigation constructed under the authority of Section 107 will be considered the same as authorized projects and are operated and maintained by the Corps of Engineers at Federal cost under the same procedures and policies as applied to projects specifically authorized by Congress. (Reference Section 6, Public Law 93-251).

(c) *Aids to Navigation.* Planning and design of channel and other navigation improvements should give full consideration to the feasibility and costs of establishment by the Coast Guard of suitable aids to navigation. The costs for navigation aids to be provided by the Corps of Engineers, Coast Guard, State, and local interests, and similar project-associated costs, will be included in the economic analysis. Project associated expenditures by the Corps of Engineers for aids to navigation are included within the cost limitation under the Section 107 authority, but expenditures by the U.S. Coast Guard are not. The report appendix should reproduce the letter from the Coast Guard stating the estimated number, type and cost of navigation aids and their maintenance cost.

(d) *Local Cooperation.* Local cooperation requirements for projects under the Sec 107 authority are those normally recommended for similar work authorized by Congress.

**§ 263.22 Authority for snagging and clearing for navigation.**

(a) *Legislative Authority.* Section 3 of the River and Harbor Act approved 2 March 1945, states:

The Secretary of the Army is hereby authorized to allot not to exceed \$300,000 from any appropriations made prior to or after March 2, 1945, for any one fiscal year for



improvement of rivers and harbors, for removing accumulated snags and other debris, and for protection, clearing and straightening channels in navigable harbors and navigable streams and tributaries thereof, when in the opinion of the Chief of Engineers such work is advisable in the interest of navigation or flood control.

(b) *Policy.* (1) *Eligible Work.* It is the policy of the Chief of Engineers to utilize this authority primarily for emergency work to benefit navigation. Work pursuant to this authority is undertaken as an emergency measure to clear or remove unreasonable obstructions to navigation in navigable portions of rivers, harbors and other waterways of the United States, or tributaries thereof, in order to provide existing traffic with immediate and significant benefit. When recurring maintenance work will be required to secure enduring benefits from the initial work, local interests should be informed that they will have to bear the costs of such recurring maintenance until such time as maintenance at that location may become part of a project specifically authorized by Congress and subsequently funded.

(2) *Ineligible Work.* In addition to the ineligible work listed in para 5 of the basic regulation, the following work is also ineligible under this authority:

(i) *Normal Shoaling Process.* When the condition for which the remedial work is requested resulted from the normal shoaling process associated with that particular reach of waterway and not from a sudden occurrence.

(ii) *Work Within the Limits of Authorized Projects.* This restriction applies where authorized new work remains to be accomplished unless an emergency results from aggravated conditions arising subsequent to the authorization of the project. In that event, corrective measures will be limited to restoration of conditions existing at the time of such authorization.

(iii) *General Widening or Deepening.* No general widening or deepening will be accomplished to meet the desires of navigation interests to use larger vessels.

(c) *Local Cooperation.* Local cooperation requirements for projects under the Section 3 authority are those normally recommended for similar work authorized by Congress.

#### Subpart C—Flood Control Policy

##### § 263.23 Small flood control project authority.

(a) *Legislative Authority.* Section 205 of the Flood Control Act approved 30 June 1948, as amended by Section 205 of the Flood Control Act approved 23 October 1962, and as further amended by Section 61 of the Water Resources Development Act approved 7 March 1974, states:

The Secretary of the Army is authorized to allot from any appropriations heretofore or hereafter made for flood control, not to exceed \$30,000,000 for any one fiscal year, for the construction of small projects for flood control and related purposes not specifically authorized by Congress, which come within the provisions of Section 1 of the Flood Control Act of June 22, 1936, when in the opinion

of the Chief of Engineers such work is advisable. The amount allotted for a project shall be sufficient to complete Federal participation in the project. Not more than \$1,000,000 shall be allotted under this section for a project at any single locality, except that not more than \$2,000,000 shall be allotted under this section for a project at a single locality if such project protects an area which has been declared to be a major disaster area pursuant to the Disaster Relief Act of 1966 or the Disaster Relief Act of 1970 in the five-year period immediately preceding the date the Chief of Engineers deems such work advisable. The provisions of local cooperation specified in Section 3 of the Flood Control Act of June 22, 1936, as amended, shall apply. The work shall be complete in itself and not commit the United States to any additional improvement to insure its successful operation, except as may result from the normal procedure applying to projects authorized after submission of preliminary examination and survey reports.

(b) *Non-Federal Responsibilities for Dam and Reservoir Project.* All new projects under this authority, including dams and reservoirs, are considered local protection projects. Non-Federal responsibilities for such dams and reservoirs will thus include the usual lands, easements, right-of-way, and other requirements of local protection projects. Similarly, non-Federal interests must operate the flood control features of any dam or reservoir in accordance with regulations prescribed under the authority contained in Section 7 of the Flood Control Act of December 1944.

(c) *Major Disaster Area.* Determination of a "major disaster area" can be made only by the President, pursuant to the Disaster Relief Acts cited above.

(d) *Local Cooperation.* As stated in para 1a of this part, the provisions of Section 3, Flood Control Act of 1936, as amended (33 USC 701c), are applicable. Other requirements shall be recommended by reporting officers to insure the long-term viability of the plan and the attainment of benefits from the plan. Consideration of land enhancement shall be in accordance with EM 1120-2-109.

(e) *Limitation on Erosion Protection.* This authority shall not be used for protecting against bank erosion. However, bank stabilization may be included as an integral part of a plan for preventing flood damage.

##### § 263.24 Authority for snagging and clearing for flood control.

(a) *Legislative Authority.* Section 208 of the Flood Control Act approved 3 September 1954 and as further amended by Section 26 of the Water Resources Development Act approved 7 March 1974, states:

The Secretary of the Army is authorized to allot not to exceed \$5,000,000 from any appropriations heretofore or hereafter made for any one fiscal year for flood control, for removing accumulated snags and other debris, and clearing and straightening of the channels in navigable streams and tributaries thereof, when in the opinion of the Chief of Engineers such work is advisable in the interest of flood control: *Provided*, That not more than \$250,000 shall be expended for this purpose for any single tributary from the appropriations for any one fiscal year.

(b) *Policy.* Work under this authority is limited to clearing and snagging or channel excavation and improvement with limited embankment construction by use of materials from the channel excavation. If investigation indicates that placement of revetment is needed to provide a complete and fully effective project, the local interests should provide for the item of construction either by work or by cash contribution.

(c) *Local Cooperation.* The provisions of § 263.23(d) of this part are applicable.

##### § 264.25 Authority for emergency streambank and shoreline protection of public works and nonprofit public services.

(a) *Legislative Authority.* Section 14 of the Flood Control Act approved 24 July 1946, as amended by Section 27 of the Water Resources Development Act approved 7 March 1974, states:

The Secretary of the Army is authorized to allot from any appropriations heretofore or hereafter made for flood control, not to exceed \$10,000,000 per year, for the construction, repair, restoration, and modification of emergency streambank and shoreline protection works to prevent damage to highways, bridge approaches, public works, churches, hospitals, schools, and other nonprofit public services, when in the opinion of the Chief of Engineers such work is advisable: *Provided*, That not more than \$250,000 shall be allotted for this purpose at any single locality from the appropriations for any one fiscal year.

(b) *Policy.* Work under the Section 14 authority shall serve to prevent flood or erosion damages to endangered highways, highway bridge approaches, public works, and nonprofit public facilities by the construction or repair of emergency streambank and shoreline protection works. Eligible highways consist of major highway systems of national importance, and principal highways, streets, and roads of importance to the local community, such as arterial streets, important access routes to other communities and adjacent settlements, and roads designated as primary farm-to-market roads.

(1) Work under this authority is not limited in engineering scope but the design must be an integrally complete within itself project that does not require additional work for effective and successful operation. The cost limitation on Federal participation may require that local interests supplement the Federal funds, so that combined Federal and local efforts will produce a complete, useful improvement.

(2) Reporting officers must be satisfied that the protection of eligible public works and non-profit public services are justified on the basis of the National Economic Development and Environmental Quality objectives.

(c) *Legislative Interpretations.* (1) "Public Works" are considered to be those important and essential public facilities which serve the general public and are owned and operated by the Federal State, or local governments, such as municipal water supply systems and sewage disposal plants.



(2) "Churches, hospitals, schools" includes churches, and public and private non-profit hospitals and schools.

(3) "Non-profit public services" are considered to be facilities or structures which serve the general public and are not intended to earn a profit. Although they may be publicly used, privately owned, profit-making facilities located along streambanks or shore lines are not eligible for protection.

(4) "Shoreline" includes, but is not limited to, oceans, gulfs, and the Great Lakes.

(d) *Local Cooperation.* The provisions of § 263.23(d) of this part are applicable.

#### Subpart D—Shore Protection Policy

##### § 263.26 Small beach erosion control project authority.

(a) *Legislative Authority.* Section 103 (a) of the River and Harbor Act of 1962, as amended by Section 310 of the River and Harbor Act of 1965 and by Section 112 of the River and Harbor Act of 1970, amends Section 3 of Public Law 826, 84th Congress to read as follows:

The Secretary of the Army is authorized to undertake construction of small shore and beach restoration and protection projects not specifically authorized by Congress, which otherwise comply with Section 1 of this Act, when he finds that such work is advisable, and he is further authorized to allot from any appropriations hereafter made for civil works, not to exceed \$25,000,000 for any one fiscal year for the Federal share of the costs of construction of such projects: *Provided*, That not more than \$1,000,000 shall be allotted for this purpose for any single project and the total amount allotted shall be sufficient to complete the Federal participation in the project under this section including periodic nourishment as provided for under section 1(c) of this Act; *Provided further*, That the work shall be complete in itself and shall not commit the United States to any additional improvements to insure its successful operation, except for participation in periodic beach nourishment in accordance with section 1(c) of this Act, and, as may result from the normal procedure applying to projects authorized after submission of survey reports.

(b) *Periodic Nourishment.* When it can be demonstrated as being part of the best plan to meet project objectives and a more economical remedial measure than others, provision for periodic nourishment may be recommended. The recommended Federal participation in periodic nourishment will be limited to a specific period of time. The total project costs shall include both initial construction and periodic nourishment.

(c) *Local Cooperation.* The provisions of ER 1120-2-110 and ER 1165-2-19 are applicable.

##### § 263.27 Authority for mitigation of shore damage attributable to navigation works.

(a) *Legislative Authority.* Section 111 of the River and Harbor Act of 1968 (PL 90-483, approved 13 August 1968) states:

The Secretary of the Army, acting through the Chief of Engineers is authorized to investigate, study, and construct projects for the prevention or mitigation of shore damages attributable to Federal navigation

works. The cost of installing, operation and maintaining shall be borne entirely by the United States. No such projects shall be constructed without specific authorization by Congress if the estimated first cost exceeds \$1,000,000.

(b) *Definitions.* (1) *Federal navigation works* is defined as a project or feature thereof that has been specifically authorized by the Congress in a River and Harbor Act or authorized under the continuing authorities granted by Section 201 or the Flood Control Act of 1965, or by Section 107 of the River and Harbor Act of 1960, as amended. These shall include projects or project features built by others but which have been adopted as a Federal Navigation project.

(2) *Beach erosion control project* is defined as a project that has been specifically authorized by the Congress in a River and Harbor Act or authorized under the continuing authorities granted by Section 201 of the Flood Control Act of 1965 or by Section 103 of the River and Harbor Act of 1962. This is considered to include the beach erosion control portion of combined beach erosion and hurricane protection projects.

(3) *Mitigation of shore damages* is defined as the construction of works or procedures to reduce erosion-type damages by shoreline stabilization. The degree of mitigation is the reduction of erosion or accretion to the level which would be obtained without the influence of navigation works at the time navigation works were accepted as a Federal responsibility. It is not intended that shorelines be restored to historic dimensions, but only to lessen the damages by an action that can be justified, the entire costs of which are Federal regardless of shore ownership.

(c) *General Policies.* (1) This Act authorizes the study, construction and maintenance of work for prevention or mitigation of damages to both public and privately owned shores to the extent of the damages that can be directly identified and attributed to Federal navigation work located along the coastal and Great Lakes shorelines of the United States. This authority will not be used:

(i) For construction of works for prevention or mitigation of shore damages such as those caused by river bank erosion or vessel generated wave wash.

(ii) To modify navigation projects authorized, but not constructed, that contain features for prevention or mitigation of shore damages or to change the responsibility for maintenance or to modify portions of constructed navigation projects that contain features for prevention or mitigation of shore damages.

(iii) For prevention or mitigation of shore damages caused by non-Federal navigation projects.

(iv) To construct, maintain, modify or change the cost sharing of authorized beach erosion or combined beach erosion and hurricane protection projects, or portions thereof, located adjacent to Federal navigation projects. Except, when it is determined that shore damage to a portion of an authorized beach erosion project is attributable to the nav-

igation project, mitigation measures may be accomplished under this authority, only to the extent of damages that can be directly identified and attributed to the navigation project.

(2) Where the erosion attributable to the Federal navigation project consists of only a portion of the total erosion problem in a specific area and cannot be considered as a separable reach for effective mitigation measures then a Section 111 project cannot be considered for authorization unless:

(i) There is an authorized beach erosion control or combined beach and hurricane protection project for the area with which the Section 111 mitigation measures could be combined to become effective, or

(ii) A general study of the entire problem area is made and leads to the development of an authorized beach erosion control project, (specific authority must be obtained to conduct a general study of the entire problem area) or

(iii) Local interests indicate a willingness to have the erosion problem outside the scope of Section 111 remedied at local cost.

(d) *Cost Limitations.* Section 111 provides that the Chief of Engineers has authority to authorize projects for which the estimated first costs will not exceed \$1,000,000. The first costs will be the cost of the initial preventive or mitigative measures only. The limitation on costs does not include the cost of project maintenance. The project must be planned as a complete unit and not broken into reaches or stages for cost limitation purposes.

(e) *Reports.* The Recon Report required by § 263.15(c) (1) will:

(1) Determine whether or not Federal navigation works are responsible for causing or contributing to the erosion problem.

(2) Determine the extent of the area affected by the navigation works.

(3) Determine total area experiencing significant erosion.

(4) Determine the approximate percentage of the total erosion problem in a specific area that is attributable to the navigation works.

(5) Recommend whether further study of the specific area affected by the Federal navigation works is justified and whether study of the entire area is desirable.

(f) *Evaluation of Mitigation Measures.* The objective of Section 111 is to provide mitigation measures for shore damages attributable to Federal navigation projects, when equitable and in the public interest. All practicable alternatives, structural and non-structural should be identified and considered. Work recommended for construction should provide the most practicable and economical means of mitigating existing damages or the prevention of subsequent damages. Justification of mitigation measures should be made by comparing their costs with the values represented by the damages preventable. Any intangible values should be described and given due weight along with the tangible values in this



justification. Exercise of the authority of Section 111 to provide mitigation measures at Federal expense is not mandatory. A finding for or against its use should fully consider the pre-project conditions and the justification of incurring mitigation costs.

(g) *Criteria for a Favorable Recommendation.* A recommendation favorable to adoption and construction of work to prevent or mitigate shore damage attributable to a Federal navigation project under the authority of Section 111 of the River and Harbor Act of 1968 may be considered warranted when both of the following conditions exist:

(1) The navigation project has been determined to be the cause of the damage.

(2) Analysis based on sound engineering and economic principles clearly demonstrates the feasibility of the proposed work.

(h) *Cost Sharing.* (1) *Construction.* (i) If the work recommended in the report is confined to mitigation work only under Section 111, i.e., erosion totally attributable to the navigation works, costs will be 100 percent Federal.

(ii) If the work recommended is a combination of mitigation under Section 111 and restoration of beaches eroded due to other causes and there is no authorized beach erosion project, mitigation work under Section 111 will be 100 percent Federal and the remaining work will be 100 percent local.

(iii) If the work recommended in the report is a combination of mitigation under Section 111 and the restoration of beaches under an authorized beach erosion project or combination beach erosion-hurricane protection project, the mitigation work under Section 111 will be 100 percent Federal and the remainder in accordance with the cost sharing procedures as specified in project authorization documents.

(2) *Maintenance.* (i) If the initial work is confined to mitigation under Section 111, all maintenance costs are 100 percent Federal.

(ii) If the work is a combination of mitigation under Section 111 and restoration of beaches eroded due to other causes, and there is no authorized beach erosion project, maintenance costs will be shared in the same proportion as recommended for initial construction, i.e., the Section 111 portion will be 100 percent Federal and remaining work 100 percent local.

(iii) If the work is a combination of mitigation under Section 111 and an authorized beach erosion control project or combination beach erosion-hurricane protection project, the Federal maintenance cost for the mitigation work under Section 111 will be in the same proportion as the damage attributed to the Federal navigation work is to the total damage. For the remaining work the cost sharing procedures of the authorized beach erosion or combined beach erosion-hurricane protection project will apply.

(i) *Local Cooperation.* (1) The law as written provided that the cost of installing, operating and maintaining projects under this authority shall be borne en-

tirely by the United States; therefore there are no requirements for local cooperation. The cost of any lands, easements or rights-of-way required for construction or subsequent maintenance will be borne entirely by the United States.

(2) Where Section 111 projects are to be accomplished in conjunction with other works (§ 263.15(a)(2)) local inter-

ests will be required to furnish assurance of local cooperation similar to those required for regularly authorized projects for their assigned portion of the work.

(3) Where Section 111 projects are to be accomplished in conjunction with authorized projects, the requirements of local cooperation specified in the authorizing document or report will apply.

#### APPENDIX A.—History of program and project limitations continuing authorities program

Section/Law	Date	Public Law No.	Federal cost limitation per project	Annual program limit
(1) Small Flood Control Project Authority (Sec. 205)				
Sec. 205 of 1948 FCA	June 30, 1948	80-838	\$100,000	\$2,000,000
Sec. 212 of 1950 FCA	May 17, 1950	81-516	150,000	3,000,000
Public Law 685/84th Congress, 2d Sess.	July 11, 1956	84-685	400,000	10,000,000
Sec. 205 of 1962 FCA	Oct. 23, 1962	87-874	1,000,000	25,000,000
Sec. 61 of WRDA of 1974	Mar. 7, 1974	93-281	1,000,000	30,000,000
(2) Authority for Snagging and Clearing for Flood Control (Sec. 208)				
Sec. 2 of 1937 FCA	Aug. 28, 1937	75-406	\$25,000	\$300,000
Sec. 13 of 1946 FCA	July 24, 1946	79-528	50,000	1,000,000
Sec. 208 of 1954 FCA	Sept. 3, 1954	83-780	100,000	2,000,000
Sec. 26 of WRDA of 1974	Mar. 7, 1974	93-281	250,000	5,000,000
(3) Authority for Emergency Streambank and Shoreline Protection of Public Works and Nonprofit Public Services (Sec. 14)				
Sec. 14 of 1946 FCA	July 24, 1946	79-528	\$50,000	\$1,000,000
Sec. 27 of WRDA of 1974	Mar. 7, 1974	93-281	250,000	10,000,000
(4) Small Navigation Project Authority (Sec. 107)				
Sec. 107 of 1950 R. & H. Act	July 14, 1950	86-645	\$200,000	\$2,000,000
Sec. 316 of 1965 R. & H. Act	Oct. 27, 1965	89-298	500,000	10,000,000
Sec. 112 of 1970 R. & H. Act	Dec. 31, 1970	91-611	1,000,000	25,000,000
(5) Authority for Snagging and Clearing for Navigation (Sec. 3)				
Sec. 3 of 1945 R. & H. Act	Mar. 2, 1945	79-14	None	\$300,000
(6) Small Beach Erosion Control Project Authority (Sec. 103)				
Sec. 103 of 1962 R. & H. Act	Oct. 23, 1962	87-874	\$400,000	\$3,000,000
Sec. 316 of 1965 R. & H. Act	Oct. 27, 1965	89-298	500,000	10,000,000
Sec. 112 of 1970 R. & H. Act	Dec. 31, 1970	91-611	1,000,000	25,000,000
(7) Authority for Mitigation of Shore Damages Attributable to Navigation Projects (Sec. 111)				
Sec. 111 of 1968 R. & H. Act	Aug. 13, 1968	90-483	\$1,000,000	None

<sup>1</sup> Project cost may go to \$2,000,000 if project is located in a major disaster area designated by the President.

<sup>2</sup> A project exceeding \$1 million will be transmitted to Congress for specific authorization.

#### APPENDIX B

##### APPLICATION OF MULTIOBJECTIVE PLANNING FRAMEWORK TO CONTINUING AUTHORITIES PROGRAM

1. *General.* The planning process described in the ER 1105-2-200 series of regulations including the implementation of Federal planning and evaluation criteria, are generally applicable to studies conducted under the Continuing Authorities Program. However, due to the limited scope of many of the plans and projects considered under this program, modification of the process is appropriate. Specific modification of the requirements of the planning criteria is not appropriate since the legislative and executive authorities setting forth these criteria do not differentiate between various types of level C implementation studies. Discretion must be employed by reporting officers and reviewers of Detailed Project Reports to insure that projects recommended for implementation by the Corps have been selected on the basis of information and analyses consistent with the WBC Principles and Standards, while at the same time keeping the requirements for information and analyses consistent with the scope of the study, solutions recommended, and the Program completion-time objectives outlined in § 263.18 of this regulation.

#### 2. Plan Formulation Stages.

##### a. Stage 1—Reconnaissance Study (Recon).

As presented in para. 6c, a Reconnaissance will replace the Development of a Plan of Study as the primary element of Stage 1 planning. As a general rule, a Recon should be conducted by a study team consisting of an engineer, an economist, and an environmentalist. A one-to-two day field reconnaissance should be sufficient to analyze the need for a project, to develop sketch plans, discuss views and capabilities of local interests, and identify the economy of the potential project area and possible environmental issues that would need to be addressed if a feasibility study were to be conducted. Additional effort should pinpoint all data deficiencies, types of investigations required for the feasibility study, and the estimated cost of the study. The latter identification process can be developed as a Plan of Study for the feasibility study, if approved and funded. To accomplish the intended purpose of the Recon, within the time and cost objectives given in this regulation, reporting officers are not required to develop a specific project (except for emergency situations under Section 14 or 3 Authorities), but should only provide the information required to make a decision as to whether there is a Federal interest in conducting a feasibility study. Mature, seasoned judgment is a prime requisite.



b. *Stage 2—Development of Alternative Plans.* While the ER 1105-2-200 series of regulations provides for a three-stage development of plans, studies under Continuing Authorities may consolidate these two final stages, (intermediate and detailed), into a single stage, if appropriate. This consolidation does not eliminate any of the planning tasks, as discussed in para 3 below, nor does it diminish the concept of screening a full array of alternatives including nonstructural measures, with increasing levels of detail in the assessment of impacts and evaluation as planning progresses to plan selection. The primary emphasis in making the consolidation of these two stages is that the plan selection is normally made on the basis of more limited data and analyses than appropriate for studies conducted under the Level C Survey Program or the Phase I AE&D Program.

c. *Stage 3—Development of Recommended Plan.* The feasibility study under the Continuing Authorities Program will include the design of a recommended plan to the extent necessary to proceed directly from the Detailed Project Report to preparation of plans and specifications. While studies under the Level C Survey Program would complete plan formulation prior to accomplishing detailed project design, the nature of this Program necessitates a flexible design phase, wherein changes in scope of the selected plan, with accompanying changes in project impacts

and evaluation, are to be expected and handled by planning personnel in order that the DPR will reflect a selected plan consistent with completed detailed design and a plan justified under the current Federal evaluation criteria for recommending Federal participation.

3. *Planning Tasks.*

a. *Problem Identification.* While planning under Continuing Authorities is to be on a multi-objective basis, the range of problems that can be addressed under a particular Program authority is more limited than normally considered in the conduct of studies specifically authorized by Congress. A good effort to focus the study on relevant problems should be made in the Recon phase of the study, while more intense efforts at data collection and definition of the problems and associated needs should be accomplished during Stage 2 planning.

b. *Formulation of Alternatives.* There are no fundamental differences in the process of formulating alternatives under these Program authorities than in Level C Survey studies, with the exception that the array of alternatives will normally be more limited based on the discussion in para 3a above. The level of detail to which the alternatives are formulated, with associated assessments of impacts and evaluation of beneficial and adverse contributions, will vary greatly depending on the study authority. In some cases, alternatives will be screened and eliminated

for various reasons without full development of a tentative plan which can be assessed and evaluated. Such screening is consistent with the nature of this Program; however, good judgment and interdisciplinary participation should be emphasized in such preliminary screenings. The guidance in the ER 1105-2-200 series of regulations with regard to consideration of non-structural measures and formulation of NED and EQ plans, is fully applicable to studies conducted under this Program.

c. *Impact Assessment.* There is no difference in the requirements for the assessment of impacts for studies conducted under Continuing Authorities and those under the Level C Survey Program. As in all studies, the extent to which information is obtained to adequately assess impacts of alternative plans is a matter of discretion of the reporting officer, bearing in mind the requirements of the National Environmental Policy Act of 1969 (NEPA) and Section 122, Public Law 91-611.

d. *Evaluation.* The processes, analyses and displays for evaluation of alternative plans as prescribed in the ER 1105-2-200 series of regulations are generally applicable to studies conducted under Continuing Authorities. Again, the level of detail, and not the process itself, is to be consistent with the study authority and the needs of the decision-making process.

[FR Doc.75-27742 Filed 10-31-75;8:45 am]







# **federal register**

**MONDAY, NOVEMBER 3, 1975**



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**PART III:**

## **DEPARTMENT OF DEFENSE**

**Corps of Engineers**



**URBAN STUDIES  
PROGRAM**

**WASTEWATER  
COLLECTION AND  
TREATMENT POLICY**

**Policies and Procedures**



## Title 33—Navigation and Navigable Waters

CHAPTER II—CORPS OF ENGINEERS,  
DEPARTMENT OF THE ARMY

[ER 1105-2-22; ER 1105-2-180]

## PART 264—URBAN STUDIES PROGRAM

PART 275—WASTEWATER COLLECTION  
AND TREATMENT POLICY

## Policies and Procedures

On 5 July 1974, the Secretary of the Army acting through the Chief of Engineers published a proposed regulation in the *FEDERAL REGISTER* (39 FR 24754) to provide policies and procedures for the Corps of Engineers conduct of Urban studies. A sixty day comment period was provided, during which comments were received from other Federal agencies, organizations, private business, and individuals. These comments were carefully considered and resulted in a number of changes to the proposed regulation. An analysis of comments received and changes made is provided below.

1. In addition to changes to the regulation from comments received, the regulation has been divided, and is hereby adopted, in two parts. The first part provides policies and procedures for the Urban Studies Program (33 CFR 264). The second part, originally proposed as Part Three, Appendix A, to 33 CFR 264, is being adopted separately as a regulation entitled Wastewater Collection and Treatment Policy (33 CFR 275), to provide guidance on water quality standards, goals, and deadlines to be used in developing wastewater management plans, and to provide policies for evaluation of wastewater collection and treatment facilities. Part Two, Chapter 2, Appendix A of the proposed regulation, concerning public involvement, has been deleted from the Urban Studies regulation in order that it would be incorporated into a more comprehensive regulation on public involvement for all Corps programs. The comprehensive regulation on public involvement will be published in the *FEDERAL REGISTER* as proposed rule-making, and will provide more detailed guidelines to implement the Corps public involvement policy (33 CFR 380, adopted 2 April 1975).

2. Several comments expressed the need to provide for involvement of local and areawide planning agencies and to insure that goals, objectives, and plans developed by local agencies be considered in the Urban Study, and not be duplicated. Revisions to the proposed regulation are reflected in §§ 264.15 and 275.13.

3. Several comments indicated that a provision be made to allow for transfer of funds to the involved State for its participation. Although State participation is desired, the Corps does not have the authority to make such a transfer of funds. However, the Corps can contract with a State for a specific item of work when a State agency is considered best qualified to undertake the work as part of a Corps study. This provision is reflected in § 264.16(k).

4. A comment stated that a plan should be developed for regional development in addition to national economic development and environmental quality. The Water Resources Council's "Principles and Standards for Planning Water and Related Land Resources" (38 FR 24778), do not permit formulating plans for regional development. However, if a planning objective for a particular study is to foster regional development, and if the plans are formulated for possible implementation by States, local governments, or Federal agencies programs not under the Principles and Standards, the Corps would attempt to accomplish that objective. If plans are formulated for possible implementation by the Corps, or other Federal agency programs under the Principles and Standards, the Corps would attempt to accomplish the regional development objective only as an additional benefit to the accomplishment of national economic development and environmental quality. (Reference § 264.12(a).)

5. A comment was made that the study cost tables required in the Plan of Study will stifle innovative thinking and are not easily adaptable to difficult areas and problems. More flexibility was desired. The standard tables provided in the regulation have been adopted as a result of coordination among the Corps, the Environmental Protection Agency (EPA) and the Office of Management and Budget (OMB). The tables have been satisfactorily used in ongoing Urban Studies. Therefore, no change has been made to the tables as presented in the proposed regulation (See Appendix D, 33 CFR 264).

6. Two new sections on "Cost Estimates" and "Engineering Economic Analysis" have been added to provide cost engineering guidance for preparation of the wastewater management portion of the urban studies reports, §§ 275.20 and 275.21. The intent is to establish procedures in accordance with the EPA cost effectiveness guidelines, since the plans prepared in the course of an urban study provide input for the local government's application to the EPA for a Step 2—Section 201 grant.

7. Comments were made concerning the need for public involvement during the development of the Plan of Study and the need to eliminate the requirement to have surveys approved by the Office of Management and Budget when the surveys are sent to ten or more parties. Extensive public involvement is encouraged as part of the development of the Plan of Study, as reflected in § 264.18 (a) (8). The Corps of Engineers does not have the authority to waive the requirement for OMB approval of surveys sent to ten or more parties, and therefore, the requirement will remain as stated, in the future regulation on Public Involvement.

8. Several comments questioned the need to attain "zero discharges, of pollutants," questioned the Corps authority to define such discharges, and questioned the effluent limits established for zero discharge. The regulation has been re-

vised to indicate that the Corps has no authority to define "zero discharge of pollutants" and that EPA has no specific mandate to enforce the "zero discharge" goal (see § 275.16). The Corps has defined the "zero discharge" goal as a matter of administrative policy.

9. An objection was raised concerning the design of all systems to one standard, (i.e., zero discharge), without giving consideration to the social, environmental, economic, and hydraulic considerations in each area. This is not the intent of the Corps policies on developing wastewater management systems. Systems will be developed and evaluated for attaining the 1977, 1983, and 1985 goals. States and the EPA will assist in determining the level of treatment desired for a particular area. While the 1985 goal of "zero discharge" will be planned for, systems will be provided for phased implementation. It will be up to local and State governments how rapidly and to what extent the selected plans are implemented. These concepts are reflected in § 275.16.

10. Exception was taken to one of the zero discharge effluent definitions, which required certain constituents to be absent from discharges (see § 275.16). The party stated that there is no technical method which would allow the attainment of absolute zero discharge. The Corps recognizes that there are technical limits to waste treatment. However, an attempt has been made to plan for systems which come as close to the 1985 goal of zero discharge as possible.

11. A comment indicated that substantial evidence had been submitted to EPA concerning the appropriate effluent limitations for certain toxic pollutants, and that EPA's regulations do not call for zero discharge as does the proposed Corps regulation. EPA has not defined a zero discharge goal. However, EPA has defined discharge limitations for attaining the 1977 and 1983 effluent limitations of Public Law 92-500. If and when EPA defines a 1985 goal of zero discharge of critical pollutants, 33 CFR 275 will be revised to reflect EPA's guidelines.

12. Comments on the proposed regulation were received from the following parties; copies are available for inspection at the Office of the Chief of Engineers, Forrestal Building, 10th and Independence Avenue, Room 4E-086, Washington, D.C. 20314.

## Federal:

Office of Management and Budget, Washington, D.C.  
Environmental Protection Agency, Washington, D.C.  
Department of Commerce, Washington, D.C.  
Department of Housing and Urban Development, Washington, D.C.

## State:

Governor of Connecticut, Hartford, Conn.  
Dept. of Environmental Conservation, State of New York (Albany).  
Dept. of Natural and Economic Resources, State of North Carolina (Raleigh) (Rec'd from Congressman Ike Andrews, who requested State's views).  
Arrowhead Regional Dev. Com., State of Minnesota (Duluth).



**Local Government:**

National League of Cities, United States Conference of Mayors (Washington Assistant).  
The Village of Oak Park, Oak Park, Ill.

**Private Business:**

Manufacturing Chemists Assoc., Washington, D.C.  
John E. Kinney, Sanitary Engineering Consultant, Ann Arbor, Mich.  
Collier, Shannon, Rill & Edwards, Attorneys at Law, Washington, D.C.  
Republic Steel, Cleveland, Ohio.

**Individual:**

Richard Lerner, Berkeley, Calif.

With these changes and other editorial revisions, the two proposed regulations are adopted as set forth below.

Effective date: These regulations are effective 3 November 1975.

RUSSELL J. LAMP,  
Colonel, Corps of Engineers  
Executive.

**Part 264 is added as follows:**

- Sec.  
264.10 Purpose.  
264.11 Applicability.  
264.12 References.  
264.13 Definitions.  
264.14 Objective of urban studies program.  
264.15 Relationship of urban area comprehensive planning to urban water resources planning.  
264.16 Program policy.  
264.17 Urban water resource plans.  
264.18 Planning procedures.  
264.19 Washington level review and processing.  
264.20 Program management responsibilities.  
264.21 Time objectives.  
264.22 Reports and documentation.  
264.23 Effective date.

**Appendix A**

**Appendix B**

**Authority:** Sec. 1, Pub. L. 685, June 20, 1938, 52 Stat. 802 (33 USC 540); Sec. 4, Pub. L. 429, as amended, Mar. 4, 1913, 37 Stat. 826 (33 USC 542).

**§ 264.10 Purpose.**

This regulation provides policy and procedures for studies conducted under the Urban Studies Program.

**§ 264.11 Applicability.**

This regulation is applicable to all OCE elements and all field operating agencies having Civil Works responsibilities.

**§ 264.12 References.**

- (a) Public Law 92-500 (70 Stat. 498, 84 Stat. 91), Federal Water Pollution Control Act Amendments of 1972, 18 October 1972.
- (b) ER 18-2-2, Intensive Management Program Monitor System.
- (c) ER 1105-2-10, Intensive Management.
- (d) ER 1105-2-105, Guidelines for Assessment of Economic, Social, and Environmental Effects of Civil Works Projects (33 CFR 209.400).
- (e) ER 1105-2-402, Organization and General Content of Feasibility Reports.
- (f) ER 1105-2-403, Format and Appearance of Feasibility Reports.

(g) ER 1105-2-502, Public Meetings (33 CFR 209.405).

(h) ER 1105-2-507, Preparation and Coordination of Environmental Statements (33 CFR 209.410).

(i) ER 1105-2-180, Wastewater Collection and Treatment Policy. (33 CFR 275).

(j) ER 1105-2-800, Public Involvement: General Policies (33 CFR 380).

(k) ER 1105-2-811, A-95 Clearinghouse Coordination (33 CFR 384).

(l) ER 1120-2-112, Coordination of Investigations and Reports with Clearinghouses.

(m) ER 1165-2-21, Flood Control Works and Storm Sewer Systems in Urban Areas.

**§ 264.13 Definitions.**

As used in this regulation, the following definitions apply.

(a) "Public." Any affected or interested non-Corps of Engineers entity. This includes other Federal, regional, State and local governments entities and officials; public and private organizations; and individuals. (ER 1105-2-800)

(b) "Institution." Any organization or process that is highly structured, systematized, and stable. If may be a type of group, e.g., a metropolitan sanitary district or a council of governments, or it may be a formalized practice, e.g., a water rights law or a water usage ordinance.

**§ 264.14 Objective of Urban Studies Program.**

(a) The Urban Studies Program is a joint planning effort between the Corps of Engineers, other Federal agencies, State and local governmental entities. The objective of the Urban Studies Program is to develop, in conjunction with the public, plans which not only offer a realistic prospect for solving specific urban water resource problems, but, equally important, also have the potential to serve as a catalyst for solving other related urban problems. In satisfying this objective, urban water resources planning must be consistent with the national objectives. The national objectives are—

- (1) To enhance national economic development (NED).
- (2) To enhance the quality of the environment (EQ).

(b) In order to achieve the above objectives, urban water resource plans should:

- (1) Address the specified water resource problems, issues, and concerns of the regional public by responding to expressed desires and preferences.
- (2) Be flexible to accommodate changing economic, social, and environmental patterns and new technologies.
- (3) Be integrated with other urban development and management programs.
- (4) Be fully coordinated with affected agencies at all levels.
- (5) Be developed through an orderly, structured, and open planning process.
- (6) Be implementable with respect to financial and institutional capabilities and public acceptance.

(7) Be acceptable to affected States, local government entities, and appropriate Federal agencies.

(c) The guidelines and regulations to be followed for areawide waste treatment management and facilities planning are the responsibility of the Environmental Protection Agency (EPA). Therefore, close cooperation with EPA field personnel is necessary for proper interpretation of EPA regulations and guidelines in order to produce information which States and local governmental entities can use in construction grant applications.

**§ 264.15 Relationship of urban area comprehensive planning to urban water resource planning.**

(a) Comprehensive urban area planning generally is carried out by local or regional planning commissions. Urban area comprehensive planning focuses on a number of issues such as housing, transportation, health and social services, land use planning, solid waste management, and water resources management.

(b) The Urban Studies Program will primarily address one of the issues in paragraph (a) of this section—water resources management. In addressing the water resource management components of comprehensive planning, goals and objectives, growth forecasts, proposed uses of the land, and other data prepared by governmental planning organizations shall be taken into consideration. In addressing the urban water resources problems, the plans developed may affect other urban problems. For example, a plan restricting construction in a flood plain to reduce urban flood damages may make land available for additional recreation areas, as well as control urban sprawl. Controlling urban sprawl could then affect urban area housing development.

(c) Within the scope of water resources management, the Urban Studies Program addresses the following functional water resource components:

- (1) Urban flood control.
- (2) Flood plain management.
- (3) Municipal and industrial water supply.
- (4) Wastewater management.
- (5) Bank and channel stabilization.
- (6) Lake, estuarine, and ocean restoration and protection.
- (7) Recreation management at Corps civil works projects.
- (8) Regional harbors and waterways.
- (9) Additional components may be added with the approval of DAEN-CWP. Such approval should be obtained in the Plan of Study.
- (d) Within any specific urban area, all, or only some, of these functional components may be applicable. Existing local plans for a functional component may be adequate for the planning time-frame considered in a study. Where this occurs, these local plans will be incorporated into the urban water resource planning process.



### § 264.16 Program Policy.

(a) Comprehensive urban area planning is to remain a local responsibility. The Corps of Engineers may augment local planning efforts by developing alternative urban water resource plans. One of these alternative plans may be selected by responsible officials as a component of a comprehensive urban area plan. Particular emphasis is to be placed on coordination of water resources planning with the policies of state, areawide and local planning agencies.

(b) Urban water resource planning conducted by the Corps of Engineers must not duplicate other Federal, Federally-assisted, Federal-State, State or regional programs.

(c) Wastewater management components of alternative urban water resource plans must be compatible with the intent of Pub. L. 92-500.

(d) On 22 November 1974, the Secretary of the Army and the Administrator of the Environmental Protection Agency signed an interagency agreement defining the relationship between areawide waste treatment in the Urban Studies Program and planning authorized under Title II of Pub. L. 92-500. That agreement (Appendix A) discusses objectives, coordinating provisions and funding policies and are to be adhered to in all urban studies.

(e) The planning process for conducting urban studies shall be generally consistent with the general framework presented in reference § 264.12(a). A discussion of this framework as it relates to urban studies is given in Appendix B. Planning procedures which have been identified for intensive management of the Program (in accordance with ER 18-2-2 and ER 1105-2-10) are discussed in § 264.18.

(f) Throughout the conduct of an urban study, there must be full and continuous coordination with the public. The public must not only be educated and informed about what is occurring, but must also be included and actively involved in the planning process (ER 1105-2-800). Other regulations in the 1105-2-800 Series will provide additional guidance on developing and conducting a public involvement program. The public meetings discussed in § 264.18 of this regulation should be only one component of a comprehensive public involvement program.

(g) A program of institutional analysis is essential. This analysis must be initiated early in the study. Such analysis will set forth the ways and means for implementing any urban water resource plan which is selected. Appendix C provides the framework and guidance for this analysis.

(h) Where specific water resource elements, such as commercial navigation, are included in an urban water resource plan, the plan development of that specific element should be in accordance with applicable Engineer Regulations for that element. Where wastewater management is the element, the plan development of that element will be in accordance with applicable portions of En-

vironmental Protection Agency regulations and ER 1105-2-180.

(i) Although urban drainage is a functional water resource category which could be studied by itself, Corps of Engineers studies of urban drainage within the Urban Studies Program are limited to considering urban drainage as a part of the flood control work item or as a part of the wastewater management work item. Further discussion of this item is included in ER 1105-2-180 and ER 1165-2-21.

(j) Where areawide wastewater management planning is being conducted by local planning agencies under Title II of Pub. L. 92-500, a joint study effort must be developed for a study to be defined as an Urban Study. That joint effort will provide the flow of information between both efforts to insure that decisions are based on full knowledge of the impacts of these decisions on other purposes. In those areas where such a joint effort is not possible, the Corps will determine the need for a Corps study under one of the other Corps planning programs. If no need exists, the study will be terminated.

(k) District may elect to use consultants to augment in-house expertise, to provide expertise unavailable with the Corps, or to gain added familiarity with the study area. Reporting officers shall insure that sufficient in-house expertise exists, or is developed, to effectively manage and review consultant effort.

(l) Potential consultants include:

(i) Separate field operating agencies such as the Cold Regions Research and Engineering Laboratory (CRREL), the Construction Engineering Research Laboratory (CERL), the Waterways Experiment Station (WES), the Hydrologic Engineering Center (HEC), and Institute for Water Resources (IWR).

(ii) Other Federal regional and local agencies.

(iii) Private architectural-engineering firms.

(iv) Universities, non-profit organizations, and citizens having requisite special skills.

(2) The preparation of the Plan of Study is an orientation period for the study team. Because the POS provides guidance for the entire study and involves mandatory coordination, the study team will write the POS. However, this does not preclude the use of consultants to provide background data and information necessary for the Corps to write a POS.

(3) The Corps must reserve for itself the responsibility for comparing and evaluating alternative resource management elements to assure that wastewater management planning is integrated with other Civil Works missions.

(4) Different consultants should be used to develop alternative measures for wastewater management utilizing land treatment and plant-type treatment. While consideration of the technical system outputs and resource requirements of these measures is inherent in the formulation of alternatives, the Corps will have to verify the technical and engineering adequacy of each plan devel-

oped, as well as verify the full range of impacts caused by the system outputs and resource requirements. Utilizing more than one consultant will preclude any appearance of bias toward one measure at the expense of the others.

(5) Prior to contracting for the development of methodologies such as a new method of impact assessment or a new method of analyzing institutions, Districts should ascertain whether OCE or other Corps elements have developed useful methodologies. Work completed a year or two earlier may be satisfactorily applied to a new study. In like manner, ongoing developments may be shared by more than one District if costs are appropriately shared.

(i) Where more than one District in a Division surfaces the same need, the Division should consider coordinating the effort.

(ii) Where several Divisions surface the same need, HQDA (DAEN-CWP) WASH DC 20314, will consider coordinating the effort.

(iii) In both of the above cases, equitable sharing of costs may permit all partners, and the Corps in general, to realize far greater returns on their accumulated investment than a series of small, redundant efforts would permit.

(l) The policies and procedures for preparation, coordination and filing an Environmental Impact Statement (EIS) are contained in ER 1105-2-507. Normally, an EIS will be prepared only if recommendations for Federal (Corps) participation are contemplated.

### § 264.17 Urban water resource plans.

The Corps of Engineers through its Urban Studies Program seeks to provide urban water resource plans that are compatible with comprehensive urban development goals of the region under study. These plans will provide an integrated approach to water resources management. Each study will develop alternative urban water resource plans from which one may be selected for implementation. Stage 3 planning will result in the following.

(a) *Alternatives.* (1) A series of three to seven alternative urban water resource plans to meet long range (approximately 50 years) needs, from which a choice may be made by the public prior to completion of the study.

(2) A priced and evaluated portion of each of the alternative urban water resource plans to meet short range (approximately 20 years) needs.

(3) A phased early action program for the study region for each alternative urban water resource plan to meet short range (approximately 20 years) needs.

(b) *Programs.* The alternative urban water resource plans will be composed of three elements.

(1) *Capital improvements programs.* (i) In developing capital improvements programs, both new construction and improvements to existing facilities should be considered. Capital improvements will include those structures which directly address the water resource problems as well as those facilities which may be a necessary by-product of the initial fa-



cility. For example, if a new harbor channel is dredged, (capital improvement) a diked disposal area (capital improvement) may have to be constructed to contain the dredged material.

(ii) Alternatives for solving water resource problems may provide an opportunity for additional capital improvements by the private sector. This potential should be identified in the discussion of public capital improvement. The private sector may be required, under a specific alternative, to provide facilities which satisfy a specific need. For instance, a pretreatment facility to remove heavy metals from industrial waste prior to discharge to municipal sewer is a private sector facility.

(iii) Study alternatives may suggest attractive opportunities for enhancing the non-water resource needs of the region. For example, if a local issue is the siting of a new power generation facility, a land treatment system may provide the necessary cooling water while isolating the facility. While the study should not plan for a power generation facility per se, the availability of land and water should be brought to the attention of the public utility.

(iv) Where existing facilities are incorporated in specific alternatives, operation, maintenance, and replacement costs relating to those facilities should be included in any cost-effectiveness analysis.

(2) **Management programs.** Management programs are the measures necessary to make an alternative operate efficiently. They are distinguished from capital improvements because they do not necessarily involve major construction or engineering activities. Sometimes characterized as non-structural approaches, management programs may still require investment. Management programs associated with resource utilization may include the following—

(i) Regulatory activities, such as permits, building codes, ordinances, land use zoning, and control techniques.

(ii) Operation and maintenance procedures, such as guides for the use of physical components of water resource systems, training of personnel, and public education in resource use.

(iii) Fiscal controls, such as revenue production, cost-sharing, user fees, and development financing.

(3) **Revision programs.** Alternatives should contain a revision program to provide decision makers flexible plans that will be responsive to possible changes in needs and future base conditions. Periodic revisions are essential if the urban water resources plan selected is to be an instrument of continuous, dynamic planning and not merely a static end product. In developing a revision program, potential changes or planning activities should be categorized as substantive or procedural.

(i) Substantive changes causing plans to be revised may include changes such as a council of governments modifying its land use projections, a radical change in energy availability, a new innovation in waste treatment technology,

a change in the regulations implementing § 264.12 (b) or (d) or new water resource legislation.

(ii) Procedural matters describing how to make revisions may include designating the agency responsible for future planning, the method or time period for review, and the method for modifying the plan.

(c) **Implementation arrangements.** (1) Each plan element shall contain implementation arrangements which describe the action necessary to take the plan from the conceptual state and place it in operation. Implementation arrangements are developed to provide for the most orderly and efficient creation of capital improvements, management programs and a revision program. Implementation arrangements may include changes in agency responsibility, methods of funding, and the fulfillment or modification of legislative requirements and constraints. Implementation arrangements should also include alternative arrangements which show how existing institutions might be incorporated, or modified if necessary, new institutions created, or existing institutions abandoned in order to efficiently implement the plan.

(2) To provide the public with a choice, each final alternative urban water resource plan should contain alternative implementation arrangements, each arrangement taking a distinctly different approach to implement the plan. For instance, a single, multi-function regional agency, a series of small, geographically defined agencies, or a series of smaller functionally defined agencies illustrates three different approaches. One implementation arrangement may be suitable for more than one plan. Each of the implementation arrangements will address—

(i) Time phasing of construction and associated design activities; for initiation of management programs, and for the revision program.

(ii) Total costs and cost-sharing arrangements. Special care must be taken to make sure that facilities for collection of run-off are identified properly and that construction costs are appropriately allocated to wastewater management and to flood control and, further, that flood control and wastewater management costs are apportioned between Federal and non-Federal interests. Close cooperation with EPA is necessary to assure that the appropriate distinctions will be reflected in the report.

#### § 264.18 Planning procedures.

The paragraph prescribes procedures to be followed by field operating agencies from initial funding of an Urban Study through submittal of the report to the Board of Engineers for Rivers and Harbors. Those procedures which, upon completion, represent accomplishment of a milestone (as established by ER 18-2-2) are so designated.

(a) **Stage 1 Planning—Preparation and Approval of the Plan of Study (Milestone 02).** (1) After the reporting officer receives funds for a study, a Plan of Study (POS) will be prepared in accord-

ance with the guidelines given in Appendix D.

(2) Initial efforts will be limited to determining the need and desirability of having the Corps conduct the study. The reporting officer will develop a preliminary scope of study based on discussions with State and local officials and will determine that local cooperation and participation in the study will be forthcoming. This effort should generally cost no more than \$25,000 (Sept 1974 prices).

(3) If the reporting officer makes a positive determination in accordance with paragraph (a)(2) of this section, the POS should be completed for a cost not to exceed \$75,000 (Sept 1974 prices) including the costs associated with paragraph (a)(2) of this section. Division Engineers are responsible for monitoring these efforts to insure funds are not spent unnecessarily, and for approval to proceed with development of the final POS.

(4) Two on-board review sessions with OCE will be held during POS development.

(i) Thirty days after funds are received by the field office responsible for a study, HQDA (DAEN-CWP) personnel will conduct a meeting in the field office for District and Division personnel to explain the latest guidance concerning POS development and content.

(ii) Approximately 60 days after the first meeting, an on-board review of the POS will be conducted in the field office. Attendees will include HQDA (DAEN-CWP) and Division personnel and may also include representatives of the Office of the Secretary of the Army, HQDA (DAEN-CW-SA). The purpose of this review is to resolve any conflicts in policy and content of the POS before it is transmitted to the public for initial comment. Each meeting participant will be furnished copies of the draft POS at least ten days prior to the meeting.

(5) When the POS is completed and letters of assurance are received from all study participants, the District Engineer will formally transmit the POS to the Division for review. Where ongoing studies are reoriented to be handled as an Urban Study, the District Engineer's forwarding letter should set forth the amounts estimated to be spent on other studies authority to be conducted apart from the Urban Studies Program.

(6) Division Engineers shall review POS's submitted by District Engineers using Appendix D as the measurement of sufficiency. After the POS is modified to respond to Division comments, the Division Engineer will indorse the POS to HQDA (DAEN-CWP) WASH DC 20314. The applicable Reports Management Branch will coordinate the review and, upon completion, comments and/or approval will be forwarded to the Division Engineer. Receipt of POS approval is sufficient authority for the reporting officer to begin Stage 2 of the planning process. Information copies of each approved POS will be forwarded to the Assistant Secretary of the Army



(civil works) by DAEN-CWP for possible review by OMB.

(7) Because of the need to obtain local cooperation and EPA concurrence in the wastewater portion of the Urban Study, no major contracting or in-house study efforts will be undertaken until OCE has approved the Plan of Study. If the reporting officer, or the Division Engineer, desires to commence work prior to formal approval of the POS, an exception shall be requested from HQDA (DAEN-CWP-E, C or W) WASH DC 20314.

(8) The initial public meeting (Milestone 01) is not required prior to completion of the POS. However, the public involvement process shall be initiated during this stage and the initial public meeting should be held prior to approval of the POS or at the outset of Stage 2.

(b) *Stage 2 Report (Milestone 03)*. Continuous drafting of the study report as described in paragraph 14 will result in the completion of the Background Information Appendix during Stage 2. Similarly, continuous drafting will document the planning process and the results of the first two stages in the Plan Formulation Appendix. For Urban Studies these two documents will be considered the Stage 2 Study Report, Milestone 03.

(c) *Checkpoint I Conference (Milestone 04)*. This conference will serve as a forum for representatives from District, Division, and OCE (and BERH, if considered appropriate) to discuss the findings of the Stage 2 study. The documents prepared for Milestone 03 will serve to provide the majority of information required for this conference. However, as required by ER 1105-2-180, a list of constituent levels considered critical to the environment will be developed for each stream receiving treated wastewater, when the Corps is responsible for the wastewater management studies. This list will be used in developing treatment levels required to meet the 1985 goal of PL 92-500 and will be available prior to this conference.

(d) *Formulation Stage Public Meeting (Milestone 05)*. This meeting will be held after Milestone 04 to present the results of the Stage 2 study to the public and to obtain the views of the public regarding the alternative plans to be carried into Stage 3 of the study. The documents prepared for the Checkpoint I Conference should be used in developing information for dissemination to the public prior to the meeting (ER 1105-2-502).

(e) *Checkpoint II Conference (Milestone 06)*. This conference is held to discuss and resolve plan formulation and study problems. Since major revision of Urban Study Reports will often not be feasible after submittal to BERH, this conference should be held at a time which will allow for correction of study deficiencies before completion of the report. The Division Engineer, or his designated representative, shall personally conduct this conference. The conference should be held about midway through Stage 3. If additional conferences are needed later in the study, they should

be arranged by the Division Engineer or OCE. DAEN-CWP-E, C or W should be kept informed of all such meetings by the Division Engineer.

(f) *Submit District Report (Milestone 07)*. Continuous drafting of the report will allow review and revision of the report as the study proceeds. In addition, adequate monitoring by Divisions should eliminate the need for major revision of the report at the end of the study. Milestone 07 will be completed when the entire report, exclusive of the Comments Appendix and the results of the late stage public meeting, has been submitted to the Division.

(g) *Complete Division Review of Report Draft Milestone 08*. Divisions should review and comment on the report as it is submitted. However, it should be recognized that piecemeal review and mid-study corrections could result in inconsistencies with previously reviewed documents. Care must be taken to avoid those problems. Divisions should submit four (4) copies of each portion of the report to DAEN-CWP-E, C, or W after completion of review, together with copies of comments to the reporting officer on the report.

(h) *Late-Stage Public Meeting (Milestone 09)*. This meeting will be held to present the findings of the Stage 3 study to the public. The results of that meeting will be presented in the final report to provide local decision-makers with that information for their use in selecting a plan to be implemented (ER 1105-2-502).

(i) *Field Level Coordination of Reports*. Following Milestones 08 and 09 the report will be finalized and distributed to local interests responsible for plan implementation, affected States, regional offices of appropriate Federal agencies and other segments of the public, to accomplish Corps public involvement objectives and interagency coordination requirements. Comments received and responses to those comments will be included in the Comments Appendix.

(j) *Submit District Report (Milestone 10)*. District reports will be submitted to Division Engineers in accordance with procedures established for regular survey reports.

(k) *Division Engineer Notice (Milestone 11)*. Issuance of the Public Notice should be in accordance with procedures established for regular survey reports. If the report or notice contain any unusual or controversial recommendations it should be submitted to DAEN-CWP-E, C or W for approval prior to being issued.

#### **§ 264.19 Washington level review and processing.**

Responsibility for final review and processing of Urban Study reports will be the same as for regular Level C preauthorization study reports submitted to Congress.

(a) *Reports not recommending projects for authorization*. Reports which do not recommend projects for Congressional authorization will be reviewed to determine adequacy of the report in responding to the Congressional authority.

(b) *Reports Recommending Projects for Authorization*. Reports which recommend projects for Congressional authorization will be reviewed as mentioned above. In addition, reports of this type will be reviewed to insure that those projects recommended for authorization have been formulated and evaluated as if they were recommended in a regular Level C preauthorization report.

#### **§ 264.20 Program management responsibilities.**

(a) *General*. The Corps of Engineers is involved in the Urban Studies Program in response to the critical need for Federal assistance to solve regional urban water resources problems. Reporting officers responsible for the conduct of urban studies will give this program the requisite direction and attention. The success of an urban study is largely dependent on the organization of the study team; their consultants, and the Plan of Study (POS) that will direct their efforts.

(1) It is imperative that the study team consist of personnel capable of addressing the regional problems in an innovative, imaginative, and skillful manner.

(2) Since the Urban Study affects many functional areas of urban and regional planning (urban goals and objectives, flood plain management, wastewater management, etc.), local and regional representatives should be represented on the study team. State agency personnel responsible for water pollution control and/or water supply planning should also be included.

(3) A-95 clearinghouses shall be consulted for input to the study. These clearinghouses are areawide comprehensive planning agencies and probably will have done land use, transportation, water and sewer and other plans which should be of value in the study (ER 1105-2-811). A-95 clearinghouses are often designated as "208" agencies. If they are not, a memorandum of agreement between the designated agency and the appropriate areawide comprehensive planning agency must be established, in accordance with para 3, Part IV, OMB Circular No. A-95.

(4) Consultants must be selected on the basis of their ability to address the complex urban water problems with imaginative solutions § 264.16(k).

(5) The Plan of Study should be sound enough to guide the entire study effort, and yet be as flexible as necessary to adapt to changes as they arise in the course of the study.

(b) *District/Operating Division Offices*. Districts should organize an interdisciplinary team which has no other duties. The designated team leader should report directly to the Chief of Planning Branch or Planning Division, as appropriate. A high level of involvement of the District Engineer, his deputy, or a designated assistant will be required on a day-to-day basis. Staff support for the interdisciplinary team will have to be provided promptly by other planning, engineering, and administrative elements when needed. Where a Dis-



trict has more than one urban study, certain specialists may work on more than one study. However, separate Study Management and Plan Formulation specialists for each study are recommended. Ideally, one specialist, or more as necessary, should be assigned to each area of expertise described below.

(1) *Study management.* Assigned personnel are concerned with the efficient conduct of the study including the allocation of funds and personnel (including consultants) to assure a balanced study. They are also responsible for the monitoring of study progress to insure timely completion of tasks, adherence to established policy and guidance, and the execution of a quality public involvement program.

(2) *Plan formulation.* Assigned personnel are responsible for formulating alternative urban water resource plans in accordance with policies and procedures contained in this regulation. Plan formulation includes interpreting the problems, issues, and concerns of the public, articulating water resource planning objectives and defining system outputs based upon the expressed problems, issues, and concerns. Plans are formulated from the range of resource management measures which include policies, programs, technologies, engineering inputs, institutional arrangements and implementation schemes (structural and non-structural). Assigned personnel must be capable of combining the partial inputs from the three areas of expertise discussed in paragraphs (b) (3)-(5) of this section to produce balanced plans acceptable to the public.

(3) *Technical systems design.* Assigned personnel are responsible for the design of component technical portions (capital improvements) of the alternative plans formulated. These component technical portions must be properly designed and properly arranged in sequence to meet system outputs and planning constraints. Technical systems design will predominantly respond to, and be guided by, information developed in the plan formulation process.

(4) *Impact assessment and evaluation.* Assigned personnel are responsible for identifying and measuring the impacts of each system on the existing and future regional profiles and the range of comprehensive urban planning objectives. Impact assessment also involves interpreting the expressed problems, issues, and concerns of the people and articulating water resource planning objectives. Evaluation includes summarizing responses of the public and assisting the plan formulation and technical system design specialists in the modification and refinement of plans and plan components based on these responses.

(5) *Public involvement and institutional analysis.* Assigned personnel are

responsible for formulating and coordinating the execution of the public involvement program. Personnel are also responsible for identifying and analyzing the institutions affected by each plan, developing the necessary plan or institutional modifications, and assisting in the development of implementation strategies.

(c) *Division Office.* Based on experience in Divisions where Urban Studies are underway, each Division with one or more urban studies will need an Urban Studies Program Coordinator; those Divisions with more than one study will need a small, full-time staff in the Planning Division. The Special Studies Branch can be so designated if such a branch exists. Engineering Divisions at Division Offices should be responsible for review of District efforts for technical adequacy and for providing technical guidance to District Offices. Divisions shall be responsible for reporting study progress to OCE. Frequent communication between Division coordinators is also encouraged to exchange information. Division Program Coordinators should perform the following tasks—

(1) Monitor study progress to achieve timely completion of studies within designated completion - time objectives (§ 264.21);

(2) Disseminate to other field operating agencies and appropriate OCE elements, pertinent information developed during the course of a study which may be of particular value. The value may be in potential application of the data by another Corps office, or obtaining an expedited informal review. Information disseminated may include Plans of Study, contractor scopes-of-work and reports, public involvement documents, and study reports.

(3) Provide training or request training from HQDA (DAEN-CWP) WASH DC 20314.

(4) Co-ordinate and conduct "on-board" reviews of urban studies and checkpoint conferences (ref § 264.18).

(5) Monitor funding obligations and expenditures. Particular emphasis should be placed on limiting expenditures during development of the Plan of Study to insure funds are not wasted on studies without local support (ref § 264.18(a)).

(d) *Office of the Chief of Engineers.* Primary responsibility in OCE for management of the Program rests with the Planning Division (DAEN-CWP), which is responsible for the staffing of all actions required of OCE by this regulation and intensively managing the Program in accordance with ER 1105-2-10 and ER 18-2-2. Considerable technical engineering studies are required in the studies. Accordingly, the Engineering Division (DAEN-CWE-M) will be kept informed of such work and directly

involved in decisions regarding engineering aspects of the study. The Office of Policy (DAEN-CWR) will be involved in reviewing reports for policy implications as deemed appropriate by DAEN-CWP or BERH. Guidance on attendance of OCE representatives at checkpoint conferences is provided in ER 1105-2-10.

#### § 264.21 Time objectives.

Urban Studies are to be programmed to be completed in about three years. Time objectives for each of the three study stages (See App B) are as follows—

(a) Stage 1—6 to 8 months (including 30 days for OCE review and approval of POS).

(b) Stage 2—10 to 12 months.

(c) Stage 3—16 to 20 months.

#### § 264.22 Reports and documentation.

(a) *The Plan of Study.* (1) Preparation of the Plan of Study (POS) is the first major substantive task to be undertaken in the conduct of an urban study (ref para 10a). The POS is a multiple-party agreement that specifies the scope of the study, describes an initial set of problems, issues, and concerns to be addressed, and delineates the anticipated public involvement program strategy. As such, it serves as a planning and management tool. It specifies who will do each portion of the study, when each part will be done, and how the total effort will be managed. A detailed discussion of format and content is contained in Appendix D.

(2) The Plan of Study, as the first major study output, should serve as a focal point of the public involvement program. The POS shall describe how the public will be involved in the study, and should provide the vehicle for initial contacts with the public.

(3) Table 1 contains a guide to allocating efforts in a Plan of Study for an urban study. These effort component breakdowns are based upon experience with the Pilot Wastewater Management Program. "Effort" as used in this regulation refers to person-years of work multiplied by the annual cost of employing a person with that specific expertise for one year. "Total Combined Efforts" include all Corps efforts plus all other Federal efforts plus all non-Federal efforts plus all non-Corps of Engineer dollars disbursed in lieu of providing effort.

(4) The Plan of Study may require modification once the study is initiated. Changes should be based upon mutual agreement by the parties allied in the Plan of Study, and documented in the Plan Formulation Appendix.

(b) *Study reports.* (1) *General.* The Study Report will consist of a separate summary document and supporting appendices as outlined in Figure 1. Deviation from this format must be approved by HQDA (DAEN-CNP) WASH DC 20314 prior to writing the report. Because the urban study is the ultimate



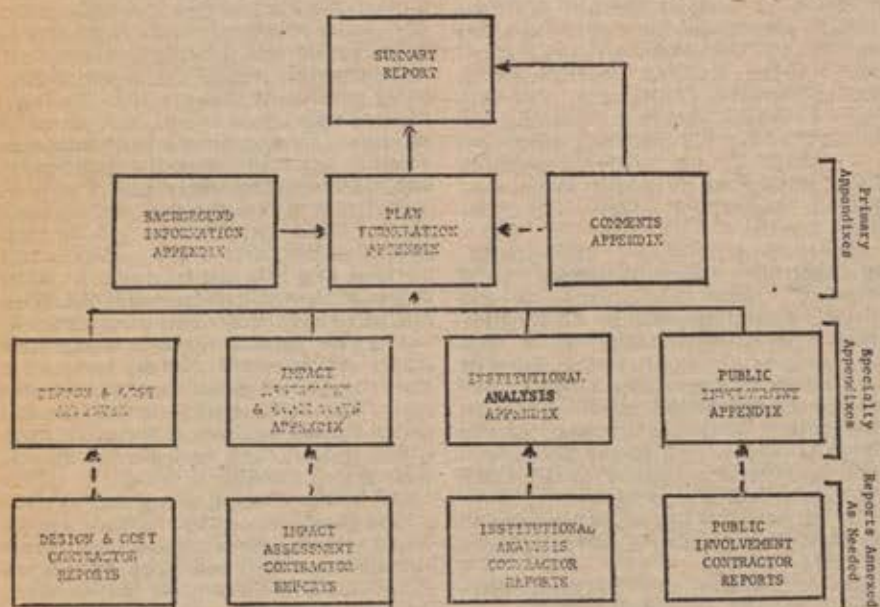
responsibility of the Corps of Engineers, it is strongly recommended that the appendices be written by Corps personnel. A consultant's report should be attached as an annex to an appendix to reference technical information. A consultant's report should not comprise the appendix.

(2) *Summary report.* The Summary Report shall be a well-illustrated document written for the non-technical reader, designed to be read in an hour or less. The document should essentially be a summary of the Plan Formulation Appendix. It should describe the study area highlighting problems, issues, and concerns, explain how the study was conducted, explain the final alternatives including a summary of impacts and present the final recommendations.

TABLE 1.—Conceptual combined effort breakdown for a 3-yr study period

Effort component	Percent of total combined efforts		
	Low	Average	High
1. Preparation of a plan of study...	5	6	7
2. Plan formulation and evaluation:			
a. Problem identification...	7	9	11
b. Formulation of alternatives...	20	25	30
c. Impact assessment and evaluation...	20	25	30
d. Public involvement and institutional studies...	19	21	23
3. Study documentation and report preparation...	8	10	12
4. Study management...	3	4	5
Total	100		

FIGURE 1. Study Report Organization and Content



(3) *Background information appendix.* This appendix provides a discussion of the existing regional profile and the desired future condition(s), and an identification of the specific problems, issues, needs and concerns to which solutions may be addressed.

(4) *Plan formulation appendix.* This appendix documents the articulation of significant regional problems, concerns, issues, and planning objectives; the formulation of alternative urban water resource plans; the design of component systems; impact assessment; evaluation; and the iterative planning process. Also contained are implementation arrangements, a comparison of final alternative plans and their impacts. A summary of the public involvement program shall include a discussion of how it interacted with the planning process. This appendix, summarizing the specialty appendices is the key to the entire report, throughout the text of the report as decisions are described, the reasons for making each decision should be fully explained.

(5) *Comments appendix.* This appendix documents the views of interested parties based on their review of the draft Study Report and responses to those comments by the reporting officer.

(6) *Design and cost appendix.* This appendix contains the technical detail supporting the engineering aspects of system components. As a minimum, the following items should be included for each system developed—

- All assumptions used.
- A description of all unit processes and components considered for inclusion and the reasons for acceptance or rejection.
- A range of the technical effectiveness and reliability for each engineered component.
- Schematics showing final configuration of engineered components, including projected performance of each component.
- All design parameters used.
- All cost curves or other estimating devices used, including how they were developed.

(vii) An annotated bibliography.

(7) *Impact assessment and evaluation appendix.* This appendix presents a rationale which illustrates how and why alternatives were accepted, reformulated, or rejected. The methodology used should be explained in sufficient detail to permit the readers to justify the impacts presented or form their own opinion as to what the impact should be. The use of a matrix in the final report in and of itself is acceptable only as a means of presenting verbal information in an organized manner. Mathematical matrices are inadequate as the only tool for measuring the impacts of alternative plans. In like manner, an arbitrary number range such as plus five to minus five, is inadequate for assessment or evaluation purposes and should not be used in any display. The use of such generalized values precludes meaningful comparison of the significance and specificity of impacts.

(8) *Institutional analysis appendix.* This appendix contains an analysis of the interaction of all the plans considered on existing or proposed institutions and organizations. It should include a delineation of proposed institutional and organizational modifications and/or conversely, how the plans was subsequently modified to accommodate the institution. Additionally, the rejection of plans based upon institutional or organizational problems should be discussed.

(9) *Public involvement appendix.* This appendix documents the chronological development and execution of the public involvement program as required by ER 1105-2-800. This program should begin during the development of the Plan of Study. This appendix should include an analysis of the public involvement program and the public's response to it, modifications to the program based on public response and acceptance, and modification or rejection of plans based on public response.

(10) *Ancillary documents.* These documents are not generally included in the Study Report, but accompany that report when formally transmitted to OCE for review. The reporting officer and the Division Engineer shall submit the same ancillary documents as required for other survey reports.

#### § 264.23 Effective date.

This regulation is effective on November 3, 1975, as published in the FEDERAL REGISTER on that date and codified as 33 CFR 264.

#### APPENDIX A

JOINT AGREEMENT FOR INTERAGENCY COORDINATION OF AREAWIDE WASTE TREATMENT MANAGEMENT PLANNING ASSISTANCE TO STATE AND LOCAL GOVERNMENT BETWEEN THE ENVIRONMENTAL PROTECTION AGENCY AND THE DEPARTMENT OF THE ARMY

#### Purpose

This interagency agreement defines the relationship between areawide waste treatment management planning conducted by the Army Corps of Engineers under its Urban Studies Program and areawide waste treatment management planning authorized under Title II of the Federal Water Pollution Control Act Amendments of 1972 and ad-



ministered by the Environmental Protection Agency. The agreement also acknowledges that the Corps of Engineers may provide technical assistance in 208 planning outside the Army Urban Studies Program.

The Army Corps of Engineers is authorized by specific resolutions of Public Works Committee of Congress to conduct regional wastewater management planning for designated urban regions of the United States. Such planning is normally conducted in conjunction with other urban water resources problems as part of the Corps of Engineers Urban Studies Program. Further, section 208 of the Federal Water Pollution Control Act Amendments of 1972 (Pub. L. 92-500) authorizes the Secretary of the Army, acting through the Chief of Engineers, to provide consulting and technical assistance to planning agencies designated under section 208(a) in developing and operating a continuing areawide waste treatment management planning process under section 208(b) upon request of the Governor or the designated planning agency.

The Administrator of the Environmental Protection Agency, in fulfilling his responsibility for administering Pub. L. 92-500, is required by the Act to encourage and facilitate the development and implementation of areawide waste treatment management plans. Subsection 208(f) authorizes the Administrator to make grants to designated planning agencies to develop and operate continuing areawide wastetreatment management planning processes in accordance with specific requirements of section 208. The Act further authorizes the Administrator under subsection 208(g) to consult with and provide technical assistance to a designated agency upon request of the Governor or the designated 208 agency.

While each Federal agency executes its areawide waste treatment planning responsibilities in a different manner—the Army through technical assistance and the Environmental Protection Agency primarily through grants, the two programs are compatible and are designed to achieve the same goal. The provisions delineated in this agreement are intended to provide guidance to representatives of both agencies in instances where the two programs may involve the same geographical area.

#### Objectives

A common goal of both agencies is to enhance the capability of local and State governments in developing regional wastewater management planning processes which will achieve the National water quality goals stipulated in Pub. L. 92-500. In accordance with this goal, three specific objectives have been established for the areawide waste treatment management planning program. These are:

- (1) Development of a local planning process which can successfully conduct the required planning on an areawide scale;
- (2) Development of an initial plan meeting requirements of the Act; and,
- (3) Establishment of a continuing planning process at the regional level which can successfully evaluate the current plan and appropriately update such a plan to allow continued annual recertification by the Governor as required by the Act.

#### Coordinating Provisions

1. Planning by the Corps of Engineers under the provisions of section 208 will be to the level of precision required by the Administrator for approval of any plan certified and submitted to him by any Governor under section 208.

2. Acceptance of request by the Secretary of the Army to provide consultation or technical assistance in areawide wastewater management planning is contingent upon the re-

sources and manpower available to the Corps of Engineers to provide such assistance.

3. The Corps of Engineers will assign appropriate priority to planning required by section 208 to enable the designated planning agency and/or the Governor to comply with time limitations prescribed by the Regional Administrator, Environmental Protection Agency.

4. The existence of an urban study resolution shall not preclude approval of a 208 designation for an area, nor shall approval of a 208 designation for an area preclude funding for an urban study.

5. In no case shall there be a duplication of Environmental Protection Agency and Corps of Engineers funding for the same specific task in development of a wastewater management plan or planning process under Title II of the Federal Water Pollution Control Act Amendments of 1972. Where a potential duplication of the same specific task is identified, applicable Corps of Engineers and Environmental Protection Agency budgets will be appropriately modified.

6. All section 208 planning activities undertaken by the Corps of Engineers will be set forth in a plan of study approved by the designated local planning agency, the State and the Environmental Protection Agency Regional Administrator. Such planning will be in accordance with all applicable laws, Environmental Protection Agency guidelines, criteria, and regulations, as well as applicable State and local laws and regulations.

7. Where plans of study under the Army Urban Studies Program have been approved by local officials and the Environmental Protection Agency prior to the 208 designation, the plans of study for the 208 project and the Urban Study will be reviewed to identify the additional planning needed to meet 208 requirements. The urban study will be completed in accordance with provisions of the original plan of study as revised to include any additional section 208 requirements requested by the designated planning agency.

8. Where an urban study has been authorized and funded for an area also designated under section 208 and a plan of study has not been approved, the Corps of Engineers will delete areawide wastewater planning from the urban study if the designated planning agency elects to accomplish such planning using section 208 grant funds. Under such conditions, the Corps of Engineers will assess the remaining water resources problems to determine the feasibility of undertaking an urban study. Conversely, if the designated planning agency requests the Corps of Engineers to conduct the section 208 planning as an integral part of the urban study, a plan of study will be developed to meet the requirements of the designated 208 planning agency, subject to the approval of the Environmental Protection Agency Regional Administrator. If agreement concerning the plan of study for the 208 designated area cannot be set forth in a mutually agreeable manner, wastewater planning for the area will be deleted from the urban study and accomplished by the designated planning agency. As above, the Corps of Engineers would then assess the feasibility of undertaking the remaining facets of the urban study.

9. Technical assistance provided by the Corps of Engineers may include the development of alternative plans or portions of plans for meeting the provisions of section 208(b). The decision to adopt or implement specific alternatives or proposals generated by this planning is the responsibility of the designated planning and the designated management agency(ies).

10. Technical assistance provided by the Corps of Engineers for designated 208 areas not included in the urban studies programs

will be accomplished as directed by the designated planning agency.

11. Upon request of the Governor(s), and upon agreement of the Regional Administrator, Environmental Protection Agency, the Army Corps of Engineers may consult with and provide technical assistance on a reimbursable basis in development State plans for areas not designated under section 208(a).

#### Funding Policy

Funding policy is based on the premise that a designated agency needs to fully participate in the planning process and to build planning expertise.

1. Section 208 studies initiated through 30 June 1975 can be at 100% Federal expense except that costs and effort provided by non-Federal interests prior to designation will not be reimbursed. For areawide wastewater management studies of designated areas initiated through 30 June 1975, the source of Federal funds by planning category will be as follows:

a. Section 208 planning included in Army urban studies will be funded 75 percent by Army and 25 percent by the Environmental Protection Agency. (The funds from the Environmental Protection Agency will be granted to the designated agency for internal activities.) Section 208 planning added to planning already included in Army urban studies will be funded 100 percent by the Environmental Protection Agency.

b. Section 208 planning by the Corps of Engineers in areas not associated with the Army Urban Studies Program will be funded 100 percent by EPA.

2. In areas not designated under section 208, wastewater management planning conducted by the Corps as a part of an urban study will be cost shared at 75 percent Federal/25 percent non-Federal.

#### APPENDIX B

##### APPLICATION OF THE MULTIOBJECTIVE PLANNING FRAMEWORK TO THE URBAN STUDIES PROGRAM

1. *General.* The policies and principles established in the ER 1105-2-200 Series of planning regulations are generally applicable to studies conducted in the Urban Studies Program. A discussion of the planning stages and tasks, as they relate to this Program follows.

2. *Stages of Plan Development.* Urban studies will be undertaken in three time-phased stages covering 36 months. This short time period is necessary to meet the deadlines of para 3a as well as to keep the plans relevant in light of rapidly changing urban problems. The planning process is divided into three stages to facilitate management by specifying at least three points for monitoring study progress and scope while providing for the orderly development of plans. Each stage has specific study outputs. These are intended to provide for the sequential review of study progress and to serve as a basis for making decisions about the nature, scope, and direction of subsequent study activities.

a. *Stage 1—The Plan of Study.* This stage should result in a clear indication of the scope of the urban study, the precise study area planning objectives it will pursue, specific constraints that have been identified, and how subsequent planning activities will be handled. The product of this stage will be the sections entitled, "Stage 1 Study Results" and "Plan of Study Coordination" of the Plan of Study document. Additional information on these and other sections of the Plans of Study is contained in Appendix D.

b. *Stage 2—Development of Intermediate Plans.* This stage concentrates on a more thorough analysis of the problems, as well as the development of a preliminary range of solutions to the problems. It is not in-



conceivable that more than 50 alternatives will be developed in this stage at a very gross level of detail. Those showing promise may be carried forward, while others may be discarded due to adverse public reaction, or engineering or other reasons.

(1) The initial development of alternatives should not be unduly constrained during this stage so that any practicable ways for achieving the study area planning objectives are not overlooked. Plans developed which are contrary to existing public preferences permit a comparison showing the social, environmental, and financial cost of the preferences. A public reassessment of their preferences may result in a changing of those preferences to accommodate new or innovative concepts.

(2) The product of this stage should be the preparation of the draft Background Information Appendix, and a chronological draft of the Plan Formulation Appendix covering the first 16 to 20 months of the study. Analysis of these documents by all study participants, Division, and HQDA (DAEN-CWP) WASH DC 20314 should form the basis for decisions regarding how planning should be accomplished in Stage 3. A detailed description of the contents of these appendices is contained in para 14b.

c. *Stage 3—Development of Final Plans.* This stage concentrates on developing an increasing level of detail on a decreasing number of alternative urban water resource plans. The reduction in the number of plans under consideration is accomplished through a screening process primarily dependent on both through public involvement and professional-technical evaluation. The level of detail associated with the final plans should be comparable between capital improvements associated with the same water resource function, such as navigation; however, the level of detail associated with wastewater management may be different than the level of detail associated with navigation whereas all navigation improvements have the same level of detail. The level of detail for water resource functions that are part of the Corps' traditional role is determined by the Engineer Regulations concerning project authorization. The level of detail for wastewater management is determined by EPA regulations and guidance. The product of Stage 3 is the final study report. A detailed description of this document is contained in para 14b.

3. *Planning Tasks.* Planning will be conducted by carrying out four functional planning tasks during each of the three stages of plan development. These tasks are problem identification, formulation of alternatives, impact assessment, and evaluation. It may be necessary and even desirable to repeat or iterate these tasks a number of times during any one stage. Succeeding iterations should reflect an increasing level of effort, detail, and refinement. In addition, iterations also provide for incorporating additional information and for broadening the scope of the urban study as it progresses.

a. *Problem Identification.* The purpose of problem identification is to identify the range of problems the study effort will address and to establish the study area planning objectives for the urban study. The planning objectives provide the direction for formulation of alternate plans and form the basis for assessing and evaluating alternatives. Problem identification involves the following activities:

- (1) Identify public concerns.
- (2) Analyze resource management problems.
- (3) Define the study area.
- (4) Describe the base condition.
- (5) Project future conditions.

(6) Establish study area planning objectives.

b. *Formulation of Alternatives.* The purpose of formulating alternative plans is to develop and design complete urban water resource management systems which satisfy the planning objectives. It is likely that wastewater management measures would be the keystone of the formulation effort. Formulation involves the following activities:

- (1) Identify the full range of resource management measures available for problem solution, including measures favored by representative segments of the public.
- (2) Categories applicable management measures.
- (3) Develop plans.
- (4) Consider plans of others.

c. *Impact Assessment.* The purpose of impact, or effect, assessment is to identify and measure the changes expected to result from different alternative plans. Impacts are identified by comparing all the components of an alternative plan to the base condition of the region to determine if economic, social, and environmental changes from the conditions are expected to occur with the plan. Impact assessment involves the following activities:

- (1) Determine sources of impacts, such as inputs, outputs or facilities.
- (2) Identify and trace impacts.
- (3) Specify incidence of impacts, including spatial distribution, and when they will occur.
- (4) Measure impacts.

d. *Evaluation.* The purpose of evaluation is to determine how well the alternative urban water resources plans achieve the planning objectives, and how the plans affect other related problems. Evaluation provides the basis for trading off among the alternatives so that recommended actions can be made. Evaluating alternative urban study plans is contingent upon reflecting publicly-held values to determine which are the beneficial and adverse aspects of each plan. Evaluation involves the following activities:

- (1) Appraise planning objective fulfillment.
- (2) Appraise system of accounts fulfillment.
- (3) Apply specified evaluation criteria to include testing acceptability, effectiveness, and completeness.
- (4) Perform trade off analysis.
- (5) Designate NED and EQ plans from only those alternative plans, or alternative plan components, considered for possible implementation by the Corps or other Federal agency programs subject to the Water Resources Council Principles and Standards. Designations are not to be used for plans, or plan components, considered for possible implementation under other Federal agency, State, and local programs to which the Principles and Standards are not applicable.
- (6) Determine need for repeating planning tasks.

#### APPENDIX C

##### INSTITUTIONAL ANALYSIS AND ARRANGEMENTS

1. *Purpose.* The purpose of this appendix is to establish the framework for performing institutional analysis and presenting institutional arrangements.

2. *Relationship of Institutions to Urban Studies.* An institution is a process or organization that is highly structured, systematized and stable. It may grow out of mores such as common law, or be consciously created such as constitutional law. An institution may be a type of group, or it may be a formalized practice or procedure. Applying these definitions to water resources planning, and particularly to urban studies, the result is a focus for institutional analysis that includes not only organizations such as plan-

ning agencies, water commissions, and special interest groups, but also the processes and relationships that are involved such as home rule, tax structures, and increased financial obligations. Substantial public involvement is essential in performing, the latter part of this analysis, inasmuch as public attitudes interact heavily with these non-organizational institutions. Institutional analysis is the process whereby institutions directly or indirectly related to water resource planning and management are identified and their capability to implement alternative plans is assessed. Institutional arrangements are those tasks or procedures which suggest how existing institutions should be utilized, or modified, new institutions created, or existing institutions abandoned in order to facilitate implementation of the plan.

3. *Task Areas.* Institutional analysis parallels this overall planning process, moving from broad data collection to detailed specification of arrangements. Analysis is composed of three major task areas, which are listed below and discussed in paragraphs 4 through 6.

a. *Establishment of an institutional data base.*

b. *Analysis and evaluation of institutional capabilities as part of the implementation program.*

c. *Presentation of alternative institutional arrangements as part of the implementation program.*

4. *Institutional Data Base.* Establishing the necessary data base entails the identification and description of a cross-section of relevant institutions. The description of institutions should concentrate on financing capabilities, legal authorities, programs and policies, existing capabilities to implement programs for management and capital facilities, and availability of competent personnel in formal organizations and agencies, as well as widespread attitudes and local customs relevant to water resources planning. If a survey exceeding ten contacts is required, HQDA (DAEN-CWP) WASH DC 20314 must be contacted prior to the survey. The Office of Management and Budget must approve all surveys exceeding ten contacts. (reference to OCE Supplement AR 335-15).

5. *Analysis and Evaluation of Institutional Capabilities.* a. This task is the core component of the institutional studies. It involves the analysis of institutional requirements imposed by alternative plans and the capability of existing institutions to meet these requirements.

b. In Stage 2 the requirements that plans would place on existing institutions should be identified. Particular attention should be given to the following items.

- (1) Formal organizations and agencies.
- (2) Powers and authorities of existing institutions, to include legal bases and considerations in both functions and geographic areas.
- (3) Major programs and policies of existing institutions.

(4) Regional financing capabilities.

c. As planning continues, the capability of existing institutions, to implement alternative plans is assessed. The assessment may lead to the conclusion that some new institutions will be required in order to implement some or all alternative plans. Because institutional studies are an integral part of plan formulation and evaluation, they must be considered along with social, economic, environmental, and technical impacts throughout the planning process.

d. Active public involvement is essential to accomplish this task. Interest groups and community groups can be of particular value in assessing the potential for change. More-



over, given the definition of public as any non-Corps of Engineers entity, organizations are public. The inclusion of these publics in the planning process will provide critical input to the institutional analysis.

6. *Presentation of Institutional Arrangements.* Each alternative urban water resources plan must contain at least two alternative implementation arrangements, which may require the presentation of two different institutional arrangements. Those institutional arrangements peculiar to a specific capital improvement or management program should be included in the discussion of that component. Those arrangements concerning the entire plan, should be discussed in an overview paragraph. One implementation arrangement may be used to implement more than one plan. For instance, plan A may have implementation arrangement X and Y. But arrangement X may be used by plans A, C, D, and E whereas arrangement Y may be used by plan A, B, D, and F.

# APPENDIX D

## THE PLAN OF STUDY (POS)

1. *Purpose.* The purpose of this appendix is to establish a general format and content for Plans of Study to be prepared under the Urban Studies Program. Included are examples of tables and schedules to be incorporated in the POS. Single purpose wastewater management planning studies conducted by the Corps of Engineers under either Congressional resolution or pursuant to section 208 of Pub. L. 92-500 will also follow this format and content.

2. *Plan of Study Objectives.* Each POS should fulfill three objectives.

a. Document the planning efforts of Stage 1.

b. Provide a tool to facilitate study management and review of study progress.

c. Serve as an agreement of participation by all pertinent Federal and non-Federal agencies and other publics concurring in its content.

3. *Element of a Plan of Study.* Each POS should have the same format to facilitate review and comparability. Accordingly, each POS should contain the following four sections, discussed in paras. 4-7 below.

a. Justification for the Study.

b. Stage 1 Study Results.

c. Study Effort Allocation.

d. Plan of Study Coordination.

4. *Justification for the Study.* This section of the POS should contain the following three subsections.

a. *Introduction.* The Introduction should briefly explain the purpose of the POS and the relationship of the POS to study participants.

b. *Authority.* The authority for making the study should be briefly stated. Copies of resolutions should be included as an Appendix to the POS.

c. *Program Objectives.* This subsection should explain the objectives to the Corps of Engineers' Urban Studies Program or single purpose wastewater or Section 208 study as they broadly relate to the study area.

5. *Stage 1 Study Results.* This section should report on the initial stage of the study. It should provide a dynamic framework of substantive information upon which to structure the study. The framework is based upon a broad survey of issues and concerns leading to preliminary definition and analysis of the problems. The public plays an essential role in providing this information. The following subsections should be included.

a. *Identification of the Study Area.* A brief overview of the existing regional profile of the study area is essential. Additionally, reasons for selecting the boundaries of the

study area should be discussed along with the relationship of the study area to surrounding areas. For instance, the quality and quantity of drainage waters originating upstream may affect the study area as the drainage water flows through it. This cause-effect relationship should be discussed.

b. *Description of Existing Problems.* A discussion of the existing problems within the study area is necessary. Issues and concerns related both directly and indirectly to water resources must be included.

c. *Statement of Study Planning Objectives.* Based on the description of problems in the previous paragraph, preliminary water resources planning objectives should be identified. These should draw upon the Urban Studies Program objectives, national planning objectives from para 3d and the existing local and regional objectives. All the above objectives and problems should be combined into a set of unified and concise study planning objectives. The specificity of these study planning objectives is important. Phrases such as "wastewater management" or "navigation" are insufficient. Rather, statements such as, "Upgrade the wastewater management systems in the study area to meet the 1977, 1983, and 1985 goals of Pub. L. 92-500" or "Reduce the incidence and amounts of damages resulting from flooding ----- Creek drainage area of City, State" are required.

d. *Current Planning and Related Data.* Included in this section should be a resume of planning activities currently under way or authorized within the study area by Federal, State and local agencies. Sources of available data and pertinent reports should be shown. It is probable that much of this information will be obtained as a result of contacts made during coordination of the POS.

e. *Public Involvement Strategy.* Because public involvement must begin as soon as the study is initiated, the public involvement strategy for the entire study should be outlined as soon as possible. Tentative dates for public meetings based on expected progress of the study should be developed. Preparation of brochures, development of workshops, and other activities for involving the public in the planning process also should be discussed. All of this information should be included in this subsection.

f. *Institutional Arrangements.* Basic information on existing institutional arrangements should be included. Significant authorities, spatial and functional responsibilities and institutional relationships, should be discussed to establish a basic framework and usable starting points for subsequent study and analysis.

g. *Study Management.* This subsection must set forth the following information.

(1) The POS must clearly specify who has the final authority for the administration and management of the study. Is it the District Engineer, Chairman of the local Council of Governments, or other Federal or non-Federal agency representative? Irrespective of who has the final study authority, the District Engineer will retain the responsibility for the Corps portion of the total effort.

(2) The POS must identify the day-to-day study manager. The members of the study team and their areas of expertise must also be identified. If members of other Federal or non-Federal agencies augment the study team, these persons should be identified.

(3) Direct liaison with other Federal and non-Federal agencies should be documented. The study team's points-of-contact at the working level in these other agencies should be identified.

(4) The POS should contain a brief description of coordinating committees, or similar groups, which will be formed for the study. The description should include a discussion of how the inputs of these groups

are going to be used, and whether these groups are going to act in an advisory, a managerial, or an administrative capacity.

(5) The POS should clearly identify who is responsible for monitoring the progress of the study and comparing progress to the time, cost, and work effort schedules set forth in the POS. The parties responsible for modifying, and the parties responsible for approving any modifications to, the POS should also be identified.

6. *Study Effort Allocation.* In order to serve as a tool to facilitate study management and review, a POS must contain tables which show the allocation of costs and efforts to specific work elements. To promote comparability, this paragraph specifies those tables.

a. *Major Work Item.* The total study effort should be broken down into major work items. Examples of major work items are flood control and flood plain management, regional harbors and waterways, wastewater management, water supply management, and conservation of fish and wildlife resources. These major work items will be categorized as—

(1) *Specific Work Tasks.* Work tasks specify discrete duties to which costs or efforts may be allocated by individual study participants. Specific work tasks are prescribed in Table D-4 (located at the end of this appendix) for the Wastewater Management major work item. These work tasks have been agreed upon by the Corps, EPA, and the Office of Management and Budget (OMB). Consequently, deviation from these shall not occur without the written approval of HQDA (DAEN-CWP) WASH DC 20314. Specific work tasks for other major work items will vary from study to study.

(2) *Effort Components.* Work tasks are grouped into effort components which facilitate study management and comparability. The effort components are displayed in Table D-1 (located at the end of this appendix). Table 1 shows the percentage of effort ranges considered reasonable for a balanced urban study.

b. *Scheduling of Work Tasks.* Scheduling for the study must be based on the assumption that funding will be available to meet the required time frame and the most efficient course of action spelled out. Selection of the specific method of scheduling work tasks will be left to the reporting officer; however, the method selected should establish priorities of activities and key check points in consonance with the procedures contained in this FR. Where two or more study participants are responsible for a single work task, the completion date of each participant's share of the work task shall be entered in the tables.

c. *Study Costs.* The total cost of each work task must be estimated and assigned to the responsible Federal or non-Federal study participant. Where two or more participants are responsible for a work task, the total cost for the task will be split to illustrate each participant's share. In the context of the tables, "Total costs" is equivalent to "total combined efforts", defined in para 14a(3).

(1) *Table Format.* (a) Tables D-1, D-2, and D-3 (located at the end of this appendix) will be developed for each study. These tables summarize study effort allocation for an urban study. Table D-1 contains total study costs by major work items and effort component. Table D-2 summarizes Federal and non-Federal efforts by major work item. Table D-3 summarizes Federal and non-Federal efforts by effort component. The right hand column of Table D-2 should be identical to the bottom row of Table D-1. The right hand column of Table D-3 should be identical to the right hand column of Table D-1.

(b) A table identical to Table D-3 should be developed for each major work item. An example of a table for the major work item of Wastewater Management is labeled Table



D-3a. Summarizing all of the entries in these tables for each major work item in the study will generate the input for Tables D-1, D-2, and D-3. Consequently, these tables should be some of the first tables developed after the allocated study cost, Table D-6, is determined.

(c) A specific series of tables, Table D-4 will be developed only for the wastewater management major work item. The row and columnar headings and "Work Element/Descriptions" in the POS must be identical to those contained in Table D-4.

(d) A series of seven tables, Table D-5, for each major work item shall be developed if

formally requested on a case-by-case basis by HQDA (DAEN-CWP) WASH DC 20314. In no case shall the format of Table D-5 be used as a substitute for the format specified for wastewater management in Table D-4. However, Table D-5 for wastewater management may be required in addition to Table D-4.

(2) *Cost Allocation.* Particular attention must be given to allocating wastewater management costs, because of the potential which wastewater management has for concurrently solving other urban water resource problems. The cost to be allocated to wastewater management shall be based on

an equitable distribution of total urban study costs among all major work items. The procedures to be followed in allocating the urban study costs to each major work item is a modified form of the Separable Costs-Remaining Benefits (SCRB) method now being used for project construction cost allocation. In no case shall any other procedure be used without specific written approval from HQDA (DAEN-CWP) WASH DC 20314. The above shall not be construed to supersede or replace existing project cost allocation procedures. Table D-6 shall be used to allocate urban study costs as follows:

TABLE D-1.—Total study costs by major work item and effort component

Effort components—work items	Flood control and flood plain management	Lake, ocean, and estuarine restoration and protection	Wastewater management	Water supply management	Navigation (commercial and recreational)	Water related recreation	Conservation of fish and wildlife resources	Total for effort component
1. Preparation of a plan of study.....								
2. Plan formulation and evaluation.....								
a. Problem identification.....								
b. Formulation of alternatives.....								
c. Impact assessment and evaluation.....								
d. Public involvement and institutional studies.....								
3. Study documentation and report preparation.....								
4. Study management.....								
Total for work item.....								

NOTES.—All table entries should be in thousands of dollars (\$10<sup>3</sup>).

Table 1 contains a conceptual combined effort breakdown for a 3-yr study period. Total study costs—total combined efforts—all corps efforts plus all other Federal

efforts plus all non-Federal efforts plus all non-Corps of Engineer dollars disbursed in lieu of providing efforts. Effort—person-years of work multiplied by the annual cost of employing a person with a specified level of expertise.

TABLE D-2.—Federal and non-Federal efforts by major work item—summary

Major work items	Federal		Non-Federal		Total for major work items	
	Man-years	Cost (in thousands of dollars)	Man-years	Cost (in thousands of dollars)	Man-years	Cost (in thousands of dollars)
Flood control and flood plain management.....						
Lake, ocean, and estuarine restoration and protection.....						
Wastewater management.....						
Water supply management.....						
Navigation (commercial and recreational).....						
Water-related recreation.....						
Conservation of fish and wildlife resources.....						
Total.....						

TABLE D-3.—Federal and non-Federal efforts—summary

Effort component	Federal		Non-Federal		Total for effort component	
	Man-years	Cost (in thousands of dollars)	Man-years	Cost (in thousands of dollars)	Man-years	Cost (in thousands of dollars)
1. Preparation of a plan of study.....						
2. Plan formulation and evaluation.....						
a. Problem identification.....						
b. Formulation of alternatives.....						
c. Impact assessment and evaluation.....						
d. Public involvement and institutional studies.....						
3. Study documentation and report preparation.....						
4. Study Management.....						
Total.....						

NOTE.—A similar table will be developed for each major work item. Table D-3A, next page is an example.



TABLE D-3A.—Work item: Wastewater management Federal and non-Federal efforts

Effort component	Federal		Non-Federal		Total for effort component	
	Man-years	Cost (in thousands of dollars)	Man-years	Cost (in thousands of dollars)	Man-years	Cost (in thousands of dollars)
1. Preparation of a plan of study.....						
2. Plan formulation and evaluation.....						
a. Problem identification.....						
b. Formulation of alternatives.....						
c. Impact assessment and evaluation.....						
d. Public involvement and institutional studies.....						
3. Study documentation and report preparation.....						
4. Study management.....						
Total for effort.....						

NOTES.—A similar table should be developed for each major work item. Developing this table for wastewater management does not fulfill the same requirement set forth in table D-4. Both tables must be developed although some information is duplicated.

TABLE D-4.—Federal and non-Federal effort—summary

	Federal		Non-Federal		Total	
	Man-years	Cost (in thousands of dollars)	Man-years	Cost (in thousands of dollars)	Man-years	Cost (in thousands of dollars)
A. Public involvement program.....						
B. Data collection and projection for economics, water quality, and environmental and land use.....						
C. Development of alternative basin and area-wide plans.....						
D. Evaluation, comparison, and selection of basin and area-wide plans.....						
E. Implementation arrangements, including institutions needed for managing, financing, planning, construction, operation, and maintenance.....						
F. Report preparation.....						
Total.....						

NOTE.—Table D-4 applies only to the wastewater management major work item. All other major works items do not need a similar table constructed unless formally requested by HQDA (DAEN-CWP), Washington, D.C. 20314. In the event that a field office is formally requested to develop a similar level of detail on a major work item other than waste-water management, the format contained in table D-5 will be used.

TABLE D-4A.—Federal and non-Federal effort public involvement program

Work element/description	Responsible agency <sup>1</sup>	Cost		Completion date
		In man-years	In thousands of dollars	
	(1)	(2)	(3)	(4)
1. Develop a public involvement program plan.....				
2. Compilation of mailing list of individuals and organizations.....				
3. Arrangements for meeting places.....				
4. Personnel to conduct workshops.....				
5. Personnel to do work with news media.....				
6. Preparation of public announcement.....				
7. Preparation of brochures, newsletters, etc.....				
8. Development of plan of study.....				
Total:				
Federal.....				
Non-Federal.....				

<sup>1</sup> Agency entry should be Corps of Engineers, or an agency name. Code agency name with (F) or (NF) to denote Federal or non-Federal agency, respectively.

<sup>2</sup> Costs should be shown for each agency participating in a work element.

<sup>3</sup> Completion date should be shown for each agency participating in a work element.



## RULES AND REGULATIONS

TABLE D-4B.—Federal and non-Federal effort data collection and projection

Work element/description	Responsible agency	Cost		Completion date
		In man-years	In thousands of dollars	
	(1)	(2)	(3)	(4)
1. Historical and projected population and economic data on a county basis:				
a. Urban and rural population.....				
b. Industrial employment by 2- and 3-digit SIC....				
c. Agricultural crop acreage and type of cropping....				
d. Compare with OBERs projections.....				
2. Historical and projected water use and facilities on a county basis:				
a. Municipal.....				
b. Industrial by census industrial sector.....				
c. Irrigation.....				
d. Review and adjust where necessary.....				
3. Historical and projected waste sources and facilities showing flow rate, constituents and concentrations:				
a. Public and municipal.....				
b. Industrial.....				
c. Irrigation return flows.....				
d. Oil and gas field operations.....				
e. Urban and rural storm runoff.....				
f. Sanitary landfills.....				
g. Open dumps.....				
h. Field collection and analysis of water quality data where none available.....				
4. Existing and projected land use plans:				
a. Adopted land-use plans.....				
b. Best estimates where none exist.....				
5. Surface water quality data:				
a. Description of data needed.....				
b. Prepare map showing monitoring stations.....				
c. List water quality parameters monitored.....				
d. Inventory existing violators.....				
e. Identify, locate, and obtain additional data.....				
6. Stream standards:				
a. Description of existing standards.....				
b. Identification of inadequacies, if any.....				
c. Tentative revised standards by stream reach and for all necessary parameters.....				
7. Water rights criteria or constraints that may affect design of upstream treatment systems.....				
8. Groundwater quality and quantity:				
a. Availability by county and/or aquifer from existing sources with refinements where possible.....				
b. Recommend areas which should be considered for groundwater recharge with treated wastewater.....				
9. Provide data on existing significant botanical, zoological, archeological, and historical basin features.....				
10. Review, select and implement a data handling and storage program.....				
11. Data and inventory assessment:				
a. Assess for validity.....				
b. Assess for coverage.....				
c. Determine data gaps.....				
d. Prepare program for incremental data acquisition.....				
e. Provide a complete inventory of data source.....				
Total:				
Federal.....				
Non-Federal.....				

Footnotes: See Table D-4a.

TABLE D-4C.—Federal and non-Federal effort development of alternative basin and area-wide plans

Work element/description	Responsible agency	Cost		Completion date
		In man-years	In thousands of dollars	
	(1)	(2)	(3)	(4)
1. Identify and designate the wastewater management planning areas.....				
2. Basin model:				
a. Review, test, select and adopt model.....				
b. Adapt, verify, and refine model to river basin conditions.....				
3. Alternatives to be developed:				
a. Develop wastewater management alternatives for each areawide planning area and for the basin to meet 2 goals:				
(1) Highest levels of wastewater treatment.....				
(2) Meet current requirements.....				
b. Alternatives to be developed include the following:				
(1) Land disposal.....				
(2) Biological and physical-chemical.....				
(3) Combinations of (1) and (2) including nonstructural.....				
c. Existing wastewater management plans will be utilized in developing 1 or more of the above alternatives.....				
Total:				
Federal.....				
Non-Federal.....				

Footnotes: See Table D-4a.



TABLE D-4D.—Federal and non-Federal effort evaluation, comparison, and selection of basin and area-wide plans

Work element/description	Responsible agency	Cost		Completion date
		In man-years	In thousands of dollars	
	(1)	(2)	(3)	(4)
1. Assess beneficial and adverse impacts of alternative areawide and basin plans:				
a. Economic.....				
b. Environmental.....				
c. Social.....				
d. Water rights.....				
e. Institutional/financial capabilities.....				
2. Compare performance of alternative plans.....				
3. Select area-wide and basin plan.....				
Total:				
Federal.....				
Non-Federal.....				

Footnotes: See Table D-4a.

TABLE D-4E.—Federal and non-Federal effort implementation arrangements

Work element/description	Responsible agency	Cost		Completion date
		In man-years	In thousands of dollars	
	(1)	(2)	(3)	(4)
1. Prepare construction schedules for each of the wastewater planning subareas to meet the highest priority short-range basin goals.				
2. Develop and recommend appropriate institutional arrangements for:				
a. Execution of advanced engineering and design and construction.....				
b. Operation and maintenance.....				
c. Major replacements.....				
d. Continuing planning and management responsibility.....				
3. Develop and recommend financing and cost sharing arrangements.....				
4. Planning committee adopts certifiable plan.....				
Total:				
Federal.....				
Non-Federal.....				

Footnotes: See Table D-4a.

TABLE D-4F.—Federal and non-Federal effort report preparation

Work element/description	Responsible agency	Cost		Completion date
		In man-years	In thousands of dollars	
	(1)	(2)	(3)	(4)
1. Report preparation.....				
Total:				
Federal.....				
Non-Federal.....				

Footnotes: See Table D-4a.



## RULES AND REGULATIONS

TABLE D-5.—Initials of work item—Federal and non-Federal efforts by work task

[Major work item: (specify). Effort component: (specify)]

Work task	Federal				Non-Federal			
	Responsible agency	Man-years	Cost (in thousands of dollars)	Completion date	Responsible agency	Man-years	Cost (in thousands of dollars)	Completion date
1. ....								
2. ....								
3. ....								
4. ....								
5. ....								
6. ....								
n. Specify as appropriate in detail to insure no duplication of efforts.								
Total								

NOTES.—A table should be developed for the following effort components:

1. Preparation of a plan of study.
- 2a. Problem identification.
- 2b. Formulation of alternatives.
- 2c. Impact assessment and evaluation.
- 2d. Public involvement and institutional studies.

3. Study documentation and report preparation.

4. Study management.

The format in table 2-5 will be used in the event that a field office is formally requested by HQDA (DAEN-CWP) Washington, D.C. 20314, to develop a similar level of detail to table 2-4 on a major work item other than wastewater management.

TABLE D-6.—Urban study cost allocation worksheet

Major work item, $x_i$	Flood control	Wastewater management	Water supply	Water based recreation	Total $\Sigma$ of line entries
1. Single purpose study cost					Not applicable.
2. Multiple purpose minus 1 major work item study cost					Do.
3. Separable study cost, USC less line 2					5.
4. Remaining study cost, line 1 less line 3					6.
5. Ratio of remaining study cost, remaining study cost for $x_i/w$					7.
6. Individual joint study cost, ( $y$ ) by ( $x_i$ ratio from line 5)					8.
7. Allocated study cost, line 3 plus line 6					9.

NOTES.— $\Sigma$  = the sum of. $x_i$  = a specific major work item.

USC = urban study cost. USC is not equal of line 1, single purpose study cost. USC

is the amount of money and effort from both Federal and non-Federal sources, available for the total multiple purpose study. USC =  $\Sigma$  = the total cost to be allocated.

(a) The single purpose study cost for each major work item,  $x_i$ , without regard for any multiple purpose problem solutions is estimated and entered in line 1.

(b) Estimate the cost to solve all major work items through multiple purpose planning. This is the total urban study cost (USC). The USC is the total estimated cost of the study to include Federal and non-Federal efforts.

(c) For each major work item,  $x_i$ , estimate the cost to solve all other remaining  $x_i$  through multiple-purpose planning. Enter this value, ( $N-1$ ), in line 2.

(d) The separable study cost of each major work item is estimated and entered in line 3. The separable cost for each major work item,  $x_i$ , is determined by subtracting from the USC, the cost estimated in line 2, above.

(e) The individual remaining study cost is the difference between the single purpose study costs, line 1, and the separable study costs, line 3. This value is entered in line 4.

(f) The ratio of the remaining study cost for each major work item,  $x_i$ , line 4, to the sum of all remaining study costs,  $w$ , is calculated and entered in line 5.

(g) The total joint study cost,  $y$ , is the difference between the USC and the sum of all separable costs,  $v$ .

(h) The total joint study costs,  $y$ , is distributed to each  $x_i$  by multiplying  $y$  times the ratio of remaining study cost for each  $x_i$ , line 5, and is entered in line 6.

(i) The allocated study cost for each major work item is the sum of the separable cost, line 3, and the individual joint study cost, line 6, for each major work item. The allocated study cost for each  $x_i$  is entered in line 7. The allocated study cost for each major work item should be entered in the bottom line to Table D-1, the right hand column of Table D-2, and the lower right entry in Tables D-3a, b, . . . , 1.

(j) The total allocated study cost,  $z$ , must be equal to the total urban study cost, USC. This is a useful check on the cost allocation process.

(k) Table D-6 should not be reproduced in the POS. Its primary value is as a worksheet for the cost allocation process. Table D-6, along with the supporting tables used to generate the estimates, will be kept in the files of the study office. This information should be available for review at the second OCE and Division review meeting held after beginning the POS. Table D-4 may be used to assist Corps planners in the development of single purpose costs for wastewater management. Other major work items are traditional Corps roles and should present much less of a problem than the initial single purpose wastewater management cost derivation. Based on total allocated costs for wastewater management, line 7 Table D-6, the single purpose entries can be modified to multiple purpose entries for inclusion in the POS.

(3) Eligible Costs. Certain types of funds may not be used to make up the required non-Federal contributions to the wastewater component of urban studies. The non-Federal share may be in terms of services, efforts, and/or cash contributions. Other Federal funds may not be used to make up any part of the non-Federal participation. Revenue-shared funds are not considered Federal Funds for this purpose. The non-Federal share must represent additional new effort specifically required in the conduct of the study. For example, the non-Federal share shall not include costs of data already collected or normally to be collected for an ongoing program, nor shall it include funds used for matching other Federal grants.

(4) Non-Federal Share Costs for Wastewater Management. Those non-Federal efforts which are included as separable costs under the wastewater management column on Table D-6 are countable for cost-sharing purposes. Those non-Federal efforts included as separable costs under any other major work item except wastewater management on Table D-6 are not countable for cost-sharing purposes. Those efforts which are included in the joint study costs are countable for cost-sharing purposes only up

to the amount of the joint study costs allocated to wastewater management. The sum of the countable non-Federal efforts described above must be greater than or equal to 25 percent of the allocated study cost for wastewater management, line 7 on Table D-6.

7. Plan of Study Coordination. This section of the POS must reflect in detail, the coordination and public involvement that has taken place during POS preparation. The following subsections will be included.

a. Stage 1 Public Involvement. This subsection should document the development and execution of the Stage 1 Public Involvement Program. It should set forth what the public involvement hoped to accomplish, how the involvement was executed, and the modifications in the involvement program that may have been necessary to accomplish the desired end.

b. Agency Approval. When completed, the POS will essentially represent a formal agreement with the other participants in the study. Therefore, work tasks, schedules, and cost allocations, particularly for wastewater management, will be coordinated with all study participants. Letters of assurance shall be obtained from each and every study participant which confirm that efforts and costs allocated in the tables to specific study participants will be provided. These letters will be reproduced in Appendix B of the POS. If written responses are not available, the situation should be discussed in detail.

Part 275 is added as follows:

Sec.	Purpose.
275.10	Applicability.
275.11	References.
275.12	Relationship of Pub. L. 92-500 to Corps studies.
275.13	National goals.
275.14	Effluent limitation deadlines.
275.15	Policy on effluent limitations commensurate with 1985 goal.
275.16	Urban drainage.



- Sec.  
275.18 Reuse.  
275.19 Sewer system evaluation.  
275.20 Cost estimates.  
275.21 Engineering economic analysis.  
275.22 Effective date.  
Appendix A  
Appendix B  
Appendix C  
Appendix D  
Appendix F

**AUTHORITY.** Pub. L. 92-500, 84 Stat. 91, 18 October 1972.

**§ 275.10 Purpose.**

This regulation provides guidance concerning water quality standards, goals, and deadlines to be used in developing wastewater management plans. It further provides policies for evaluation of wastewater collection and treatment facilities.

**§ 275.11 Applicability.**

This regulation is applicable to all OCE elements and all field operating agencies having Civil Works responsibilities.

**§ 275.12 References.**

(a) Pub. L. 92-500, Federal Water Pollution Control Act Amendments of 1972, 18 October 1972 (84 Stat. 91).

(b) ER 1105-2-14, Framework and River Basin Study Programs (33 CFR 252).

(c) ER 1105-2-22, Urban Studies Program (33 CFR 264).

**§ 275.13 Relationship of Pub. L. 92-500 to Corps studies.**

(a) Sections 101 and 301 of Pub. L. 92-500 establish a set of national water quality goals. These sections establish dates by which wastewater treatment facilities must achieve certain treatment levels; these dates 1977, and 1983 and the treatment levels to be met are discussed along with the goal for 1985 in §§ 275.14-275.18 of this regulation. Plans developed will provide for phased implementation of the wastewater elements needed over the planning period to meet the water quality goals and standards specified in §§ 275.14-275.18. It is particularly important that a clear, concise display of the costs and impacts associated with the phased achievement of each goal over time be presented.

(b) The plans prepared in the course of study shall assist local governments in fulfilling certain of the requirements of a Step 2 (Preparation of Construction Plans and Specifications) construction grant application for section 201, "Facilities Planning". Appendix A sets forth the 14 items to be covered in the Step 2 construction grant application. The plan of study (ref § 275.12(c)) must clearly set forth which participating agency is to provide each element of the Step 2 grant application. Some of the elements may be developed after the Corps of Engineers completes its portion of the study effort. Specific interpretations of the level of detail associated with each element should be obtained from the EPA Regional Office in whose jurisdiction the study area is located.

(c) When assisting local interests in the development of elements for a Step 2 grant application the function of certifying a plan is vested in the State. The State agency must forward, with each construction grant application submitted to the Regional Administrator, a certification that the proposed project is entitled to priority in accordance with the State priority system, and requires the specified funding requested from allotments currently available. Also included in priority certification is a statement that the award of a grant for the proposed project will not jeopardize the funding of any treatment works of higher priority. The State agency is responsible for defining the scope of treatment works projects and determining the time when such projects are to receive Federal financial assistance.

(d) Section 303, "Water Quality Standards and Implementation Plans," 40 CFR 130, "State Continuing Planning Process," and 40 CFR 131, "Water Quality Management Plans" describe State requirements in three areas. These requirements concern what the state has to do to establish a series of stream water quality standards, develop a priority listing of municipalities not achieving the stream standards, and develop information to implement a waste discharge permit program. Corps wastewater planning is not normally concerned with the type of planning required by section 303. However, information developed in the course of a Corps study may be modified and augmented, as necessary, by the State to satisfy requirements imposed by section 303.

(e) Corps planning for regional wastewater management facilities will reflect the intent of section 208, "Areawide Waste Treatment Management." When a planning agency is designated under section 208(a) to develop an areawide plan, Corps planning will provide input to the planning as defined in the Inter-agency Agreement between the Secretary of the Army and EPA dated 22 November 1974 (ref. § 275.12(c)).

(f) This regulation does not apply to studies conducted specifically to satisfy section 209, "Basin Planning". Those plans generally conform to Water Resources Council Level B criteria (ref. § 275.12(b)).

**§ 275.14 National goals.**

(a) Pub. L. 92-500 establishes two national water quality goals in section 101 (a). These goals are:

(1) It is the National goal that the discharge of pollutants into the navigable waters be eliminated by 1985.

(2) It is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by 1 July 1983.

(b) The wastewater management plans developed by the Corps will provide for satisfaction of these national goals through the time-phased achievement of various effluent limitation deadlines for publicly owned treatment works (POTW's) and non-POTW's. Table 1 relates the name of effluent limitations deadlines, and their acronyms, established in section 301 of Pub. L. 92-500, to the dates by which they must be achieved.

**§ 275.15 Effluent limitation deadlines.**

(a) *Secondary treatment.* Information defining secondary treatment in terms of water quality criteria was published as 40 CFR 133 in 38 FR 22298-22299 on 17 August 1973. POTW's in existence on 1 July 1977 or approved pursuant to section 203 of Pub. L. 92-500 prior to 30 June 1974 must achieve secondary treatment. Any more stringent effluent limitations established to meet paragraphs (a) (1) through (4) of this section must be achieved not later than 1 July 1977.

- (1) State water quality standards.
- (2) Treatment standards.
- (3) Schedules of compliance established pursuant to any State law or regulations under authority of section 501 of Pub. L. 92-500.
- (4) Any other Federal law or regulations required to implement any applicable water quality standard established by Pub. L. 92-500.

(b) *Best Practicable Technology Currently Available (BPT).* By 1 July 1977, non-POTW must achieve BPT. Information defining BPT is being published on an industry-by-industry basis. Thirty categories of industrial discharges have been identified, many containing several subcategories. Effluent limitations regulations for these categories are being published in the Title 40 CFR series as Parts 405 through 435. Retreatment requirements for compatible pollutants in existing industrial discharges to POTW are described in 40 CFR 128, 39 FR 20982-30985, 8 Nov. 73. In addition to specifying effluent limitations allowing direct industrial discharge to navigable waters, regulations 40 CFR 405 through 435 also specify pretreatment requirements needed for—(1) Incompatible pollutants discharged from existing industries to POTW.

TABLE 1.—Effluent limitation deadlines

Source of wastewater	Dates	
	1977	1983
Publicly owned treatment works (POTW).	Secondary treatment.....	Best practicable waste treatment technology (BPWTT).
Nonpublicly owned treatment works (non-POTW).	Best practicable technology currently available (BPT).	Best available technology economically achievable (BAT).

NOTE.—POTW's are frequently referred to as "municipal" treatment plants. An example of non-POTW's are industrial treatment plants.



(2) New source industrial discharge to POTW.

(c) Best Practicable Waste Treatment Technology (BPWTT). No later than 1 July 1983, all POTW must provide for the application of BPWTT over the life of the treatment works. A Notice of Availability of an EPA proposed report titled *Alternative Waste Treatment Management Techniques and Systems for BPWTT* was published in 39 FR 11135, 25 Mar. 74. Corps field offices should coordinate with applicable State officials and EPA Regional Office personnel to develop an acceptable definition of water quality criteria achievable by, and commensurate with, BPWTT. Additionally, no funds may be provided under section 201 of Pub. L. 92-500 after 30 June 1974 unless the grant applicant can show that—

(1) Alternative waste management techniques have been studied and evaluated.

(2) The treatment works proposed meet BPWTT as defined by EPA.

(3) As appropriate, the treatment works allow to the extent practicable, the application of technology for water recycling, reclamation, or the elimination of pollutant discharges at a later date.

(d) Best Available Technology Economically Achievable (BAT). By 1 July 1983, non-POTW must apply BAT to their treatment works. Information on effluent limitations for BAT is provided in the same regulations as is information on BPT (40 CFR 405 through 435).

#### § 275.16 Policy on effluent limitations commensurate with the 1985 goal.

(a) The Corps has no authority to establish or enforce "no discharge" limitations. In addition, EPA has no specific mandate to enforce the "no discharge" limitation. However, as a result of sections 301, 302, 304, 306, 307, and 403 of Pub. L. 92-500, "no discharge" limitations may evolve for certain classes and categories of discharges. Until such an evolution occurs, or until the Administrator of EPA publishes effluent limitations commensurate with the national goal, the Corps of Engineers' will interpret this goal. This interpretation shall be used for planning by the Corps as part of the Urban Studies Program.

(1) Wastewater management studies conducted by the Corps which are not a part of the Urban Studies Program need not address this goal unless desired by local participants or EPA.

(2) The reason for developing plans for the 1985 goal in the Urban Studies program is to assure that any potential synergistic effect of attaining that high level of treatment is identified and considered by local interests in selection of the overall water resource plan for the region. The Federal financial cost (75 percent of total construction cost under section 201 of Pub. L. 92-500) as well as the environmental and social cost of proceeding directly from the 1977 goal to the Corps of Engineers' definition of the 1985 goal may be significantly different than the cost of proceeding from the 1977 goal to the 1983 goal and then to

the 1985 goal. Consequently, alternative plans will be developed to achieve the 1985 goal with and without the intermediate 1983 goal. Plans developed to attain the 1985 goal will be generally at a reduced level of detail.

(3) Although there is no requirement by the Corps that local governments adopt a plan which will provide for "zero discharge", plans will be available should they decide to do so.

(b) The critical levels for constituents to attain the 1985 goal shall be based upon the natural background levels of the watercourse or aquifer into which the wastewater effluent is discharged, with specific exceptions of constituents that are highly toxic or otherwise injurious to the environment at trace levels. These levels shall apply as the 1985 goal with the exception that:

(1) If current State water quality standards are more stringent, these standards shall apply; or

(2) An environmental scan provides a basis for allowing levels of constituents that are higher than natural background levels but not highly toxic, or otherwise injurious to the environment.

(c) Table 2 lists the constituents which should be absent from the wastewater effluent at discharge, because of their toxicity to the environment at trace levels. The list is based upon limits recommended by the Committee on Water Quality Criteria for water uses such as public water supply, fresh water and marine aquatic habitat, and irrigation.

TABLE 2

Arsenic	Lead
Barium	Pesticides and other synthetic
Boron	organics
Cadmium	Phenols
Chromium	Selenium
Copper	Silver
Cyanides	Zinc
	Mercury

(d) In addition, the constituents in Table 3 are considered to constitute a potential environmental and hygienic risk such that their absence is desirable, although presence at natural background levels may be permissible based upon an environmental scan.

TABLE 3

Antimony	Nickel
Beryllium	Thallium
Cobalt	Tin
Molybdenum	Titanium

(e) In the absence of determining natural background levels or conditions for a particular watercourse or aquifer, the levels given in Appendices C and D should assist in determining the maximum acceptable levels for design. These effluent levels may be relaxed upward on the basis of the environmental scan. The constituents in Appendix C along with those listed in paragraph (c) of this section comprise the minimum acceptable group that must be considered in system design in all studies. Constituents given in Appendix D should be considered as appropriate, depending upon characteristics of the region.

(f) A list of constituent levels considered critical to the environment will be developed in each study for watercourse receiving treated wastewater. These lists will include a discussion of the derivation of each constituent level and environmental scan, with particular emphasis where levels are higher than those recommended in this document. These lists will be furnished to HQDA (DAEN-CWP) WASH DC 20314, prior to the end of Stage 2 planning (see § 275.12(c) for definition of Stage 2).

#### § 275.17 Urban drainage.

This paragraph provides policy on the conduct of urban drainage studies.

(a) *Definition of permissible urban drainage studies.* (1) Planning for urban flood control and wastewater management requires studies of urban drainage systems. Runoff from any given tributary area may be conveyed through storm sewers, flood control works, or combinations of these two kinds of facilities. In addition, runoff may be treated to remove pollutants before discharge to receiving waters. Moreover, when provision is made for treatment of urban runoff to meet water quality goals and deadlines, different conveyance and/or retention systems may be required.

(2) Although urban drainage is a functional water resource category which could be studied for its own sake, Corps of Engineers studies of urban drainage are limited to considering urban drainage as a part of the flood control major work item or as a part of the wastewater management major work item. Urban drainage planning for areas with separate storm sewers or without storm sewers will not be part of wastewater management planning if receiving waters will meet the 1983 water quality goal with BPWTT for POTW and BAT for non-POTW in-place. Urban drainage studies which are not an integral part of flood control or wastewater management planning will not be undertaken by the Corps.

(b) *Cost-sharing applicable to permissible urban drainage studies.* (1) Those aspects of urban drainage studies which are part of flood control planning will be financed at 100 percent Federal expense.

(2) Those aspects of urban drainage studies which are part of wastewater management will be financed at the current cost-sharing ratio which is 75 percent Federal—25 percent local. The local share may be in the form of effort sharing or a cash contribution. Section 275.12 (c) provides additional information on cost-sharing.

(3) Those aspects of urban drainage studies which are not a part of either flood control or wastewater management will not be undertaken by the Corps.

#### § 275.18 Reuse.

Consistent with the requirements for recycling and reuse in Pub. L. 92-500, and in accordance with requirements governing evaluation of BPWTT techniques for waste treatment and reuse, the following are required:



(a) Reuse opportunities will be identified on the basis of the needs of the region in which wastewater may be collected, treated, transported, and disposed. Reuse will be investigated not only for wastewater, but for sludge, brine, and generated gases.

(b) Wastewater reuse will be analyzed for such uses as agricultural irrigation, turf irrigation, aquifer recharge, stream flow augmentation, recreational lakes, industrial cooling, industrial process water, industrial boiler feed, and for municipal use.

(c) Sludge should be investigated for reuse as a fertilizer, and soil conditioner, especially for strip mine areas; both sludge and brine as bulk material for emerging demands such as highway and other construction; and both sludge and gases as possible sources of energy or other consumptive requirements.

#### § 275.19 Sewer system evaluation.

(a) *Requirement.* The engineering report required for a Step 2, section 201 grant application requires a sewer system evaluation. The evaluation is intended to determine the need for rehabilitation of the sewer system. This paragraph explains the Corps of Engineers' position on performing the sewer system evaluation defined in 40 CFR 35.927 (38 FR 5329).

(b) *Sewer system evaluation components.* A sewer system evaluation is composed of two parts. The first part, an Infiltration/Inflow (I&I) Analysis, must be performed by all Step 2 construction grant applicants. The I&I Analysis is a cost effectiveness analysis based on existing data. It is designed to determine whether the cost of sewer rehabilitation is more cost effective than the cost of treating the extra flow resulting from infiltration and inflow. If the cost of rehabilitation is greater than the added cost of treatment, Infiltration/Inflow is not excessive. If the I&I Analysis indicates that Infiltration/Inflow is not excessive, and EPA agrees with that finding, no further efforts need to be expended on this task. However, if infiltration/inflow is determined to be excessive and EPA concurs, then a sewer system evaluation survey is required.

(c) *Corps of Engineers participation in sewer system evaluation.* Where requested by local officials and agreed to in the Plan of Study, the Corps of Engineers should perform Infiltration/Inflow Analyses as an integral part of the wastewater management portion of an urban study. The Corps will not perform Sewer System Evaluation Surveys. If such surveys are required, the Corps will assist local officials making application for a Federal grant. The cost of an Infiltration/Inflow Analysis shall be shared in

the same federal to non-Federal ratio as the remainder of the wastewater management portion of an urban study. The local EPA Regional Office should be contacted for the latest technical guidance.

#### § 275.20 Cost estimates.

(a) Identified alternative wastewater management plans shall be screened and initially analyzed to determine which systems have cost-effective potential and which should be fully evaluated according to procedures established by the EPA cost effectiveness analysis guidelines (see Appendix E).

(b) The costs to be considered in estimates shall include all direct project costs to be incurred in the implementation of the plan throughout the planning period, including all capital, operation, maintenance, and replacement costs. Sunk costs shall be excluded. Salvage value and revenue derived from implementation of the plan will be assessed as negative monetary costs. The elements of cost listed in Appendix F shall be included in cost estimates for wastewater treatment systems presented in urban studies reports.

(c) Since the cost estimates for wastewater treatment systems are a key criterion in the selection of plans, the presentation of the cost estimates could affect the credibility of the wastewater management portion of the urban studies reports. The presentation should be suitable for detailed review and analysis not only by the authorities who will approve the plans, but also by the people who will be affected by their execution, especially when public approval of project financing is required. Requirements for the presentation of cost estimates are as follows:

(1) Cost data used in the estimate will be supplied and the source identified. When attachment of supporting cost data is impracticable, the data will be specifically identified and described. The data that will be identified are the details behind the summary figures submitted in the report. There are several layers of data, each more detailed than the preceding, and a decision must be made as to what detail the reviewer or the public require to make a judgment as to the degree of confidence in or the validity of the cost estimates. To establish completeness, identification will have to cover the following four points: What it is, Where it is, What it represents, How it was used. The What, Where, and How are self-explanatory. The answer to "what it represents" requires such things as time period and whether the costs are actual or estimated and whether, if actual, the costs are simple average, moving average or derived on some other basis.

(2) The report will include any information necessary to explain the estimating process including the judgemental factors applied and the mathematical methods used in the estimate including those used in projecting from known data. The contingency factors used will be explained and justified. The report must explain how the estimator went from known, factual data to the estimate and how he provided for the uncertainties of the future. The report will provide words to go with the figures so that a complete understanding is possible.

#### § 275.21 Engineering economic analysis.

(a) *General.* Construction of treatment plants and transmission facilities can be phased during the planning period. Likewise, operation and maintenance costs vary from year to year due to changes in wastewater flows to the plant. Therefore, in order to make an economic selection, the method of analysis for cost evaluation of each system alternative recommended in the EPA Guidance on Preparing a Facilities Plan, May 1975, will be used. The interest rate will be the Federal discount rate for evaluation of water and related land resources projects, as defined annually by the Water Resources Council and published in an Engineer Circular by DAEN-CWP. The evaluation of monetary costs will not be influenced by adopted financial arrangements such as depreciation, debt retirement, and cost recovery rates and periods.

(b) *Method of analysis for cost evaluation of each system alternative.* (1) Estimate the initial capital cost.

(2) Estimate future capital costs of phased construction and determine their present worth.

(3) Estimate O&M costs, both fixed and variable, and any future changes and determine their present worth.

(4) Estimate salvage values and determine their present worth (negative costs).

(5) Estimate revenues produced and determine their present worth (negative costs).

(6) Sum the values obtained in steps (1) through (5) to obtain the present worth of the system alternative.

(7) Multiply the present worth obtained in Step 6 by the appropriate capital recovery factor to obtain the equivalent annual cost of the system alternative.

#### § 275.22 Effective date.

This regulation is effective November 3, 1975, as published in the FEDERAL REGISTER on that date and codified as 33 CFR 275.



## APPENDIX A

ITEMS REQUIRED FOR A STEP 2-201 GRANT<sup>1</sup>

EPA regulations for an application for a grant for preparation of construction drawings and specifications shall include but not be limited to the following items. The Corps may provide all items except as indicated.

1. State priority certification in accordance with § 35.915 (State responsibility).

2. Sewer system evaluation in accordance with § 35.927. The Corps may do the I/IA portion; sewer system evaluation study remains a local responsibility.

3. Feasibility report.

4. Engineering report, including—

a. Facility design data incorporating—

(1) Results of sewer system evaluation (Partial satisfaction by Corps plans).

(2) Estimated effluent quality, with respect to all parameters required by applicable effluent limitations and water quality standards.

(3) Proposed method for ultimate disposal of sludge.

b. Cost estimates for design and construction.

c. Schedule for completion of design and construction.

5. Description of proposed user charge system in accordance with § 35.928 (Corps plans partially satisfy this element).

6. Statement regarding availability of proposed site, if relevant (State or local responsibility).

7. Statement regarding ability of applicant to obtain discharge permit for proposed facility (Applicant's responsibility).

8. Required comments or approval of relevant State, local, and Federal agencies (including compliance with "clearinghouse requirements" of OMB Circular A-95 (Corps plans contain the required comments)).

9. An environmental assessment unless the Regional Administrator determines, at the request of the applicant that there is insufficient data available to prepare such assessment, provided that the environmental assessment must then be submitted to the Regional Administrator at or prior to the time of submission of plans and specifications for the building and erection of a treatment works.

10. Statement regarding the applicant's financial, legal, institutional, and managerial capabilities to insure the construction, operation and maintenance of the treatment works (Applicant's responsibility).

11. Statement regarding compliance with other applicable Federal statutory and regulatory requirements (see 40 CFR Part 30, Subpart C) (Applicant's responsibility).

12. Statement regarding compliance with title VI of Civil Rights Act of 1964 (Applicant's responsibility).

13. Statement regarding applicant's proposed operation and maintenance program (Corps plans propose some O&M procedures, but the preparation of the statement is clearly an applicant's responsibility).

14. Proposed subagreements, or an explanation of the intended method of awarding subagreements for performance of any substantial portion of the project work (Applicant's responsibility).

## APPENDIX B.—Controlling uses requiring absence of toxic constituents

Constituents	Controlling use(s)	Toxic effects
Arsenic.....	Public Water Supply.....	Arsenic trioxide is exceedingly toxic to most animals. It is cumulative in the tissues of many organisms. In arsenate form, it is an antimetabolite, reacting with proteins and enzymes. It is a possible carcinogen in water.
Barium.....	do.....	Barium forms a stable precipitate or chelate with essential metabolites, causing toxicity.
Boron.....	do.....	Boron is an essential element for plants, but is toxic to most plants in concentrations greater than 1 mg/l. Ingestion of boron can upset the central nervous system. Continued ingestion leads to the clinical syndrome of borism. Borate is an antimetabolite. Synthetic boranes are highly toxic.
Cadmium.....	do.....	Cadmium toxicities are implicated in hypertensive diseases of man. Irrigation water needs very stringent control of cadmium to insure that cumulative amounts in plants are not a problem. Synergistic effects with zinc are a problem. Cadmium combines with cell membranes, affecting permeability. It may cause cell membrane ruptures. Cadmium may also lead to heart disease, and possibly cancer.
Copper.....	do.....	Copper is highly toxic to algae, seed plants, and invertebrates. It is moderately toxic to mammals. Copper acts synergistically with cadmium, zinc, and mercury, but is not a systemic poison like mercury or lead. Fresh water fish are also quite susceptible to copper poisoning.
Cyanides.....	do.....	Hydrocyanic acid and its salts, the cyanides, are extremely toxic. Toxicity increases with rising temperatures and decreasing hydrogen-ion concentration. Complex cyanides are formed with cadmium and zinc that are much more toxic than the ordinary salts.
Lead.....	do.....	There is a considerable variation in toxicity among the various forms of lead. However, it is a cumulative poison. Chronic lead poisoning occurred in animals when 0.18 mg/l was consumed from soft water. Lead can combine with cellular membranes obstructing the passage of nutrients and can cause bursting of the cell membrane.
Mercury.....	Fresh water aquatic and marine aquatic habitats.....	Some organic mercury compounds are able to enter the food chain of aquatic plants, algae, and lower forms of animals. This methylmercury can be biologically magnified to the extent that it can cause death in humans. Methylmercury can destroy cells of the brain causing tremors and ulcers; it can accumulate in the kidneys and liver. Methylmercury can also accumulate in fetuses where it can produce birth defects by breaking chromosomes. Trace amounts of copper can cause greater toxicity. Shellfish will accumulate very high quantities of methylmercury.
Pesticides and other synthetic organics.....	Public water supply.....	Chlorinated hydrocarbons are very persistent. Organophosphates hydrolyze rapidly to harmless or less harmful products. Cholinergic carbamates and organophosphates are highly toxic to mammals and fish. Chlorinated hydrocarbons may accumulate in animal tissue in high enough levels to preclude human consumption. Phenoxyl acid herbicides are subject to rapid biological degradation in soil, but their decomposition in water is not well understood.
Phenols.....	do.....	Phenols taint the taste and odor of drinking waters in very minute quantities. Fresh water fish are affected by phenols, the result being anything from intoxication to paralysis to death.
Selenium.....	Public water supply, irrigation waters.....	Selenium poses a special problem for mammals in that it is very easily transmitted through the mammary glands to the milk. Biological magnification in plants is possible, up to 4-5 mg/l. Ingestion of the plants will cause toxic symptoms in animals. As little as 0.5 mg/l of selenium in solution will induce biological magnification. Cereal grains and pasture grasses are the most common plants to biologically magnify selenium and cause toxic reactions in humans and cattle.
Silver.....	Public water supply.....	It is highly toxic to plants and mammals.
Zinc.....	Public water supply and fresh and marine aquatic habitat.....	It is accumulated in coelenterates and mollusks. Very small amounts of zinc are toxic to oysters. It has also produced toxic results in plants.

## APPENDIX C

## CONSTITUENTS REQUIRING CONSIDERATION

Constituent	Effluent level
Total dissolved solids.....	Heat
Biochemical oxygen demand, 5-Day.....	BOD level less than 5 mg/l. BOD level equal to or less than dissolved oxygen level.
Heat.....	The level which assures protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in or on the water into which discharge is made.
Color.....	Less than 15 color units.
Nitrogen as nitrate -N and nitrite -N.....	Less than 4 mg/l total.
Nitrogen as ammonia -N.....	Less than 0.5 mg/l.
Total nitrogen as N.....	Less than 8 mg/l.
Phosphorus as total P.....	Less than 50 micrograms/liter entering a lake; or 100 micrograms/liter entering a flowing stream.
Oils and greases.....	Trace. <sup>1</sup>
Fecal coliform organisms.....	Less than 200/100 ml.
Suspended solids.....	Less than 5 mg/l.
Dissolved oxygen.....	Greater than 5 mg/l.

<sup>1</sup> Detectable only with the most refined instruments.

<sup>1</sup> SOURCE: 40 CFR 35, Subpart E, "Grant for Construction of Treatment Works—Federal Water Pollution Control Act Amendments of 1972."



APPENDIX D

CONSTITUENTS WHICH MAY REQUIRE CONSIDERATION

Constituent	Effluent level
Virus	Inactivate, but present at trace levels.
Surfactants	Trace. <sup>1</sup>
Fecal streptococci	Inactivated, but present at trace levels.
Tastes and odors	None offensive.
Floatables	None.
Settleable solids	Trace. <sup>1</sup>
Volatile solids	Trace. <sup>1</sup>
Gamma radiation	Trace. <sup>1</sup>
Alpha radiation	Less than one pico curie/liter.
Beta radiation	Less than 100 pico curies/liter.
Turbidity	Less than five Jackson units.
Chemical oxygen demand	Less than 10 mg/l.
pH	Between 6.0 and 8.5.
Alkalinity	Less than 100 to 130 mg/l when pH is between 6.0 and 7.0.
Carbon dioxide	Less than 25 mg/l.
Sulfates	Less than 100 mg/l.
Calcium	Less than 30 mg/l.
Chlorides	Less than 250 mg/l.
Sodium	Less than 10 mg/l.
Magnesium	Less than 125 mg/l.
Fluorides	Varies from 1.7 mg/l at 10° C to .8 mg/l at 30° C.
Aluminum	Less than 1 mg/l.
Bicarbonates	Less than plus or minus 50 mg/l variation over ambient concentrations.
Manganese	Less than 0.05 mg/l.

<sup>1</sup> Detectable only with the most refined instruments.

APPENDIX F

ELEMENTS OF COSTS FOR ESTIMATING WASTEWATER TREATMENT SYSTEMS

1. *Capital costs.* a. Contract Construction Costs including contractor overhead and profit of all system components including:
  - (1) Systems for collection, treatment and disposal wastewater.
  - (2) Modifications required for existing facilities.
  - (3) Components for treatment and disposal of residual wastes, including conveyance to disposal sites.
  - (4) Components for storage and recycling of wastewater including land disposal.
  - (5) Integral flow and waste reduction measures.
  - (6) Pretreatment facilities for industrial wastes (private costs).
  - (7) Storage or control measures for control of domestic wastes and combined sewer overflows.
  - (8) Any interim facilities needed while more permanent facilities are deferred or under construction plus incremental operation and maintenance costs of the temporary facilities compared with costs of the old facilities.
  - (9) Dismantling and restoring the sites of abandoned plants.
  - (10) Incidental components such as offices, maintenance shops, laboratories, instrumentation and control facilities, chemical storage and conveyance facilities, site preparation and landscaping.

b. Costs for detailed engineering and design services, field exploration studies, and engineering services during construction.

c. Costs for legal and administrative services associated with implementation of the facilities plan.

d. Costs of all lands, including capitalized costs of leased lands (including publicly owned lands), rights-of-way, and easements based on appraised market values, and including relocation and inconvenience payments.

e. Startup costs such as operator training.

f. Interest foregone during facilities construction. In cases where capital expenditures can be expected to be fairly uniform during the construction period, this cost may be calculated as

$$I \times \frac{1}{2} P + C$$

where:

I = interest (discount) rate,  
P = the construction period in years, and  
C = the total capital expenditures;

In cases in which expenditures will not be uniform, or when the construction period will be greater than three years, this cost shall be calculated on a year-by-year basis.

g. Contingency allowances as appropriate to the level of complexity and detail used.

2. *Operation and maintenance (including replacement) costs.* a. Ongoing operation and maintenance costs for all collection, storage, treatment (including pretreatment), disposal and recycling facilities and integral flow and waste reduction measures. Annual costs shall be divided between fixed annual costs and costs which would be dependent

on the annual quantity of wastewater collected and treated.

(1) Labor costs including provisions for operational, general maintenance, and administrative personnel.

(2) Chemical costs.

(3) Materials costs including items required for general maintenance and substances which must be replaced periodically such as activated carbon and filter media.

(4) Transportation costs for conveyance of sludges and other materials for ultimate disposal.

(5) Power costs.

(6) Incidental costs such as allowance paid to local governments for land removed from the tax rolls.

b. Short-term operation and maintenance costs associated with upgrading of existing facilities or development of interim facilities.

c. Costs of periodic replacement of equipment and equipment parts.

d. Costs for a continuing program for personnel training necessary for new entries and to maintain the proficiency of existing staff, including operator certification, management training, and other specialized training as needed.

3. *Salvage value.* a. Land for treatment works, including land used as part of the treatment process or for ultimate disposal of residues, shall be assumed to have a salvage value at the end of the planning period equal to its prevailing market value at the time of the analysis. Rights-of-way and easements shall be considered to have a salvage value not greater than the prevailing market value at the time of the analysis.

b. Permanent structures will be assumed to have a salvage value at the end of the planning period. If those structures can be expected to continue to be used as planned, salvage value will be based on the remaining service life of the structure based on a straight line depreciation over the assumed service life of the structure.

c. The same approach for determining salvage value will apply to process and auxiliary equipment that will have a usable value at the end of the planning period.

d. When the anticipated useful life of a facility is less than 20 years (for analysis of interim facilities), salvage value can be claimed for equipment where it can be clearly demonstrated that a specific market or reuse opportunity exists.

4. *Revenue produced.* Net revenue (total revenue minus associated costs) anticipated to be accrued from plan implementation will be evaluated and credited as negative costs (benefits) to the plan. Examples are revenue from recovered wastewater constituents and revenue from processed sludge or other residual wastes from the treatment and pretreatment facilities. In addition to normal monetary costs associated with wastewater reuse, these may be external costs for diminution (consumptive use) by evaporation or evapotranspiration of a prior water use or supply. These monetary external costs should be included in the analysis.

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