

CHAPTER 4

Types of Studies, Reports and Procedures

4-1. Types of Studies and Reports. The process by which projects are formulated and evaluated is one step in the larger project delivery process. In addition to formulation and evaluation, the project delivery process includes the preparation of the decision document, and the technical and policy reviews of that document and its supporting material. It is intended that the production and reviews of planning decision documents also reflect the same common sense approach as described in the Introduction to Chapter 2. Planning decision documents should be prepared in a timely and cost-effective manner, consistent with the size and complexity of the project. Likewise, the time and effort spent in technical and policy review and in responses to review comments should reflect the size and complexity of the project. Wherever possible, technical and policy review should be incorporated positively and proactively into early phases of the planning and documentation processes and throughout these processes, rather than at the end. Planning studies and reports planning are:

a. Pre-authorization Studies and Reports. Studies for project authorization are undertaken in response to either a study-specific authority or a general authority. Study-specific authorization may be a resolution from the House Committee on Public Works and Transportation, a resolution from the Senate Committee on the Environment and Public Works, or included in a public law. General authorities are contained in Section 216 of the Flood Control Act of 1970 and Section 2 of the Fish and Wildlife Coordination Act of 1958. Section 216 authorizes investigations for modification of completed projects or their operation. Section 2 allows investigation of modifications to projects that were not substantially completed prior to August 1958 in the interest of conservation of fish and wildlife. These studies and reports are funded with General Investigations (GI) funds. Studies under these authorities are conducted in two phases in accordance with the WRDA of 1986.

(1) Reconnaissance Phase. The objectives of the Reconnaissance Phase are to: (1) determine if the water resource(s) problems warrant Federal participation in feasibility studies, (2) define the Federal interest, (3) complete a 905(b) Analysis (refers to Section 905(b) of the WRDA of 1986) or a Reconnaissance Report, (4) prepare a Project Management Plan (PMP), (5) assess the level of interest and support from non-Federal entities, and (6) negotiate and execute a Feasibility Cost Sharing Agreement (FSCA). This determines whether or not planning to develop a project should proceed to the more detailed feasibility stage. The reconnaissance phase is Federally funded and the target for completion is 6-12 months from initial obligation of reconnaissance funds to a signed Feasibility Cost Sharing Agreement.

(2) Feasibility Phase. The objective of feasibility studies is to investigate and recommend solutions to water resources problems. Cost of feasibility studies, except single purpose inland navigation studies, are 50 percent Federal and 50 percent non-Federal as defined in Section 105 of the WRDA of 1986. Typical studies should be completed in 18-36 months. The results of these studies are documented in a feasibility report that includes documentation of environmental compliance. (See Appendix G for additional information on the content of the feasibility report.)

b. Post Authorization Studies and Reports. These planning studies and reports are generally funded as a part of engineering and design studies under the General Investigation appropriation. These studies are undertaken pursuant to project specific construction authorities. Construction authorities imply the authority to undertake reevaluation studies. Studies may be necessary if a significant period of time has elapsed or conditions have changed significantly since the feasibility study was completed. The reports described below shall be used to support post authorization changes provided they include the specific information outlined in Appendix G, paragraph G-16.

(1) General Reevaluation. This is reanalysis of a previously completed study, using current planning criteria and policies, which is required due to changed conditions and/or assumptions. The results may affirm the previous plan; reformulate and modify it, as appropriate; or find that no plan is currently justified. The results of the study are documented in a General Reevaluation Report (GRR).

(2) Limited Reevaluation. This study provides an evaluation of a specific portion of a plan under current policies, criteria and guidelines, and may be limited to economics, environmental effects or, in rare cases, project formulation. A Limited Reevaluation Report (LRR) documents the results of the analysis undertaken.

(3) Design Documentation Reports (DDR) and Engineering Documentation Reports (EDR). During the Preconstruction, Engineering and Design (PED) phase, districts will prepare a Design Documentation Report (DDR) which is a record of final design after the feasibility phase. The DDR provides the technical basis for the plans and specifications and serves as a summary of the final design. An Engineering Documentation Report (EDR) may also be prepared to support the PCA when there are minor changes in design and costs from the authorizing reports. The EDR may also be used in lieu of a GRR to document other information not included in a decision document when project reformulation is not required and the changes are only technical changes. Requirements for preparation and processing of these reports are stated in [ER 1110-2-1150](#). If reformulation of plans is required during PED, then districts shall prepare a GRR or LRR, as described in paragraphs 4-1b(1) and 4-1b(2). Per guidance contained in [ER 1110-2-1150](#), GDM's and DM's will no longer be prepared.

(4) National Environmental Policy Act (NEPA) Documentation. The scope and nature of the changes in the environmental effects of the project identified as a result of acquisition of new information, of changed conditions, or changes in the project will determine the appropriate type of NEPA documentation. Options include an Environmental Assessment which may result in a Finding of No Significant Impact or a Supplemental Environmental Impact Statement. Guidance regarding NEPA documentation is contained in [ER 200-2-2](#)

c. Other Types of Studies and Reports.

(1) Studies of Water Resources Needs of River Basins and Regions. Section 729 of WRDA of 1986 authorizes the Corps of Engineers to study the water needs of river basins and regions of the United States, in consultation with State, interstate and local governmental entities. Section 729 studies may result in recommendations for more detailed feasibility studies, but this

is not required. Section 729 studies should not result in recommendation of projects for Congressional authorization.

(2) Flood Insurance Studies. See guidance in paragraph 3-3f of this regulation and in Appendix G.

(3) Planning Assistance to States Studies. Guidance on Planning Assistance to States (Section 22) studies is in paragraph 3-10c of this regulation and in Appendix G.

(4) Continuing Authorities Program (CAP) Studies. The planning [Principles and Guidelines](#) described in previous chapters apply to studies conducted under the Continuing Authorities Program. However, due to specific legislative requirements, the guidance for each authority must be referenced. This guidance is contained in Appendix F of this regulation.

(5) Section 216 - Review of Completed Projects. See guidance in paragraph 3-10b of this regulation and in [ER 1165-2-119](#).

(6) Congressional Adds. The requirements and processes described in this chapter apply to Congressionally added studies unless specific instructions otherwise are provided through the budget process.

d. Deauthorization. The review of studies and projects to determine eligibility for deauthorization is covered in Paragraph 4-7.

4-2. Corps of Engineers Final Approval Authorities. The table below summarizes the approval responsibilities for the different planning products.

Table 4-1, Corps of Engineers Final Approval Authorities

PLANNING PROGRAM Study Phase/Product	APPROVAL RESPONSIBILITIES		
	District	Division	Headquarters (HQUSACE)
GENERAL INVESTIGATIONS:			
Section 905(b) Analysis			X
Reconnaissance Report			X
Project Management Plan	X		
Feasibility Cost Sharing Agreement ²	X		
Feasibility Report			X ¹
Section 729 Report			X
CONTINUING AUTHORITIES (Sections 14, 103, 107, 111, 204, 205, 206, 208, 1135)			
Preliminary Restoration Plans		X	
Feasibility Cost Sharing Agreement ²		X	
Planning Design Analysis Documentation		X	
Detailed Project Report		X	
PLANNING ASSISTANCE TO STATES	X		
FLOODPLAIN MANAGEMENT SERVICES	X		
POST-AUTHORIZATION REPORTS:			
General Reevaluation Report ¹			X
Limited Reevaluation Report		X	
Major Rehabilitation Reports			X
REPORTS FOR PROJECTS AUTHORIZED SUBJECT TO A SECRETARIAL FINDING³			

¹ Coordinated with ASA(CW).

² If deviation from model agreement, HQUSACE approval required.

³ ASA(CW) approval required.

4-3. Procedures for Studies and Reports.

This section provides guidance for studies for projects requiring specific authorization. Additional guidance is found in Appendix G.

a. Reconnaissance Phase. The reconnaissance phase commences with the obligation of appropriated reconnaissance funds, and terminates with the execution of a Feasibility Cost Sharing Agreement (FCSA) or the division commanders' public notice for a report recommending no Federal action. The products are a 905(b) Analysis report, a Project Management Plan, a letter of intent from the non-Federal sponsor, and a feasibility cost sharing agreement (FCSA).

(1) Reconnaissance Study Period. The reconnaissance study and the Section 905(b) Analysis, part of the reconnaissance phase, begins with the obligation of appropriated reconnaissance funds. The target for completing the reconnaissance phase or the signing of the FCSA for the 905(b) Analysis is 6-12 months. The cost of reconnaissance studies generally is limited to \$100,000.

(2) 905(b) Analysis Report. This report documents the results of the analyses conducted during the reconnaissance phase. The report shall include a preliminary analysis of Federal interest, costs, benefits, environmental impacts, and an estimate of the costs of preparing a feasibility report. The analyses conducted shall be based on existing, readily available data and professional and technical judgement. The 905(b) Analysis Report is prepared by the district and approved by HQUSACE. Additional details on the content and procedures for the 905(b) Analysis Report are provided in Appendix G.

(3) Project Management Plan (PMP). The Project Management Plan (PMP), prepared and negotiated during the reconnaissance phase, documents the Federal and non-Federal efforts required to conduct the feasibility phase. The PMP will ensure that the work required for the feasibility phase has been carefully developed and considered. The PMP forms the basis for estimating the total study cost and non-Federal sponsor share. It also is the basis for assigning tasks between the Corps and the sponsor and for establishing the value of in-kind services. While developing the PMP, the District Commander must discuss with the prospective non-Federal sponsor(s) the objectives of the feasibility study, necessary level of detail, cost of studies, and scheduling of activities for the feasibility study. During negotiations the prospective non-Federal sponsor must be informed that the level of accuracy of alternative plan evaluation and cost estimates to be developed in the feasibility study will depend on the extent of uncertainties and the depth of investigations made during the feasibility study. The Division will ensure that the PMP receives appropriate review.

(4) Feasibility Cost Sharing Agreement (FCSA). The Feasibility Cost Sharing Agreement documents the commitments of the Department of the Army and a non-Federal sponsor to share the cost of the feasibility phase. The FCSA is intended to promote a partnership for the conduct of the feasibility study. The Department of Army remains responsible for representing the Federal interest by following Federal policies and budgetary priorities. Both parties will conduct planning within the framework established by the P&G with guidance

provided in this regulation. The FCSA will be accompanied by a signed Certification Regarding Lobbying and, if applicable a completed Disclosure of Lobbying Activities.

b. Feasibility Phase. The feasibility phase starts with the issuance of initial Federal feasibility funds, following execution of the FCSA, and terminates on the date the feasibility report is submitted to the Office of Management and Budget by the Assistant Secretary of the Army for Civil Works (ASA (CW)) for review of consistency with the policies and programs of the President. The feasibility phase may also be terminated if it is determined that there is no clear Federal interest in a project or if no project would meet the current policies or budget priorities. (See paragraph 4-3c(6)) The products of the phase are a Feasibility Report, including NEPA documentation, and a Chief of Engineers Report.

(1) Feasibility Phase Cost. The total cost of the feasibility phase will be established through negotiation of the PMP. The cost estimate in appropriate Code of Accounts format will identify major costs by task and by type, and be fully supported and documented.

(2) Feasibility Report. A suggested outline for the feasibility report is provided in Appendix G. The feasibility report should document the planning process and all assumptions and rationale for decision making. The report will present the recommended plan and, if applicable, the degree of, and rationale for, departure from the NED plan, the NER Plan or the Combined NED/NER Plan. The non-Federal sponsor cost sharing requirements, including their responsibilities for implementation and operation of the project must be clearly documented. Two project cost estimates shall be displayed in the feasibility report; one based on constant dollars and one based on projected inflation rates. If there is no acceptable plan, the study should be terminated and guidance obtained from CECW-P. For deviations from the NED, NER or Combined NED/NER, the following additional documentation is required.

(a) If the recommended plan is smaller in scope and costs than the NED, NER or Combined NED/NER, the feasibility report will document the rationale for lack of sponsor support for these plans, as applicable, available facts regarding how and why the LPP is less costly and still provides high-priority outputs, information to show that alternative non-Federal funding sources are not available and the analysis performed. (This information shall be provided to HQUSACE thru the MSC for approval prior to submittal of the feasibility report. It will be included in the feasibility report to document and support the decision recommend the LPP.) In all cases, the recommended LPP must have greater net benefits than smaller scale plans. The feasibility report shall include documentation to demonstrate that sufficient alternatives were formulated and evaluated to insure that net benefits do not maximize at a scale lower than the LPP and to meet the requirements of NEPA. A detailed analysis and description of the NED, NER or Combined NED/NER plans, including a detailed final cost estimate for these plans, are not required and do not need to be documented in the feasibility report. The consequences of lost opportunities associated with implementing a LPP including residual risks and potential solutions to other water resource needs and opportunities that may be foregone will also be documented in the feasibility report. Additional documentation requirements for categorical exemptions applicable to flood damage reduction and navigation projects are discussed in paragraphs 3-3b(11) and 3-2b(10).

(b) If the LPP is larger in scale and costs than the NED, NER or Combined NED/NER plans, then a detailed analysis and description must be developed and presented for both the selected plan and the NED plan. The incremental benefits and costs of the LPP, beyond the NED, NER or Combined NED/NER plans, must be analyzed and documented in the feasibility report. The rationale for selection of the LPP must be clearly documented in the feasibility report.

(3) Environmental Compliance Documentation. Documentation of compliance with applicable environmental laws and regulations must be prepared. This may include items such as biological assessments required by the Endangered Species Act and the Fish and Wildlife Coordination Act Reports, in addition to NEPA documents. In accordance with [ER 200-2-2](#), the NEPA document, either an EA or EIS, may either be a self-supporting document combined with and bound within the feasibility report or integrated into the text of the feasibility report. The EA/EIS should generally be integrated into the text of the report unless complex environmental impacts preclude this alternative. Additional information on environmental compliance documentation is in Appendix C.

c. General Requirements for Reconnaissance and Feasibility Phases.

(1) Study Expansion. Expansion of a study's geographic extent or purposes beyond those specified in the congressional authorization is not allowed without additional congressional authority. Where existing congressional authority is not a constraint, guidance on expansion of cost or scheduling should be requested from the Division.

(2) Interagency Coordination. In the interest of improving interagency coordination on planning studies, and of avoiding issues arising late in the planning process, the following procedures apply:

(a) Appropriate Federal and non-Federal agencies shall be invited to participate in the Reconnaissance Review Conference (RRC), Issue Resolution Conferences (IRC), Feasibility Scoping Meeting (FSM), and the Alternative Formulation Briefing (AFB), as deemed appropriate. These conferences are discussed in Appendix G.

(b) Appropriate Federal and non-Federal agencies shall have opportunity for participation in developing the PMP.

(c) Federal agencies shall be invited to be cooperating agencies as defined by NEPA. Cooperating agencies are agencies with jurisdiction by law or with special expertise that qualify them to participate in a study (see 40 CFR 1508.5, Regulations Implementing the Procedural Provisions of the National Environmental Policy Act of 1969, as amended).

(d) All issues involving other agencies (concerns or non-agreement) should be raised and discussed in a separate section of the Memorandum for the Record (MFR) of the meetings held during the planning process. Issues that can not be resolved at the local or regional level will be sent forward for resolution at the Washington level.

(3) Engineering Level of Detail in Reconnaissance and Feasibility Reports. The scope and complexity of engineering analyses shall be commensurate with the size and complexity of the project being evaluated. The level of detail of the engineering efforts during the feasibility phase and the required content of the Engineering Appendix are discussed in [ER 1110-2-1150](#).

(4) Real Estate. The Real Estate Division shall be included as part of the team early in the planning process. The analysis of the nature and extent of real estate requirements must be conducted in accordance with Chapter 12 of [ER 405-1-12](#), including consideration and identification of the specific interests, estates, and acreage required for the project.

(5) Cost Estimating. All cost estimates required to support Civil Works projects will be prepared in accordance with [ER 1110-2-1302](#), Engineering and Design, Civil Works Cost Engineering.

(6) No Implementable Plan.

(a) The District Commander shall ensure that the sponsor is fully aware that the feasibility study may be terminated if there is no clear Federal interest in a project or if no project would meet the current policies or budget priorities. If the non-Federal sponsor wishes to continue the feasibility study under the terms of the FCSA, continuation will be considered on a case-by-case basis. In reaching this decision, consideration should be given to the value of the feasibility study in identifying project alternatives that reflect the sound planning principles set forth in the [Principles and Guidelines](#). The sponsor shall also be made aware that, the feasibility study may be terminated by either party under the provisions of Article X "Termination of Suspension" of the FCSA.

(b) For those reconnaissance or feasibility studies where there is no potential for a Federally implementable plan, the District Commander will stop all work and notify the Division Commander to facilitate revocation of existing funds, adjustments in budget requests and possible study reclassification except as set forth below. Criteria for making the necessary determination are: (1) the plan is not in the Federal interest, based on current Army policies; (2) the plan does not meet technical requirements for selection as set forth in the P&G and elsewhere in this ER, or; (3) non-Federal interests either do not support the plan or do not intend to provide the necessary local cooperation. If based on these criteria, no Federal action is recommended, a final report to the Congress (usually a letter report) will be prepared, regardless of whether the study is terminated in the reconnaissance or feasibility phase.

(c) Watershed studies may or may not result in identifying further Corps studies or implementation projects. Thus, the procedures specified in paragraphs 4-3c(6)(a) and (b) are not applicable to watershed studies.

(7) Responsibility for Reports. District commanders are responsible for reports, including their content; and for the presentation of reports and findings to higher authority.

d. Washington Level Processing. Procedures for processing reports and decision documents are discussed in Appendix H.

4-4. Quality Control/Quality Assurance and Policy Review of Feasibility Reports.

a. General Requirements. Feasibility reports will be reviewed for technical quality and policy compliance. Independent technical and legal reviews are the responsibility of the districts, and District Commanders are responsible for the quality and accuracy of the study processes. HQUSACE is responsible for policy review and approval for decision documents requiring Congressional authorization or ASA(CW) approval. This review will focus on the underlying assumptions, conclusions, recommendations and analyses in the context of established policy and guidance. For all other decision documents covered in this regulation, districts will be responsible for policy quality control and MSCs will be responsible for policy quality assurance. The QC/QA process will be fully documented. Documentation and certification of technical/legal review will accompany the reports that are submitted for HQUSACE policy compliance review.

b. Quality Control. Districts shall prepare a quality control (QC) plan for each product/project which will describe the procedures that will be used to ensure compliance with all technical and policy requirements. The QC plan is a component of the PMP. The District Commander shall approve QC plans. Technical review is the process that confirms the proper selection and application of established criteria, regulations, laws, codes, principles, and professional procedures to ensure a quality product. Technical review also confirms the constructability and effectiveness of the product and the utilization of clearly justified and valid assumptions and methodologies.

c. Quality Assurance. MSCs are responsible for evaluating and recommending changes to the district's QC process. The MSCs' QA process will assure that the QC plan for the project is appropriate. The overall goal of the QA process is to assure that the districts are able to plan, design, and deliver quality projects on schedule, within budget and acceptable to the customer and the Federal Government. Division Commanders shall approve QA plans.

d. Policy Compliance Review. The process for accomplishing policy compliance shall begin with study initiation, and proceed in partnership among the district, MSC and Headquarters until project authorization. Districts are responsible for policy compliance. MSCs are responsible for assuring policy compliance. This process is intended to assure that policy issues are raised and resolved as early as possible in the study, and that final policy compliance reviews of decision documents reflect the success of that process. If policy problems or conflicts are not raised and resolved until the final policy compliance review rather than during the study, the policy partnership between the district, MSC and Headquarters shall be considered a failure.

(1) Compliance Support. Policy compliance support will be available to districts and MSCs on all studies leading to decision documents from initiation to completion. For feasibility studies leading to pre-authorization decision documents, support shall include a preliminary policy compliance review as part of a formal Alternative Formulation Briefing (AFB). The AFB will be scheduled prior to the selection of the recommended plan during the study. It will result in an AFB Project Guidance Memorandum (PGM) describing all policy issues and their

resolution. Subsequent discussions and resolutions of these issues and any additional issues shall be handled through a modification to this AFB PGM.

(2) Compliance Review, Approval and Certification. Headquarters shall be responsible for the policy review, approval and certification of all decision documents requiring Congressional authorization or ASA(CW) approval. Policy review involves the analysis of decision factors and assumptions used to determine the extent and nature of Federal interest, project cost sharing and cooperation requirements, and related issues. Policy compliance review shall ensure that established policy and procedures are applied uniformly nationwide and identifies policy issues that must be resolved in the absence of established criteria, guidance, regulations, laws, codes, principles and procedures or where judgment plays a substantial role in decision making. Policy compliance review also shall ensure that the proposed action is consistent with the overall goals and objectives of the Civil Works program. The final approval and certification of decision documents for policy compliance shall incorporate the AFB PGM and its approved modifications, with sufficient review to assure that documents remain consistent with policy; this shall not constitute a new or independent policy review. Appendix H discusses in detail the policy compliance review process.

4-5. Post-authorization Changes. This section provides guidance for making changes to uncompleted authorized projects. An authorized project is defined as a one specifically authorized by Congress for construction, generally through language in an authorization or appropriation act, or a project authorized pursuant to Section 201 of the Flood Control Act of 1965. Depending on the nature and scope of the changes, a General Reevaluation Report or Limited Reevaluation Report will be required as discussed in paragraphs 4-1b(1) and 4-1b(2) and Appendix G.

a. Addition of Project Purposes. General authorities allow for the addition of project purposes, under certain circumstances, without specific congressional authorization. These purposes include water supply, recreation, fish and wildlife enhancement (except for land acquisition), and low flow augmentation for purposes other than water quality. Additionally, there is authority for adding minimum provisions for future hydroelectric power, and conservation of threatened and endangered species. (See Appendix G for additional information.)

b. Authorized Maximum Cost of Projects. Section 902 of the WRDA of 1986, as amended, legislates a maximum total project cost. Projects to which this limitation applies and for which increases in costs exceed the limitations established by Section 902, as amended, will require further authorization by Congress raising the maximum cost established for the project. No funds may be obligated or expended nor any credit afforded that would result in the maximum cost being exceeded, unless the House and Senate committees on Appropriations have been notified that Section 106 of the Energy and Water Development Appropriations Act of 1997 will be utilized. The maximum project cost allowed by Section 902 includes the authorized cost (adjusted for inflation), the current cost of any studies, modifications, and actions authorized by the WRDA of 1986 or any later law, and 20 percent of the authorized cost (without adjustment for inflation). See Appendix G for detailed procedures to calculate these costs.

4-6. Planning Assistance to States (PAS). Within personnel and funding capabilities, commanders shall cooperate with entities requesting assistance under the PAS program by

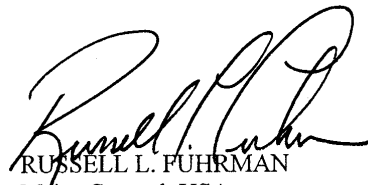
providing planning assistance in an effective and timely manner and in accordance with the guidelines in this regulation (see Appendix G). The Corps may provide technical assistance to support State preparation of comprehensive water and related land resources development plans, including watershed and ecosystem planning and help in conducting individual studies supporting the State water plan. A process of review and evaluation of State work requests and the State water plan determines eligibility for participation in the program. Because of the limited funds available under the PAS Program and because the cost sharing requirements are incompatible between the PAS Program and the General Investigations Program, it is not appropriate to use the PAS Program to prepare reports to Congress.

4-7. Study and Project Deauthorization.

a. Study Deauthorization. Section 710 of the WRDA of 1986 requires an annual submission to Congress of a list of authorized but incomplete water resources studies which have not had funds appropriated during the preceding five full fiscal years. The list is a list of studies meeting the eligibility requirement. Congress has 90 days, after the submission, to appropriate funds for the studies on the list. Studies that are not funded during the 90-day period are no longer authorized. Appendix G contains information on annual report requirements.

b. Project Deauthorization. Section 1001 of the WRDA of 1986 as amended, provides for the deauthorization of water resources projects on which Federal funds for planning, design or construction have not been obligated for 7 fiscal years. Every two years, the Secretary of the Army is required to submit to Congress a list of projects that meet this eligibility criteria. Affected congressional delegations must be notified of the projects in their districts or states. The projects remain on the list for 30 months, after which they are automatically deauthorized if Federal funds are not obligated during the 30-month period. Section 1001(c) requires publication of the lists of deauthorized projects in the Federal Register. The project deauthorization process is managed at HQUSACE by CECW-B and that office should be contacted for further information.

FOR THE COMMANDER:



RUSSELL L. FUHRMAN
Major General, USA
Chief of Staff

8 Appendices
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