

### Principles and Guidelines

The federal objective of water resources planning is to contribute to national economic development while protecting the nation's environment.

The Principles and Guidelines, published in 1983 by the U.S. Water Resources Council and used during the study process, have a single federal objective and provide flexibility to address other state, local, national and international concerns relevant to the planning setting. (See Step 3).

The Principles and Guidelines prescribe the following six-step planning process to solve problems:

- Identify water resources problems in the study area.
- Collect data on the problems identified.
- Develop alternatives to solve the problems.
- Evaluate the effects of the alternatives.
- Compare alternatives.
- Select a plan for recommendation or decide to take no action. The alternative plan with the greatest net economic benefits consistent with protecting the nation's environment is normally selected. An exception may be granted by the Secretary of the Army.

Economic and environmental evaluation procedures have been incorporated into the Principles and Guidelines to provide water resources agencies the best current analytical techniques available.

#### Cost Sharing

Purpose	Non-Federal Share
Navigation - Harbors	20%: depth < 21 ft. 35%: depth 21-45 ft. 60%: depth > 45 ft.
Navigation - Inland	Fuel tax, rising to \$.20/gal by 1995
Flood Control	
Structural	Min. 25% - max. 50%
Nonstructural	25%
Hydroelectric Power	100%
M&I Water Supply	100%
Agricultural Water Supply	35%
Recreation	
Navigation	50%
Other	50% of separable cost
Hurricane & Storm Damage	35%
Aquatic Plant Control	50%

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US Army Corps  
of Engineers

# Six Steps to a Civil Works Project

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The U.S. Army Corps of Engineers is the federal government's largest water resources development and management agency. The Corps began its water resources program in 1824 when Congress for the first time appropriated money for improving river navigation. Since then, the Corps has been involved in improving river navigation, reducing flood damage and controlling beach erosion. Along with these missions, the Corps generates hydropower, supplies water to cities and industry, regulates development in navigable waters and manages a recreation program.

Today, the Corps manages nearly 1,500 water resources projects. The variety and challenge of water projects also serve to maintain the Corps' range of engineering skills, which are critical during national emergencies.

On Nov. 17, 1986, President Reagan signed the Water Resources Development Act of 1986 (PL 99-662). In addition to authorizing scores of new water resource projects, this landmark law made numerous changes in the way potential new projects are studied, evaluated, cost shared and funded. PL 99-662 establishes a framework for a cost-sharing partnership between the federal government and non-federal interests that affords the latter a key role in project planning and allows the federal government to spread its resources over more water projects than would have been possible before.

This pamphlet describes the process of planning, designing and implementing an Army civil works project under provisions of PL 99-662. The steps on the inside panels outline the process for projects requiring Congressional authorization. The panel on the Continuing Authorities Program outlines the process for projects where approval authority has been delegated by Congress to the Chief of the U.S. Army Corps of Engineers.

To get more information on how the federal government can help you with flood control, navigation or other water-related problems, contact the office of the division or district engineer for your area. A map and a list of Corps division offices appear inside.



Robert W. Page  
Assistant Secretary of the Army  
(Civil Works)

## Two-Phase Study Process

The federal government first conducts a reconnaissance to determine whether a federal project can solve local and regional water resources problems. (See Step 3). The reconnaissance phase is 100% federal funded.

Based upon the reconnaissance, the federal government and the non-federal sponsor jointly decide whether a full feasibility study is warranted. (See Step 3). Initiation of the feasibility phase depends on execution of a study cost-sharing agreement with the sponsor.

Cost sharing is not required for a study for a navigation improvement to the inland waterway system.

## Reconnaissance Phase

- Definition of problems and opportunities related to water resources; identification and potential solutions.
- Estimation of benefits and costs of solutions to determine prospects for an implementable project. Appraisal of federal interest in potential solutions.
- Determination as to whether or not further studies are appropriate.
- Estimation of feasibility phase costs.
- Corps and non-federal sponsor must agree to share equally in the cost of the feasibility phase.

## Feasibility Phase

- Further planning and evaluation of alternative solutions to water resources problems.
- Detailed estimation of benefits and costs of alternatives to determine what plans merit Federal participation.
- Preparation of a feasibility report recommending solutions to water resources problems and Congressional authorization.
- Preparation of a letter of intent by State or local entity to financially participate in recommended plan implementation, as demonstrated by mutual concurrence in a draft Local Cooperative Agreement (LCA) for implementation of the project.
- Coordination of feasibility report with Federal, State and local agencies.

## Continuing Authorities Program

Under several different laws, Congress delegated its authority to approve certain projects, up to specified dollar amounts (subject to availability of funds) to the Chief of Engineers. Types of projects covered, and current cost limitations, are:

Types of Projects	Short Name	Statutory Federal Cost Limitation Per Project	Catalog of Federal Domestic Assistance Reference Number
Flood damage reduction	Section 205	\$5,000,000	12 106
Snagging and clearing for flood control	Section 208	500,000	12 108
Navigation	Section 107	4,000,000	12 107
Clearing and snagging for navigation	Section 3	None*	12 109
Beach erosion	Section 103	2,000,000	12 105
Emergency streambank and shoreline protection	Section 14	500,000	12 105

\*Annual program limit of \$1,000,000.

## Planning Process for Continuing Authorities Program Projects

- Corps district office may undertake a reconnaissance upon written request of state or local government official, and the approval of the division office. Studies are initiated subject to the availability of funds and staff.
- The objectives of the reconnaissance study are the same as those for congressionally authorized studies, and are conducted at 100% federal expense. If the results are favorable, the district requests funds to initiate the feasibility phase.
- The feasibility phase will result in a Detailed Project Report (DPR). Non-federal interests must agree to share in the cost of this phase (see Two-Phase Study Process). An exception to this study cost sharing is when the feasibility phase costs are less than \$40,000, in which case the feasibility phase is 100% federally funded.
- The DPR and a copy of the proposed agreement on non-federal financial participation (Local Cooperation Agreement) are submitted to the division engineer for technical review and then to the Chief of Engineers (if the Federal cost exceeds \$2 million).
- Once the division engineer has reviewed the DPR, the district requests funds to prepare plans and specifications.
- When the Secretary of the Army agrees to fund the project, it is approved for implementation by the Chief of Engineers. Implementation may begin once non-federal interests and the federal government sign the local cooperation agreement.

**Major Steps in the Planning, Design and Implementation of Civil Works Projects**

**Step 1**  
**Problem Perception**

**Description**

Local community (i.e., people, businesses) and/or local government perceive or experience water and related land resource problems (i.e., flooding, shore erosion, navigation restrictions, etc.). Problems are beyond local community's/government's capabilities (e.g., jurisdictional boundaries, financial resources, technical expertise, etc.) to alleviate or solve.

**Step 2**  
**Request for Federal Action**

Local officials talk to Corps about available federal programs. Technical assistance and some small projects can be accomplished without congressional authorization (see Continuing Authorities Program).

Local officials contact congressional delegation if study authorization required.

Member of Congress requests study authorization through Public Works Committees.

Committee resolution adopted if report was previously prepared on water problems in area.

Legislation, which may be proposed by the President, is normally required if no Corps report exists.

**Step 3**  
**Study Problem and Report Preparation**

Study is assigned to Corps district office.

Funds to complete a 12-18 month reconnaissance study are included in President's budget (see Two-Phase Study Process).

Appropriations for reconnaissance provided in annual Energy and Water Development Appropriations Act.

District conducts reconnaissance study, leading to a reconnaissance report.

Because most Corps projects involve cost sharing and environmental issues, local proponents should seek an early consensus for or against a Corps project among the public and private sectors and among diverse interest groups.

If study continues beyond reconnaissance phase, local sponsor must agree to share cost of feasibility phase.

A Life Cycle Project Manager (LCPM) or management team is appointed to coordinate the project through the feasibility study, design and eventual construction. The LCPM serves as the point of contact with the project sponsor and other concerned parties, tracks all commitments made during the process, and develops a Project Management Plan.

Public involvement is an integral part of planning process, including review of draft report and draft environmental impact statement (EIS).

Study is conducted under the U.S. Water Resources Council's Economic and Environmental Principles and Guidelines (see Principles and Guidelines) for Water and Related Land Resources Implementation Studies, dated March 10, 1983.

Funds are included annually in President's budget; annual appropriations and non-federal monies are needed to continue study.

Study results in Feasibility Report and EIS which are submitted to Corps division (regional office).

**Step 4**  
**Report Review and Approval**

Division office, which reviews district work during planning process, completes technical review of final district Feasibility Report and EIS.

Division engineer submits report to Washington Level Review Center (WLRC) and issues public notice inviting comments. WLRC conducts Washington review.

Final EIS is filed with Environmental Protection Agency (EPA) and made available to public.

Proposed report of Chief of Engineers and final EIS are sent to heads of federal agencies and governors of affected states for comment.

Board of Engineers for Rivers and Harbors (BERH) or Mississippi River Commission (MRC) submits views and recommendations to Chief of Engineers.

Comments from public are fully considered in BERH or MRC action.

Chief of Engineers considers comments on proposed report and EIS, prepares final report, and submits it to Secretary of the Army.

Chief of Engineers' report is reviewed by Assistant Secretary of the Army (Civil Works).

Office of Management and Budget (OMB) comments on report as it relates to President's programs.

Assistant Secretary of the Army (Civil Works) transmits Chief of Engineers' report to Congress.

**Step**

**Description**

In most cases, Corps continues preconstruction engineering and design following issuance of Division Engineer's Notice. Funds are included in President's budget and Congress acts on each item in appropriations bill.

**Step 5**  
**Congressional Authorization**

Chief of Engineers' reports (see Step 4) are referred to Committee on Public Works and Transportation in House and Committee on Environment and Public Works in Senate.

Civil works projects are normally authorized by Water Resources Development Act (Omnibus Bill) following committee hearings.

Occasionally, Corps proposal is authorized by separate legislation or as part of another bill.

**Step 6**  
**Project Implementation**

New projects are included in President's budget based on national priorities and anticipated completion of design and plans and specifications so that construction contract can be awarded.

Budget recommendations are based on evidence of support by state and ability and willingness of non-federal sponsors to provide their share of project cost.

Congress appropriates federal share of funds for new starts; normally, this occurs in annual Energy and Water Development Appropriations Act.

Secretary of the Army and appropriate Non-federal sponsors sign formal Local Cooperation Agreement (LCA) once Congress has appropriated funds for project implementation to begin.

The LCA obligates non-federal sponsors and the Corps to participate in implementing, operating and maintaining project according to requirements established by Congress and administration. The LCA embodies the specific cost sharing responsibilities for the Corps and the project sponsor.

District completes enough engineering and design for developing plans and specifications for initial project implementation.

Engineering and design continue during implementation process; plans and specifications are reviewed by division offices and sometimes by Headquarters, U.S. Army Corps of Engineers.

Funds are included in President's annual budget for the federal share of the project; appropriations are required to continue design and implementation.

Construction is managed by Corps, but done by private contractors.

Most projects are operated and maintained by non-federal sponsors as part of agreement signed prior to implementation. However, funds are requested in President's annual budget for the federal share where there is a need for continuing federal financing of project operation and maintenance; congressional appropriations are required for such funds.

Corps periodically inspects projects, including those for which non-federal sponsors have assumed an operation and maintenance responsibility.





## US Army Corps of Engineers

### Civil Works Divisions

Lower Mississippi Valley Division  
U.S. Army Corps of Engineers  
P.O. Box 80  
Vicksburg, Mississippi 39180-0080

Missouri River Division  
U.S. Army Corps of Engineers  
P.O. Box 103, Downtown Station  
Omaha, Nebraska 68101-0103

New England Division  
U.S. Army Corps of Engineers  
424 Trapelo Road  
Waltham, Massachusetts 02254-9149

North Atlantic Division  
U.S. Army Corps of Engineers  
90 Church Street  
New York, New York 10007-9998

North Central Division  
U.S. Army Corps of Engineers  
536 S. Clark Street  
Chicago, Illinois 60605-1592

North Pacific Division  
U.S. Army Corps of Engineers  
P.O. Box 2870  
Portland, Oregon 97208-2870

Ohio River Division  
U.S. Army Corps of Engineers  
P.O. Box 1159  
Cincinnati, Ohio 45201-1159

Pacific Ocean Division  
U.S. Army Corps of Engineers  
Building 230  
Fort Shafter, Hawaii 96858-5440

South Atlantic Division  
U.S. Army Corps of Engineers  
510 Title Building  
30 Pryor Street, SW  
Atlanta, Georgia 30335-6801

South Pacific Division  
U.S. Army Corps of Engineers  
630 Sansome Street, Room 924  
San Francisco, California 94111-2206

Southwestern Division  
U.S. Army Corps of Engineers  
1114 Commerce Street  
Dallas, Texas 75242-0216

