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COLORADO COASTAL PLAINS PROJECT-TEXAS

Draft
Plan of Study



BUREAU OF RECLAMATION
SOUTHWEST REGION



JANUARY 1975



COLORADO COASTAL PLAINS PROJECT, TEXAS

Plan of Study

Outline

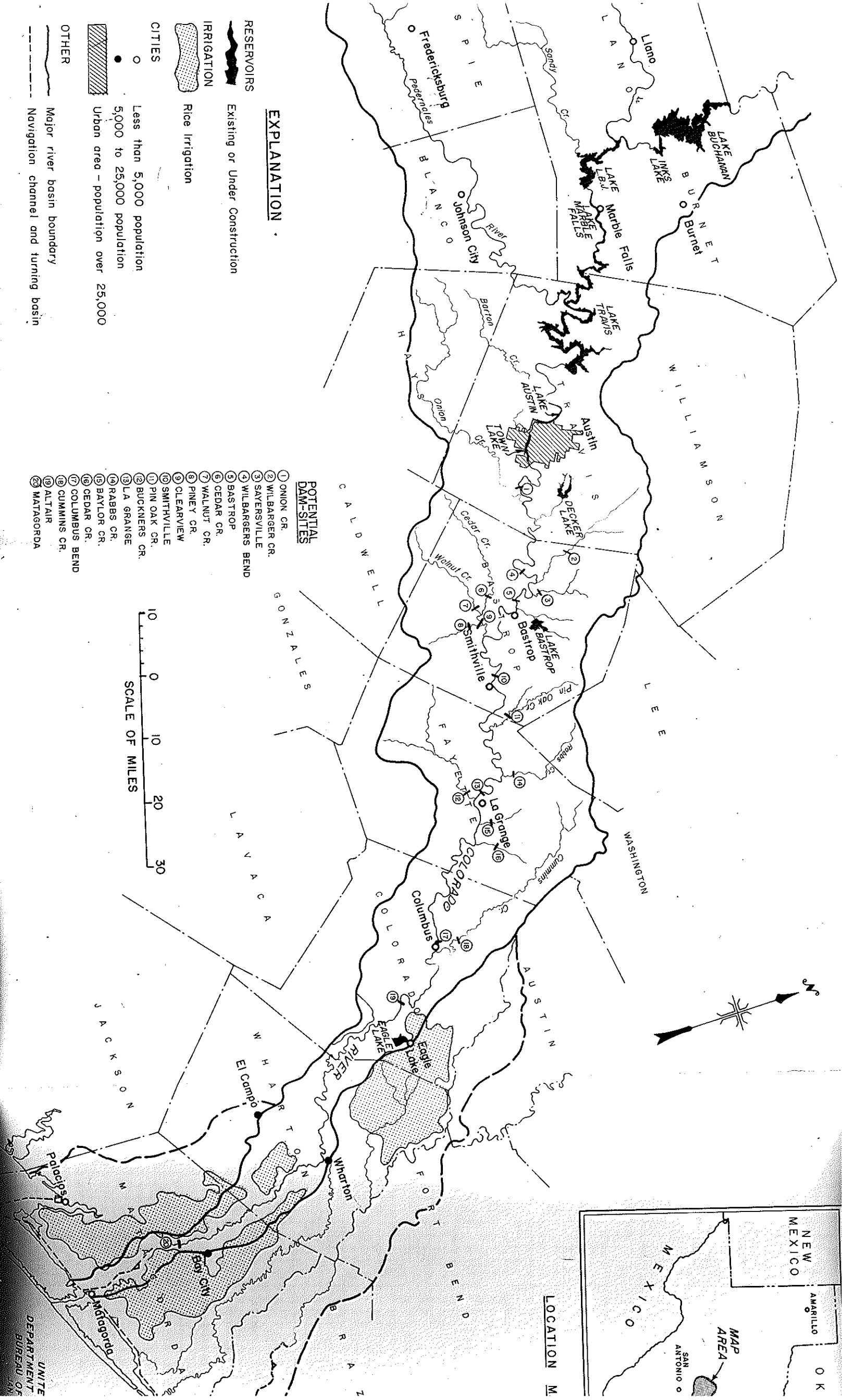
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Foreword

A chain of six reservoirs on the Colorado River, Texas, above Austin provides regulation of flows for beneficial uses. These reservoirs provide storage for flood control, municipal and industrial water supplies, hydro-electric power generation, irrigation, fish and wildlife conservation, and recreation. The rapidly increasing water requirements of the expanding Highland Lake developments, the city of Austin, and the anticipated additional electrical power generation and future municipal and industrial needs in the downstream reaches will soon exceed the capabilities of existing facilities.

This increasing water requirement prompted the Lower Colorado River Authority, the responsible State of Texas agency, to petition Congress to appropriate funds for an investigation that would provide for sound management of the water resources of the "Coastal Plains" portion of the Colorado River Basin.

The 93d Congress appropriated the necessary funds for the Bureau of Reclamation to initiate investigations in fiscal year 1975. Distribution of the Notice of Initiation of Investigation was made in January 1975. It is expected that the study will take 3 years to complete.



Principles and Standards

The study will be conducted in accordance with established procedures for implementing multiobjective planning as set forth by the Water Resources Council's Principles and Standards for Planning Water and Related Land Resources. The procedures were approved by the President on September 5, 1973.

The principles and standards are to be used for planning the use of water and related land resources of the United States to achieve objectives of the specific program or project, determined cooperatively, through the coordinated actions of the Federal, State, and local governments; private enterprises and organizations; and individuals.

The overall purpose of the water and land resources planning is to promote the quality of life, by reflecting society's preference for attainment of the objectives defined below.

1. To enhance national economic development by increasing the value of the nation's output of goods and services and by improving national economic efficiency.
2. To enhance the quality of the environment by the management, conservation, preservation, creation, restoration, or improvement of the quality of certain natural and cultural resources and ecological systems.

Structural as well as nonstructural alternatives will be evaluated.

DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
NOTICE OF INITIATION OF INVESTIGATION

Name of Investigation: Colorado Coastal Plains Project, Texas

Location of Investigation: South-central Texas on the Colorado River below Austin

Date Investigation Initiated: January 1975

Probable date of completion: June 1978

1. Scope of investigation:

Public Law 89-561, 89th Congress, authorized the Bureau of Reclamation to perform a feasibility investigation of the coastal streams of Texas. This study will investigate the water resources of the Colorado River Basin below Mansfield Dam that are available to meet the present and future needs of the area. The study will include a look at various alternatives and their impacts using procedures as set forth in the Water Resources Council's Principles and Standards for Planning Water and Related Land Resources.

2. Nature of problems involved:

The "Highland Lakes" above Austin consist of six reservoirs that provide regulation of the Colorado River flow for beneficial use. It is now apparent the rapidly increasing water requirements of the area served by the Highland Lakes will soon exceed the capabilities of the existing facilities.

3. Prospective solutions which should be explored:

Alternative plans will be formulated to utilize the water resources of the Colorado River below Mansfield Dam. The plans will evaluate both construction and nonconstruction alternatives. Coordinated multiobjective planning procedures will be used in an effort to assure the optimum use of the total resources.

1-17-75
Date

J. A. [Signature]
Regional Director, Southwest Region

History of Investigations

Investigation of potential surface water developments in the Colorado River Basin by the Bureau of Reclamation began in 1938. These investigations were initially concerned with individual irrigation projects but later were extended to provide a basin-wide inventory of water resources. The results of these investigations and similar investigations in other river basins formed the basis for a report entitled "Water Supply and the Texas Economy", completed in January 1953 and published as Senate Document No. 57, 83rd Congress, 1st Session.

As a result of the generally favorable reception accorded this document, the Bureau was requested to undertake the additional investigations required for development of a comprehensive water use plan for the portion of Texas included in the basins of streams entering the Gulf of Mexico, from the Sabine River to the Rio Grande, inclusive, and to prepare a report presenting that plan. These studies, designated collectively as the Texas Basins Project Investigation, were initiated in 1954 and reported on in February 1965.

In 1957 the LCRA requested the Bureau of Reclamation to initiate feasibility-grade studies of the water supply and power potentials of the Columbus Bend site and contributed \$20,000 toward investigation costs. The study was completed in 1960. Representative Clark W. Thompson introduced House Document No. 2325, 87th Congress. Field hearings of the Subcommittee on Irrigation

87th Congress. Field hearings of the Subcommittee on Irrigation and Reclamation were held at La Grange, Texas, November 6, 1961. Departmental hearings were held in Washington, D.C., August 14, 1962. No action was taken on the bill by the committee. In the 88th Congress, Representative Thompson reintroduced the bill as House Document No. 17. Hearings were held May 7-8, 1964, in Washington D.C., and the bill died in committee. No further Congressional action has been taken on project authorization.

In 1958 the United States Study Commission-Texas was established to formulate a comprehensive and coordinated plan for the land and water resources of the eight major intrastate river basins. The report of this commission was published in March 1962.

In August 1964 Governor John Connally requested that a comprehensive State water plan be developed that would "...explore all reasonable alternatives for development and distribution of all our water resources to benefit the entire State, including proposals contained in preliminary reports of the Federal agencies." The Texas Water Development Board carried out this assignment and published the Texas State Water Plan in November 1968.

A Wastewater Management Plan, dated September 1973, was prepared by the Corps of Engineers for the Governor's planning committee. The management plan was approved by the Environmental Protection Agency Region VI on December 4, 1973. The data in this report are intended for use by the communities in the basin as background

material for future planning actions in wastewater management and other water quality fields. Volume VII applies to the area from the upper reaches of Buchanan Reservoir to the Gulf Coast.

Other studies of the area have been prepared by private consulting firms, Regional Council of Governments, and other entities and are available for use in the Bureau's investigations.

Multiobjective Plan Formulation

Planning Process Flow Chart

The following page is an organizational chart depicting an inter-agency multidisciplinary planning process that will be used as a procedure for studying the Colorado Coastal Plains area. The chart is by no means conclusive and, as the study progresses, it will be modified to adapt more specifically to the project study.

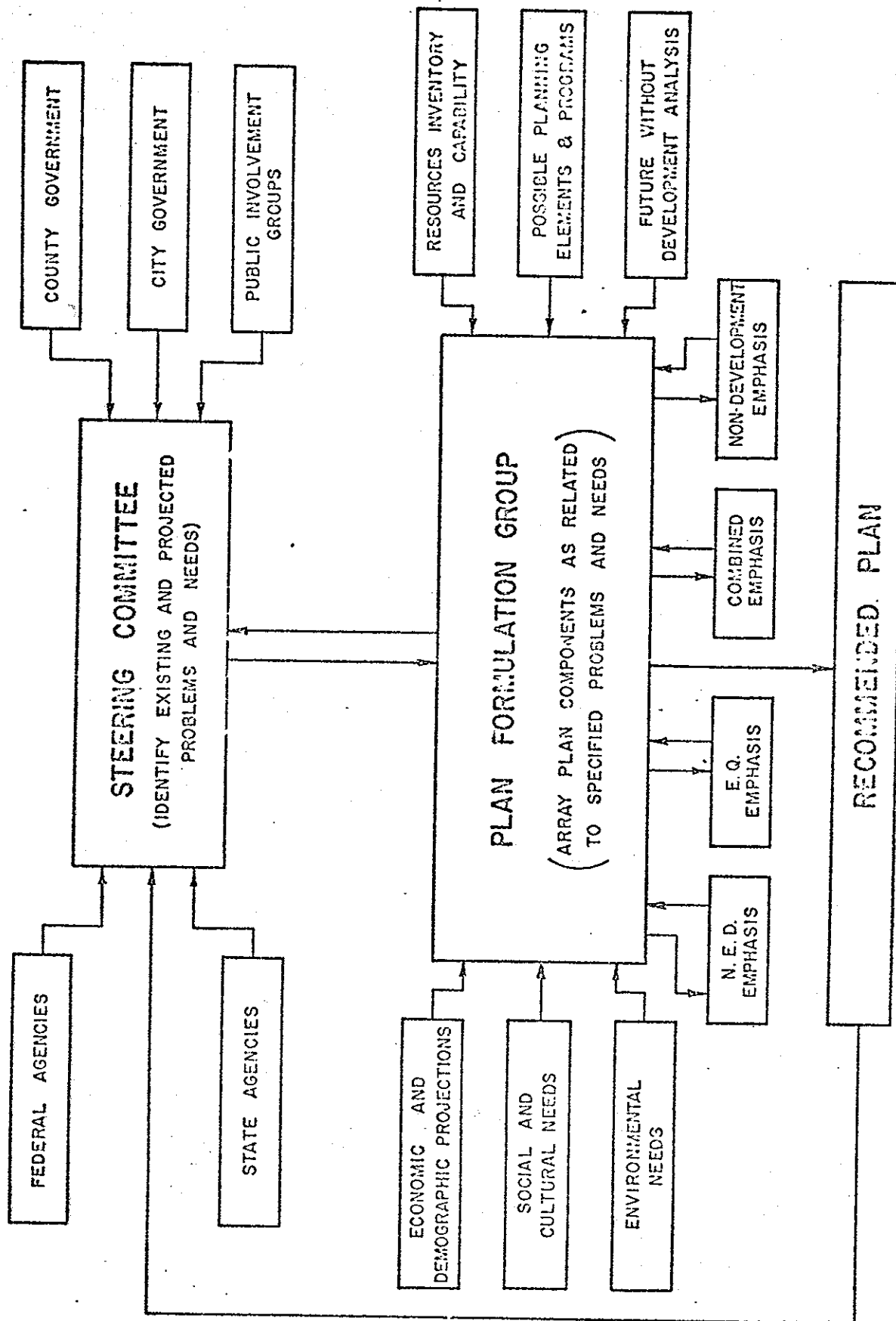
Plan Development

The planning process involves the evaluation of resources, needs, and formulation of alternate plans of utilization including both structural and nonstructural methods. At least one alternate plan with emphasis on national economic development and one alternate plan with emphasis on environmental quality will be formulated. Additional alternate plans which include significant technological, legal, or public interests or which reflect trade-offs between the two objectives may also be formulated so that the best possible overall plan will be developed.

Each alternate plan will be evaluated by comparing conditions with and without the plan.

Each alternate plan will include a system of four accounts (national economic development, environmental quality, regional development, and social well-being) that display the beneficial and adverse effects of each alternate. Beneficial and adverse effects will be expressed in both monetary and nonmonetary terms.

INTERAGENCY MULTIDISCIPLINARY PLANNING PROCESS



The four accounts will consider at least the following components:

National Economic Development

- A. Water supply
- B. Flood control
- C. Land stabilization (streambank erosion)
- D. Drainage
- E. Increased production (agricultural, industrial)
- F. Changes in land-use patterns
- G. Recreation
- H. Increased output due to external economics
- I. Unemployment and underemployment
- J. Other economic factors

Environmental Quality

- A. Protection, enhancement, or impact on:
 - 1. Open or green space
 - 2. Wild or scenic rivers
 - 3. Lakes
 - 4. Wilderness areas
 - 5. Other areas of natural beauty
- B. Preservation and enhancement of:
 - 1. Archeological resources
 - 2. Historical resources
 - 3. Biological resources
 - 4. Geological resources
 - 5. Ecological systems

C. Pollution control for the enhancement of:

1. Water quality
2. Land quality
3. Air quality

D. Preservation of freedom of choice to future resource users by actions that minimize or avoid irreversible or irretrievable effects.

Regional Development

- A. Value of goods and services
- B. Employment
- C. Population distribution
- D. Economic base and stability
- E. Environmental conditions
- F. Other specified components of regional development

Social Well-being

- A. Income
- B. Security of life, health, and safety
- C. Educational, cultural opportunities
- D. Emergency preparedness
- E. Other social well-being factors

From its analysis of alternate plans, the planning organizations may select a recommended plan. The plan selected will reflect the importance attached to the different objectives and the extent to which the different objectives can be achieved by carrying out the plan.

Coordination and Review During the Planning Process

The success of the planning process depends on the participation of organizations and individuals that are interested in the growth and development of the Colorado River Basin below Austin, Texas. The planning leaders have the challenging responsibility of encouraging and guiding this participation. This responsibility will require an aggressive public involvement participation program in order to identify project problems and needs and to formulate the best possible plan or plans to satisfy these needs and problems. The priorities and preferences of the various organizations and individuals participating in the project are expected to vary. In all probability there will not be full agreement on the beneficial and adverse effects or on the relative trade-offs between the alternatives. However when a final plan is selected from the various alternate plans, this plan should best express the priorities and preferences of the planning group.

Detailed implementation of the plan of study will require indepth consultation with Federal, State, and local officials and will require direct input from the public involved at the local and regional level. Consultation and involvement will be accomplished by:

- A. Soliciting public opinion early in the planning process;

B. Holding public meetings early in the planning process to advise the public of the nature and scope of the study and to listen to the needs and views of the public. Interested individuals and agencies will be identified;

C. Encouraging expression of the public's views, both orally and in writing; and

D. Making all plans, reports, data analysis, interpretations, and other information available for public inspection.

To assure that all interests, Federal, State, and local, have a chance to provide input at the start of a project, an interim organization is being established to perform the activities associated with preparation of the plan of study. This organizational pattern will be modified and/or expanded as necessary to conduct the feasibility investigation.

The following groups of Federal, State, and private organizations and individuals are listed to show an inventory of available expertise that will be solicited for participation in the multiobjective planning process.

COLORADO COASTAL PLAINS, TEXAS

Public Participation Inventory of Available Expertise

Federal Agencies

Bureau of Reclamation
Soil Conservation Service
Corps of Engineers
U.S. Fish and Wildlife Service
National Marine Fisheries Service
Bureau of Outdoor Recreation
Environmental Protection Agency
U.S. Geological Survey
Bureau of Mines
National Park Service

State Agencies

Lower Colorado River Authority
Texas Water Development Board
Texas Water Rights Commission
Texas Water Quality Board
Texas Parks and Wildlife Department
Governor's Office of Planning
Coordination
Texas Historical Commission
Texas General Land Office
Matagorda County Navigation
District No. 1
Port of Bay City Authority

Local Groups

City Governments
County Governments
1. Travis
2. Bastrop
3. Fayette
4. Colorado
5. Wharton
6. Matagorda
Capitol Area Council of
Government
Houston-Galveston Council of
Government
Texas Mid-Coast Water
Development Association
Colorado River Industrial
Development Association
Sierra Club
Colorado River Water
Development Association

Schedule of Meetings to Conduct Feasibility Investigations

In order that our investigations proceed in an orderly fashion, we have prepared a meeting outline based on Reclamation instructions and recent "public participation" documents. The planned meetings are as follows:

First Meeting (Held in Amarillo, Texas, January 6, 1975)

Preliminary Evaluation Meeting

Participants: Regional Planning Officer, Austin Planning Officer, and Team Leader

Purpose: To review past work and evaluate current conditions which might affect the nature and/or procedures of the study.

Second Meeting (Scheduled to be held in Austin, Texas, February 26, 1975)

Preplanning Conference

Participants: Regional Planning Officer, Team Leader, Austin Planning Officer, Federal and State agencies as appropriate, political leaders, city governments, public involvement group chairman, and environmental and social groups.

Purpose: (1) To discuss the plan of study to later be presented to the public; (2) outline background and scope of study; and (3) obtain input from attendees, such as items to be studied, procedures to be followed, and additions to list of possible public participants.

Third Meeting (Scheduled to be held in Amarillo, Texas)

Planning Program Conference

Participants: Regional Planning Officer, Austin Planning Officer, Team Leader, representatives of the E&R Center and Washington offices, and selected staff representing the various disciplines involved.

Purpose: To review input received from the preplanning conference and establish the general study approach and priorities.

Other Meetings

Public Information Meetings or Workshops, information exchange.

Purpose: To inform the public of the study and ask for any views or comments they might have.