

DOCUMENT RESUME

06489 - [B1946966]

Improved Project Authorizations and Agency Practices Can Increase Congressional Control of Water Resources Projects. CED-78-123; B-167941. July 11, 1978. Released July 25, 1978. 23 pp. + 3 appendices (12 pp.).

Report to Sen. Edmund S. Muskie, Chairman, Senate Committee on Budget; Sen. Henry Bellmon, Ranking Minority Member; by Elmer B. Staats, Comptroller General.

Issue Area: Water and Water Related Programs (2500).

Contact: Community and Economic Development Div.

Budget Function: Natural Resources, Environment, and Energy; Water Resources and Power (301).

Organization Concerned: Department of the Interior; Bureau of Reclamation; Department of the Army; Corps of Engineers.

Congressional Relevance: House Committee on Interior and Insular Affairs; Senate Committee on Energy and Natural Resources; Senate Committee on Budget. Sen. Edmund S. Muskie; Sen. Henry Bellmon.

Authority: Flood Control Act of 1965 (P.L. 89-298). Water Resources Development Act of 1974. Water Resources Development Act of 1976. Colorado River Basin Salinity Control Act, title I.

The Congress has used two separate authorization methods to control the development of funding of water resources projects--the two-phase authorization for the Corps of Engineers and an authorization ceiling for the Bureau of Reclamation. The two-phase authorization was begun in 1974 to give the Congress increased control over the design of water resources projects and the changes which occur during project planning by providing the Congress with a second look during the planning phase before authorization of construction. Findings/Conclusions: Each of the authorization methods provides some benefits to the Congress, but neither is adequate by itself to provide effective control over planning and developing the projects. No Corps projects have been through the two-phase process because of delays by the Secretary of the Army and the Office of Management and Budget in reviewing Corps planning documents. Although the Corps must state that a project is without substantial controversy to allow a continuation of planning, no criteria for defining this term have been established. The Corps has not adequately notified the Congress of changes to projects and the reasons for them. It has exceeded estimated costs by significant amounts for noninflationary items without notifying the authorization committees and has credited inflation for too much of increased costs. Benefits of the authorization ceiling are that it serves as an early indicator of problems, limits Federal expenditures, and controls the nature and scope of projects. Current problems in establishing the authorization ceiling are that it is established too early in the planning process for

adequate data to be available, and the Bureau sometimes overstates the ceilings. Recommendations: The Secretary of the Army should direct the Corps of Engineers to: develop criteria which would identify a project as having substantial controversy, including in the criteria a recognition that opposition by the State or local sponsor qualifies as controversy; and require that post-authorization change reports be provided to the appropriate authorization committees when cost increases for noninflationary items are significant and assure that causes of cost increases are properly identified. The Secretary of the Interior should direct the Bureau of Reclamation to: limit the noncontract portion of the ceiling represented by Federal salaries to increases caused by Federal classified pay raises, limit the land ceiling increases to those caused by inflation, exclude from the indexing system all expended funds on an annual basis, and improve the review process to assure compliance with Bureau regulations and guidelines. If the Congress believes that additional control over projects is warranted, an alternative method should be used that includes an improved two phase authorization coupled with an authorization ceiling. (Author/HTW)

69124

REPORT BY THE

Comptroller General

OF THE UNITED STATES

RESTRICTED — Not to be released outside the General Accounting Office except on the basis of specific approval by the Office of Congressional Relations.

RELEASED

7/25/78

Improved Project Authorizations And Agency Practices Can Increase Congressional Control Of Water Resources Projects

The Congress could increase its control over the development and funding of water resources projects by incorporating both a two-phase authorization and an authorization ceiling for all major projects. These controls would increase the authorization committees' opportunities to evaluate and review project planning and construction without impeding project progress. In addition, the Bureau of Reclamation and the Corps of Engineers need to improve the accuracy and reliability of authorization ceiling and project cost information provided to the Congress.

The Chairman and Ranking Minority Member of the Senate Committee on the Budget requested that GAO review the various ways that the Congress authorizes individual water resources projects and evaluate the possibility of using alternatives to obtain closer regulation by the authorization committees.



CED-78-123
JULY 11, 1978



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-167941

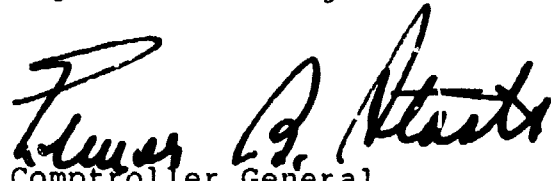
The Honorable Edmund S. Muskie, Chairman
The Honorable Henry Bellmon, Ranking
Mincrity Member
Committee on the Budget
United States Senate

Dear Senators:

This report responds to one main area of your August 5, 1977, request. It describes how the Bureau of Reclamation and Corps of Engineers fund and control water resources projects and presents an alternative procedure leading to closer regulation by authorization committees. Reports addressing other areas of the request have been issued or will be issued later.

As requested by your office, we gave the Bureau and Corps 30 days to respond to our draft. The Bureau was able to meet the deadline, but the Corps was not. Consequently, we met informally with the Corps to discuss the draft and their comments are included where appropriate.

As agreed with your staff, unless you publicly announce its contents earlier, we plan no further distribution of this report until 14 days from the date of the report. At that time, we will send copies to the appropriate Senate and House committees, the Secretary of the Interior, the Secretary of the Army, and the Office of Management and Budget.


Comptroller General
of the United States

D I G E S T

The Congress has used two separate authorization methods to control the development and funding of water resources projects--the two-phase authorization for the Corps of Engineers and an authorization ceiling for the Bureau of Reclamation.

Although each provides some benefits to the Congress, neither is adequate by itself to provide effective control over planning and developing the projects.

If the Congress believes that additional control over water resources projects is warranted, the General Accounting Office (GAO) suggests an alternative method that includes an improved two-phase authorization (an initial authorization for planning and general design and a second authorization just before construction) coupled with an authorization ceiling. (See ch. 5.) This change will provide increased congressional control of Bureau and Corps projects by providing better data before authorization and establishing a more realistic ceiling to control Federal expenditures. These changes can be made without increasing agency workloads materially or affecting program activities.

The Department of the Interior agreed that a two-phase authorization was appropriate and recommended that the Congress consider adopting such a proposal.

A two-phase authorization for Corps projects was begun in 1974 to give the Congress increased control over the design of water resources projects and the changes which occur during project planning. This was to be accomplished by providing the Congress with a second look at a project during the planning phase before authorization of construction.

In practice, however, no Corps projects have been through the two-phase process. This is due to delays by the Secretary of the Army and the Office of Management and Budget in reviewing Corps planning documents.

Additional delays are possible because the Corps and the Congress disagree on detailed work which should be accomplished in developing documentation to be submitted to the Congress for authorization of construction. (See pp. 6 to 8.)

Although the Corps must state that a project is without substantial controversy to allow a continuation of planning, no criteria for defining the term has been established. Consequently, it is difficult to determine whether or not congressional intentions are being fulfilled. (See p. 8.)

The post-authorization change process offers another opportunity to the Congress to check changes to Corps projects after authorization, but to be effective the Congress must be notified adequately of changes and the reasons for them.

The Corps process, however, did not meet these objectives; instead the Corps

- exceeded the estimated cost of projects and project features by significant amounts for noninflationary items without notifying the authorization committees and

- credited inflation for too much of the increased cost of projects. (See pp. 10 to 12.)

The authorization ceiling used by the Congress in authorizing Bureau of Reclamation projects provides a number of benefits. It

- serves as an early indicator of problems,
- limits Federal expenditures, and
- controls the nature and scope of projects.

These benefits can be achieved without seriously affecting engineering flexibility. (See pp. 14 to 16.)

On the other hand, there are two basic problems in the way the ceiling currently is being identified and established. First, it is sometimes established so early in the planning process that adequate cost and design data often is not available. Many projects, as a result, will require reauthorization. Second, the Bureau sometimes overstates the authorization ceilings by using the wrong data base, applying inappropriate overhead indexes, permitting actual land purchases to increase the ceiling, and inflating amounts already expended. (See pp. 16 to 19.)

GAO made a number of recommendations to the Secretaries of the Army and the Interior aimed at improving the accuracy and reliability of authorization ceiling and project cost information provided to the Congress. (See pp. 8, 13, and 20.)

At the request of the office of the Committee on the Budget, GAO gave the Bureau and the Corps 30 days to respond to our draft. The Bureau responded and generally agreed with our recommendations. (See p. 20.) As the Corps was unable to formally respond in the required period, GAO met with them to discuss our draft; their informal comments are included where appropriate. Basically, Corps officials were not sure that an explicit definition of substantial controversy was necessary or that the Congress desired more information on project changes after authorization. (See pp. 9 and 13.)

C o n t e n t s

Page

DIGEST

i

CHAPTER

1	CONGRESSIONAL AUTHORIZATION OF WATER RESOURCES PROJECTS	1
	Corps of Engineers authorizations	1
	Bureau of Reclamation authorizations	2
	The use of congressional appropriations to authorize project expenditures	3
	Scope of review	3
2	CONGRESSIONAL CONTROL OVER CORPS WATER RESOURCES PROJECTS CAN BE IMPROVED	5
	Rationale for the two-phase authorization	5
	Problems with the two-phase authorization	6
	Recommendations to the secretary of the Army	8
3	POST-AUTHORIZATION CHANGE PROCESS-- ANOTHER OPPORTUNITY FOR CONGRESSIONAL CONTROL OVER CORPS PROJECTS	10
	Need for full disclosure of substantial cost increases	10
	Need to properly account for inflation in justifying cost increases	11
	Conclusions	12
	Recommendations to the Secretary of the Army	13
4	CONGRESSIONAL CONTROL OVER BUREAU WATER RESOURCES PROJECTS CAN BE IMPROVED	14
	Ceiling, an early indicator of problems	14
	Ceiling limits Federal expenditures	15
	Ceiling controls nature and scope of project	15
	Need for more realistic authorization ceilings	16
	Conclusions	19

	<u>Page</u>
Recommendations to the Secretary of the Interior	20
Agency comments and our evaluation	20
5 ALTERNATIVE FOR INITIATING BETTER CONGRESSIONAL CONTROL OVER WATER RESOURCES PROJECTS	22
Proposed alternative for authorizing water resources projects	22
 APPENDIX	
I Letter dated August 5, 1977, from Senators Henry Bellmon and Edmund S. Muskie	24
II Authorization data for projects in review	27
III Letter dated June 9, 1978, from the Office of the Secretary, Department of the Interior	29

ABBREVIATIONS

GAO	General Accounting Office
OMB	Office of Management and Budget

CHAPTER 1
CONGRESSIONAL AUTHORIZATION OF
WATER RESOURCES PROJECTS

On August 5, 1977, the Chairman and Ranking Minority Member of the Senate Committee on the Budget requested that we review the various ways that the Congress authorized individual water resources projects and evaluate the possibility of using alternatives which could result in closer regulation by the authorization committees. (See app. I.) Specifically, the Committee asked that we evaluate the effectiveness of (1) the Corps of Engineers' two-phase project authorization and (2) the Bureau of Reclamation's authorization ceiling.

CORPS OF ENGINEERS AUTHORIZATIONS

With the exception of certain small projects of limited scope which may be accomplished with continuing Secretary of the Army and Corps authorities, water resources projects require specific congressional authorization. The actual project authorization may be in one of several forms depending on congressional intent, such as:

- The monetary authorization. This authorization establishes a specific limitation on appropriation authority for particular basins or major projects. Because the total cost of anticipated work generally exceeds the amount authorized, continuous congressional reauthorization is required as work progresses. This form of authorization was initiated by the Flood Control Acts of 1936 and 1938 to provide a congressional opportunity to review and control basin planning and project construction rates. Twenty-nine basin development plans are subject to the monetary authorization.
- The section 201 authorization. Section 201 of the Flood Control Act of 1965 (Public Law 98-293 as changed by Public Law 94-587) permits the Secretary of the Army, acting through the Chief of Engineers, to administratively authorize water resources projects which cost less than \$15 million. Before any appropriations are made for section 201 projects, the Senate and House Committees on Public Works must approve the projects by resolution.
- The single-phase construction authorization. This traditional congressional authorization permits both planning and construction to proceed on the basis of

a Corps survey report. Although the Corps provides the Congress with a project cost estimate for authorization, the estimate does not limit Federal expenditures.

--The two-phase authorization. This new congressional procedure (1974) authorizes additional project planning after the survey report, but does not allow project construction to proceed without an additional congressional authorization.

--The ceiling authorization. This infrequently used limitation provides an authorization ceiling that rises or falls with price fluctuations (inflation).

BUREAU OF RECLAMATION AUTHORIZATIONS

Generally, Bureau projects are authorized with flexible authorization ceilings which increase with inflation. The ceiling applies to very small projects as well as those costing several hundred million dollars. Even though the authorization ceiling is established at the time construction is authorized, the details of the project may not have been clearly defined.

Legislation authorizing the construction of Bureau projects generally includes a provision which states:

"There is hereby authorized to be appropriated for construction of the (name) the sum of \$xx,xxx,xxx (month, year prices), plus or minus such amounts, if any, as may be justified by reason of ordinary fluctuations in construction costs as indicated by engineering cost indexes applicable to the type of construction involved herein."

The phrase "plus or minus such amounts" permits inflation to raise the authorization ceiling.

For example, if the original authorization was \$100 million in January 1974 prices, the authorization ceiling could automatically increase annually with inflation. A 10-percent increase in construction prices during 1974 would change the January 1975 ceiling to \$110 million. A 5-percent rate of inflation during 1975 would further increase the January 1976 ceiling to \$115.5 million. This example indicates the indexing process in its simplest form and does not consider any of the more complicated adjustments that have to be made during the indexing process, such as an adjustment for expenditures of appropriated funds that are no longer affected by inflation.

These more complicated adjustments are discussed later in this report.

If noninflationary factors escalate project costs above the Bureau ceiling, generally two available options are

--restructure the project to reduce costs without substantially reducing the projects' benefits or

--return to the Congress for reauthorization before actual appropriations exceed the ceiling.

THE USE OF CONGRESSIONAL APPROPRIATIONS TO AUTHORIZE PROJECT EXPENDITURES

In some instances agency officials have interpreted congressional appropriations as implicit congressional authorizations for changes in water resources projects. Both the Interior and the Corps, however, do not accept the propriety of using congressional appropriations to authorize changes. The Interior's Associate Solicitor stated that

"* * * not only should Congress be informed of such proposed changes in authorization, but also that Congress itself must somehow manifest approval of the changes. This is only logical because what is being changed is actual authorizing legislation previously adopted by Congress. There must, in other words, be an affirmative legislation adoption rather than mere acquiescence by silence."
[Underscoring added for emphasis.]

A similar opinion was expressed by the Corps in draft regulations:

"We do not consider congressional appropriations as 'authorizations' for changes in project scale, scope, purpose or local cooperation just because these changes are noted in the justification statement.

"'Authorized by Congress' means legislation which specifically authorizes project scale, scope, purposes and local cooperation requirements."

SCOPE OF REVIEW

We analyzed congressional controls over project changes and cost escalation, including an evaluation of the usefulness of the authorization ceiling and the two-step authorization.

We also evaluated existing agency procedures to assure congressional awareness of project changes.

We evaluated Corps controls on two projects: the Hillsdale Lake Project in Kansas, administered by the Kansas City District Office, and the Tensas Basin Project in Arkansas and Louisiana, administered by the Vicksburg District Office. The two-phase authorization process was evaluated at both locations, at the Missouri River and the Lower Mississippi Valley Division Offices, and at the Washington Headquarters.

We evaluated existing Bureau controls at the Regional Office in Salt Lake City, Utah, for the Bonneville Unit and Recreation and Fish and Wildlife of the Colorado River Storage Project and at the Regional Office in Boulder City, Nevada, for part of the Salinity Control Project in Arizona and the Southern Nevada Water Project. Appendix II includes a brief description of each project we analyzed.

As part of our continuing work on water resources projects, we will issue a report on project priorities and cost estimates in the near future. Included in that report is an analysis of the impact of full funding on water resources projects.

CHAPTER 2

CONGRESSIONAL CONTROL OVER CORPS WATER RESOURCES

PROJECTS CAN BE IMPROVED

A two-phase authorization for Corps projects was implemented in 1974 to give the Congress increased control over the design of water resources projects and the changes which occur during the project planning. This was to be accomplished by providing the Congress with a second look at a project during the planning phase and before authorization of construction. In practice, however, no Corps projects have yet been through the two-phase process because of delays by the Secretary of the Army and the Office of Management and Budget in reviewing Corps planning documents. Additional delays are possible because the Corps and the Congress disagree on the detailed work which should be accomplished in developing the documentation to be submitted to the Congress for the construction authorization.

In addition, although the Corps must state that a project is without substantial controversy to allow a continuation of planning, no criteria for defining the terms have been established. Consequently, it is difficult to determine whether or not congressional intentions are being fulfilled.

RATIONALE FOR THE TWO-PHASE AUTHORIZATION

The Congress formally adopted the two-phase authorization in the 1974 and 1976 Water Resources Development Acts for many new projects. Legislative histories indicate that the Congress adopted the two-phase authorization to increase its control over the design for and approval of new water resources projects. The Congress recognized that major changes in projects occurred between project authorization and the initiation of construction. Since the changes were necessary because of new legislation, public opinion and attitudes, revised Federal policies, and advanced technology, the Congress wanted a second opportunity to evaluate the changes.

The two-phase authorization should have been easy to implement because the Corps independently adopted its own two-phase advance engineering and design process. Their first phase culminates in the Phase I General Design Memorandum which either reaffirms the project plan as set forth in the initial authorizing document or reformulates the project to fulfill new conditions. The Congress intended that the Phase I General Design Memorandum would provide sufficient information for the construction authorization.

During the second phase the Corps prepares the Phase II General Design Memorandum, a document which provides a detailed design of the project. Some feature designs and even specifications may also be prepared during Phase II.

Both the 1974 and 1976 acts prohibit the Corps from proceeding into the second phase of advanced engineering and design until the Chief of Engineers transmits a Statement of Findings on the first phase to the Committees on Public Works of the Senate and House of Representatives which declares

"* * * that the project is without substantial controversy, that it is substantially in accordance with and subject to the conditions recommended for such project in this section, and that the advanced engineering and design will be compatible with any project modifications which may be under consideration."

If these conditions are satisfied and if appropriations are available for planning, the Corps can proceed into the second phase without further authorization by the Congress. This enables the Corps to avoid any unnecessary delays in the planning process while waiting for a construction authorization. The Corps cannot initiate construction, however, until the project has been authorized for construction.

PROBLEMS WITH THE TWO-PHASE AUTHORIZATION

None of the projects with a two-phase authorization have yet received construction authorization because the Corps has not transmitted the required Phase I General Design Memorandum to the Congress. The delays in transmitting the Memorandum have resulted from detailed administrative reviews by the Secretary of the Army and the Office of Management and Budget (OMB). These delays are compounded by a disagreement between the Corps and the Congress as to the detailed work necessary to develop the Phase I General Design Memorandum. In addition, Corps determinations that a project proposal is without "substantial controversy" may be inadequate as a basis for permitting continued project planning.

Although the House Report on the Water Resources Development Act of 1976 recommended that the Secretary of the Army and OMB review Phase I General Design Memorandums while the Corps proceeded with planning, the Secretary of the Army decided that his office and OMB should review the documents, including the Statement of Findings, before planning proceeded. This decision has delayed project planning because the Corps cannot proceed with Phase II planning until the Statement of Findings has been submitted to the Congress.

As of March 1978, only three Phase I General Design Memorandums for two-phase authorizations had been transmitted to the Chief of Engineers for review. The Libby Reregulating Power Unit Project was delayed pending OMB review, and the Greenville Harbor Project was delayed pending the Secretary of the Army's review. The Buena Vista Project was suspended because a satisfactory local cooperation agreement could not be reached. Until the reviews are completed; the problems, resolved; and the results, transmitted to the Congress, the Corps cannot proceed with planning.

Corps Division and District officials said that the Greenville Harbor Project has been delayed 2 years because of the two-phase authorization. Although the Mississippi River Commission, which has responsibilities similar to those of a Corps Division Office, forwarded their approved Phase I General Design Memorandum to the Chief of Engineers in March 1976, the report has not yet been forwarded to the Congress. The Vicksburg District Engineer had already determined that the Phase I General Design Memorandum was substantially the same plan as that reported in the survey report and that the project had no substantial controversy or opposition. The officials said that if the Greenville Harbor Project had been authorized with a single-phase construction authorization, the Mississippi River Commission could have approved the initiation of the Phase II planning after its approval of the Phase I General Design Memorandum.

Corps officials stated there would be a delay in project construction if there were substantial controversy or changes, regardless of the authorization method. They said, however, that additional Administration review, which resulted from the two-phase authorization, would delay projects, even if there were no substantial controversy or changes.

During hearings in February 1978, before the Senate Committee on Environment and Public Works, the Corps informed the Committee that the Phase I design process duplicated previous survey work. The Committee expressed disappointment with the lack of new information provided by the Corps' Phase I project planning. According to a member of the Committee, the Congress passed the two-phase authorization because it needed more information than that provided in the survey report before authorizing construction. The Committee member was concerned that the Corps was duplicating prior work rather than developing new information.

During the discussion of the 1974 act, some members of the Committee stated that the two-phase authorization should provide the Congress with sufficient information to evaluate the construction authorization. Because they thought that

the actual design of a project would be available, enough should be known about the project's economic, social, and environmental impacts to evaluate the projects' advisability. Such information may not now be available after Phase I planning.

In addition, although the Corps is required to certify that a proposed project is without "substantial controversy," no criteria has been established for making such a certification. We believe that a clear definition would assist the Congress in assuring that its intentions are fulfilled and would assist local and State officials in understanding Corps planning decisions.

For example, we noted that the members of the Mississippi congressional delegation, the State of Mississippi, and the Greenville Port Commission (local sponsor) formally opposed changes in the Greenville Harbor Project made by the Chief of Engineers, although the Corps stated the project was without controversy. Among other things, the opposition disagreed with the staged construction and the changes in the channel depth. We believe that an appropriate definition of substantial controversy should include a recognition of such opposition.

It is obvious to us that the current two-phase authorization is not achieving the objectives intended by the Congress. However, we believe the concept is a reasonable method for increasing congressional control of water resources projects, if designed in such a manner as to eliminate the problems discussed in this chapter. In chapter 5 of this report, we discuss an alternative to the current two-phase authorization.

RECOMMENDATIONS TO THE SECRETARY OF THE ARMY

To assure the Congress that only projects without substantial controversy proceed automatically into Phase II planning and general design, we recommend that the Secretary of the Army direct the Corps of Engineers to

- develop criteria which would identify a project as having substantial controversy and
- include in the criteria a recognition that opposition, by the State or local sponsor, to a Corps design qualifies as substantial controversy.

- - - -

Corps officials informally told us that they do not believe it is necessary to develop specific criteria which identifies projects with substantial controversy. They stated that the decision as to what substantial controversy is should be made on a project-by-project basis.

CHAPTER 3

POST-AUTHORIZATION CHANGE PROCESS--

ANOTHER OPPORTUNITY FOR

CONGRESSIONAL CONTROL OVER CORPS PROJECTS

The post-authorization change process offers another opportunity for the Congress to monitor changes to Corps projects after authorization. To be effective the process must adequately notify the Congress of changes and accurately explain the reasons for the changes. The Corps process, however, did not meet these objectives. Instead the Corps

--exceeded the estimated cost of projects and project features by significant amounts for noninflationary items without notifying the authorization committees and

--credited inflation for too much of the increased cost of water resources projects.

NEED FOR FULL DISCLOSURE OF SUBSTANTIAL COST INCREASES

Corps construction authorizations usually include a provision allowing the Chief of Engineers to modify projects when he considers such modifications necessary (discretionary authority). However, the Corps has placed limits on that authority.

Draft Corps regulations ^{1/} state that if changes result in a noninflationary increase in total project costs (or total costs allocated to a project purpose) equal to or greater than 25 percent of the last (usually on an annual basis) estimate presented to the Congress, the Corps must notify the authorization committees. However, cumulative noninflationary cost increases greater than 25 percent since authorization and many feature cost increases do not require notification of the Congress. For example, the Tensas Basin Project incurred a 34-percent noninflationary cost increase since 1965, and the Hillsdale Lake Project incurred a 25-percent noninflationary cost increase since 1966. In accordance with Corps draft regulations, authorization committees would not

^{1/}Draft Corps regulations are still out for comment within the Corps. When all comments are received, regulations can be finalized.

be notified because the increases did not exceed 25 percent in any 1 year.

In addition, substantial increases can occur in the cost of project features without notifying the authorization committees. For example, the Tensas-Cocodrie Pumping Plant, which was authorized by the Congress as part of the Tensas Basin Project, increased for noninflationary reasons in 1975 by about \$8 million over a previous estimate of \$14 million. Although this increase was substantial, the authorization committees would not be notified because it was less than 25 percent of the total project cost.

Another example of feature noninflationary cost increases which do not require congressional notification was the cost escalation in the Red River Backwater area. Although a previous cost estimate of \$45 million for the Backwater area ^{1/} increased in 1973 for noninflationary reasons by \$23 million, Corps draft regulations would not require notification of the authorization committees. A post-authorization change report would not be required because the \$23-million cost increase was less than 25 percent of the cost of the entire (\$156 million) Tensas Basin Project.

We believe that as a result of weak criteria in Corps draft regulations, the authorization committees are, and will be, inadequately notified of substantial cost increases.

NEED TO PROPERLY ACCOUNT FOR INFLATION IN JUSTIFYING COST INCREASES

Price escalation represents a substantial portion of cost increases in water resources projects. To keep the Congress properly informed as to the reasons for cost increases, it is essential that portions of the increases attributable to price escalation (inflation) be appropriately accounted for. We found, however, that much of the costs reported by the Corps as price escalation, should have been credited to other causes. For example, although the Corps added a \$6.8-million channel to the Tensas-Cocodrie Pumping Plant in 1975, about \$1.1 million of this cost was credited to inflation, even though the channel was not part of the project before 1975.

Another example was the 30-percent inflation rate the Corps attributed to the Lake Chicot Pumping Plant (Tensas

^{1/}Although the Tensas-Cocodrie Pumping Plant is part of the Red River Backwater area, the Corps usually separates the two for cost-estimating purposes.

Basin Project) structures in 1976. Corps officials at the Vicksburg District said this rate was based on unit costs, but they could not support the contention. In contrast, the "Engineering News Record" ^{1/} indicated that the proper inflation rate was only 10 percent. This difference in rates improperly credited a \$3-million cost increase to inflation.

The Corps also has overstated inflation because of miscalculations. For example, it credited to inflation a 28-percent increase in costs for the Lake Chicot Pumping Plant in 1975 even though the Engineering News Record index for that year was 12 percent. Vicksburg officials stated that the 28-percent increase was in error. The error overstated inflation for the Lake Chicot Pumping Plant by \$2.2 million. Similar computation errors were noted on other Texas Basin Project features and on Hillsdale Lake.

CONCLUSIONS

As in the two-phase authorization, the post-authorization change process offers another means by which the Congress can monitor changes to Corps projects after authorization. In this way the Congress is provided added control over the Corps' discretionary authority to modify projects. This control is dependent on the Corps adequate and accurate notification to the Congress about any proposed changes.

Current procedures, however, permit the Corps to, year after year, make changes which affect the cost, but do not require congressional notification. Over time these increases could substantially escalate project cost.

We believe the Congress should be notified throughout project development regarding all substantial changes. Corps regulations and guidelines need to be strengthened so that (1) notification is provided to the authorization committees about all substantial cost increases for noninflationary items and (2) inflation is adequately accounted for in justifying cost increases in water resources projects.

^{1/}The Corps construction cost indexes are usually based on information published in the Engineering News Record, a national engineering journal. The Corps is currently developing its own cost indexes which it believes will more adequately identify Corps inflation rates. The Corps also uses bidding experience and quotations from suppliers in developing price levels.

We believe that the Congress should be accurately notified of the reason for changes in project cost estimates after authorization. If a feature or similar item is added to a project, subsequent increases in the cost of the additions should not be credited to inflation. Instead, they should be credited to the reason for the addition (design, modification, etc.).

RECOMMENDATIONS TO THE SECRETARY OF THE ARMY

To improve congressional notification we recommend that the Secretary of the Army direct the Corps of Engineers to

- require that post-authorization change reports be provided to the appropriate authorization committees when cost increases for noninflationary items are significant for (1) total project costs on a cumulative basis and (2) individual project features on an annual basis and
- assure that the cause of the cost increases are properly identified.

- - - -

Corps officials told us they would look into ways to assure that the causes of cost increases are properly identified. They said they doubted that the Congress desired more information on projects after authorization.

CHAPTER 4

CONGRESSIONAL CONTROL OVER BUREAU WATER

RESOURCES PROJECTS CAN BE IMPROVED

The authorization ceiling used by the Congress in authorizing Bureau water resources projects provides a number of benefits in that it (1) serves as an early indicator of problems, (2) limits Federal expenditures, and (3) controls the nature and scope of the projects. These benefits can be achieved without seriously affecting engineering flexibility.

On the other hand, there are two basic problems in the way the ceiling is currently being identified and established. First, it is sometimes established so early in the planning process that adequate cost and design data is often not available. As a result, many projects will require reauthorization. Second, the Bureau sometimes overstates the authorization ceilings by (1) using the wrong data base, (2) applying inappropriate overhead indexes, (3) permitting actual land purchases to increase the ceiling, and (4) inflating amounts already expended.

Similar problems were identified in a prior GAO report, "Bureau of Reclamation's Procedures and Practices for Computing Authorized Cost Ceilings and Project Cost Estimates Need Improvement," issued November 17, 1975, (RED-76-49), and a House Committee on Government Operations report, "Bureau of Reclamation's Indexing Procedures Conceal Information that Water Resources Projects are in Excess of their Authorized Cost Ceilings," issued February 26, 1976. Although significant and meaningful changes in Bureau procedures (such as new rules on establishing the base for computations) and actions (such as Bureau wide conferences to assure consistency in computations) have occurred since those reports were issued, additional changes are necessary to assure appropriate computations of the ceilings.

CEILING, AN EARLY INDICATOR OF PROBLEMS

Each year the Bureau provides the appropriations committees with a revised authorization ceiling for each project for which funds are being requested. At the same time the Bureau provides a revised project cost estimate with an explanation of changes since the last submission.

In those cases where the estimated cost of the project exceeds the authorization ceiling, the Bureau explains how the conflict will be resolved. One alternative is to recommend reauthorization as the only solution for completing the project

as originally planned. Frequently, however, the Bureau recommends that a decision on reauthorization be delayed until sufficient information is available to assure the necessity of it. If the ceiling is inadequate by a small amount, the Bureau may recommend a restructuring of the project to remain within the authorization ceiling.

CEILING LIMITS FEDERAL EXPENDITURES

The authorization ceiling limits the expenditure of Federal funds and forces the Bureau to consider various funding alternatives, including the possibility of cost sharing by beneficiaries. For example, the estimated project cost for the Southern Nevada Water Project exceeded the authorization ceiling by \$22.6 million, and the State of Nevada agreed to pay that amount which exceeds the ceiling.

In January 1976 the Boulder City Regional Office recalculated the authorization ceiling with the assistance of the Bureau's Engineering and Research Center and identified a serious funding deficiency. As of January 1, 1978, the Bureau reported to the Congress that the current cost estimate exceeded the authorization ceiling by \$22.6 million.

Because the State of Nevada wants project construction to begin as soon as possible to meet increased water demands in the Las Vegas area, the State agreed to fund expenditures in excess of the Federal ceiling. On January 18, 1977, the State passed enabling legislation to

"Borrow money and otherwise become obligated to defray wholly or in part the cost of acquiring, improving and equipping the Federal facilities, and issue State securities to evidence such obligations * * *."

CEILING CONTROLS NATURE AND SCOPE OF PROJECT

If the estimate of Federal obligations of a project exceeds the authorization ceiling for any reason (poor original estimate, project modification, or project expansion), the Bureau must seek reauthorization from the Congress. Reauthorization enables the Congress to reconsider the merits of the project in terms of revised cost and benefit information.

For example, the Bureau plans to add a feature, called Leland Bench, to the Bonneville Unit of the Colorado River Storage Project, although the feature was not identified in either the 1956 or 1972 authorizing acts. The Bureau originally thought it could add the feature without reauthorization, but authority to add this feature is now in question

and a final legal decision has not been made. Nevertheless, because the cost of adding Leland Bench will force the total cost of the project well above the ceiling, the Bureau will be required to seek reauthorization anyway.

In another example, the Bureau must seek a project reauthorization in 1978 for title I of the Colorado River Basin Salinity Control Act of 1974 because the estimate of Federal obligations exceeds the cost estimate. The reauthorization will be required because of the poor quality of the original cost estimate and numerous modifications in the project since authorization. (See p. 17.)

- - - -

Although the authorization ceiling limits Federal expenditures, the Bureau has the flexibility to make numerous design and engineering changes in a project without violating the ceiling. The flexible ceiling becomes a constraint only if project changes result in a cost increase which cannot be compensated for by project cost decreases.

In addition, reauthorization can proceed simultaneously with either advanced planning or construction. For example, construction of title I of the Salinity Control Act continues unabated by the Bureau's reauthorization efforts. Only if the agency fails to recognize the need to reauthorize a project soon enough or fails to reduce costs will the authorization ceiling impede project planning or construction.

NEED FOR MORE REALISTIC AUTHORIZATION CEILINGS

Although the authorization ceiling allows the Congress to control Federal expenditures and monitor project development, its usefulness is somewhat limited because it may be established too early in the planning process and inappropriately calculated.

Authorization ceiling established too early

A project's authorization ceiling is established by the Congress as part of the authorizing legislation. At that time the Bureau has normally prepared a feasibility report, but advanced project planning has not begun. Because very little hard data may be available in terms of both design specifications and cost, revised cost estimates often exceed the previously established authorization ceilings.

The problem is illustrated by the fact that the 1979 budget justifications identified six authorization ceilings

which must be reauthorized. In addition, other authorization ceilings may be misstated if calculation weaknesses were corrected. (See pp. 18 and 19.)

Title I of the Colorado River Basin Salinity Control Act authorized the Secretary of the Interior to construct, operate, and maintain Colorado River Basin works to control salinity in water delivered to users in Mexico and the United States. The original studies to estimate project size, method, scope, and cost could not recognize numerous changes that were to take place as project planning developed. Costs, including inflation, have risen from \$155 million in 1973 to \$333 million in 1977. Some of the noninflationary changes which occurred after the authorization ceiling was established include

- \$23 million for a recalcining system, an energy recovery system, and a computer control system;
- \$33.9 million for a partial, lime-softening pretreatment in lieu of a simple coagulation system, more extensive site foundation treatment, enlargement and additions of buildings, relocations of power facilities, and additional right-of-way;
- \$4.1 million for an additional operations contract;
- \$12.3 million for construction of new siphons in lieu of using existing siphons; and
- \$3.1 million for additional fish and wildlife mitigation.

We believe the authorization ceiling would be a more meaningful and useful tool if established later in the planning process when more information was available. The Bureau already has another planning document, a Definite Plan Report, which provides a project's general design later in the process and may identify numerous changes in a project since authorization. This document better defines and describes the project as it will be built and can serve as a more realistic basis for establishing an authorization ceiling.

Need for more realistic authorization ceiling computations

Regardless of when the authorization ceiling is established, it must be based on accurate and valid data to have value to the Congress. We noted a number of weaknesses in the manner in which the Bureau makes its calculations. In

our opinion these weaknesses limit the usefulness of authorization ceilings. The major problems relate to

- using the wrong data base,
- applying inappropriate overhead indexes,
- permitting actual land purchases to increase the ceiling, and
- inflating amounts already expended.

Using the wrong data base

Although the Bureau has procedures providing guidance for calculating authorization ceilings, we found it was not always following the procedures. As a result the Bureau used incorrect data for recreation and fish and wildlife portions of the Colorado River Storage Project and overstated the ceiling by \$20 million.

The project authorization ceiling was authorized in August 1972 and supported by a cost estimate dated in 1971 with respect to recreation and fish and wildlife. Because the authorization did not specify a date for indexing, the 1971 estimate would be the appropriate data base.

The Bureau used a 1967 estimate, however, in developing the recreation and fish and wildlife portions of the ceiling. Use of the 1967 estimate was inappropriate because less than 2 percent of the authorized amounts could be traced to the 1967 estimate and the planning agencies (National Park Service and Fish and Wildlife Service) said the 1971 estimate contained the appropriate data that should have been used.

Applying inappropriate overhead indexes

Instead of using Federal classified pay raises, the Bureau used construction indexes in calculating the noncontract (overhead) ceiling. Federal classified pay raises should be used as the basis for calculating the noncontract ceiling because most noncontract costs are Federal salary costs. The Corps used Federal classified pay raises to estimate project costs. The use of construction indexes to escalate the noncontract ceiling is inappropriate because construction costs increase at a different rate than Federal salary costs.

For example, the construction cost increases for title I of the Salinity Control Act rose 41 percent between 1973 and 1977, while Federal salary costs rose only 22 percent.

Use of Federal salary indexes would have lowered the project ceiling by \$5.8 million.

Permitting actual land purchases to increase ceilings

Authorization ceilings can be distorted because Bureau procedures permit actual land costs to become the land portion of the authorization ceilings. Even if the original cost estimate or acreage estimate were inadequate, the ceiling can cover it. Therefore, the original acreage or cost estimate becomes irrelevant in the computation. This can result in a ceiling substantially higher than allowed by inflation.

For example, in the Southern Nevada Water Project the Bureau plans to acquire rights to 106 acres more than planned when the project was authorized and the ceiling established. Because the purchase price of the additional acreage can become the ceiling, the computation will cover any poor original estimate. Acquisition of the additional acreage, under Bureau procedures, could result in the ceiling inappropriately rising by \$2.2 million for causes other than inflation.

Inflating amounts already expended

In calculating annual authorization ceilings, Bureau procedures permit the calculation of inflation on funds already expended. Although these expended funds cannot be affected by inflation, the Bureau annually includes an inflation factor for these funds in developing the ceiling.

On the Bonneville Unit portions of the Colorado River Storage Project, ceilings were overstated by \$30 million in the 1979 budget request because expended funds were included in the ceiling computations.

CONCLUSIONS

The authorization ceiling provides a continuous, but flexible, baseline project cost estimate from which all project changes can be compared. If the project cost estimate exceeds the authorization ceiling, the difference must be evaluated and explained. If justifications are acceptable to the Congress, project construction can continue uninterrupted by reauthorization. Reauthorization is required only when the agency is assured that the estimate of Federal obligations exceeds the authorization ceiling.

Although the Bureau has significantly improved its system for controlling the escalation in authorization ceilings,

additional improvements are required to assure that only legitimate increases in the ceiling occur. While errors have been reduced, the review process is still inadequate in identifying errors in the selection of a proper computation base, such as that on the Colorado River Storage Project.

RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

We recommend that the Secretary of the Interior direct the Bureau of Reclamation to

- limit the noncontract portion of the ceiling represented by Federal salaries to increases caused by Federal classified pay raises,
- limit the land ceiling increases to those caused by inflation,
- exclude from the indexing system all expended funds on an annual basis, and
- improve the review process to assure compliance with Bureau regulations and guidelines.

AGENCY COMMENTS AND OUR EVALUATION

Interior agreed (see app. III) that the Bureau will (1) determine whether an appropriate land index can be developed to reflect ordinary fluctuations in land costs, (2) develop procedures that will exclude, from the indexing process, expended funds on an annual basis, and (3) improve the internal review process to assure that backup documentation is available to support cost estimates. We believe that these improvements, if satisfactorily implemented, will improve the entire authorization ceiling system.

Interior did not agree that limiting noncontract ceiling changes to those caused by Federal classified pay raises would increase the consistency and accuracy of the estimating and indexing processes. We do not agree. We think requiring that the basis of the estimating and indexing processes be consistent is not important, especially since the consistency interferes with the accuracy of the indexing process.

Although Interior agrees that 70 percent of noncontract costs are Federal salary costs, it does not use Federal salaries as the basis for noncontract cost increases. Instead, it permits the use of construction cost changes to escalate the noncontract ceiling. Because construction costs and Federal

salary costs may change at different rates, construction cost changes should not be used on that part of noncontract costs represented by Federal salaries.

CHAPTER 5

ALTERNATIVE FOR INITIATING BETTER CONGRESSIONAL CONTROL OVER WATER RESOURCES PROJECTS

Recent events indicate the Congress wants to use project authorizations to increase its control over the planning and development of water resources projects. In this report we have discussed some of the advantages and disadvantages of existing authorizations in terms of providing that control to the Congress.

We believe that the Congress can increase its control of the development and cost of water resources projects by adopting as an alternative approach, a combined two-phase authorization with an authorization ceiling established before construction for all major congressional authorizations. The second authorization would give the Congress an opportunity to reevaluate the project on the basis of more current and accurate cost and engineering data. The inclusion of an authorization ceiling would give the Congress an excellent basis for controlling the cost and scope of water resources projects that they may not presently have.

If the Congress believes that additional control over water resources projects is warranted, the authorization committees should adopt an alternative approach for authorizing water resources projects of the Bureau and the Corps which would include

- an initial authorization for planning and general design,
- a second authorization for just before construction, and
- an authorization ceiling included in the construction authorization.

PROPOSED ALTERNATIVE FOR AUTHORIZING WATER RESOURCES PROJECTS

We believe the authorization committees for both the Bureau and the Corps should adopt a single approach for authorizing water resources projects which incorporates the best features of the two-phase authorization and the authorization ceiling. Under this concept the initial authorization would permit planning and general design, such as that which occurs during the Corps' Phase II and the Bureau's Definite Plan Report.

The second authorization would permit project construction and would include an authorization ceiling. Because construction would be authorized after general design, the authorization would be based on more accurate and reliable cost and engineering data, and the authorization ceiling would be a more realistic indicator of the total cost of the project. Because better data would be available, fewer postauthorization changes and fewer reauthorizations should be required.

We believe this alternative would enable the Congress to achieve better control without materially affecting agency workloads or program activities. Agency planning could proceed uninterrupted by efforts to obtain the second authorization if feature designs could be developed during the time the agencies sought the second authorization.

We recognize, however, that this alternative will change the way the legislative committees have historically interacted with these agencies and will require the establishment of procedures to assure effective implementation. Consequently, we are not advocating that this alternative would be appropriate for every project. We suggest that the Congress establish criteria as to the size and scope of those projects subject to this alternative.

An intergovernmental task force, established by law (Public Law 95-46) to study the Bureau's San Luis Unit of the Central Valley Project in California, has also recommended a two-phase authorization for Bureau projects. The first authorization would permit the preparation of a detailed project plan, and the second would authorize the final project and construction. This recommendation is very similar to ours.

- - - -

In formal comments included in appendix III, the Department of the Interior agreed that a two-phase authorization for water projects would be appropriate. It recommended that the congressional committees give serious attention to such a process.

EDMUND S. MUSKIE, MAINE, CHAIRMAN.
 WARREN G. MAGNUSON, WASH.
 ERNEST F. HOLLINGS, S.C.
 ALAN CRANSTON, CALIF.
 LAWTON CHILES, FLA.
 JAMES ABUREZK, S. DAK.
 JOSEPH R. BIDEN, JR., DEL.
 J. BENNETT JOHNSTON, LA.
 WENDELL R. ANDERSON, MINN.
 JAMES R. BASSER, TENN.

HENRY BELLMON, OHLA.
 ROBERT DOLE, KANS.
 JAMES A. MC CLURE, IDAHO
 PETE V. DOMENICI, N. MEX.
 SAM I. HAYAKAWA, CALIF.
 M. JOHN HEINE III, PA.

United States Senate

COMMITTEE ON THE BUDGET
 WASHINGTON, D.C. 20510

August 5, 1977

JOHN T. MC EVOY, STAFF DIRECTOR
 ROBERT S. BOYD, MINORITY STAFF DIRECTOR

The Honorable Elmer B. Staats
 Comptroller General
 General Accounting Office
 411 G. Street N.W.
 Washington, D.C. 20548

Dear Elmer:

We are requesting that a study of certain aspects of water resources programs be conducted by your office for the Senate Budget Committee. This study will center on those aspects of water resources programs that affect the authorization of individual projects. Results of the study should be presented to the Committee in a series of separate reports.

Water is a limited resource. Where it is scarce, development of any kind is limited drastically. Careful allocation and wise, conservative use of our remaining water resources are becoming more and more critical as our population expands and our supplies of fresh water are depleted.

Moreover, our water resources programs bear closer scrutiny from an economic standpoint. The Administration recently has raised questions concerning the documentation of need, the accuracy of benefit-cost ratio analyses, and the enormous cost overruns that have occurred in some water projects. Congress and the Administration agree on the need for a water resources program which promotes prudent fiscal policy and careful resource planning.

To enable Congress to set national spending priorities and accordingly to direct and control water resources programs, all pertinent information pertaining to water projects authorizations must be accurately presented to the committees involved. To provide a complete picture, alternatives to projects and their associated costs must be delineated. Also, Congress sorely needs better information on costs at the time of project authorization and during construction for predictive purposes. Committees should be notified as estimated costs change during construction, so that projects can be reevaluated on a regular basis.

We wish to see the GAO study directed to four main areas elaborated upon here:

1. Benefit-cost ratio analysis

(a) A procedure should be outlined whereby the benefits and costs of alternatives to individual projects are identified for authorizing committees. These data would make possible rigorous comparisons with the standard benefit-cost ratio analyses on water projects and provide for well-informed decisions as to the need for particular projects.

The Honorable Elmer B. Staats
Page two

(b) The general methodology of benefit-cost ratio analysis as carried out by the Corps of Engineers and the Bureau of Reclamation should be investigated. Particular emphasis should be directed to identification of questionable benefits such as area redevelopment, enhancement of project values, recreation values, and fish and wildlife enhancement. These types of benefits deserve special consideration, for by pushing benefit-cost ratios above unity, they can make projects appear economically sound. As examples, projects in varying stages of completion should be examined to find if the validity of benefits claimed at project authorization can be reaffirmed during and after construction.

(c) The use of probability analysis in the calculation of benefits for water resources projects should be reviewed. For example, for a flood control project, is the probability of the flood occurring during the life of the project used to calculate benefits or is the flood assumed to be a certainty? Similarly, are probabilities assigned to such variables as local population growth projections? Data on the effects of probability analysis on benefit-cost ratios and determination of the most realistic method of calculating the value of benefits should result.

2. Cost projections

(a) The accuracy of the estimated costs in authorization bills for water resources projects should be evaluated. Alternative methods of cost estimation should be suggested that would permit increased accuracy at the time of project authorization. We recognize that GAO has investigated cost indexing during project construction by the Bureau of Reclamation. Similar analyses should be done for the Corps of Engineers. Suggested means of monitoring intra-agency cost estimation and cost indexing should be made.

(b) Alternative procedures for funding projects leading to closer regulation by authorizing committees should be determined. The effectiveness of cost ceilings on Bureau of Reclamation projects should be evaluated, and recommendations concerning similar treatment of Corps of Engineers projects should be made. The impact of requiring re-authorization of Corps projects when the estimated cost is exceeded should be included. Regulation of spendout rates by authorizing projects in steps (as in the Phase I stage of Corps projects) should be studied.

(c) A determination of the total number of authorized projects and the estimated remaining cost of these should be made. The proportion of these for which funds have not been appropriated, current methods of project deauthorization, and new suggestions for deauthorization should be determined.

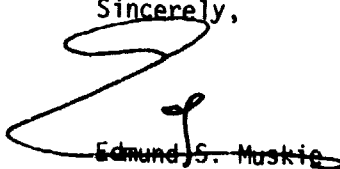
The Honorable Elmer B. Staats
Page 3

3. Efficiency of project construction. The GAO should investigate the rates at which projects should be constructed such that the resources of a particular agency are best utilized and the real costs are kept at a minimum.
4. Individual project authorization. The study should include an analysis of general options for continuing authorizations of individual water resources projects. It may be that benefits to the nation can be maximized through authorization of general water resources development plans rather than through individual project authorizations. Alternative plans should be identified and their merits reviewed.

All sections of this study should be completed and transmitted to the Budget Committee by October 1, 1978. We have chosen this rather lengthy time frame for two reasons. First, a very detailed, in-depth analysis of the more complicated parts of this study should be possible in this time period. Second, it will allow the GAO to incorporate the recommendations and revisions resulting from President Carter's review of national water resources policy (to be completed November 1) in the study, and to evaluate these formally. We believe, however, that some parts of the study could be completed well before the final deadline. Therefore, we are requesting that your staff meet with Brenda Tremper of the Senate Budget Committee staff to schedule completion of draft and final versions of a series of separate reports on these issues.

With best wishes, we are


Henry Bellmon

Sincerely,

Edmund S. Muskie

AUTHORIZATION DATA FOR PROJECTS IN REVIEW

<u>Name and location</u>	<u>Purpose</u>	<u>Authorization history</u>	<u>Authorized amounts</u>	<u>Authorization ceilings</u> (dollars)	<u>Estimated obligations</u> (note a)
Corps of Engineers:					
Hillsdale Lake Project, Kansas	Flood control, water supply, and water quality	Project authorized by the Flood Control Act of 1954 (Public Law 83-780).	8,253,000	(b)	58,400,000
Tensas Basin Project, Arkansas and Louisiana	Flood control	Red River Backwater authorized by the Flood Control Act of 1941 (Public Law 77-228). Boeuf and Tensas Rivers authorized by the Flood Control Act of 1944 (Public Law 778-534). Tensas-Cocodrie Pumping Plant authorized by the Flood Control Act of 1965 (Public Law 89-298). Lake Chicot Pumping Plant authorized by the Flood Control Act of 1968 (Public Law 90-483).	<u>c</u> /58,287,000	(b)	299,000,000
Bureau of Reclamation:					
Southern Nevada Water Projects, southern Nevada	Deliver municipal and industrial water	Project authorized by a 1965 act (Public Law 9-292). Ceiling deficiency financed by State of Nevada.	81,003,000	<u>d</u> /141,870,690	164,548,498
Colorado River Storage Project, Upper Colorado Basin	Regulate the Colorado River, store water, land reclamation, flood control, and hydroelectric power	Project authorized by Sections 5 and 8 of a 1956 act (Public Law 84-485). Authorization increased to complete construction by a 1972 act (Public Law 92-370).	1,370,000,000	1,839,887,000	1,908,968,475
Bonneville Unit, central Utah			<u>e</u> /(420,346,000)	<u>e</u> /(681,872,000)	<u>e</u> /(805,949,000)
Recreation and fish and wildlife			<u>e</u> /(85,311,000)	<u>e</u> /(144,013,000)	<u>e</u> /(189,126,360)
Salinity Control Project, title I, southern Arizona	Enhance and protect water quality in the Colorado River	Project authorized by the Colorado River Basin Salinity Control Act of 1974 (Public Law 93-320). Reauthorization to eliminate ceiling deficiency request sent to the Secretary of the Interior, February 2, 1978.	155,500,000	219,831,000	333,692,000

a/Project cost estimates priced October 1977 for the 1979 Corps budget, January 1977 for the 1979 Bureau budget, and July 1977 for the Salinity Control Project reauthorization request.

b/Authorization ceilings are not computed by the Corps.

c/Total amount from 10 authorization acts.

d/Authorization ceiling priced by the Bureau the same date as estimated obligations.

e/Authorized amounts, authorization ceilings, and estimated obligations for Bonneville Unit and for recreation and fish and wildlife are included in the amounts for the Colorado River Storage Project.



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

June 9, 1978

Mr. Henry Eschwege
Director, Community and
Economic Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Eschwege:

We appreciate the opportunity to review your proposed draft report entitled "The Congress Can Increase Control of Water Resources Projects Through Improved Project Authorization and Agency Practices." Our comments are attached.

Sincerely,

Larry E. Meierotto
Deputy Assistant Secretary
Policy, Budget and Administration

Attachment

DEPARTMENT OF THE INTERIOR'S COMMENTS
ON
GAO DRAFT REPORT
"THE CONGRESS CAN INCREASE CONTROL OF WATER RESOURCES PROJECTS
THROUGH IMPROVED PROJECT AUTHORIZATION AND AGENCY PRACTICES"

PROJECT AUTHORIZATION

The draft report discusses the project authorization process of the Bureau on pages 18 through 23, as well as in the digest, and in a general way in Chapter 1. In Chapter 5, the report contains a recommendation to the Congress to adopt an alternative approach for authorizing water resources projects which would include (1) an initial authorization for planning and general design, (2) a second authorization for construction, and (3) an appropriation ceiling included in the construction authorization. The purpose of such a procedure (apparently would only apply to certain projects depending on size and scope) is to provide the Congress with more accurate cost and engineering data upon which to base its decisions. [See GAO note 1, p. 35.]

We agree with the approach recommended in the GAO report and note that such an approach has already been endorsed by the Department and submitted to Congress in the Special Task Force Report on the San Luis Unit (January 1978). The recommendations of the Task Force report spells out in considerable detail a two-stage approach that could be implemented to improve the information base for authorizing projects, as well as improvements that should be made in notifying Congress of design changes in authorized projects. We would recommend that the appropriate committees give serious attention to these recommendations. The recommendations are attached.

Reclamation's current process provides for congressional authority to proceed with a feasibility study based on an appraisal report performed under the general investigations program. Upon conclusion of the feasibility study, processing of the report and compliance with environmental laws, the project is brought to the attention of the Congress for its consideration for authorization to construct. The data in the feasibility report should be accurate enough to support a cost ceiling at authorization for construction. If, however, that process is not completed, cost ceiling problems could occur because of limited data being available.

Thus, for those projects considered for authorization to construct before the planning process is completed, a cost ceiling could be established as a third step after detailed engineering studies are completed. Normally, a congressional hearing to provide a cost ceiling would be a necessity, unless the original construction authorization included language to preclude the need.

We have several concerns about the project authorization area of the GAO review. The report does not cover how the timing of the authorizations and establishment of the cost ceiling as proposed might be better accomplished in order to satisfy the intended purpose. The report does not discuss the extended time period between authorization for construction and appropriation of funds for construction and the actual start of construction that occurs on many of our projects and the causes of those extensive lapses in time. Many of those conditions may continue to occur regardless of the level of design detail included in the construction authorization; however, we would hope that the continued use of a two-stage process such as the one utilized by Reclamation would "weed out" undesirable projects and thereby allow concentration of appropriated funds on projects with sound economic and environmental credentials.

On page 22 of the report, it is indicated that the 1979 budget justification identified six appropriation ceilings which must be reauthorized. We have identified them to be Title I and Title II of the Colorado River Basin Salinity Control Projects; the Auburn-Folsom South Unit, San Lu's Unit, and San Felipe Division, all in the Central Valley Project, California; and the Upper Colorado River Storage Project. Three of the units have been identified as being over the appropriation ceiling for several years, and this condition has been reported to the Congress annually in our budget documents.

[See GAO note 1, p. 35.]

AGENCY PRACTICES

This area of the GAO review is discussed on pages 18 and 23 through 27 of the draft report and results in four recommendations being made which are listed on page 27. As mentioned on page 18, agency practices were identified in a prior GAO report and a House Committee on Government Operations' report. We appreciate GAO's comment that significant and meaningful changes in Bureau of Reclamation procedures and actions have been made since those reports were issued. In addition, the Senate Committee on Appropriations commented on this topic in the report on Public Works for Water and Power Development and Energy Research Appropriation Bill, 1977, wherein it was stated on page 68 that "In the remaining one or two areas of disagreement over the appropriate methods and procedures to be used in cost indexing, the Committee does not believe, in the absence of legislation, that the Bureau's methods are unreasonable." Our comments relating to the recommendations on agency practices are presented below by quoting the recommendation, providing a brief response, and followed by additional background data where appropriate.

[See GAO note 1, p. 35.]

Recommendation: "Limit the noncontract ceiling to increases caused by Federal classified pay raises."

Response: Reclamation's project cost estimates are prepared by using a percentage of lands and construction costs to determine the noncontract component of the total estimate. The percentage is based on a long history of cost records, and therefore, can be estimated rather closely for use in the project cost estimate. Updating the noncontract costs in the project cost estimate and the appropriation ceiling in the same manner provides consistency in the estimating and indexing process.

Background: It is estimated that salaries are about 70 percent of the total noncontract costs. Also included in the noncontract costs are items such as communications, travel, office space, data processing, service equipment, supplies, employee benefits, etc. An index for such items does not exist. The Federal classified pay raise impacts related costs such as health benefits, life insurance, and annual leave. Also, within-grade increases and incentive awards impact on the salary component of noncontract costs. Similarly, noncontract costs are impacted because of economic changes due to delays in project construction, changes in design standards and technology, litigation and public involvement. Therefore, using the Federal classified pay raises as an index for noncontract costs actually results in some understatement of the estimate. On the other hand, the use of a percentage of lands and construction costs may result in an overstatement of the estimate, but provides a greater accuracy than the Federal classified pay raises. Therefore since our original project cost estimates are based on the percentage system to determine noncontract costs, we feel more consistency and accuracy in the estimating and indexing process would occur if our existing system were continued.

Recommendation: "Limit the land ceiling increases to those caused by inflation."

Response: Reclamation Instructions allow use of indexes, current estimates, or actual costs, or a combination when updating the project cost estimate and appropriation ceiling. It is Reclamation's practice to apply the actual cost to the project authorization acreage estimate only and treat significant increases in acreage needs as a change in the project plan. This practice prevents an adjustment in the appropriation ceiling based on additional acres acquired over and above the acreage as authorized. We recognize not only the need for appropriate indexes for lands, but also the impracticality of developing meaningful and representative land indexes. However, Reclamation will proceed with an analysis to determine whether or not an appropriate index can be developed to reflect ordinary fluctuations in land costs.

Background: There is no doubt that inflation represents the major cause of fluctuation in costs but in the land acquisition program there are other conditions that materially affect a cost index if one were available for a specific area. For instance, a change in land use from agriculture to residential or from residential to industrial; social influences such as new legislation and executive policy; litigation and public involvement; etc. These types of economic changes together with general inflation affect the indexes used by Reclamation. Thus, actual costs provide the most appropriate measure of economic change associated with land costs.

On page 26, the GAO report indicates nearly 400 acres more than originally planned for the Southern Nevada Water Project will be acquired. Backup information indicates there were 110 acres included in the plan when the project was authorized. The present plan, due to a growth pattern that was different than anticipated, is to acquire a total of approximately 216 acres (an increase of 106 acres). We do not understand the basis for the increase of 400 acres mentioned in the GAO report.

[See GAO notes 1 and 2, p. 35.]

Recommendation: "Exclude from the indexing system all expended funds on an annual basis."

Response: The general content of this recommendation was addressed in the previous GAO report and the House Committee on Government Operations report, and our responses thereto. In August 1976, Reclamation formally revised its procedures for removing expenditures from the indexing process to a contract completion basis to follow one of the procedures recommended in the GAO November 1975 report. It is recognized that this procedure may be a slightly more liberal approach than removing expenditures from the indexing process on an annual (fiscal year) basis. We agree that it is important to provide cost estimates and appropriation ceilings with sufficient accuracy to adequately inform the Congress for making decisions. Therefore, Reclamation will proceed with the development of procedures that will exclude from the indexing process expended funds on an annual basis. Because the updating computations are well underway for the fiscal year 1980 budget documents, utilization of such procedures will be instituted in the fiscal year 1981 budget cycle.

Recommendation: "Improve the review process to assure compliance with Bureau regulations and guidelines."

Response: Reclamation is in the second year of its internal review process on cost indexing practices and procedures. Significant progress has been made in improving Reclamation's procedures since adopting the internal review process. Reclamation will continue such efforts including assuring that backup documents are available to support cost estimates.

RECOMMENDATIONS

1. For all future Bureau of Reclamation projects, the Task Force recommends that a new procedure be established and utilized by Congress which includes the following components:

a. Initial authorization and appropriation

—Based on the submission of a thorough feasibility study by the Bureau, Congress should authorize the preparation of a detailed project plan and Congress should appropriate sufficient funds to develop the plan.

b. Construction authorization and appropriation—Based on the submission of the detailed project plan (similar to the present "Definite Plan Report") along with required environmental reviews, Congress should authorize the final project and the commencement of construction, and appropriate sufficient funds for this purpose or take actions to continue preparation of the project or discontinue it.

c. Deauthorization—Projects for which construction authorization and appropriation have not been enacted at the end of eight years after the last action of the initial phase as described in (a) above should be automatically deauthorized, unless specifically extended on a year-to-year basis by Congress.

2. For existing Bureau of Reclamation projects, the Task Force recommends that Congress adopt legislation which would deauthorize all projects for which no construction appropriation has been provided within eight years of the authorization of the project, unless specifically extended by Congress on a year-to-year basis.

3. For existing and future Bureau of Reclamation projects in the construction phase, the Task Force recommends that procedures be established by Congress and the Department of the Interior which:

a. Would require written notice by the Department in adequate detail to all appropriate congressional committees in advance

of significant design changes. "Significant changes" would include those which, when measured against the most definite project plan available, would cause substantial changes or deviations from the b-c ratio, the construction schedule, the physical composition of major project features, the environmental impacts predicted, the contracting procedures normally practiced, or the costs of the project. "Substantial changes" would not include ordinary technical or engineering alterations which occur

normally in a project and do not include those above.

b. Would require that the Department return both to the authorization and appropriation committees for formal action to secure approval of changes which increase the total Federal financial obligation, in constant dollars, or which make fundamental and substantial physical changes in major project features or the basic character of the project in comparison to those presented to Congress for purposes of authorization.

GAO note 1: Page references in this appendix refer to the draft report and do not necessarily agree with the page numbers in the final report.

GAO note 2: We obtained the increased acreage figure of 400 from the Bureau's Southern Nevada Project: Definite Plan Report. Subsequent to our review the Bureau reanalyzed the acreage requirements and reduced the additional requirements to 106 acres.

(08537)