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REPORT TO THE CONGRESS

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Legislation Needed To Revise The Interest Rate Criteria For Determining The Financing Costs Of Water Resource Projects B-167712

Department of the Interior

Department of the Army

BY THE COMPTROLLER GENERAL
OF THE UNITED STATES

AUG. 11, 1972

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

B-167712

To the President of the Senate and the
Speaker of the House of Representatives

This is our report on legislation needed to revise the interest-rate criteria for determining the financing costs of Federal water resource projects administered by the Department of the Interior and the Department of the Army.

Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of this report are being sent to the Director, Office of Management and Budget; the Secretary of Defense; the Secretaries of the Interior, Treasury, and Army; and the Chairman of the Federal Power Commission.

Elmer B. Staats

Comptroller General
of the United States

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WHY THE REVIEW WAS MADE

The Federal Government, through the Bureau of Reclamation, Department of the Interior, and the Corps of Engineers (Civil Functions), Department of the Army, constructs, operates, and maintains multipurpose water resource projects and makes loans to assist State and local organizations in developing small reclamation projects.

Costs repayable by project users generally include (1) the Government's investment--land acquisition costs, construction costs, and interest capitalized during construction--and (2) annual interest on the unrepaid investment in the project or loan.

The rates at which interest is capitalized and is payable annually on the unrepaid Federal investment in the projects are based on differing formulas and criteria in existing legislation.

Because of the significant Federal investment in water resource projects annually--an estimated $1 billion by the Bureau and the Corps in fiscal year 1973--the General Accounting Office (GAO) reviewed the various interest-rate criteria used by the Bureau and the Corps to determine whether the resulting interest rates are representative of the cost of funds borrowed by the Department of the Treasury to finance such projects.

FINDINGS AND CONCLUSIONS

Although increasing benefits are being provided to private industry and to the public through development of multipurpose water resource projects, the Federal Government's cost of financing these projects is not being fully or uniformly recovered from project users, as shown below.

Power projects

On January 13, 1970, GAO reported to the Congress (B-167712) that the interest-rate criteria used by the Bureau and the Corps were inadequate for determining and recovering the Government's costs of financing the Federal power program. On January 29 the Secretary of the Interior prescribed new criteria for capitalizing interest during construction of new Bureau and Corps projects and for paying interest to Treasury on the unrepaid investment in a project.

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The criteria provide for using an interest rate of 4-7/8 percent in fiscal year 1970 and for making annual adjustments of not more than one-half of 1 percent, upward and downward, to give effect to changes in the average market yield on long-term obligations outstanding each year.

Although the new criteria constitute an improvement, they will not be applicable to other than the power features of a multipurpose water resource project or to the Bureau's small reclamation loans. (See p. 6.)

Municipal and industrial water supply

Both the Bureau and the Corps may construct multipurpose water resource projects to provide water for municipal and industrial uses. Generally, the interest to be capitalized as part of the Government's investment in municipal and industrial water supply projects and to be charged annually until the investment is repaid is based on criteria prescribed in the Water Supply Act of 1958.

The 1958 act requires that interest rates be computed on the basis of the average interest rate payable by Treasury on those outstanding obligations which are neither due nor callable for redemption for 15 years from their dates of issue. Interest rates based on such criteria are not representative of Treasury's cost of borrowing funds to finance multipurpose projects. GAO believes that using current market yields on outstanding Government obligations of comparable maturity is the best measurement of the Government's cost of financing an activity.

By using the criteria prescribed by the 1958 act, both municipal and private industrial water users receive substantial subsidies. GAO's review of three Bureau and two Corps multipurpose projects in the Southwestern United States, constructed at a total cost of about $170.4 million, showed that basing interest rates on criteria prescribed in the 1958 act rather than on rates more representative of Treasury's borrowing costs

--resulted in the Government's understating its investment in the municipal and industrial water supply features of the projects by about $5 million and

--will result in reduced annual interest payments of about $80 million to Treasury on the Government's unrepaid investments in the projects during the repayment period. (See p. 9.)

Recreation and fish and wildlife enhancement

The interest charged on repayable costs associated with recreation and fish and wildlife enhancement, features included in Bureau and Corps multipurpose projects, is determined on the basis of the interest-rate criteria in the Water Supply Act of 1958. As a result the Government's costs of financing recreation and fish and wildlife enhancement are understated. (See p. 13.)

Small reclamation loans

In addition to charging interest on certain costs associated with financing Bureau and Corps multipurpose water resource projects, the Bureau charges interest on portions of the funds it lends to State and local organizations to construct small reclamation projects. However, the interest-rate criteria used by the Bureau, as prescribed by the Small Reclamation Projects Act of 1956, as amended, do not result in full recovery of the Government's cost of financing the loans. (See p. 15.)

RECOMMENDATIONS OR SUGGESTIONS

GAO's recommendation to the Congress that the interest rates for financing water resource projects be based on current average market yields on long-term Treasury obligations was offered for comment to the Departments of the Treasury, Army, and Interior.

AGENCY ACTIONS AND UNRESOLVED ISSUES

Treasury noted that it had long recommended use of current market yields on long-term outstanding Government obligations of comparable maturities as the best measurement of the Government's cost of financing an activity. Treasury said that GAO's recommendation is consistent with the approach taken by the Administration and by the Congress for other Federal lending and investment activities in recent years. (See p. 17.)

Interior observed that the net effect of GAO's recommendation would be to make the interest rate for repayment of all interest-bearing debts representative of Treasury's borrowing rate for the year in which the investment or loan was made. Interior noted that, although it had revised its interest-rate criteria for new Federal power projects to more nearly reflect the current cost of money borrowed to finance power projects, the Congress had been reluctant to deviate from the interest-rate criteria in the 1958 act. (See p. 17.)

Army said GAO's recommendation was essentially the same as that included in its prior report to the Congress and deferred further comment. (See p. 18.)

MATTERS FOR CONSIDERATION BY THE CONGRESS

To recover the Government's repayable cost of financing multipurpose water resource projects, including authorized projects on which construction has not started, and of financing small reclamation loans, GAO recommends that the Congress amend the existing legislation to provide that:

--The interest costs to be capitalized as part of the Government's investment in water resource projects be based on an interest rate annually prescribed by the Secretary of the Treasury. In establishing a rate the Secretary should consider the average market yield, during the year in which the investment is made, on the outstanding marketable obligations which he considers to be most representative of Treasury's cost of borrowing money to finance construction of the projects.

--The interest to be paid to Treasury annually on the Government's unrepaid investment in water resource projects be based on a composite of the average market yields used in computing the capitalized interest costs.

--The interest on unrepaid small reclamation loans be charged at the rate prescribed by the Secretary of the Treasury for the year in which the loan is made. (See p. 18.)

CHAPTER 1

INTRODUCTION

The Bureau of Reclamation, Department of the Interior, and the Corps of Engineers, Department of the Army, construct, operate, and maintain multipurpose water resource projects. Costs allocated to power, municipal and industrial water supply, recreation, and fish and wildlife enhancement are repayable in full or in part, with interest, to the Federal Government. Costs allocated to irrigation are repayable without interest; and costs allocated to other project purposes, such as flood control and navigation, are nonreimbursable.

Costs repayable generally include (1) the Government's investment in a reimbursable project--land acquisition costs, construction costs, and interest capitalized during construction--and (2) annual interest on the unrepaid Federal investment in the project. The rates at which interest is capitalized during construction and is charged annually on the unrepaid investment in the various projects are determined by differing formulas and criteria contained in existing legislation and administratively interpreted by the Bureau and the Corps.

The Bureau also makes loans to assist non-Federal organizations in developing small reclamation projects. Interest is charged on loan funds used to finance construction of certain project purposes, and the rate of interest charged is determined according to the criteria in the Small Reclamation Projects Act of 1956, as amended.

The size of the Government's investment in repayable water resource projects and loans makes the interest-rate criteria used for determining the repayment obligation an important issue. As of June 30, 1971, Bureau projects alone represented an estimated cost of $12.1 billion, of which $10.5 billion was repayable to the Government. The annual investment in projects and loans is also significant; in fiscal year 1973 the Bureau and the Corps planned to obligate an estimated $1 billion for advance planning and construction of projects with reimbursable costs and for small reclamation loans.

CHAPTER 2

NEED FOR A CHANGE IN INTEREST-RATE CRITERIA

FOR DETERMINING FINANCING COSTS OF

WATER RESOURCE PROJECTS

The criteria contained in existing legislation and used by the Bureau and the Corps for charging interest on repayable costs associated with multipurpose water resource projects and small reclamation loans need to be changed because they are not representative of the cost of funds borrowed by Treasury to finance such projects and loans. In addition, the criteria are not uniformly applied to the various repayable portions of the Government's investment in water resource projects and loans.

POWER PROJECTS

In a report to the Congress (B-167712, Jan. 13, 1970), we pointed out that, unless legislation authorizing a power project directed otherwise, the Bureau had used a 3-percent rate since 1956 for computing the interest costs to be capitalized as part of the Government's investment in a power project during its construction and for computing the annual interest payable to Treasury on the unrepaid investment in the project. The Bureau's use of the 3-percent rate was based on its interpretation of section 9 of the Reclamation Projects Act of 1939 (43 U.S.C. 485).

We pointed out also that the Corps had adopted the interest-rate formula set forth in Senate Document 97, Eighty-seventh Congress, for computing the interest costs to be capitalized as part of the Government's investment in a power project during its construction and for determining the annual interest payable to Treasury on the unrepaid investment in the project. The formula provided that the interest rate be based on the average rate of interest payable by Treasury on obligations that were outstanding at the end of the fiscal year preceding the year in which the computation was made and that had terms of 15 years or more upon issuance.

We concluded that the Bureau's use of a 3-percent interest rate and the Corps' use of an interest rate based on the average rate of interest payable on obligations with terms of 15 years or more were not representative of Treasury's cost of borrowing funds to finance current power projects. Our conclusion was based on the facts that

--Treasury borrowing costs over the years had increased to the point where they substantially exceeded the 3-percent rate used by the Bureau and

--due to market conditions and the congressional limitation of a 4-1/4-percent interest rate on bonds, Treasury obligations with terms of 15 years or more had not been issued in recent years and the average interest rate payable on such obligations no longer reflected the Treasury's actual borrowing costs.

We stated that a more appropriate measurement of financing costs associated with the construction of a power project was the average market yield on long-term Treasury obligations.

We stated also that the Secretary of the Treasury should have the responsibility of prescribing annually an interest rate to be used in determining the interest costs to be capitalized as part of the Government's investment in power projects and that he should consider the average market yield, during the year in which the investment is made, on the outstanding marketable obligations which he considers to be most representative of Treasury's cost of borrowing money to construct power projects. We further expressed the belief that the annual interest payments to Treasury on the unrepaid investment in a project should be computed on the basis of a composite of the average market yields used in computing the interest costs capitalized during project construction.

On January 29, 1970, the Secretary of the Interior prescribed new criteria for capitalizing interest during construction of new Bureau and Corps power projects and for paying interest to Treasury on the unrepaid investment in the projects. The criteria for using an interest rate of 4-7/8 percent in fiscal year 1970 and for annual adjustments, upward and downward, to give effect to changes in the average market yield on long-term Treasury obligations, but not more than one-half of 1 percent a year. The rate of 4-7/8 percent prescribed for use in fiscal year 1970 was less than the average market yield of 5-1/2 percent on long-term obligations outstanding in that year.

Although the new criteria constitute an improvement, they will not be applicable to other than the power features of a multipurpose water resource project or to the Bureau's small reclamation loans. Comments regarding the interest-rate criteria applicable to such project features and repayable loans are discussed in the following sections of this report.

MUNICIPAL AND INDUSTRIAL WATER SUPPLY

Both the Bureau and the Corps may construct multipurpose water resource projects to provide water for municipal and industrial uses when, among other things, local interests furnish reasonable assurance that they will use the water and repay the Government's investment in the water project within 50 years after water is first stored or used. This repayment obligation is generally assumed by muncipalities, by public organizations which represent a substantial number of water users, and by private corporations.

The Bureau constructs multipurpose water resource projects, which provide water for municipal and industrial use, under authority of the Reclamation Projects Act of 1939 (43 U.S.C. 485), as supplemented by the Water Supply Act of 1958 (43 U.S.C. 390). The Corps also derives its authority to construct such projects under the latter act. At June 30, 1971, the Bureau had 42 projects and the Corps had 70 projects with estimated costs allocated to municipal and industrial water supply of $1.1 billion and $226 million, respectively.

Pursuant to subsection 9(c) of the Reclamation Projects Act of 1939 (43 U.S.C. 485h), the Bureau cannot charge interest on costs allocated to municipal and industrial water supply at a rate exceeding 3.5 percent unless the legislation authorizing such a project establishes a different rate. In recent years the interest rate has been established by specific project-authorizing legislation based on the formula contained in the Water Supply Act of 1958. The Water Supply Act of 1958 provides that:

> "*** The interest rate used for purposes of computing interest during construction and interest on the unpaid balance shall be determined by the Secretary of the Treasury, as of the beginning of the fiscal year in which construction is initiated, <u>on the basis of the computed average interest rate</u> payable by the Treasury upon its outstanding marketable public obligations, which are neither due nor callable for redemption for fifteen years from date of issue. ***" (Underscoring supplied.)

Interest rates based on the above criteria are not representative of Treasury's cost of borrowing funds to finance current projects. As a longstanding policy, Treasury has recommended the use of current market yields on outstanding Government obligations of comparable maturity as the best measurement of the Government's cost of financing an activity. The essence of the argument for using the current market yield rather than the average interest rate payable on long-term Treasury obligations is that, although Treasury does not enter the market to borrow a specific amount for a specified period in order to finance a current investment, it is compelled to have a comparably greater debt outstanding over the period and the most appropriate measurement of the alternative cost involved is the current market cost of borrowing for comparable maturities.

By using the interest-rate criteria prescribed in the Water Supply Act of 1958 for recovering the Government's cost of financing the municipal and industrial water supply projects, both municipal and private industrial water users receive substantial subsidies.

Our review of three Bureau and two Corps multipurpose projects in the Southwestern United States, constructed at a total cost of about $170.4 million, showed that basing interest rates on criteria prescribed in the Water Supply Act of 1958 rather than on rates more representative of Treasury's borrowing costs (1) resulted in the Government's understating its investments in the municipal and industrial water supply features of the projects by about $5 million and (2) will result in reduced annual interest payments of about $80 million to Treasury on the Government's unrepaid investments in the projects during the repayment period. This information is detailed in the following table.

	Capitalized interest during construction			Total annual interest expense through repayment period established by the agency		
	As computed by agency using statutory interest rate	As computed by GAO (note a)	Under-statement of interest costs during construction	As computed by agency using statutory interest rate	As computed by GAO (note b)	Reduced interest costs during repayment period
Corps of Engineers:						
Stillhouse Hollow Reservoir	$ 423,864	$ 698,076	$ 274,212	$ 4,429,986	$ 7,418,549	$ 2,988,563
Millwood Reservoir	979,600	1,491,718	512,118	8,762,842	14,620,712	5,857,870
Total	$1,403,464	$ 2,189,794	$ 786,330	$ 13,192,828	$ 22,039,261	$ 8,846,433
Bureau of Reclamation:						
Arbuckle	$ 531,842	$ 722,855	$ 191,013	$ 7,111,252	$ 10,877,554	$ 3,766,302
Canadian River	6,917,106	10,638,053	3,720,947	71,862,737	132,384,486	60,521,749
Norman Project	685,301	995,796	310,495	9,813,567	16,691,601	6,878,034
Total	$8,134,249	$12,356,704	$4,222,455	$ 88,787,556	$159,953,641	$71,166,085
Grand total	$9,537,713	$14,546,498	$5,008,785	$101,980,384	$181,992,902	$80,012,518

[a]Based on average market yields on outstanding long-term Treasury obligations during construction.

[b]Based on a composite of the annual average market yields on outstanding long-term Treasury obligations during construction.

Our computations were based on the average yields on long-term Treasury obligations outstanding during construction of the projects because they were the most reliable borrowing-cost indicators available.

Treasury, Interior, and Corps officials generally recognize the market yield on long-term Treasury obligations as the best indicator of the Government's actual cost of financing water resource projects. However, a Treasury official told us that the market yield on long-term obligations was less than the Treasury's actual borrowing costs because of the scarcity of such bonds in the market and because of the relatively low rates of interest on such bonds. We therefore believe the Secretary of the Treasury should annually prescribe an interest rate based on current yields on those marketable obligations outstanding which he considers to be representative of Treasury's borrowing costs.

The need to revise the interest criteria takes on added significance because of the Government's increasing investment in municipal and industrial water supply projects. The amount of water supplied by the Bureau to municipal and industrial users increased from about 700,000 acre-feet in 1958 to about 1.8 million acre-feet in 1968, an increase of 1.1 million acre-feet. During the same period the Corps, which sells storage space within its reservoirs to recover the Government's investment allocated to water supply, increased its storage space to meet municipal and industrial water needs from 1.2 million acre-feet to about 4.7 million acre-feet, an increase of 3.5 million acre-feet.

The Water Resources Council, in its 1968 report on the Nation's water needs and resources, indicated that water requirements would increase in years to come. The Council estimated that by the year 2020 the U.S. municipal and industrial water requirements would be 382 percent greater than the amount (140 million acre-feet) required in 1965. The Council estimated also that in the Western United States, where both the Bureau and the Corps build projects, the rate of increase for municipal and industrial purposes would be 693 percent and that industrial water requirements would continue to surpass municipal water requirements.

RECREATION AND FISH AND WILDLIFE ENHANCEMENT

Recreation and fish and wildlife enhancement are included in Bureau and Corps multipurpose projects pursuant to the Federal Water Project Recreation Act of 1965 (79 Stat. 213). The act requires that non-Federal public parties agree in writing, prior to Federal construction of such projects, to (1) administer the recreation and fish and wildlife areas and (2) pay no less than one-half of the construction costs allocated to recreation and enhancement, plus all operation, maintenance, and replacement costs associated with the features.

The act also provides that costs may be repaid by the non-Federal parties by a cash payment during construction; by donation of lands and/or facilities for the project; by installment payments, including interest, over 50 years from the time the recreation or enhancement facilities are first used; or by any combination thereof. The reimbursable construction costs include interest capitalized during construction and, if repaid by installment, annual interest on the unrepaid balance.

The Federal Water Project Recreation Act of 1965 provides that interest to be capitalized during construction and to be paid annually on the unrepaid reimbursable portion of the Government's investment in recreation and fish and wildlife enhancement be at an interest "rate comparable to that for other interest-bearing features of Federal water resource projects." Therefore, unless legislation authorizing a project has directed otherwise, the interest costs applicable to recreation and fish and wildlife enhancement are determined on the basis of the interest-rate criteria in the Water Supply Act of 1958.

In those instances where the authorizing legislation has specifically provided an interest formula for recreation and fish and wildlife, the formula generally has been that prescribed in the 1958 act. The Corps also uses interest rates determined on the basis of the criteria in the Water Supply Act of 1958 for computing interest costs applicable to recreation and fish and wildlife enhancement.

At June 30, 1971, the Bureau and the Corps had 110 multipurpose projects authorized and under development with estimated reimbursable costs of $160 million allocated to recreation and fish and wildlife enhancement. Because construction had not been completed on any of the 110 projects as of January 1972, we did not compute the difference between the interest costs that will be recovered on these projects using interest rates developed under the criteria in the 1958 act and the interest costs that would be recovered using rates that more closely represent the actual cost of Treasury borrowings.

We believe that, as in the case of power and municipal and industrial water supply features of a multipurpose water resource project, the interest-rate criteria prescribed for computing the cost of financing recreation and fish and wildlife enhancement result in understating the cost of the projects and in reducing interest payments to Treasury.

SMALL RECLAMATION LOAN PROGRAM

The Small Reclamation Projects Act of 1956, as amended in November 1971 (85 Stat. 488), authorized a program under which certain types of organizations could obtain loans and grants through the Bureau of Reclamation for small reclamation projects. A project under this program is defined in the act as (1) any complete irrigation project, any multipurpose water resource project that is authorized or eligible for authorization under the Federal reclamation laws, or any distinct unit of such projects, (2) any project for draining irrigated lands without regard to whether such lands are irrigated with water supplies developed pursuant to the Federal reclamation laws, or (3) any project for rehabilitating and bettering a project or distinct unit of such projects.

The purpose of the program is to encourage State and local participation in developing projects under the Federal reclamation laws and to provide for Federal assistance in developing similar projects by non-Federal organizations in the 17 Western States and Hawaii. The act of 1956, as amended, prescribes that loan funds used to finance construction of certain projects be repayable, with interest, in not more than 50 years from the date when the principal benefits of the project first become available. The act prescribes also that interest, as determined by the Secretary of the Treasury, be charged as of the beginning of the fiscal year in which the loan is made and that interest rates be based on the average interest rate payable by Treasury upon its outstanding marketable public obligations, which are neither due nor callable for redemption for 15 years from date of issue. The act provides for an annual rate adjustment to the nearest one-eighth of 1 percent for changes in average interest rates.

As in the case of the interest-rate criteria for computing interest costs associated with the financing of the various repayable features of multipurpose water resource projects, the interest rates charged on small reclamation loans are not representative of the cost of funds borrowed by Treasury to finance the loans. For example, on September 16, 1971, the Bureau approved a loan for $4.9 million, of which $2 million was repayable at interest rates based on the criteria prescribed in the 1956 act, as amended. On this one loan the Bureau interest receipts will be about $2.9 million less than they would have been had the interest rate been more representative of Treasury's borrowing costs.

From inception of the program in August 1956 through June 1971, the Bureau approved small reclamation loans totaling about $166 million in Federal funds, of which $32 million, or 19 percent, was repayable with interest.

CONCLUSIONS

The present interest-rate criteria for computing (1) interest costs to be capitalized as part of the Government's investment in multipurpose water resource projects--power, municipal and industrial water supply, recreation, and fish and wildlife enhancement--and (2) annual interest payable to Treasury on the Government's unrepaid reimbursable investments in the projects are not representative of the cost of funds borrowed by Treasury during construction of the projects. As a consequence power and municipal and industrial water users are being subsidized; and the reimbursable costs of recreation and fish and wildlife enhancement are understated.

The interest-rate criteria applicable to power projects differ from the criteria applicable to other reimbursable features of a multipurpose water resource project. Under these criteria the interest costs capitalized and interest paid annually on the Government's unrepaid investment in a power project are based on higher interest rates than those applicable to other reimbursable features of a multipurpose water resource project, such as municipal and industrial water supply.

The prescribed interest-rate criteria for charging interest on small reclamation loans were not representative of the Government's cost of financing the loans.

AGENCY COMMENTS AND OUR EVALUATION

In commenting on our draft report, Treasury, in a letter dated May 10, 1972 (see app. I), reiterated the position it had taken on our prior report (see p. 6) in which we proposed a change in the interest-rate criteria for determining the financing costs of the Federal Power Program. Treasury stated, in part, that:

> "As Under Secretary Volcker indicated in his February 25, 1969, letter commenting on the earlier proposed report, as a matter of long-standing policy the Treasury Department has recommended the use of current market yields on outstanding Government obligations of comparable maturity as the best measure of the cost to the Government of financing an activity."

Treasury stated also that the criteria suggested in our draft report is consistent with the approach taken by the Administration and by the Congress for other Federal lending and investment activities in recent years. Treasury noted that the market yield formula

--had been incorporated in Bureau of the Budget (now Office of Management and Budget) Circular No. A-70, February 1, 1965, which prescribes interest-rate formulas for use in legislative proposals to create or expend Government loan programs and

--had been adopted by the Congress in a number of legislative enactments in recent years for use in determining the interest to be charged on Federal loans to non-Federal borrowers and for payment of interest on the Federal investment in the programs conducted by Federal agencies.

By letter dated May 10, 1972 (see app. II), Interior observed that the net effect of our recommendations to the Congress would be to make the interest rate for repayment of all interest-bearing debts representative of the Treasury's borrowing rate for the year in which the investment or loan was made. Interior stated that Secretarial Order No. 2929, January 29, 1970, had established a standard formula for fixing the interest rate for new Federal power projects and that the purpose of this order was to establish interest rates that more nearly reflected the current cost of money borrowed to finance power projects. With regard to other interest-bearing costs, Interior noted that the Congress had been reluctant to deviate from the Water Supply Act 1958 formula which pegged interest rates for repayment to the interest rate on long-term obligations and stated that, since our recommendations were directed to the Congress, it would defer to action by that body.

In a letter dated May 8, 1972 (see app. III), Army stated that our recommendations were conceptually the same as those included in our prior report (see p. 6) and that the comments furnished by Army on the earlier draft were equally applicable to the current report. In commenting on that report, Army stated that the Corps would use the new formula prescribed by the Water Resources Council in calculating power costs--a formula based on current market yield and similar to the one we suggested. However, the Corps has not adopted the formula for other interest-bearing costs of multipurpose water resource projects.

MATTERS FOR CONSIDERATION BY THE CONGRESS

Although increasing benefits are being provided to private industry and to the public through development of multipurpose water resource projects, the Government's repayable cost of financing these projects is not being fully or uniformly recovered from project users. To recover the Government's repayable cost of financing multipurpose water resource projects, including authorized projects on which construction has not started, and of financing small reclamation loans, we recommend that the Congress amend the existing legislation to provide that:

--The interest costs to be capitalized as part of the Government's investment in water resource projects be based on an interest rate annually prescribed by the Secretary of the Treasury. In establishing a rate the Secretary should consider the average market yield, during the year in which the investment is made, on the outstanding marketable obligations which he considers to be most representative of the Treasury's cost of borrowing money to finance construction of the projects.

--The interest to be paid to Treasury annually on the Government's unrepaid investment in water resource projects be based on a composite of the average market yields used in computing the capitalized interest costs.

--The interest on unrepaid small reclamation loans be charged at the rate prescribed by the Secretary of the Treasury for the year in which the loan is made.

CHAPTER 3

SCOPE OF REVIEW

We reviewed pertinent legislation and congressional hearings, agency procedures and regulations, and financial records necessary to evaluate the reasonableness and propriety of the interest-rate criteria used by the Bureau and Corps for determining interest to be charged on the repayable costs of multipurpose water resource projects associated with power, municipal and industrial water supply, recreation, and fish and wildlife enhancement. Our review also included an assessment of the interest-rate criteria applicable to the repayable portion of the Bureau's small reclamation loans. Our review was made primarily at Bureau and Corps offices located in Washington, D.C., and in the Southwestern United States.

In our prior review of the Federal power program, we demonstrated the effect of the use of interest-rate criteria by the Federal power agencies in determining the cost to finance three power projects in the Federal Columbia River Power System. In this review we examined three Bureau and two Corps multipurpose water resource projects to determine the effect that the existing interest-rate criteria had had on the Government's recovering its cost of financing municipal and industrial water supply features of such projects. For each project we computed the interest to be recovered using rates based on the criteria required in the Water Supply Act of 1958 and compared it to that which would have been recovered had interest rates been more closely representative of the cost of funds borrowed by Treasury during construction of the projects.

We determined the total costs allocated to recreation and fish and wildlife enhancement of all Bureau and Corps projects--features which are, in part, reimbursable with interest and which are similarly affected by the interest-rate criteria applicable to municipal and industrial water supply project features. Because the Bureau also charges interest on portions of the funds it lends to non-Federal organizations to develop water resource projects, we examined into the criteria upon which interest rates are computed and, for one loan, compared the interest to be recovered using existing criteria with that which would have been recovered had the interest rates been more representative of the Government's cost of financing the loan.

OFFICE OF THE SECRETARY OF THE TREASURY
WASHINGTON, D.C. 20220

May 10, 1972

Dear Mr. Hirschhorn:

On behalf of Secretary Connally, I am replying to your letter of March 8 requesting comments on your proposed report to the Congress, "Legislation Needed to Revise the Interest Rate Criteria for Determining the Financing Costs of Water Resource Projects" (Departments of the Interior and the Army).

The proposed report concludes that present interest rate criteria for computing (1) interest costs to be capitalized as part of the Government's investment in multipurpose water resource projects--power, municipal and industrial water supply, recreation and fish and wildlife enhancement -- and (2) annual interest payable to the Treasury on the Government's unrepaid reimbursable investments in the projects are not representative of the cost of funds borrowed by the Treasury during the period of construction of the projects. The report recommends that Congress amend existing legislation to require that these interest costs be based on an interest rate annually prescribed by the Secretary of the Treasury taking into consideration the average market yield during the year in which the investment is made on the outstanding marketable obligations which he considers to be most representative of the cost to the Treasury of borrowing money to construct the projects. These conclusions and recommendations are essentially the same as those made in the January 13, 1970 GAO report to the Congress, "Change Proposed in Interest Rate Criteria for Determining Financing Costs of Federal Power Program."

As Under Secretary Volcker indicated in his February 25, 1969 letter commenting on the earlier proposed report, as a matter of long-standing policy the Treasury Department has recommended the use of current market yields on outstanding Government obligations of comparable maturity as the best measure of the cost to the Government of financing an activity. The essence of the argument is that, while the Treasury does not enter the market to borrow a specific amount for a specified period in order to finance an investment of an equal amount for the same period, it is compelled to have a comparably greater amount of debt outstanding over the period, and the most appropriate measure of the alternative cost involved is the current market cost of borrowing for comparable maturities.

The market yield formula was incorporated in Bureau of the Budget (now Office of Management and Budget) Circular No. A-70, February 1, 1965, which prescribes interest rate formulas for use in legislative proposals to create or expand Government loan programs. The formula has been adopted by the Congress in a number of legislative enactments in recent years for use in determining the interest to be charged on Federal loans to non-Federal borrowers and for payment of interest on the Federal investment in the programs conducted by Federal agencies. Thus, the approach suggested in your draft report is consistent with the approach taken by the Administration and by the Congress for other Federal lending and investment activities in recent years.

We would like to make two technical observations on the proposed report. In several places the proposed report notes that as of the beginning of fiscal year 1972, because of market conditions and the statutory interest rate ceiling of 4-1/4 percent on bonds, the latest issuance of bonds which were neither due nor callable for redemption for 15 years from date of issue was in 1963. In January 1965 the Treasury reopened and issued approximately $2.2 billion of 4-1/4 percent bonds of 1987-92. Public Law 92-5, March 17, 1971, authorized the issuance of up to

$10 billion face amount of bonds at interest rates in excess of 4-1/4 percent. Under this authority on November 15, 1971 the Treasury issued approximately $1.2 billion of 6-1/8 percent non-callable bonds to mature on November 15, 1986.

Sincerely yours,

Jack F. Bennett
Deputy Under Secretary
for Monetary Affairs

Mr. Max Hirschhorn
Associate Director
United States General
Accounting Office
Washington, D.C. 20548

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

MAY 10 1972

Mr. Max Hirschhorn
Associate Director
Civil Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Hirschhorn:

The Department of the Interior has reviewed with interest the GAO draft report entitled, "Legislation Needed to Revise the Interest Rate Criteria for Determining the Financing Costs of Water Resource Projects, Department of the Interior, Department of the Army."

The GAO report recommends that Congress amend existing legislation and establish uniform interest rate criteria to provide the following.

Interest during construction will be based on an interest rate prescribed annually by the Secretary of the Treasury. This rate will be applied to the annual investments and will be representative of the cost of money to the Treasury of borrowing such monies.

Interest to be paid annually on the unpaid balance of investments in water resource projects will be a composite of the annual yields used in computing interest during construction for the project.

The interest to be paid on the unpaid balances of small reclamation loans shall be at the rate representative of the Treasury's borrowing costs for the year in which the loan is made.

The net effect of the above recommendations would be the requirement that the interest rate for repayment of interest-bearing debt be representative of the Treasury's borrowing rate for the year in which the investment or loan is made. At the present time, this would be in the vicinity of $5\frac{1}{2}$ percent if the cost of all borrowed money is considered.

Secretarial Order No. 2929, January 29, 1970, established a standard formula for fixing the interest rates for repayment purposes on new Federal power projects. It was the purpose of this order to establish interest rates for repayment of <u>power</u> costs that more nearly reflect the current costs of money borrowed by the Federal Government. For fiscal year 1972, this rate is 5-7/8 percent and may stay at this level or decrease for fiscal year 1973.

[illegible] the GAO proposal would result in interest rates [illegible] to the repayment of all interest-bearing costs more nearly [illegible] with Secretarial Order No. 2929. Congress, however, has [illegible] to deviate from the present Water Supply Act of 1958 [illegible] interest rates for repayment to the coupon rate [illegible]-term obligations.

[illegible] recommendations are directed to the Congress, we defer to [illegible] body. However, there are obvious complications in [illegible] these recommendations--specifically, while more nearly [illegible] repayment of current costs of money borrowed by the [illegible] on future projects, it is difficult to envision [illegible] retroactive application, changing the situation [illegible] the report.

Sincerely yours,

J. J. Hall Jr.

Director of Survey and Review

DEPARTMENT OF THE ARMY
OFFICE OF THE UNDER SECRETARY
WASHINGTON, D.C. 20310

8 May 1972

Mr. Richard W. Gutmann
Acting Director
United States General Accounting Office
441 G Street, N. W.
Washington, D. C. 20548

Dear Mr. Gutmann:

This is in reply to your letters dated 8 March 1972, to the Secretary of Defense, Secretary of the Army, and the Chief of Engineers, transmitting copies of a proposed report to the Congress entitled "Legislation Needed to Revise the Interest Rate Criteria for Determining the Financing Costs of Water Resource Projects" (OSD Case #3427).

The report recommends that the Congress amend existing legislation to require (a) the use of interest rates for repayment purposes which are more representative of the cost of borrowing money by the Treasury and (b) that the interest to be paid on the unrepaid investment in water resources projects be based on a composite of the average yield rates over the project construction period.

I am pleased to note that you recognize that the Corps procedures with regard to matters discussed in your report are in accordance with existing legislation and administrative requirements. However, I also note that the matters discussed are similar and the recommendations conceptually identical to those included in a GAO report to the Congress dated 13 January 1970, and entitled "Change Proposed in Interest Rate Criteria for Determining Financing Costs of Federal Power Program" (OSD Case #2888). In view of this similarity, the comments furnished (copy inclosed) in connection with this earlier report are considered equally applicable to the current draft report and, as a result, no further comment appears warranted at this time.

The opportunity to review the draft report is appreciated.

Sincerely,

Charles R. Ford

1 Incl
as

Charles R. Ford
Chief
Office of Civil Functions

DEPARTMENT OF THE ARMY
WASHINGTON, D.C. 20310

1 APR 1969

Mr. Allen R. Voss
Assistant Director
United States General Accounting Office
Washington, D. C. 20548

Dear Mr. Voss:

The Secretary of Defense and Secretary of the Army have asked that I reply to your letter, dated 21 January 1969, forwarding copies of a draft report to the Congress pertaining to interest rate criteria for determining financing costs of the Federal power program. (OSD 2888)

As your proposed report points out, the interest rates used by the Corps of Engineers in project evaluation have been in accordance with coupon formulas prescribed by administrative and legislative authority. The power generated at Corps of Engineers projects is marketed by marketing agencies of the Department of the Interior. These agencies have consistently used the same rates in their repayment analysis as used by the Corps of Engineers in project evaluations. The report also notes that on several occasions pertaining to repayment of reimbursable functions the Congress has chosen to retain the coupon interest formula in preference to a yield formula.

The proposed report notes that coupon and yield rates on long term Federal borrowing are no longer approximately the same and suggests that the Congress should consider requiring the use of yield rates in determining power repayment requirements. While I am not familiar with the administrative policies and specific laws applying to other agencies, the Corps will use the new rate prescribed by the Water Resources Council in calculating power costs. This will be similar to the formula suggested in the draft report.

There appears to be one significant difference, however, in determining interest rates for projects with long construction periods such as the John Day and The Dalles projects. As I understand the formula in your report, you consider it more appropriate to use a rate representing an average yield rate over the period of time these projects are under construction. The Corps of Engineers, however, uses the yield rate which was used in the presentations to Congress for initial appropriation of construction funds. This procedure has been followed in the past throughout the Corps of Engineers program and has been tacitly

Mr. Allen R. Voss

accepted by the Congress. The procedure is considered proper since it represents conditions at the time commitments must be made. It would be difficult to make agreements for power purchases on an undetermined future cost based on the average yield rate during the construction period.

The opportunity to review the draft report is appreciated. It is requested that 10 copies of the report as finally prepared be furnished the Office, Chief of Engineers.

Sincerely yours,

Robert E. Jordan, III
Special Assistant (Civil Functions)

PRINCIPAL MANAGEMENT OFFICIALS OF THE DEPARTMENT OF THE INTERIOR AND THE DEPARTMENT OF THE ARMY RESPONSIBLE FOR THE ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
DEPARTMENT OF THE INTERIOR		
SECRETARY OF THE INTERIOR:		
Rogers C. B. Morton	Jan. 1971	Present
Fred J. Russell (acting)	Nov. 1970	Dec. 1970
Walter J. Hickel	Jan. 1969	Nov. 1970
Stewart L. Udall	Jan. 1961	Jan. 1969
Fred A. Seaton	June 1956	Jan. 1961
ASSISTANT SECRETARY FOR WATER AND POWER RESOURCES:		
James R. Smith	Mar. 1969	Present
Kenneth Holum	Jan. 1961	Jan. 1969
Fred G. Aandahl	Feb. 1953	Jan. 1961
COMMISSIONER OF RECLAMATION:		
Ellis L. Armstrong	Nov. 1969	Present
Floyd E. Dominy	May 1959	Oct. 1969
Wilbur A. Dexheimer	July 1953	Apr. 1959
DEPARTMENT OF THE ARMY		
SECRETARY OF THE ARMY:		
Robert F. Froehlke	July 1971	Present
Stanley R. Resor	July 1965	June 1971
Stephen Ailes	Jan. 1964	July 1965
Cyrus R. Vance	July 1962	Jan. 1964
Elvis J. Stahr, Jr.	Jan. 1961	June 1962
Wilber M. Brucker	July 1955	Jan. 1961

DEPARTMENT OF THE ARMY (continued)

CHIEF OF ENGINEERS:

	Tenure of office			
	From		To	
Lt. Gen. Frederick J. Clarke	Aug.	1969	Present	
Lt. Gen. William F. Cassidy	July	1965	Aug.	1969
Lt. Gen. Walter K. Wilson, Jr.	May	1961	June	1965
Lt. Gen. Emerson C. Itschner	Oct.	1956	May	1961