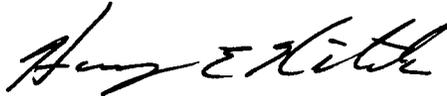


MEMORANDUM FOR PLANNING COMMUNITY OF PRACTICE

SUBJECT: Economics Guidance Memorandum, 06-02, Federal Interest Rates for Corps of Engineers Projects for Fiscal Year 2006

The enclosed information is provided for immediate use. Please note that the interest rate to prioritize for budget development is discussed in the annual budget circular, not in this EGM.

Questions related to this memorandum should be addressed to Bruce Carlson CECW-PC at bruce.d.carlson@usace.army.mil or by telephone at (202) 761-4703.



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5 Encls

1. Federal Discount Rate
2. Deferred Payment Interest Rates
3. Water Supply Interest Rates
4. Hydropower Interest Rate
5. Delinquent Payment Collection Rate

Federal Discount Rate for Fiscal Year 2006

Project Evaluation and Formulation Rate (Discount Rate): FY 2006 – 5 1/8 %

The Principles and Guidelines states: "Discounting is to be used to convert future monetary values to present values. Calculate present values using the discount rate established annually for the formulation and economic evaluation of plans for water and related land resources." (Section 1.4.11)

The interest rate for discounting, that is, converting benefits and costs to a common time basis, is set each fiscal year in accordance with Section 80 of Public Law 93-251. HQUSACE obtains the rate from U.S. Treasury Department, which computes it as the average yield on interest-bearing marketable securities of the United States having 15 or more years to maturity. The computed rate is effective as of 1 October of each year. It is based on yield data for the entire previous fiscal year, and thus the discount rate for the fiscal year above is based on average yields during the previous fiscal year. According to law the rate may not be raised or lowered more than one quarter of one percentage point in any year.

The table below shows the discount rate historical series going back to 1957. Column headings identify the source of authority for the rates, and not necessarily the organization that actually computed the rates.

Federal Discount Rate for Fiscal Year 2006

| FEDERAL DISCOUNT RATES FOR PROJECT FORMULATION AND EVALUATION | | | | | |
|---|--|-------------------------------|--------------------------------------|-----------------------------------|--|
| Fiscal Year | Bureau of the Budget (now OMB) Circular A-47 | Senate Document No. 97 (1962) | Water Resources Council (WRC) (1968) | Principles & Standards (WRC 1973) | Section 80 WRDA 1974 (Public Law 93-251) |
| 1957-60 | 2.500% | | | | |
| 1961 | 2.625% | | | | |
| 1962 | 2.625% | 2.625% | | | |
| 1963 | | 2.875% | | | |
| 1964 | | 3.000% | | | |
| 1965-67 | | 3.125% | | | |
| 1968 | | 3.250% | | | |
| 1969 | | 3.250% | 4.625% | | |
| 1970 | | | 4.875% | | |
| 1971 | | | 5.125% | | |
| 1972 | | | 5.375% | | |
| 1973 | | | 5.500% | | |
| 1974 | | | 5.625% | 6.875% | 5.625% |
| 1975 | | | | | 5.875% |
| 1976 | | | | | 6.125% |
| 1977 | | | | | 6.375% |
| 1978 | | | | | 6.625% |
| 1979 | | | | | 6.875% |
| 1980 | | | | | 7.125% |
| 1981 | | | | | 7.375% |
| 1982 | | | | | 7.625% |
| 1983 | | | | | 7.875% |
| 1984 | | | | | 8.125% |
| 1985 | | | | | 8.375% |
| 1986 | | | | | 8.625% |
| 1987 | | | | | 8.875% |
| 1988 | | | | | 8.625% |
| 1989 | | | | | 8.875% |
| 1990 | | | | | 8.875% |
| 1991 | | | | | 8.750% |
| 1992 | | | | | 8.500% |
| 1993 | | | | | 8.250% |
| 1994 | | | | | 8.000% |
| 1995 | | | | | 7.750% |
| 1996 | | | | | 7.625% |
| 1997 | | | | | 7.375% |
| 1998 | | | | | 7.125% |
| 1999 | | | | | 6.875% |
| 2000 | | | | | 6.625% |
| 2001 | | | | | 6.375% |
| 2002 | | | | | 6.125% |
| 2003 | | | | | 5.875% |
| 2004 | | | | | 5.625% |
| 2005 | | | | | 5.375% |
| 2006 | | | | | 5.125 % |

Deferred Payment Interest Rates Fiscal Year 2006

Deferred Payment Interest Rates and Payment Calculations for Fiscal Year 2006

Normally a non-Federal sponsor is expected to provide its cost share as the funds are needed, that is, as construction proceeds. Under some conditions a sponsor may seek to defer payment until after construction completion. When payments are deferred, they are made with interest. This enclosure provides interest rates to use in determining the deferred payments, and instructions for computing them.

The necessary conditions for formally seeking deferred payments are verifiable sponsor need and prior concurrence by the ASA (CW). In principle deferred payments are available for all project authorities (purposes). In practice, because of Corps budget constraints that preclude it from making what are, in effect, loans to sponsors, the Corps finds it difficult to participate in many projects with deferred payments.

There is some flexibility to accommodate limited deferred payments for harbor improvement projects; deferred payments are limited to the 'additional' ten percent sponsor obligation for General Navigation Features (GNF) costs. This 'additional' ten percent GNF cost share is typically a minor portion of a sponsor's total project cost share.

Authority for sponsor-deferred payments is PL 99-662 (WRDA '86). Provision for deferred payments for flood control and most other project purposes are in Section 103, paragraphs (a)(4), (b), and (k). Authority for deferral of 'additional' ten percent GNF costs is in Section 101, paragraph (a)(2).

In the table below, Interest Rates for Computing Non-Federal Repayments, the interest rates are based on Section 106 of WRDA '86, which says that the interest rate applicable to deferred payments will be the yield on Treasury securities having a remaining period to maturity the same as the repayment period selected (and agreed to by ASA (CW)). Thus, if the agreed upon repayment period is twelve years the repayment interest rate will be the yield on securities with twelve years left until maturity.

A detailed discussion of deferred payments and cost sharing is in ER 1165-2-131, Local Cooperation Agreements for New Start Construction Projects. This ER implements the cost sharing provisions of WRDA '86, and the instructions below, which are continued from previous editions of this EGM, presume knowledge of the ER.

I. Interest on Deferred Payments

A. Deferred payment reimbursed during the construction period. Interest will be charged on each Federal expenditure made in lieu of non-Federal contributions for the period between the expenditure and the reimbursement, except as noted in paragraph E. below.

B. Deferred payments reimbursed over a period of time following completion of construction (reference Sections 103(a)(4), 103(b), and 103(k) of P.L.99-662). Interest will be charged for each Federal expenditure (first costs) made in lieu of non-Federal contributions for the period between the expenditure and the end of construction. The first costs plus this interest will then be amortized over the selected repayment period.

C. Repayment under section 101(a) (2) of P.L.99-662. Repayment of up to 10 percent required under this section will not include any interest for the construction period only.

D. Interest Computation. Expenditures each month will be totaled and interest computed as though all the expenditures were made at the mid-point of the month. Interest will be compounded annually on the anniversary of the expenditure. Periods of less than one year will be converted to a fraction of a year (interest charge = principal at beginning of period x interest rate x fraction of a year).

E. Delay of initial payment under sections 101(d) and 103(l) of P.L.99-662. Delayed initial payments for up to one year approved by the ASA (CW) shall be assessed interest for one-half the period of delay.

II. Rate of interest to be applied to deferred payments

A. Reimbursements during the construction period. The interest rate will be determined by using the formula specified in section 106 of P.L.99-662. The maturity period shall be equal to length of time between the Federal expenditure and the reimbursement.

B. Reimbursement after completion of construction. The rate of interest to be used in computing interest for the construction period and to amortize the total obligation at the start of the repayment period (first cost plus interest) will be the rate determined using the formula in section 106 of P.L.99-662. For example, when the repayment period is 30 years, the interest rate shall be determined by the Secretary of the Treasury, taking into consideration the average market yields on outstanding marketable obligations of the United States with remaining periods of maturity of 30 years during the month preceding the fiscal year in which costs for the construction of the project are first incurred **plus a premium of one-eighth of one percentage point for transaction costs.**

Deferred Payment Interest Rates for Fiscal Year 2006

III. Payment Schedule. The payments, where reimbursement is made after completion of construction, shall be in equal consecutive annual installments, the first of which shall be due and payable within 30 days after the non-Federal interest is notified by the contracting officer that the project or project modification is completed and operational for the purpose(s) for which repayment is being made. Annual installments thereafter will be due and payable on the anniversary date of the date of notification. Except for the first payment, which will be applied solely to the retirement of principal, all installments shall include accrued interest on the unpaid balance at the rate provided above. The last installment shall be adjusted upward or downward when due to assure repayment of all of the indebtedness.

IV. Five-Year Recalculation of the Interest Rate Applicable to Deferred Payments. The formula used to determine the interest rate under paragraph II.B. above will be used for each recalculation. For example, if the original maturity period is 30 years, then the interest rate for each recalculation will use the current Fiscal Year interest rate for 30 years. Annual payments, however, will be based on the remaining repayment period.

V. Expenditures between Feasibility Studies and Construction. Federal expenditures not covered by the FCSA for feasibility studies and made prior to the PCA for construction (PED) will be treated as first year construction costs subject to interest charges based on the preceding paragraphs as though the expenditures were made at the beginning of the first year of construction.

VI. Projects Authorized for Planning, Engineering, and Design. Planning and engineering will be cost shared 50-50 in accordance with Section 105(b) of P.L.99-662. Expenditures for design will be treated in accordance with paragraph V. above.

Deferred Payment Interest Rates for Fiscal Year 2006

Interest Rates for Computing Non-Federal Repayments Fiscal Year 2006 (Section 106 of P.L. 99-662)

| From and Including | Up to But Not Including | Rate |
|---------------------------|--------------------------------|-------------|
| 0 years – 3 months | 0 years – 4 months | 3-1/2% |
| 0 years – 4 months | 0 years – 5 months | 3-5/8% |
| 0 years – 5 months | 0 years – 11 months | 3-3/4% |
| 0 years – 11 months | 2 years - 8 months | 3-7/8% |
| 2 years – 8 months | 7 years - 3 months | 4% |
| 7 years - 3 months | 10 years - 10 months | 4-1/8% |
| 10 years – 10 months | 14 years - 6 months | 4-1/4% |
| 14 years - 6 months | 18 years – 10 months | 4-3/8% |
| 18 years – 10 months | 25 years – 5 months | 4-1/2% |
| 25 years – 5 months | 30 years – 1 day | 4-3/8% |

Note: The above interest rates do not include the one-eighth (1/8%) of one-percentage points for transaction costs required by Section 106 of P.L.99-662.

Water Supply Interest Rates for Fiscal Year 2006

The Water Supply Act of 1958 established that the Federal government may cooperate with non-Federal interests in their water supply development efforts. The Act established a repayment period of 50 years and a repayment interest rate equal to the nominal interest rate of outstanding Treasury securities of suitable periods to maturity. Both of these features of the Act have been amended: the interest rate is now based on yields and the repayment period *may vary* up to 30 years.

I. Water Supply Interest Rates – for 30-Year Repayment Period – 4.625 %

This interest rate is relevant for a 30-year repayment period; since 30 years was established as a payback period we have continued to report this rate separately. It is determined by the Department of the Treasury in accordance with provisions of Section 932 of PL 99-662 (which amended the Water Supply Act of 1958). The rate is based on yields on Treasury securities that the Department of the Treasury deems have years remaining until maturity comparable to the reimbursement period.

The rate is used for contracts for storage reallocated to M & I water supply, for surplus water contracts, and for new projects. Repayment amounts must be readjusted every five years using the then current interest rate. For repayment periods other than 30 years see section II below.

This table shows an historical series since 1986 for this interest rate.

| FISCAL YEAR | INTEREST RATE |
|-------------|----------------|
| 1987 | 7.625% |
| 1988 | 10.000% |
| 1989 | 9.250% |
| 1990 | 8.250% |
| 1991 | 9.125% |
| 1992 | 8.125% |
| 1993 | 7.500% |
| 1994 | 6.125% |
| 1995 | 7.750% |
| 1996 | 6.750% |
| 1997 | 7.125% |
| 1998 | 6.750% |
| 1999 | 5.375% |
| 2000 | 6.125% |
| 2001 | 5.875% |
| 2002 | 5.625% |
| 2003 | 5.125% |
| 2004 | 5.500% |
| 2005 | 5.125% |
| 2006 | 4.625 % |

Note: The authorized one-eighth of one percentage point for transactions costs is included in the rates in the values shown in this table.

Water Supply Interest Rates for Fiscal Year 2006

II. Water Supply Interest Rates – for Repayment Periods other than 30 Years – See table in Enclosure 2, Interest Rates for Computing Non- Federal Repayments

For repayment periods less than 30 years interest rates are the same as specified under Section 106 of PL 99-662, and shown in the table in Enclosure 2. The rate is used for contracts for storage reallocated to M & I water supply, for surplus water contracts, and for new projects. Repayment amounts must be readjusted every five years using the then current interest rate.

III. Water Supply Interest Rate – For Storage in Projects Under Construction and for Water Supply Reallocations Approved Prior to 17 November 1986 (PL 99-662) – 7.892%

These interest rates are determined by the Department of the Treasury in accordance with provisions of the Water Supply Act of 1958, Section 301 (b). They are based on the nominal interest rate – as opposed to the yield – of Treasury securities with 15 or more years to redemption. Also, the repayment period is fixed at 30 years.

Section 932 of PL 99-662 amended the Water Supply Act of 1958 for Corps projects so that the repayment interest rate is now based on yields – as opposed to nominal interest rate – and the repayment period is not fixed but may vary with a 30 year maximum.

Thus, the X % rate above and the rates in the table below have limited applicability, limited to those projects that were, in effect, ‘grandfathered’ by PL 99-662. All new water supply storage or reallocations are subject to the amended Water Supply Act (see sections I and II above). Note: although the Water Supply Act was amended for Corps projects, this interest rate definition remains relevant for the Bureau of Reclamation, and thus Treasury continues to report it.

| FISCAL YEAR | INTEREST RATE | FISCAL YEAR | INTEREST RATE | FISCAL YEAR | INTEREST RATE |
|-------------|---------------|-------------|---------------|-------------|----------------|
| 1959 | 2.670% | | | | |
| 1960 | 2.699% | 1980 | 7.250% | 2000 | 8.542% |
| 1961 | 2.632% | 1981 | 8.605% | 2001 | 8.469% |
| 1962 | 2.742% | 1982 | 9.352% | 2002 | 8.315% |
| 1963 | 2.936% | 1983 | 10.051% | 2003 | 8.270% |
| 1964 | 3.046% | 1984 | 10.403% | 2004 | 8.209% |
| 1965 | 3.137% | 1985 | 10.898% | 2005 | 8.077% |
| 1966 | 3.222% | 1986 | 11.070% | 2006 | 7.892 % |
| 1967 | 3.225% | 1987 | 10.693% | | |
| 1968 | 3.253% | 1988 | 10.371% | | |
| 1969 | 3.256% | 1989 | 10.250% | | |
| 1970 | 3.342% | 1990 | 10.075% | | |
| 1971 | 3.463% | 1991 | 9.920% | | |
| 1972 | 3.502% | 1992 | 9.737% | | |
| 1973 | 3.649% | 1993 | 9.503% | | |
| 1974 | 4.012% | 1994 | 9.319% | | |
| 1975 | 4.371% | 1995 | 9.226% | | |
| 1976 | 5.116% | 1996 | 9.134% | | |
| 1977 | 5.683% | 1997 | 9.012% | | |
| 1978 | 6.063% | 1998 | 8.874% | | |
| 1979 | 6.595% | 1999 | 8.703% | | |

Hydropower Interest Rate for Fiscal Year 2006

Rate applicable to interest during construction, investment cost repayment, and capitalized O&M costs – 4.625%

This rate is determined by the Department of the Treasury under Secretarial Order RA 6120.2 Paragraph 11 (c) of the Secretary of Energy and Departmental Manual 730 DM 3, superseding Secretarial Order 2929 of the Secretary of the Interior.

The table below contains a historical series for the hydropower interest rate.

| FISCAL YEAR | INTEREST RATE | | FISCAL YEAR | INTEREST RATE |
|-------------|---------------|--|-------------|---------------|
| | | | 1990 | 8.875% |
| | | | 1991 | 8.750% |
| | | | 1992 | 8.500% |
| 1973 | 5.500% | | 1993 | 7.875% |
| 1974 | 6.625% | | 1994 | 7.125% |
| 1975 | 6.125% | | 1995 | 7.125% |
| 1976 | 6.625% | | 1996 | 7.625% |
| 1977 | 7.000% | | 1997 | 6.875% |
| 1978 | 7.000% | | 1998 | 6.875% |
| 1979 | 7.500% | | 1999 | 6.000% |
| 1980 | 8.000% | | 2000 | 5.750% |
| 1981 | 8.500% | | 2001 | 6.250% |
| 1982 | 9.000% | | 2002 | 5.625% |
| 1983 | 9.500% | | 2003 | 5.500% |
| 1984 | 10.750% | | 2004 | 4.875% |
| 1985 | 12.375% | | 2005 | 5.125% |
| 1986 | 11.375% | | 2006 | 4.625% |
| 1987 | 8.875% | | | |
| 1988 | 8.500% | | | |
| 1989 | 9.250% | | | |

Delinquent Payment Collection Rate

Article XVI, ER 1165-2-131

Background - Paragraph a, Article XVI of ER 1165-2-131 explains the procedures used to calculate the interest rate for delinquent payment collection. Review of this article indicated that the explanation of paragraph a, is not adequately clear for consistent determination of the rate. In addition, the paragraph suggests that the Secretary of the Treasury should determine the interest rate. After reviewing the article, the Department of Treasury has developed the following procedure for the calculation of interest rates.

Procedure - The interest rate used in the collection of delinquent payment under this Article will be equal to the equivalent coupon-issue yield for 13-week Treasury bills in the month immediately preceding the date that the payment became delinquent or auctioned immediately prior to the beginning of each additional three-month period if the delinquency exceeds three months. District offices may obtain the equivalent coupon-issue yield by calling Mitzie Johnson, Office of Public Debt Accounting, Bureau of the Public Debt at 304/480-5167. The rate obtained from Ms. Johnson will then be multiplied by 1.5 to determine the interest rate used for repayment of the delinquency. Questions concerning this procedure can be addressed to CECW-PC staff at (202) 761--4703.