



April 29, 1980

NATIONAL BULLETIN NO. 39-0-8

SUBJECT: ECONOMICS - PRICE BASIS FOR ECONOMIC EVALUATION

Purpose. To establish procedures for comparison of benefits and costs accrued in different time periods.

Expiration Date. This bulletin expires on December 31, 1980.

Background. The comparison of benefits and costs for project evaluation requires that prices for costs and benefits have a common time basis for the dollar values. This has always been required for the evaluation of new projects. Special problems are encountered in old projects that are partially completed. For example, if floodwater retarding structures were constructed in 1967, care must be taken that the comparison of benefits and costs does not use 1967 dollars for the cost prices and 1980 dollars for the benefit prices. Cost and benefits may be converted to a consistent time period by either evaluating benefits and cost for completed structures at prices that prevailed at the time of construction and remaining benefits and costs at current values (see example 1), or by evaluating all benefits and costs at current values (see example 2).

Any updating of a benefit-cost analysis, whether for supplements, reevaluation, Environmental Impact Statement (EIS) or other purposes must use either of the following procedures:

1. The cost and benefits attributed to completed structures are to be expressed and compared in price standards prevailing at time of construction and the remaining costs and remaining benefits expressed and compared in current price standards.

This procedure could be illustrated as follows:

Structures	Cost	Benefits (capitalized)	BC Ratio
F.P. 1,2,3	\$1,000,000 <u>1/</u>	\$1,263,700 <u>2/</u>	
F.P. 4,5	\$ 750,000 <u>3/</u>	\$2,000,000 <u>3/</u>	
MPS 6	\$ 750,000 <u>3/</u>		
Total	\$2,500,000	\$3,263,700	1.3:1.0

1/ Actual cost (1967) for structures completed in 1967.
2/ Price base 1980 deflated to 1967 values by Consumer Price Index (CPI).
3/ Price base 1980.

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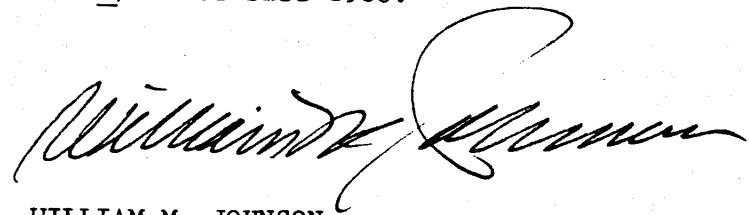
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2. All costs and benefits must be expressed in current price standards. This procedure can be illustrated as follows:

Structure	Cost	Benefit	BC Ratio
F.P. 1,2,3	\$1,953,000 <u>1/</u>		
F.P. 4,5	\$ 750,000 <u>2/</u>	\$5,000,000 <u>2/</u>	
MPS 6	\$ 750,000 <u>2/</u>		
Total	\$3,453,000	\$5,000,000	1.45:1.0

1/ Actual cost inflated to 1980 values by CPI (1967 = 100).
2/ Price base 1980.



WILLIAM M. JOHNSON
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