COLORADO WATER CONSERVATION BOARD
823 State Centennial Building
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Denver, Colorado 80203

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FRUITLAND MESA PROJECT

INTRODUCTION

The Fruitland Mesa Water Conservancy District (district) was established in August, 1960, as the sponsoring and operating entity for the proposed Fruitland Mesa federal reclamation project. The district is located in Delta and Montrose Counties and has irrigated land located within Crystal Creek and Iron Creek valleys and on the Fruitland Mesa. The area is generally bordered by the Gunnison River on the south and west, Black Mesa on the east, and Smith Fork on the north.

Th federal project was studied to feasibility level in 1962 by the U.S. Bureau of Reclamation. In 1964, the Fruitland Mesa Project was authorized by Congress as a participating project of the Colorado River Storage Project. A Definite Plan Report for the project was finally prepared by the Bureau in 1977. However, in that year the project was placed on the Carter Administration's "hit list".

Early in 1980, the district decided to have a study prepared to see if a project much smaller than the originally proposed

federal reclamation project would be feasible. PRC Engineering Consultants, Inc., prepared the feasibility study, which study was co-funded by the CWCB. It was completed in October, 1980.

PROBLEM

The irrigators in the district are consistently faced with water shortages during the latter part of each water season. On an annual basis the shortage is approximately 33 percent for the 6,310 acres currently being irrigated in the study area. Part of this shortage could be eliminated by re-routing the existing water supplies. However, to reduce the shortage by over 50 percent would require increasing the storage capacity of the existing Gould Reservoir.

CURRENT STATUS

In order to eliminate most of the current shortages, one of two alternatives costing either $4,350,000 or $6,680,000 would be required. The lower cost (Case I) alternative would reduce current shortages by 69 percent, whereas the higher cost (Case II) alternative would reduce them by 80 percent.

Both of the alternatives would increase the capacity of Gould Reservoir from the present 8,000 acre-feet to 12,000 acre-feet. In addition, both alternatives would include construction of certain new diversion and control structures.

However, only the more expensive alternative would include additional new diversion structures and a conveyance conduit from Black Mesa to the Gould Reservoir.

The feasibility study shows that the Case I alternative would have a minimum benefit-cost ratio (BCR) of 1.65:1 and that the Case II alternative would have a minimum BCR of 1.63:1 (both being based on direct and indirect benefits). The Case II alternative would have severe adverse environmental impacts within the construction areas.

CONCLUSIONS

While the feasibility study shows a benefit-cost ratio greater than one for each of the proposed alternatives, it also demonstrates conclusively that the district would not be able to make the annual payments required to repay the funds borrowed to construct the project and to cover annual operation and maintenance costs. Assuming the most favorable interest rate possible on matching funds and assuming 50 percent funding from the CWCB construction fund at a 5 percent service charge, the annual cost of the Case I alternative would be approximately $350,000, while the district engineer reports that the district's ability to repay (from irrigation only) would be only about $100,000 annually. The benefit-cost ratio was calculated to be greater than one because the calculation included indirect benefits to business firms and the public, in addition to the

direct benefits to those who farm the 6,310 irrigated acres. It should be noted that if the project is ever constructed under the Federal program, the irrigators will have to pay only 4.5 percent of the Federal project's cost (based on 1977 prices). The remainder was scheduled for repayment from CRSP power revenues.

Given the circumstances described above, the district has requested that the project be 100 percent financed with construction fund monies and that a large portion of that be non-reimbursable. Assuming that, as reported by the district's engineer, the district's repayment capacity is $100,000 per year, then the district could repay only about $1.7 million of the Board's total investment of either $4.35 million or $6.68 million.

The options available to the Board in responding to this request are outlined in the covering memo for agenda item 7c.

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