

COLORADO WATER CONSERVATION BOARD
823 State Centennial Building
1313 Sherman Street
Denver, Colorado 80203

March, 1983

Dolores Project
(Dolores Water Conservancy District)

Introduction

Planning requirements for the Dolores Project, a Bureau of Reclamation (Bureau) project, were completed in the spring of 1977. Construction started in FY 1978. Prime contracts have been awarded for, and construction is underway on, McPhee Dam and the Dolores Tunnel. The next major award of a construction contract--for the Great Cut Dike pumping plant--is scheduled for May, 1983.

In September, 1977, the Dolores Water Conservancy District (District) executed a repayment contract with the United States. This contract provides, *inter alia*, for repayment with interest of all project costs allocated to municipal and industrial water (including an allocation of interest during construction). The contract specifies a maximum obligation of \$20,000,000 for the municipal and industrial water allocation, but with provision for renegotiations of this amount upon the demand of the United States if the allocation exceeds \$20,000,000. The contract states that continuation of construction shall be contingent upon execution of an amendatory contract if the \$20,000,000 ceiling is exceeded.

Discussion

The estimated costs allocated to municipal and industrial water, based on October, 1975 price levels and 1977 interest rates, totaled \$12,409,000. This was the basis for the ceiling in the repayment contract, taking into account the then expected effects of inflation. Based on the Bureau's normal cost allocation procedures and the current cost indexed to completion,

the municipal and industrial water allocation is estimated to be as much as double the ceiling in the repayment contract.

About a year ago, when it became evident that the cost ceiling would be exceeded, the Bureau advised the District of this fact. The Bureau estimated that the award of the contract for the Great Cut Dike pumping plant would bring allocated costs over \$20,000,000 and therefore took the position that the contract could not be awarded until the problem was resolved.

Discussions have been under way since then among the District, the Bureau, and, at the District's request, the CWCB staff. A favorable change in cost allocation procedures has been agreed to by the Bureau, which change can be effected only if the construction and financing of two single purpose M&I features of the project--the pipeline from McPhee Reservoir to Cortez and the small terminal storage reservoir at Dove Creek--are taken over by the District. The District has indicated its willingness to assume this obligation, subject to the availability of financing from the CWCB construction fund (see attached resolution).

The Commissioner of Reclamation is desirous of having this matter resolved during this session of the General Assembly in light of the scheduled award date for the Great Cut Dike pumping plant contract. This would permit construction to proceed on schedule and within the \$20,000,000 ceiling in the repayment contract.

Proposed Facilities

It has not been necessary to prepare an independent feasibility study of the two features under consideration. Rather, the preliminary plans already developed by the Bureau have been utilized.

The pipeline to Cortez presents no significant technical questions. It should be, based upon the Bureau data, a straight-forward construction project. The cost is estimated at about \$2,700,000 (see attached table).

The terminal storage reservoir at Dove Creek, known as the Monument Creek Reservoir, is presently planned by the Bureau with a capacity of about 600 acre-feet. It would provide neither fish and wildlife nor recreation benefits.

During the District's deliberations concerning this problem, interests from the Dove Creek and western Dolores County area asked that consideration be given to relocating and enlarging Monument Creek Reservoir.

Under this proposal, the Dawson Creek Reservoir (capacity of 3,310 acre-feet), a project facility which is to be built specifically for fish and wildlife enhancement, would not be constructed. In lieu thereof, an enlarged and relocated Monument Creek Reservoir would be constructed for the purposes of supplying municipal and industrial water to Dove Creek and adjacent rural areas and to provide fish and wildlife and recreational enhancement benefits.

The Bureau is still analyzing the proposal and consulting with the U.S. Fish and Wildlife Service. In turn, neither the CWCB nor the Division of Wildlife has yet had the opportunity to study this alternative in detail.

Under the circumstances, the CWCB staff has only prepared very preliminary reconnaissance level cost estimates for the proposed relocated Monument Creek Reservoir. The estimated cost is \$4,320,000 (see attached table). This facility has been used as the basis for cost estimates rather than the smaller reservoir originally planned by the Bureau, since the relocated and enlarged reservoir would be more expensive. This was done to ensure that the cost estimate was high enough to cover the most expensive alternative. The CWCB is not, however, recommending that a decision be reached at this time on the proposal to delete the Dawson Draw Reservoir in favor of an enlarged and relocated Monument Creek Reservoir.

Recommendation

The Board recommends that the General Assembly authorize \$7,000,000 to finance 100 percent of the costs of the Cortez pipeline and the Monument Creek Reservoir, subject to the conditions that:

- (1) the Board's investment shall be repaid by the District over 40 years with a 5 percent service charge,
- (2) the final location and size of the Monument Creek Reservoir shall be subject to the Board's prior approval, and
- (3) if the Monument Creek Reservoir, wherever located and of whatever size, serves purposes other than municipal raw water storage, then the Board's investment in the reservoir shall be limited to that portion of the total reservoir costs which is, in the Board's opinion, reasonably allocable to municipal water supply.

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Attachments: as stated

Dolores Water Conservancy District
Resolution No. 83-03

A RESOLUTION OF UNDERSTANDING CONCERNING THE MUNICIPAL AND INDUSTRIAL FACILITIES OF THE DOLORES PROJECT:

WHEREAS, the United States and the Dolores Water Conservancy District entered into a repayment contract, No. 7-07-40-W0470, dated September 23, 1977, providing, among other things, for the delivery of project water to the Dolores Water Conservancy District for irrigation of irrigable lands, for Municipal and Industrial (M&I) purposes; and for repayment of the cost of project works.

WHEREAS, the costs associated with the project have increased substantially.

WHEREAS, the Dolores Water Conservancy District will seek financing for the construction of certain facilities, heretofore considered project facilities, from the Colorado Water Conservation Board construction fund, which financing is contingent upon authorization by the Colorado General Assembly and upon the availability of future appropriations to said construction fund.

WHEREAS, it is the District's understanding that deletion of the delivery facilities for project M&I water to Cortez and Dove Creek from the current project plan will allow the Dolores Project to be completed under the existing repayment contract.

NOW BE IT THEREFORE RESOLVED, by the Board of Directors of the Dolores Water Conservancy District that the district requests the United States, subject to the availability of financing from the Colorado Water Conservation Board construction fund:

1. Pursuant to Article 3 of Repayment Contract No. 7-07-40-W0470, to deliver the M&I water to be made available to the district at McPhee Dam and Reservoir.
2. Pursuant to Article 2(b) of the above repayment contract to delete the delivery facilities for project M&I water to Cortez and Dove Creek from the current project plan.

BE IT FURTHER RESOLVED THAT, the Dolores Water Conservancy District will, subject to the availability of financing from the Colorado Water Conservation Board construction fund, be responsible for completing the M&I delivery facilities to make project water available in Cortez and Dove Creek.

BE IT FURTHER RESOLVED THAT, copies of this resolution be furnished to the U. S. Bureau of Reclamation, the Colorado Water Conservation Board, and other interested parties.

ADOPTED THIS 3rd DAY OF FEBRUARY 1983.

E. H. Gilliland
E. H. Gilliland, Secretary

Bruce C. McAfee
Bruce C. McAfee, President

CONSTRUCTION COST ESTIMATE
CORTEZ--TOWAOC M & I PIPELINE
(19.5 miles of pipeline with two turnouts)

<u>ITEM NO.</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
Engineering, legal special services	(lump sum)			600,000.00
 <u>Waterway Structures</u>				
Cortez Turnout 18" diameter	1	(lump sum)		15,000.00
Towaoc Turnout 10" diameter		(lump sum)		8,000.00
<u>Road Crossings</u>				
Colo. Highway 145				5,000.00
U. S. Highway 666				<u>5,000.00</u>
Subtotal				33,000.00
Contingency (15%)				<u>4,950.00</u>
Total				\$38,000.00
 <u>Land & Right of Way</u>				
Easement 70' width	58	AC	1100	63,800.00
Contingency (15%)				<u>9,800.00</u>
Total				\$73,600.00
 <u>Summary</u>				
Land & Right of Way				\$ 73,600.00
Engineering & Legal				600,000.00
Pipeline				2,525,264.00
Misc.				<u>38,000.00</u>
Total				<u><u>\$3,236,864.00</u></u>

PRELIMINARY CONSTRUCTION COST ESTIMATE
CORTEZ--TOWAOC M & I PIPELINE
(19.5 miles of pipeline with two turnouts)

ITEM NO.	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1. Excavation	45,690	yd ³	1.60	\$ 73,104.00
2. Pipe: 10-AC-50	4,000	l.f.	5.24 ¹	20,960.00
3. Pipe: 12-AC-40	1,300	l.f.	5.58	7,254.00
4. Pipe: 12-AC-45	16,700	l.f.	6.95	116,065.00
5. Pipe: 12-AC-50	14,100	l.f.	7.22	101,802.00
6. Pipe: 12-AC-60	7,500	l.f.	8.91	66,825.00
7. Pipe: 15-AC-50	5,800	l.f.	13.45	78,010.00
8. Pipe: 15-AC-60	15,700	l.f.	16.37	257,009.00
9. Pipe: 18-AC-40	600	l.f.	13.20	7,920.00
10. Pipe: 18-AC-45	1,100	l.f.	13.36	14,696.00
11. Pipe: 18-AC-50	8,400	l.f.	15.10	126,840.00
12. Pipe: 18-AC-60	600	l.f.	18.63	11,178.00
13. Pipe: 21-AC-45	2,100	l.f.	21.62	45,402.00
14. Pipe: 21-AC-50	8,700	l.f.	22.58	196,446.00
15. Pipe: 21-AC-60	16,400	l.f.	28.01	459,364.00
Subtotal	103,000		Pipe only	\$1,582,875.00
Pipe installation	103,000	l.f.	5.00	515,000.00
16. Backfill	26,830	yd ³	1.00	26,830.00
17. Compacted backfill	12,890	yd ³	3.10	39,959.00
18. Drain valves	18	ea.	700.00	12,600.00
19. Air Valves	20	ea.	900.00	18,000.00
20. Unlisted items (bend, tapers, tees asphalt, repair. Lump sum-10% of pipe cost)				154,000.00
Subtotal				\$2,349,264.00
Contingency (15%)				352,390.00
Total				<u>\$2,701,654.00</u>

¹Cost of pipe delivered to Cortez, Colorado. Estimate made November 3, 1982.
Quote by Dave Wade at Certan Teed Pipe, Denver, Colorado.

²Prices are average for 9 bids on similar Western Slope projects bid in 1981 and 1982.