COLORADO WATER CONSERVATION BOARD 102 Columbine Building 1845 Sherman Street Denver, Colorado 80203

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#### DOLORES PROJECT

The Dolores project is located in Dolores and Montezuma counties in southwestern Colorado. Most of the project area lies outside of the present Dolores River basin. Geologists believe that the Dolores River once flowed across the Montezuma Valley towards the southwest, but was subsequently blocked and turned to the northwest by slowly rising mountains.

The project was authorized by the Congress in 1968 as a participating project of the Colorado River Storage Project. The Dolores Water Conservancy District was organized in 1961 as the sponsoring and contractual agency for the project. The district includes portions of Dolores and Montezuma counties. The Ute Mountain Ute Indian tribe is also a project sponsor.

### Plan of Development

The Dolores project would develop waters of the Dolores River for irrigation, municipal and industrial use, recreation, and fish and wildlife conservation. It also would provide flood control, benefit water quality, and aid in area redevelopment. Supplemental irrigation supplies would be made available to the Montezuma Valley area in the central portion of the project area, and full irrigation supplies would be provided for the Dove Creek area in the northwest and the Towaoc area to the south. Municipal and industrial water would be furnished to Cortez in the Montezuma Valley area, to Dove Creek in the Dove Creek area, to the rural areas and to the Indian community in the vicinity of Towaoc on the Ute Mountain Ute Indian reservation.

Primary regulation of Dolores River runoff would be provided at McPhee Reservoir on the river at the eastern edge of the project area by McPhee Dam and Great Cut Dike. All project water, as well as existing nonproject supplies for the Montezuma Valley area, would be diverted from

the reservoir at Great Cut Dike to the Dove Creek Canal.

Major diversions from the Dove Creek Canal for the Montezuma Valley and Towaoc areas would be made near the canal head to the Great Cut Canal and Narraguinnep Draw. In the Montezuma Valley area project and nonproject water for irrigation and for municipal and industrial use in Cortez would be delivered by the Great Cut Canal and existing laterals. Water also would be conveyed by these works through the Montezuma Valley area to the head of the Towaoc area. Project laterals and drains would be constructed in the Towaoc area. Some existing conveyance works in the Montezuma Valley area would be replaced by the Dove Creek and Great Cut Canals.

In the Dove Creek area, the Dove Creek Canal and its major branch, the South Canal, would deliver water to project lands and to three terminal reservoirs that would be constructed to supplement project storage at McPhee Reservoir. The Dove Creek Canal would provide water to Cahone and Monument Creek Reservoirs and water from these reservoirs would be distributed by Cahone Canal and Monument Creek lateral, respectively. The South Canal would provide water to Ruin Canyon Reservoir. Water from this reservoir would be distributed by the Hovenweep Canal and Cross Canyon lateral. Laterals and drains would be constructed on project lands in the Dove Creek area. Water would be made available for Dove Creek at Monument Creek Reservoir.

Fisheries and recreational developments would be provided at project reservoirs. Project funds would be provided for mitigation of big game losses caused by the project.

# Project Costs (Estimated)

| Municipal and industrial water |            | \$ 4,259,000        |
|--------------------------------|------------|---------------------|
| Irrigation                     |            | 79 <b>,7</b> 99,000 |
| Fish and wildlife              |            | 3,687,500           |
| Recreation                     |            | 1,126,400           |
| Water quality                  |            | 308,100             |
| Flood control                  |            | 820,000             |
|                                | Total Cost | \$90,000,000        |

# Project Costs (Estimated), Cont'd.

# Water allocation

| Municipal and industrial                |       | 6,000   | a.f.         |
|---|-------|---------|--------------|
| Irrigation                              |       | 120,000 | <u>a.f</u> . |
|   | Total | 126,000 | a.f.         |
| Annual depletion of the Colorado River  |       | 87,000  | a.f.         |
| Annual salinity contributed to Colorado | River | 6 to 11 | ppm          |
| Benefit-cost ratio (3 1/4%)             |       | 1.67 to | 1            |
| Benefit-cost ratio (5 1/2%)             |       | 1.04 to | 1            |

## Environmental Impact

- 1. The very scenic canyon of the Dolores River will be inundated, resulting in loss of scenic area and aesthetic damage from the construction.
- 2. Stream fishery and recreational enhancement of the Dolores River will take place if minimum stream flows are established.
- 3. White river boating activity could be curtailed by impoundment of spring flows. Present operational plans provide nearly the same number of boating days with controlled spills with the project as without the project.
- 4. Salinity would be increased in the Colorado River at Lake Mead from 6 to 11 ppm by the project. The increase would depend on the tons per acre of salt pickup from newly irrigated lands and from water depletions.

### <u>Indian Interests</u>

Up to this time, no water has ever been adjudicated or allocated to Ute Mountain Ute Indian reservation. Under the terms of a treaty of 1868, the entire Dolores River basin and other lands in western Colorado were granted to the Ute Indian nation by the terms of which "... the United States now solemnly agree that no persons, except those herein

authorized to do so, and except such officers, agents, and employees of the government as may be authorized to enter upon Indian reservations in discharge of duties enjoined by law, shall ever be permitted to pass over, settle upon, or reside in the territory described in this article.

Subsequent to the 1868 treaty, white prospectors illegally trespassing upon Indian lands discovered large and valuable mineral deposits in the San Juan mountain area. As a result, the United States broke the treaty of 1868 and re-established the Indians on new lands by the so-called Treaty of 1873. This new treaty removed most of the Dolores River watershed from the Indian lands. In 1880, the United States broke the Treaty of 1873 and removed the remaining portion of the Dolores River basin from the Indian reservation. At the present time, no portion of the Dolores River flows through the remaining part of the Indian reservation, which is located in the extreme southwestern corner of the state.

The Ute Mountain Ute Indian tribe now hauls its drinking water on a daily basis from the town of Cortez, a round trip of approximately 24 miles. The Indians have purchased a small amount of water from the Montezuma Valley Irrigation Company and irrigate a small tract of land near the Indian community of Towaoc. As an interim solution to the community water supply, a small treatment and storage system is being constructed on the reservation to utilize the irrigation water for domestic purposes.

The Dolores project will furnish irrigation water for about 3,000 acres of Indian lands in the Towaoc area and an additional 1,000 acre-feet of water annually for a domestic water supply for the tribal community. This supply for the Indian tribe is being planned as an integral part of the Dolores project.

The pending water litigation in the federal courts concerning the waters of the San Juan basin does not include the Dolores River basin. What claim, if any, the United States intends to assert on behalf of the Ute Mountain Ute Indian tribe for the waters of the Dolores River basin is not known at this time. However, the Ute Mountain Ute tribe has indicated a willingness to forego any claim it may have on the Dolores River in return for water from the Dolores project.

#### Current Status

Advance planning studies were initiated on the Dolores project in F.Y. 1971 with funds appropriated in F.Y. 1970, but held in budgetary reserve. Advance planning studies will be curtailed at the end of F.Y. 1973 pending availability of funds. It is anticipated it would take at least a year to complete the advance planning studies and prepare the definite plan report when funds are again made available. The F.Y. 1974 program consisting of carryover funds from F.Y. 1973 amounting to \$100,000 is to be used to determine the effect of the project on the salinity of the Colorado River and to estimate the cost for facilities to offset salinity effects of the project.

The Bureau entered into a contract with the Colorado State University, dated April 9, 1971, for the establishment and operation of a research and demonstration farm in southwestern Colorado. The term of the contract is for a five-year period beginning July 1, 1971, and extending through June 30, 1976. In accordance with terms of the contract it was necessary for the Bureau to terminate the contract as of June 30, 1973, because funds are not included in the F.Y. 1974 budget for the Bureau's participation. Further support of the farm would be dependent upon availability of funds in F.Y. 1975 and subsequent years.

Total investigation costs to June 30, 1972, including feasibility and advance planning studies, and one year participation in the research and demonstration farm, amount to \$1,262,873.

Current advance planning investigations have advanced to the point that plan formulation studies have been completed with tentative selection of the project plan. Several alternatives to the plan presented in the authorizing report have been analyzed. These alternatives include sprinkler versus gravity irrigation for new project lands, increased development of Indian resources on the Ute Mountain Ute Indian reservation, and enhanced recreational and fish and wildlife benefits on the lower Dolores River.

Several meetings and a field trip into the Dolores River Canyon have been conducted to air the environmental concerns of the project as it relates to the Dolores River. Impacts of the project relating to white water boating and development of a sustained fishery below McPhee Damsite have been incorporated into the project plan.

## Conclusions and Recommendations

The principal economy of the project area is based upon agricultural and livestock production. Much of the project area is now devoted to dryfarming with pinto beans and wheat as the main crops. The soils in the area are excellent and have a high production capability. Partial crop failures are frequent due to the lack of adequate precipitation. Considerable versatility in the type of crops and a more certain production will come about as a result of irrigation. That portion of the project area lying around Cortez now receives considerable irrigation water through the facilities of the Montezuma Valley Irrigation Company. However, shortages under this system are frequent and supplemental water is needed.

Tourism also provides an important economic base for the area, largely as the result of the nearby Mesa Verde National Park. The proposed McPhee Reservoir would add greatly to the tourist base since the reservoir would lie in a beautiful setting and have a large permanent pool for fishery and recreational purposes. The communities of Cortez, Cahone, Pleasant View and Dove Creek will all need additional municipal water supplies in the near future. During past drouth years, the town of Dove Creek has been forced to haul water supplies by truck. The Indian community of Towacc, south of Cortez, is in desperate need of additional water supplies for both municipal and agricultural purposes. The entire project area has been classified as a persistent depressed area.

The project is not without its problems. A local squabble over presently unused water rights has delayed negotiations for a repayment contract. However, it is anticipated that this problem can be solved and that the definite plan report will be completed and the repayment contract executed by June of 1974.

Because of the critical problems of this area, not the least of which is the Indian water rights question, the following course of action is recommended for the Dolores project:

- 1. That funds in the amount of \$450,000 be sought for F.Y. 1974 to continue the advance planning on the project.
- 2. That funds in the amount of \$225,000 be sought for the project for F.Y. 1975 to complete the advance planning.
- 3. That funds in the amount of \$3,100,000 be sought to initiate construction on the project in F.Y. 1976, providing that a repayment contract is executed some time during the calendar year 1974.

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