

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

March, 1976

DOLORS 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 and manage water from the Dolores River for irrigation, municipal and industrial use, recreation, and fish and wildlife enhancement. It would also provide flood control, improve summer and fall river flows downstream, and aid in the economic re-development of the area. Supplemental irrigation supplies would be delivered to the Montezuma Valley area located in the central portion of the project area. Full irrigation water supplies would be provided to the Dove Creek area in the northwest and the Towaoc area in the south. Municipal and industrial water would be furnished to Cortez, Dove Creek, and the Ute Mountain Ute Indian tribe at Towaoc.

Primary regulation of the Dolores River would be provided at the 381,100 acre-foot McPhee Reservoir which would be formed on the river at the eastern edge of the project area by McPhee Dam and Great Cut Dike. Municipal and industrial storage for the town of Dove Creek would be provided at the 690 acre-foot Monument Creek Reservoir located at an offstream site in the Dove Creek area.

On the recommendation of the Fish and Wildlife Service, several measures are planned for wildlife management. A reservoir is to be constructed at Dawson Draw in the Montezuma Valley area for the enhancement of waterfowl. This reservoir would also provide opportunities for fishing, boating and picnicking. Project funds would be provided for acquisition and improvement of land north and east on the Dolores River for winter range to mitigate big game habitat losses caused by the project.

Project water would be distributed by a canal and lateral system

constructed as part of the project. The Dove Creek Canal would be the major project canal. It would receive water pumped from McPhee Reservoir at Great Cut Dike by the Great Cut Pumping Plant and extend about 39 miles northwest to Monument Creek Reservoir. Other project conveyance facilities would include the South Canal, a branch of the Dove Creek Canal; the Dolores Tunnel, extending from McPhee Reservoir to the existing system of the Montezuma Valley Irrigation Company; and the Towaoc Canal extending through the Montezuma Valley to the Towaoc area. All main canals would be open and earthlined.

Sprinkler irrigation systems are planned for all of the full service lands. Lands in the established Montezuma Valley area would continue to be served by existing gravity systems. The sprinkler system for the Dove Creek area would include six pumping plants to provide pressure at farm turnouts. In the Towaoc area, pressure would be developed in the pipe lateral system from the ground slope. The lateral systems would be asbestos cement and concrete pressure pipes and would be buried to aid in preservation of the scenery. Project drainage will be provided for the Dove Creek and Towaoc areas.

Irrigation scheduling would be implemented on all full service land to assure the application of the proper amount of water for a given crop at the proper time. The ideal quantities and timing of the irrigation applications would be predicted from analyses of temperature, precipitation, solar radiation, and local soil moisture and crop characteristics.

Municipal and industrial water would be available from project features to treatment facilities to be constructed by the water users. The water users would provide facilities for distribution of the water. The project reservoirs, McPhee, Monument Creek and Dawson Draw, would provide new lake fisheries, waterfowl habitat and significant water-oriented recreational opportunities. Basic recreational facilities would be provided at each of the reservoirs. Fishing and recreational opportunities would be improved at the Narraguinnep, Totten and Ground Hog Reservoirs which now provide irrigation storage for the Montezuma Valley Irrigation Company. The water surfaces of these reservoirs would be partially stabilized as the functions of the reservoirs for irrigation water storage would be largely shifted to McPhee Reservoir.

About 10 miles of a relatively poor stream fishery on the Dolores River would be flooded by McPhee Reservoir. The stream fishery in the river below the reservoir, however, would be greatly enhanced as a result of project operations. The fishery would benefit from reservoir releases made specifically for fish, from controlled spring reservoir releases made in anticipation of spills, and from releases for downstream rights. As a result of the spring releases made in anticipation of spills, white water boating would be maintained and in some aspects improved. Good boating days could be grouped together and accurately predicted, whereas the boating opportunities now are dependent on nature and are unpredictable.

The Dolores project definite plan report is scheduled for completion in April, 1976.

The Dolores Water Conservancy District, which encompasses the Dove Creek area, the Montezuma Valley area, and McPhee Reservoir in the Dolores River Valley, would be the principal administrative and contractual agency for the project. The district would contract with the federal government for the repayment of water costs and the operation of project facilities within its boundaries. It would in turn sell the water supplies to municipalities, water user's organizations and individuals. The district could also levy taxes against property within its boundaries at rates of 1 1/2 mills prior to the delivery of project water and 3 mills thereafter.

The Montezuma Valley Irrigation Company would continue to operate its existing facilities in the Montezuma Valley area, distributing both non-project and project supplemental water supplies. It would also administer the existing Ground Hog and Narraguinnep Reservoirs and Totten Lake. The company would make an appropriate agreement with the Dolores Water Conservancy District for the delivery of water supplies.

The Ute Mountain Ute Indians could contract with the federal government for the operation, maintenance and replacement of project facilities required to provide water on the reservation.

The U. S. Forest Service would administer the specific recreation facilities at McPhee Reservoir, located partially within the San Juan National Forest. It is possible that the boundaries of the forest would be expanded to include the entire reservoir area. The U. S. Fish and Wildlife Service or an equivalent state agency would probably administer the specific recreation facilities at the Dawson Draw Reservoir.

Project Statistics

Estimated project costs (October, 1975 prices)	\$186,700,000
Water allocation:	
Irrigation (61,660 acres)	90,900 a.f.
Municipal	8,700 a.f.
Recreation, fishing and aesthetics	<u>27,000 a.f.</u>
	Total 126,600 a.f.
Annual depletion of the Colorado River	80,900 a.f.
Annual salinity increase at Imperial Dam	1.0 mg/l
Benefit-cost ratio	1.18 to 1
Annual benefits	\$ 9,149,000

Environmental Impact

1. The scenic canyon of the Dolores River will be inundated, resulting in loss of some scenic area and aesthetic damage from the construction.

2. Stream fishery and recreational enhancement of the Dolores River will take place.

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.

Indian Interests

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 mountains 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 has been constructed on the reservation to utilize the irrigation water for domestic purposes.

The Dolores project will furnish irrigation water for about 7,500 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. Total investigation costs to June 30, 1975, including feasibility and advance planning studies, and one year participation in the research and demonstration farm, amount to \$2,376,000.

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 Towaoc, south of Cortez, is in critical need of additional water supplies for both municipal and agricultural purposes. The entire project area has been classified as a persistent depressed area.

The Dolores project as reformulated appears to meet the pressing needs of its area of service. Its unique enhancement of the recreational potential of the Dolores River Canyon and development of significant Indian resources has enabled it to be given a "National Urgency" classification by the Water Resources Congress. Economic and environmental benefits exceed their costs and result in a plan that has enthusiastic local, tribal, environmental, state, and possibly even national support. This type of support should make the construction of this project a reality in the near future.

The following schedule has been discussed by the Dolores Water Conservancy District as one that could be achieved and lead to a construction start for the Dolores project in 1977 if write-in funds can be secured.

Definite Plan Report (Field Draft)	April 1976
Environmental Impact Statement (Draft)	April 1976
Public Hearing (Draft EIS)	June 1976
Ratification of Repayment Contract	September 1976
Final EIS	September 1976
Execution of Repayment Contract	October 1976
Construction Start (Write-in funds)	Early Spring 1977

If this schedule is followed and write-in funds were secured, the Dolores project construction could be initiated by the obligation of funds to conduct archaeological salvage in the McPhee Reservoir basin and by negotiation for the replacement of the present sewage treatment facilities for the town of Dolores, Colorado. These items could be accomplished with a minimum amount of additional detailed study or evaluations.

The President's recommended budget contained no funds for the Dolores project. It is recommended that the Governor and the members of Colorado's congressional delegation be requested to support a construction write-in appropriation of not less than \$850,000 for F.Y. 1977.

FLS:mm