

COLORADO WATER CONSERVATION BOARD
102 Columbine Building
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Denver, Colorado 80203

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WEST DIVIDE PROJECT

The West Divide project lies in parts of Garfield, Mesa and Pitkin counties in west-central Colorado. Specifically, the majority of the project lands lie between Glenwood and DeBeque on the mesas south of the Colorado River. Most of the municipal and industrial service area is the towns and oil shale areas along the Colorado River Valley at the base of the Roan Plateau which contains some of the world's richest oil shale deposits. The eastern portion extends to the town of Carbon-dale, the center of some coal mining activities in the nearby canyons.

The project was authorized by the Congress in 1968 as a participating project of the Colorado River Storage Project. The West Divide Water Conservancy District was organized in 1964 as the sponsoring and contractual agency for the project. This district includes portions of Garfield, Mesa and Pitkin counties.

Plan of Development (Feasibility Report)

The West Divide project is planned to provide water for irrigation and for municipal and industrial use in connection with development of natural resources in the area. It also would provide benefits to recreation, fish and wildlife and flood control.

Project water would be obtained from a series of Colorado River tributaries south of the river. Crystal River flows would be regulated at Placita Reservoir. Some reservoir releases would be made directly to the river for downstream uses. Most of the releases, however, would be diverted into the Huntsman Canal and conveyed westward to West Divide Creek for subsequent distribution in the western portion of the project area by the East and West Divide Canals. The diverted flows would be supplemented by water stored in Haystack Reservoir on small tributaries of West Divide Creek. Natural flows at Haystack Reservoir would be augmented by flows of nearby streams diverted by feeder canal. Yank Creek Reservoir would be constructed on North Thompson Creek to meet project needs in the eastern portion of the project area. Releases from this reservoir would be distributed by the Fourmile Canal. Irrigation laterals would be constructed from the main project canals, and drains would be provided as needed. Municipal and industrial water would be made available for use in the area. Facilities for reregulation, distribution, and treatment of the municipal and industrial supply would be the responsibility of the water users. Recreational developments would be provided by the Forest Service at all project reservoirs since the reservoirs would be within national forest boundaries.

The present plan for the project has evolved from studies of numerous alternatives as the most desirable development to meet water needs of the project area anticipated for the near future. If

development of an oil shale industry materializes, additional water could be made available from the project for municipal and industrial use through retirement of the irrigated lands.

Other alternatives that should receive serious consideration are changing the proposed surface irrigation to sprinklers, and the possible reduction of the irrigated lands, particularly new lands. Consideration will also be given to alternative reservoir sites for Placita, Yank Creek and Haystack.

The physical location, the project needs and the national priorities lend themselves to a stage development for the project. Only the immediate West Divide area could be constructed initially for presently irrigated lands and to furnish a local municipal and industrial water supply. If more urgent, the Fourmile Creek area could be developed initially. Any number of combinations could be developed to meet the immediate needs of the nation, region and local area.

Estimated Costs (October, 1967 prices)

Municipal and industrial water	\$ 30,701,000
Irrigation	74,280,000
Fish and wildlife	1,319,000
Flood control	280,000
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Total Cost	\$106,580,000

Water allocation

Municipal and industrial	77,500 a.f.
Irrigation	<u>115,600 a.f.</u>
Total	193,100 a.f.
Annual depletion of the Colorado River	76,400 a.f.
Estimated annual salinity concentration at Imperial Dam	Undetermined
Benefit-cost ratio	1.80 to 1
Total annual benefits	\$ 7,481,000

Environmental Impact

Depending upon the start of oil shale production, the greatest effect would be the social and economic changes caused by an influx of people to the area. Urbanization would take place where small rural communities or no communities now exist.

Advance plans are being considered for an alternative storage site to replace Placita Reservoir on the Crystal River in order to reduce the environmental impact of this main feature of the project. Plans are also being considered to reduce the impact of irrigation on new lands by

2657
reducing such acreage and using the water for other purposes. Before selection of the final plan, all possible alternatives will be studied as to their effect on the environment.

Current Status

The West Divide project is in advanced planning stages which will culminate in a Definite Plan Report and Draft Environmental Statement scheduled for completion in June, 1978.

Advance planning studies will include a comprehensive evaluation of changing conditions and priorities and special needs of the area. It is anticipated that the selective plan of development will materially reduce the present allocation of water for irrigation purposes and materially increase the allocation for municipal and industrial purposes.

Considerable opposition has developed from residents of the Crystal River Valley over the proposed construction of Placita Reservoir. As a result, alternative reservoir sites are being investigated which might be more acceptable.

Total investigation costs to June 30, 1974 are \$1,132,484.

Local Interest

Construction of the West Divide project has long been advocated by local residents, western slope interests in Colorado, state officials, and private industry as a means of utilizing undeveloped land and water resources and possible stimulating development of the oil shale industry. Numerous oil companies have expressed interest in obtaining water from the project. The West Divide Water Conservancy District was formed April 17, 1964 by local residents as an instrument for project sponsorship and administration.

The Colorado Water Conservation Board has assisted financially in establishing stream gaging stations and obtaining aerial topography needed for the project investigations. The Colorado River Water Conservation District has made water right filings for the project and has actively assisted in a number of other ways. In July, 1970, the West Divide Water Conservancy District had detailed aerial topography made of about 1,300 acres of canal area along West Divide Creek to expedite preconstruction activities when the project is funded.

In February 7, 1972 the State of Colorado, Colorado River Water Conservation District, and the West Divide Water Conservancy District contributed \$30,000 toward investigations of alternative routes for project facilities.

Conclusions and Recommendations

Agriculture is the principal industry in the area at the present time. Irrigation is required for growing crops on a majority of the project lands. Studies indicate that the presently irrigated land has had a water shortage of about 55 percent from the ideal requirement.

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The lack of an adequate irrigation supply has been aggravated by recent reductions of public grazing privileges for the area's farmers and ranchers.

The project could supply a substantial amount of water for the development of oil shale and other fuel sources to meet the imminent energy needs of the area and the region, as well as contributing substantially to the national energy needs.

As a part of the state water planning, it has always considered this project as being essential to the development of any oil shale industry in the Grand Valley area. As a matter of fact, the project feasibility is dependent upon the development of a substantial oil shale industry in the area. At this time it is impossible to determine when and if such an industry will develop. At such time as a definite need for water for the oil shale industry is established, the project should be assigned a high priority.

The President's recommended budget contains an item of \$269,000 to continue project advance planning. It is therefore recommended that the Governor and the members of Colorado's congressional delegation be requested to support this item in the President's recommended budget.

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WEST DIVIDE

Current Status

Because of the opposition by local residents to construction of a dam on the Crystal River and because of the changing needs and priorities of the area, a "Citizens Advisory Panel" was formed by the West Divide Water Conservancy District (WDWCD) Board of Directors. This panel was created in January, 1975 and was made up of people representing the irrigators, conservation groups and urban residents. They were charged with the responsibility of determining the problems, needs, and priorities of the project area and to provide direction to the WDWCD Board of Directors as to what type of project would meet these needs and at the same time be acceptable to the people affected by the project.

The Panel's Final Report was sent to the WDWCD Board of Directors on February 18, 1976. The results of the report contain the following points:

1. Diversion from the Crystal River but no storage on the Crystal River.
2. Storage and distribution systems in the West Divide area for maximum irrigation.
3. Storage on the Colorado River, probably at Una Reservoir Site, to store the remaining available project water.
4. Power generation at Una Reservoir for sale commercially and also for pumping additional irrigation water.
5. M&I water that the Panel believes will be needed in the future even though limited demand exists now.
6. The final plan must have the support of the public.