

COLORADO WATER CONSERVATION BOARD
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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 along the Colorado River beside a part of Interstate Highway 70. The northern portion of the project area is on bottom lands of the Colorado River Valley which lie at the base of the Roan Plateau which contains some of the world's richest oil shale deposits. The southern portion is on mesas above the river. The eastern portion extends to the town of Carbondale, 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

The West Divide project is planned primarily 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.

Project Costs (Estimated)

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

Project Costs (Estimated), Cont'd.

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.
Annual salinity contribution to Colorado River	Undetermined
Benefit-cost ratio (3 1/4%)	1.80 to 1
Benefit-cost ratio (5 1/2%)	1.07 to 1

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 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

In 1972 the state of Colorado and local interests contributed funds in the amount of \$30,000 to the Bureau of Reclamation to initiate advance planning on the project. Congress appropriated funds in the sum of \$200,000 for the current fiscal year to initiate advance planning. However, these federal funds have been impounded by direction of the President and no advance planning has been initiated with federal funds. From carryover funds expected to be available in F.Y. 1974, the sum of \$100,000 is to be used to determine the effect of the project on the

salinity of the Colorado River.

Advance planning studies will include a comprehensive evaluation of changing conditions and priorities and special emphasis on oil shale to meet energy demands. 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.

Federal funds invested in the project to June 30, 1972 amount to \$1,011,506.

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. 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, we have 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. Pending a more definitive determination of the status of the oil shale industry, the staff of the board is unable to assign a high priority to the construction of the project at this time. However, at such time as a definite need for water for the oil shale industry is established, the project should be assigned the highest priority.

It is therefore recommended that advance planning on the West Divide project be deferred until F.Y. 1976. At that time it is recommended that an appropriation of \$200,000 be sought to initiate advance planning on the project.