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COLORADO WATER CONSERVATION BOARD

823 State Centennial Building
1313 Sherman Street
Denver, Colorado 80203

March 1977

WEST DIVIDE PROJECT

The West Divide Project lies in parts of Garfield, Mesa, Pitkin and Eagle Counties in west-central Colorado. The majority of the project lands lie between Glenwood Springs and Grand Valley on mesas south of the Colorado River. A small portion of the lands are located on Missouri Heights, north of the Roaring Fork River between Basalt and Carbondale. The municipal water would be used in the Rifle and Carbondale - Glenwood Springs areas.

The project was authorized by 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 (Preliminary)

The West Divide Project is planned to provide water for irrigation, municipal and domestic use and hydroelectric power. It also would provide benefits for recreation and fish and wildlife.

Project water would be obtained from the Colorado River and a number of tributaries south of the river. Most of the project water would be pumped from the river near Silt for storage in Dry Hollow Reservoir and also for direct distribution to project land through the Dry Hollow Feeder Canal and Cache Creek Canal. Dry Hollow Reservoir would also receive excess flows from East and West Divide Creeks. The land area between the West Divide Canal and Dry Hollow Reservoir would be served by storage on West Divide Creek at Kendig Reservoir and also by pumping from Dry Hollow Reservoir. Municipal water for use in the Rifle area would be stored in Dry Hollow Reservoir. Energy for operating the project pumps would be developed by constructing a small dam and power plant on the Colorado River at the Webster Hill site west of Rifle.

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 water would be available from Dry Hollow and Yank Creek Reservoirs. Facilities for reregulation, treatment, and distribution of the municipal supply would be the responsibility of the water users.

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The existing Spring Park Reservoir would be enlarged to help provide a stable water supply to the presently irrigated lands on Missouri Heights.

Recreational developments would be provided by the Forest Service at all project reservoirs 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.

The physical location, the project needs, and national priorities lend themselves to a stage development for the project. Only the immediate West Divide area might be constructed initially for presently irrigated lands and to furnish a local municipal and industrial water supply. If determined to be more feasible, 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 (January, 1976)	\$159,520,000
Water allocation	
Irrigation (acre-feet)	76,400
Municipal (acre-feet)	16,400
Total	92,800
Annual depletion of Colorado River (acre-feet)	45,600
Salinity contribution	Undetermined
Benefit-cost ratio	1.07:1
Total annual benefits	\$ 6,430,700

Before selection of the final plan, all possible alternatives will be studied to determine their effect on the environment.

Current Status

The West Divide project is in advance 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.

Total investigation costs to September 30, 1976 are \$1,464,177.

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. The West Divide Water Conservancy District was formed April 17, 1964 by local residents as an instrument for project sponsorship and administration.

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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. 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 President's recommended budget contains an item of \$152,000 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.

WEST DIVIDE PROJECT
Comparison of Power Alternatives
and Project Plans
(Divide-Battlement area only)

	Power Comparability		Project Plans	
	(6 1/8%)	(3 1/4%)	Project Generated Power	Purchase Power
	Total Construction Cost (1-76) ^{1/}	\$25,000,000	\$23,700,000	\$121,500,000
<u>Annual Costs</u>				
Amortized Investment (100 yr.)	\$1,535,200	\$ 803,000	\$ 4,116,800	\$ 3,374,800
CRSP depletion			88,000	88,000
O,M&R				
Ruedi Res.			4,100	4,100
Project	28,800	28,800	250,000	200,000
Power purchase			40,200	351,000
Total	\$1,564,000	\$831,800	\$4,499,100	\$4,017,900
<u>Annual Benefits</u>				
Irrigation			\$3,676,600	\$3,676,600
Municipal			1,586,000	1,586,000
Recreation, fish & wildlife	169,500	169,500	249,500	80,000
Power	848,000	848,000	235,600	--
Total	\$1,017,500	\$1,017,500	\$5,747,700	\$5,342,600
O,M&R per acre			\$12.25	\$23.30
B/C Ratio	0.65 to 1	1.22 to 1	1.28 to 1	1.33 to 1

^{1/} Power generation at Webster Hill site on Colorado River.

WEST DIVIDE PROJECT

SCHEDULE

	<u>DATE TO BE SUBMITTED</u>	<u>DATE APPROVED OR COMPLETED</u>
<u>HYDROLOGY REPORTS/REVIEWS</u>		
DRAINAGE		
WATER REQUIREMENTS	DEC 77	FEB 79
TAILWATER STUDIES	AUG 78	SEP 78
CANAL SIZING	SEP 78	OCT 78
FLOOD FREQUENCIES (SITES)	JUL 78	AUG 78
SEDIMENTATION (SITES)	JUL 78	AUG 78
DESIGN FLOODS (SITES)	JUL 78	AUG 78
OPERATION STUDY	MAY 78	FEB 79
<u>GEOLOGY REPORTS/REVIEWS</u>		
KENDIG DAM & RESERVOIR	SEP 78	SEP 78
DRY HOLLOW DAM & RESERVOIR	AUG 78	FEB 79
PUMPING PLANT SITES (4)	SEP 78	FEB 79
CANAL ALIGNMENTS ()	OCT 78	FEB 79
DIVERSION DAMS (2)	JUN 78	FEB 79
<u>DESIGNS & ESTIMATES BY WCPO</u>		
WEST DIVIDE CANAL	NOV 78	SEP 79
DRY HOLLOW FEEDER CANAL	MAR 79	SEP 79
CACHE CREEK CANAL	MAR 79	SEP 79
HUNTER MESA CANAL	NOV 78	SEP 79
DRAINS	FEB 79	SEP 79
OM&R		
<u>DESIGNS & ESTIMATES BY E&RC</u>		
KENDIG DAM & RESERVOIR		JUN 79
DRY HOLLOW DAM & RESERVOIR		May SEP 79
PUMPING PLANT ON COLORADO RIVER		SEP 79
DRY HOLLOW PUMPING PLANT		SEP 79
WEST DIVIDE PUMPING PLANT		SEP 79
HUNTER MESA PUMPING PLANT		SEP 79
<u>REPORTS</u>		
AGRICULTURAL ECONOMICS		NOV 79
SOCIAL ASSESSMENT		NOV 79
FINANCIAL ANALYSIS		NOV 79
FISH AND WILDLIFE EVALUATIONS/MITIGATION		SEP 79
HISTORICAL AND ARCHEOLOGICAL		SEP 79
RECREATION EVALUATIONS		SEP 79
<u>DRAFTS OF EIS & DPR</u>		
MANDATORY REVIEW - - - 45 DAYS		JAN 80
ANSWER COMMENTS & REWRITE - - - 60 DAYS		
REVIEW & PROCESS BY REGION - - - 60 DAYS		
REVIEW BY E&RC, COMM & SEC. - - - 30 DAYS		
TOTAL - APPROX. 7 MONTHS		
APPROVAL DPR		APR 80
FINAL EIS WITH CEQ		JUN 80
<u>REPAYMENT CONTRACT</u>		
APPROVAL AS TO FORM		FEB 80
LANDS CERT. SCHEDULED		MAR 80
ELECTION		JUN 80
EXECUTED		JUL 80
VALIDATED		AUG 80

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