

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

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NARROWS PROJECT

The Narrows project area lies along the lower South Platte River extending generally from Fort Morgan to the Nebraska state line. The project was originally authorized by the Congress in 1944 as a part of the comprehensive plan for the Missouri River Basin project. Pre-construction activities on the project started in 1947, but were terminated in 1952 because of the lack of official support for the project by the state of Colorado.

The project was re-authorized by the Congress in 1970 as a unit of the Missouri River Basin project. The Lower South Platte Water Conservancy District was organized in 1964 as the sponsoring and contractual agency for the project. This district includes portions of Logan, Morgan, Sedgwick and Washington counties.

Plan of Development

During the fifteen-year period 1947-1961, which was used for the feasibility study of the Narrows project, an average of 187,000 acre-feet of water from the South Platte River flowed across the state line in excess of compact commitments. During the period 1965-1971, the average annual wasted flow was approximately 400,000 acre-feet of water. The Narrows project was designed to conserve these unused flows.

The Narrows Dam would be located on the South Platte River a few miles above the city of Fort Morgan. It would serve the functions of irrigation, flood control, recreation and fish and wildlife enhancement. The reservoir would provide supplemental irrigation water for presently irrigated lands in Morgan, Logan, Washington, Adams and Sedgwick counties. A fish hatchery would be located a short distance downstream from the dam for stocking purposes. Specific lands and facilities, including the existing Jackson Lake, would be acquired for recreation and fish and wildlife purposes. The only project construction would involve the construction of the Narrows Dam and the fish hatchery. Distribution of the stored waters would occur through existing facilities.

Storage water would be released as necessary from the reservoir to supplement irrigation within the 166,370-acre service area of the Lower South Platte Water Conservancy District, and, through exchange, 120,700 acres in the Central Colorado Water Conservancy District. Project water stored in Narrows Reservoir would be released either into the South Platte River through a river outlet for delivery to existing downstream diversion works or through a canal outlet works directly into the Fort Morgan Canal. Minimum downstream flows for fishery requirements would be met by reservoir seepage, stream accretions and return flows. Flows for operating the fish hatchery would be obtained from seepage.

Major recreational facilities would be constructed as a part of the project. It is estimated that at the outset approximately one million visitor days could be anticipated at the reservoir area, with a rapid increase thereafter.

Project Statistics

Estimated Costs:

Flood control	\$ 34,734,000
Irrigation	32,432,000
Recreation	24,159,000
Fish and wildlife	9,375,000
Road relocation	<u>201,000</u>

Total Cost \$100,901,000

Narrows Reservoir capacity (acre-feet):

Dead and inactive	50,160
Irrigation	373,025
Joint use (irrigation, flood control and sediment)	75,000
Flood control	475,000
Surcharge	<u>575,373</u>

Total Capacity 1,548,558 a.f.

Estimated annual irrigation yield 119,400 a.f.

Benefit-cost ratio 1.29 to 1

Environmental Impact

The principal environmental impact of the Narrows project will be the inundation of several miles of stream channel by the reservoir. No significant stream fishery now exists in that portion of the river. However, a considerable reservoir fishery will be created by the water impounded in the reservoir. Virtually all of the lands to be acquired for the reservoir are now in private ownership.

Some loss of nesting sites for waterfowl and upland game birds will occur. However, waterfowl use of the area is expected to almost triple as a result of the increased water area which will be available as the result of the reservoir impoundment. The hunting area for small upland game, such as pheasants and rabbits, will be decreased, but will be increased for waterfowl. Sport hunting for other animals such as racoons, coyotes and foxes will be decreased as the result of the reservoir inundation of the lands. There will be no impact on big game animals.

No adverse downstream water quality effects are anticipated. The operation of the dam and reservoir will reduce the seasonal and cyclical fluctuations in the water supply and permit better water quality to be applied to irrigation lands. Construction of the Narrows Dam and Reservoir and development of the Jackson Lake Reservoir will create a high

quality water-oriented outdoor recreation and fish and wildlife resource for public use. Historical or archaeological sites or resources are currently being surveyed in accordance with the National Historic Preservation Act. Protection and preservation of historic and cultural resources will be as required by Executive Order 11593 and 36 CFR 800.

Current Status

Advance planning on the project was essentially completed in 1951. After the project's re-authorization in 1970, advance planning began anew and is now virtually completed. It is expected that repayment contracts for the project will be executed by the Lower South Platte Water Conservancy District, the Central Colorado Water Conservancy District, and the state of Colorado within the next year. The available project water has been oversubscribed in the Lower South Platte District and the conservancy board will have to make a decision concerning water allocation.

Funds to initiate preconstruction planning were appropriated in fiscal year 1972, for land acquisition in 1973 and 1974, and for construction this year.

An environmental impact statement was filed with the Council on Environmental Quality in 1970. However, the Bureau of Reclamation is preparing a new statement in accordance with current guidelines and standards and has scheduled filing of a draft statement in July and a final statement in February, 1976.

Current flood data has necessitated a restudy of the Narrows Dam design which may increase the project cost and delay filing of the environmental statement a few months. Although the delay will defer initiation of construction until late spring of 1976, the Bureau expects to initiate land acquisition soon after public hearings are held on the draft statement this fall.

Through June 30, 1974, a total of \$1,960,000 has been expended on the Narrows project from federal funds. Approximately \$300,000 has been expended in state funds.

Conclusions and Recommendations

The South Platte Valley below Denver is one of the leading agricultural areas of the United States. It is a major livestock feeding and processing center. Chronic shortages of available water supplies lead to constant litigation and decreased crop yield. The only remaining flows available in the South Platte River for use in Colorado are those which escape at the state line during floods and other high water periods. In 1970 alone, almost 800,000 acre-feet of water reached to the Nebraska state line, most of which could have been stored in the Narrows Reservoir for use in more critical years.

The Narrows Reservoir will provide a major flood control facility for that area of the state below the reservoir to the state line. Some flood damages occur on the South Platte River almost every year. With control of the middle reach of the river through Chatfield Dam and control of the lower reach of the river through Narrows Dam, flood

damages on the South Platte River can be held to a minimum.

The project will also provide major fish and wildlife benefits and major recreation benefits. The reservoir will be the largest ever constructed in the state. It will contain a permanent pool of approximately 50,000 acre-feet. Situated in the heart of the population center of the state, it will provide water-oriented recreation on a scale not matched by any other facility east of the Continental Divide. The South Platte River below Denver now has no fishery value. The Narrows Reservoir and Jackson Reservoir will provide a major warm water fishery.

The President's budget to the Congress for F.Y. 1976 recommends the appropriation of \$3,140,000 for land acquisition and construction and an additional \$400,000 for the transition quarter. These funds appear to be sufficient and it is therefore recommended that the Governor and the members of Colorado's congressional delegation be requested to support the President's recommendation.

Don Christensen

Sparks -
240,000 ac-ft. annually above compact.

Question - from woman

Human element - people v. Monfort.

Rich farm land removal -
Water on existing irr. land.

Royce Tipton

Recommended Narrows site

Woodward Clyde & Sherard - Hardin v. Narrows

hydrologic -

safety - either

leakage - greater at lower

cost - Hardin 23m more.

- structural modifications, but still 11 m. more.

17,000 (to benefit 40,000)

Justin Haynes -

Harris Sherman -

Lamm has asked him to take a hard look at projects.

Will review w/ people, USB, etc. Will meet with the people.

Has the Bureau cooperated in answering questions?

Eddie Bohm - 40 page analysis.

Railroad - C.B. & Q. - all on S. Side of sec. line.

Effect of wells on dams.