

THE CURECANTI UNIT

Since settlers arrived in western Colorado in the 1880's, the Gunnison River has been both a blessing and a frustration. Spring floods often ravaged the low-lying valleys, yet the river always dwindled to a sickly stream in late summer, when irrigation water was desperately needed. One of the Bureau of Reclamation's first projects, the Uncompahgre Project (constructed from 1905 to 1912), successfully tapped the Gunnison River. But there was still no major dam to check the river's wide fluctuations.

Blue Mesa Lake, the uppermost and largest of the three Curecanti reservoirs, stores and controls heavy spring flows of the Gunnison River. Water released through Blue Mesa Dam and Powerplant receives short-term regulation at Morrow Point and Crystal Reservoirs immediately downstream. Water releases from Crystal are dictated by downstream water requirements.

Construction costs of the three Curecanti dams total about \$168 million, much of which was spent locally. Most important are the long-range, stabilizing economic benefits gained from the water and power resources developed by the Curecanti Unit and other features of the project.

THE COLORADO RIVER STORAGE PROJECT

The long-range basinwide development of water resources of the Upper Colorado River

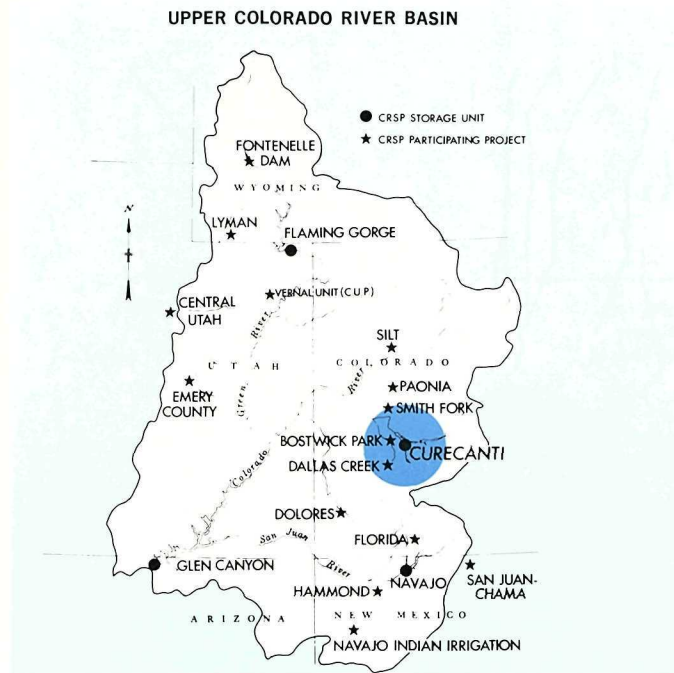
The Curecanti Unit is part of the comprehensive water resource plan known as the Colorado River Storage Project (CRSP). Glen Canyon Dam, Flaming Gorge Dam, and Navajo Dam are also major storage units in the plan.

The CRSP storage units, including Curecanti, supply long-term, carryover water storage and vitally needed hydroelectric power. CRSP Participating Projects are delivering irrigation water to farming areas, as well as providing municipal and industrial water to many communities. Additional participating projects are in various stages of planning or construction.

The CRSP and the Curecanti Unit are helping to make the economic future brighter in the five Upper Colorado Basin States of Utah, Colorado, New Mexico, Arizona, and Wyoming.

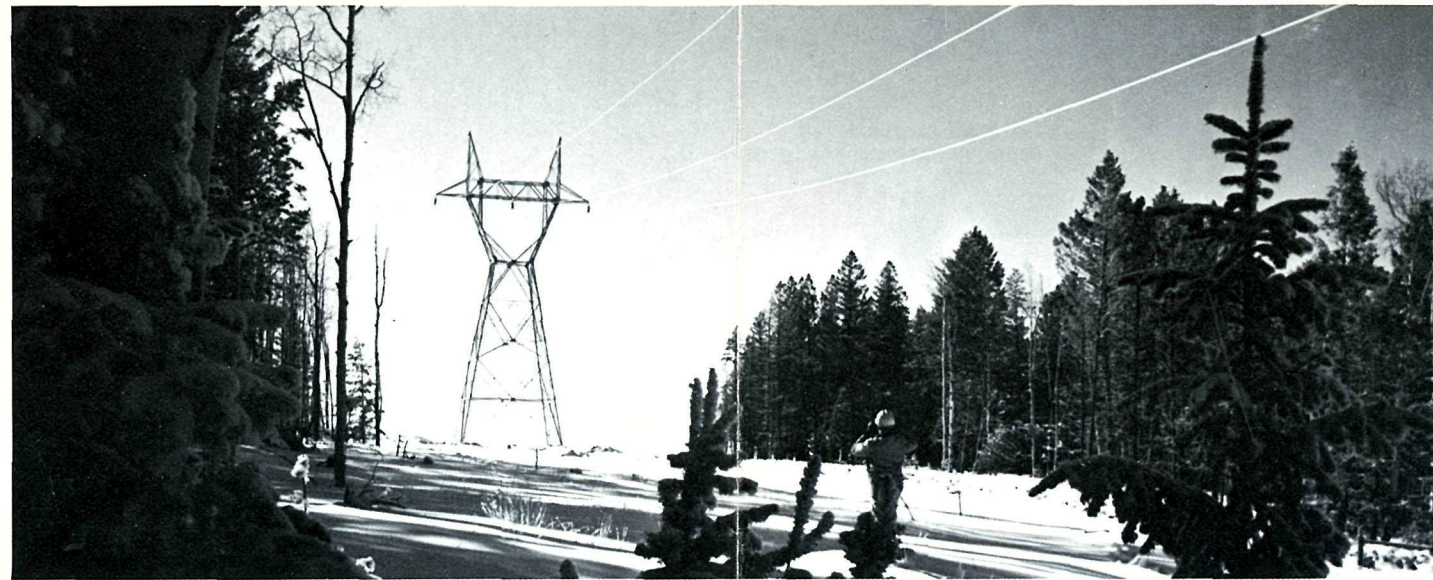
RECREATION

Blue Mesa Lake has brought boating to a semiarid region. From the inflowing Gunnison River down to the dam, the lake when full is 20 miles long, but its shoreline curves around 96 miles. Characterized by long arms and three large main-lake basins, the lake is suitable for boating, fishing, and water skiing. Fishing from boat and shore in the heavily stocked lake is the most popular use.



On the shore of Blue Mesa Lake, the National Park Service operates a Visitor Center and a large modern campground complete with tables, grills, modern restrooms, boat ramp, fish-cleaning station, and marina facilities at Elk Creek. Other launching ramps exist at the east and west ends of the lake. A fee is charged in summer for use of the Elk Creek campground.

In addition, many services are provided for visitors including a cruise on Morrow Point Reservoir, evening and daily programs about the area, boat safety inspections, and patrols.



Recreation in the Curecanti Unit is administered by the Park Service under an agreement with the Bureau of Reclamation. For information on recreational facilities, contact the, Curecanti National Recreation Area, P.O. Box 1040, Gunnison, Colo. 81230.

POWER

The three powerplants of the Curecanti Unit generate up to 208,000 kilowatts of hydroelectricity. This is enough power to supply a city of over 200,000 population. From Montrose, the Power Operations Office dispatches power received from Curecanti Dams, Glen Canyon Dam, Flaming Gorge Dam, and from smaller hydroelectric powerplants. Interconnecting lines, both private and public, carry CRSP power to major metropolitan areas and to rural areas of the Intermountain West.

INFORMATION

If you have questions about the Curecanti Unit, please write or contact: Project Power Operations Manager, CRSP Power Operations Office, Bureau of Reclamation, P.O. Box 1477, Page, Ariz. 86040, or Upper Colorado Region, Bureau of Reclamation, Box 11568, Salt Lake City, Utah 84147.

MOTION PICTURES

A number of excellent motion pictures can be obtained from the Bureau of Reclamation. All are 16-mm. sound films and nearly all are in color. For a list of films available and to borrow prints for showings, write to: Film Management Center, Bureau of Reclamation, Bldg. 67, Denver Federal Center, Denver, Colo. 80225.

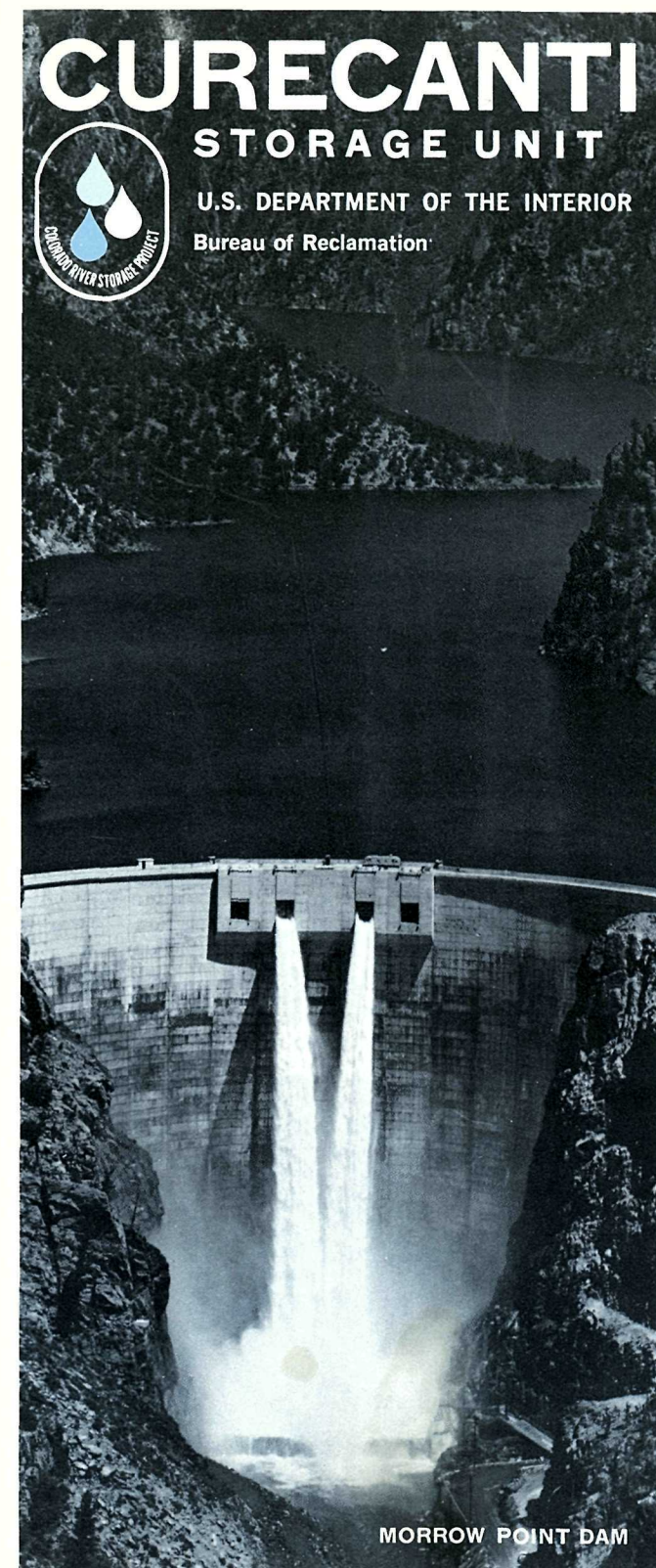
U.S. DEPARTMENT OF THE INTERIOR



BUREAU OF RECLAMATION



As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

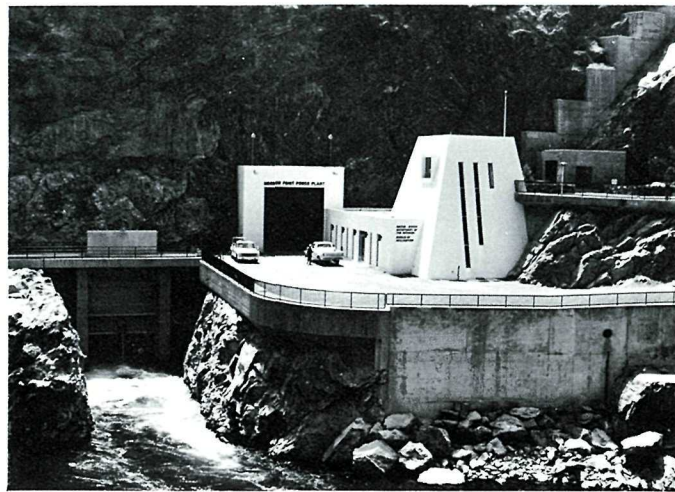


CURECANTI STORAGE UNIT



U.S. DEPARTMENT OF THE INTERIOR
Bureau of Reclamation

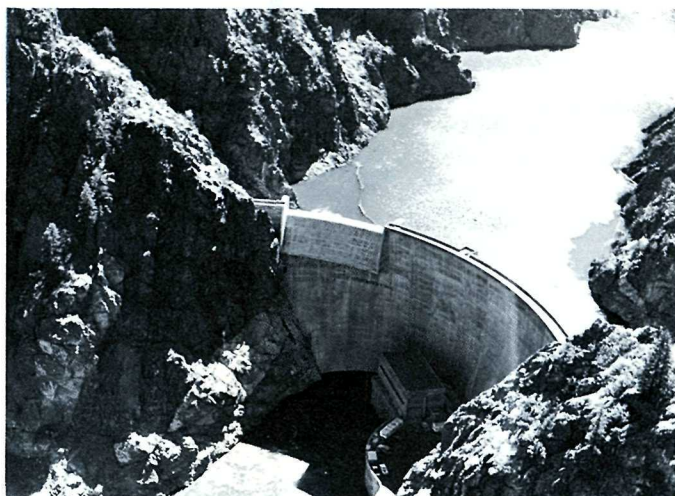
MORROW POINT DAM



POWERPLANT ENTRANCE BUILDING—MORROW POINT

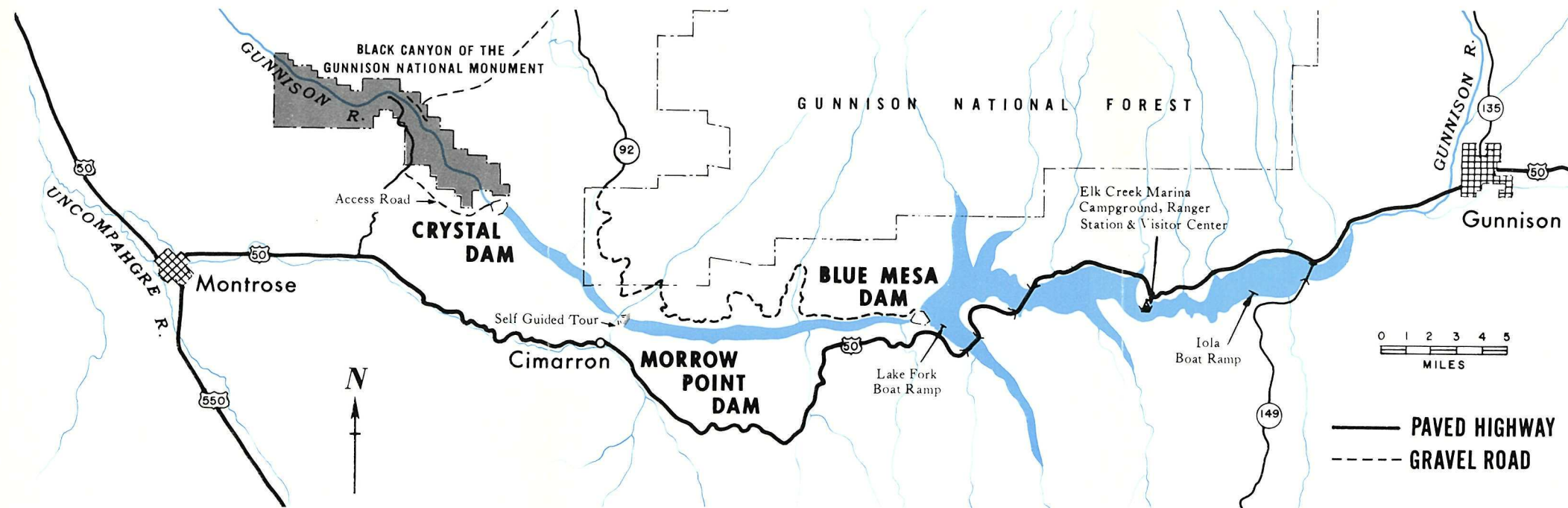


BLUE MESA DAM AND RESERVOIR



CRYSTAL DAM

Three dams on the Gunnison River . . .



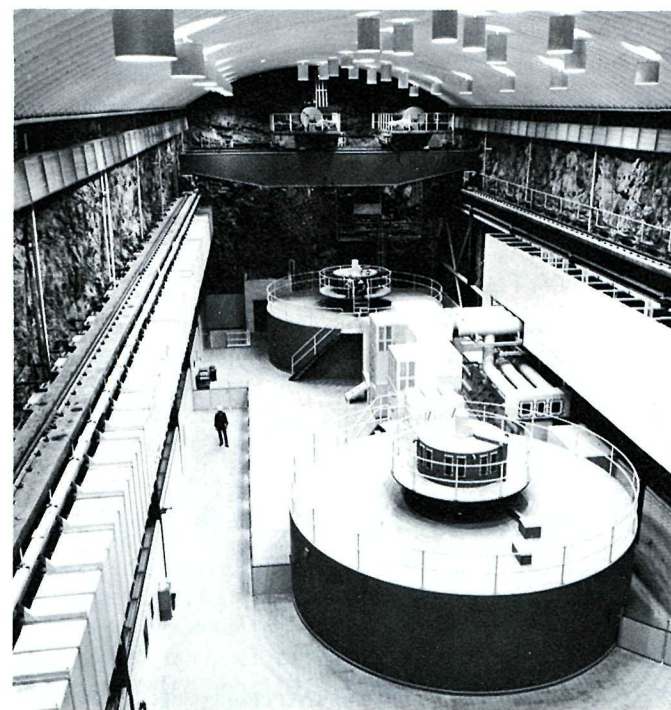
MORROW POINT DAM

Construction of Morrow Point Dam and Powerplant was completed and power generation initiated in December 1970. The dam embodies three "firsts" in the Bureau of Reclamation's long history of outstanding engineering achievements:

1. The first large double-curvature, thin-arch, concrete dam to be built in the United States. Double-curvature design means that the dam curves not only from left to right but also from bottom to top. The dam is 469 feet high, 724 feet long, 52 feet thick at the base, 12 feet thick at the crest, and contains 365,000 cubic yards of concrete.
2. A unique free-fall spillway with four 15-foot-square openings in the crest of the dam and a stilling basin at the toe of the dam. If water should spill from the reservoir, a spectacular free-fall of water would plunge from a height of more than 350 feet into the 60-foot-deep stilling basin.
3. An underground powerplant in a room excavated in hard rock about 165 feet in from the canyon wall. The generator room is 50 feet wide by 225 feet long and the arched roof is 65 feet high.

The reservoir has a capacity of 117,000 acre-feet and covers an area of 817 acres, with a shoreline of 24 miles. It extends to the powerplant outlet discharge at Blue Mesa Dam.

Morrow Point Powerplant contains two generating units with a total capacity of 120,000 kilowatts of electricity.



INTERIOR OF MORROW POINT POWERPLANT

BLUE MESA DAM

Blue Mesa Dam, completed in October 1965, is a wedge of 3,085,000 cubic yards of earth and rock, 1,550 feet wide at its base and gently sloping to a narrow crest width of 30 feet. The dam rises 342 feet above streambed. It is 800 feet long at the crest.

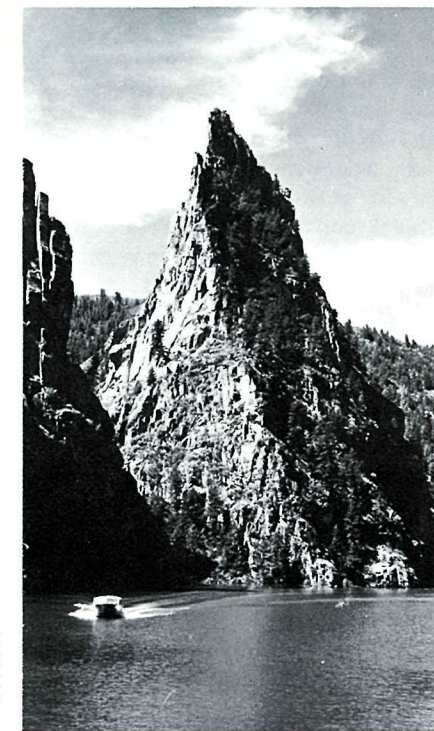
The lake formed by the dam has a capacity of 940,800 acre-feet, covering 14.3 square miles with a shoreline of 96 miles. When filled to capacity, the lake is the largest in Colorado.

The lake provides water for irrigation, generation of electric power, and recreation.

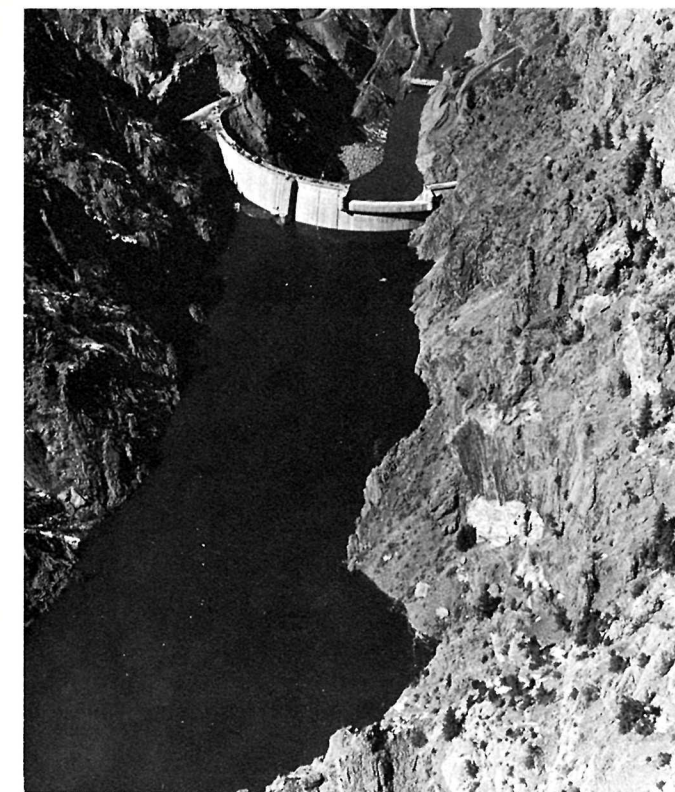
The powerplant consists of two generating units with a total capacity of 60,000 kilowatts of electricity.

CRYSTAL DAM

Crystal Dam was completed in August 1976. Like Morrow Point, Crystal is a double-curvature, thin-arch concrete structure. It contains 154,400 cubic yards of concrete. Crest length is 635 feet. It is 29 feet thick at the base and 10 feet thick at the crest. From the streambed, the dam stands 225 feet high. The 6-mile-long reservoir captures fluctuating releases from Morrow Point Dam and thereby regulates, or smooths out, flows of the Gunnison River. Crystal Powerplant houses one generating unit of 28,000-kilowatt capacity.



THE CURECANTI NEEDLE AND MORROW POINT LAKE



AERIAL VIEW OF CRYSTAL DAM