DALLAS CREEK

United States Department of the Interior

FISH AND WILDLIFE SERVICE

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IN REPLY REFER TO:
FA/SE/BR--Dallas Creek
Project (6-5-80-F-39)

NOV 16 1979

MEMORANDUM

To: Regional Director, Upper Colorado Region
Water and Power Resources Service, Salt Lake City

From: Acting Regional Director, Region 6
U. S. Fish and Wildlife Service, Denver, Colorado

Subject: Biological Opinion for Dallas Creek Project, Colorado

In response to your November 2, 1979, request for formal consultation on the Dallas Creek Project, this biological opinion has been prepared as prescribed in the Interagency Cooperation Regulations published in the January 4, 1978, Federal Register and the Endangered Species Act.

GENERAL

BIOLOGICAL OPINION

It is our biological opinion that the proposed Dallas Creek Project is not likely to jeopardize the continued existence of the bald eagle (Haliaeetus leucocephalus), American peregrine falcon (Falco peregrinus anatum), black-footed ferret (Mustela nigripes), and Hedgehog cactus (Echinocerceus triglochidiatus var. inermis). However, the proposed project will likely jeopardize the continued existence of the endangered Colorado squawfish (Ptychocheilus lucius) and the endangered humpback chub (Gila cypha).

BASIS FOR OPINION--JEOPARDIZED SPECIES

Colorado Squawfish and Humpback Chub

The primary area of concern in this opinion is the lower Gunnison River and the Colorado River between its confluences with the Gunnison and the Dolores Rivers.

The Colorado squawfish and humpback chub were once abundant throughout the Colorado River system from the Gulf of California to southwestern Wyoming. Presently, both species are found only in limited areas of Colorado, Utah, and Arizona. The primary cause for their decline is human alteration of the river environment. Major impoundments and water diversions have depleted water and altered temperature, turbidity, and stream flow patterns, thus reducing habitat for both fishes.

Historically, the Colorado squawfish and humpback chub were found in the Gunnison and Uncompahgre River drainages. Squawfish were reported to be common in the Gunnison as far upstream as Delta, Colorado. All confirmed historical reports of squawfish collected in the Gunnison drainage were large specimens, suggesting most were spawning migrants from the Colorado River. Reports of large migrations of squawfish were common in the early 1900's.

Except for a slight increase in the squawfish population believed to occur between 1940 and 1947 as a result of above normal runoff, the squawfish population has continually declined. This decline of squawfish, and a similar decline of humpback chubs, in the lower Gunnison is attributed to the numerous upper basin dams and irrigation diversions which have been constructed over the years. Upstream migration has been retarded, and sometimes prevented, by the structures themselves and by the reduced spring and early summer flows caused by their operations.

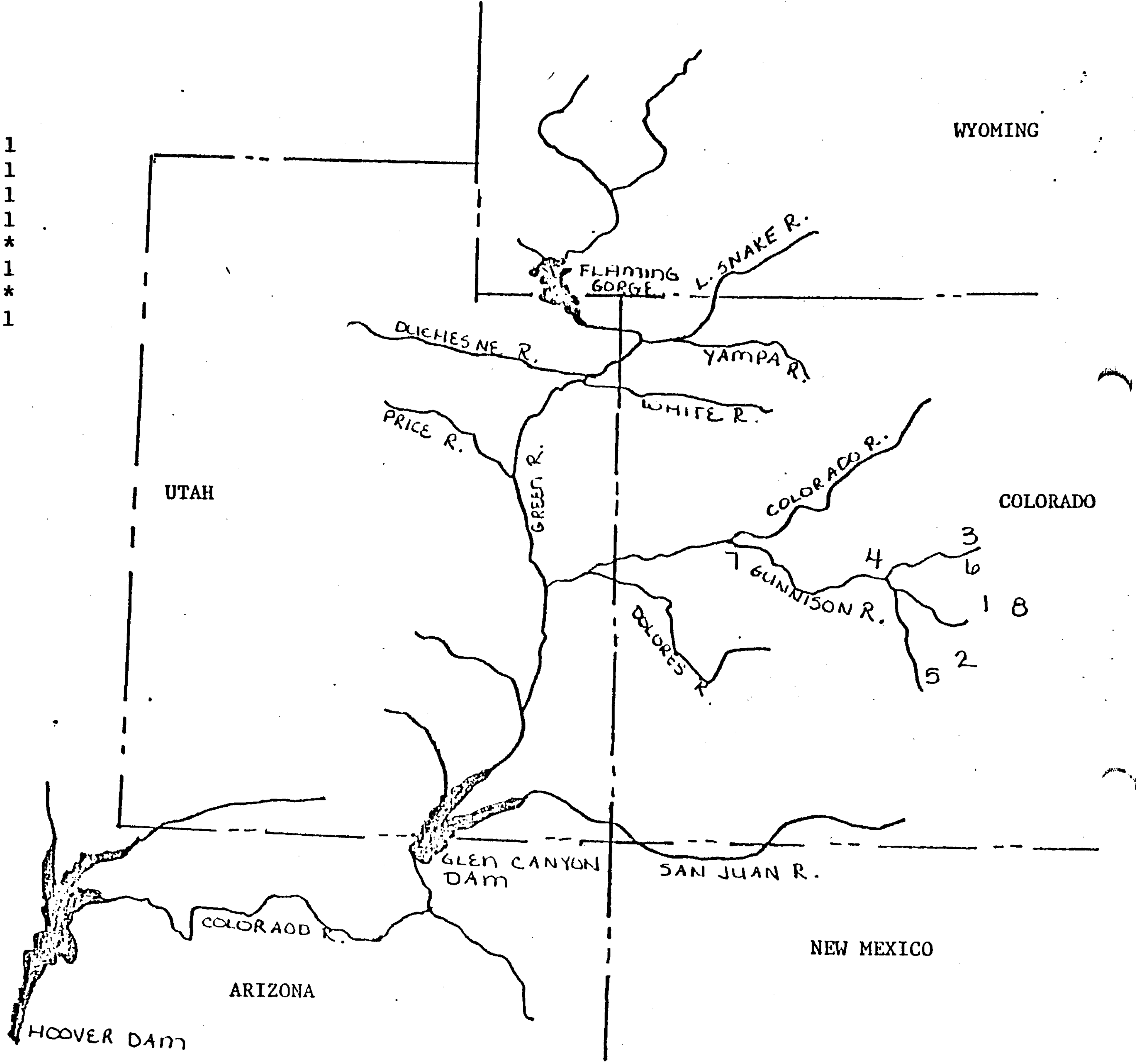
These low flow conditions have contributed to the reduced populations of endemic fishes and this is reflected by the scarcity of fish in recent collection attempts. Except for the collections by Holden and Stalnaker in 1971, other recent collections (for example by Kidd 1976 and the Colorado Division of Wildlife in 1977) have failed to turn up squawfish and humpback chubs in areas where they once existed in the Gunnison. In addition, attempts at collection by the Fish and Wildlife Service (FWS) in that area in 1979 were unsuccessful.

Reports show that the squawfish and humpback chub have been declining throughout the Colorado River drainage. However, recent FWS surveys have identified good populations of squawfish and humpback chubs in the Black Rocks area of Ruby Canyon and in the Westwater Canyon along the main Colorado River. Protection of these population strongholds and the habitat offered by these canyon sections is essential for recovery of both species. Therefore, this biological opinion considers the cumulative depletion of water from the Colorado River below the confluence with the Gunnison as well as from the lower Gunnison River. Significant depletions by projects such as Dallas Creek could affect these important downstream populations.

The proposed Dallas Creek Project is part of the Colorado River Storage Project (CRSP), which was authorized as a participating project of the Colorado River Storage Project Act of April 11, 1956. We considered the cumulative effects of all Gunnison River CRSP units in developing this biological opinion and have summarized their effects below. Figure 1 shows the major projects in the Gunnison River watershed that will affect the Colorado squawfish and humpback chub. The Gunnison River contributes as much as 41 percent of the flow of the Colorado River in a high-water year (1970) and 53 percent in a low-water year (1977) at the border of Colorado and Utah.

Projects

1	Curecanti	1
2	Boswick Park	1
3	Paonia	1
4	Fruitgrowers	1
5	Dallas Creek	*
6	Smith-Fork	1
7	Dominguez	*
8	Uncompahgre Valley	1



* Projects Proposed
1 Projects Constructed

Figure 1. Bureau of Reclamation Projects (CRSP) on the Gunnison River, considered in the cumulative analysis of the biological opinion.

Dallas Creek Project

The Dallas Creek Project in the Uncompahgre River Basin in western Colorado would involve construction of Ridgway Reservoir on the Uncompahgre River to provide water for supplemental irrigation and municipal and industrial use. The project would include recreational facilities in connection with the reservoir. Project features are located in Ouray County, while project water would benefit Ouray, Delta, and Montrose Counties. Figure 2 shows the project area.

Ridgway Reservoir will have a total capacity of 80,000 acre-feet annually. The supply will include 11,200 acre-feet for supplemental irrigation, 28,100 acre-feet for municipal and light industrial use, and 100 acre-feet as a reserve for use at project recreation sites. The reservoir will have a dead and inactive storage capacity of 25,000 acre-feet including 20,900 acre-feet for recreation and 4,100 acre-feet for sediment retention. Annual depletion from the Gunnison River is estimated to be 17,200 acre-feet annually.

Curecanti Storage Project

The Curecanti Unit consists of three dams on the Gunnison River: the Crystal, Morrow Point, and Blue Mesa dams. Blue Mesa Dam, completed in October 1965, has a capacity of 940,800 acre-feet. Construction of Morrow Point Dam was completed in December, 1970. Its reservoir has a capacity of 117,000 acre-feet. Crystal Dam was completed in August, 1976. The 6-mile-long Crystal Reservoir captures fluctuating releases from Morrow Point Dam and smooths out the flow of the Gunnison River. Estimated annual depletion from the Gunnison is 10,500 acre-feet.

Boswick Park Project

The Boswick Park project is a multi-purpose water resource development in the Gunnison River Basin in west-central Colorado. Storage regulation is provided by Silver Jack Dam and Reservoir constructed on Cimarron Creek. The reservoir has a storage capacity of about 10,600 acre-feet, including 8,000 acre-feet reserved for irrigation. Estimated annual depletion from the Gunnison is 4,200 acre-feet.

Smith-Fork Project

Surplus flows of Smith-Fork, Iron, Mud, and Alkali Creeks are made available by and regulated by the Smith-Fork project in west-central Colorado. Construction features include Crawford Dam and Reservoir, Smith-Fork Feeder Canal, Aspen Canal, and Clipper Canal. Crawford Reservoir has a total capacity of 14,000 acre-feet. The Smith-Fork Diversion Dam has a diversion capacity of 80 cubic feet per second. The Smith-Fork Project supplies irrigation water for 6,920 acres of land. All construction was completed in 1962. The estimated annual depletion of Smith-Fork Project from the Gunnison is 5,700 acre-feet.

Figure 2. Dallas Creek Project Area, and the areas served by the project.