

DRAFT OF
OPERATING CRITERIA

The following tentative operation plan has been developed for the reservoirs of the Colorado River Storage Project and Lake Mead to secure the maximum use of the waters of the Colorado River Basin, consistent with Section 602 of Public Law 90-537 and other laws, compacts, and legal documents known as the "Law of the River." A brief summary of each of these documents is described in the accompanying appendix. The plan is intended to be applicable during the period prior to the availability of water augmentation facilities described in Section 202 of Public Law 90-537. The rules are formulated on the basis of presently available information on runoff of the Colorado River and records of use. They will be reviewed periodically as additional information becomes available and adjusted, as may be deemed appropriate in the future.

The operating rules contained herein contemplate that the Colorado River Storage Project reservoirs and Lake Mead will not be drawn down below the minimum elevations needed for the generation of hydroelectric power and energy (minimum power pool). Coordinated operation plans, which will be developed each year under provisions of the operating rules contained herein, will give consideration to fish and wildlife, recreation, conservation, water quality, and other related multiple uses.

Early in each water year, plans will be formulated for the operation of the Colorado River Storage Project reservoirs and Lake Mead during the current water year. The development of these plans will take into account estimates of runoff from the basin during the year, the current storage in the Colorado River Storage Project reservoirs, the current uses and anticipated increased uses in the Upper Basin during the current and the immediate future years, the storage in Lake Mead, and the current year demands for water from Lake Mead. The operating plan will be formulated taking into account the following additional operating rules:

1. In any year that spill is not imminent when the forecasted September 30 content of Lake Powell is less than the forecasted September 30 content of Lake Mead, the release of water from Lake Powell will be restricted to 8.23 million acre-feet.

2. A rule curve, prepared on the basis of the critical runoff sequence of record which started in water year 1953 to determine the amounts of active storage capacity needed in the Colorado River Storage Project reservoirs to meet a release requirement of 8.23 million acre-feet per year during the critical runoff period without curtailing Upper Basin uses estimated to occur in such a critical runoff period, shows the following relationships between increased

annual depletions after 1968 above Lee Ferry (exclusive of reservoir losses) and required active storage capacity.

<u>Units Acre-Feet</u>		
<u>Increased Annual depletion after 1968* during critical period</u>	<u>Total depletion* including 1968 use</u>	<u>Required amount of active storage capacity</u>
500,000	3,271,000	9,000,000
1,000,000	3,771,000	11,000,000
1,500,000	4,271,000	13,000,000
2,000,000	4,771,000	18,000,000

*Exclusive of reservoir losses.

3. When the forecasted active storage in Colorado River Storage Project reservoirs on September 30 of the current water year is less than the requirements shown in Paragraph 2, the water year release from Lake Powell will be restricted to 8.23 million acre-feet.

4. When the April-July runoff forecast indicates that the forecasted active storage in Colorado River Storage Project reservoirs on September 30 of the current water year will be greater than the requirements shown in Paragraph 2, a greater release from Lake Powell may be required than the 8.23 million acre-feet if such greater flow is needed to meet annual requirements of water from Lake Mead, as described in Paragraphs 6 and 7, to equalize the amount of active storage in Lake Powell and Lake Mead on September 30

of the current water year.

5. In the application of Paragraph 4, if the forecasted active storage of the Colorado River Storage Project reservoirs is such that spill of water from Lake Powell is not imminent, the annual release will not be such as to cause water to bypass the Glen Canyon Powerplant. Any excess water thus stored in the Colorado River Storage Project reservoirs in that year would be released through the Glen Canyon Powerplant in subsequent water years to "equalize" the active storage in Lake Powell and Lake Mead.

6. Between now and the time that the Central Arizona Project facilities become available, water released from Lake Powell plus the tributary inflows between Lake Powell and Lake Mead will be regulated in Lake Mead and either pumped from Lake Mead or released to the Colorado River to meet requirements (other than for power) as follows:

- a. Net river losses
- b. Net reservoir losses
- c. Regulatory wastes
- d. Mexican Treaty obligation limited to a scheduled 1.5 million acre-feet per year, provided that spill is not imminent from the reservoirs

- e. Consumptive use requirements of mainstream projects within the United States.

If the current runoff forecast indicates that spill is imminent from the system, the scheduled Mexican Treaty obligation described in Subparagraph d will be increased up to 1.7 million acre-feet per year.

7. After the Central Arizona Project facilities become available, the permissible consumptive uses in the United States of water from the mainstream in the Lower Basin, while taking into account the 1,500,000 acre-feet Mexican Treaty obligation and net river, reservoir, and regulatory losses, will be governed by the forecasted elevation of Lake Mead in accordance with the following schedule:

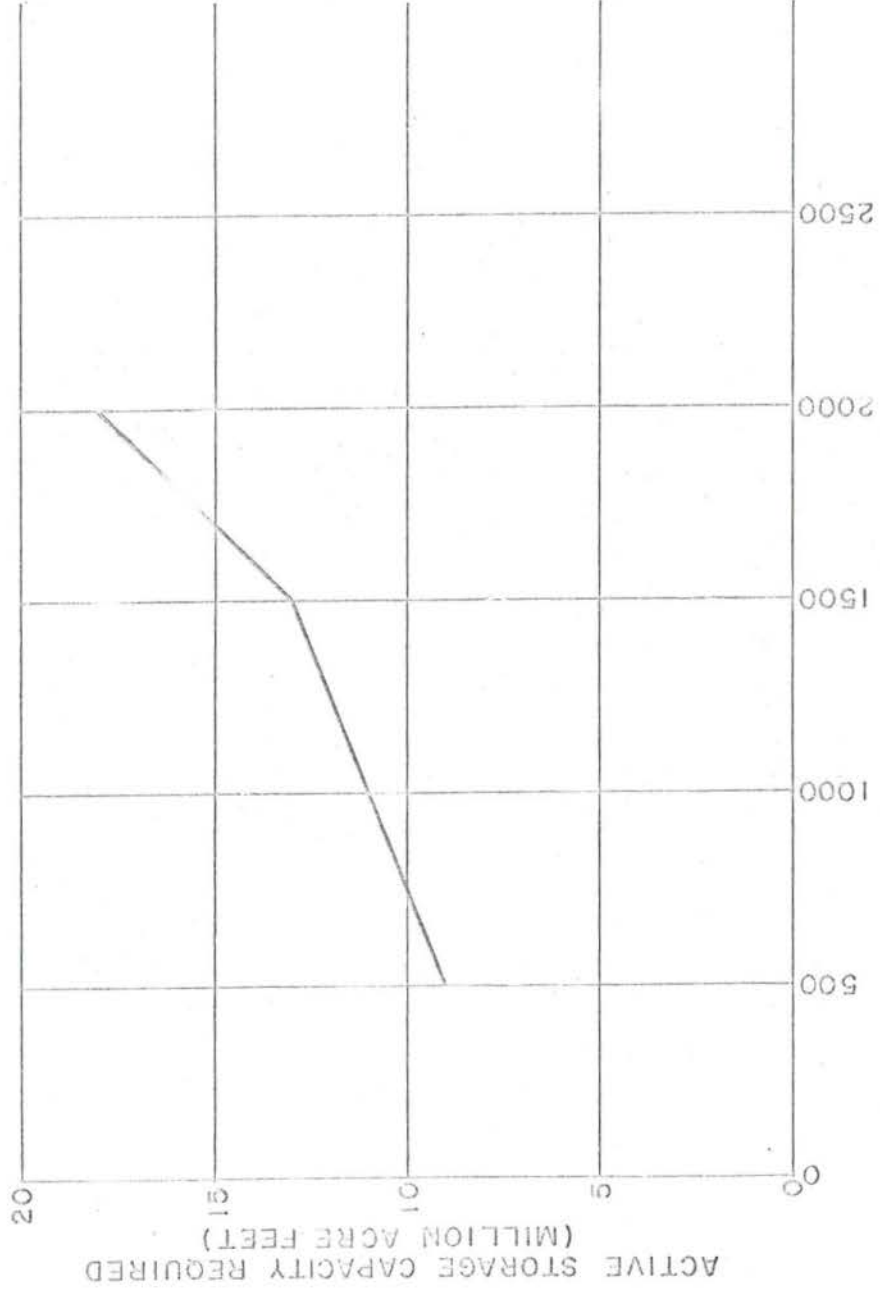
- a. When the end of water year elevation of Lake Mead is forecasted to exceed 1100 feet and spill is not imminent, the annual consumptive use in the United States will be limited to requirements in Arizona of 2,800,000 acre-feet, in California of 4,400,000 acre-feet, and in Nevada up to 300,000 acre-feet.

- b. When Lake Powell is forecasted to spill and/or release from Lake Mead for flood control purposes is imminent, water in excess of Subparagraph a may be used in the United States within the limitation of project

facilities; Provided, That such excess water shall be divided equally between Arizona and California. In the event the anticipated spill or release for flood control purposes exceeds the uses that can be made within the United States, the scheduled water to meet the Mexican Treaty obligation will be increased up to 1.7 million acre-feet per year.

c. When the end of water year elevation of Lake Mead is forecasted to be between 1083 and 1100 feet, the annual consumptive use in Arizona will be reduced by restricting the diversions to the Central Arizona Project to 400,000 acre-feet.

STORAGE RULE CURVE
COLORADO RIVER ABOVE LEE FERRY, ARIZONA



ADDITIONAL DEPLETION AFTER 1968 (1000 ACRE FEET PER YEAR)

DRAFT OF OPERATING CRITERIA FOR COLORADO RIVER RESERVOIRS
PRESENTED BY THE SECRETARY OF INTERIOR ON JULY 25, 1969

INTRODUCTION

A knowledge of the effects of applying operating criteria is fundamental to its definition. Thus, in order to come to grips with the requirements of Section 602(b), it is necessary to identify criteria for analysis and study purposes. To start this process of our consideration and study, we have assembled some guidelines. Certainly these factors do not define what the final criteria may be. They do relate to factors important to consideration of criteria. They are offered only with the thought that they may be a useful starting point for the effort of us all to develop working operating rules.

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

July 30, 1969

M E M O R A N D U M

TO: Members, Colorado Water Conservation Board and Advisory
Committee.

FROM: Felix L. Sparks, Director.

SUBJECT: Proposed Operating Criteria for Colorado River Reservoirs.

On July 25, 1969, at a conference at the Denver Federal Center the Department of Interior presented a draft of operating criteria which primarily affect Lake Mead and Glen Canyon reservoirs. This draft was presented for review by all interested states pursuant to section 602 of the Colorado River Basin Project enacted last year which provides, in part, that "the Secretary shall propose criteria for the coordinated long-range operation of the reservoirs constructed and operated under the authority of the Colorado River Storage Project Act, the Boulder Canyon Project Act, and the Boulder Canyon Project Adjustment Act".

The section further states that "not later than January 1, 1970, the criteria proposed in accordance with the foregoing subsection (a) of this section shall be submitted to the governors of the seven Colorado River Basin states and to such parties and agencies as the Secretary may deem appropriate for their review and comment". The section then provides that the Secretary shall adopt appropriate criteria not later than July 1, 1970.

It was indicated at last week's conference that a series of meetings would be held between now and December 1, 1969. At these meetings the states will have an opportunity to express their views concerning the proposed criteria. It was emphasized at the meeting last week that the criteria at this point is in draft form only and is subject to change.

The proposed criteria is enclosed herewith. It should be carefully studied by all interested parties to determine whether

or not the State of Colorado should request changes or additions to the proposed criteria. Since these criteria will have a considerable impact upon the development of Colorado's water resources, a major effort should be made to insure that the criteria faithfully carry out the intent of the Colorado River Compact and the other directions contained in Section 602 of the Colorado River Basin Project Act.

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Enclosure