



Board of Directors

Brian Brennan, Director
Angelo Spandrio, Director
Pete Kaiser, Director

Neil Cole, Director
Richard Hajas, Director

CASITAS MUNICIPAL WATER DISTRICT Meeting to be held at the

The meeting will be held via teleconference.
To attend the meeting call (888) 788-0099 or (877) 853-5247 US Toll-free
Enter Meeting ID: 940 4802 4973#
Passcode: 864551#

Special Meeting
February 17, 2021 @ 2:00 PM

Right to be heard: Members of the public have a right to address the Board directly on any item of interest to the public which is within the subject matter jurisdiction of the Board. The request to be heard should be made immediately before the Board's consideration of the item. No action shall be taken on any item not appearing on the agenda unless the action is otherwise authorized by subdivision (b) of §54954.2 of the Government Code and except that members of a legislative body or its staff may briefly respond to statements made or questions posed by persons exercising their public testimony rights under section 54954.3 of the Government Code.

1. CALL TO ORDER
2. ROLL CALL
3. PUBLIC COMMENTS - Presentation on District related items that are not on the agenda - three minute limit.
4. ACTION ITEM
 - 4.a. Discussion and Possible Action on the Draft Casitas MWD Comprehensive Water Resources Plan.
[Memo_Board_CWRP_Feb17-2021-2.pdf](#)
5. CLOSED SESSION

- 5.a. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION
(Government Code §54956.9(b))
Number of potential cases: 1

6. ADJOURNMENT

**CASITAS MUNICIPAL WATER DISTRICT
MEMORANDUM**

TO: BOARD OF DIRECTORS
FROM: MICHAEL FLOOD, GENERAL MANAGER
SUBJECT: DISCUSSION OF COMPREHENSIVE WATER RESOURCES PLAN
DATE: 02/17/21

RECOMMENDATION:

The Board of Directors review modeling analyses related to the Comprehensive Water Resources Plan, and direct staff as appropriate.

BACKGROUND:

The Board of Directors authorized a consulting services agreement with Stantec in January 2019 to prepare the Comprehensive Water Resources Plan (CWRP). An overview of the draft CWRP was presented at a Board Workshop held on February 8, 2020, and the draft CWRP report was released for public review from June 26, 2020 through August 24, 2020. Several public comments were received on the draft CWRP report, which were provided to the Board of Directors on September 23, 2020 and December 9, 2020. The full draft CWRP report is found on the District's website: <https://www.casitaswater.org/your-water/casitas-water-security>.

The Draft CWRP recommends a Lake Casitas operational yield of 10,660 AFY on average based on the following modeling and policy assumptions:

- Safe Demand approach that models demand reductions in accordance with the District's Water Efficiency and Allocation Program
- Minimum Allowable Storage of 20,000 AF to provide a planning contingency for unforeseen conditions and emergencies
- Re-sequenced hydrology for 100 alternate 74-year periods¹ (probabilistic approach)
- 95% Reliability Goal
- Climate change adjustment
- Robles Diversion Efficiency of 70%
- Initial Lake Volume of 237,761 AF (full reservoir)

On December 9, 2020, the Board of Directors discussed the need for additional Board meetings to discuss the goals of the Comprehensive Water Resources Plan. The Board has continued to meet and discuss the CWRP at subsequent meetings held on December 16, 2020; December 23, 2020; and January 15, 2021.

¹ Data set provided to Stantec by Casitas

On January 15, 2021, the Board directed staff to revise the modeling and policy assumptions as follows, which results in a Lake Casitas operational yield of 18,420 AFY on average. With this approach, an additional safety factor is recommended to account for hydrologic uncertainty.

- Safe Yield approach that models the largest yield that can be withdrawn from the lake in every year without dropping below the minimum allowable storage level
- Minimum Allowable Storage of 950 AF, which is the dead pool elevation at which water can no longer flow by gravity to the water treatment plant
- Historical hydrologic period from 1945-2018
- Robles Diversion Efficiency of 70%
- Initial Lake Volume of 237,761 AF (full reservoir)

Subsequently, staff realized that a more complete understanding of the probabilistic approach to the hydrology was needed in order for the Board to make further policy decisions prior to a Supply and Demand analysis.

DISCUSSION:

Staff recommends the Board continue policy discussions related to the Lake Casitas yield modeling, and revisit the probabilistic approach for modeling future hydrologic uncertainty. Based on previous Board discussions, sensitivity analyses have been performed that evaluate the probabilistic approach based on different hydrologic periods. Results will be compared that use the hydrologic periods of 1945-2018, 1945-2006, and 1956-2018 to evaluate hydrologic statistics and resequencing. While the sensitivity analyses use a different hydrologic modeling approach than the direction provided by the Board on January 15th, 2021, the analyses are consistent with remaining policy direction as follows:

- Safe Yield approach
- Minimum allowable storage of 950 AF
- Robles Diversion Efficiency of 70%
- Initial Lake Volume of 237,761 AF (full reservoir)

A presentation will be provided to review the current model and additional sensitivity analyses. A summary of the results is presented in Table 1 on the next page. With this approach, staff recommends a 90-95% reliability level.

Staff is requesting direction on the policy assumptions related to Lake Casitas yield modeling, which affect the gap analysis and planned projects in the CWRP.

**Table 1. Safe Yield Reliability for Varying Periods of Record (AFY) –
 With Climate Change Adjustment**

| Reliability | Full Period of Record; 20,000 AF min storage | Full Period of Record; Dead pool min storage | 1945-2006 Period of Record; Dead pool min storage | 1956-2018 Period of Record; Dead pool min storage |
|------------------------|---|---|--|--|
| 50% Reliability | 14,800 | 15,800 | 17,000 | 17,600 |
| 75% Reliability | 11,900 | 12,800 | 13,800 | 14,100 |
| 90% Reliability | 9,900 | 10,800 | 11,800 | 12,100 |
| 95% Reliability | 9,200 | 10,000 | 11,000 | 11,400 |

* Period of record used to generate 100 stochastic hydrologic sequences as noted, minimum allowable storage as noted, 70% Robles Diversion Structure reliability, full initial storage, no WEAP adjustments to demand

** Results rounded to three significant figures

*** Climate change adjustment is -4.3% for all reliability levels