



## COUNTY OF LAKE WATER RESOURCES

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### CLEAR LAKE SUMMER LEVELS

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Clear Lake is a natural lake whose water level fluctuations have been modified by the construction of the Cache Creek Dam in 1914. From 1915 until present, the levels of Clear Lake have been manipulated by operation of the Cache Creek Dam. Summer operation is governed by the Solano Decree (1978, modified 1995).

The Solano Decree specifies how much water is available for use by Yolo County Flood Control and Water Conservation District and their customers (Yolo), and how much water is available in each month of the summer. If Clear Lake is full (7.56 feet Rumsey) on May 1, 150,000 acre-feet of water is available to Yolo. An acre-foot of water is the amount of water that will cover one acre of land one foot deep, or approximately 326,000 gallons. On Clear Lake, 150,000 acre-feet amounts to approximately 3 1/2 feet. If Clear Lake is below 3.22 feet Rumsey on May 1, no water is available to Yolo for release. An additional 3 feet of water evaporates from the surface during the summer months, therefore, Clear Lake can drop from 3 to 6 1/2 feet in any given summer. On the average, Clear Lake fluctuates 5.6 feet each year.

On May 1 this year, the level of Clear Lake was 7.36 feet Rumsey. The high lake level for the year was 7.88 feet Rumsey on March 25. In April, 8,777 acre-feet of water was released for water supply purposes. Pursuant to the Solano Decree, the adjusted May 1 lake level is 7.56 feet Rumsey. Based on this level, 150,000 acre-feet is available for use by Yolo. This is approximately 3.6 feet of depth on Clear Lake. Assuming Yolo takes the entire 150,000 acre-feet between May 1 and October 31, the projected lake levels (all in feet Rumsey) for this summer are:

June 1	6.4
July 1	5.2
August 1	3.8
September 1	2.5
October 1	1.6
November 1	1.25

This amounts to a lake level drop of approximately 6.6 feet, greater than the average change of 5.6 feet.

For more information, contact Tom Smythe (707)263-2344.

## CLEAR LAKE SUMMER WITHDRAWAL

The Solano Decree specifies the maximum amount of water that may be withdrawn from Clear Lake in any given year. The adjusted May 1 lake level determines the allowable withdrawal. Irrigation withdrawals in April are added to the May 1 lake level to determine the allowable withdrawal for the year. Flood releases required by the Gopcevic Decree (1920) are not counted as part of the annual allotment. The following table summarizes the allowable withdrawal based on the adjusted May 1 lake level:

Adjusted May 1 Lake Level, feet Rumsey	Lake Storage, acre-feet above Zero Rumsey	Allowable Seasonal Withdrawal, acre-feet
3.22	130,000	0
3.5	141,770	7,847
4.0	162,390	21,593
4.5	183,135	35,423
5.0	204,030	49,353
5.5	225,105	63,403
6.0	246,350	83,350
6.5	267,785	104,785
7.0	289,400	126,400
7.56	313,000	150,000

The seasonal withdrawal may only be made between April 1 and October 31. Only flood releases required by the Gopcevic Decree are allowed between November 1 and March 31. In order to balance the needs for recreation on Clear Lake and water use within Yolo County, withdrawals are limited by month to a maximum of the following percentages of the total withdrawal for each month:

Month	Percent
April	7.0
May	18.6
June	20.6
July	21.0
August	19.9
September	10.5
October	2.4

Withdrawals during any month, except October, may exceed that month's withdrawal by 10 percent or 1,000 acre-feet, whichever is greater. Such excess withdrawal is deducted from the allowable withdrawal for the next month. In addition, the October monthly withdrawal may be taken in any given month without affecting the following month's scheduled withdrawal.

In addition to the maximum amount withdrawn, monthly minimum water levels must be maintained. These limitations are based on the adjusted May 1 lake level. If the adjusted May 1 lake level is above 7.56 feet Rumsey, the lake may not be drawn below 1.25 feet Rumsey on October 31. If the adjusted May 1 lake level is below 3.75 feet Rumsey, the lake may not be drawn below 0.12 feet Rumsey on October 31. With summer evaporation from the lake at approximately 3 feet, it is possible for the lake to drop below Zero Rumsey when the lake fills to less than 3 feet Rumsey, even though no water is withdrawn from the lake.

# Clear Lake Level 2016 Water Year

