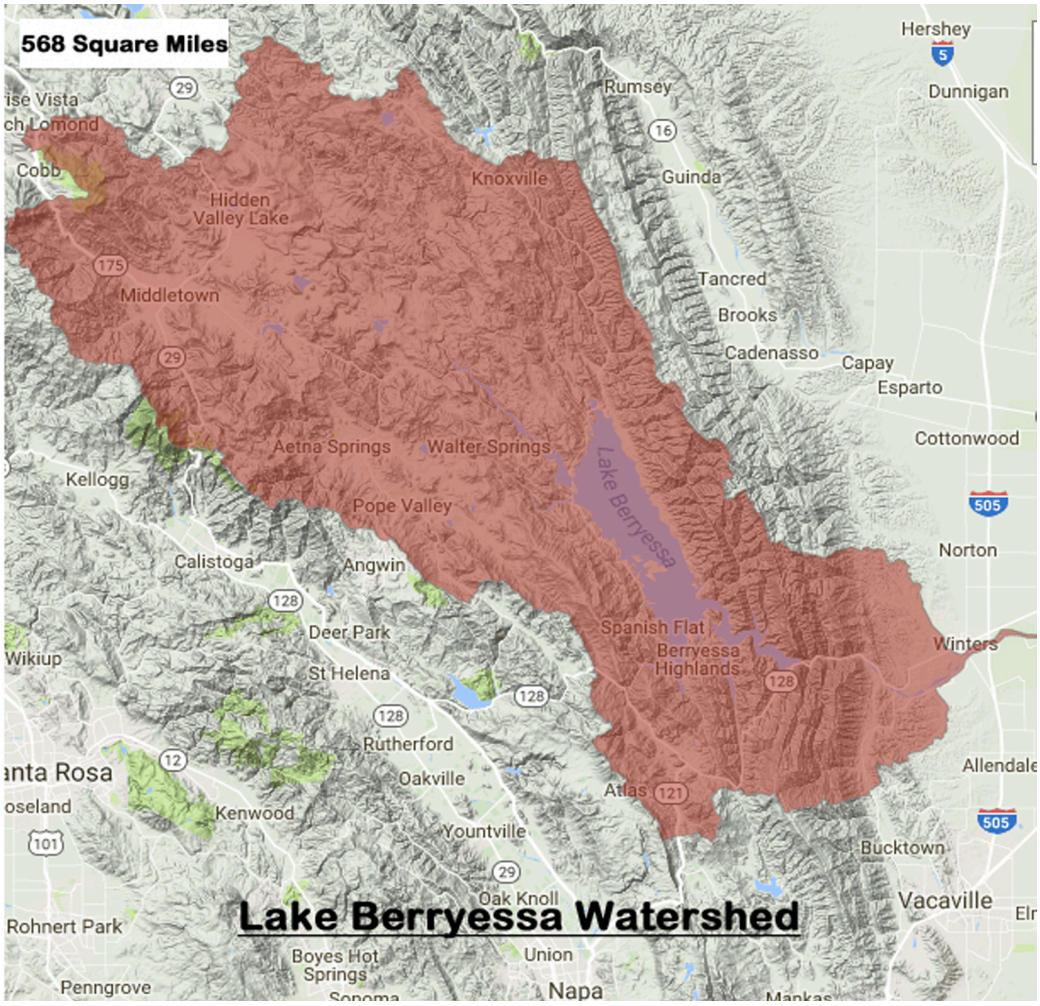
The Lake Berryessa Watershed

The Lake Berryessa water supply is derived from the 568 square mile drainage basin above the dam. The elevation of the basin ranges from 182 feet at the dam to 4,722 feet at the upper end of Putah Creek with most of the basin lying below 1,500 feet. There are four principal creeks that flow into Lake Berryessa: Capell Creek, Pope Creek, Eticuera Creek, and Putah Creek, the main drainage of the basin. The climate of the basin is mild and composed of two seasons, a warm dry season from May through October and a cool wet season from November through April. Most of the precipitation occurs as rain during the cool wet season with only minor amounts of snow on the upper portions of the basin. There is no connection to snowmelt from the Sierra Nevada mountains.



The reservoir water level may fluctuate from 455 feet (height of the top of the dam) to a minimum elevation of 253 feet. A water level of 309 feet is considered dead storage elevation. During the severe drought of 1977 the level decreased to 388.1 feet and 48% capacity. During the 1990 to 1993 drought the lake decreased to its lowest level in history, 361.7 feet, 78.3 feet below Glory Hole - down to 25% capacity.

How fast the lake rises is dependent on rainfall over the whole watershed, especially the Cobb Mountain and Middletown areas. The lake is 23 miles long, 3 miles wide, with 165 miles of shoreline and is fed by the headwaters to the 568 square mile Putah Creek watershed.