SONOMA COUNTY WATER AGENCY: SUPPLY AVAILABILITY FOR URBAN WATER SUPPLIERS

June 14, 2016

Background

The Sonoma County Water Agency (Water System Number CA4910020) is required to provide information on the volume of water they expect to deliver in each of the next three years using the assumptions in the May 2016 Emergency Regulation adopted by the State Water Resources Control Board. The May 2016 Emergency Regulation replaces the state-developed urban water conservation standards with locally-developed conservation standards based upon each agency's specific circumstances. The regulation requires individual urban water suppliers to conduct a stress test and self-certify the level of available water supplies they have assuming three additional dry years, as well as the level of conservation necessary to assure adequate supply over that time. Urban water wholesalers are required to make projections about how much water they expect to deliver to retail water suppliers under the three-dry-years scenario, when the supply projection for the next three years is based on current supply conditions plus an assumed three-year hydrology mirroring the 2012-13, 2013-14, and 2014-15 water years.

Water System

The Sonoma County Water Agency (Water Agency) provides wholesale, potable water for approximately 600,000 people in Sonoma and Marin counties. The Water Agency relies on the Russian River and two federal water supply and flood control reservoirs in the Russian River watershed-- Lake Mendocino and Lake Sonoma-- for its primary water supplies. The Water Agency is the local sponsor for these reservoirs, which it operates in coordination with the U.S. Army Corps of Engineers. The Water Agency manages the water supply storage within Lake Mendocino and Lake Sonoma to optimize the water supply yields of these reservoirs and controls releases from the water supply pools of both reservoirs to maintain minimum required instream flows in the Russian River and Dry Creek and to meet the diversion demands of the Water Agency and other Russian River water users. When water levels rise up into the flood control pool, the U.S. Army Corps of Engineers assumes operational control and makes releases for flood control purposes until storage levels return to the water supply pool.

The Water Agency holds four water right permits for water supply purposes. Permit 12947A authorizes the collection to storage of water in Lake Mendocino and the direct diversion and re-diversion of water originating in the East Fork Russian River at its Wohler/Mirabel diversion facilities. Under Permit 12947A, the combined direct diversion and re-diversion rates are limited to an average monthly rate of 92 cubic feet per second (cfs) and to 37,544 acre-feet per year (AF/yr) and collection to storage is limited to 122,500 AF/yr. Permit 16596 authorizes the collection to storage of water in Lake Sonoma and the direct diversion and re-diversion of an average monthly rate up to 180 cfs from the Russian River at the Wohler/Mirabel diversion facilities. Under Permit 16596, the annual limit on collection to storage is 245,000 AF/yr. additionally, the Water Agency holds Permits 12949 and 12950 that authorize direct diversions of 20 and 60 cfs, respectively, at the Wohler/Mirabel diversion facilities. The combined amount of direct diversion and re-diversion authorized under the four permits is limited to no more than 180 cfs and 75,000 AF/yr.

Lake Mendocino relies on year-to-year rainfall and water diverted from the Eel River through PG&E's Potter Valley Hydroelectric Project to fill annually. Lake Mendocino is a key drinking water source for the cities of Ukiah, Hopland, Cloverdale, Geyserville and Healdsburg, along with agricultural water users in the upper Russian River and provides water to meet minimum instream flow requirements required under the Water Agency's water right permits. During dry conditions, water releases from Lake Mendocino supplement flows in the Russian River for the threatened Chinook salmon and steelhead trout during the fall and winter seasons.

Lake Sonoma is about three times larger than Lake Mendocino and provides multiple years of water supply. Lake Sonoma solely relies on rainfall within its watershed to fill and supports a dynamic and fragile ecosystem in Dry Creek that includes the endangered coho salmon and threatened steelhead trout. Lake Sonoma is a critical asset that serves as a reliable water source for the Water Agency's service area.

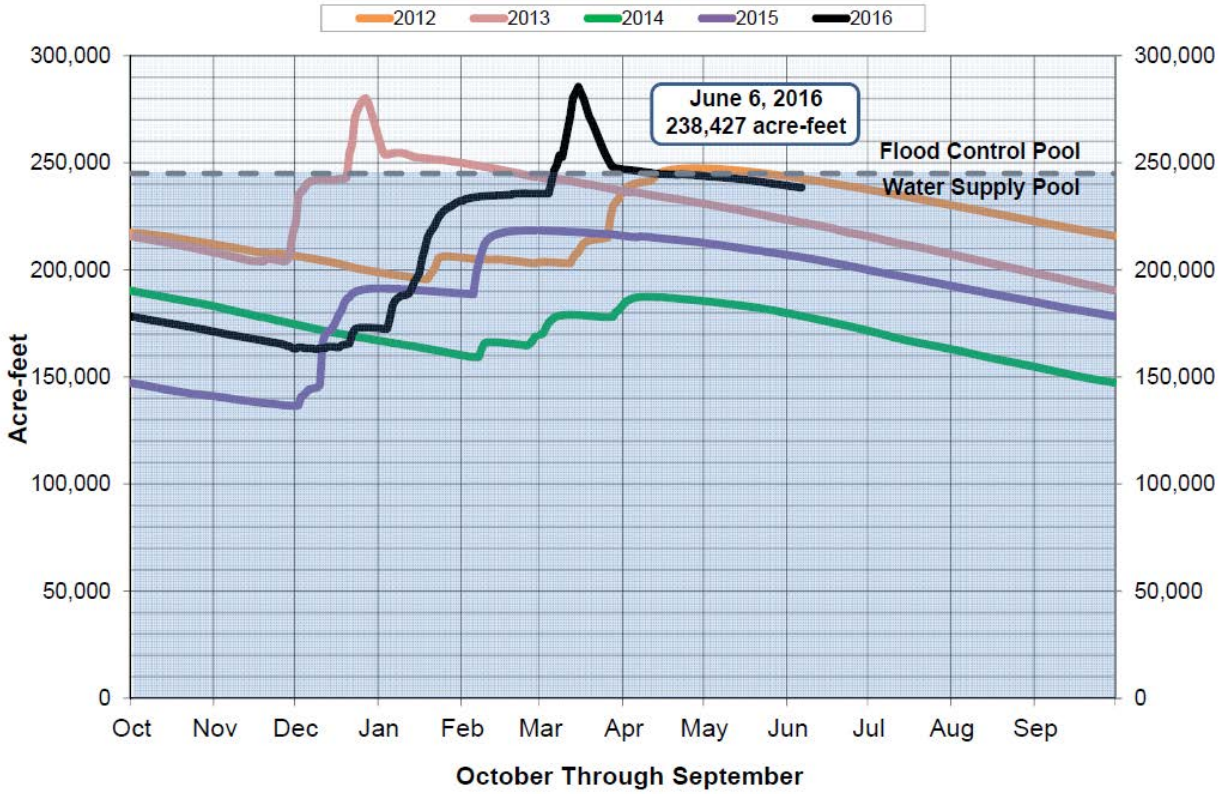
The Water Agency is the wholesale water provider to the following Urban Water Suppliers that are required to submit the Water Supply Reliability Certification and Data Submission Form: City of Petaluma, City of Rohnert Park, City of Santa Rosa, City of Sonoma, Town of Windsor, Marin Municipal Water District, North Marin Water District, and Valley of the Moon Water District.

Water Supply Availability

To determine the amount of water available for the upcoming water years (WY 2017, WY 2018 and WY 2019), the Water Agency decided to use WY 2012 as a reference point. The 2012 water supply conditions in Lake Sonoma closely resemble the current WY 2016 water supply conditions, which gives a strong indicator of the supplies that may be available in the coming

years assuming similar weather patterns. Chart 1 clearly demonstrates that Lake Sonoma current water supply levels align with the 2012 conditions.

Chart 1: Lake Sonoma Storage by Water Year



The Water Agency has estimated the projected water storage for Lake Sonoma for water years 2017, 2018, and 2019 by assuming hydrologic and demand conditions for water years 2013, 2014 and 2015 repeat. Table 1 below provides the reservoir levels at the start and the end of the three consecutive water years. As shown in Table 1, the Water Agency anticipates over 178,000 acre-feet (AF) of water at the end of Year 3, assuming the same precipitation that occurred during water years 2013, 2014 and 2015 would reoccur for upcoming water years 2017, 2018 and 2019. As of June 6, 2016 the water storage in Lake Sonoma exceeds the June 6, 2013 water storage by 24,317 AF. To ensure the most conservative estimate is provided to our Urban Water Suppliers, this additional water is not being taken into consideration for this analysis.

Table 1: Lake Sonoma Reservoir Storage Level

	Reference Year	***Start of Water Year Reservoir Storage (AF)***	***End of Water Year Reservoir Storage (AF)***
Estimated WY 2017	WY 2013	215,680	190,471
Estimated WY 2018	WY 2014	190,248	147,391
Estimated WY 2019	WY 2015	146,923	178,398

Based on water storage in Lake Sonoma, a total of 178,398 AF would remain at the end of water year 2019. Per the Water Agency's water rights permits and State Water Resources Control Board Decision 1610, a curtailment requirement will go into effect for all of the Water Agency retailers if Lake Sonoma has a storage level of 100,000 AF or less before July 15. This provides additional assurance that if the region were nearing a local drought emergency, a trigger is in place to automatically require a 30% conservation standard. As shown in Chart 1 and Table 1, Lake Sonoma never neared the 100,000 AF threshold during the water years 2013, 2014 and 2015 and therefore are not projected to initiate the curtailment requirement for water years 2017, 2018 and 2019. Table 2 demonstrates the total amount of water available at the end of each water year, while remaining above the 100,000 AF curtailment requirement, for the following Urban Water Suppliers: City of Petaluma, City of Rohnert Park, City of Santa Rosa, City of Sonoma, Town of Windsor, Marin Municipal Water District, North Marin Water District, and Valley of the Moon Water District.

Table 2: Water Agency Estimated Water Supply at End of Water Year

	Available Water Above the 100,000 AF Threshold (AF)
End of WY 2017	90,471
End of WY 2018	47,391
End of WY 2019	78,398

*Water Agency's water rights permit has an annual limit of 75,000 AF

Ongoing Commitment to Water Use Efficiency

The Water Agency and the local water retailers are committed to ensuring our region remains a leader in water use efficiency. The Water Agency's and its partners' work through the Sonoma-Marin Saving Water Partnership will continue regardless of a state conservation mandate being in effect and as a region we will continue to monitor local conditions to react in the most appropriate manner possible. The Water Agency will continue to coordinate with the water retailers and actively manage local water supplies to ensure beneficial use.