



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: June 29, 2021

TO: Mayor and Councilmembers

FROM: Water Resources Division, Public Works Department

SUBJECT: Water Supply Update And Adoption Of 2020 Enhanced Urban Water Management Plan, 2021 Water Shortage Contingency Plan, And Related Documents

RECOMMENDATION: That Council:

- A. Receive a water supply update; and
- B. Adopt and authorize the Public Works Director to transmit the City's 2020 Enhanced Urban Water Management Plan to the California Department of Water Resources, such adoption to include modifications as may be approved by the Public Works Director to ensure compliance with State UWMP requirements; and
- C. Adopt and authorize the Public Works Director to transmit the City's 2021 WSCP to the California Department of Water Resources, such adoption to include modifications as may be approved by the Public Works Director to ensure compliance with State WSCP requirements; and
- D. Adopt and authorize the Public Works Director to transmit an addendum to the City's 2015 UWMP to the California Department of Water Resources.

EXECUTIVE SUMMARY:

Statewide, drought conditions range from moderate to exceptional. Despite the locally dry winter and growing concern regarding drought conditions across the state, the City's water supply outlook through the fall of 2023 is positive as a result of its diverse water supply portfolio. Consistent production of desalinated water since 2017, coupled with average or above-average rainfall that filled Gibraltar Reservoir in 2017, 2019, and 2020, has helped the City meet its supply needs during the most recent drought and enabled the City to build up a reserve of water in Lake Cachuma. Based on these local water supply conditions, staff is recommending continuation of the City's current Stage One Water Supply Condition. Staff recommends Council consider increasing the City's drought stage in the spring of 2021, should the City experience another dry winter.

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An Urban Water Management Plan (UWMP) is a State-mandated report that summarizes the actions of water management agencies, with a planning horizon of 20 years. The City's 2020 Enhanced UWMP (EUWMP) is "enhanced" because it also includes and updates the City's Long Term Water Supply Plan, and new water supply management strategies and policies, including an Adaptive Management Plan. On May 25, 2021, Council held a public hearing review of the Public Draft of the City's 2020 EUWMP, the Public Draft of the City's 2021 Water Shortage Contingency Plan (WSCP), and the Public Draft addendum to the City's 2015 UWMP. The Public Draft 2020 EUWMP was edited to reflect the recommendations of the Water Commission prior to Council adoption. The adopted 2020 EUWMP must be submitted to the California Department of Water Resources by July 1, 2021.

DISCUSSION:

Water Supply Update

Lake Cachuma last spilled in 2011. From 2012 through 2016 and in 2018, the City experienced historic drought conditions, receiving significantly below average rainfall and depleting local surface water supplies in Lake Cachuma and Gibraltar Reservoir. Depleted surface water supplies were replaced with increased groundwater production, purchases of supplemental imported water, the reactivation of the Charles E. Meyer Desalination Plant (desal plant) in the spring of 2017, and extraordinary water conservation from the community. Above-average rainfall in 2017 and 2019, and average rainfall in 2020, filled Gibraltar and increased water storage in Lake Cachuma, thereby providing modest improvements to the City's surface water supplies.

As a result of the unprecedented drought, Council declared Stage One and Stage Two Drought Conditions on February 11, 2014, and May 20, 2014, respectively. On May 5, 2015, in response to the driest consecutive four-year period on record, Council declared a Stage Three Drought Emergency. The declaration was amended with the addition of conservation targets and water-use regulations in response to supply conditions. On April 19, 2019, with above-average rainfall and improved surface water storage in Gibraltar Reservoir and Lake Cachuma, Council rescinded the Stage Three Drought Emergency, and declared a Stage One Water Supply Condition. This declaration was to preserve water supplies for future dry years and to help the City's water supplies recover from the cumulative impacts of eight years of drought. The Stage One Water Supply Condition is still in effect.

Santa Barbara typically receives the majority of its rainfall between January and March. This year has been especially dry throughout the state, including in Santa Barbara, which has received 42 percent of normal rainfall. The U.S. Drought Monitor shows Santa Barbara County in an extreme drought based on precipitation, streamflow, and soil dryness. Statewide, drought conditions range from moderate to exceptional. Governor Gavin Newsom declared a drought state of emergency in May 2021 for the Counties located in the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watersheds. Dry conditions statewide have resulted in a five percent allocation on the State Water Project (SWP), meaning the City will only receive 165 acre-feet (AF) of its

3,300 AF SWP Table A entitlement this year. This year ties 2014 for the lowest SWP Table A entitlement, which was during the height of the last drought.

Despite the locally dry winter and growing concern regarding statewide drought conditions, the City’s water supply outlook through the fall of 2023 is positive as a result of its diverse water supply portfolio. Consistent production of desalinated water since 2017 has helped the City meet supply needs during the most recent drought and enabled the City to build up a reserve of water in Lake Cachuma. Additionally, average or above-average rainfall in 2017, 2019, and 2020, filled Gibraltar reservoir. This provided the City with over a third of the City’s annual water demand and allowed the City to store even more water in Cachuma. Currently, the City has nearly 24,000 AF of water stored in Lake Cachuma, which is sufficient to meet projected City demands for the next two and a half years with Cachuma supplies alone. In January 2021, in support of the Enhanced Urban Water Management Plan (EUWMP) project, Council voted unanimously to preserve the ability to store carryover water in Lake Cachuma, and to make desalination a regular City water supply in support of drought preparedness, response, and recovery. This policy decision has proven to be important for managing City water supplies, especially during a critically dry year.

The City’s water supply planning considers if there are sufficient water supplies to meet demands through the end of water year 2023 (fall 2023), assuming future dry conditions. The following is a status update of each City water supply, current to the writing of this report.

Status of Water Supply Sources	
Gibraltar Reservoir	Gibraltar last began spilling on March 20, 2020. Since then, 3,546 AF of water supply has been delivered from the reservoir - nearly a third of the City’s annual needs. Diversions from Gibraltar were stopped in mid-January 2021 and the reservoir is now empty (current storage of 457 AF), awaiting rains to refill it.
Groundwater	The City relies on groundwater more heavily during droughts, when surface water supplies are limited. In 2016, the City’s groundwater basins reached historically low levels, similar to 1992 (after the last major drought). The City has been “resting” its groundwater basins to let them recover. It could take 5-10 years before the basins are completely replenished, based on previous observation of water level and chloride data (caused by seawater intrusion) following the last major drought. Currently, water levels in the Foothill Groundwater Basin are roughly 65% to 80% of what they were in the early 2000’s after recovering from the previous major drought and prior to any pumping related to the current drought. Chloride levels in the Storage Unit No. 1 groundwater basin show a downward trend, but have not yet returned to pre-drought levels.
Cachuma Project	Lake Cachuma is currently 57% full, but is a shared resource with stored water belonging to other agencies, including downstream water rights. The City’s current storage in Lake Cachuma is nearly 24,000 acre-feet, roughly two and a half times the City’s total annual supply needs.
State Water	The 2021 annual water allocation from the SWP is 5%. The City’s current water debt is 2,000 acre-feet, resulting from critical supplemental water exchanges that were necessary during the most recent drought. This water debt must be paid back by December 31, 2026. The water debt will be paid back when the allocation on the State Water Project is sufficient to do so; or if necessary, water supplies will be purchased to resolve the City’s water debt.

Desal Plant	The City's Desal Plant has been operating since the summer of 2017, providing nearly one-third of the City's current water demands, and allowing the City to build up stored water in Lake Cachuma.
Recycled Water	The City's upgraded tertiary recycled water plant has been meeting customer demands without the need for significant augmentation from other sources (i.e. non-potable groundwater or potable water). Recycled water is used to irrigate large landscapes in the City. All recycled water used offsets the need for potable water for irrigation purposes.

Water conservation in the community continues to be strong, with the City's current 12-month running average conservation being 24 percent of pre-drought (2013) demands. During the last drought, many of our customers made permanent changes to conserve water, such as replacing their high water-using landscape with drought-tolerant landscape. As a result, City's water demands are not expected to fully "rebound" to pre-drought conditions. The City's 2020 EUWMP includes updated water demand projections that define a "new normal" post-drought water demand for the City, including the potential rebound from the most recent drought, as well as updated population and economic drivers on City water use. Currently, demands are tracking as projected in the 2020 EUWMP.

A new water year began on October 1, 2020. As with every new water year, the City's water supply planning charts were updated to reflect actual water used during the previous 2020 water year (October 1, 2019 – September 30, 2020), and the supply strategy was extended an additional year, through 2023, for drought planning purposes. Despite below average rainfall this winter and spring, the City's water demands can be met through 2023 using surplus water stored in Lake Cachuma, desalination, and recycled water. The City can continue to let its groundwater basins rest and recover, and only anticipates using State Water Project water in water year 2023, if dry conditions persist. Based on these local water supply conditions and consistent with the 2020 EUWMP, staff is recommending continuation of the City's current Stage One Water Supply Condition. Staff recommends Council consider increasing the City's drought stage in the spring of 2021, should the City experience another dry winter.

Enhanced Urban Water Management Plan and Water Shortage Contingency Plan

On May 25, 2021, Council held a public hearing review of the Public Draft of the City's 2020 Enhanced Urban Water Management Plan (EUWMP), the Public Draft of the City's 2021 Water Shortage Contingency Plan (WSCP), and the Public Draft addendum to the City's 2015 Urban Water Management Plan (UWMP). The Public Draft documents were posted on the City's website at www.SantaBarbaraCA.gov/watervision on May 3, 2021, for the State-required 14-day public review period, and key agencies were notified to give the opportunity to provide comments for consideration prior to preparation of the final draft plans. The public hearing was held on May 25, 2021 and no public comments were received. As of the date of drafting this report, no public comments have been received on the draft plans.

An UWMP is a State-mandated report that summarizes the actions of water management agencies, with a planning horizon of 20 years. The UWMP integrates local and regional

land use planning, regional water supply, infrastructure, and water conservation projects, as well as statewide issues of concern like climate change and regulatory revisions. An UWMP gathers, characterizes, and synthesizes water-related information from numerous sources into a plan with local, regional, and statewide practical utility. It provides elected officials, managers, and the public with a broad perspective on a number of water supply issues, including, but not limited to:

- Water use targets and water conservation
- Economic impacts
- Water supply during normal and drought conditions
- 2021-2025 Drought Risk Assessment
- Water shortage contingency planning
- Reduced California Delta reliance

The City's 2020 EUWMP and 2021 WSCP have been prepared pursuant to the requirements of the California Water Code (CWC), Section 10631. The City's 2020 EUWMP is "enhanced" because it also includes and update the City's Long Term Water Supply Plan, and new water supply management strategies and policies, including an Adaptive Management Plan. The 2020 EUWMP fulfills CWC requirements mandating certain reporting obligations, including specific water conservation targets. The 2020 EUWMP confirms a 2020 target for water use of 117 gallons per capita per day (GPCD), which the City has met. The 2020 EUWMP demonstrates the City's long-term water supply and demand balance through 2040 under normal, single-year, and multi-year drought conditions. The 2021 WSCP establishes a plan for responding to water shortages caused by drought conditions and/or catastrophic water supply emergency. In compliance with the Sacramento-San Joaquin Delta Reform Act of 2009 and Delta Plan Policy WR P1 (Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance), the City completed an analysis that demonstrated that the City is measurably reducing reliance on the Delta and improving regional self-reliance. The analysis is documented in Appendix D of the City's 2020 EUWMP and a new Appendix O to the City's 2015 UWMP.

Prior to the May 25, 2021, public hearing, the Water Commission also reviewed the Public Draft of the City's 2020 EUWMP, the Public Draft of the City's 2021 WSCP, and the Public Draft addendum to the City's 2015 UWMP and provided comments at their regular meeting on May 20, 2021. A recording of the presentation and discussion is available on the Water Commission website www.SantaBarbaraCA.gov/WC. The Water Commission recommended adoption of the 2020 EUWMP with two changes:

1. Change the title of the "Adaptive Implementation Plan" (described in Appendix C, 2021 Long Term Water Supply Plan, of the EUWMP) to "Adaptive Management Plan," and
2. Add a fourth water management policy to the three policies adopted by Council at the February 9, 2021, Council meeting, in which the City will update the long-term water supply analysis in the 2020 EUWMP if baseline conditions or key assumptions substantially change and affect the City's ability to make informed water resources decisions.

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The Public Draft 2020 EUWMP was edited to reflect the recommendations of the Water Commission prior to Council adoption, and those edits are included in the 2020 EUWMP Draft Final, which was released for public review on the City's website, www.SantaBarbaraCA.gov/watervision on June 4, 2021. A few other non-substantive edits were made to the Public Draft 2020 EUWMP to create the Draft Final, including the incorporation of State Water Project normal year projections provided by the Central Coast Water Authority into the analysis of the City's water supply during normal and drought conditions. These normal year projections were not significantly different from the projections included in the Public Draft 2020 EUWMP, and did not change the outcome of the analysis.

The following documents are available for review at www.SantaBarbaraCA.gov/watervision; Public Draft 2020 Enhanced Urban Water Management Plan, Public Draft 2021 Water Shortage Contingency Plan, Addendum to the 2015 UWMP.

The adopted 2020 EUWMP must be submitted to the California Department of Water Resources by July 1, 2021.

SUSTAINABILITY IMPACT AND ENVIRONMENTAL REVIEW:

Adoption of the EUWMP, Water Shortage Contingency Plan, and 2015 UWMP Addendum will allow for better management of the City's water supplies, and will provide sustainability benefits for the community. Such plans and policies are exempt from CEQA review.

PREPARED BY: Dakota Corey, Acting Water Supply and Services Manager/rb

SUBMITTED BY: Joshua Haggmark, Acting Public Works Director

APPROVED BY: City Administrator's Office