



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: May 25, 2021

TO: Mayor and Councilmembers

FROM: Water Resources Division, Public Works Department

SUBJECT: Enhanced Urban Water Management Plan And Water Shortage Contingency Public Hearing

RECOMMENDATION: That Council:

- A. Hold a Public Hearing to review the Public Draft of the City's 2020 Enhanced Urban Water Management Plan;
- B. Hold a Public Hearing to review the Public Draft of the City's 2021 Water Shortage Contingency Plan;
- C. Hold a Public Hearing to review the Public Draft addendum to the City's 2015 Urban Water Management Plan; and
- D. Confirm the City's adoption of and compliance with a 2020 water use target of 117 gallons per capita per day, per legislative requirements of the Water Conservation Act of 2009 (SBX7-7), determined in Section 5 of the Urban Water Management Plan.

EXECUTIVE SUMMARY:

The City's 2020 Enhanced Urban Water Management Plan (EUWMP) and 2021 Water Shortage Contingency Plan have been prepared pursuant to the requirements of the California Water Code (CWC), Section 10631. An Urban Water Management Plan (UWMP) is a State-mandated report that generally summarizes the actions of water management agencies, with a planning horizon of 20 years. The City's Urban Water Management is "enhanced" because it also includes updates to the City's Long Term Water Supply Plan, and new water supply management strategies and policies, including an Adaptive Implementation Plan. The 2020 EUWMP fulfills CWC requirements, mandating certain reporting obligations, including specific water conservation targets. The 2020 EUWMP confirms a 2020 target 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 Water Shortage Contingency Plan establishes a plan for responding to water shortages caused by drought conditions and/or catastrophic water supply emergency.

DISCUSSION:

An UWMP is a State-mandated report that summarizes the actions of water management agencies. 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. The California Water Code (Water Code) requires preparation of a plan that:

- Assesses water supply reliability over a 20-year period in five-year increments;
- Identifies and quantifies water supplies, including recycled water, for existing and future demands, in normal, single-dry, and multiple-dry years;
- Describes an agency's Water Shortage Contingency Plan; and
- Describes conservation program implementation and efficient use of urban water supplies.

In the past, the City's primary water supply management tool was its Long Term Water Supply Plan (LTWSP), which was previously updated in 2011 and served as the basis for the City's UWMP. UWMPs are required to be updated and re-adopted every five years, but can be updated or amended at any time. In February 2020, with the support of the Water Commission, Council approved preparation of an Enhanced Urban Water Management Plan (EUWMP), which aimed to update the water supply analyses, projections, and policies of the 2011 LTWSP, and meet the State-mandated requirements for the City's 2020 Urban Water Management Plan.

For more than a year, staff, supported by the consulting firm Water Systems Consulting (WSC) and guided by a robust public outreach and engagement process, have evaluated the City's existing and potential future water supply portfolios using a multi-faceted analytical process that considered the social, environmental, and financial impacts of the City's water supply policies and practices. In February 2021, Council adopted new water supply policies derived from the EUWMP analytical process, including:

1. Implementing EUWMP recommended actions for existing water supplies.
2. Executing the EUWMP Adaptive Implementation Plan.
3. Continuing ocean desalination as part of Santa Barbara's water supply portfolio to support drought preparedness, response, and recovery.

Since that time, staff and WSC have been developing a Public Draft EUWMP designed to fulfill Water Code requirements. The EUWMP is due to the California Department of Water Resources by July 1, 2021. It is anticipated that staff will bring the Final EUWMP to Council for adoption on June 29, 2021, after the incorporation of any comments from the public, Water Commission, or Council during the public review process. Key EUWMP findings are summarized below.

Water Supply and Demand Projections to 2050: UWMPs must provide water supply planning for a 20 year planning horizon. The EUWMP projects water demands and supplies out 30 years, to the year 2050 using population growth projections from the Regional Growth Forecast 2050 Santa Barbara County (Santa Barbara County Association of Governments 2019), and employment projections from California Employment Development Department for the Santa Maria-Santa Barbara Metropolitan Statistical Area. The demand projections were developed with support from the City's Community Development Department and presented to the Planning Commission in October 2020.

Water Use Targets and Water Conservation: As described in SBX7-7, also known as the Water Conservation Act of 2009, it is the intent of the California legislature to increase water use efficiency. The legislature set a goal of a 20 percent per capita reduction in urban water use statewide by 2020. Water suppliers must demonstrate in their 2020 UWMPs they have achieved the 2020 water use target as defined in their 2015 UWMP in compliance with SB X7-7. The City reduced its daily per capita water use in 2020 to 92 gallons per capita per day (GPCD), which was well below its 2020 target of 117 GPCD.

Economic Impacts: The Water Code requires that the City include discussion of economic impacts resulting from the required SBX7-7 water use targets. As discussed above, the City's projected water use is in compliance with the per capita water use targets. The model used to analyze the City's water conservation program quantifies both the demand reduction effects of different conservation measures as well as their cost. Therefore, the City's conservation program was selected based on its cost-effectiveness compared with the avoided cost of additional water supplies. Because the City's Water Conservation Strategic Plan meets or exceeds the conservation requirements of SBX7-7, the requirements are not expected to produce an economic impact.

Water Supply During Normal and Drought Conditions: The UWMP must analyze water supply availability under normal hydrology, single dry year, and multi-year drought periods. As a result of its diverse supply portfolio, the City has more than enough water supply to meet demands in normal hydrologic periods. A single dry year (such as 2016) has little effect on the availability of the City's Cachuma supplies, since the multi-year reservoir typically has storage available from previous years. The critical drought period for the City's water supply occurs when there are multiple consecutive years of below average rainfall. This is due to the hydrology of the Santa Ynez River; there is little or no inflow into Cachuma Reservoir until at least average rainfall occurs. When the condition of average or less rainfall continues for multiple years in succession, the storage level of Cachuma Reservoir drops and shortages in deliveries occur. Historical data indicates the critical drought period for the City was 2012 through 2016, when Cachuma saw the lowest average rainfall over five consecutive years since Bradbury Dam was constructed. The multi-year analysis indicates the City can meet demands over a five-year drought period, with reductions in demand of 20 percent in Year Five of the drought. During the recent extended drought, City customers achieved 40 percent conservation in 2016, which was Year 5 of the multiple year drought. Therefore, the City is confident customers can reduce water demand up to 20 percent in Year 5 of future multi-year droughts.

2021 – 2025 Drought Risk Assessment: Water Code Section 10635(b) is a new provision of the Water Code that requires a Drought Risk Assessment (DRA) for the upcoming five years (2021 to 2025) based on the five driest years on record. Results of the City's DRA indicate the City would still have supplies available at the end of a five-year drought that begins in 2021. This analysis contrasts with the City's need to implement extraordinary conservation measures during the most recent drought because the City had not yet activated desalination, which adds a drought-proof annual supply and allows the City to accumulate carryover storage in Cachuma. The City did not have Cachuma carryover storage at the beginning of the last drought because Lake Cachuma spilled in 2011, which resulted in all carryover storage being lost. Furthermore, desalination was not brought online until 2017.

Water Shortage Contingency Planning: The Water Shortage Contingency Plan (WSCP) is a detailed plan for how the City intends to respond to foreseeable and unforeseeable water shortages. A water shortage occurs when the water supply is reduced to a level that cannot support typical demand at any given time. The WSCP is used to provide guidance to the City's elected officials, staff, and the public by identifying response actions to allow for efficient management of any water shortage with predictability and accountability. The WSCP provides the tools to maintain reliable supplies and reduce the impacts of supply interruptions due to extended drought or catastrophic supply interruptions. The 2021 WSCP is a stand-alone document that will be adopted separately from the EUWMP and can be modified as needed.

Reduced Delta Reliance Reporting: 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.

The Public Draft 2020 EUWMP, Water Shortage Contingency Plan, and 2015 UWMP Addendum regarding Delta reliance 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 drafts. Staff provided an update to Water Commission on the EUWMP, Water Shortage Contingency Plan, and the 2015 UWMP Addendum at the regular Water Commission meeting May 20, 2021. Comments received from the Water Commission, Council, and the public will be incorporated into Final EUWMP, Water Shortage Contingency Plan, and 2015 UWMP Addendum, which will be brought to Council for adoption June 29, 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.

The Public Draft Enhanced Urban Water Management Plan was presented to the Water Commission on May 20, 2021 at its regular meeting. A recording of the presentation is available on the Water Commission website, www.SantaBarbaraCA.gov/WC.

ATTACHMENTS: The following attachments are available for review at www.SantaBarbaraCA.gov/watervision

1. Public Draft 2020 Enhanced Urban Water Management Plan
2. Public Draft 2021 Water Shortage Contingency Plan
3. Addendum to the 2015 UWMP

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APPROVED BY: City Administrator's Office