

FINAL
February 4, 2025

City of Santa Barbara
Water Supply Management Report
2023-2024 Water Year

Prepared by Water Resources Division, Public Works Department





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2024 Water Year (October 1, 2023 – September 30, 2024)

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INTRODUCTION

The City of Santa Barbara operates the water utility to provide water for its citizens, certain out-of-City areas, and visitors. Santa Barbara has an arid climate, so providing an adequate water supply requires careful management of water resources. The City has a diverse water supply portfolio, including local reservoirs (Lake Cachuma and Gibraltar Reservoir), groundwater, State Water Project water, desalination, and recycled water. The City also considers water conservation an important tool for balancing water supply and demand. The City's Enhanced Urban Water Management Plan (EUWMP) was adopted by City Council on June 29, 2021. The EUWMP details the City's water supply and management strategy for the next 30 years.

This annual report summarizes the following information:

- The status of water supplies at the end of the water year (WY) (September 30, 2024)
- Water supply outlook
- Water conservation and demand
- Major capital projects that affect the City's ability to provide safe clean water
- Significant issues that affect the security and reliability of the City's water supplies

Appendix A provides supplemental detail. Additional information about the City's water supply can be found on-line at: www.SantaBarbaraCA.gov/Water.

WATER SUPPLIES

The City has one of the most diverse water supply portfolios in the state, including local surface water; local groundwater (which includes water that seeps into Mission Tunnel); State Water Project (SWP) water; desalinated seawater; and recycled water. Typically, most of the City's demand is met by local surface water reservoirs, desalination, and recycled water, and is augmented as necessary by local groundwater and SWP water.

The City's local surface water comes from Gibraltar Reservoir and Lake Cachuma, both located in the upper Santa Ynez River watershed. The inflow to these reservoirs is rainwater, so rainfall data for Gibraltar Reservoir has important water supply management implications. Figure 1 shows rainfall for the past ten years as compared to the 50-year average. Figure 2 provides additional historic rainfall information by showing 50 years of rainfall data, 50-year average rainfall, and 10-year average rainfall. Rainfall in the Santa Ynez River watershed during WY 2024, as measured at Gibraltar, was 162% of the 50-year rainfall average, with most of the rain falling during large storms in January, February, and March. Runoff generated by average rainfall is generally enough to fill Gibraltar; however, it typically takes above-average rainfall to produce any significant inflow to Cachuma.

Figure 1. 10-Year Rainfall History at Gibraltar Reservoir

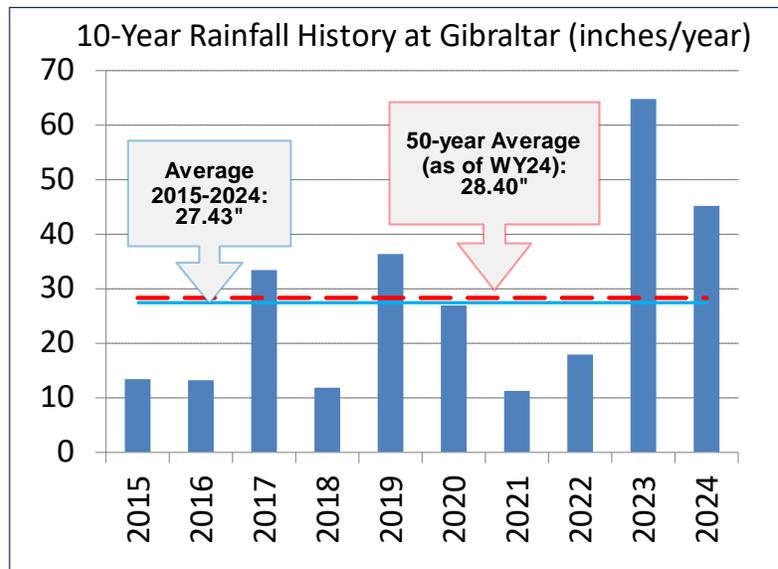
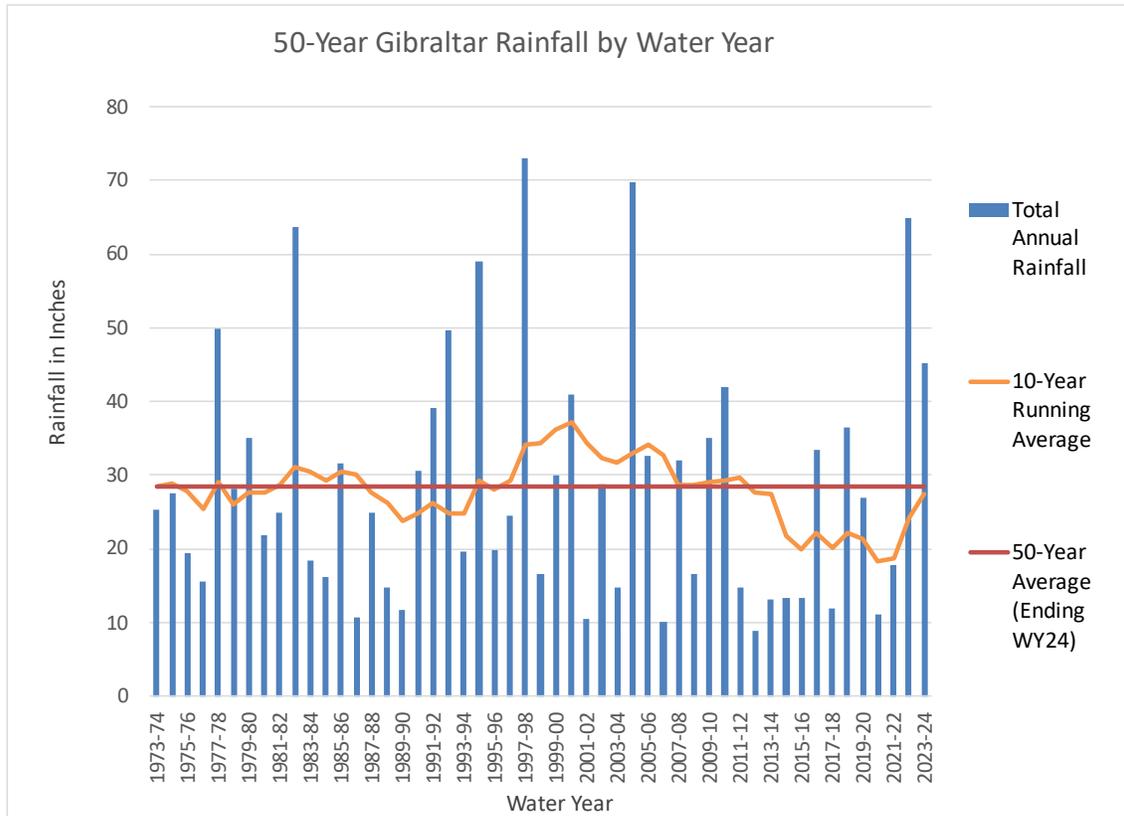


Figure 2. 50-Year Gibraltar Rainfall by Water Year



To enhance rainfall, the City has historically participated in the cloud-seeding program administered by the County of Santa Barbara. Cloud seeding was not needed in fiscal year 2024 due to winter rains. The City does not plan to participate in cloud seeding during fiscal year 2025 because enhanced rainfall could result in Cachuma spilling again and the loss of Member Units' stored carryover water.

Table 1. Summarizes the status of the City’s water supplies at end of WY 2024.

<p>The Water Year runs from October 1 through September 30. All data is as of September 30, 2024. Total WY 2024 water production was 11,619 AF.</p>	
Lake Cachuma	<p>Total Capacity: 192,978 AF (2021 capacity revision surcharged to 753 feet spill elevation for fish release water) End of Year Storage: 180,594 AF (94% of total capacity)</p> <p>The City received a 100% allocation (8,277 AF) of its annual Cachuma Project’s entitlement. Bradbury dam spilled February 1, 2024, and the City lost ~6,900 AF of stored carryover water. Spill conditions remained through June 21, 2024. Cachuma supply to the City was 2,434 AF and included 900 AF of “free” water used during surplus conditions, which does not subtract from the City’s Cachuma allocation. As of October 1, 2024, the City has 8,402 AF of carryover water and received a 100% Allocation for WY 2025, for a total of 16,679 AF stored in Cachuma.</p>
Gibraltar Reservoir/Devil’s Canyon	<p>Total Capacity: 4,490 AF (September 2024 survey) End of Year Storage: 2,243 AF (50% of Total Capacity)</p> <p>Gibraltar Reservoir spilled December 27, 2023, and spill conditions remained until June 31, 2024. Total deliveries from Gibraltar and Devil’s Canyon Creek were 3,854 AF. The projected long-term average supply from Gibraltar is 4,330 AF under Pass Through Operations¹.</p>
Mission Tunnel	<p>Groundwater in Mission Tunnel is an important City water supply. Mission Tunnel provided 1,871 AF, about 161% of the long-term average of 1,125 AFY².</p>
Ground-water	<p>The City conjunctively manages its groundwater with its surface water supplies, providing for groundwater replenishment during wet years. Groundwater was pumped as part of the San Roque Well Aquifer Storage and Recovery Pilot Project for a total of 62 AF. The City monitors water levels and seawater intrusion; the groundwater levels in the Foothill Basin are showing signs of recovery and are back to early 1990s levels.</p>
State Water Project	<p>The City has a 3,300 AF “Table A” allotment, subject to availability. WY 2024 State Water Project (SWP) allocation was 40%, 1,320 AF for the City. The City did not use any SWP for City usage in WY 2024 but did exchange 422 AF with Santa Ynez River Water Conservation District, Improvement District No. 1 (ID#1) pursuant to the Exchange Agreement.</p>

¹ Stetson, 2013. *Hydrologic Analysis of the Pass Through Operations at Gibraltar Reservoir*. Prepared for the City of Santa Barbara. July 2013.

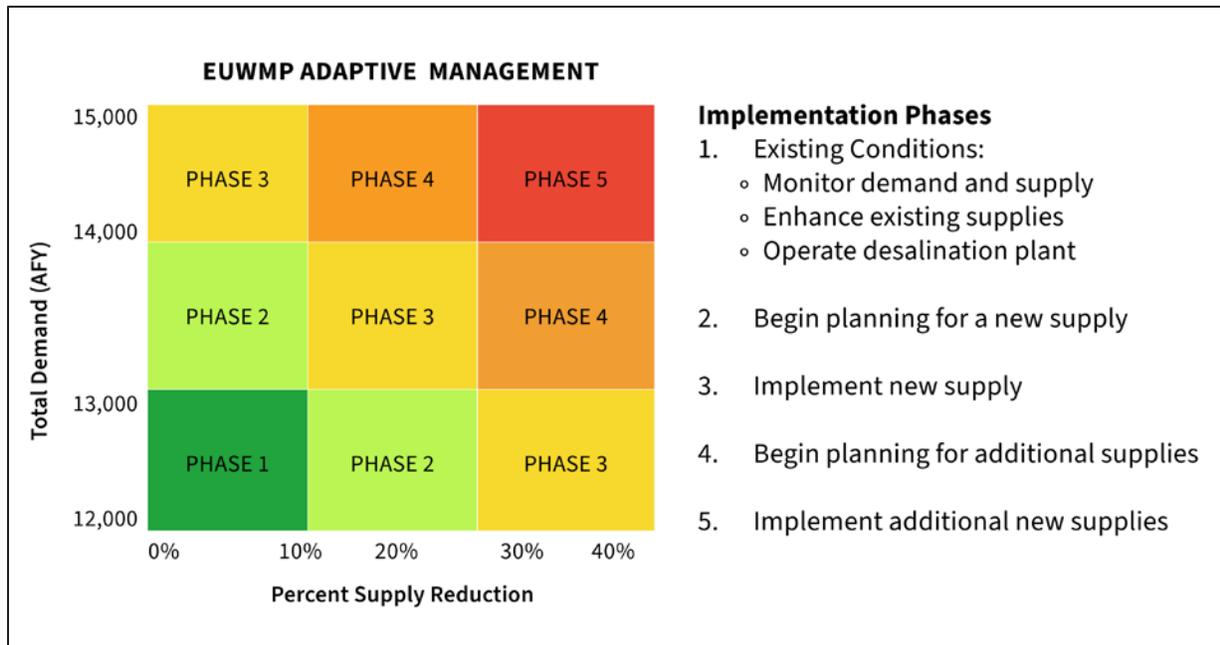
² SWRCB et al., 2011. *Final Environmental Impact Report for the Cachuma Project Water Rights Hearings*. Prepared for the State Water Resources Control Board. December 2011.

Desal	The desalination plant was reactivated in May 2017 and serves as a drought preparedness, response, and recovery supply for the City. It produced and delivered 2,436 AF of water to the City’s distribution system in WY 2024, allowing the City to use less water from Lake Cachuma and store it as carryover water in preparation for the next dry period.
Recycled Water	The City’s recycled water system serves parks, schools, golf courses, other large, landscaped areas, and some public restrooms. Demand from the system was 962 AF, or 8% of total water demand, including 267 AF of process water at El Estero Water Resource Center (El Estero). The recycled system demands were supplemented with 25 AF of potable blend water.

MONITORING WATER SUPPLY AND DEMAND

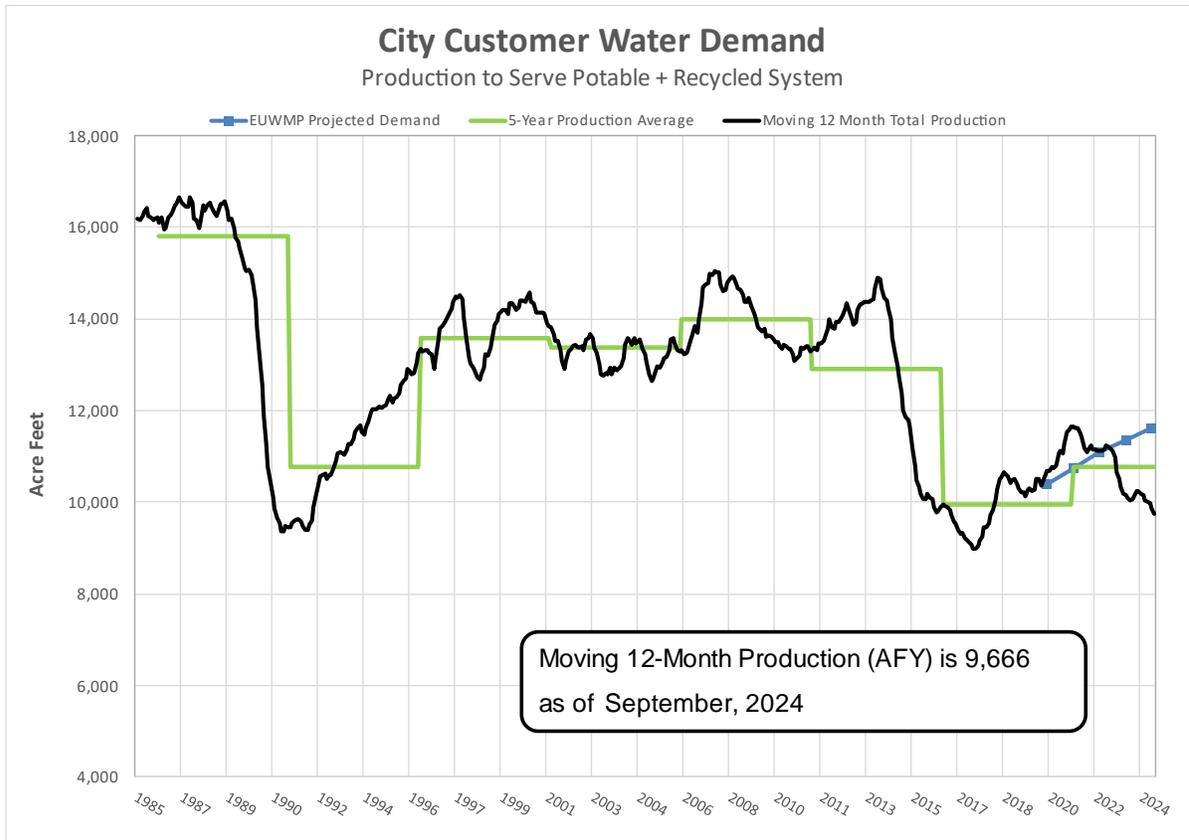
In June 2021, City Council adopted the 2020 Enhanced Urban Water Management Plan (EUWMP). The EUWMP evaluates the City’s water supplies for adequacy and reliability and provides a long-term view of the City’s water supply management strategy for the next 30 years. Analysis of the City’s current water supply portfolio suggests the City currently has adequate supplies to meet demands, even under reduced supply scenarios, except during extended periods of drought when supplementary supplies or extraordinary conservation are needed. A triple-bottom line analysis was performed to measure the performance of a diverse range of possible future water supply portfolios against social, environmental, and financial criteria. Results of this analysis indicate that expanding the City’s Charles E. Meyer Desalination facility from a production capacity of 3,125 acre-feet per year (AFY) to 5,000 AFY is the City’s best performing new supply when balancing social, environmental, and financial criteria as part of an adaptive water management approach. The timing for expanding the desalination plant will depend on the pace of demand growth and the ongoing availability and reliability of existing supplies. The EUWMP outlines an Adaptive Implementation Plan (Figure 3) that prioritizes water conservation, leverages the City’s current supplies, and identifies supply and demand triggers and corresponding next steps to guide the City in adapting to future changes in water supply and demand conditions. Total production for WY 2024 was 11,619 AF, which includes water produced to meet all water obligations, and most closely aligns with Phase 1. The City used 9,933 acre-feet (AF) of water for City customer demands in WY 2024, including 962 AF of recycled water. In addition, per the water sales agreement between the City and Montecito Water District the City sold 1,393 AF of water, recharged 41 AF of groundwater, and provided 227 AF of water to Goleta Water District as part of the overlap agreements with neighboring water districts. Staff is monitoring supplies and demands and will notify Water Commission and City Council when it is time to move into Phase 2 and start planning for a new supply.

Figure 3. Adaptive Management Plan



City customer water demand has historically been measured by total water production, which is the total amount of supply from all sources needed to serve customer demands on the potable and recycled distribution systems. Figure 4 illustrates historical demands based on total water supply produced, including recycled water, to meet city customer demand. Future demand projections from the EUWMP are shown in blue. Five-year average production values are shown in orange. Total water production for City customers was 9,666 AF for 2024 (excluding 1,686 AF for non-City customer demand and 267 AF of water produced for El Estero's process demands).

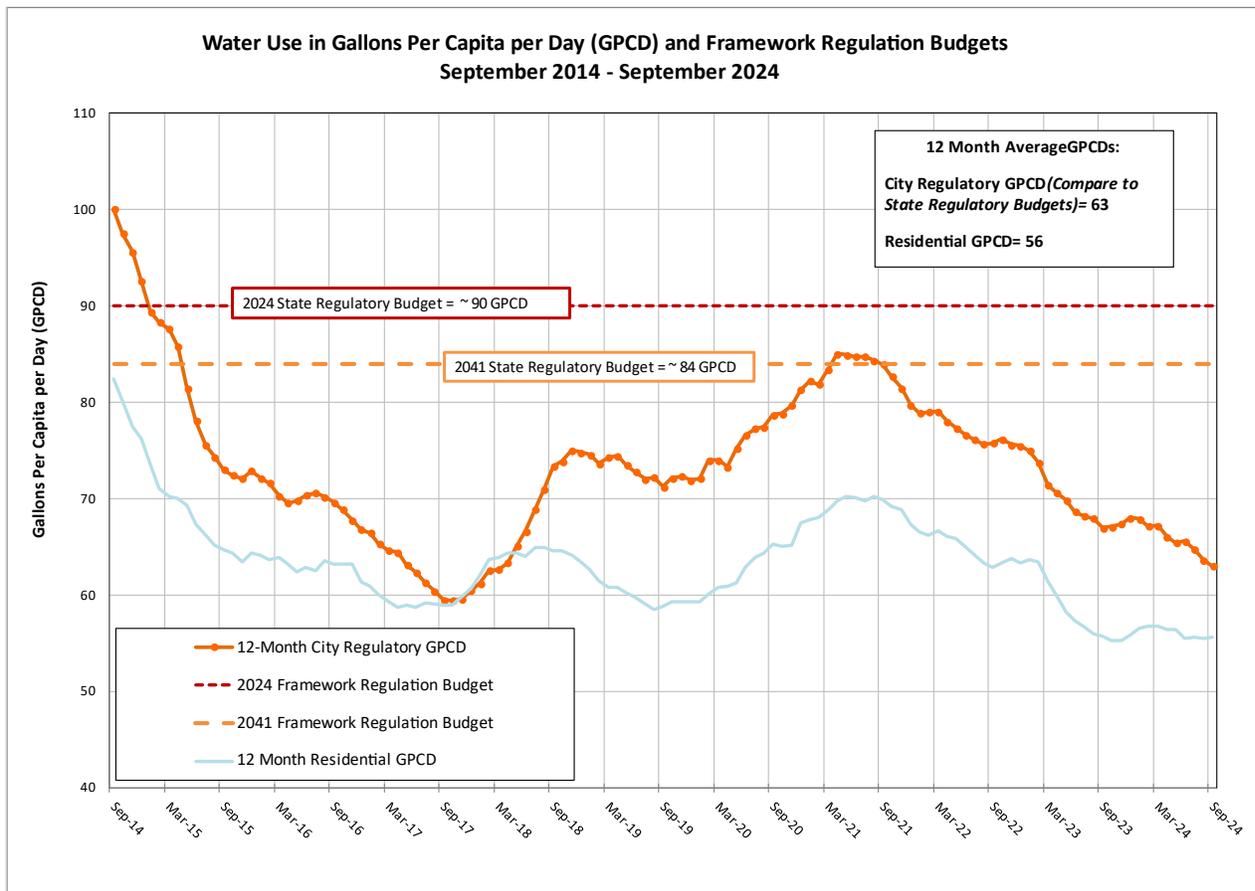
Figure 4.



Senate Bill 606 (SB 606) and Assembly Bill 1668 (AB 1668) were signed into law in 2018. SB 606 and AB 1668, also known as the Long-term Framework, are intended to “Make Water Conservation a California Way of Life” by introducing a water budget-based approach to urban water conservation. The Long-term Framework (Framework) sets water use standards for urban water providers in four components: 1) indoor residential water use, 2) outdoor residential water use, 3) non-residential irrigation meter use, and 4) a water loss standard for the supplier’s water system. These water use standards are added together to calculate each urban water provider’s total water use budget. The standards grow more stringent incrementally until 2041. The State Water Resources Control Board (State Board) adopted the Framework Regulation on July 3, 2024. The City calculates its water production subject to the Framework Regulation monthly as the “City Regulatory GPCD” as shown in Figure 5. Figure 5 also includes the current Framework Regulation budget, the 2041 Framework Regulation budget, and a 12-month residential GPCD. The average Framework Regulation GPCD was 63, while the average residential GPCD was 56 for WY 2024.

In both Figure 4 and Figure 5, demands show a decline beginning in 2014 in response to the Stage 2 and 3 drought conditions that instituted mandatory reductions of water use. There was a slight rebound in demand from 2017 to 2022, then GPCD and system production decreased over the course of WY 2023 and WY 2024, as heavy winter rains reduced irrigation demand for all customers.

Figure 5.



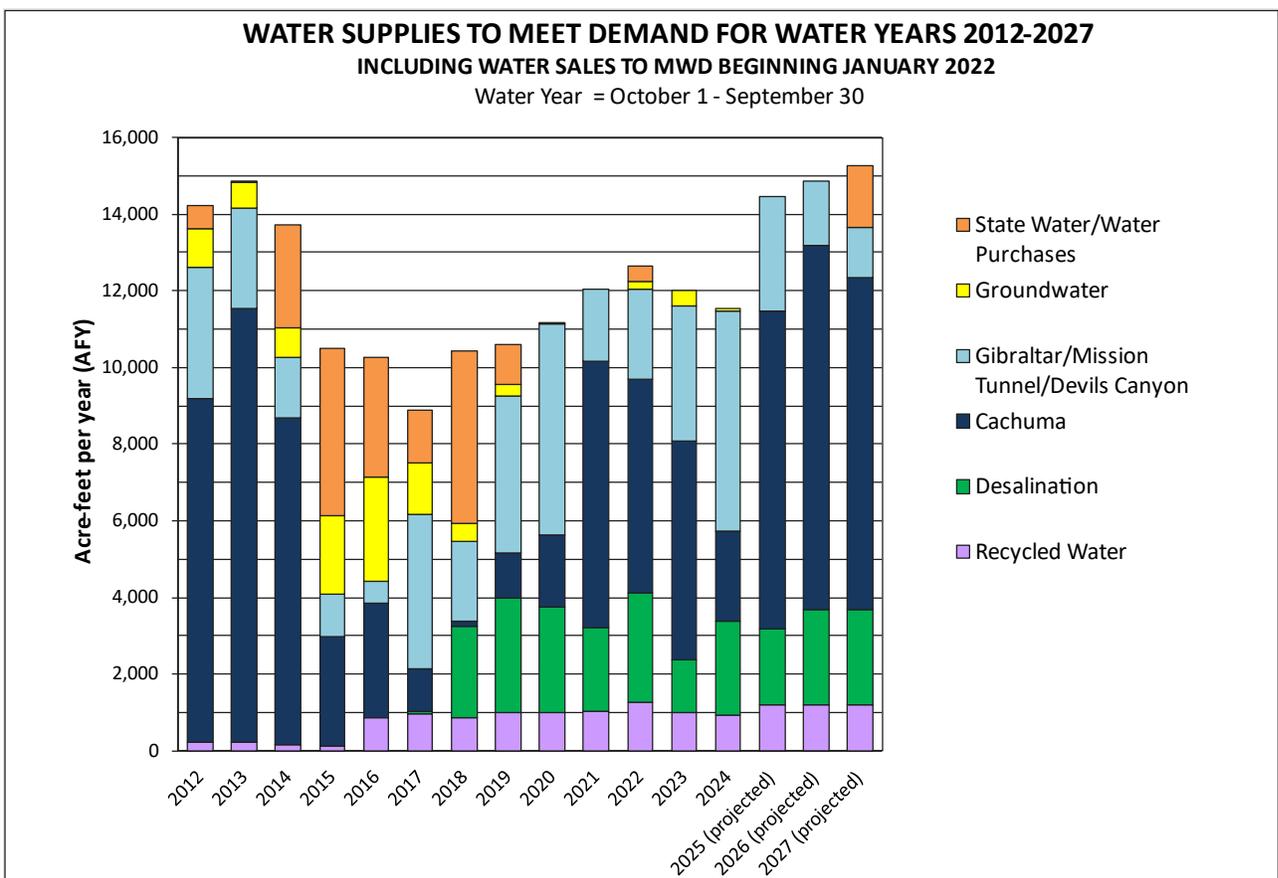
WATER SUPPLY OUTLOOK

WY 2024 included an above average wet winter with total rainfall at Gibraltar Reservoir of 42.7 inches, 162 percent of an average water year. The City’s local surface water supplies, Lake Cachuma and Gibraltar Reservoir, both filled this winter. Heavy January and February rains in 2024 replenished Lake Cachuma to its maximum storage capacity of over 193,000 AF, with Bradbury dam spilling on February 1, 2024. The City lost approximately 6,900 AF of stored carryover water when the dam spilled but did enter surplus conditions through June 21, 2024. In surplus conditions, all Cachuma water used by Cachuma Member Units is not counted against their current year allocation, and the City utilized 900 AF of “free” surplus water. Cachuma storage was at 94% of capacity (180,594 AF) at the end of WY 2024. The U.S. Bureau of Reclamation (Reclamation) determines the Member Unit’s allocation for the upcoming water year. Reclamation granted the City a 100% allocation for WY 2025. Gibraltar reservoir began spilling December 27, 2023, and ended June 25, 2024. In August and September, the City released 613 AF to downstream users as per the Gin Chow Agreement. Gibraltar ended WY 2024 at 48% of capacity with 2,243 AF of storage. Gibraltar Reservoir (including Devil’s Canyon Creek) supplied approximately 33%, or 3,854 AF, of the City’s water supply in WY 2024.

Figure 6 shows the current water supply strategy over a 16-year period. The first thirteen years reflect actual water supply, and the last three years reflect projected water supply assuming drought conditions. Updates to the City’s water supply planning strategy are conservative. Under the planning scenario, there is little to no rainfall assumed for three years, resulting in no inflows into Lake Cachuma. A 100 percent Cachuma allocation is assumed for WY 2025

and 80 percent allocation is assumed for WY 2026 and WY 2027. A minimal amount of inflow – resulting in 1,500 AF of water supply in WY 2026 and WY 2027 – is assumed for Gibraltar Reservoir, since even below average rainfall can result in available Gibraltar supplies. At Mission Tunnel, decreasing amounts of infiltration are assumed, with 1,200 AF in WY 2025, 900 AF in WY 2026 and 600 AF in WY 2027. The planning scenario also assumes that there are drought conditions statewide, which reduce the SWP water allocation to 25 percent in WY 2025 through WY 2027. The analysis assumes the desalination plant is operated continuously through WY 2027 at an 80 percent production rate (2,500 AF). This conservative planning approach allows staff to evaluate if the City has sufficient water to meet demands under three years of extreme drought. The supply strategy reflects the management policies adopted in the 2020 EUWMP. The 2020 EUWMP addresses a new “historical drought of record” based on hydrological conditions from the most recent drought (2012-2019), with three additional drought years added to create a 10-year record drought.

Figure 6. Current Drought Water Supply Strategy



CITY WATER CONSERVATION PROGRAM

In accordance with the EUWMP and the Water Conservation Strategic Plan, the Water Conservation Program is operated to minimize the use of potable water supplies, implement the best management practices of the U.S. Bureau of Reclamation, and achieve compliance with State-mandated water conservation targets. Water conservation measures are evaluated for cost effectiveness based on the avoided cost of additional water supplies. Highlights of the City’s Water Conservation Program include the following activities:

- WaterSmart Customer Portal: As part of the Automated Metering Infrastructure (AMI) project, the City launched the customer-facing water use and billing portal WaterSmart

in March 2024. Through WaterSmart, customers can monitor water usage by the hour, day, and month; receive automated leak alerts; pinpoint reasons behind a high bill; customize alerts for unusual water use; and sign up for autopay and paperless billing. As of September 30, 2024, there were 13,379 accounts registered, 43 percent of total utility accounts.

- **Conservation Phone Line and Emails:** Customer service is provided to customers to analyze water use patterns, investigate high water use, troubleshoot leaks, provide recommendations for water efficiency, explain rate structure, participate in rebate programs, and get WaterSmart support. Since the rollout of WaterSmart in March 2024, the way staff interacts with customers has shifted to provide more online tools, water use information, and customer self-service through WaterSmart. Prior to AMI and WaterSmart, staff would conduct dozens of Water Checkups each month at homes and businesses and report the number of Water Checkups each water year to encapsulate the level of water conservation customer support provided by the City. One of the goals of implementing WaterSmart was to empower customers to analyze their water use and alert them to unusual spikes in use or continuous use to prevent high bills. By equipping customers with early detection and 24/7 access to water use information, staff has been able to transition to a supportive role offering guidance over the phone and through email versus in-person appointments. Moving forward, staff will be reporting on the number of automated leak alerts generated, number of water conservation related phone conversations with customers, and the number of conservation email messages exchanged with customers. In WY 2024 there were 18,460 automated leak alerts sent via email, mail, or text. In WY 2024 there were 2,397 phone calls and 1,101 email/WaterSmart messages with customers.
- **Marketing and Outreach:** Implementation of regional outreach through the Countywide Regional Water Efficiency Program. Highlights from WY 2024 include: the 2024 WaterWise Garden Contest, countywide advertising about landscape transformations and irrigation repairs, WaterSmart portal enrollment outreach, Water Affordability Study participation, and new Garden Wise TV show episodes.
- **Water Education Program:** Free take-home water efficiency kits and musical assemblies to highlight where the City's water comes from and how to conserve it. 1,661 students participated in WY 2024.
- **Rebate Program Participation:** There were 44 high efficiency washing machine rebates, 66 mulch delivery rebates, 9 irrigation efficiency rebates, 5 Sustainable Lawn Replacement rebates, and 119 Flume device rebates in WY 2024.

CAPITAL PROJECTS

Staff continues work on a number of projects to improve the reliability and maintain quality of City water supplies:

- **Desal Product Water Pump Station:** This pump station is being upgraded so desalinated water can be pumped to the Cater Water Treatment Plant via the newly constructed Conveyance Pipeline and repurposed existing transmission mains. Onsite construction has commenced, and the pump station is scheduled to start up in the summer of 2025. Piping modifications at Cater will also be needed as the final step to

convey desalinated water into Cater's finished water reservoir. These modifications are in the design phase. The project will provide the ability to convey desalinated water City-wide and to other South Coast water agencies.

- **Alameda Well Water Line:** The Alameda Well Waterline Project consisted of constructing a new waterline to convey groundwater from the Alameda Groundwater Well to the Ortega Groundwater Treatment Plant for treatment, which will improve water quality and supply reliability for the City of Santa Barbara. This project was completed in May 2024.
- **Aquifer Storage and Recovery Project:** In August 2021 the State Water Resources Control Board approved pilot testing of the City's Aquifer Storage and Recovery (ASR) Project. The ASR project consists of injecting potable drinking water into the Foothill Groundwater Basin through the San Roque Well to replenish the aquifer and store water in wet years and recover the water from the basin in drier years. After completing well repairs in 2022, the three pilot phases of injection, storage, and recovery were conducted in spring 2023 through spring 2024. The third phase of the pilot successfully injected 41 AF of water with no observed changes to groundwater quality at the well site or surrounding monitoring wells. Staff will seek long-term injection permitting of the well, with injection capability of about 450 AF per year.
- **AMI:** The City is working to enhance customer service offerings by implementing Automated Metering Infrastructure (AMI). AMI is a system of meters, communication networks, and software that transfers water usage information and service alerts over a secure, wireless network to a central database. This information will be used to prepare water bills, analyze water usage trends, provide customers with hourly water usage information, and notify customers of potential leaks. Set up of the AMI network and installation of AMI radios on customer meters was completed in July 2023. The final phase of AMI implementation was launching the customer portal, WaterSmart. Through WaterSmart, customers can receive leak alert emails, view their hourly water usage information, and view and pay their City utility bill online. WaterSmart became available to all City utility customers in March 2024.

WATER SUPPLY ISSUES

There are a number of significant issues related to the City's water supplies, which are discussed briefly below.

Cachuma Project State Water Rights Order. The U.S. Bureau of Reclamation (Reclamation) operates the Cachuma Project pursuant to a water rights permit issued by the State Water Resources Control Board (SWRCB). The project provides water to the City of Santa Barbara, Carpinteria Valley Water District, Goleta Water District, Montecito Water District, and Santa Ynez River Water Conservation District, Improvement District No. 1 (often referred to collectively as the Cachuma Member Units). The first water rights permit for the Cachuma Project was issued in 1958. On September 17, 2019, the SWRCB adopted an order for a new water rights permit for the Cachuma Project. The current permit is the culmination of nearly 20 years of legal proceedings to protect water rights holders and address long-term declines in native Southern California steelhead populations in the Lower Santa Ynez River (downstream of Lake Cachuma's Bradbury Dam). The new order requires higher downstream flows during wet years, which will reduce available storage in Lake Cachuma going into normal and dry years and a reduction in supplies available to Cachuma Member Units, including the City. The order also requires multiple operating plans from

Reclamation. The Cachuma Conservation Release Board (CCRB) and the Cachuma Operations and Maintenance Board (COMB), both of which the City is a member, are providing technical assistance to Reclamation in the development of these plans. In WY 2024, both CCRB's and COMB's efforts continued to focused on the Term 18 and Term 19 plans, which, respectively, identify how Reclamation will comply with multiple flow targets imposed in the water rights permit, and require Reclamation to study the effectiveness of the newly imposed higher wet-year flows on enhancing steelhead and its habitat downstream of Bradbury dam. Both CCRB and COMB have observed that Reclamation is making much bigger releases than required by the water rights order, and are working with Reclamation staff to encourage them to reduce the releases to more closely meet target downstream flows, while still protecting fish.

Cachuma Project Biological Opinion: In 2000, a Biological Opinion (BO) was issued by the National Marine Fisheries Service (NMFS) for Reclamation's operation and maintenance of Bradbury Dam (the Cachuma Project). NMFS is the federal agency that oversees protection of Southern California steelhead, which was federally listed as endangered in 1997. The BO addresses the effects of the Cachuma Project's operations on steelhead and its designated critical habitat in accordance with Section 7 of the Endangered Species Act of 1973. Reclamation, in cooperation with the Cachuma Project Member Units, submitted a new Biological Assessment (BA) in 2013, which included proposed revisions to the Project operations to improve habitat conditions for steelhead while still maintaining water supplies. In 2016, NMFS issued a draft BO, for which the BA served as a basis document. Reclamation could not accept aspects of NMFS's draft BO and submitted a new proposed operating plan and supporting BA in 2019. After additional exchange between the two federal agencies, Reclamation submitted a revised BA in December 2020 that incorporates the operating requirements of the 2019 Water Rights Order. CCRB is currently assisting Reclamation in responding to NMFS's input and requests for additional information regarding the revised BA. When this revised BA is finalized, NMFS will use it to produce a new Biological Opinion that governs Cachuma Project operations. The desired outcome of this BO process is a non-jeopardy determination for steelhead by NMFS. Similar to the State water rights decision, the new BO is important because it could affect Cachuma Project operations and the amount of water supply available to the City and other Cachuma members.

Cachuma Contract 2020: Since the construction of the Cachuma Project, the Santa Barbara County Water Agency (SBCWA) has been the nominal contractor with Reclamation. The SBCWA was formed in 1945 by the State Legislature to facilitate development of the Cachuma Project and to provide a water supply to the City of Santa Barbara, Carpinteria Valley Water District, Goleta Water District, Montecito Water District, Summerland Water District³, and Santa Ynez Water Conservation District Improvement District No. 1. The City and these districts are collectively known as the "Cachuma Member Units." The SBCWA Act (Act), which created the SBCWA and specifies its powers, designates the County Board of Supervisors as the legislative body of the agency. The SBCWA's authority is limited by the Act to supplying water to the Cachuma Member Units.

In 1949, the SBCWA entered into a long-term agreement with Reclamation for the development of the Cachuma Project and supplying water to the Cachuma Member Units (the Original Master Contract). Concurrently with the execution of the Original Master

³ Summerland Water District was subsequently merged into the Montecito Water District.

Contract, the SBCWA executed essentially identical water supply agreements with each of the Cachuma Member Units.

In the mid-1990s, the SBCWA, on behalf of the Cachuma Member Units, requested renewal of the Original Master Contract. The renewed Master Contract was entered into by the SBCWA “acting as agent of the Cachuma Member Units” in 1996 and was set to expire on September 30, 2020. The Cachuma Member Units are the beneficiaries of the water supplied by the Cachuma Project. They are responsible for paying for all Project costs and paid off the capital component of the Cachuma Project in 2015.

On May 2, 2017, the Santa Barbara County Board of Supervisors authorized its staff to initiate renewal of the Cachuma Contract with Reclamation. Reclamation has stated that they generally conduct the contract renewal process only with the direct contractor, SBCWA. However, given the unique connection that the Master Contract has with the Cachuma Member Units (e.g. Member Units are water recipients and are responsible for the associated payments to Reclamation), Reclamation determined it was appropriate for Cachuma Member Units to participate alongside the SBCWA in the technical and negotiation sessions for the contract renewal process.

After completing negotiations on a three-year extension and necessary environmental review, Reclamation signed an amendment to the contract with the SBCWA for water service from the Cachuma Project on September 28, 2020, extending the contract through September 30, 2023. Concurrently, on September 24, 2020, the Santa Barbara County Public Works Director signed the First Amendment to the City’s Cachuma Member Unit Agreement with the SBCWA to provide for continued delivery of water from the Cachuma Project to the City. The City’s contract with the County incorporates the same terms and conditions as the Master Contract three-year extension. In 2023, another short-term contract extension was created and the effort to develop a long-term Master Contract was once again postponed. The Second Amendment extends the contract through September 30, 2026.

A significant element of the long-term Master Contract negotiations will be carryover water. Carryover water is annually allocated Cachuma water that has not been used by a Cachuma Member Unit in the year it was allocated. Historically, Member Units have been allowed to bank carryover water in Lake Cachuma until it is either used, or Lake Cachuma’s Bradbury Dam spills. During a spill event, banked carryover water spills first, and that spilled carryover water is lost. In WY 2024 the City lost approximately 6,900 AF of stored carryover water when Bradbury Dam spilled. Carryover water is an important water supply for the Cachuma Member Units, as it allows these water agencies to build up a drought buffer and provides them the opportunity to better manage their various other water supplies. At the end of WY 2024 the City had just over 8,400 AF of carryover water, or approximately 85 percent of the City’s annual demand, stored in Lake Cachuma. The City was able to carryover slightly more than its entire annual Cachuma allocation of 8,277 AF due to long-lasting surplus conditions while Cachuma spilled in the winter and spring of 2023 and 2024. During surplus conditions, all Cachuma water used by a Member Unit is not counted against its annual allocation and is considered “free” water.

During the 2020 Master Contract extension discussions, Reclamation expressed a strong desire to limit, or cap, the amount of carryover water Cachuma Member Units can bank in Lake Cachuma. Such a substantial change would cause the Cachuma Member Units to reconsider how they manage their water supplies and would impact their ability to prepare for a drought. SBCWA staff has verbally stated that SBCWA supports the Cachuma Member

Units desire to not limit carry over water. However, carryover water is likely to remain a point of concern for Reclamation and be a major component of long-term Master Contract negotiation.

Another significant element of the Master Contract negotiations will be the safe yield of Lake Cachuma. In June 2020 the SBCWA shared a draft study prepared by Stetson Engineers, *Safe and Operational Yields of the Cachuma Project*, with the Cachuma Member Units. Prior to completion of the draft study, SBCWA did not consult or confer with the Cachuma Member Units, and, upon review of the draft study, the Cachuma Member Units found it to be flawed in its approach, methodology and conclusions. The Cachuma Member Units sent a letter to the SBCWA stating their objections to the draft study in August 2020 and contracted with Woodard and Curran to develop their own safe yield study for Lake Cachuma. Results of the Cachuma Member Units' study are being finalized. The goal of this study is to analyze operating scenarios for effective management of the Cachuma Project under the current operational yield of the Project, 25,714 AFY, while meeting other beneficial uses of the Project, including downstream water rights obligations and environmental release requirements. Conclusions from this study are likely to be another important point of discussion in the long-term Master Contract negotiations.

Gibraltar Pass Through Operations: The 2007 Zaca Fire burned approximately 60% of the Gibraltar Reservoir watershed, which normally contributes up to 40% of the City's water supply. On top of historical siltation, the additional sediment load resulting from the Zaca Fire reduced the reservoir's storage capacity by 1,535 AF. The Rey Fire in Fall 2016 also burned within the Gibraltar watershed, which resulted in an additional loss of 303 AF. The full extent of change in reservoir capacity from the 2017 Thomas Fire is still unknown, as sediment will continue to make its way through the watershed and into the reservoir for several years. A bathymetric survey conducted in September 2024 demonstrated a reduction of 229 AF of storage since November 2022, indicating that despite the wet winter, sediment is still making its way into the reservoir and not being flushed out with high flows. The current maximum storage volume of Gibraltar Reservoir is 4,489 AF.

In 1989, the City entered into the Upper Santa Ynez River Operations Agreement (the "Pass Through Agreement") with other Santa Ynez River water agencies. The City agreed to defer its planned enlargement of Gibraltar Reservoir in exchange for provisions that would allow the City to "pass through" a portion of its Gibraltar water to Lake Cachuma for storage and delivery through Cachuma Project facilities. As a result of the Zaca Fire impacts to Gibraltar Reservoir, the City elected to commence the "pass through" phase of operations and is working with the Reclamation to negotiate a Warren Act Contract as the preferred approach for accounting for the City's Pass Through water. To execute a Warren Act Contract, Reclamation must prepare an environmental assessment under the National Environmental Policy Act (NEPA). Reclamation released a draft environmental assessment (EA) that has gone through public review. The final EA has yet to be released by Reclamation. Staff worked with Reclamation in 2019 to review and negotiate draft Warren Act Contract language. Staff continues to wait for a response from Reclamation regarding outstanding EA issues. Reclamation has indicated that they are unlikely to finalize the Warren Act Contract until a new Biological Opinion is issued by NMFS. The Pass Through operations will allow the City to maximize its Gibraltar water rights, while the reservoir continues to lose capacity from sediment settling in the reservoir.

State Water Project/Delta Issues: Significant issues include:

- **Delta Conveyance:** The Sacramento-San Joaquin Delta is a critical conveyance link for all water moved from northern California to southern California by the SWP. However, the reliability of State Water supply is at risk due to drought, environmental restrictions, and seismic events. The Bay Delta Conservation Plan (BDCP) proposed a solution to balance coequal goals of water supply and environmental benefits. A Draft Environmental Impact Report (EIR) and Draft Environmental Impact Statement (EIS) for the BDCP were made available for public review from December 2013 to July 2014.

In April 2015, State and Federal agencies announced a new alternative which would replace the BDCP as the State's proposed project. The new alternative reflected proposals by Governor Jerry Brown and the California Department of Water Resources to separate the conveyance facility and habitat restoration measures into two separate efforts: California WaterFix and California EcoRestore. These two efforts are a direct reflection of public comments on the BDCP EIR/EIS and fulfill the requirement of the 2009 Delta Reform Act to meet co-equal goals.

On July 21, 2017, the DWR certified the Final EIR/EIS for the project, approved the California WaterFix (Alternative 4a), and filed a Notice of Determination with the Governor's office. The California WaterFix included two large, four-story tall tunnels to carry fresh water from the Sacramento River under the Sacramento-San Joaquin Delta toward the intake stations for the SWP. The certification was a major milestone that came after more than a decade of analysis, review, and public comment.

In May 2019 the DWR began taking formal steps to withdraw proposed permits for the WaterFix project and begin a renewed environmental review and planning process for a smaller, single tunnel conveyance project, known as the Delta Conveyance Project. This action followed Governor Gavin Newsom's executive order directing state agencies to develop a comprehensive statewide strategy to build a climate-resilient water system. Governor Newsom envisions a smaller, single tunnel through the Sacramento-San Joaquin Delta that would protect water supplies from sea-level rise and saltwater intrusion into the Delta, as well as earthquake risk. It will be designed to protect water supply reliability while limiting impacts on local Delta communities and fish. The Final Environmental Impact Report was released in December 2023 and DWR approved the project in the same month. Now that the environmental review is complete and the project has been approved, next steps for DWR include pursuing numerous state and federal permits or authorizations, including those required by the State Water Resources Control Board, the Delta Stewardship Council, and compliance with state and federal Endangered Species acts. In May 2024, DWR released a benefit-cost analysis for the Delta Conveyance Project that finds the project would create billions of dollars in benefits for California communities, including reliable water supplies, climate change adaptation, earthquake preparedness and improved water quality.

The Central Coast Water Authority (CCWA) is one of the 29 SWP contractors. CCWA represents the Member Agencies on SWP matters. CCWA Member Agencies include the City, Santa Ynez River Water Conservation District Improvement District No. 1, City of Buellton, City of Santa Maria, Montecito Water District, Goleta Water District, City of Guadalupe, and Carpinteria Valley Water

District. CCWA and its members have chosen not to participate in the new Delta Conveyance facility at this time. This does not preclude individual agencies from possibly purchasing SWP water from a participating SWP agency in the future.

However, there are concerns that by not participating in the new Delta conveyance project, CCWA members will have less secure water banking opportunities in the state's San Luis Reservoir. This is a result of the new Delta Conveyance project, which is anticipated to cause the San Luis Reservoir to spill more frequently (every other year versus every ten years, historically), resulting in a loss of available storage to CCWA. For this reason, CCWA undertook a Water Management Strategies Study to identify and evaluate cost-effective strategies to optimize the yield from the SWP. The report included recommendations for water management alternatives that CCWA is now investigating further, including groundwater banking and water exchanges and transfers that involve SWP water and other supplies. The City is actively engaged in evaluating water management projects independently and along with CCWA, including water banking, transfer, and exchange opportunities to optimize its benefit from its SWP water. This work is ongoing.

- **State Water Contract Assignment:** The City of Santa Barbara receives imported water from the SWP through the CCWA. The CCWA is a JPA formed in 1991 to finance, construct, manage and operate regional treatment and conveyance facilities that deliver State Water to its member agencies, including the City of Santa Barbara. While the CCWA is responsible for financial and operational management of regional SWP facilities, the CCWA does not hold the current State Water Contract with DWR. The State Water Contract with DWR was first executed in 1963 and is currently held by the SBCWA. On October 31, 2017, the Santa Barbara City Council authorized amending existing agreements with CCWA to effectuate the assignment of the State Water Contract from the County to CCWA. All of the CCWA member agencies have also provided such authorization. CCWA has also received written confirmation of DWR's willingness to accept assignment of the contract to CCWA. CCWA has been trying to work with Santa Barbara County for the remaining approval to assign the contract to CCWA; however, the County Board of Supervisors has not taken any action to work toward contract reassignment.
- **Legal Action Against the County of Santa Barbara:** In early 2021, the Department of Water Resources and many of the 29 individual State Water Project Contractors (including CCWA through the Santa Barbara County Flood Control and Water Conservation District) executed an amendment to the State Water Project Contract, commonly referred to as the "Water Management Amendments." These new contract amendments were designed to improve the flexibility and efficiency of buying and selling water across the SWP, allowing Member Agencies to better manage supplies during drought and climate challenges. They also provide significant financial benefits to CCWA and its Member Agencies by creating opportunities to either offset the expense of State Water for the benefit of their customers or help offset the cost of developing local supplies.

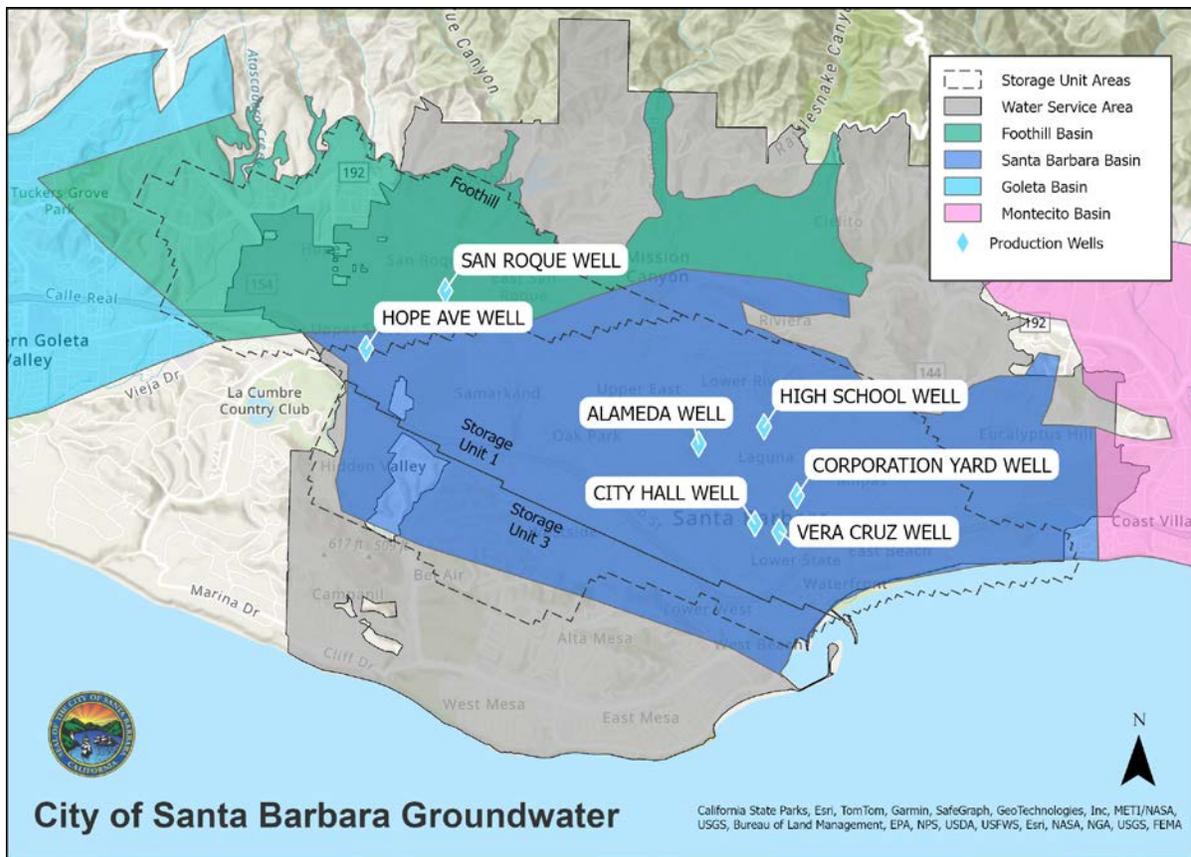
While the County did execute the Water Management Amendments, they imposed significant and unreasonable conditions on sales and exchanges of state water, depriving the CCWA Member Agencies of the benefits of the new contract amendments. In June 2021, CCWA and each of its Member Agencies, including the

City, filed a lawsuit against the County of Santa Barbara regarding management of the SWP. The lawsuit is ongoing.

Groundwater Management Plan: The City’s groundwater basins are relatively small, but groundwater plays an important role in meeting demand during drought and emergency periods. Located on the southern side of the Santa Ynez Mountains, groundwater and desalination are the City’s only existing potable water supplies that are truly local. This is important in case of a potential catastrophic interruption of one or both tunnels (Tecolote Tunnel and Mission Tunnel) that convey water supplies to the City through the Santa Ynez Mountains, such as in a seismic event.

The City relies on two groundwater basins for water supply, see Figure 7: the Foothill Basin and the Santa Barbara Basin, which is comprised of Storage Units I and III. The City maintains seven groundwater wells – five in Storage Unit I, and two in Foothill.

Figure 7. Map of City Groundwater Basins



For decades, the City has been working with the United States Geological Survey (USGS) to monitor water levels and water quality of the groundwater basins and develop a detailed model to estimate the sustainable groundwater yield for use in the City’s water supply planning. The City has also adopted local ordinances regarding groundwater wells to protect the groundwater resource.

In 2014, the State of California adopted the Sustainable Groundwater Management Act (SGMA). In addition, the State developed rankings of recognized groundwater basins based on their condition. For State-ranked “high” or “medium” priority basins, SGMA requires the formation of a local groundwater sustainability agency (GSA) and adoption of locally-based

management plans. SGMA provides local GSAs with tools and authority to 1) require registration of groundwater wells, 2) measure and manage extractions, 3) require reports and assess fees, and 4) request revisions of basin boundaries.

The City's groundwater basins are currently ranked by the State as "very low" priority. As a result, there is no current requirement to form a GSA or develop a groundwater management plan in order to be in compliance with SGMA. However, the EUWMP made several recommendations regarding groundwater management in the City:

1. The City should work with the USGS to update the City's sustainable yield estimate and drought storage estimate for the Foothill Basin and Storage Unit I.
2. The City should prepare an annual report on the current basin conditions to inform annual water supply planning efforts. The City could consider creating a Groundwater Sustainability Plan (GSP) in accordance with SGMA, or an equivalent GSP that meets the City's needs, but is outside of SGMA compliance and reporting requirements.

The City entered into a contract with USGS in 2022 to better define sustainable yield and drought storage for the City. This project is ongoing with an expected completion in early 2025.

Appendix A – Supplemental Water Supply Information

Groundwater Balance

Project conditions of the SWP require the City to use SWP water to offset any demonstrated groundwater basin overdraft. Under the EUWMP, the City uses groundwater conjunctively with surface supplies, such that significant groundwater use only occurs when surface supplies are reduced. In response to the unprecedented drought that began in 2014, groundwater pumping increased in WY 2015 through WY 2018, providing a critical water supply. In WY 2019, the City pumped two groundwater wells to help meet peak summer demand from May through August, producing 318 AF. In WY 2020 the City only pumped 22 AF of groundwater, and in WY 2021 the wells were exercised to maintain function, but no groundwater was produced and the groundwater basins were rested. In response to continued dry conditions, City wells were turned on July through September 2022, producing 203 AF. Before the 2023 winter rains, the wells were used from October 2022 to January 2023, producing a total of 375 AF in WY 2023. A total of 62 AF of groundwater was pumped in WY 2024 as part of the San Roque Well ASR Pilot Project.

The estimated groundwater yield available to the City over a 5-year drought period, assuming no seawater intrusion, was originally based on numerical groundwater modeling performed by the United States Geological Survey (USGS) in 1998. In 2018, USGS updated their modeling efforts of the Santa Barbara (Storage Unit I) and Foothill Basins using a 10-year drought period and assuming some level of acceptable seawater intrusion. Groundwater yield estimates in this report have been updated based on that more recent effort. As summarized in Table A-1, the estimated 10-year yield for City use is 16,090 AF in Storage Unit I and 8,130 AF in the Foothill Basin.

The City's groundwater pumping over the last thirteen years is shown in Table A-1. In addition, any significant City pumping from storage that occurred prior to the drought is also shown. In normal conditions, the City limits pumping of Storage Unit I and the Foothill Basin to be equal or less than the City's share of the perennial yield of the basins (assumed to be 800 AFY and 450 AFY, respectively). However, in 2005-2011, some additional pumping from Foothill Basin storage reserves was necessary to meet drinking water quality regulations prior to completion of the Cater Ozone project. To estimate the remaining groundwater storage available, the City's actual pumping over the last thirteen years was accounted for, as well as previous City pumping from storage (or pumping that exceeded its estimated share of the perennial yield). The City uses non-potable groundwater from Valle Verde Well located in Storage Unit III to augment supply to the recycled water system as needed. The historical maximum annual pumping by the City from Storage Unit III is 216 AF, which occurred in 1990. The estimated average annual Storage Unit III yield available for use by the City is approximately 200 AFY. The City did not extract any water from Storage Unit III in WY 2024.

Based on the remaining yield, the City's primary groundwater basins are in long-term balance with no overdraft projected in the next year. The City has factored this into its water supply planning such that the City does not plan to use groundwater beyond the estimated remaining storage yield to prevent overdraft conditions. The City will continue to rest its groundwater basins and does not plan to use any groundwater in WY 2025.

Table A-1 Groundwater Balance

Storage Unit 1 Basin		AF
Estimated 10-Year Drought Storage Yield for City Use ¹		16,090
City Groundwater Production (October 2011 – September 2024)		6,410
City Use of Groundwater Storage (October 2005 – September 2011) ²		0
<i>Remaining Drought Storage Yield for City Use</i>		9,680
Projected City Groundwater Production for WY 2025		0
Foothill Basin		AF
Estimated 10-Year Drought Storage Yield for City Use ¹		8,130
City Groundwater Production (October 2011 – September 2024)		3,636
City Use of Groundwater Storage (October 2005 – September 2011) ²		740
<i>Remaining Drought Storage Yield for City Use</i>		3,754
Projected City Groundwater Production for WY 2025		0

¹ Nishikawa, Tracy, ed., 2018, Santa Barbara and Foothill groundwater basins geohydrology and optimal water resources management - developed using density dependent solute transport and optimization models: U.S. Geological Survey Scientific Investigations Report 2018-5059, 4 chap. (A-D), variously paged, <https://doi.org/10.3133/sir20185059>

² This represents City pumping exceeding the assumed perennial yield available to the City, thereby drawing from stored groundwater reserves. The assumed perennial yield available to the City is 450 AFY from Foothill and 800 AFY from Storage Unit I (source: City of Santa Barbara 2015 Urban Water Management Plan). Note that in WYs 2008-2010, the City increased pumping from Foothill Basin to meet water quality regulations as required prior to completion of the Cater Ozone project.

Projection of Supply Availability

Table A-2 summarizes the City's water supply sources and fulfills a requirement of the project conditions for the SWP. The WY 2025 Supply Plan reflects a projected total demand of 12,479 AF including ~240 AF for El Estero process water.

Table A-2 Sources of Supply (AF)

Source of Supply	WY 2024 Original Supply Plan	WY 2024 Actual Water Use ^E	WY 2025 Supply Plan (Projected)
Gibraltar Reservoir	1,800	3,513	1,800
Cachuma Project ^A	7,488	2,434	8,291
Mission Tunnel	600	1,871	1,200
Devil's Canyon	0	341	0
State Water/Water Purchases	0	0	0
Desalination	2,496	2,436	1,972
Groundwater (potable) ^B	0	62	0
Groundwater (non-potable) ^B	0	0	0
Recycled Water ^C	1,092	962	1,240
Net Other Supplies ^D	-1,696	-1,686	-2,024
Total Production to Meet Demand	11,780	9,933	12,479

^A The City receives an approximate 300 AF annual transfer from Montecito Water District as per the Juncal Dam Water Exchange Agreement of 1928; the annual transfer is added to the City's Cachuma Project balance.

^B The City uses potable groundwater supply from Storage Unit I and Foothill, and non-potable groundwater supply from Storage Unit III.

^C Planned and actual recycled water demands include El Estero process water and blend water.

^D Represents miscellaneous production water used from the distribution system for purposes such as sales or transfers to adjacent water purveyors, potable water transfers to the recycled water system for blending, or groundwater recharge (negative values). WY 2024 actuals included 1,393 sold to Montecito Water District as part of the Water Sales Agreement, 227 AF in transfers to a neighboring agency, 25 AF of blend water, and 41 AF in groundwater recharge.

^E Actual 2024 demand includes 8,971 AFY potable demand, 695 AFY recycled demand, and 267 AFY El Estero process demand.