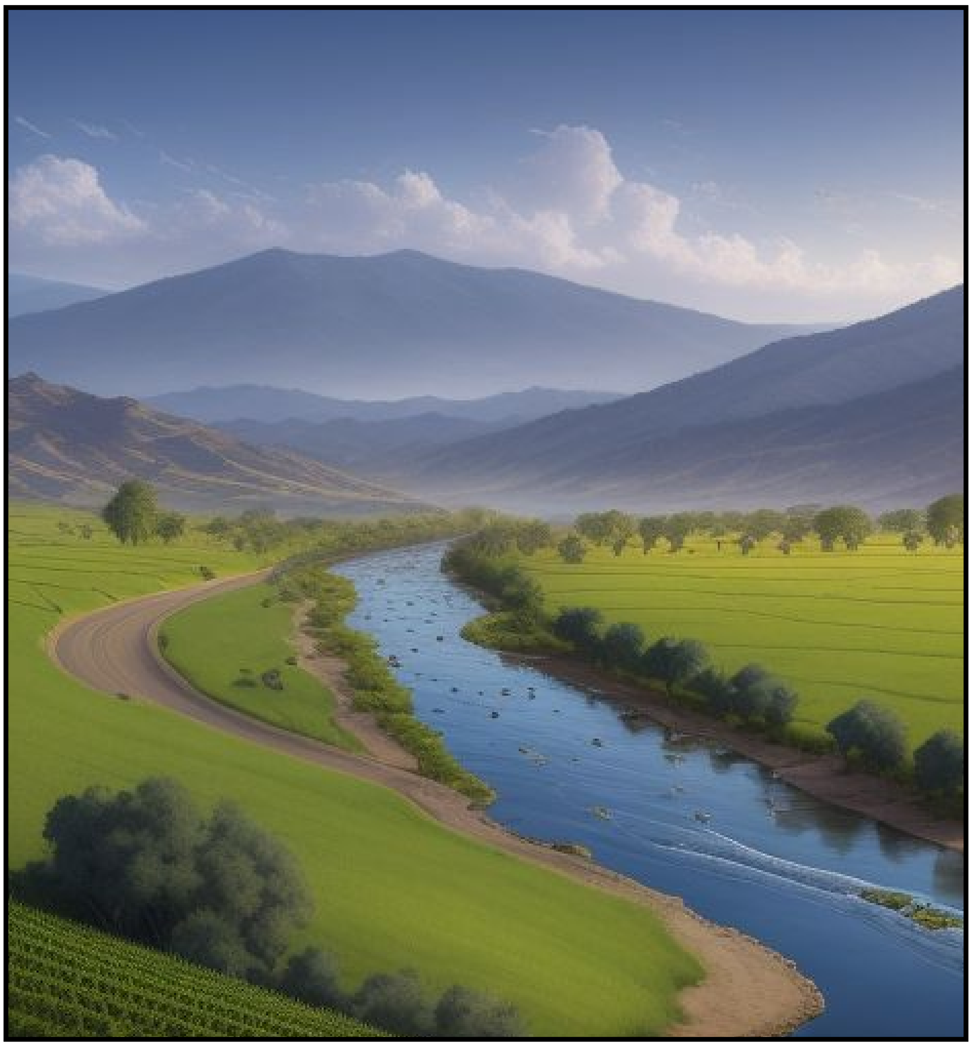
Forty-Sixth Annual Engineering and Survey Report on Water Supply Conditions of the Santa Ynez River Water Conservation District

A Summary of Findings for the
Previous Water Year (2022-2023), Current Water Year (2023-2024),
and Ensuing Water Year (2024-2025)



FINAL

May 7, 2024

Accepted by the Board of Directors of the
Santa Ynez River Water Conservation District

STETSON
ENGINEERS INC.

Cover Photograph: *Stable Diffusion artificial image based in part on the prompt of "Santa Ynez River Water Conservation District, 2024, 46th year, Engineering and Survey Water Supply Conditions Report, future groundwater, pumping water."*

FORTY-SIXTH ANNUAL
ENGINEERING AND SURVEY REPORT ON
WATER SUPPLY CONDITIONS OF THE
SANTA YNEZ RIVER WATER CONSERVATION DISTRICT

A Summary of Findings for the
Previous Water Year (2022-2023), Current Water Year (2023-2024),
and Ensuing Water Year (2024-2025)

FINAL
May 7, 2024

Accepted at the April 24, 2024 Public Hearing by the
Santa Ynez River Water Conservation District
Board of Directors

STETSON ENGINEERS INC.

WATER RESOURCE PROFESSIONALS
SERVING CLIENTS SINCE 1957

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Northern California • Southern California • Arizona • Colorado • Oregon

1126-13 May 7, 2024 San Rafael

Board of Directors
Santa Ynez River Water
Conservation District
P.O. Box 719
Santa Ynez, California 93460

Re: Forty-Sixth Annual Engineering and Survey Report on Water Supply Conditions of the Santa Ynez River Water Conservation District, 2023-2024

Dear Board Members:

Transmitted herewith is our Engineering and Survey Report on Water Supply Conditions of the Santa Ynez River Water Conservation District (District) for 2023-2024. This Forty-Sixth Annual Report presents the required and pertinent information for the Board of Directors to make necessary findings and determinations for levying groundwater charges upon the production of groundwater from water-producing facilities (water wells) within the District. As such, it provides information on the status of the groundwater and surface water supplies, and the annual production of groundwater from within the District.

Sincerely,

Allan Richards
Stetson Engineers Inc.

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Accumulated Overdraft......... The amount of water necessary to be replaced in the intake areas of the groundwater basins within the District or any zone or zones thereof to prevent the landward movement of salt water into the fresh groundwater body, or to prevent subsidence of the land within the District or any zone or zones thereof, as determined by the board from time to time.
Defined in Water Code Section 75505. See also Dewatered Storage.

Acre-Foot .... Volume of water to flood one acre to a depth of one foot (325,851 gallons).

Ad Valorem Property Tax..... Property tax that is assessed according to the value of the property.

AF, AC-FT............................ Acre-Foot.

Agricultural water .... Produced water first used on lands in the production of plant crops or livestock for market.
Defined in Water Code Section 75508.

Alluvium .... Sediments deposited through stream or river action.
In Santa Ynez, these sediments are much younger, less consolidated, and with greater hydraulic conductivity, than the surrounding marine and non-marine sediments.

ANA .... Above Narrows Account.
Water rights release from Bradbury Dam (Lake Cachuma) made to replenish the groundwater basin upstream of the Lompoc Narrows area.

Annual Overdraft .... The amount, determined by the board, by which the production of water from groundwater supplies within the District or any zone or zones thereof during the water year exceeds the natural replenishment of such groundwater supplies in such water year.
Defined in Water Code Section 75506.

BNA .... Below Narrows Account.
Water rights release from Bradbury Dam (Lake Cachuma) made to replenish the groundwater basin downstream of the Lompoc Narrows area, i.e., for the Lompoc Plain subarea.

Board .... Refers to the five Directors of the Santa Ynez River Water Conservation District.

Bradbury Dam....................... Completed in 1953, the dam impounds the Santa Ynez River to form Lake Cachuma. The dam stores floodwaters of the Santa Ynez River and SWP water. USBR is the agency that operates Bradbury Dam and water rights releases.

Cachuma Member Units .... Beneficiary organizations of the Cachuma Project. Consists of:
Carpinteria Valley Water District
City of Santa Barbara
Goleta Water District
Montecito Water District
Santa Ynez River Water Conservation District,
Improvement District No. 1 (ID No. 1).

Calendar Year .... January 1 through December 31.

CCWA................................... Central Coast Water Authority.
The public entity which owns and operates pipelines and water treatment facilities enabling deliveries of water from the State Water Project to Santa Barbara and San Luis Obispo Counties.

CFS.. Cubic Feet per Second.
Unit of flow rate commonly used in describing surface water flows.

Contractor.............................. Organization contracted to receive State Water Project water. the Department of Water Resources as well as CCWA use this term.

Current Water Year .... Water Year 2023-24 (July 1, 2023 through June 30, 2024)
The water year in which the investigation and report on the groundwater conditions of the District is made, the hearing thereon held, and the determination is made by the board as to whether a zone or zones should be established and a groundwater charge levied therein.
Defined in Water Code Section 75507(b).

Dewatered Storage .... Unused and available space in the aquifer available for storing additional groundwater. See also Accumulated Overdraft.

Deposits................................. See Unconsolidated Deposits.

District................................... Santa Ynez River Water Conservation District.
Water conservation district representing the interests of the Santa Ynez and Lompoc Valleys.

District Fiscal Year .... July 1 through June 30. Same as Water Year (statutory).

Drought Buffer...................... A term used to identify a source of supply within the State Water Project (SWP) system that will provide a higher level of reliability during times of drought. For most CCWA water purveyors, the drought buffer equals 10% of Table A amount.

DWR .... Department of Water Resources.
State of California agency acting as a regulator for the implementation of SGMA.

Ensuing Water Year .... Water Year 2024-25 (July 1, 2024 through June 30, 2025).
The water year immediately following the current water year.
Defined in Water Code Section 75507(d).

Entitlement............................ A term used formerly to refer to "Table A" amounts. Table A amounts are the maximum amount of State Water Project (SWP) water that the State agreed to make available to each SWP contractor for delivery during the year.

Forebay.................................. In the Santa Ynez River Basin, the term is used to refer to the area where most of the percolation occurs from the Santa Ynez River to the Lompoc Plain aquifer, which consists of the eastern four miles of the river beginning at the Robinson Road Bridge and downstream to Floradale Avenue.

GSA....................................... Groundwater Sustainability Agency.
Local agency that implements SGMA.
Defined in Water Code Section 10721(j).
The District is in three GSAs, each with its own management area of interest: Western Management Area, Central Management Area, and Eastern Management Area.

GSP .... Groundwater Sustainability Plan. The plan for managing the groundwater basin in compliance with the SGMA.
Defined in Water Code Section 10721(k).

Groundwater.......................... All water beneath the earth's surface, but does not include water which is produced with oil in the production of oil and

gas, or in a bona fide mining operation, or during construction operations, or from gravity or artesian springs.
Defined in Water Code Section 75502.

ID No.1 .... Santa Ynez River Water Conservation District, Improvement District No. 1.
Special improvement district that distributes and serves municipal and irrigation water in the Santa Ynez Uplands.

Lake Cachuma .... Reservoir formed behind Bradbury Dam.

MOA .... Memoranda of Agreement.
Agreement to organize the Santa Ynez River Valley Groundwater Basin into local agencies (GSAs) for SGMA implementation.

MG/L .... Milligrams per Liter.
Concentration units of mass per volume. In freshwater, this is equivalent to parts per million (ppm).

NOAA .... National Oceanic and Atmospheric Administration.
The federal agency organized under the Department of Commerce concerned with oceans, waterways, and the atmosphere.

Operator .... Public agencies, federal, state, and local, private corporations, firms, partnerships, limited liability companies, individuals, or groups of individuals, whether legally organized or not.
Defined in Water Code Section 75501.

Other Water .... Generally, refers to municipal, industrial, or domestic uses of pumped or produced water. Water used for purposes not including uses for agriculture or irrigation at parks, golf courses, schools, cemeteries, and publicly owned historic sites.

Overdraft .... Net water loss to the groundwater basin. Calculated as the increase in dewatered storage.

Owner .... Person to whom a water-producing facility is assessed by the county assessor of an affected county, or, if not separately assessed, the person who owns the land upon which a water-producing facility is located.
Defined in Water Code Section 75501.

Person .... See Operator.

Preceding Water Year .... Water Year 2022-23 (July 1, 2022 through June 30, 2023)
The water year immediately preceding the current water year.
Defined in Water Code Section 75507(c).

Precipitation .... Combination of rainfall, snow, and any other form of water vapor that condenses on the ground.

Producer .... An entity (person or corporate) that “produces” water by pumping groundwater from a well.

Production .... The act of extracting groundwater by pumping or otherwise. Defined in Water Code Section 75503.

Project .... Cachuma Project.
Includes Bradbury Dam, Tecolote Tunnel, and all conveyance infrastructure to deliver project water to the South Coast.

Pump Charge......................... Fee for extraction of groundwater from a well.

Purchased Water .... See definition of Turnback Pool Water. Refers to State Water Project (SWP) water purchased from another SWP Contractor.

Safe Yield.............................. The amount of water that can be withdrawn from a groundwater basin without producing an undesired effect.

SBCWA .... Santa Barbara County Water Agency.
The county agency, organized under the Santa Barbara County Public Works Department, tasked with providing technical support to other public agencies and manages multiple water supply and public information programs.

SGMA .... Sustainable Groundwater Management Act.
Statewide framework for protecting groundwater resources. Mostly defined in Water Code 10720 – 10738, and California Code of Regulations Title 23 section 350 - 358.

South Coast .... Southern Santa Barbara County which includes the communities of Carpinteria and Goleta, and portions of the Gaviota Coast, Montecito, Santa Barbara, and Summerland.

Special Irrigation Water .... Produced water used for irrigation purposes at parks, golf courses, schools, cemeteries, and publicly owned historic sites.

Streamflow Infiltration.......... Stream or river water that percolates into the subsurface.

Surface Water........................ Water on the ground surface, including lakes, rivers, and canals.

SWP .... State Water Project.
Water storage and delivery system operated by the California Department of Water Resources which transports water from northern California to users located primarily in the San Francisco Bay area and southern California.

SWRCB................................. State of California Water Resources Control Board.

Turnback Pool .... Turnback Pool Water refers to State Water Project (SWP) water that contractors may choose to offer from their allocated SWP Table A water to other Contractors through two pools in February and March.

Unconsolidated Deposits....... Sedimentary material that is loosely arranged and has not been cemented (through a combination of physical compaction or chemical deposition) into a cohesive whole.

USBR .... U.S. Bureau of Reclamation.
Federal bureau organized under the Department of the Interior

	concerned with the construction and operation of dams. Specifically, operates Bradbury Dam at Lake Cachuma.
USGS	U.S. Geological Survey. Federal bureau organized under the Department of the Interior concerned with natural science research.
Water Code	California state statutory law related to water resources, the SWRCB, and water districts, among other things.
Water-Producing Facility	Any device or method, mechanical or otherwise, for the production of water from the groundwater supplies within the District. Defined in Water Code Section 75504.
Water Year (hydrologic)	One-year period from October 1 through September 30 of the following year. Water year for the Sustainable Groundwater Management Act defined by Water Code Section 10721(aa).
Water Year (statutory)	One year period from July 1 through June 30 of the following year, as defined by Water Code Section 75507(a).
Water Year (county)	One-year period from September 1 through August 31 of the following year. Used in Santa Barbara County Hydrology reports.
WR 73-37	SWRCB Order of 1973. The order addresses the storage and release of water in Lake Cachuma and the operation of the ANA and BNA accounts.
WR 89-18	SWRCB Order of 1973, as amended in 1989. Amends the permits regarding the operation of the Cachuma Project.
WR 94-5	SWRCB Order of 1973, as amended in 1994. Amends the permits regarding the operation of the Cachuma Project.
WR 2019-0148	SWRCB Order of 2019. Amends USBR's water right permits regarding the operation of the Cachuma Project.
Zones	Specific geographic areas of the Santa Ynez Basin within the District with distinct groundwater charge rates: Zone A — Santa Ynez River alluvium within the Santa Ynez subarea, Buellton subarea, and Santa Rita subarea. Zone B — Lompoc Area: Lompoc Plain subarea, Lompoc Upland subarea, Lompoc Terrace subarea. Zone C — Miscellaneous unconsolidated deposits and consolidated rocks. Zone D — Buellton Upland subarea. Zone E — Santa Ynez Upland subarea. Zone F — Santa Rita Upland subarea.

1.0 EXECUTIVE SUMMARY

This Forty-Sixth Annual Engineering and Survey Report on Water Supply Conditions of the Santa Ynez River Water Conservation District for 2023-2024 presents the required and pertinent information for the Board of Directors to make the necessary findings and determinations for levying groundwater charges upon the production of groundwater from water-producing facilities within the District. As such, it provides information on the status of groundwater and surface water supplies and the annual production of groundwater from within the District.

This introduction provides: (1) historical background on the Santa Ynez River Water Conservation District (hereinafter called District), inclusive of its purpose and its use of pump charges to finance its activities in part; (2) an overview of the boundaries and water resources of the District; (3) a summary of this report; and (4) findings and determinations required by the Water Code to establish the amount and set the rates of groundwater charges necessary to generate sufficient revenue to supplement existing revenue sources of the District.

Subsequent chapters provide information on groundwater production and charges (Chapter 2.0), precipitation (Chapter 3.0), surface water conditions (Chapter 4.0), and groundwater conditions (Chapter 5.0). Additional information is found in the Appendices including provisions of the Water Code pertinent to groundwater charges, historical groundwater charge rates, streamflow records, water right releases, a general description of the hydrogeology of groundwater sources, water-level hydrographs of selected wells, and well inventory data.

1.1. HISTORICAL BACKGROUND

The District was formed in 1939 for the primary purpose of protecting water rights on the lower Santa Ynez River. Reservoirs had been constructed in the upper reaches of the Santa Ynez River by the City of Santa Barbara (Gibraltar Reservoir) and the Montecito Water District (Jameson Lake), and litigation by downstream riparian landowners challenging those projects was not successful. The Federal Reclamation Act of 1939 had administratively authorized the Cachuma Project under Section 9(a) and additional projects, or exportation of water, were being studied. For these reasons, the people of the Santa Ynez and Lompoc Valleys joined together to form the District. The purpose of the District is to protect, and if necessary, augment the water supplies of the District, which are necessary for the public health, welfare, and safety of all residents.

The District's share of ad valorem property taxes is not sufficient to fund its statutory functions or activities. In recent years, the District has received roughly a third of its necessary operating budget from ad valorem property taxes, with the remainder of the budget needed to be funded from charges levied on the production of groundwater and interest on investment accounts. The Water Conservation District Law of 1931 includes a detailed procedure outlined in Part 9 of Division 21 of the Water Code (Water Code Section 75500 through 75642) providing for the implementation of a groundwater pump charge. Initiated by the District in 1979, these charges are on the production of groundwater from water-producing facilities. In connection with the levying and collection of such charges, the District gathers data and other information regarding groundwater production through its robust well registration and reporting program that is applicable to virtually all producers of groundwater within the District. Groundwater charges levied by the District are in furtherance of District activities in the protection and augmentation of the water supplies for users within the District or a zone or zones thereof which are necessary for the public health, welfare, and safety of the people of this state (Water Code Section 75521). Such activities include:

- Planning, scheduling, and managing the release of water from and downstream of the Cachuma Project Bradbury Dam for the satisfaction and benefit of downstream water rights, including the timing, volume, and rate of flows to promote recharge in the river alluvium and the Lompoc Plain, as provided in State Water Resources Control Board (SWRCB) Order No. WR 2019-0148.
- Reporting on Santa Ynez River system conditions, basin surface water use, and water purchased by contract.
- Supporting compliance with agreement(s) and procedures to mitigate downstream flooding because of Cachuma Project storm operations.
- Contributing to the review, preparation, and compliance with applicable biological assessment and opinions, including associated consultations, revisions, and replacements, for the protection of endangered species in the Santa Ynez River, while assuring that downstream water rights and water quality in the basin and downstream of Bradbury Dam are maintained and protected.

- Registering wells, recording, and reporting groundwater production within the District.
- Monitoring and reporting on groundwater conditions within the District.
- Levying and collecting charges on groundwater production within the District.
- Making annual groundwater use estimates and forecasting groundwater storage and overdraft amounts within the District.
- Determining water volume for replenishment of the dewatered aquifer storage below Bradbury Dam.
- Participation in the three (3) Groundwater Sustainability Agencies (GSA) covering the Santa Ynez River Valley groundwater basin and District. Such participation includes, but is not limited to, coordination, preparation, and implementation activities and provision of administrative support (including arranging GSA committee and citizen advisory group meetings, recordkeeping, and bookkeeping) associated with the GSAs' Groundwater Sustainability Plans (GSP), annual reports, and associated implementation and other activities. This includes coordinating and contributing to responses to comments made on, administration and implementation of the GSPs and related technical studies. It also includes participation in discussions of long-term governance and funding for the GSAs.
- The District's administrative support of the GSAs, which requires an expenditure of significant District staff time, has been necessary, in part, because the GSAs have not yet hired their own staff or legal, engineering, or other consultants, and have yet to levy any groundwater fees or charges on landowners or pumpers within the GSAs or otherwise create an independent funding source (aside from grant funding and certain contributions from the GSA member agencies including the District). While it is expected that the District will continue to incur costs to participate in the three GSAs and as the single point of contact with the California Department of Water Resources (DWR), the level of District administrative support could change in the future depending on the GSAs' future governance structure, funding sources, and staffing and contracting decisions.
- The District's activities as a party to all three GSAs are in addition to all the activities it does in the basin under the Water Code (Section 74500 through 75642) and benefits all pumpers within the District, which depend upon the District to provide local agency Sustainable Groundwater Management Act (SGMA) coverage within its approximately 180,000 acres within the basin. In the absence of such SGMA coverage by the District,

the entire basin may not be covered and in such event would be subject to State Water Resources Control Board intervention and management of the basin as a probationary basin (Water Code Section 10735.2 (a)(4)(B)). The District's SGMA activities benefit, among other pumpers in the District, the pumpers in Zones A, who pump from the river alluvium and benefit from the District's investigation and efforts supporting the characterization of those zones as not groundwater subject to SGMA management in the GSPs, and the District's anticipated need to defend that characterization against those who disagree with it and contend such pumping must be managed under SGMA and role in implementation of the Action Plan for the alluvium pumping approved by a joint special meeting of the three GSA committees on January 5, 2024.

- Acting as the single point of contact between the GSAs and the DWR for SGMA compliance, for the benefit of all three GSAs.
- Administering SGMA grant funding for the benefit of all three GSAs.
- Participating in the Integrated Regional Water Management Plan process to promote regional water management strategies to ensure sustainable and reliable water supplies, including the protection of agriculture.

As mentioned above, after the enactment of SGMA (Water Code Section 10720, et seq.), effective January 1, 2015, the District in 2017 became a party to three Memoranda of Agreement (MOAs) with other local agencies to form the three GSAs, the Western Management Area, Central Management Area, and Eastern Management Area, which collectively are the GSAs responsible for sustainable groundwater management within the groundwater basin. The MOAs recognize that the District is eligible to form a GSA and is the point of contract with DWR, under SGMA and its regulations. SGMA does not void or supplant the District's authority over groundwater, including its authority to manage groundwater through (among other long-standing activities) requiring well registration, requiring reporting of groundwater production, and levying groundwater charges. For example, SGMA expressly states: "[SGMA] is in addition to, and not a limitation on, the authority granted to a local agency under any other law." (Water Code Section 10726.8 (a).) In November of 2023, the WMA GSA and CMA GSA each became separate entity GSA's pursuant to Water Code Section 10723.6(a)(1) of SGMA and the Joint Exercise of Powers Act (Gov. Code Section 6500, et seq.), and are each now governed by a separate Joint Exercise of Powers Agreement (JPA). The EMA GSA member agencies are working on doing the same.

Groundwater charges are incurred by the owners of water production facilities and are charged at uniform rates (for each category of water) within the District or each Zone thereof, based on the amount of groundwater produced. Production is measured by water meters or is estimated by a variety of methods acceptable to the District. The use of water meters has never been required by the District. However, all methods used to estimate production are based on appropriate criteria relating to water use. Various remedies exist for the non-registration of wells, non-payment of groundwater charges, and submittal of fraudulent information, including the conduct of an administrative investigation and filing of a court action and associated interest, penalties and other remedies including the possibility of an injunction prohibiting and restricting groundwater production. Should court action be necessary and a judgment obtained, a lien may be placed against the water-producing facility owner's real or movable property.

1.2. DESCRIPTION OF THE DISTRICT

The District, comprised of two non-contiguous parcels, encompasses approximately 180,000 acres including most of the Santa Ynez River watershed from the mouth of the river at Surf Beach to a point about three miles downstream of Bradbury Dam and smaller watershed areas northeast and south of Lake Cachuma. Ground surface elevations vary from sea level at Surf Beach to more than 1,700 feet above sea level along portions of the southern District boundary. The terrain south of the river rises steeply to the crest of the Santa Ynez Mountains. North of the river, the rise in elevation is generally gradual over upland terraces and hilly areas. Figure 1 shows the District boundary and various geographic features within or adjacent to the District.

The Santa Ynez River flows westerly, generally parallel to the southern boundary of the District until entering the forebay in the Lompoc Plain. Thence, it flows northwesterly and westerly across the Plain to the Pacific Ocean. The flow of the river is intermittent throughout the District, carrying flood flows from tributary watershed land downstream of Bradbury Dam and occasional spills and releases of water from Lake Cachuma. During summer months, water may be released from Lake Cachuma if there is a need to meet downstream water rights.

Groundwater occurs within the District primarily in younger unconsolidated alluvial deposits and in older unconsolidated deposits. In most cases, the older and often deeper deposits

SANTA YNEZ RIVER WATER CONSERVATION DISTRICT

FIGURE 1

are not in hydrologic continuity with the shallower alluvial deposits. The major occurrences of groundwater are in the alluvial deposits of the Santa Ynez River and Lompoc Plain, and the older unconsolidated deposits of the Santa Ynez Upland, Lompoc Upland, Buellton Upland, Santa Rita Upland, and the Lompoc Terrace subareas.

Classification of water production within the District by water-use type is seventy percent Agricultural, four percent Special, and twenty-six percent Other (which includes domestic, municipal, and industrial water production). Apart from the cities of Lompoc, Solvang, and Buellton, the communities of Santa Ynez and Los Olivos, and two federal installations, (Vandenberg Space Force Base and the Lompoc Federal Penitentiary), most of the District land area is a mixture of rural areas with agriculture and suburban development.

1.3. REPORT SUMMARY

The following is a summary of the information contained in this report.

1. Revenues from groundwater charges collected by the District for production during the entire previous July-June fiscal year 2022-23 amounted to $618,293.48. Revenues collected through February 3, 2024, for production during the first half of the current fiscal year 2023-24 amounted to $293,177.73. An additional $11,913.32 has been received as overdue payments and assessments in connection with production before the fiscal year 2022-23.

2. The Board, on June 27, 2023, reaffirmed the following six groundwater charge zones for the District for the current fiscal year 2023-24.

   Zone A - District portion of the Santa Ynez River alluvial channel from San Lucas Bridge downstream to Lompoc Narrows.

   Zone B - District portion of the Lompoc Plain, Lompoc Upland, and Lompoc Terrace groundwater subareas.

   Zone C - All other portions of the District not included in Zones A, B, D, E, and F.

   Zone D - District portion of the Buellton Upland subarea.

   Zone E - District portion of the Santa Ynez Upland subarea.

   Zone F - District portion of the Santa Rita Upland subarea.

3. The groundwater charge rates per acre-foot of production for the current fiscal year 2023-24 were as follows:

	Agricultural Water	Other Water	Special Irrigation Water
Zone A	20.42	20.42	20.42
Zone B	14.24	14.24	14.24
Zone C	12.41	12.41	12.41
Zone D	12.41	12.41	12.41
Zone E	12.41	12.41	12.41
Zone F	12.41	12.41	12.41

Adopted June 27, 2023, Resolution No. 722

4. As of February 3, 2024, reported groundwater production for the entire previous fiscal year 2022-23 totaled 43,339 acre-feet. This is about 92 percent of the 46,991 acre-feet total water production reported for the entire fiscal year 2021-22.

5. Groundwater production reported, as of February 3, 2024, for the first half of the current fiscal year 2023-24 totaled 19,156 acre-feet. This is about 86 percent of the 22,164 acre-feet total water production reported for the first half of the fiscal year 2022-23 as of February 6, 2023.

6. Annual reported (as of February 3, 2024) groundwater production within the District for the past five years was as follows:

Fiscal Year (July-June)	First Half (Acre-Feet)[A]	Total Production (Acre-Feet)
2018-19	23,833	47,416
2019-20	21,023	47,977
2020-21	22,697	48,113
2021-22	21,421	46,991
2022-23	22,164	43,339
2023-24	19,156	In Progress

[A] *Reported as of the Annual Engineering and Survey Report*

7. The projected estimated total groundwater production for fiscal years 2023-24 and 2024-25 is 43,335 acre-feet per year. For both the current year (2023-24) and the ensuing year (2024-25), projected water use is shown in the following table:

Zone A	Zone B	Zone C	Zone D	Zone E	Zone F	**TOTAL**
11,560	20,175	1,615	3,465	4,595	1,925	43,335

8. As of February 3, 2024, groundwater producers have registered 1,267 wells with the District. Of that number, approximately 1,207 are active and 240 are inactive.

9. Precipitation at Bradbury Dam and Lompoc during the preceding water year and the partial current water year was as follows:

	Bradbury Dam		Lompoc	
	Precipitation (Inches)	Percent of Normal	Precipitation (Inches)	Percent of Normal
2023 Preceding Hydrologic Water Year (October 2022-September 2023)	38.72	183	32.01	208
2023 Calendar Year (January 2023-December 2024)	37.59	178	31.29	203
Partial 2024 Current Hydrologic Water Year (October 2023-January 2024)	7.49	73	7.45	98

Source: Santa Barbara County Flood Control District and National Oceanic and Atmospheric Administration (NOAA).

10. During the preceding water year (2023), the flow of the Santa Ynez River at the Lompoc Narrows was 390,870 acre-feet. The flow at the Lompoc Narrows for the first quarter of the current water year (through the end of December 2023), was 3,090 acre-feet.

11. During calendar year 2023, no water rights releases were made from Lake Cachuma.

12. Water import deliveries to Central Coast Water Authority member agencies receiving State Water Project water within the District were as follows:

Fiscal Year (July-June)	State Water Project Deliveries (Acre-Feet)			
	Improvement District No. 1	City of Solvang	City of Buellton	Vandenberg SFB
2022-23	563	480	148	616
2023-24 (First Half)	678	477	157	627

Source: Central Coast Water Authority

13. The estimated change in the quantity of groundwater in storage within the District and the estimated accumulated dewatered storage are summarized below.

Source of Groundwater	Change in Storage 2023 to 2024 (Acre-Feet)	Accumulated Dewatered Storage Through 2023-24 (Acre-Feet)
Santa Ynez River Alluvium	-500	10,800
Lompoc Plain	1,400	12,000
Lompoc Upland	-300	37,000
Lompoc Terrace	-200	900
Santa Rita Upland	-2,300	16,300
Buellton Upland (Eastern Portion)	300	2,700
Santa Ynez Upland (District)	100	62,900
TOTAL	**-1,500**	**142,600**

1.4. FINDINGS

The findings of this investigation are summarized below so that the Board may make the determinations required by law (Water Code Section 75574) for the current (2023-24) water year and fiscal year (July 1, 2023 through June 30, 2024), proceeding water year (2022-23), and ensuing water year (2024-25). These findings are based upon historical data and data available about the first half of the current water year and apply to the entire District.

(a) The average annual overdraft for the immediate past ten (10) water years (July 2013-June 2023): 2,800 ± acre-feet;

(b) The estimated annual overdraft for the current (2023-24) water year (July 2023-June 2024): 3,300 ± acre-feet;

(c) The estimated annual overdraft for the ensuing (2024-25) water year (July 2024-June 2025): 2,200 ± acre-feet;

(d) The accumulated overdraft as of the last day of the preceding (2022-23) water year (June 30, 2023): 141,100 ± acre-feet in terms of accumulated dewatered storage. Accumulated overdraft as defined in Water Code Section 75505 is nominal, at this time;

(e) The estimated accumulated overdraft as of the last day of the current (2023-24) water year (June 30, 2024): 142,600 ± acre-feet in terms of accumulated dewatered storage. Accumulated overdraft as defined in Water Code 75505 is nominal, at this time;

(f) The estimated amount of agricultural and special irrigation water to be withdrawn from the groundwater supplies of the District for the ensuing (2024-25) water year (July 2024-June 2025): 29,985 acre-feet of agricultural water and 1,515 acre-feet of special irrigation water;

(g) The estimated amount of water other than agricultural water or special irrigation water to be withdrawn from the groundwater supplies of the District for the ensuing (2024-25) water year (July 2024-June 2025): approximately 11,835 acre-feet;

(h) The estimated amount of water necessary for surface distribution for the ensuing (2024-25) water year (July 2024-June 2025): approximately 2,700 acre-feet scheduled to be delivered by the Central Coast Water Agency to contractors within the District;

(i) The amount of water, which is necessary for the replenishment of the groundwater supplies of the District: 141,100 ± acre-feet to completely replenish accumulated dewatered storage;

(j) The amount of water the District is obligated by contract to purchase: The District is not obligated by contract to purchase water.

The amount of groundwater charge levied by the Board should be based upon the estimated amount of supplemental revenue required to continue District activities without increasing the cost of water to a producer to a point where it is not financially feasible for the producer to utilize the water.

The actual groundwater charge the Board will levy for the fiscal year 2024-25 will be based upon the District's anticipated expenses and revenue and consistent with applicable law.

1.5. SOURCES OF INFORMATION

The following is a list of sources where the information and data utilized to prepare this report were obtained:

- Groundwater production, revenue, and well registration – District
- State Water Project use – Central Coast Water Authority
- Water-level measurements – Santa Barbara County Water Agency (SBCWA), City of Buellton, and U.S. Bureau of Reclamation (USBR)
- Precipitation measurements – Santa Barbara County Flood Control District
- Water quality analyses – SBCWA and United States Geological Survey (USGS)
- Lake Cachuma operations – USBR
- Surface water flow – USGS

2.0 GROUNDWATER CHARGES

Pumped groundwater is charged at uniform rates (for each category of water) within the District or each Zone thereof, based on the amount of groundwater produced. Groundwater charges are based on the costs the District incurs in conducting its activities, including providing administrative support for ongoing SGMA planning and implementation efforts, among other District activities described above.

Consistent with applicable law, including Proposition 26, these charges may be set based on the relative burden and on the benefits received from the District's activities, including costs to serve each class of water use. For the fiscal year 2023-24, allocation of the District's costs to each class of water users was set as equal on a per acre-foot basis. Appendices A and B present additional information on groundwater charge rates, including a summary of historical rates.

2.1. ZONES

Before the end of the water year 2022-23, the Board reaffirmed the previously established six groundwater charge zones for the District:

Zone A – District portion of the Santa Ynez River alluvial channel from San Lucas Bridge downstream to Lompoc Narrows.[1]

Zone B – District portion of the Lompoc Plain, Lompoc Upland, and Lompoc Terrace groundwater subareas.

Zone C – All other portions of the District not included in Zones A, B, D, E, and F.

Zone D – District portion of the Buellton Upland subarea.

Zone E – District portion of the Santa Ynez Upland subarea.

Zone F – District portion of the Santa Rita Upland subarea.

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[1] For setting, levying and collecting groundwater charges, the District uses the definition of groundwater in Water Code Section 75502: "'Ground water' means all water beneath the earth's surface, but does not include water which is produced with oil in the production of oil and gas, or in a bona fide mining operation, or during construction operations, or from gravity or artesian springs."

A map showing the location of these zones is included in Figure 2. For the implementation of SGMA the basin was divided into three management areas: the Western Management Area is nearly coterminous boundaries with Zones B and F, the Central Management Area is nearly coterminous with Zone D, and the Eastern Management Area includes Zone E (but extends beyond the District). Zone C is not part of the basin regulated by SGMA. Zone A is the alluvial aquifer along the Santa Ynez River which is water flowing in a known and definite channel and is not "groundwater" subject to SGMA regulation.[2]

For the fiscal year 2023-24, the Board established the following groundwater charge rates, in dollars per acre-foot of production, for each zone.

	Agricultural Water	Other Water	Special Irrigation Water
Zone A	20.42	20.42	20.42
Zone B	14.24	14.24	14.24
Zone C	12.41	12.41	12.41
Zone D	12.41	12.41	12.41
Zone E	12.41	12.41	12.41
Zone F	12.41	12.41	12.41

Adopted June 27, 2023, Resolution No. 722

Proposition 26 requires "that the manner in which costs are allocated to a payor bear a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity." (California Constitution, Art. XIII C, § 1.) District staff and legal counsel, and its rate study consultant, believe that other zones receive at least incidental benefits, and under Proposition 26 the District has considerable discretion as to how it allocates water rights release costs among the zones receiving a specific benefit for such activities. The rate study allocates certain identifiable costs related to water rights releases and other river management functions solely to Zones A and B. The District has discretion in this regard and this approach is generally consistent with how the same or similar costs were allocated a few years ago, when the groundwater charge rates differed among certain zones.

[2] SGMA defines groundwater in Water Code 10721.(g): "'Groundwater' means water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water, but does not include water that flows in known and definite channels." Zone A consists of a known and definite channel.

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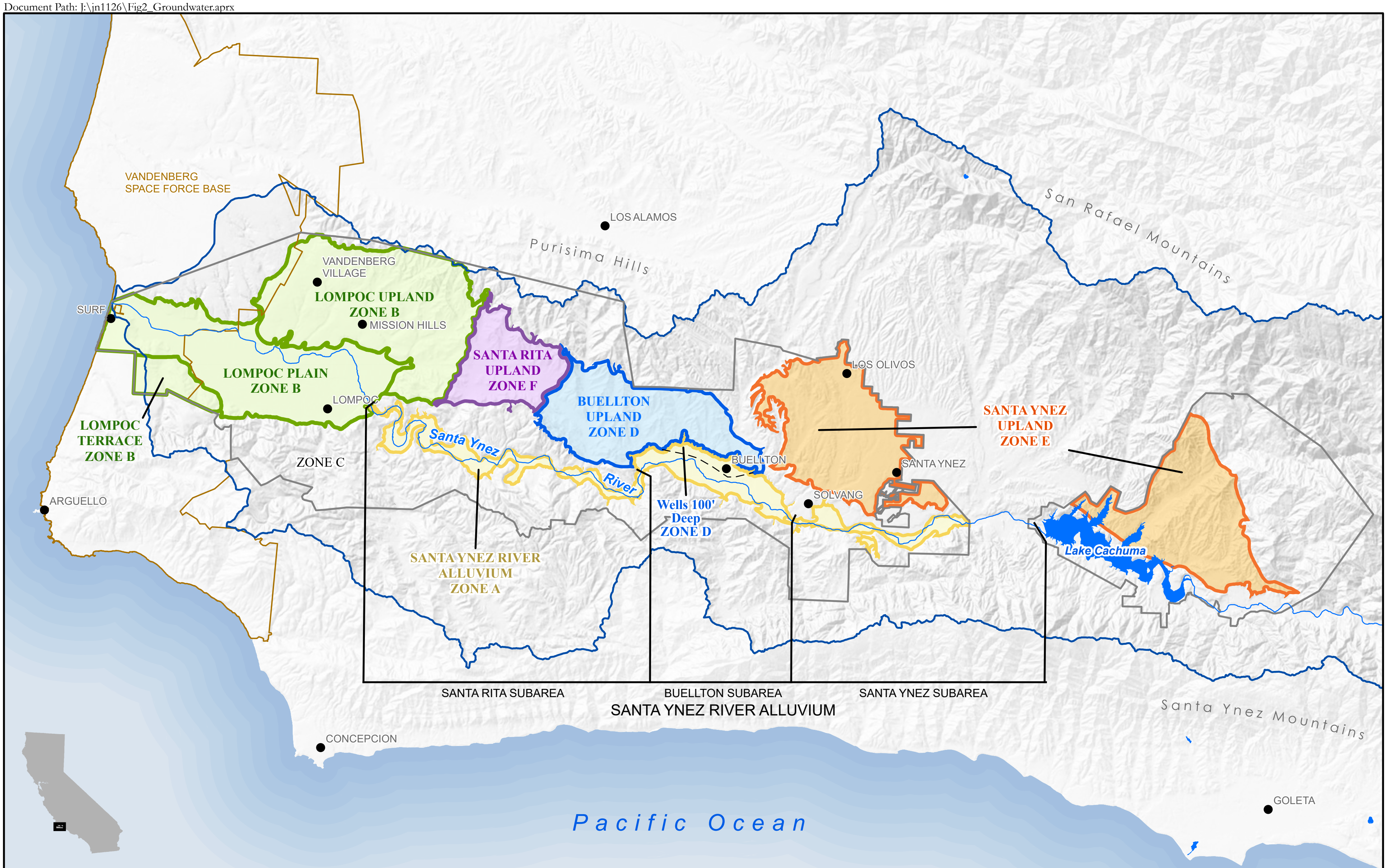


STETSON ENGINEERS INC.

Santa Ynez River Water Conservation District Boundary

Drainage Basin Boundary

GROUNDWATER CHARGE ZONES SANTA YNEZ RIVER WATER CONSERVATION DISTRICT

0 2 4 Miles

N

FIGURE 2

2.2. REVENUES

Revenues collected by the District based on groundwater production, through February 3, 2024, are presented below for specific periods.

	2023-24	2022-23	2021-22	2020-21
First-Half of Fiscal Year (July through December)	$293,177.73	$317,825.99	$289,106.53	$289,032.02
Fiscal Year Total (July through June)	In Progress	$618,293.48	$600,387.22	$587,409.10
Years Prior	In Progress	$11,913.32	$6,277.66	$10,569.85

2.3. GROUNDWATER PRODUCTION

Summarized below is the reported (as of February 3, 2024) water production within the District, in acre-feet, for the complete previous fiscal year 2022-23.

	Agricultural Water	Other Water	Special Irrigation Water	Total
Zone A	8,885.22	2,044.34	632.29	11,561.85
Zone B	13,950.21	5,410.17	816.22	20,176.60
Zone C	23.35	1,580.08	9.21	1,612.64
Zone D	2,710.79	722.00	36.40	3,469.19
Zone E	2,633.69	1,936.92	23.67	4,594.28
Zone F	1,781.52	142.88	0.00	1,924.40
TOTAL	**29,984.78**	**11,836.39**	**1,517.79**	**43,338.96**

Production reported for complete previous Fiscal Year 2022-23: July 2022-June 2023

The above total water production reported, as of February 3, 2024, for the previous fiscal year 2022-23 is about 91 percent of the 47,528 acre-feet of total water production reported for the fiscal year 2021-22 (as of February 6, 2023). The reported (as of February 3, 2024) water production within the District, in acre-feet, for the first half of the current fiscal year 2023-24 is as follows:

	Agricultural Water	Other Water	Special Irrigation Water	Total
Zone A	3,862.15	1,135.08	449.74	5,446.97
Zone B	4,842.93	2,854.43	230.84	7,928.20
Zone C	11.79	506.20	7.44	525.43
Zone D	1,900.31	391.29	29.30	2,320.90
Zone E	1,236.51	1,031.05	13.87	2,281.43
Zone F	605.28	48.06	0.00	653.34
TOTAL	**12,458.97**	**5,966.11**	**731.19**	**19,156.27**

Production for the first half of the current Fiscal Year 2023-24: July 2023-December 2023

The above total water production reported, as of February 3, 2024, for the first half of the fiscal year 2023-24 is about 86 percent of the 22,164 acre-feet of total water production reported for the first half of the fiscal year 2022-23 (as of February 6, 2023).

A small number of groundwater producers were overdue in reporting groundwater production to the District after the previous Engineering and Survey report. This is water production that occurred before July 2022 but groundwater producers reported it after June 2023, during the current fiscal year (2023-24). That late reported production, in acre-feet, is as follows:

	Agricultural Water	Other Water	Special Irrigation Water	Total
Zone A	308.26	-28.72 [a]	0.00	279.54
Zone B	0.00	-947.22 [a]	0.00	-947.22
Zone C	8.94	12.53	0.00	21.47
Zone D	56.75	10.61	0.00	67.36
Zone E	496.17	326.42	0.00	822.59
Zone F	22.00	3.24	0.00	25.24
TOTAL	**892.12**	**-623.14** [a]	**0.00**	**268.98**

Additional Production reported as newly reported pumping before July 2022
(Fiscal Year 2022-23, and previous years)
[a] *Negative values are to correct a data entry error on a previous report.*

Tables 1A, 1B, 1C, and 1D summarize the total annual production for the period 1979-80 through 2022-23 reported to the District as of February 3, 2024. The above late reported production and late reported production in previous years have been posted to the appropriate years. Figure 3 shows the 5-year average annual groundwater production by zone for the same period. The values of production shown in Tables 1A, 1B, 1C, and 1D, Figure 3, and in this "Groundwater Production" section are subject to future revision as additional late reported production is received by the District.

The projected groundwater production, in acre-feet, within the District for the current fiscal year (2023-24) and ensuing fiscal year (2024-25) is tabulated below. The estimates are based on the reported groundwater production for the previous fiscal year (2022-23).

	Agricultural Water	Other Water	Special Irrigation Water	Total
Zone A	8,885	2,045	630	11,560
Zone B	13,950	5,410	815	20,175
Zone C	25	1,580	10	1,615
Zone D	2,710	720	35	3,465
Zone E	2,635	1,935	25	4,595
Zone F	1,780	145	0	1,925
TOTAL	29,985	11,835	1,515	43,335

Projected pumping for the Current Fiscal Year 2023-24 (July 2023-June 2024), and the Ensuing Fiscal Year 2024-25 (July 2024-June 2025)

TABLE 1A
ANNUAL REPORTED GROUNDWATER PRODUCTION WITHIN THE DISTRICT [a]
ALL DISTRICT ZONES

(Acre-Feet)

Fiscal Year [b]	Agricultural	Other	Special Irrigation [c]	Total Production
1979-80	20,918	10,576		31,494
1980-81	24,584	11,531		36,115
1981-82	33,706	14,124		47,830
1982-83	29,010	10,916		39,926
1983-84	30,873	11,476		42,349
1984-85	31,131	12,444		43,575
1985-86	31,130	13,673	872	45,675
1986-87	34,474	12,781	1,546	48,801
1987-88	32,653	13,329	1,433	47,415
1988-89	33,938	11,918	1,780	47,636
1989-90	34,424	13,173	1,712	49,309
1990-91	37,317	12,569	1,691	51,577
1991-92	35,020	11,427	1,936	48,383
1992-93	34,160	11,720	2,507	48,387
1993-94	30,794	13,011	2,121	45,926
1994-95	28,254	13,161	1,821	43,236
1995-96	32,792	15,326	1,842	49,960
1996-97	35,757	14,558	1,955	52,270
1997-98	34,257	12,028	1,368	47,653
1998-99	34,605	12,390	1,736	48,731
1999-00	37,039	13,889	2,164	53,092
2000-01	38,314	26,987	2,004	67,305
2001-02	39,146	13,740	2,071	54,957
2002-03	33,894	12,360	2,107	48,361
2003-04	33,241	13,429	2,160	48,830
2004-05	31,907	12,431	1,764	46,102
2005-06	32,592	12,065	1,632	46,289
2006-07	32,663	13,353	1,893	47,909
2007-08	35,464	14,095	2,117	51,676
2008-09	35,086	13,922	2,075	51,083
2009-10	34,676	12,963	1,914	49,553
2010-11	33,967	12,023	1,557	47,547
2011-12	36,454	11,937	1,570	49,961
2012-13	40,509	13,560	1,900	55,969
2013-14	39,979	14,010	2,063	56,052
2014-15	40,646	12,812	1,615	55,073
2015-16	39,740	11,986	1,457	53,183
2016-17	37,637	11,230	1,609	50,476
2017-18	37,641	12,285	1,835	51,761
2018-19	34,386	11,431	1,599	47,416
2019-20	35,217	11,026	1,734	47,977
2020-21	33,345	12,892	1,876	48,113
2021-22	32,091	12,330	2,570	46,991
2022-23	29,986	11,836	1,517	43,339

[a] *Revised February 3, 2024.*

[b] *July 1 through June 30.*

[c] *Based upon a 1984 amendment to the California Water Code. First year for reporting special irrigation water production was 1985-86.*

TABLE 1B
ANNUAL REPORTED GROUNDWATER PRODUCTION WITHIN THE DISTRICT [a, b]
AGRICULTURAL WATER
(Acre-Feet)

Fiscal Year [c]	Zone A	Zone B	Zone C	Zone D	Zone E	Zone F	Total
1979-80	6,363	7,233	7,322				20,918
1980-81	7,535	9,486	7,563				24,584
1981-82	7,780	18,037	7,889				33,706
1982-83	7,501	13,934	7,575				29,010
1983-84	9,427	14,865	6,581				30,873
1984-85	8,418	15,589	7,124				31,131
1985-86	8,621	15,240	7,269				31,130
1986-87	9,251	19,656	5,567				34,474
1987-88	6,652	19,839	6,162				32,653
1988-89	8,303	19,218	6,417				33,938
1989-90	8,265	17,358	8,801				34,424
1990-91	8,495	18,018	10,804				37,317
1991-92	8,982	18,960	7,078				35,020
1992-93	7,852	19,122	7,186				34,160
1993-94	8,076	16,748	713	1,108	3,505	644	30,794
1994-95	8,173	14,190	1,060	843	3,018	970	28,254
1995-96	8,993	16,327	743	1,158	4,672	899	32,792
1996-97	8,977	19,235	787	970	4,347	1,441	35,757
1997-98	9,627	19,197	429	1,034	2,822	1,148	34,257
1998-99	9,702	18,724	115	1,693	3,088	1,283	34,605
1999-00	10,319	19,832	113	1,739	3,480	1,556	37,039
2000-01	11,169	20,261	121	2,247	3,306	1,210	38,314
2001-02	11,170	21,174	148	2,311	2,897	1,446	39,146
2002-03	10,515	17,559	153	1,549	2,744	1,374	33,894
2003-04	11,193	15,602	189	1,972	3,018	1,267	33,241
2004-05	10,622	15,768	141	1,856	2,439	1,081	31,907
2005-06	10,044	16,854	158	1,965	2,155	1,416	32,592
2006-07	10,756	15,834	172	1,719	2,679	1,503	32,663
2007-08	11,709	15,892	186	2,461	3,309	1,907	35,464
2008-09	11,182	16,004	174	2,823	3,155	1,748	35,086
2009-10	11,072	16,381	152	2,711	2,552	1,808	34,676
2010-11	9,635	17,493	161	2,227	2,660	1,791	33,967
2011-12	10,445	18,276	169	2,631	2,758	2,175	36,454
2012-13	11,498	21,257	145	2,357	3,389	1,863	40,509
2013-14	11,760	19,336	121	3,043	3,645	2,074	39,979
2014-15	12,346	19,511	106	3,468	3,099	2,116	40,646
2015-16	12,687	18,552	76	2,734	3,378	2,313	39,740
2016-17	11,446	18,300	77	2,898	2,964	1,952	37,637
2017-18	11,769	17,972	91	2,647	3,021	2,141	37,641
2018-19	11,093	16,287	53	1,877	2,982	2,094	34,386
2019-20	10,110	17,402	40	2,627	2,830	2,208	35,217
2020-21	11,006	14,990	28	2,123	2,972	2,226	33,345
2021-22	10,121	15,250	25	1,640	2,952	2,103	32,091
2022-23	8,885	13950	23	2,712	2,634	1,782	29,986

[a] *Revised February 3, 2024.*

[b] *Groundwater charge zones for the period 1979-80 through 1992-93 included the District portion of Zone A, Zone B and Zone C. Groundwater charge zones since 1993-94 include the District portion of Zone A, Zone B, Zone C, Zone D, Zone E and Zone F.*

[c] *July 1 through June 30.*

Table 1C
Annual Reported Groundwater Production Within the District [a, b]
Other Water
(Acre-Feet)

Fiscal Year [c]	Zone A	Zone B	Zone C	Zone D	Zone E	Zone F	Total
1979-80	1,815	6,399	2,362				10,576
1980-81	1,940	7,283	2,308				11,531
1981-82	2,471	7,506	4,147				14,124
1982-83	2,111	6,644	2,162				10,916
1983-84	2,381	6,714	2,382				11,476
1984-85	2,381	7,905	2,159				12,444
1985-86	2,120	9,407	2,147				13,673
1986-87	1,795	8,992	1,995				12,781
1987-88	2,359	8,546	2,425				13,329
1988-89	2,751	7,445	1,705				11,918
1989-90	2,517	8,495	2,171				13,173
1990-91	2,434	7,547	2,598				12,569
1991-92	2,762	6,698	1,973				11,427
1992-93	1,994	7,307	2,425				11,720
1993-94	1,663	7,681	1,224	430	1,935	78	13,011
1994-95	2,099	7,777	1,081	430	1,708	66	13,161
1995-96	2,145	8,585	1,079	469	2,998	50	15,326
1996-97	2,066	8,075	958	461	2,929	69	14,558
1997-98	1,582	7,463	978	264	1,663	78	12,028
1998-99	1,998	7,432	995	236	1,642	87	12,390
1999-00	2,263	7,906	1,208	340	2,089	83	13,889
2000-01	2,525	7,395	1,241	458	15,265	103	26,987
2001-02	2,807	7,509	1,476	537	1,289	122	13,740
2002-03	2,049	7,684	1,084	584	850	109	12,360
2003-04	2,261	8,027	1,067	508	1,460	106	13,429
2004-05	2,490	7,285	1,129	348	1,072	107	12,431
2005-06	1,993	7,624	880	265	1,199	104	12,065
2006-07	1,947	8,134	896	587	1,650	139	13,353
2007-08	2,217	8,173	886	813	1,862	144	14,095
2008-09	2,263	7,493	848	984	2,185	149	13,922
2009-10	2,612	7,006	830	1,026	1,335	154	12,963
2010-11	1,358	6,869	1,470	955	1,226	145	12,023
2011-12	1,513	6,859	982	711	1,720	152	11,937
2012-13	2,312	7,084	1,022	708	2,295	139	13,560
2013-14	2,446	7,203	1,121	750	2,344	146	14,010
2014-15	2,614	6,376	771	1,012	1,901	138	12,812
2015-16	2,275	5,994	1,081	911	1,610	115	11,986
2016-17	2,067	5,779	1,099	678	1,497	110	11,230
2017-18	2,450	6,178	1,225	559	1,746	127	12,285
2018-19	2,124	5,856	1,172	594	1,519	166	11,431
2019-20	2,046	5,776	1,020	500	1,509	175	11,026
2020-21	2,726	6,073	1,199	554	2,103	237	12,892
2021-22	2,725	5,785	876	533	2,229	182	12,330
2022-23	2,044	5,410	1,580	722	1,937	143	11,836

[a] *Revised February 3, 2024.*

[b] *Groundwater charge zones for the period 1979-80 through 1992-93 included the District portion of Zone A, Zone B and Zone C. Groundwater charge zones since 1993-94 include the District portion of Zone A, Zone B, Zone C, Zone D, Zone E and Zone F.*

[c] *July 1 through June 30.*

TABLE 1D
ANNUAL REPORTED GROUNDWATER PRODUCTION WITHIN THE DISTRICT [a, b]
SPECIAL IRRIGATION WATER [c]

(Acre-Feet)

Fiscal Year [d]	Zone A	Zone B	Zone C	Zone D	Zone E	Zone F	Total
1979-80							
1980-81							
1981-82							
1982-83							
1983-84							
1984-85							
1985-86	554	303	15				872
1986-87	523	955	68				1,546
1987-88	594	805	34				1,433
1988-89	738	1,002	40				1,780
1989-90	658	1,028	26				1,712
1990-91	669	981	41				1,691
1991-92	753	1,163	20				1,936
1992-93	1,052	1,205	250				2,507
1993-94	1,059	1,005	0	57	0	0	2,121
1994-95	1,056	729	0	36	0	0	1,821
1995-96	941	839	10	52	0	0	1,842
1996-97	935	988	10	22	0	0	1,955
1997-98	838	445	74	11	0	0	1,368
1998-99	862	836	17	13	8	0	1,736
1999-00	976	1,152	17	19	0	0	2,164
2000-01	906	1,054	12	32	0	0	2,004
2001-02	899	1,132	17	23	0	0	2,071
2002-03	1,012	1,058	10	27	0	0	2,107
2003-04	965	1,161	20	14	0	0	2,160
2004-05	876	861	19	8	0	0	1,764
2005-06	726	883	20	3	0	0	1,632
2006-07	796	1,039	23	35	0	0	1,893
2007-08	870	1,171	30	46	0	0	2,117
2008-09	858	1,126	22	69	0	0	2,075
2009-10	795	1,053	20	46	0	0	1,914
2010-11	568	939	17	33	0	0	1,557
2011-12	620	900	21	29	0	0	1,570
2012-13	762	1,088	18	32	0	0	1,900
2013-14	804	1,203	18	38	0	0	2,063
2014-15	619	939	11	46	0	0	1,615
2015-16	576	830	13	38	0	0	1,457
2016-17	626	937	12	34	0	0	1,609
2017-18	754	1,043	14	24	0	0	1,835
2018-19	639	913	12	27	7	0	1,599
2019-20	691	1,010	11	18	4	0	1,734
2020-21	779	1,057	11	15	14	0	1,876
2021-22	1,055	1,440	15	37	23	0	2,570
2022-23	632	816	9	36	24	0	1,517

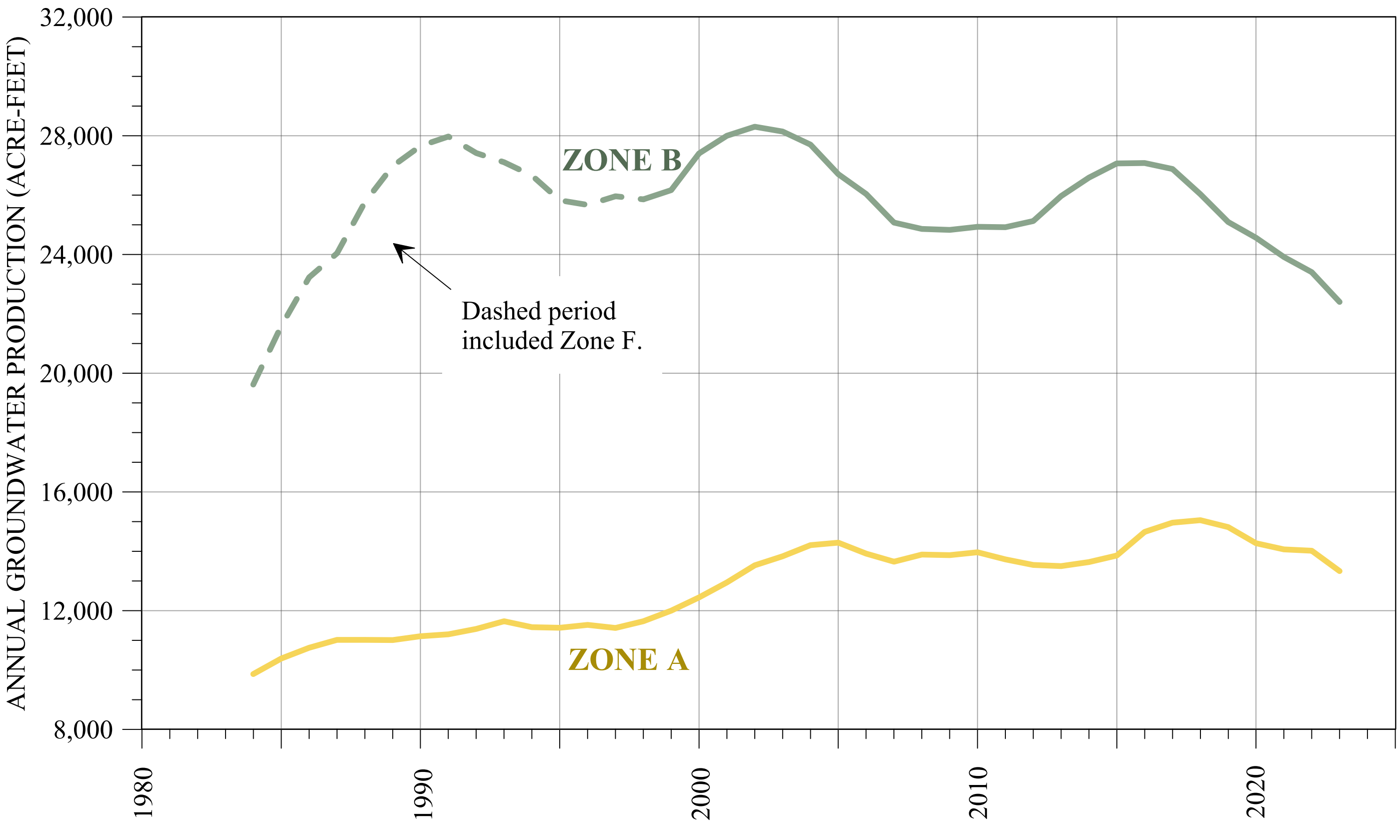
[a] Revised February 3, 2024.

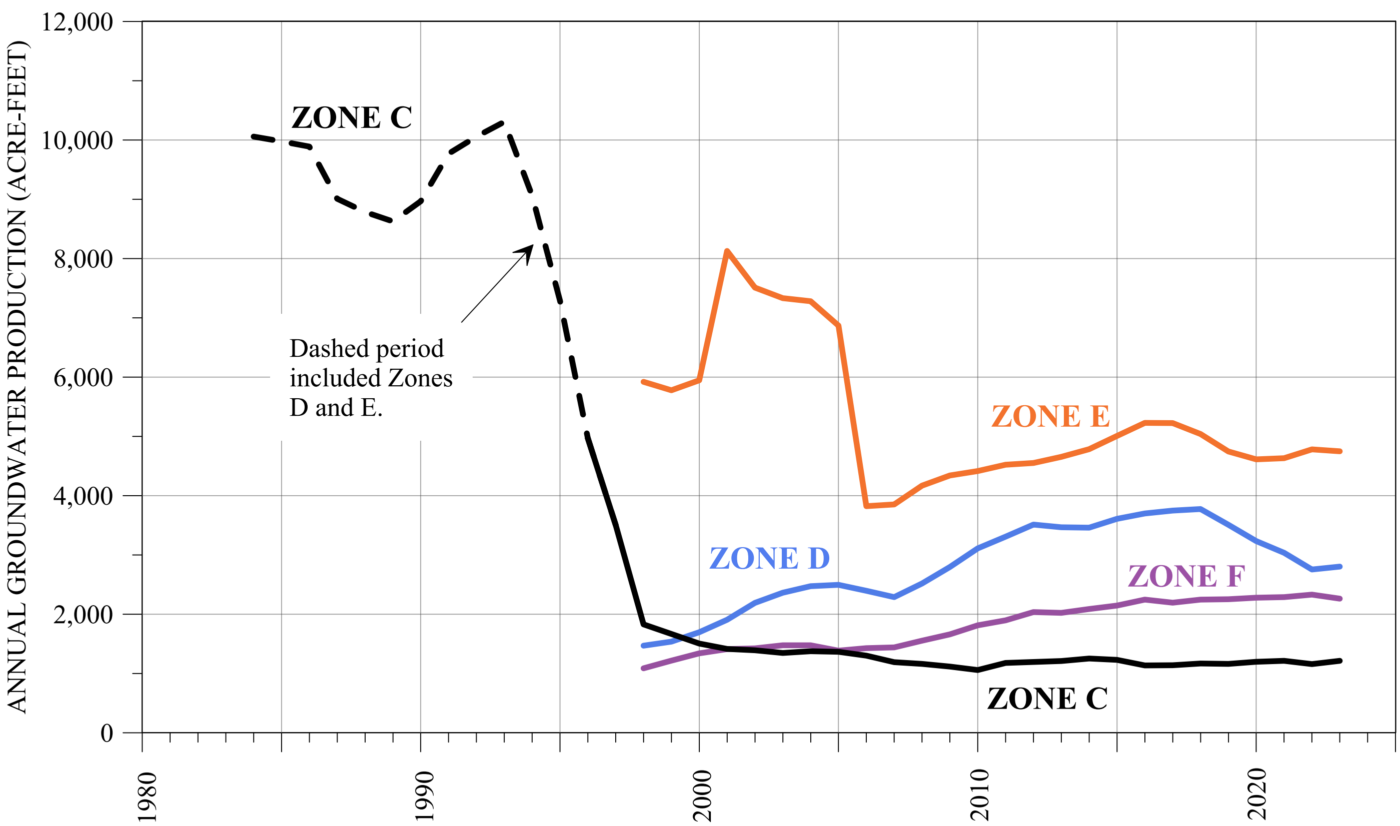
[b] Groundwater charge zones for the period 1979-80 through 1992-93 included the District portion of Zone A, Zone B and Zone C. Groundwater charge zones since 1993-94 include the District portion of Zone A, Zone B, Zone C, Zone D, Zone E and Zone F.

[c] Based upon a 1984 amendment to the California Water Code. First year for reporting special irrigation water production was 1985-86.

[d] July 1 through June 30.

ANNUAL GROUNDWATER PRODUCTION WITHIN THE DISTRICT
5-YEAR MOVING AVERAGE





2.4. WELL REGISTRATION

As of February 3, 2024, groundwater producers have registered 1,267 wells with the District. Of that number, approximately 1,027 are active and 240 are inactive. This is an addition of 46 new active wells since February 6, 2023.

	Active Wells	Inactive Wells	Total Wells
Zone A	251	70	321
Zone B	309	50	359
Zone C	68	27	95
Zone D	100	18	118
Zone E	231	60	291
Zone F	68	15	83
TOTAL	**1,027**	**240**	**1,267**

Registered Wells as of February 3, 2024

2.5. MAJOR PRODUCERS

The major water producers, those reporting groundwater production by ownership and/or lease during the fiscal year 2022-23 (as of February 3, 2024) were as follows:

	Major Water Producer Fiscal Year 2022-23	Production (Acre-Feet)
Zone A	Acin Farms (Also in Zone F)	**1,186**
	Brassica Farms (aka Freitas)	**1,118**
	SYRWCD, ID #1 (also in Zone E)	**944**
	S & B Vineyard / Sanford	**603**
	Jackson, Palmer (The Alisal)	**571**
	Sea Smoke, Rita's Crown & Southing Holdings	**370**
	City of Solvang (also in Zones C and E)	**328**
	City of Buellton (also in Zone D)	**313**
	Rancho LaVina	**298**
	Rancho Sanja Cota-was Gainey (also Zone E)	**169**
	Williams, Norman (also in Zone D)	**59**

	Major Water Producer Fiscal Year 2022-23	Production (Acre-Feet)
Zone B	City of Lompoc (Parks Dept. & Water Div.)	**3,946**
	Lompoc Farming	**3,554**
	Santa Barbara Farms (Witt/Guerra)	**3,541**
	Campbell Ranches (also in Zone F)	**3,273**
	Vandenberg Village CSD	**1,129**
	Launchpad Lands	**776**
	Sorrento Berry Farms	**645**
	Mission Hills CSD	**494**
	Joseph & Sons	**415**
	Rancho Laguna	**334**
	Hibbits (Ranch and Family Trust)	**309**
	U.S. Penitentiary Farm	**211**
	Bodger & Sons Company	**143**
	Wineman / Reiter Berry Farms	**124**
Zone C	Imerys (was Celite Corporation)	**1,300**
	City of Solvang (also in Zone A and E)	**183**
Zone D	Buell, James (incl. Marcelino, LLC)	**1,434**
	City of Buellton (also in Zone A)	**487**
	Innovative- Lease from Guerra	**203**
	Williams, Norman (also in Zone A)	**174**
	Foley Estates Vineyards (also in Zone F)	**108**
Zone E	SYRWCD, ID #1 (also in Zone A)	**1,299**
	Rancho Sanja Cota-was Gainey (also Zone A)	**148**
	City of Solvang (also in Zones A and C)	**130**
Zone F	Innovative - Lease from Campbell & Oak Hills	**589**
	Foley Estates Vineyards (also in Zone D)	**111**
	Sorrento - Lease from Campbell	**64**
	Campbell Ranches (also in Zone A)	**62**
	Acin (Also in Zone A)	**1**

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3.0 PRECIPITATION

Water supply, water use, and groundwater conditions within the District are dependent upon precipitation. Precipitation, either directly or as streamflow infiltration, recharges the groundwater supplies. The quantity and timing of precipitation can indicate future water-level conditions. Based on the 30-year climate normal, a small proportion (less than one percent) of annual precipitation occurs during the summer and fall months of June through September. Slightly above a quarter of precipitation (25 to 28 percent) falls in the autumn and early winter months of October through December, approximately two-thirds (63 to 65 percent) of precipitation falls in the winter and spring months of January through March, and a small proportion (8 to 9 percent) of precipitation falls in the late spring and summer months of April and May.

Table 2 presents the monthly precipitation and departure from normal for two precipitation stations, Bradbury Dam and Lompoc, for the period January 2023 through January 2024. Precipitation during the preceding hydrologic water year (October 2022 to September 2023) was 183 and 208 percent of normal at Bradbury Dam and Lompoc, respectively. Precipitation through January of the current hydrologic water year (October 2023 to January 2024) is 73 and 98 percent of normal at Bradbury Dam and Lompoc, respectively.

The long-term annual variation in precipitation at Santa Barbara, Gibraltar Dam, Bradbury Dam, and Lompoc is shown graphically in Figure 4. Also shown in Figure 4 is a graph of the accumulated departure from the mean annual precipitation. The analyses represented by these graphs indicate the historical wet and dry periods. An upward trend of the graph for years indicates a wet period in the basin. Conversely, a dry period is indicated where the graph trends downward for years.

TABLE 2
MONTHLY PRECIPITATION AND DEPARTURE FROM NORMAL AT BRADBURY DAM AND LOMPOC JANUARY 2023 THROUGH JANUARY 2024 [a]

(Inches)

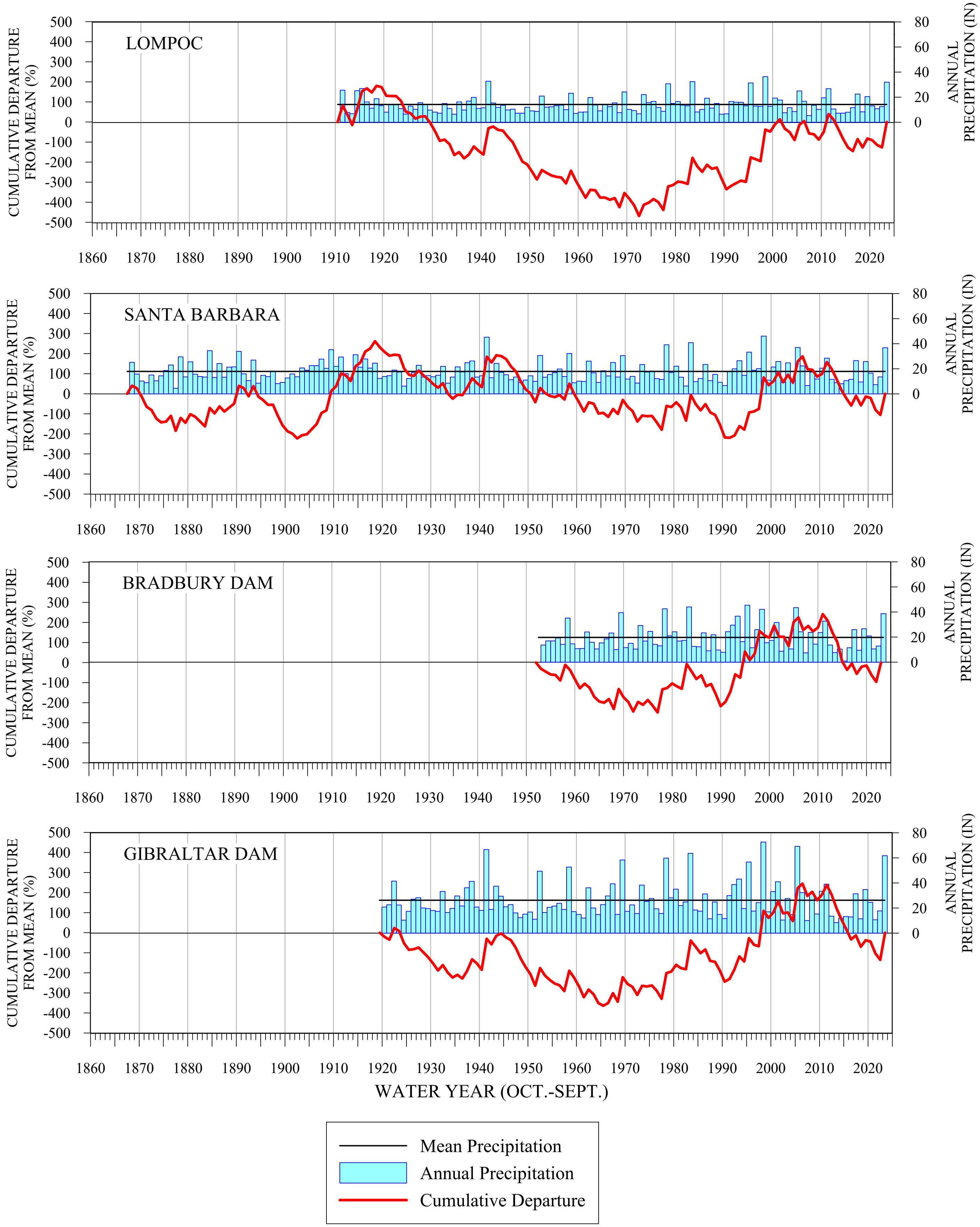
Month	Bradbury Dam		Lompoc	
	Precipitation	Departure [b]	Precipitation	Departure [b]
January 2023	15.38	10.49	11.55	8.26
February	8.77	3.48	6.11	2.45
March	7.12	3.51	6.16	3.36
April 2023	0.02	-1.29	0.03	-0.87
May	0.28	-0.26	1.02	0.68
June	0.17	0.11	0.50	0.44
July 2023	0.00	-0.01	0.00	-0.02
August	0.25	0.25	0.00	-0.01
September	0.01	-0.07	0.08	0.03
October 2023	0.01	-0.79	0.15	-0.52
November	0.60	-0.64	0.85	-0.36
December	4.98	1.68	4.84	2.44
2023 Calendar Year (January 2023-December 2023)	**37.59**	**16.46**	**31.29**	**15.88**
Percent of Normal	**178**		**203**	
January 2024	1.90	-2.99	1.61	-1.68
Partial / First Quarter + January 2024 Current Hydrologic Water Year (October 2023-January 2024)	**7.49**	**-2.74**	**7.45**	**-0.12**
Percent of Normal	**73**		**98**	

[a] Data from Santa Barbara County Flood Control District

[b] Departure from normal is based on an averaging period of 1991 to 2020 as established by the National Oceanic and Atmospheric Administration (NOAA).

Percent of Normal is relative to the months in the specific period.

ANNUAL PRECIPITATION AND CUMULATIVE DEPARTURE FROM MEAN FOR LOMPOC, SANTA BARBARA, BRADBURY DAM, AND GIBRALTAR DAM



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4.0 SURFACE WATER CONDITIONS

Surface water supplies potentially available in the watershed include the main stem and tributaries of the Santa Ynez River and imported water from northern California through the State Water Project (SWP). As mentioned in Chapter 1, the upstream diversion works, constructed on the river system by South County interests and the Federal Government, were designed to export all or most of the diverted water out of the watershed. These diversion facilities include Juncal Dam (Jameson Reservoir), Doulton Tunnel, and Fox and Alder Creeks by the Montecito Water District, Gibraltar Dam (Gibraltar Reservoir), Mission Tunnel, and Devil's Canyon by the City of Santa Barbara, and Bradbury Dam (Lake Cachuma), and Tecolote Tunnel by the U.S. Bureau of Reclamation (USBR). Drainage areas upstream of these diversion dams are approximately 14 (Juncal), 216 (Gibraltar), and 417 (Bradbury) square miles with the latter representing about 47 percent of the total watershed. These diversions significantly affect the recharge of the groundwater in the Santa Ynez River alluvial aquifer and the Lompoc Plain groundwater subarea.

The Cachuma Project, including Bradbury Dam, is by far the largest of the upstream diversion facilities with a reservoir capacity of 183,751 acre-feet at a water surface elevation of 750 feet (192,978 acre-feet with a fish surcharge of three feet, October 2021 survey) and an annual operational yield of 25,714 acre-feet. Table 3 summarizes the annual operations of this Project, from its start in 1952 through 2023.

4.1. BASIN SURFACE WATER USE

This District contracted with the USBR through the Santa Barbara County Water Agency for 10.3 percent of the annual Cachuma Project yield and in 1959 established the Santa Ynez River Water Conservation District, Improvement District No. 1 (ID No. 1) to distribute and serve municipal and irrigation water in the Santa Ynez Valley. The service area of ID No. 1 includes the towns of Santa Ynez, Los Olivos, and Solvang and surrounding area. With the creation of an independently elected trustee board in 1966, ID No. 1 became essentially a separate entity. In 1993 this District assigned its Cachuma entitlement to ID No. 1. ID No. 1 later exchanged this water (approximately 2,600 acre-feet) for treated SWP water with the other (South Coast) Cachuma Member Units. ID No. 1 continues to use a small portion of its

TABLE 3
SUMMARY OF CACHUMA PROJECT OPERATIONS
WATER YEARS 1953 THROUGH 2023 [a]
(Acre-Feet)

Hydrologic Water Year (Oct.-Sept.) [b]	[1] Lake Cachuma End-of-Year Storage	[2] Computed Inflow	[3] CCWA	[4] Precipitation on Reservoir	[5] Reservoir Evaporation	[6] Estimated Spill	[7] Diversion to Tunnel	[8] Park Diversions	[9] SYRWCD ID No.1 Deliveries	[10] Downstream Release [c]	[11] Fish Water Release
1953	9,188	17,942		106	1,319	0				7,541	
1954	21,779	18,955		598	2,327	0				4,635	
1955	19,584	4,941		936	2,540	0				3,922	
1956	36,629	24,330		1,482	4,200	0	2,118			2,449	
1957	30,154	6,150		1,162	4,642	0	5,470			3,674	
1958	196,889	219,129		4,459	11,210	35,738	4,850			5,050	
1959	187,178	15,068		3,629	14,624	3,056	8,432			2,296	
1960	163,149	2,643		2,669	13,613	0	11,410	169	300	3,849	
1961	134,493	795		2,382	12,015	0	17,309	662	239	1,608	
1962	190,475	100,134		4,963	12,446	21,822	11,921	402	890	1,633	
1963	171,736	4,270		3,788	12,157	0	10,595	510	694	2,843	
1964	141,506	2,439		2,378	11,786	0	17,352	447	1,504	3,958	
1965	122,308	12,314		3,043	10,204	0	14,909	182	1,837	7,423	
1966	168,926	79,292		3,707	12,524	0	17,522	345	2,129	3,862	
1967	191,622	208,961		5,774	12,683	153,823	14,155	246	2,575	8,557	
1968	160,871	10,404		2,414	13,524	0	18,199	357	3,669	7,820	
1969	190,181	525,370		9,727	12,305	472,411	15,031	240	2,597	3,199	
1970	176,407	28,740		1,793	13,525	0	21,448	335	4,115	4,888	
1971	161,345	31,045		3,497	12,308	0	22,800	357	3,115	11,028	
1972	121,314	8,754		2,231	11,452	0	28,158	167	4,469	6,769	
1973	185,591	125,804		5,948	12,056	29,300	18,456	129	3,552	3,982	
1974	182,039	33,670		4,112	12,677	5,655	17,805	138	3,469	1,590	
1975	184,467	50,544		5,867	11,866	16,804	20,854	128	3,057	1,275	
1976	145,187	5,310		3,189	11,804	0	26,020	148	4,655	5,152	
1977	112,077	1,520		2,601	10,775	0	18,740	98	4,583	3,035	
1978	193,424	329,219		9,573	13,535	219,295	20,701	114	3,011	790	
1979	183,949	61,692		5,250	13,917	36,385	20,102	147	4,029	1,837	
1980	187,382	153,543		6,003	13,353	116,915	22,057	139	2,483	1,166	
1981	168,871	22,066		4,019	13,811	0	20,856	178	5,007	4,743	
1982	159,528	26,848		3,868	11,479	0	20,956	187	2,963	4,474	
1983	196,347	428,601		10,995	12,630	361,675	22,616	183	1,532	4,142	
1984	171,599	39,074		3,354	14,534	17,217	25,601	193	5,054	4,577	
1985	135,748	5,057		2,816	12,275	0	22,781	142	2,664	5,862	
1986	171,873	76,571		4,831	12,782	0	21,690	108	2,686	8,010	
1987	128,352	2,374		1,996	12,147	0	27,209	150	3,812	4,573	
1988	99,150	8,732		4,092	10,293	0	23,917	102	2,803	4,911	
1989	66,098	4,044		1,459	8,366	0	20,632	86	2,802	6,670	

TABLE 3 – CONTINUED
SUMMARY OF CACHUMA PROJECT OPERATIONS
WATER YEARS 1953 THROUGH 2023 [a]
(Acre-Feet)

Hydrologic Water Year (Oct.-Sept.) [b]	[1] Lake Cachuma End-of-Year Storage	[2] Computed Inflow	[3] CCWA	[4] Precipitation on Reservoir	[5] Reservoir Evaporation	[6] Estimated Spill	[7] Diversion to Tunnel	[8] Park Diversions	[9] ID No.1 Deliveries	[10] Downstream Release [c]	[11] Fish Water Release
1990	34,188	2,627		909	6,019	0	16,384	66	863	4,792	
1991	60,995	53,566		2,057	6,373	0	15,762	43	1,656	4,983	
1992	157,066	135,828		4,022	11,239	0	18,170	52	891	13,427	
1993	177,479	333,387		8,875	13,428	280,698	22,582	79	2,042	1,591	1,429
1994	151,046	16,729		4,144	12,561	0	22,821	73	1,819	9,537	494
1995	134,855	365,092		10,063	10,321	354,402	23,887	64	109	1,823	740
1996	120,503	33,243		2,653	11,627	0	24,721	76	2,109	9,703	2,012
1997	124,771	56,552	148	2,911	11,861	0	26,785	83	1,785	13,205	1,623
1998	185,500	475,175	1354	12,071	11,350	386,055	24,473	60	0	3,956	1,976
1999	168,772	21,562	323	4,077	12,341	0	26,397	70	0	883	2,999
2000	170,840	51,895	2156	4,972	12,435	6,067	30,365	79	0	5,972	2,037
2001	173,479	152,773	818	7,712	11,995	112,313	26,089	78	0	3,502	2,157
2002	129,370	5,508	4,627	2,040	11,004	0	30,976	90	0	11,961	2,253
2003	115,449	18,822	6,816	3,707	9,402	0	28,781	99	0	2,292	2,691
2004	71,378	5,750	5,924	1,782	8,829	0	32,269	83	0	14,217	2,131
2005	179,997	401,755	3,137	8,365	11,763	260,078	26,796	62	0	2,894	3,045
2006	180,203	100,562	1,014	6,075	12,354	62,869	24,119	66	0	0	8,037
2007	132,392	4,348	5,204	1,716	11,940	0	32,797	83	0	9,327	4,932
2008	173,280	109,536	4,701	4,712	13,449	22,994	32,591	63	0	2,274	6,689
2009	142,479	13,218	2,602	3,112	12,220	0	27,634	82	0	0	8,688
2010	152,855	56,628	1,736	5,057	11,374	0	27,259	73	0	7,165	7,175
2011	180,986	151,343	1,258	7,226	11,871	85,755	26,866	79	0	1,481	5,642
2012	142,970	6,005	408	2,959	11,724	0	28,682	79	0	0	6,904
2013	91,922	2,982	2,101	1,497	9,943	0	31,039	76	0	12,613	3,956
2014	61,107	3,947	11,522	1,367	8,441	0	29,023	34	0	7,561	2,591
2015	32,989	4,006	8,316	1,074	7,443	0	17,137	25	0	12,600	2,156
2016	14,222	4,697	10,220	860	5,444	0	15,604	24	0	11,620	1,853
2017	82,459	87,508	14,073	2,196	11,352	0	14,451	25	0	8,612	807
2018	61,273	4,910	13,308	1,269	7,730	0	18,681	23	0	11,654	2,584
2019	144,475	105,371	4,606	3,500	9,467	0	13,867	23	0	0	6,918
2020	135,570	26,207	825	4,309	11,094	0	16,000	22	0	5,861	7,318
2021	95,720	3,536	1,530	2,227	9,634	0	24,741	20	0	8,625	4,123
2022	65,436	4,989	6,090	2,040	7,909	0	20,009	22	0	10,355	5,107
2023	179,435	489,456	572	8,015	10,522	344,903	17,468	20	0	203	9,993
Average [d]	133,702	84,590	4,274	3,948	10,791	47,975	20,999	137	1,525	5,331	3,905

[a] Source of Information: U.S. Bureau of Reclamation.
[b] October 1 through September 30.
[c] Includes leakage and water rights releases
[d] For period of record

Water Balance Equation: [1] End of WY Storage = [1] Start of WY Storage + [2] + [3] + [4] - [5] - [6] - [7] - [8] - [9] - [10] - [11]
Water Balance Equation does not balance at the end of Water Year 1955, 1990, 2001, 2009, 2015, 2018, and 2022. New reservoir capacity tables were developed during these years and as a result, the storage capacity was reduced. The amount of unaccounted water equals the reduction in storage volume. End of WY2017 storage corrected by 293 AF due to gage reading error.

Cachuma entitlement water to serve the County Park at Lake Cachuma. Table 3 shows annual deliveries of Cachuma Project water to ID No. 1 before the exchange and direct diversions from the reservoir for the County Park.

Alisal Reservoir is located on Alisal Creek about three miles south of Solvang at the southern boundary of the District. The Permit issued by the SWRCB in 1969 allows for the diversion and storage of 2,342 acre-feet per year for irrigation, stock watering, domestic, and recreational uses. No quantification of actual water use for this reservoir has been done.

4.2. State Water Project Water Use

In 1963, the Santa Barbara County Flood Control and Water Conservation District and the DWR executed a Water Supply Contract to supply “Table A” water from the State Water Project (SWP) to Santa Barbara County. A part of this SWP water goes to four water purveyors that serve the Santa Ynez Valley. Since 1997, the Central Coast Water Authority (CCWA) transports SWP water to Santa Ynez through the California Aqueduct via the Coastal Branch Aqueduct. The following table summarizes SWP deliveries to these purveyors for the preceding fiscal year (2022-23) and the first half of the current fiscal year (July through December 2023).

Fiscal Year (July-June)	ID No. 1 (Acre-Feet)	City of Solvang (Acre-Feet)	City of Buellton (Acre-Feet)	Vandenberg SFB (Acre-Feet)
2022-23	563	480	148	616
2023-24 (First Half)	678	477	157	627
Table A (Entitlement)	500	1,500	578	5,500

Source: Central Coast Water Authority
Table A entitlement volumes represent the maximum annual delivery of the SWP water which DWR limits to a total of 4,185,000 acre-feet for all contractors. This is sometimes referred to as the contractors’ total annual Tabel A amount. Total SWP water supplies often are less than the annual Table A amount, in which case DWR makes SWP deliveries on a proportional basis to the size of the Table A amount. Table A amounts shown do not include drought buffer.

Deliveries to ID No. 1 include Table A, drought buffer, exchange, and (turnback pool) purchased water.

4.3. River System Flow Conditions

The Lompoc Narrows are a natural constricting point of the Santa Ynez River where a stream gage measures river flows. For the 2022-23 (July-June) fiscal year flows were 386,302 acre-feet. Flows for the first half of the 2023-24 fiscal year were 9,481 acre-feet through December 2023 which is 246 percent of flows during of the first half of 2022-23. Table 4 and the graphs in Figure 5 are summaries of annual and monthly flows.

Annual flows of Salsipuedes Creek near Lompoc, a major tributary of the Santa Ynez River upstream of the Lompoc Narrows, are shown in Table 5. Salsipuedes Creek flows for the 2022-23 (July-June) fiscal year were 29,170 acre-feet. Flows for the first half of the 2023-24 fiscal year were 707 acre-feet through December 2023 which is 74 percent of flows during the first half of 2022-23. Appendix C includes flow records for additional streams in the Basin.

4.4. Water Rights Releases

Water rights releases for users downstream of Lake Cachuma are outlined in the SWRCB Order of 1973 (WR 73-37), as amended in 1989 (WR 89-18) and 2019 (WR 2019-0148). These releases are based on the establishment of two accounts, and the accrual of credits (storing water) in Lake Cachuma for the above and below Narrows areas. Above Narrows Account (ANA) water rights releases are made at Bradbury Dam for the benefit of water users between the dam and the Lompoc Narrows. Releases from the Below Narrows Account (BNA) in Lake Cachuma are for the benefit of water users in the Lompoc Plain subarea and deliveries are measured at the Lompoc Narrows. Combined releases of ANA and BNA water are made to replenish the alluvium and groundwater basin in the above and below Narrows areas.

In calendar year 2023, there were no water right releases because there was relatively low dewatered storage in the Above Narrows basin. Historical water rights releases are summarized in Table 6.

TABLE 4
FLOW OF THE SANTA YNEZ RIVER AT THE LOMPOC NARROWS
(Acre-Feet)

Hydrologic Water Year (Oct.-Sept.)	Flow	Hydrologic Water Year (Oct.-Sept.)	Flow	Hydrologic Water Year (Oct.-Sept.)	Flow	Hydrologic Water Year (Oct.-Sept.)	Flow	Hydrologic Water Year (Oct.-Sept.)	Flow	Hydrologic Water Year (Oct.-Sept.)	Flow
		1925	7,300	1945	50,700	1965	4,980	1985	3,100	2005	431,520
		1926	90,100	1946	38,970	1966	29,240	1986	30,110	2006	87,730
		1927	152,000	1947	13,940	1967	161,690	1987	5,210	2007	6,860
1908	222,000	1928	30,800	1948	50	1968	5,700	1988	3,590	2008	72,550
1909	681,000	1929	9,770	1949	2,040	1969	617,710	1989	30	2009	3,750
1910	115,000	1930	5,780	1950	1,460	1970	8,500	1990	0	2010	31,900
1911	533,000	1931	2,390	1951	0	1971	7,420	1991	20,900	2011	135,290
1912	50,400	1932	142,000	1952	261,900	1972	3,180	1992	62,090	2012	5,640
1913	47,400	1933	17,700	1953	19,910	1973	80,770	1993	391,520	2013	4,030
1914	546,000	1934	24,170	1954	5,830	1974	20,400	1994	15,610	2014	4,480
1915	395,000	1935	56,830	1955	2,060	1975	61,850	1995	485,390	2015	50
1916	258,000	1936	40,830	1956	28,750	1976	3,980	1996	24,820	2016	2,310
1917	137,000	1937	209,000	1957	1,460	1977	270	1997	34,320	2017	31,920
1918	320,000	1938	352,400	1958	139,990	1978	391,550	1998	681,490	2018	4,810
1919	60,300	1939	32,960	1959	16,930	1979	70,180	1999	28,470	2019	42,990 +
1920	43,500	1940	20,610	1960	1,570	1980	189,100	2000	48,830	2020	11,280
1921	16,800	1941	652,300	1961	330	1981	20,240	2001	250,510	2021	12,320
1922	190,500	1942	67,310	1962	87,890	1982	6,450	2002	9,520	2022	4,040
1923	23,000	1943	231,900	1963	9,520	1983	503,620	2003	15,730	2023	390,870
1924	5,300	1944	119,400	1964	0	1984	34,110	2004	6,710	2024 (through Dec)	3,090 *
										Average (1908-2023)	105,310
										Average (1953-2023)	83,630

* indicates provisional data.
2019 flows do not include equipment failure January 14-17, likely totalling less than 400 Acre-Feet.
Data from U.S. Geological Survey include periods of 1908 through 1918, 1926 though 1950, 1952 through 1963, and 1965 through March 2015.

Data from U.S. Bureau of Reclamation include periods of 1919 through 1925, 1951, and 1964.

Flow regulated by Lake Cachuma since November 1952.

MONTHLY SURFACE FLOW, SANTA YNEZ RIVER NEAR LOMPOC

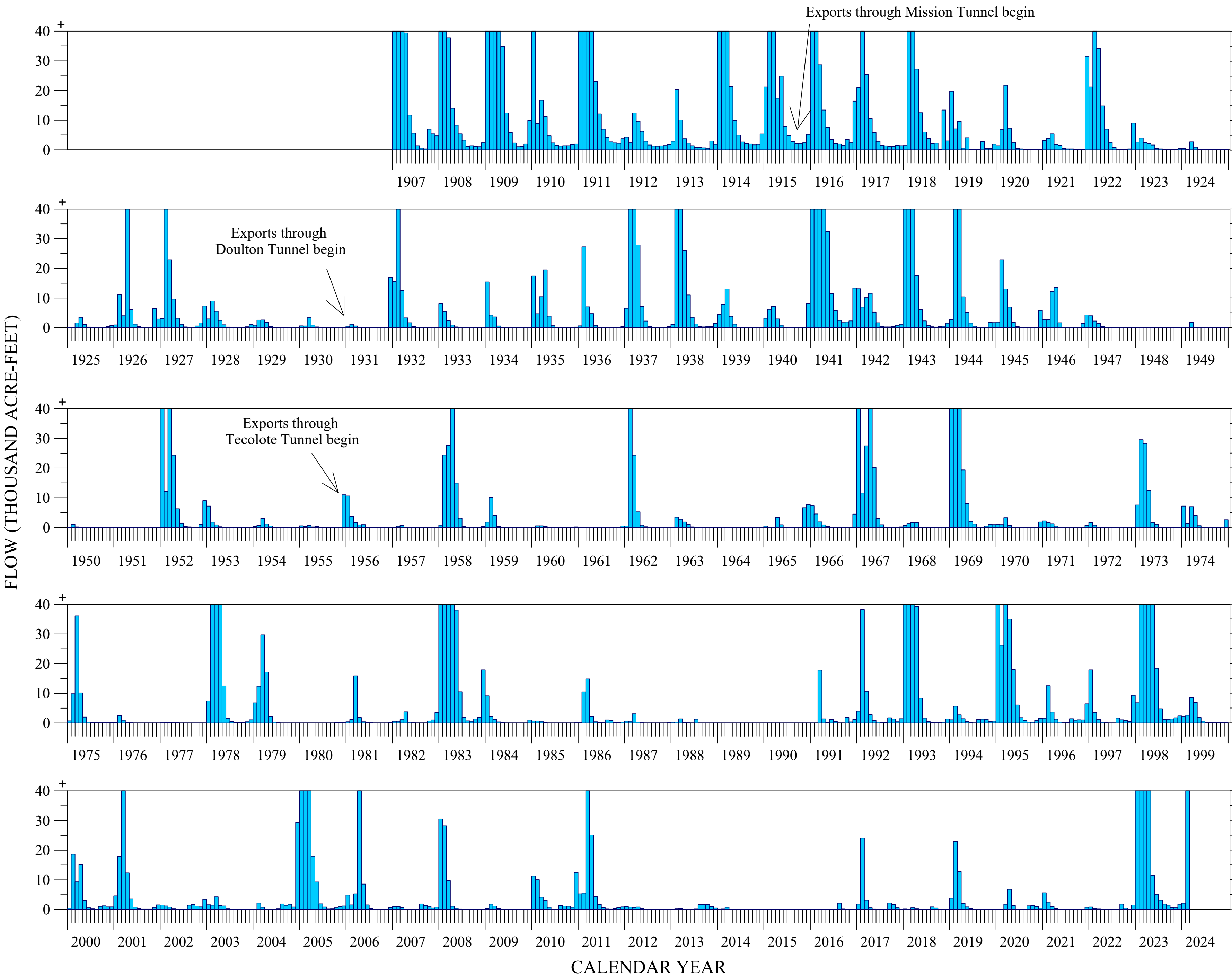

FIGURE 5

TABLE 5
FLOW OF SALSIPUEDES CREEK NEAR LOMPOC
(Acre-Feet)

Hydrologic Water Year (Oct.-Sept.)	Flow	Hydrologic Water Year (Oct.-Sept.)	Flow	Hydrologic Water Year (Oct.-Sept.)	Flow	Hydrologic Water Year (Oct.-Sept.)	Flow	Hydrologic Water Year (Oct.-Sept.)	Flow
		1945	2,270	1965	2,720	1985	1,170	2005	33,240
		1946	1,790	1966	9,480	1986	10,290	2006	5,620
		1947	870	1967	6,710	1987	1,610	2007	690
		1948	400	1968	780	1988	890	2008	8,730
		1949	1,710	1969	20,520	1989	210	2009	650
		1950	1,280	1970	1,810	1990	120	2010	4,840
		1951	330	1971	1,180	1991	4,420	2011	15,020
		1952	16,870	1972	520	1992	6,680	2012	1,110
		1953	4,630	1973	15,660	1993	17,030	2013	370
		1954	2,410	1974	5,320	1994	2,740	2014	240
		1955	1,320	1975	13,780	1995	58,360	2015	110
		1956	15,610	1976	1,520	1996	3,610	2016	170
		1957	1,250	1977	600	1997	5,480	2017	9,700
		1958	23,570	1978	36,230	1998	41,170	2018	240
		1959	2,620	1979	8,410	1999	6,160	2019	12,310
		1960	1,420	1980	14,980	2000	10,760	2020	1,600
		1961	690	1981	5,060	2001	20,000	2021	2,970
1942	10,650	1962	22,200	1982	1,610	2002	1,650	2022	980
1943	10,710	1963	5,330	1983	36,850	2003	3,620	2023	29,550 *
1944	8,870	1964	930	1984	3,360	2004	1,660	2024 (through Dec)	320 *
								Average (1942-2023)	8,680

Data from U.S. Geological Survey.
* indicates provisional data.

TABLE 6
HISTORICAL WATER RIGHTS RELEASES

	Releases (Acre-Feet)		
Calendar Year	Above Narrows Account (ANA)	Below Narrows Account (BNA)	Total
Releases under Live Stream			
1953	-	-	7,540
1954	-	-	4,632
1955	-	-	3,921
1956	-	-	2,449
1957	-	-	3,674
1958	-	-	4,142
1959	-	-	1,294
1960	-	-	3,411
1961	-	-	1,365
1962	-	-	380
1963	-	-	2,239
1964	-	-	3,665
1965	-	-	7,251
1966	-	-	6,860
1967	-	-	3,274
1968	-	-	6,705
1969	-	-	1,499
1970	-	-	6,100
1971	-	-	8,095
1972	-	-	6,320
1973	-	-	1,245
Releases under WR 73-37			
1974	1,353	0	1,353
1975	1,134	0	1,134
1976	4,237	0	4,237
1977	2,299	0	2,299
1978	62	0	62
1979	1,200	0	1,200
1980	0	0	0
1981	4,175	0	4,175
1982	6,655	755	7,410
1983	0	0	0
1984	3,162	0	3,162
1985	5,686	0	5,686
1986	5,317	1,780	7,097
1987	3,887	0	3,887
1988	5,050	1,283	6,333
1989	5,192	0	5,192

	Releases (Acre-Feet)		
Calendar Year	Above Narrows Account (ANA)	Below Narrows Account (BNA)	Total
Releases under WR 89-18			
1990	4,792	0	4,792
1991	7,745	3,638	11,383
1992	4,930	3,287	8,217
1993	0	0	0
1994	6,727	4,012	10,739
1995	0	0	0
1996	7,319	3,459	10,778
1997	9,572	3,438	13,010
1998	0	0	0
1999	0	0	0
2000	4,360	1,858	6,218
2001	0	0	0
2002	9,054	4,412	13,466
2003	0	0	0
2004	11,494	4,512	16,006
2005	0	0	0
2006	0	0	0
2007	6,703	4,897	11,600
2008	0	0	0
2009	0	0	0
2010	5,122	3,524	8,646
2011	0	0	0
2012	0	0	0
2013	10,694	6,779	17,473
2014	4,698	0	4,698
2015	10,603	0	10,603
2016	9,334	2,286	11,620
2017	7,758	4,454	12,212
2018	6,606	1,448	8,054
2019	0	0	0
Releases under WR 2019-0148			
2020	6,379	4,101	10,480
2021	4,649	0	4,649
2022	7,912	2,001	9,913
2023	0	0	0

4.5. STATE WATER CODE REQUIREMENTS

The Water Code requires the Board to estimate for the ensuing water year: (1) the amount of water necessary for surface distribution, (2) the amount of water necessary for replenishment of groundwater supplies, and (3) the amount of water the District is obligated by contract to purchase (Water Code Sections 75574 (h), (i), and (j)). The amount of water necessary for surface distribution would be scheduled for delivery by ID No. 1, Solvang, Buellton, and Vandenberg SFB. The fiscal year 2023-24 delivery requests for State Water delivery according to the schedules submitted by ID No. 1, Solvang, Buellton, and Vandenberg SFB, are shown as follows. However, the actual delivery amounts would vary depending on changes in the delivery schedule and availability of SWP water.

	Acre-Feet [a]
ID No. 1	0
City of Solvang	614
City of Buellton	212
Vandenberg SFB	1,873
TOTAL	2,699

Requests for the current Calendar Year 2024
[a] Includes buffer.
Source: Central Coast Water Authority

In addition, during the current fiscal year (2023-24), the SWP is scheduled to deliver ID No. 1 its Cachuma entitlement (approximately 2,600 acre-feet) via exchange subject to shortage reductions for surface distribution. The District does not have any contracts to purchase surface water nor the facilities to divert the Santa Ynez River and/or tributary flow.

5.0 GROUNDWATER CONDITIONS

There are two general types of water-bearing deposits within the District. They are: (1) river channel deposits and younger alluvium present along the Santa Ynez River and beneath the Lompoc Plain; and (2) older unconsolidated deposits either underlying the younger alluvial deposits or filling basins generally not in hydrologic continuity with the Santa Ynez River and its associated alluvial deposits.

5.1. SOURCES OF GROUNDWATER

The sources of groundwater comprising each of the District's zones are as follows:

Zone A - Santa Ynez River alluvial deposits

- Santa Ynez subarea
- Buellton subarea
- Santa Rita subarea

Zone B - Lompoc Area

- Lompoc Plain subarea
- Lompoc Upland subarea
- Lompoc Terrace subarea

Zone C - Miscellaneous unconsolidated deposits and consolidated rocks

Zone D - Buellton Upland subarea

Zone E - Santa Ynez Upland subarea

Zone F - Santa Rita Upland subarea

The map in Figure 6 shows the extent of the major groundwater sources. A general description of the hydrogeology of the various sources of groundwater within the District is included in Appendix E. Groundwater levels from selected wells throughout the District are included in Appendix F.

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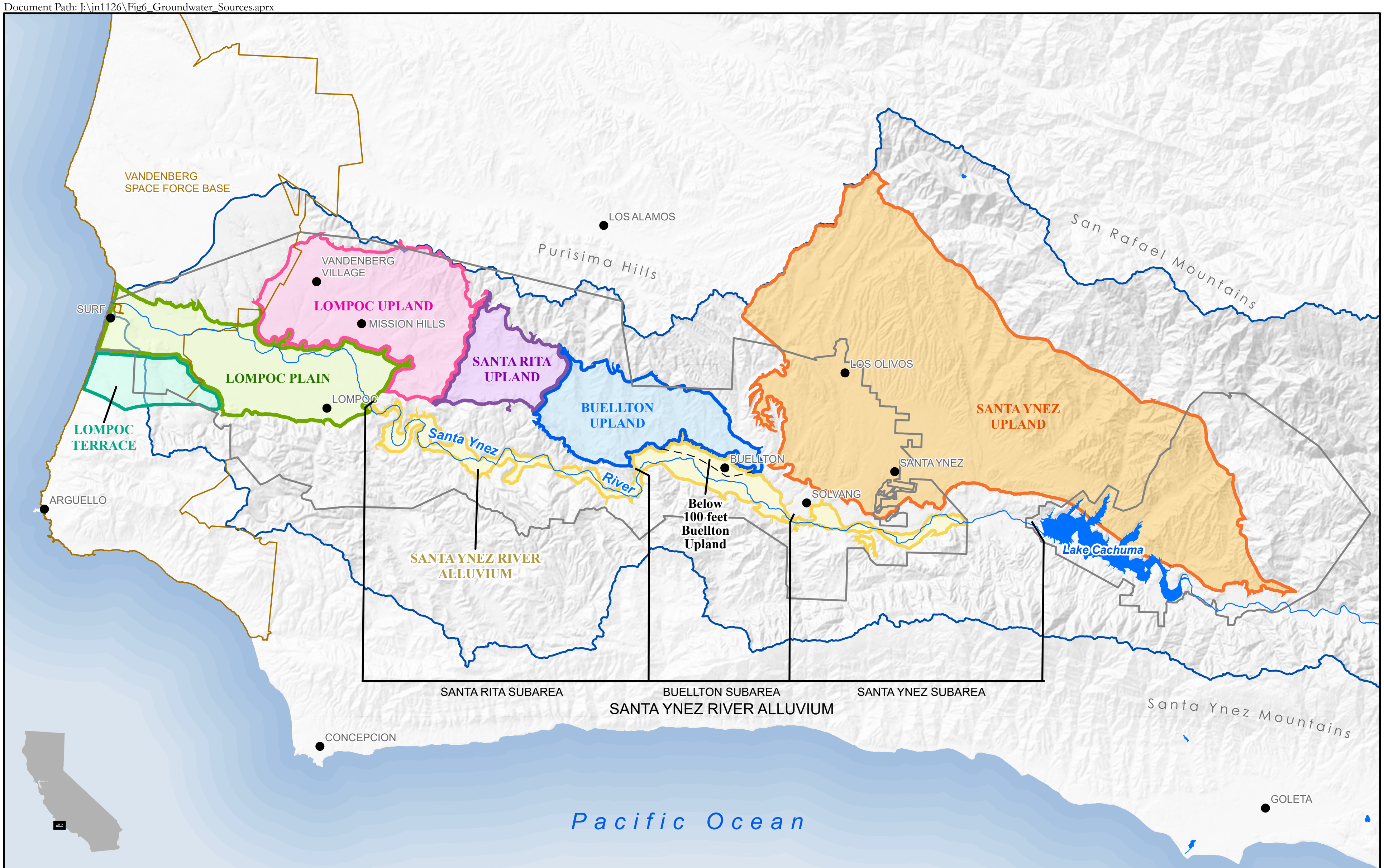


STETSON ENGINEERS INC.

Santa Ynez River Water Conservation District Boundary

Drainage Basin Boundary

MAJOR GROUNDWATER SOURCES SANTA YNEZ RIVER BASIN

0 2 4 Miles

N

FIGURE 6

5.2. Storage Changes

Estimates of change in groundwater storage provide the general status of groundwater conditions of the District. For the current year and the ensuing year, the change in groundwater storage is forecasted for future conditions. For the previous years, the change in groundwater storage is calculated based on historical groundwater levels.

In March and April, the Santa Barbara County Water Agency (SBCWA), the City of Buellton, and USBR collect and report on spring water level measurements in wells throughout the District. Since spring water levels are unavailable until after the publication date, the change in storage for the current water year (2023-24) and ensuing water year (2024-25) is forecasted. The forecast is based on aspects of the water budget where partial data for the year is available, including antecedent conditions, inflows, and outflows. The parameters for prediction include rainfall and streamflow data that have occurred through January 31st and additional pumping and groundwater storage trends. While past performance does not guarantee future results, forecasted storage changes provide some insight into the likely range of outcomes. These forecasts of future groundwater storage change will be replaced each year based on groundwater level measurements from the previous year.

The change in water levels and storage for the preceding year is based on the water levels for the previous spring. A nodal system is used to calculate the change in storage and overdraft estimate for the preceding year (Water Year 2022-23). This calculated overdraft for the prior year is then used with the nine preceding years to determine the ten-year average annual overdraft.

5.2.1. Preceding Year (Spring 2022 to Spring 2023) Groundwater Levels

Groundwater level changes from spring to spring provide the best direct indication of groundwater conditions during the year. Groundwater levels in spring 2023 represent the conditions near the end of the fiscal year 2023 and Appendix G lists these groundwater levels. Water levels for Spring 2024 are collected after the publication of this report. Tables 7 through 10 report changes in groundwater levels from spring 2022 to spring 2023. In these tables, a 0.0 reading indicates a change of fewer than 0.1 feet, while a dash is a null value meaning the change could not be calculated due to one or two years of missing data.

Table 7 presents the water-level changes for eight wells measured by the USBR and SBCWA in the forebay of the Lompoc Plain subarea and 27 additional wells measured by the SBCWA in the central and western portions of the Lompoc Plain. In the forebay, water levels increased from Spring 2022 to Spring 2023 in all measured wells. The forebay well not measured by SBCWA and USGS has been dry since March 2016, so the water level change at this location is unknown. The water levels rose over the preceding year in 23 of the 27 measured wells located in the central and western portion of the Lompoc Plain while water levels declined in four wells. The hydrographs of three wells located in the Lompoc Plain subarea are shown in Figure F-1 (Appendix F).

Water-level changes over the preceding year are shown in Table 8 for nine wells measured by the SBCWA in the Lompoc Upland subarea. The water levels rose from Spring 2022 to Spring 2023 in five well and declined in the remaining four wells. Hydrographs for five wells located in the Lompoc Upland subarea are shown in Figure F-2 (Appendix F). The water level in the only well measured in the Lompoc Terrace subarea rose by 1.2 feet over the past year (Table 8 and Figure F-3, Appendix F).

In the Santa Rita Upland water levels rose in two wells, stayed the same in one well, and declined in one wells (Table 9). A hydrograph of Well 7N/33W-27G1 is shown in Figure F-3 (Appendix F).

The change in water levels over the preceding year in all five wells measured in the Buellton Upland subarea is also presented in Table 9. Water levels rose in four of the wells and declined in one well. The hydrograph of well 6N/31W-7F1 showing water-level elevations is included in Figure F-3 (Appendix F).

The change in water levels from Spring 2022 to Spring 2023 in 25 wells located in the Santa Ynez Upland subarea is shown in Table 10. Ten of these wells are located within the District portion of the Santa Ynez Upland subarea. Within the District portion of the subarea, the water level was observed to rose in eight wells and declined in two wells. Hydrographs of two wells located in the Santa Ynez Upland subarea are included in Figure F-4 (Appendix F).

Table 7
Water-Level Changes
Lompoc Plain Subarea
2022 to 2023

Forebay [a]

Well No.	Water-Level Change (Feet)
6N/34W-4G4	5.2 [b]
7N/34W-22M6	2.5
7N/34W-25F3	0.9
7N/34W-26B4	6.3
7N/34W-26H3	-- [c]
7N/34W-26Q5	11.9
7N/34W-27F9	9.7 [b]
7N/34W-34R1	8.1
7N/34W-35K9	7.2

Central and Western Plain [b]

Well No.	Water-Level Change (Feet)
6N/34W-6C4	--
7N/34W-20K4	10.8
7N/34W-27G6	9.7
7N/34W-29E4	12.8
7N/34W-29N6	10.5
7N/34W-29N7	8.8
7N/34W-30L10	10.2
7N/34W-31R2	8.8
7N/34W-32H2	--
7N/35W-15M1	0.8
7N/35W-17M1	-3.5
7N/35W-17K20	-3.3
7N/35W-18J2	-1.8
7N/35W-21G2	-1.4
7N/35W-22J1	3.3
7N/35W-22M1	9.3
7N/35W-23B2	1.0
7N/35W-23Q2	--
7N/35W-23Q3	--
7N/35W-23Q4	6.2
7N/35W-24J4	10.1
7N/35W-24K5	1.9
7N/35W-24N3	10.6
7N/35W-25F6	5.1
7N/35W-25F7	0.1
7N/35W-26F4	11.6
7N/35W-26L1	1.8
7N/35W-26L2	5.1
7N/35W-26L4	8.4
7N/35W-27C1	9.7
7N/35W-35A3	10.2

[a] Based upon measurements made during March 2023 by the U.S. Bureau of Reclamation.

[b] Based upon estimated elevations by the U.S. Bureau of Reclamation.

[c] Based upon measurements made during March 2023 by the Santa Barbara County Water Agency. Well 26H3 has been dry since 2016, so change in groundwater elevation could not be determined.

Table 8
Water-Level Changes
Lompoc Upland and Lompoc Terrace Subareas
2022 to 2023

Lompoc Upland Subarea

Well No.	Water-Level Change (Feet)
7N/33W-17M1	-0.7
7N/33W-17N2	-0.4
7N/33W-19D1	-0.1
7N/33W-20G1	--
7N/34W-12E1	-0.4
7N/34W-14F4	3.3
7N/34W-14L1	2.6
7N/34W-15D3	2.1
7N/34W-15E1	2.7
7N/34W-15P2	1.2

Lompoc Terrace Subarea

Well No.	Water-Level Change (Feet)
7N/35W-27P1	1.2

Based upon measurements made during March 2023 by the Santa Barbara County Water Agency.

Table 9
Water-Level Changes
Santa Rita and Buellton Upland Subareas
2022 to 2023

Santa Rita Upland Subarea

Well No.	Water-Level Change (Feet)
7N/33W-21G2	0.2
7N/33W-21N1	0.0
7N/33W-27G1	1.1
7N/33W-28D3	-0.5

Buellton Upland Subarea

Well No.	Water-Level Change (Feet)
6N/31W-7F1	1.8
6N/32W-2Q1	1.8
6N/32W-12K2	-1.1
7N/32W-31M1	1.8
7N/33W-36J1	2.3

Based upon measurements made during March 2023 by the Santa Barbara County Water Agency.

TABLE 10
WATER-LEVEL CHANGES
SANTA YNEZ UPLAND SUBAREA
2022 TO 2023

District Portion of Subarea

Well No.	Water-Level Change (Feet)
6N/30W-7G5	-3.8
6N/30W-7G6	0.5
6N/31W-1P2	--
6N/31W-1P3	0.1
6N/31W-2K1	11.8
6N/31W-3A1	1.5
6N/31W-4A1	-0.3
6N/31W-10F1	3.5
6N/31W-11D4	16.2
6N/31W-13D1	5.1
7N/31W-23P1	--
7N/31W-36L2	5.0

Non-District Portion of Subarea

Well No.	Water-Level Change (Feet)
6N/29W-6F1	3.0
6N/29W-6G1	1.8
6N/29W-7L1	7.5
6N/29W-8P1	--
6N/29W-8P2	-0.6
6N/30W-1R3	4.8
6N/30W-11G4	45.7
7N/30W-16B1	3.8
7N/30W-19H1	0.6
7N/30W-22E1	1.1
7N/30W-24Q1	-1.2
7N/30W-27H1	7.8
7N/30W-29D1	22.2
7N/30W-30M1	--
7N/30W-33M1	-0.4
8N/30W-30R1	29.8
8N/31W-36H1	17.8

Based upon measurements made during March 2023 by the Santa Barbara County Water Agency.

5.2.2. Preceding Year (2022-23) Storage Update

The general status of groundwater conditions in the District can be shown by estimates of changes in groundwater storage of the major sources of groundwater within the District. The USBR, in connection with SWRCB Order No. 89-18, determines monthly the quantity of dewatered storage beneath the forebay on the Lompoc Plain and in the Santa Ynez River alluvial deposits. Under normal water supply conditions, the Santa Ynez River alluvial deposits are replenished yearly. During extended drought periods, some shortages in supply may occur in these deposits.

To monitor the groundwater conditions of the District portions of the Lompoc Upland, Santa Ynez Upland, Lompoc Terrace, Santa Rita Upland, and the eastern portion of the Buellton Upland, nodal systems for each source were established. The nodal systems are used to estimate the annual change in the quantity of groundwater in storage and overdraft for the preceding year (2022-23), and for the past ten years (2013-14 through 2022-23).

5.2.3. Forecasted Change in Storage for the Current Year

The forecasted change in storage for the ongoing current water year (2023-24) is based on aspects of the water budget where partial data for the year is available. For each of the subareas, a statistical regression of measured and reported hydrological data for antecedent conditions, inflows, and outflows was evaluated against the historical period of record.

The estimated annual (Spring to Spring) change in groundwater storage in the alluvium of the Santa Ynez River (Zone A)[3] for the past ten years, 2013-14 through 2022-23, and the current year, 2023-24 (forecasted), are summarized in Table 11. For the data on the past years, the change in groundwater storage is based upon the USBR's 25-node system, which extends from Robinson Bridge near Lompoc to Bradbury Dam at Lake Cachuma. One node and a

[3] Subsurface water stored in the alluvium is generally characterized in this report as "groundwater" as that term is defined Water Code Section 75502 and provisions of the Water Code governing the District's establishment, levying and collection of groundwater charges and preparation of this report (e.g., Water Code Section 75500, et seq.). In contrast, as mentioned elsewhere, the three GSPs for the Basin have characterized this same subsurface water stored in alluvium as not being part of the groundwater system or "groundwater" as defined by Water Code Section 10721(w) of SGMA, and, accordingly, have characterized such subsurface water as being part of the surface water system. The two different characterizations are not inconsistent, but, rather, are necessary to comply with two different divisions or parts of the Water Code that define groundwater differently.

TABLE 11
ESTIMATED ANNUAL CHANGE OF GROUNDWATER IN STORAGE
IN THE SANTA YNEZ RIVER ALLUVIUM
FOR THE PAST TEN YEARS AND CURRENT YEAR (2023-24)
(Acre-Feet)

Year (Spring to Spring)	Santa Ynez Subarea		Buellton Subarea		Santa Rita Subarea		Total Santa Ynez River Alluvium	
	Change in Storage	Accumulated Dewatered Storage	Change in Storage	Accumulated Dewatered Storage	Change in Storage	Accumulated Dewatered Storage	Change in Storage	Accumulated Dewatered Storage
2012-13		4,100		6,100		6,400		16,600
2013-14	-600	4,700	-300	6,400	1,300	5,100	400	16,200
2014-15	-800	5,500	-200	6,600	-3,500	8,600	-4,500	20,700
2015-16	500	5,000	-100	6,700	1,800	6,800	2,200	18,500
2016-17	1,400	3,600	600	6,100	3,600	3,200	5,600	12,900
2017-18	-1,000	4,600	-200	6,300	-2,500	5,700	-3,700	16,600
2018-19	600	4,000	-300	6,600	1,000	4,700	1,300	15,300
2019-20	400	3,600	1,300	5,300	-1,100	5,800	600	14,700
2020-21	-500	4,100	100	5,200	-200	6,000	-600	15,300
2021-22	0	4,100	600	4,600	900	5,100	1,500	13,800
2022-23	1,100	3,000	400	4,200	2,000	3,100	3,500	10,300
2023-24 [a]	0	3,000	-300	4,500	-200	3,300	-500	10,800

[a] Forecasted storage.

Based upon dewatered storage estimated by the U.S. Bureau of Reclamation (USBR). Values are rounded.

portion of another node lie outside the District, upstream of San Lucas Bridge. The totals shown in Table 11 for the Santa Ynez subarea reflect changes in the groundwater storage for these nodes. The forecasted accumulated dewatered storage at the end of March 2024 is about 10,800 acre-feet. As of December 31, 2023, the District had 6,455 acre-feet in the Above Narrows Account in Lake Cachuma which is set aside for replenishment of the Santa Ynez River Alluvium.

The estimated annual (Spring to Spring) change in groundwater storage in the Lompoc Plain subarea for the past ten years, 2013-14 through 2022-23, and the current year, 2023-24 (forecasted), are summarized in Table 12. Table 12 indicates that the forecasted accumulated dewatered storage for March 2024 will be 12,000 acre-feet. There is a forecasted increase in groundwater storage in the Lompoc Plain subarea of 1,400 acre-feet during the current year. As of December 31, 2023, the District had 3,053 acre-feet of water in the Below Narrows Account in Lake Cachuma. This is water retained in Lake Cachuma dedicated to the eventual replenishment of the Lompoc Plain alluvium storage.

The estimated annual change in groundwater storage beneath the Lompoc Upland and the Lompoc Terrace subareas is shown in Table 13 for the past ten years, 2013-14 through 2022-23, and the current year, 2023-24 (forecasted). Table 13 indicates that during those ten years, there has been an average decline of 580 acre-feet per year in the quantity of groundwater in storage in the Lompoc Upland. A decrease of three hundred acre-feet in storage is forecasted for the current year, 2023-24. The estimated total dewatered storage in the Lompoc Upland subarea through Spring 2024 is 37,000 acre-feet. In the Lompoc Terrace during the current year, 2023-24, there is a forecasted decrease in groundwater in storage of two hundred acre-feet. The estimated dewatered storage in the Lompoc Terrace subarea through Spring 2024 is nine hundred acre-feet.

The estimated annual change in groundwater storage in the Santa Rita Upland subarea is shown in Table 14 for the past ten years, 2013-14 through 2022-23, and the current year, 2023-24 (forecasted). Table 14 indicates that during those ten years, there has been an average decline of 40 acre-feet per year in the quantity of groundwater in storage in the Santa Rita Upland subarea. By the end of the current year, 2023-24, there is a forecasted reduction of 2,300 acre-feet of groundwater in storage.

TABLE 12
ESTIMATED ANNUAL CHANGE OF GROUNDWATER IN STORAGE IN THE LOMPOC PLAIN SUBAREA FOR THE PAST TEN YEARS AND CURRENT YEAR (2023-24)

(Acre-Feet)

Year (Spring to Spring)	Change in Storage	Accumulated Dewatered Storage
2012-13		15,100
2013-14	100	15,000
2014-15	-4,500	19,500
2015-16	-2,300	21,800
2016-17	1,100	20,700
2017-18	900	19,800
2018-19	1,800	18,000
2019-20	2,900	15,100
2020-21	-200	15,300
2021-22	-2,800	18,100
2022-23	4,700	13,400
2023-24 [a]	1,400	12,000

Based upon dewatered storage estimated by the U.S. Bureau of Reclamation (USBR). Values are rounded.

[a] Forecasted storage.

TABLE 13
ESTIMATED ANNUAL CHANGE OF GROUNDWATER IN STORAGE IN THE LOMPOC UPLAND AND LOMPOC TERRACE SUBAREAS FOR THE PAST TEN YEARS AND CURRENT YEAR (2023-24)

(Acre-Feet)

Year (Spring to Spring)	Lompoc Upland Subarea		Lompoc Terrace Subarea	
	Change in Storage	Accumulated Dewatered Storage	Change in Storage	Accumulated Dewatered Storage
2012-13		30,900		300
2013-14	-1,400	32,300	-100	400
2014-15	-800	33,100	-200	600
2015-16	-400	33,500	-100	700
2016-17	-1,800	35,300	200	500
2017-18	-300	35,600	-500	1,000
2018-19	-200	35,800	400	600
2019-20	-400	36,200	-100	700
2020-21	-500	36,700	-100	800
2021-22	-700	37,400	-100	900
2022-23	700	36,700	200	700
2023-24 [a]	-300	37,000	-200	900

[a] Forecasted storage.

The accumulated dewatered storage is based upon an estimate of existing dewatered storage of 25,500 acre-feet through 1973 from the Lompoc Upland subarea, and 800 acre-feet from the Lompoc Terrace subarea. The 1973 estimates were based upon review of water-level data and trends, and published USGS investigations.

TABLE 14
ESTIMATED ANNUAL CHANGE OF GROUNDWATER IN STORAGE IN THE SANTA RITA UPLAND SUBAREA FOR THE PAST TEN YEARS AND CURRENT YEAR (2023-24)

(Acre-Feet)

Year (Spring to Spring)	Change in Storage	Accumulated Dewatered Storage
2012-13		13,600
2013-14	300	13,300
2014-15	-900	14,200
2015-16	400	13,800
2016-17	100	13,700
2017-18	-700	14,400
2018-19	1,000	13,400
2019-20	-1,000	14,400
2020-21	-2,800	17,200
2021-22	3,000	14,200
2022-23	200	14,000
2023-24 [a]	-2,300	16,300

[a] Forecasted storage.

The accumulated dewatered storage is based upon an estimate of existing dewatered storage of 7,400 acre-feet through 1973. The 1973 estimate was based upon review of water-level data and trends, and published USGS investigations.

The estimated annual change in groundwater storage in the eastern portion of the Buellton Upland subarea (deeper aquifer in the Buellton area) is shown in Table 15 for the past ten years, 2013-14 through 2022-23 and the current year, 2023-24 (forecasted). Table 15 indicates that during those ten years, there has been an average decrease of 20 acre-feet per year in the quantity of groundwater in storage. During the current year, 2023-24, the forecast is for an increase of groundwater in storage of 300 acre-feet.

The estimated annual change in groundwater storage within the District portion of the Santa Ynez Upland subarea is summarized in Table 16. The period includes the past ten years, 2013-14 through 2022-23, and the current year, 2023-24 (forecasted). Table 16 indicates that during those ten years, there has been an average decline of about 2,120 acre-feet per year in the quantity of groundwater in storage in the District portion of the subarea. The forecast for the District portion of the Santa Ynez Upland is an increase of groundwater in storage of 100 acre-feet during the current water year, 2023-24. The estimated total dewatered storage in the District portion of the subarea through Spring 2024 is 62,900 acre-feet.

Table 17 summarizes the annual change in storage and accumulated dewatered storage for 2022-23 and 2023-24 for the major sources of groundwater in the District.

5.3. CHANGE IN STORAGE TRENDS

There has been a long-term trend of increase in dewatered storage since 2006 in the Santa Ynez Upland subarea and to a lesser degree in the Lompoc Upland subarea. In the other groundwater subareas, as shown in Figure 7, there appears to be a gradual to no increase in the quantity of accumulated dewatered storage. For the current year, 2024, an overall decrease of groundwater in storage (increase in dewatered storage) is forecasted, mostly expected in the Santa Ynez Upland area.

5.4. SAFE YIELD

Table 18 shows estimates of the average annual pumping safe yield of the principal sources of groundwater within the District.

TABLE 15
ESTIMATED ANNUAL CHANGE OF GROUNDWATER IN STORAGE IN THE EASTERN PORTION OF THE BUELLTON UPLAND SUBAREA FOR THE PAST TEN YEARS AND CURRENT YEAR (2023-2024)

(Acre-Feet)

Year (Spring to Spring)	Change in Storage	Accumulated Dewatered Storage
2012-13		2,800
2013-14	-1,700	4,500
2014-15	700	3,800
2015-16	900	2,900
2016-17	100	2,800
2017-18	1,700	1,100
2018-19	-200	1,300
2019-20	-500	1,800
2020-21	-200	2,000
2021-22	-1,100	3,100
2022-23	100	3,000
2023-24 [a]	300	2,700

[a] Forecasted storage.

Accumulated dewatered storage was originally estimated as 2,000 acre-feet through 1973 based upon review of water-level data and trends and published USGS investigations. Recent (2006) water-level measurements indicated that the accumulated dewatered storage was more likely on the order of 2,400 acre-feet in 1973.

TABLE 16
ESTIMATED ANNUAL CHANGE OF GROUNDWATER IN STORAGE IN THE DISTRICT PORTION OF THE SANTA YNEZ UPLAND SUBAREA FOR THE PAST TEN YEARS AND CURRENT YEAR (2023-2024)

(Acre-Feet)

Year (Spring to Spring)	Change in Storage	Accumulated Dewatered Storage
2012-13		41,800
2013-14	-5,300	47,100
2014-15	-3,800	50,900
2015-16	-3,100	54,000
2016-17	-1,200	55,200
2017-18	-2,300	57,500
2018-19	-1,800	59,300
2019-20	200	59,100
2020-21	-3,300	62,400
2021-22	-3,900	66,300
2022-23	3,300	63,000
2023-24 [a]	100	62,900

[a] Forecasted storage.

The accumulated dewatered storage is based upon an estimate of existing dewatered storage of 42,000 acre-feet through 1973. The 1973 estimate was based upon review of water-level data and trends, and published USGS investigations.

TABLE 17
SUMMARY OF CHANGE IN QUANTITY OF GROUNDWATER IN STORAGE WITHIN THE DISTRICT
(Acre-Feet)

Source of Groundwater	Change in Storage [a]		Accumulated Dewatered Storage	
	2022-23	Forecasted 2023-24	2022-23	Forecasted 2023-24
Santa Ynez River Alluvium	3,500	-500	10,300	10,800
Lompoc Plain (Lompoc Forebay)	4,700	1,400	13,400	12,000
Lompoc Upland	700	-300	36,700	37,000
Lompoc Terrace	200	-200	700	900
Santa Rita Upland	200	-2,300	14,000	16,300
Buellton Upland (Eastern Portion)	100	300	3,000	2,700
Santa Ynez Upland (District Portion)	3,300	100	63,000	62,900
TOTAL	**12,700**	**-1,500**	**141,100**	**142,600**

[a] Spring to Spring.

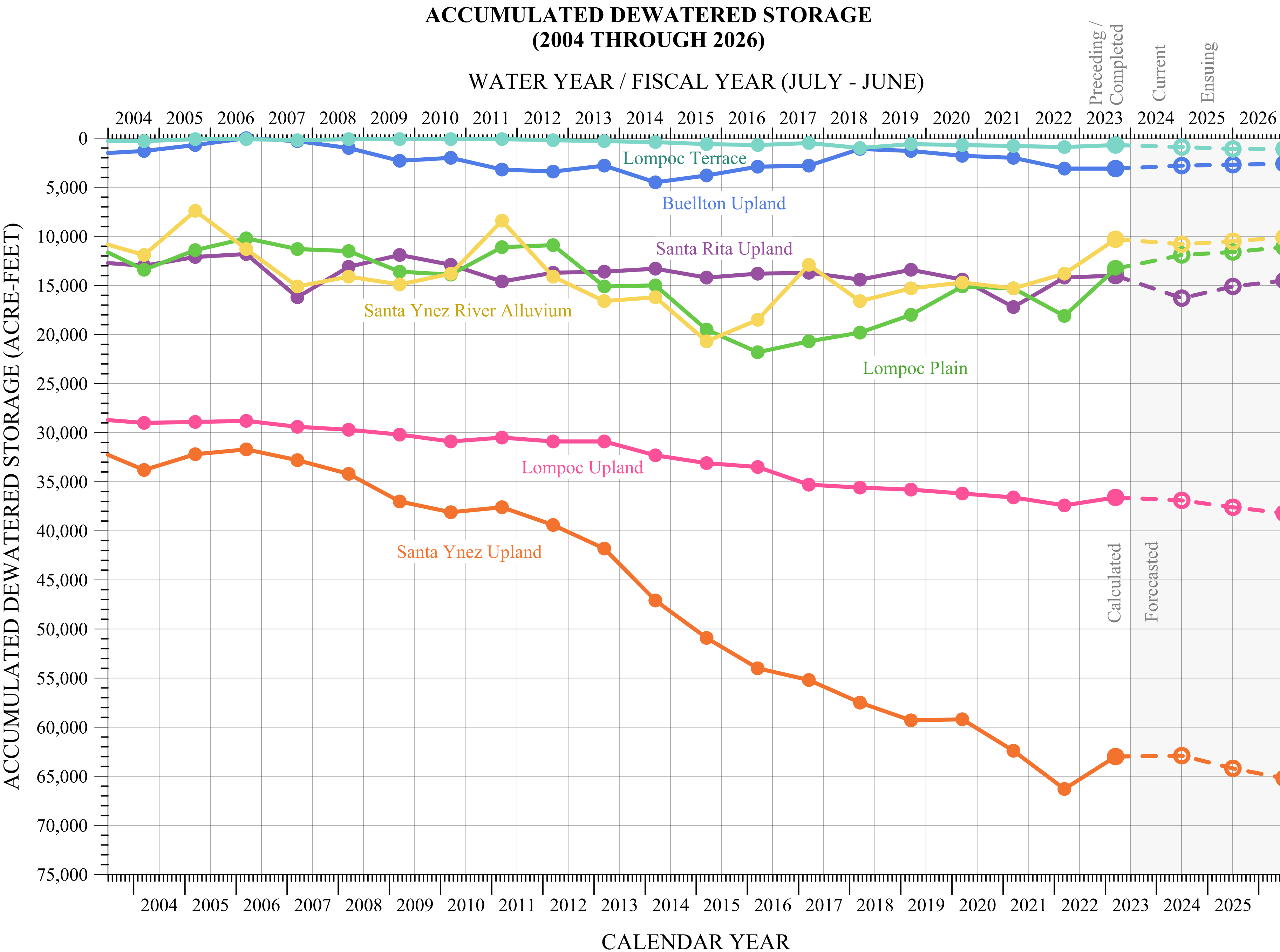

ACCUMULATED DEWATERED STORAGE
(2004 THROUGH 2026)
WATER YEAR / FISCAL YEAR (JULY - JUNE)
Preceding / Completed
Current
Ensuing
Lompoc Terrace
Buellton Upland
Santa Rita Upland
Santa Ynez River Alluvium
Lompoc Plain
Lompoc Upland
Santa Ynez Upland
Calculated
Forecasted
ACCUMULATED DEWATERED STORAGE (ACRE-FEET)
CALENDAR YEAR

FIGURE 7

TABLE 18
ESTIMATED AVERAGE SAFE YIELD OF
PRINCIPAL SOURCES OF GROUNDWATER WITHIN THE DISTRICT

Source of Groundwater	Safe Yield (Acre-Feet per Year)
Santa Ynez River Alluvium	Subject to shortages during drought periods.
Lompoc Plain Subarea	22,000 - 24,100
Lompoc Upland Subarea	3,000
Lompoc Terrace Subarea	300
Santa Rita Upland Subarea	1,100 - 1,800
Buellton Upland Subarea [a]	2,800
Santa Ynez Upland Subarea [a b]	9,800 - 12,200
Bedrock and other deposits	Unknown

Does not include return flow from imported water.

[a] Estimated safe yield of entire subarea.

[b] One third of the land area, and estimated one third of the pumping in the Santa Ynez Uplands is within the District.

Sources:

Stetson Engineers, January 18, 2022, Groundwater Sustainability Plan. Santa Ynez River Valley Groundwater Basin Western Management Area.

GSI Water Solutions, January 18, 2022, Santa Ynez River Valley Groundwater Basin - Eastern Management Area Groundwater Sustainability Plan. Eastern Management Area Groundwater Sustainability Agency

Stetson Engineers, August 31, 1992, Santa Ynez River Water Conservation District, Water Resource Management Planning. Process, Phase I: Baseline Data and Background Information.

5.5. Historical Groundwater Production

Table 19 shows the estimated reported average historical groundwater production from the principal sources for groundwater within the District for the past ten years (2013-14 through 2022-23).

5.6. Overdraft

For the District portion of each subarea, Table 20 shows the average annual overdraft for the past ten years and the estimated annual overdraft for the current (2023-24) and ensuing (2024-25) years. The information shown in Table 20 is based on estimates of change in the quantity of groundwater in storage. When the annual change in storage is greater than zero (an increase in the water supply), the annual overdraft is set to zero. The values of overdraft were determined solely to meet the provisions in the California Water Code on the implementation of a groundwater charge and do not necessarily represent the hydrologic status of the groundwater basin. Overdraft during the ensuing, 2024-25, water year is forecasted to be 2,200 acre-feet.

Table 21 shows estimates of accumulated overdraft based on estimated groundwater storage depletion. As of December 31, 2023, there were 3,053 acre-feet of water in the Below Narrows Account in Lake Cachuma to partially off-set accumulated overdraft in the alluvium of the Lompoc Plain and 6,455 acre-feet in the Above Narrows Account in Lake Cachuma to off-set the accumulated overdraft in the Santa Ynez River alluvium.

5.7. Groundwater Quality

High concentrations of dissolved solids along the coast have been attributed by the USGS to the downward leakage of brackish water from the overlying Santa Ynez River estuary. Graphs showing total dissolved solids, chloride, and sodium concentrations of water from two wells located in the Lompoc Plain are presented in Figure 8. One of the wells (7N/35W-17K20) is located about one mile inland from the ocean. The location of this well means that potential seawater intrusion is in part monitored by changes in groundwater quality at this well.

TABLE 19
ESTIMATED AVERAGE ANNUAL HISTORICAL REPORTED GROUNDWATER PRODUCTION FROM THE PRINCIPAL SOURCES OF GROUNDWATER WITHIN THE DISTRICT

(Acre-Feet)

Source of Groundwater	Estimated Average Annual Pumpage for the Past Ten Years (2013-14 through 2022-23)
Zone A Santa Ynez River Alluvium	14,192
Zone B Lompoc Plain, Lompoc Upland, and Lompoc Terrace Subareas	24,217
Zone C All portions of the District not included in other zones	1,191
Zone D Buellton Upland Subarea	3,290
Zone E Santa Ynez Upland Subarea (District Portion)	4,894
Zone F Santa Rita Upland Subarea	2,255
DISTRICT TOTAL	**50,039**

TABLE 20
AVERAGE ANNUAL OVERDRAFT OF PRINCIPAL SOURCES OF GROUNDWATER WITHIN THE DISTRICT
(Acre-Feet)

Source of Groundwater	Average Annual Overdraft for the Past Ten Years (2013-14 through 2022-23)	Annual Overdraft (Forecasted) Current Year 2023-24	Annual Overdraft (Forecasted) Ensuing Year 2024-25
Zone A			
Santa Ynez River Alluvium	0	500	0
Zone B			
Lompoc Plain Subarea	0	0	0
Lompoc Upland Subarea	580	300	700
Lompoc Terrace Subarea	40	200	200
Zone C			
Bedrock and other deposits	Unknown	Unknown	Unknown
Zone D			
Buellton Upland Subarea (Eastern Portion)	20	0	0
Zone E			
Santa Ynez Upland Subarea (District Portion)	2,120	0	1,300
Zone F			
Santa Rita Upland Subarea	40	2,300	0
DISTRICT TOTALS	**2,800 ±**	**3,300 ±**	**2,200 ±**

Overdraft is based upon annual estimates of change in groundwater storage.

TABLE 21
ESTIMATED ACCUMULATED OVERDRAFT OF PRINCIPAL SOURCES OF GROUNDWATER WITHIN THE DISTRICT
(Acre-Feet)

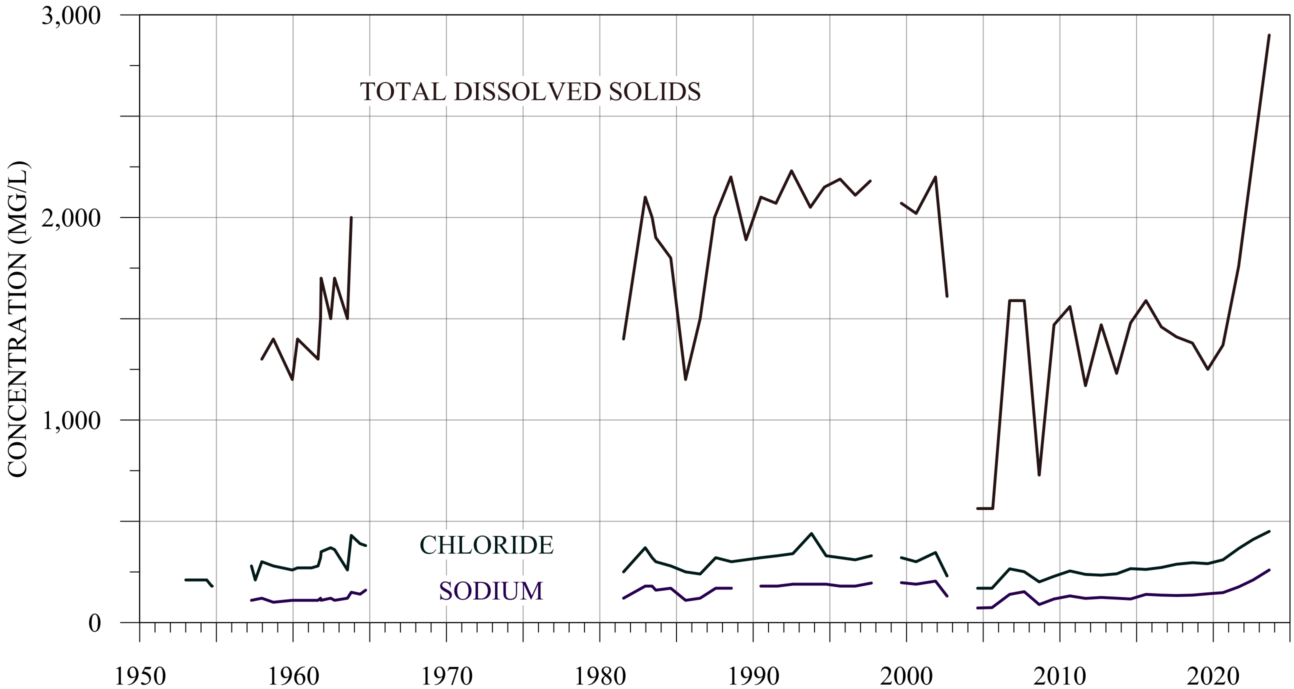
Principal Source of Groundwater	Accumulated Overdraft: Through Preceding Year (2022-23)	Accumulated Overdraft: Through Current Year (2023-24)
Zone A		
Santa Ynez River Alluvium	10,300	10,800
(Subarea is replenished annually. Some shortages in supply during drought periods)		
Zone B		
Lompoc Plain Subarea	13,400	12,000
Lompoc Upland Subarea	36,700	37,000
Lompoc Terrace Subarea	700	900
Zone C		
Bedrock and other deposits	Unknown	Unknown
Zone D		
Buellton Upland Subarea (Eastern Portion)	3,000	2,700
Zone E		
Santa Ynez Upland Subarea (District Portion)	63,000	62,900
Zone F		
Santa Rita Upland Subarea	14,000	16,300
DISTRICT TOTALS	**141,100 ±**	**142,600 ±**

Accumulated overdraft is based upon estimates of accumulated dewatered storage (Table 17).

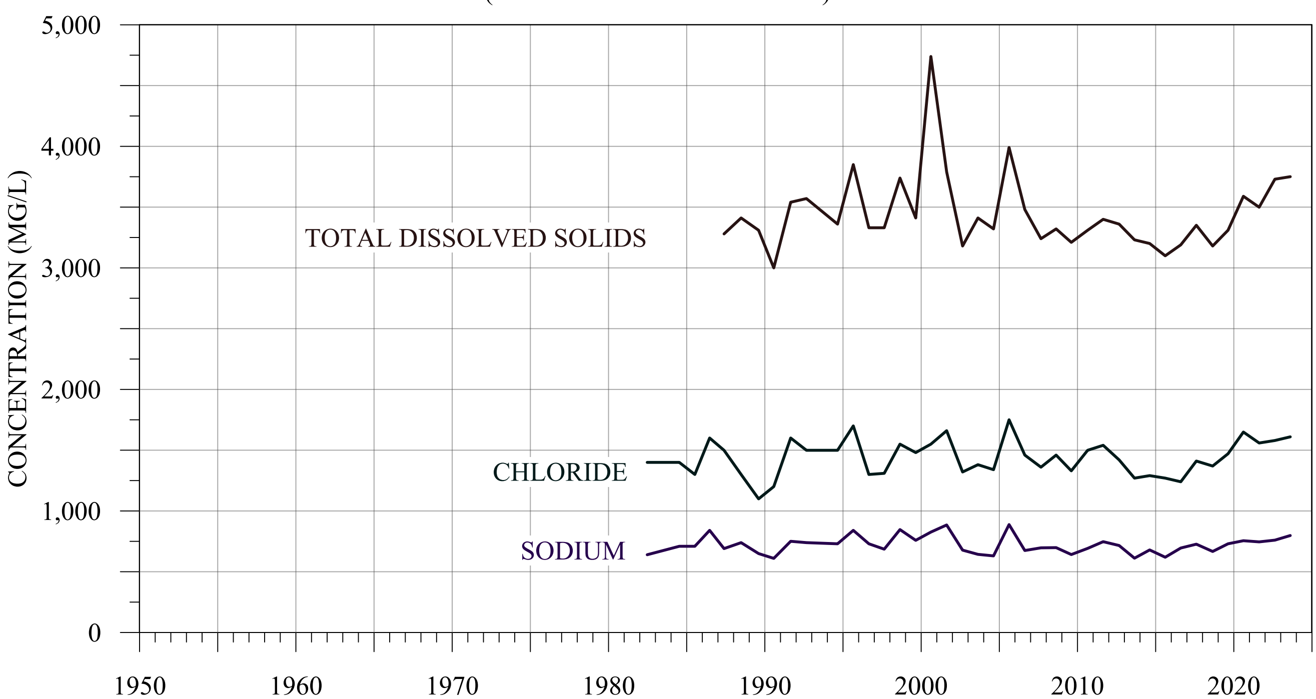
Current Year is forecasted.

GRAPHS SHOWING TOTAL DISSOLVED SOLIDS, CHLORIDE AND SODIUM CONCENTRATIONS IN GROUNDWATER FROM SELECTED WELLS LOCATED IN THE LOMPOC PLAIN SUBAREA

WELL 7N/35W-26F4, 26F5
(CENTRAL LOMPOC PLAIN)



WELL 7N/35W-17K20
(WESTERN LOMPOC PLAIN)



Appendix A

SUMMARY OF PROVISIONS IN THE CALIFORNIA WATER CODE PERTAINING TO THE IMPLEMENTATION OF A GROUNDWATER CHARGE

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Appendix A

SUMMARY OF PROVISIONS IN THE CALIFORNIA WATER CODE PERTAINING TO THE IMPLEMENTATION OF A GROUNDWATER CHARGE

Implementation of a groundwater charge within the District requires an annual engineering investigation and report on the groundwater conditions of the District. The annual report shall include all of the following (Water Code Section 75561).

a) Information for the consideration of the Board in its determination of the annual overdraft.

b) Information for the consideration of the Board in its determination of the accumulated overdraft as of the last day of the preceding water year.

c) A report as to the total production of water from the groundwater supplies of the District for the preceding water year.

d) An estimate of the annual overdraft for the current water year and for the ensuing water year.

e) The amount of water the District is obligated to purchase during the ensuing water year, a recommendation as to the quantity of water needed for surface delivery and for replenishment of the groundwater supplies of the District for the ensuing year.

f) Such other information as the District desires.

The annual report should contain sufficient data from which the Board of Directors of the District can make the following findings and determinations, which the District shall make before the levy of a groundwater charge (Water Code Section 75574).

a) The average annual overdraft for the immediate past ten water years;

b) The estimated annual overdraft for the current water year;

c) The estimated annual overdraft for the ensuing water year;

d) The accumulated overdraft as of the last day of the preceding water year;

e) The estimated accumulated overdraft as of the last day of the current water year;

f) The estimated amount of agricultural water to be withdrawn from the groundwater supplies of the District for the ensuing water year;

g) The amount of water other than agricultural water to be withdrawn from the groundwater supplies of the District for the ensuing water year;

h) The estimated amount of water necessary for surface distribution for the ensuing water year;

i) The amount of water which is necessary for the replenishment of the groundwater supplies of the District;

j) The amount of water the District is obligated by contract to purchase.

Upon completion of the engineering report, the Board is required to call a noticed public hearing at which operators of water producing facilities within the District and any person interested in the condition of the groundwater or surface water supplies of the District are invited to submit evidence concerning the groundwater and surface water supplies of the District. The Board thereafter makes findings and determinations relating to the status of water supplies and groundwater conditions within the District. Prior to the beginning of the water year (July 1 to June 30), the Board determines whether or not it should modify the existing zone or zones in which a groundwater charge is levied.

The Board must then establish the groundwater charge to be levied in any zone or zones and proceed to assess such charge against all persons operating groundwater producing facilities within such zone or zones during the ensuing water year. The charge must be computed at a fixed and uniform rate per acre-foot (Water Code Section 75592) and compliant with California Constitution Article XIII C (Proposition 26) and other provisions of the Water Code, as applicable. Different rates may be established for different zones.

Within six months after establishing the existing zones within the District, all water-producing facilities located within the boundaries of the zones are required to be registered with the District (Water Code Section 75541) and failure to register is a misdemeanor (Water Code Section 75640). As new wells are drilled within the District, they must be registered. The District then annually gives notice to each operator of a water-producing facility of the groundwater charge for each acre-foot of water to be produced during the ensuing year (Water Code Section 75610).

Prior to January 31, and July 31, of each year, each water producer is required to file with the District a statement setting forth his total water production, in acre-feet, for the preceding six month period, excluding the month in which the statement is due, a general description or number locating each water-producing facility and the method or basis of the computation of such water production (Water Code Section 75611). This is to be a verified statement (Water Code Section 75642). The groundwater charge is payable to the District on or before the last date that the water production statement is due, January 31 and July 31.

Appendix B

HISTORICAL GROUNDWATER CHARGE RATES

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Appendix B

HISTORICAL GROUND-WATER CHARGES RATES

(Dollars per Acre-Foot)

Fiscal Year	Zone	Agri-cultural Water	Other Water	Special Irrigation Water
1979-80	Zone A	0.60	2.40	
	Zone B	0.62	2.48	
	Zone C	0.50	2.00	
1980-81	Zone A	0.60	2.40	
	Zone B	0.62	2.48	
	Zone C	0.50	2.00	
1981-82	Zone A	0.45	1.80	
	Zone B	0.47	1.88	
	Zone C	0.35	1.40	
1982-83	Zone A	0.60	2.40	
	Zone B	0.42	1.68	
	Zone C	0.40	1.60	
1983-84	Zone A	0.40	1.60	
	Zone B	0.22	0.88	
	Zone C	0.20	0.80	
1984-85	Zone A	0.30	1.20	
	Zone B	0.12	0.48	
	Zone C	0.10	0.40	
1985-86	Zone A	0.25	1.00	0.50
	Zone B	0.10	0.40	0.20
	Zone C	0.08	0.32	0.16
1986-87	Zone A	0.50	2.00	1.00
	Zone B	0.35	1.40	0.70
	Zone C	0.33	1.32	0.66
1987-88	Zone A	0.50	2.00	1.00
	Zone B	0.35	1.40	0.70
	Zone C	0.33	1.32	0.66
1988-89	Zone A	0.60	2.40	1.20
	Zone B	0.50	2.00	1.00
	Zone C	0.40	1.60	0.80
1989-90	Zone A	0.80	3.20	1.60
	Zone B	0.70	2.80	1.40
	Zone C	0.60	2.40	1.20
1990-91	Zone A	1.00	4.00	2.00
	Zone B	1.00	4.00	2.00
	Zone C	0.80	3.20	1.60
1991-92	Zone A	1.00	4.00	2.00
	Zone B	1.00	4.00	2.00
	Zone C	0.80	3.20	1.60

Fiscal Year	Zone	Agri-cultural Water	Other Water	Special Irrigation Water
1992-93	Zone A	2.20	8.80	4.40
	Zone B	2.20	8.80	4.40
	Zone C	2.00	8.00	4.00
1993-94	Zone A	3.80	15.20	7.60
	Zone B	2.70	10.80	5.40
	Zone C	2.30	9.20	4.60
	Zone D	2.90	11.60	5.80
	Zone E	2.60	10.40	5.20
	Zone F	2.50	10.00	5.00
1994-95	Zone A	4.89	17.10	9.77
	Zone B	2.74	9.58	5.47
	Zone C	1.77	6.19	3.54
	Zone D	3.32	11.62	6.64
	Zone E	2.40	8.41	4.80
	Zone F	3.31	11.59	6.62
1995-96	Zone A	3.08	10.78	6.16
	Zone B	2.73	9.56	5.46
	Zone C	1.06	3.71	2.12
	Zone D	3.77	13.20	7.54
	Zone E	3.68	12.88	7.36
	Zone F	1.06	3.71	2.12
1996-97	Zone A	3.85	13.48	7.70
	Zone B	3.26	11.41	6.52
	Zone C	1.56	5.46	3.12
	Zone D	3.70	12.95	7.40
	Zone E	3.46	12.11	6.92
	Zone F	1.56	5.46	3.12
1997-98	Zone A	3.85	13.48	7.70
	Zone B	3.26	11.41	6.52
	Zone C	1.56	5.46	3.12
	Zone D	3.70	12.95	7.40
	Zone E	2.27	7.95	4.54
	Zone F	1.56	5.46	3.12
1998-99	Zone A	3.85	13.48	7.70
	Zone B	3.26	11.41	6.52
	Zone C	1.56	5.46	3.12
	Zone D	2.36	8.26	4.72
	Zone E	1.56	5.46	3.12
	Zone F	1.56	5.46	3.12
1999-00	Zone A	3.80	13.30	7.60
	Zone B	3.26	11.41	6.52
	Zone C	1.56	5.46	3.12
	Zone D	1.56	5.46	3.12
	Zone E	1.56	5.46	3.12
	Zone F	1.56	5.46	3.12

Appendix B

HISTORICAL GROUND-WATER CHARGES RATES
(Dollars per Acre-Foot)

Fiscal Year	Zone	Agri-cultural Water	Other Water	Special Irrigation Water	Fiscal Year	Zone	Agri-cultural Water	Other Water	Special Irrigation Water
2000-01	Zone A	3.80	13.30	7.60	2007-08	Zone A	2.20	7.70	4.40
	Zone B	3.26	11.41	6.52		Zone B	2.20	7.70	4.40
	Zone C	1.56	5.46	3.12		Zone C	1.20	4.20	2.40
	Zone D	1.56	5.46	3.12		Zone D	1.20	4.20	2.40
	Zone E	1.56	5.46	3.12		Zone E	1.20	4.20	2.40
	Zone F	1.56	5.46	3.12		Zone F	1.20	4.20	2.40
2001-02	Zone A	3.50	12.25	7.00	2008-09	Zone A	2.20	7.70	4.40
	Zone B	3.26	11.41	6.52		Zone B	2.20	7.70	4.40
	Zone C	1.56	5.46	3.12		Zone C	1.20	4.20	2.40
	Zone D	1.56	5.46	3.12		Zone D	1.20	4.20	2.40
	Zone E	0.71	2.49	1.42		Zone E	1.20	4.20	2.40
	Zone F	1.56	5.46	3.12		Zone F	1.20	4.20	2.40
2002-03	Zone A	3.35	11.73	6.70	2009-10	Zone A	2.20	7.70	4.40
	Zone B	3.00	10.50	6.00		Zone B	2.20	7.70	4.40
	Zone C	1.40	4.90	2.80		Zone C	1.20	4.20	2.40
	Zone D	1.40	4.90	2.80		Zone D	1.20	4.20	2.40
	Zone E	0.60	2.10	1.20		Zone E	1.20	4.20	2.40
	Zone F	1.40	4.90	2.80		Zone F	1.20	4.20	2.40
2003-04	Zone A	3.20	11.20	6.40	2010-11	Zone A	2.55	8.93	5.10
	Zone B	2.85	9.98	5.70		Zone B	2.55	8.93	5.10
	Zone C	1.35	4.73	2.70		Zone C	1.40	4.90	2.80
	Zone D	1.35	4.73	2.70		Zone D	1.40	4.90	2.80
	Zone E	1.35	4.73	2.70		Zone E	1.40	4.90	2.80
	Zone F	1.35	4.73	2.70		Zone F	1.40	4.90	2.80
2004-05	Zone A	3.20	11.20	6.40	2011-12	Zone A	2.70	9.45	5.40
	Zone B	2.85	9.98	5.70		Zone B	2.70	9.45	5.40
	Zone C	1.35	4.73	2.70		Zone C	1.48	5.18	2.96
	Zone D	1.35	4.73	2.70		Zone D	1.48	5.18	2.96
	Zone E	1.35	4.73	2.70		Zone E	1.48	5.18	2.96
	Zone F	1.35	4.73	2.70		Zone F	1.48	5.18	2.96
2005-06	Zone A	2.20	7.70	4.40	2012-13	Zone A	3.00	10.50	6.00
	Zone B	2.20	7.70	4.40		Zone B	3.00	10.50	6.00
	Zone C	1.20	4.20	2.40		Zone C	1.65	5.78	3.30
	Zone D	1.20	4.20	2.40		Zone D	1.65	5.78	3.30
	Zone E	1.20	4.20	2.40		Zone E	1.65	5.78	3.30
	Zone F	1.20	4.20	2.40		Zone F	1.65	5.78	3.30
2006-07	Zone A	2.20	7.70	4.40	2013-14	Zone A	3.25	11.40	6.50
	Zone B	2.20	7.70	4.40		Zone B	3.25	11.40	6.50
	Zone C	1.20	4.20	2.40		Zone C	1.80	6.30	3.60
	Zone D	1.20	4.20	2.40		Zone D	1.80	6.30	3.60
	Zone E	1.20	4.20	2.40		Zone E	1.80	6.30	3.60
	Zone F	1.20	4.20	2.40		Zone F	1.80	6.30	3.60

Appendix B

HISTORICAL GROUND-WATER CHARGES RATES
(Dollars per Acre-Foot)

Fiscal Year	Zone	Agri-cultural Water	Other Water	Special Irrigation Water
2014-15	Zone A	3.25	11.40	6.50
	Zone B	3.25	11.40	6.50
	Zone C	1.80	6.30	3.60
	Zone D	1.80	6.30	3.60
	Zone E	1.80	6.30	3.60
	Zone F	1.80	6.30	3.60
2015-16	Zone A	3.50	12.25	7.00
	Zone B	3.50	12.25	7.00
	Zone C	2.15	7.53	4.30
	Zone D	2.15	7.53	4.30
	Zone E	2.15	7.53	4.30
	Zone F	2.15	7.53	4.30
2016-17	Zone A	3.85	13.48	7.70
	Zone B	3.85	13.48	7.70
	Zone C	3.00	10.50	6.00
	Zone D	3.00	10.50	6.00
	Zone E	3.00	10.50	6.00
	Zone F	3.00	10.50	6.00
2017-18	Zone A	4.85	16.98	9.70
	Zone B	4.85	16.98	9.70
	Zone C	4.85	16.98	9.70
	Zone D	4.85	16.98	9.70
	Zone E	4.85	16.98	9.70
	Zone F	4.85	16.98	9.70
2018-19	Zone A	7.15	25.00	14.30
	Zone B	7.15	25.00	14.30
	Zone C	7.15	25.00	14.30
	Zone D	7.15	25.00	14.30
	Zone E	7.15	25.00	14.30
	Zone F	7.15	25.00	14.30
2019-20	Zone A	7.15	25.00	14.30
	Zone B	7.15	25.00	14.30
	Zone C	7.15	25.00	14.30
	Zone D	7.15	25.00	14.30
	Zone E	7.15	25.00	14.30
	Zone F	7.15	25.00	14.30
2020-21	Zone A	7.15	25.00	14.30
	Zone B	7.15	25.00	14.30
	Zone C	7.15	25.00	14.30
	Zone D	7.15	25.00	14.30
	Zone E	7.15	25.00	14.30
	Zone F	7.15	25.00	14.30

Fiscal Year	Zone	Agri-cultural Water	Other Water	Special Irrigation Water
2021-22	Zone A	7.40	26.00	14.80
	Zone B	7.40	26.00	14.80
	Zone C	7.40	26.00	14.80
	Zone D	7.40	26.00	14.80
	Zone E	7.40	26.00	14.80
	Zone F	7.40	26.00	14.80
2022-23	Zone A	14.14	14.14	14.14
	Zone B	14.14	14.14	14.14
	Zone C	14.14	14.14	14.14
	Zone D	14.14	14.14	14.14
	Zone E	14.14	14.14	14.14
	Zone F	14.14	14.14	14.14
2023-24	Zone A	20.42	20.42	20.42
	Zone B	14.24	14.24	14.24
	Zone C	12.41	12.41	12.41
	Zone D	12.41	12.41	12.41
	Zone E	12.41	12.41	12.41
	Zone F	12.41	12.41	12.41

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Appendix C

ADDITIONAL STREAMFLOW RECORDS
SANTA YNEZ RIVER BASIN

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Appendix C

ADDITIONAL STREAMFLOW RECORDS
SANTA YNEZ RIVER SUBAREA
(Acre-Feet)

Water Year (Oct.-Sept.)	Alamo Pintado Creek near Solvang	Miguelito Creek at Lompoc	Santa Cruz Creek near Santa Ynez	Santa Ynez River at Jameson Lake near Montecito (Net Inflow)	Santa Ynez River at Solvang	Zaca Creek near Buellton	Santa Ynez River below Gibraltar Dam
1942			8,250	2,490			19,170
1943			28,990	11,320			86,330
1944			17,500	5,230			44,990
1945			11,910	2,570			16,580
1946			6,600	3,550			18,600
1947			3,580	1,360	14,920		6,260
1948			346	258	2,400		24
1949			1,630	310	2,900		23
1950			2,700	498	3,220		38
1951			340	100	1,490		41
1952			29,500	11,585	239,100		85,500
1953			4,250	614	13,430		7,990
1954			5,440	1,300	6,400		9,240
1955			1,890	312	4,200		84
1956			9,410	752	12,140		3,480
1957			2,100	533	3,350		71
1958			43,720	13,442	91,640		123,600
1959			3,880	1,201	10,350		4,500
1960			1,640	99	3,160		16
1961			167		625		
1962			20,520	6,425	49,080		46,260
1963			2,250	76	3,570		74
1964			663	377	1,060	1	53
1965			5,050	1,050	5,890	5	1,480
1966			11,730	8,091	16,930	11	65,320
1967			36,540	9,451	148,700	755	123,470
1968			3,580	1,005	5,190		1,400
1969			97,360	33,112	548,800	6,680	316,400
1970			6,250	1,903	4,410	19	13,610
1971	4	173	7,170	2,302	9,450	6	19,490
1972		108	2,280	915	4,380	2	687
1973	173	1,740	19,910	13,835	48,100	611	69,780
1974	60	833	7,220	3,086	10,700	56	18,330
1975	107	1,640	8,570	3,529	34,490	122	26,270
1976	4	361	992	1,526	2,310	23	481
1977	6	124	587	342	1,010	11	162
1978	2,220	3,670	44,380	24,318	327,500	3,690	195,100
1979	89	1,100	13,040	5,358	54,350	185	34,550
1980	998	1,940	23,750	11,321	196,300	886	86,840
1981	167	916	5,150	1,617	10,690	349	4,870
1982	22	544	7,680	1,559	3,920		11,910
1983	4,510	5,770	54,410	22,594	511,200		236,500
1984	556	974	8,590	3,064	24,860		23,530
1985	390	687	2,920	688	2,680		24
1986			14,180	9,090	12,300		56,160
1987			1,040	652	1,850		70
1988		511	3,430	2,335	4,120		96
1989		142	1,880	551	1,760		
1990		162	48	212	629		
1991	1,080	855	14,030	5,738	12,360	588	31,100
1992	1,690	685	20,780	12,223	40,130	1,760	90,978
1993		1,710	60,660	28,170	364,090		217,980
1994		705	4,261	1,542	9,390		6,588

Appendix C

ADDITIONAL STREAMFLOW RECORDS
SANTA YNEZ RIVER SUBAREA
(Acre-Feet)

Water Year (Oct.-Sept.)	Alamo Pintado Creek near Solvang	Miguelito Creek at Lompoc	Santa Cruz Creek near Santa Ynez	Santa Ynez River at Jameson Lake near Montecito (Net Inflow)	Santa Ynez River at Solvang	Zaca Creek near Buellton	Santa Ynez River below Gibraltar Dam
1995	7,660	9,960	46,454	43,537	533,900	5,600	236,032
1996	2,260	2,140	10,041	2,541	15,890	574	11,463
1997	1,658	677	14,867	2,951	152,940	1,658	29,935
1998	18,300	6,820	89,240	115,212	655,470	8,360	299,400
1999	2,710	1,104	5,450	1,088	10,950	261	6,170
2000	1,978	1,961	8,499	3,426		504	25,269
2001	3,093	1,659	20,266	13,632		1,720	65,659
2002	886	476	1,256	369	6,200	36	595
2003	350	622	5,522	1,369	7,710	47	3,844
2004	112	224	1,216	816	10,150	8	320
2005	3,707	2,194	50,508	21,630	373,556	2,143	212,452
2006	716	745	16,207	7,752	96,498	323	57,011
2007	323	135	992	191	10,885	0	0
2008	987	371	24,813	4,686	49,596	0	68,518
2009	2	71	6,147	348	4,753	0	5,079
2010	159		14,411	2524	18,594	120	41,872
2011	733		27,316	5260	120,436	860	92,246
2012	0		3,061	191	4,862	0	18
2013	0		1,196		11,520	0	0
2014	0		1,112		6,118	0	0
2015	0		389		9,518	0	0
2016	0		377		8,006	0	0
2017	463		20,212		18,652	746	44,664
2018	0		2,078		9,315	0	401
2019	180		21,435		14,179	197	61,195
2020	57		4,536		13,510	1	14,091
2021	0		452		9,139	0	0
2022	0		696		9,638	0	25
2023	3,400		53,880 *		339,040 *	5,544 *	198,469
2024 (through Dec)	0 *		621 *		2,342 *	2,342 *	525

* indicates provisional data.
Zeros represent annual gaged totals of zero acre-feet. Blanks represent incomplete gaged records.

Appendix D

WATER RIGHTS RELEASES
NO RELEASES WERE MADE IN 2023

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Appendix D

WATER RIGHTS RELEASES
NO RELEASES WERE MADE IN 2023

In the calendar year 2023, there were no water right releases because there were low amounts of available dewatered storage space in the Above Narrows area. Water rights releases are made to avoid or mitigate the impacts of the Cachuma Project on local users of Santa Ynez River water downstream of the project, as provided in State Water Resources Control Board Order WR 73-37, as modified by WR 89-18 and Decision 2019-0148. Table 6 of this report summarizes historical water rights releases made pursuant to said orders and decision.

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Appendix E

GENERAL DESCRIPTION OF THE HYDROGEOLOGY OF THE SOURCES OF GROUNDWATER WITHIN THE DISTRICT

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Appendix E

GENERAL DESCRIPTION OF THE HYDROGEOLOGY OF THE SOURCES OF GROUNDWATER WITHIN THE DISTRICT

Santa Ynez River Alluvial Deposits

Along the Santa Ynez River channel groundwater occurs in the river channel deposits and thin bodies of younger alluvium. The groundwater is generally unconfined and in hydrologic continuity with surface water. In the Santa Ynez subarea, Bradbury Dam to Solvang, these deposits are almost completely bordered and underlain by non-water bearing consolidated rocks. Replenishment is by natural seepage from the river, seepage from tributaries, return flow from applied water, treated wastewater effluent from the City of Solvang wastewater treatment plant, and releases from Lake Cachuma to satisfy downstream water rights.

In the Buellton subarea, Solvang to a point about five miles downstream of Buellton, the river channel deposits and younger alluvium partially overlie and abut on the north side of the river channel, older unconsolidated deposits of the Paso Robles formation and Careaga Sand that fill a northwest-trending structural basin (Buellton Upland subarea). The older deposits probably slowly discharge groundwater to the alluvial deposits. Additional recharge to the river alluvium in the Buellton subarea is primarily from seepage from the Santa Ynez River and tributary creeks. During the irrigation season, some return flow recharges these deposits. Treated wastewater effluent from the City of Buellton wastewater treatment plant also recharges the alluvial groundwater.

The alluvial deposits along the Santa Ynez River in the Santa Rita subarea downstream of the Buellton subarea to the Lompoc Narrows, occur in a very similar condition to those in the Santa Ynez subarea to the extent that they are essentially separated from older unconsolidated deposits by generally non-water bearing consolidated rocks. The alluvial deposits in this subarea are generally unconfined with some local confinement. Recharge is also primarily from the Santa Ynez River, tributary creek seepage and irrigation return flow.

Santa Ynez River alluvial deposits are relatively thin with typical thicknesses of 60 to 80 feet with local thicknesses of more than 100 feet. Wells in these deposits typically yield a few hundred to as high as 1,500 or more gallons per minute (gpm).

The storage capacity of the alluvial deposits under full water conditions as determined in connection with State Water Resources Control Board Order 73-37 is as follows:

Subarea	Acre-Feet
Santa Ynez Subarea	21,000
Buellton Subarea	27,500
Santa Rita Subarea	56,500
TOTAL	105,000

Santa Ynez Upland Subarea

The Santa Ynez Upland subarea lies north of the Santa Ynez River and extends westward from about four miles east of Lake Cachuma (Red Rock Canyon) to include the Zaca Creek watershed where the creek crosses the subarea. Relatively non-water bearing rocks separate this subarea from Santa Ynez River alluvium to the south. The northern boundary of the subarea is formed by faulting of consolidated non-water bearing rocks of the San Rafael Mountains against the unconsolidated basin deposits.

The Santa Ynez Upland subarea is comprised of thick unconsolidated deposits primarily of the Paso Robles Formation and the Careaga Sand which are the primary sources of groundwater. Terrace and alluvial deposits are also present in portions of the subarea, but are generally not sources of major groundwater supplies. The thickness of the unconsolidated deposits is generally greater than 1,000 feet with maximum thicknesses of over 3,000 feet at places.

Recharge occurs from the deep percolation of precipitation, seepage from creeks, underflow from consolidated rocks surrounding the subarea and irrigation return flow including return flow from imported State Water Project water and pumped underflow of the Santa Ynez River.

The U.S. Geological Survey (USGS) (La Freniere and French, 1968) estimated the groundwater in storage in the Santa Ynez Upland groundwater subarea in 1964 to be ten million acre-feet with about one million acre-feet in the upper 200 saturated feet.

Buellton Upland Subarea

The Buellton Upland subarea generally includes the area north of the Santa Ynez River that extends eastward from the Santa Rita Upland subarea to the east of the City of Buellton. For the most part, this subarea is underlain by the older unconsolidated deposits of the Paso Robles Formation and the Careaga Sand. These deposits fill a synclinal basin which may be an extension of the Santa Rita syncline. If that is the case, this area may be in hydrologic continuity with similar deposits to the west. Recharge to these older deposits is from precipitation falling on the outcrop area and seepage from small creeks that cross the outcrop area.

Santa Rita Upland Subarea

Groundwater supplies are present in the older unconsolidated Orcutt Sand, Paso Robles Formation and Careaga Sand which fill a structural basin formed by the eastern portion of the Santa Rita syncline. The Santa Rita Upland subarea is in hydrologic continuity with the Buellton and Lompoc Upland subareas, but is separated from the Santa Ynez River alluvium by non-water bearing rocks. Groundwater is present in a "shallow" perched condition as well as a deep body. Both bodies appear to contain water under unconfined conditions.

Lompoc Area Subareas

Three groundwater sources are present in the Lompoc area. They include the Lompoc Plain, Lompoc Upland and Lompoc Terrace subareas. The Lompoc Plain subarea is an alluvial filled trough cut into the south limb of the Santa Rita syncline. The principal water-bearing units beneath the Lompoc Plain are the river-channel deposits and younger alluvium that compose the upper aquifer and the Paso Robles Formation and Careaga Sand that comprise the lower aquifer.

The upper aquifer consists of three water-bearing zones: (1) the shallow zone; (2) the middle zone; and (3) the main zone. The main zone of the upper aquifer has been the primary source of water from the Lompoc Plain subarea. The shallow zone includes river-channel deposits and predominately fine-grained sand, silt and clay deposits of the upper member of the alluvium that confine or partly confine the underlying deposits in the western, central and northeastern portions of the subarea. The base of the upper member of the alluvium includes interbedded lenses of permeable sand and gravel which the USGS (Bright et al., 1992) refer to as the middle zone. The main zone includes the lower member of the alluvium. Medium to coarse sand and gravel comprise this zone. The main zone throughout most of the Lompoc Plain subarea is separated from the middle zone by lenses of silt and clay that result in confined or partially confined conditions in the main zone. However, in the eastern, southern and northern portions of the Lompoc Plain subarea, the confining deposits are less continuous or absent, allowing movement of groundwater between the shallow, middle and main zones.

The central and northern parts of the western end of the Santa Rita syncline comprise the Lompoc Upland subarea which lies north of the Lompoc Plain. The main water bearing deposits in the subarea are the Paso Robles Formation and Careaga Sand. These deposits extend under the Lompoc Plain to form the lower aquifer. Most of the groundwater in storage occurs in these two formations. Perched groundwater occurs locally in the Orcutt Sand.

The Lompoc Terrace subarea, the hilly area adjacent to the southwest part of the Lompoc Plain subarea, is a down-faulted wedge of Careaga Sand overlain by Orcutt Sand.

Recharge to the aquifers beneath the Lompoc Plain subarea includes infiltration of precipitation, seepage from streams, groundwater underflow from tributary streams, underflow through aquifers underlying the Lompoc Upland and Lompoc Terrace subareas which extend under the Plain (lower aquifer beneath the Lompoc Plain subarea), irrigation return flow and wastewater effluent. Recharge to the Lompoc Upland subarea is primarily by infiltration of precipitation, and some seepage from streams. The Lompoc Upland subarea may also receive percolation of treated wastewater effluent from the Mission Hills Community Services District wastewater treatment plant and underflow along the Santa Rita syncline from the Santa Rita Upland subarea. Recharge to the Lompoc Terrace subarea is mainly from infiltration of precipitation.

The USGS (Miller, 1976) estimated the total groundwater in storage in the Lompoc area as follows:

Subarea	Groundwater in Storage (Acre-Feet)
Lompoc Plain	
Main Zone	80,000
Shallow Zone	135,000
Lompoc Upland	400,000
Lompoc Terrace	100,000
TOTAL	715,000

REFERENCES CITED

Bright, D.J. et al., 1992, Ground-Water Hydrology and Quality in the Lompoc Area, Santa Barbara County, California, 1987-88: U.S. Geological Survey Water Resources Investigations Report 91-4172.

LaFreniere, G.F., and French, J.J. 1968, Ground-Water Resources of the Santa Ynez Upland Ground-Water Basin, Santa Barbara County, California: U.S. Geological Survey Open File Report.

Miller, G.A., 1976, Ground-Water Resources in the Lompoc Area, Santa Barbara County, California: U.S. Geological Survey Open-File Report 76-183.

Appendix F

WATER-LEVEL HYDROGRAPHS OF SELECTED WELLS

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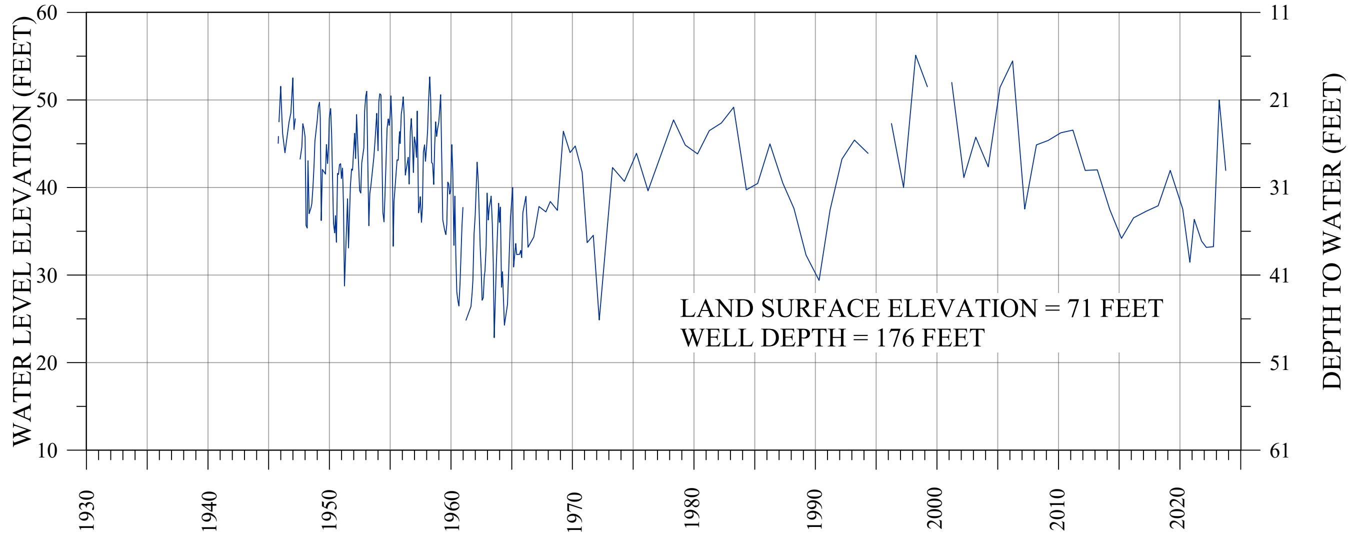
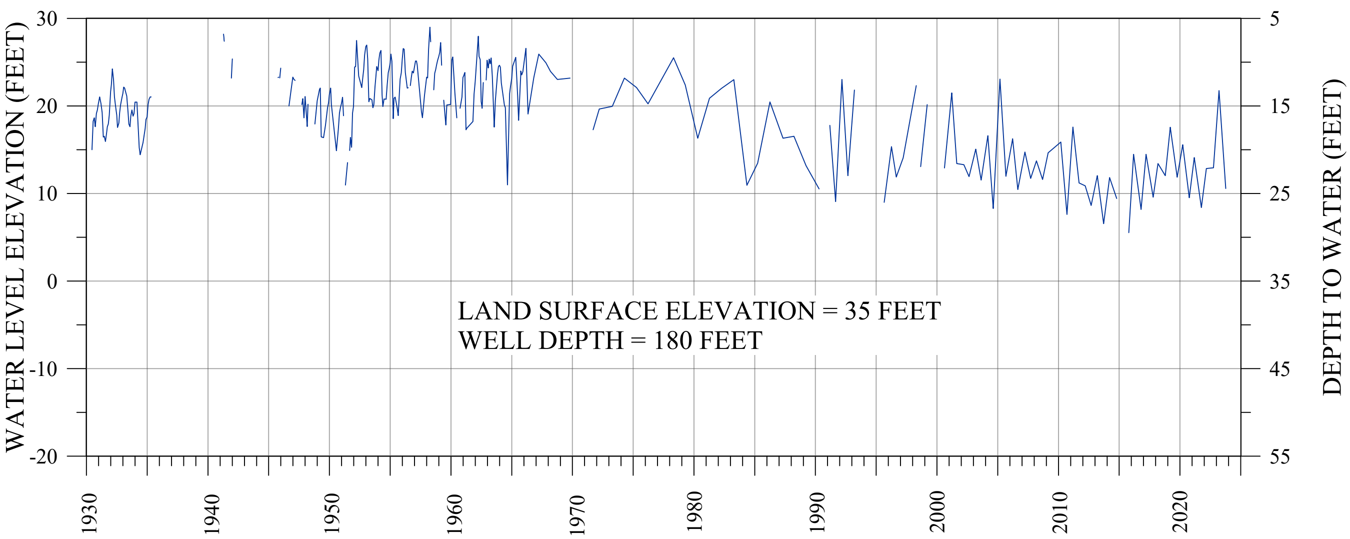
HYDROGRAPHS OF WELLS LOCATED IN THE LOMPOC PLAIN SUBAREA

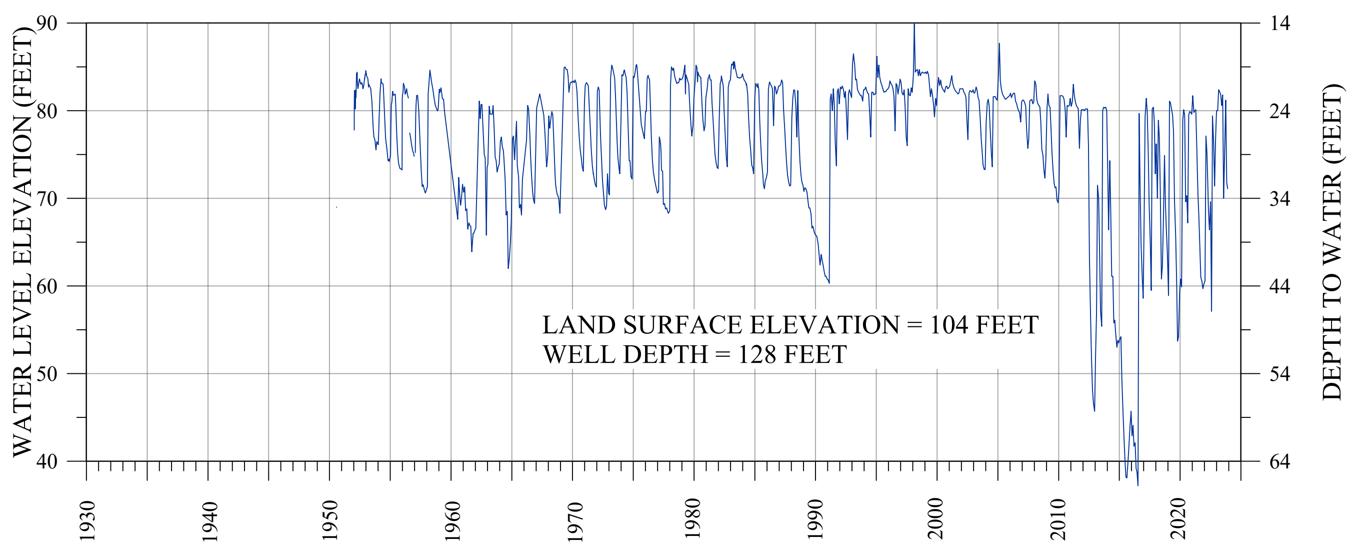
WELL 7N/34W-29E4



WELL 7N/35W-22J1

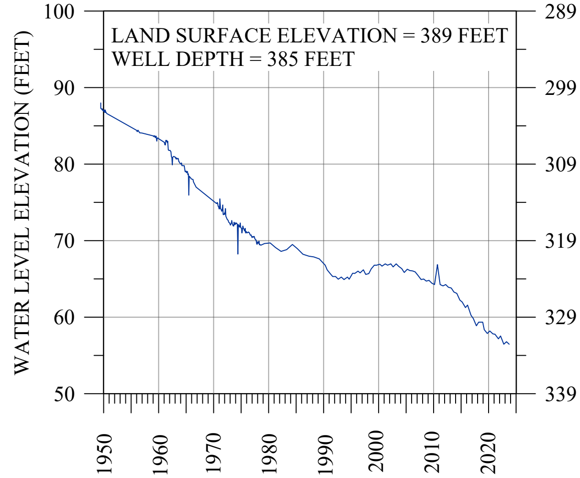


WELL 7N/34W-35K9

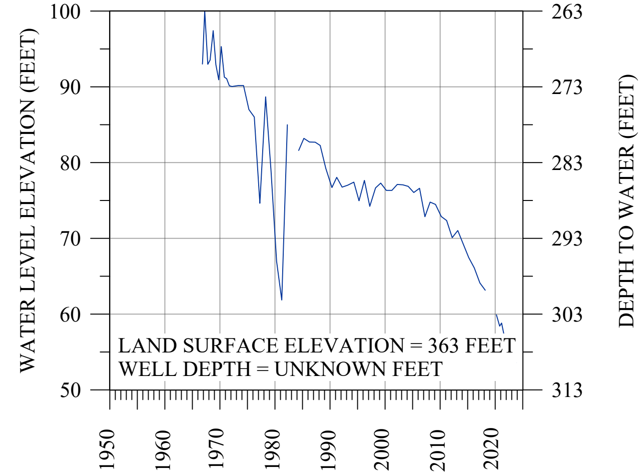


HYDROGRAPHS OF WELLS LOCATED IN THE LOMPOC UPLAND SUBAREA

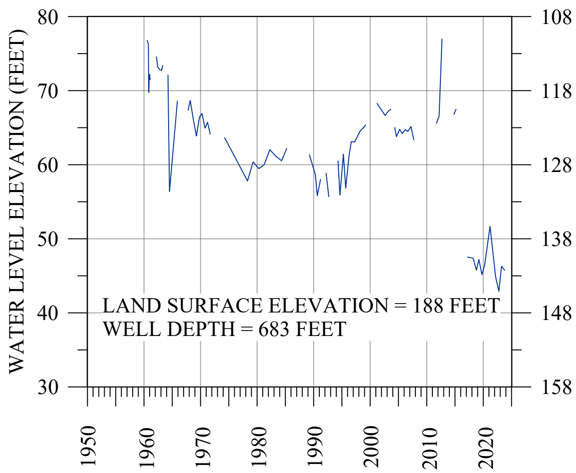
WELL 7N/34W-12E1



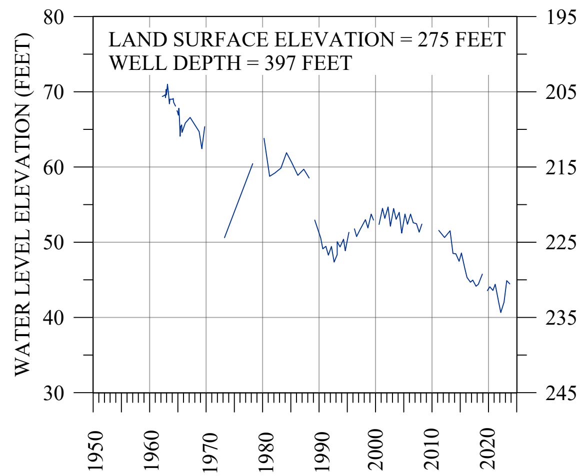
WELL 7N/33W-17N2



WELL 7N/34W-15D1&15D3



WELL 7N/34W-14F3&14F4



WELL 7N/33W-19D1

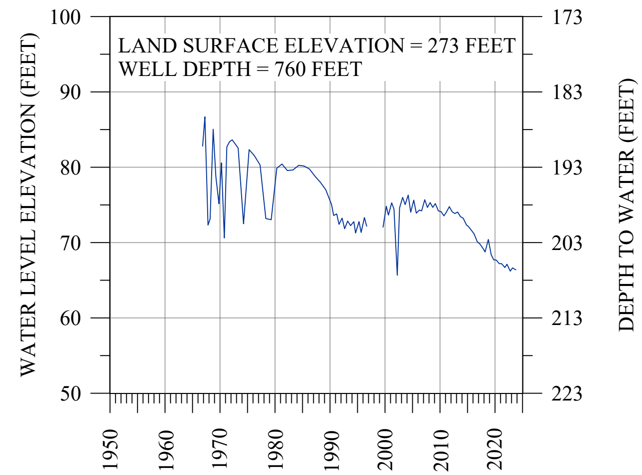
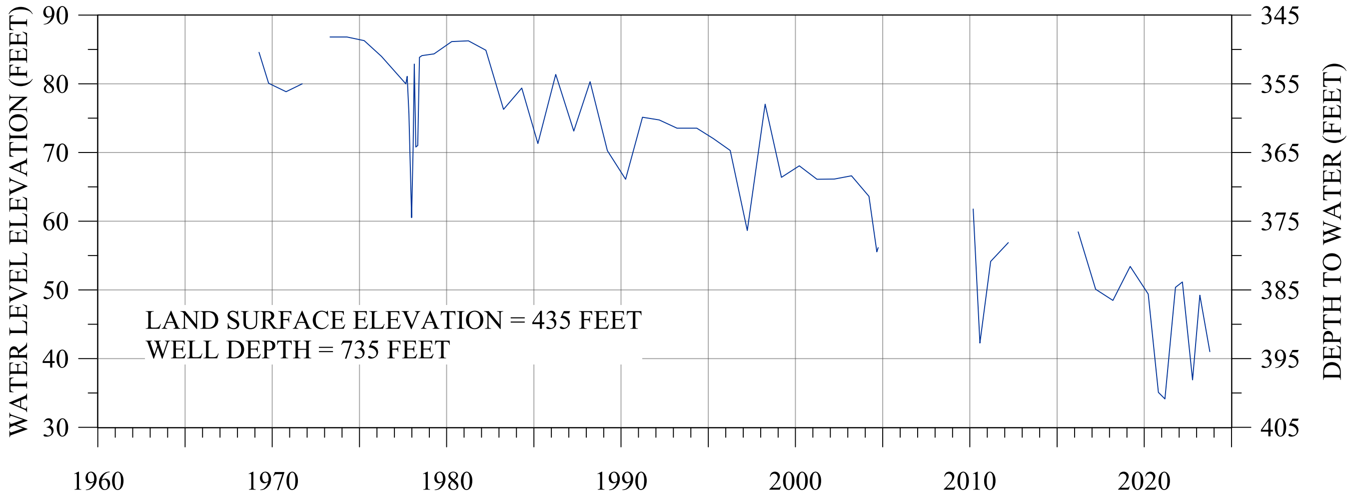


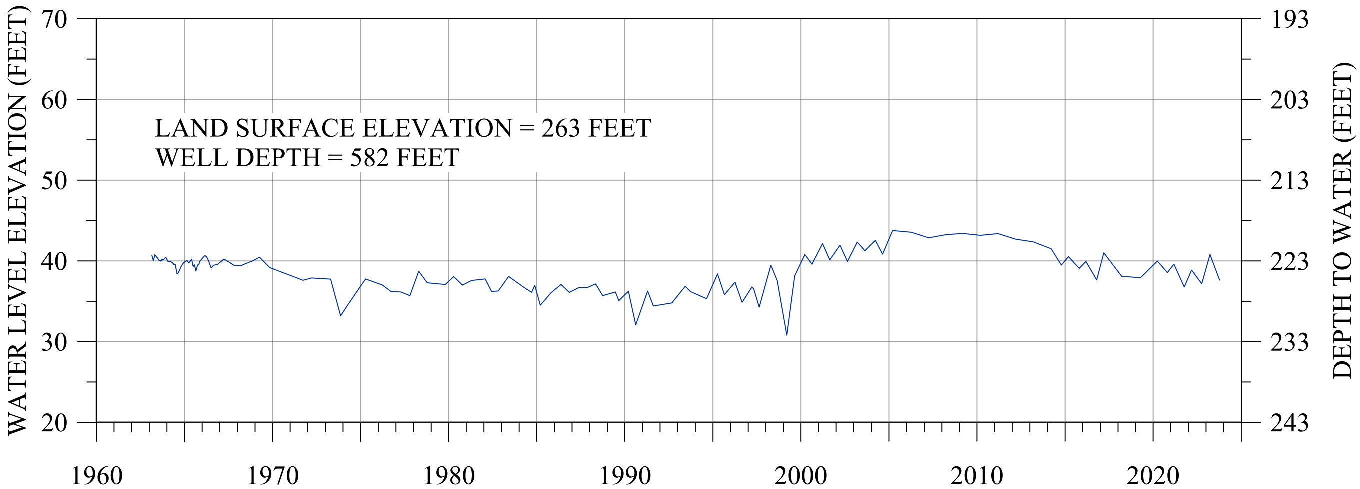
FIGURE F-2

HYDROGRAPHS OF WELLS LOCATED IN THE SANTA RITA UPLAND, LOMPOC TERRACE, AND BUELLTON UPLAND SUBAREAS

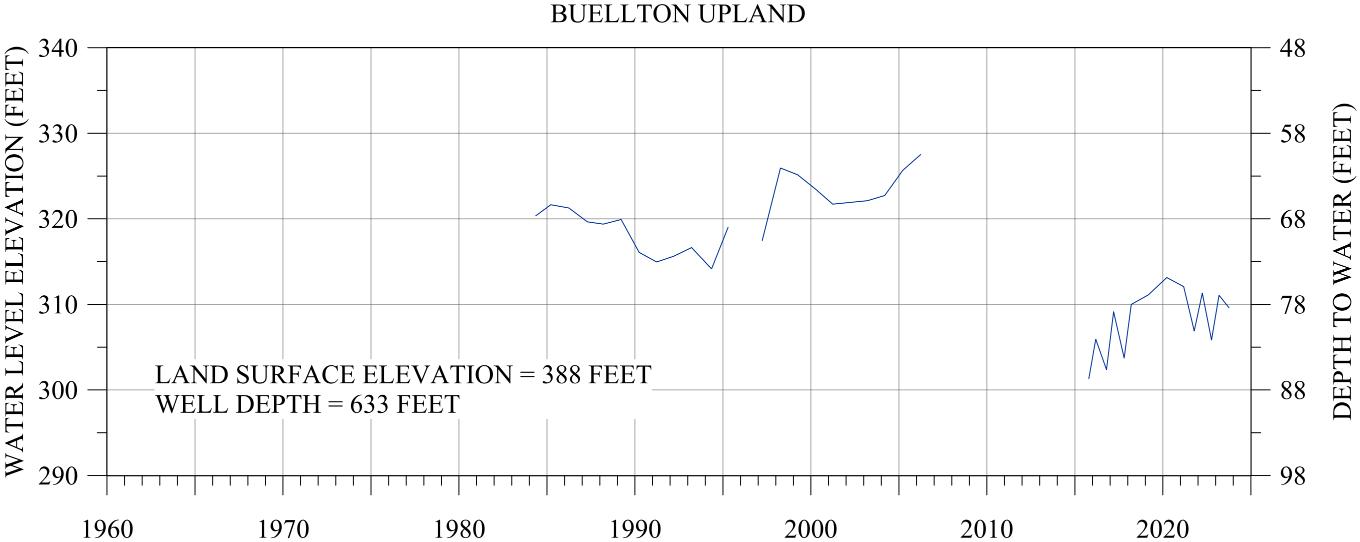
WELL 7N/33W-27G1
SANTA RITA UPLAND



WELL 7N/35W-27P1
LOMPOC TERRACE

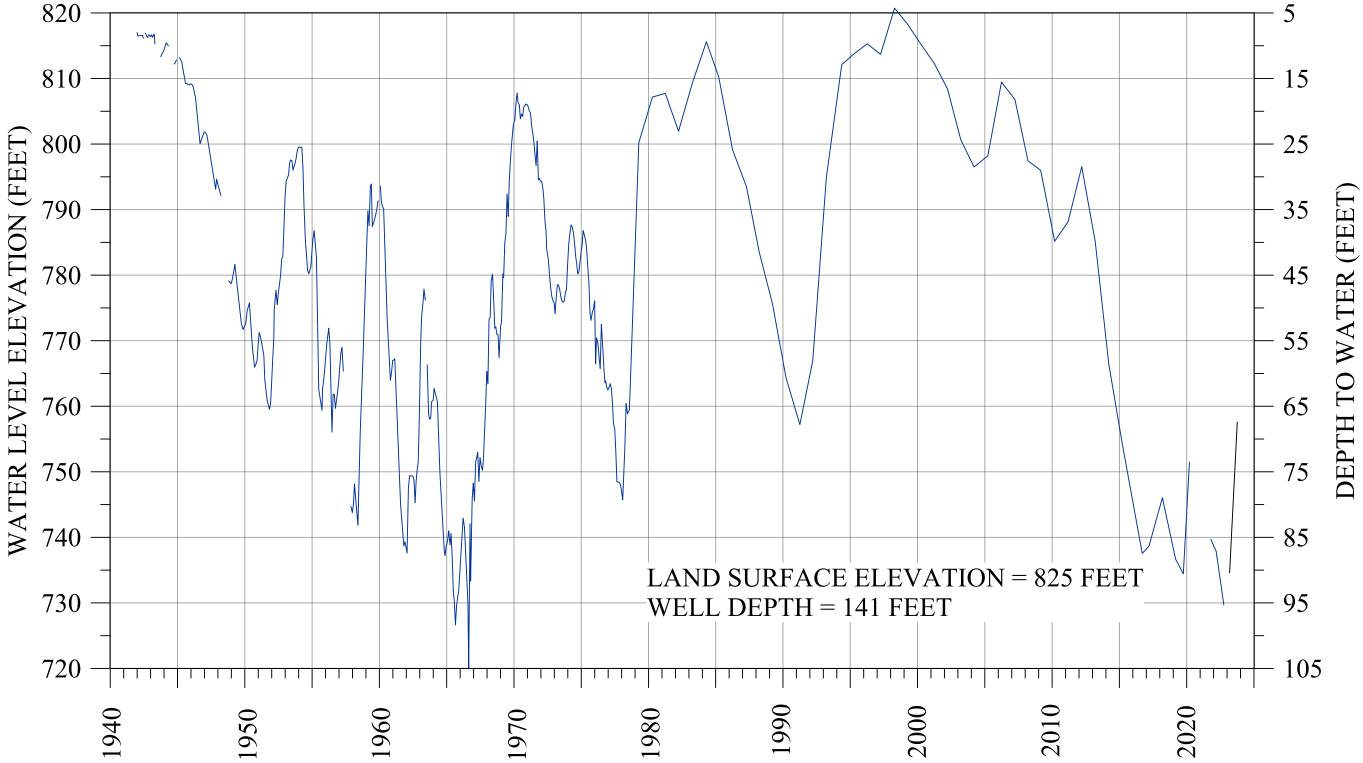


WELL 6N/31W-7F1
BUELLTON UPLAND

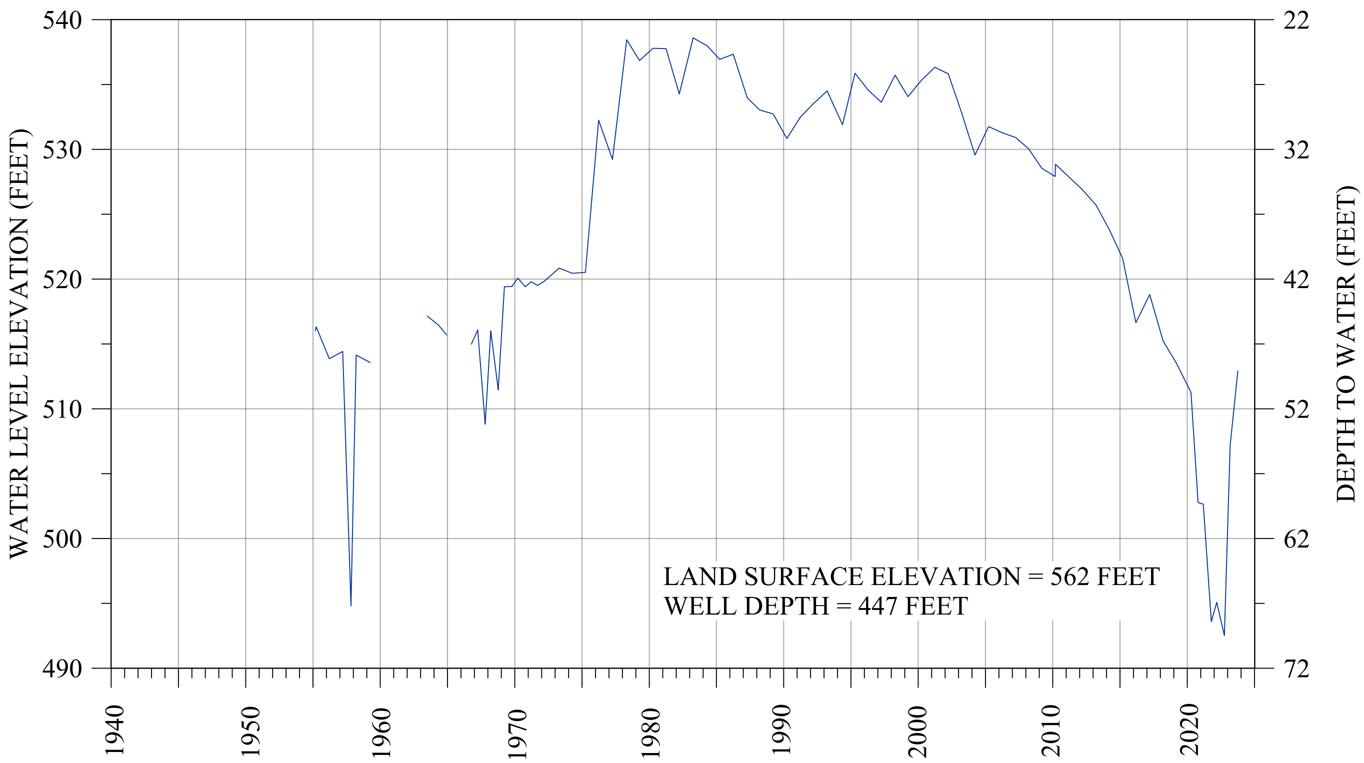


HYDROGRAPHS OF WELLS LOCATED IN THE SANTA YNEZ UPLAND SUBAREA

WELL 7N/31W-23P1 and 23P1(R)



WELL 6N/31W-11D4



Appendix G

WELL INVENTORY

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Appendix G
WELL INDEX
RANGE 35W, 34W
SPRING 2022 TO SPRING 2023

Report Location	Map	Well ID #	Locality	SGMA DBID	USGS # Latitude-Longitude	GWL Source	2023 Date	2023 Depth to Water (ft)	2023 Status	2022 Date	2022 Depth to Water (ft)	2022 Status	change
Table 7		7N/35W-15M1	W. of 13th; N. of SYRivr	38	344124120334401	COSB	3/20	101.36		3/2	102.21		0.85
Table 7		7N/35W-17M1	Surf (near RR xing)	2	344114120353501	COSB	3/20	4.07		3/2	0.50	F	-3.57
Table 7		7N/35W-17K20	Surf (old Barrier Bridge)	1	344112120351001	COSB	3/20	16.92		3/2	13.98		-2.94
Table 7		7N/35W-18J2	Surf (S. side of Lagoon)	3	344118120355902	COSB	3/20	1.42		3/2	---		---
Table 7		7N/35W-21G2	AFB: 3300' NW of 22M1	39	344041120341101	COSB	3/20	12.25		3/2	12.38		0.13
Table 7		7N/35W-22J1	W Valley: Jordan Farm	4	344021120324101	COSB	3/20	13.25		3/2	22.15		8.9
Table 7		7N/35W-22M1	W of VAFB entrance N	37	344025120333401	COSB	3/20	6.52		3/2	14.07		7.55
Table 7		7N/35W-23Q2	W Valley: Jordan Farm	7	344009120320402	COSB	---	---		3/2	17.62		---
Table 7		7N/35W-23B2	N of SY River on VAFB	40	344048120320201	COSB	3/20	20.36		3/2	25.56		5.2
Table 7		7N/35W-23Q3	W Valley: Jordan Farm	8	344009120320403	COSB	---	---		3/2	26.47		---
Table 7		7N/35W-23Q4	W Valley: Jordan Farm	9	344008120320901	COSB	3/24	10.08		3/2	26.33		16.25
Table 7		7N/35W-24N3	N Artesia Ave: Beattie	11	344046120321401	COSB	3/20	8.21		3/2	---	P	---
Table 7		7N/35W-24J4	At N end of Douglas Ave	33	344021120303504	COSB	3/23	19.55		3/1	33.63		14.08
Table 7		7N/35W-24K5	DeWolf Ave: Henning	10	344029120310305	COSB	3/20	24.38		3/2	28.52		4.14
Table 7		7N/35W-25F6	NW of DeWolf & Central	12	343947120310703	COSB	3/20	7.78		3/2	14.82		7.04
Table 7		7N/35W-25F7	NW of DeWolf & Central	13	343947120310702	COSB	3/20	6.18		3/2	9.18		3
Table 7		7N/35W-26L1	W of Union Sugar Ave	15	343929120321001	COSB	3/20	3.05		3/2	6.18		3.13
Table 7		7N/35W-26L2	W of Union Sugar Ave	16	343929120321002	COSB	3/20	2.2		3/2	9.25		7.05
Table 7		7N/35W-26F4	W Valley: Jordan Farm	14	343948120320901	COSB	3/20	8.79		3/2	35.13		26.34
Table 7		7N/35W-26L4	W of Union Sugar Ave	17	343929120321004	COSB	3/20	2.45		3/2	17.07		14.62
Figure 8		7N/35W-26F5	---	65	343948120320902	--	3/20	---		3/20	---		---
Table 7		7N/35W-27C1	Ocean Ave & Renwick	18	344001120331401	COSB	3/20	9.83		3/2	17.72		7.89
Table 8		7N/35W-27P1	S. VAFB (Lom Terrace)	44	343923120332501	COSB	3/20	222.21		3/3	224.14		1.93
Table 7		7N/35W-35A3	S Artesia Ave	19	343859120314003	COSB	3/20	13.74		3/2	21.27		7.53
Table 7		6N/34W-4G4	---	1151	343805120275501	USBR	3/20	43.4	EST	3/20	48.6	EST	5.2
Table 7		6N/34W-6C4	E of San Pasqual Rd	20	343815120300602	COSB	3/20	---	O	3/1	68.7		---
Table 8		7N/34W-12E1	N of Mission Hills	51	344219120250601	COSB	3/30	332.21		3/3	331.45		-0.76
Table 8		7N/34W-14L1	Mission Hills CSD	53	344117120255001	COSB	3/23	218.64		3/11	221.42	S	2.78
Figure F-2		7N/34W-14F3	---	66	344130120255201	--	3/20	---		3/20	---		---
Table 8		7N/34W-14F4	Mission Hills CSD	52	344126120255201	COSB	3/23	230.11		3/11	234.35		4.24
Table 8		7N/34W-15E1	Vandnbrg Village CSD	606	344134120272201	COSB	3/23	134.94		3/11	136.79		1.85
Table 8		7N/34W-15P2	Uplands E of Hyw 1	56	344101120265901	COSB	3/9	260.89		3/3	260.69		-0.2
Table 8		7N/34W-15D3	Vandnbrg Village CSD	602	344142120272301	COSB	3/23	141.71		3/11	143.13		1.42
Table 7		7N/34W-20K4	USPrison E of Floradale	21	344017120285502	COSB	3/23	22.02		3/1	33.32	R	11.3
Table 7		7N/34W-22M6	---	57	344021120271301	USBR	3/20	49.2		3/20	51.7		2.5
Table 7		7N/34W-25F3	---	61	343940120245702	USBR	3/20	92.2		3/20	93.1		0.9
Table 7		7N/34W-26H3	Eastern Lompoc Valley	24	343943120252201	COSB	3/9	---	D	3/1	---	D	---
Table 7		7N/34W-26B4	---	58	343957120254501	USBR	3/20	64.6		3/20	70.9		6.3
Table 7		7N/34W-26Q5	---	60	343924120254501	USBR	3/20	49.9		3/20	61.8		11.9
Table 7		7N/34W-27G6	E of North A Street	25	343949120264901	COSB	3/9	33.68		3/2	42.3		8.62
Table 7		7N/34W-27F9	---	1162	--	USBR	3/20	50.6	EST	3/20	60.3		9.7
Table 7		7N/34W-29E4	E of Floradale: J Fischer	26	343948120292002	COSB	3/23	20.99		3/1	37.84		16.85
Table 7		7N/34W-29N6	E of Floradale: Bob Witt	27	343926120293001	COSB	3/20	22.69		3/1	33.96		11.27
Table 7		7N/34W-29N7	E of Floradale: Bob Witt	28	343926120293002	COSB	3/20	23.1		3/1	30.01		6.91
Table 7		7N/34W-30L10	SW cor Central & Leege	29	343941120300106	COSB	3/20	17.71		3/1	30.42		12.71
Table 7		7N/34W-31R2	NW of Floradale-Ocean	30	343828120293201	COSB	3/23	28.53		3/1	37.73		9.2
Table 7		7N/34W-32H2	E of Bailey: Wineman	31	343901120284201	COSB	---	---		3/1	37.5		---
Table 7		7N/34W-34R1	---	63	343821120262701	USBR	3/20	52.1		3/20	60.2		8.1
Table 7		7N/34W-35K9	Eastern Lompoc Valley	32	343840120254701	COSB	3/9	19.01		3/1	27.29		8.28
Table 7		7N/34W-35K9	Eastern Lompoc Valley	32	343840120254701	USBR	3/20	25.4		3/20	32.6		7.2

Appendix G
WELL INDEX
RANGE 33W, 32W
SPRING 2022 TO SPRING 2023

Report Location	Map	Well ID #	Locality	SGMA DBID	USGS # Latitude-Longitude	GWL Source	2023 Date	2023 Depth to Water (ft)	2023 Status	2022 Date	2022 Depth to Water (ft)	2022 Status	change
Table 8		7N/33W-17M1	Upper Cebada Canyon	47	344100120224901	COSB	3/9	282.63		3/3	282.36		-0.27
Table 8		7N/33W-17N2	Upper Cebada Canyon	48	344051120224901	COSB	3/9	306.22		3/3	306.40		0.18
Table 8		7N/33W-19D1	Lower Cebada Canyon	49	344035120235901	COSB	3/9	206.35		3/3	205.87		-0.48
Table 8		7N/33W-20G1	W of Tularosa Road	50	344025120221601	COSB	---	---		3/3	324.82	S	---
Table 9		7N/33W-21N1	W Santa Rita Valley	79	343956120214001	COSB	3/9	303.18		3/8	303.25		0.07
Table 9		7N/33W-21G2	Mid Santa Rita Valley	78	344025120211501	COSB	3/9	358.4		3/8	358.28		-0.12
Table 9		7N/33W-27G1	E Santa Rita Valley	80	343926120201001	COSB	3/9	385.37	R	3/8	383.44		-1.93
Table 9		7N/33W-28D3	W Santa Rita Valley	81	343946120215301	COSB	3/9	308.21		3/8	307.77		-0.44
Table 9		7N/33W-36J1	Drum Cyn - Santa Rosa	82	343824120175201	COSB	3/9	133.51		3/8	134.77		1.26
Table 9		6N/32W-2Q1	SYR Alluvial; Buellton	91	343719120124901	COSB	3/9	59.8		3/8	62.28		2.48
Table 9		6N/32W-12K2	---	909	343649120114401	Buellton	3/10	47.0		4/4	45.9		-1.1
Table 9		7N/32W-31M1	Drum Cyn - Santa Rosa	75	343821120173601	COSB	3/9	80.67		3/8	81.24		0.57

Appendix G
WELL INDEX
RANGE 31W, 30W, 29W
SPRING 2022 TO SPRING 2023

Report Location	Map	Well ID #	Locality	SGMA DBID	USGS # Latitude-Longitude	GWL Source	2023 Date	2023 Depth to Water (ft)	Status	2022 Date	2022 Depth to Water (ft)	Status	change
Table 10		6N/31W-1P2	West of Refugio Road	112	343727120055801	COSB	---	---		---	---		---
Table 10		6N/31W-1P3	West of Refugio Road	113	343728120055101	COSB	3/7	122.52		3/9	117.96		-4.56
Table 10		6N/31W-2K1	Alamo Pintado Road	87	343741120064801	COSB	3/7	47.38		3/9	55.66	S	8.28
Table 10		6N/31W-3A1	Hilltop West of Ballard	88	343759120072901	COSB	3/7	160.59		3/9	163.43		2.84
Table 10		6N/31W-4A1	Ballard Cyn nr Solvang	89	343800120083001	COSB	3/7	113.96		3/9	113.09		-0.87
Table 9		6N/31W-7F1	Buellton Upland Well	90	343655120111201	COSB	3/9	76.94	R	3/28	76.69		-0.25
Table 10		6N/31W-10F1	Fredenborg Cyn: Solvng	83	343656120080601	COSB	3/7	81.37		3/9	87.51		6.14
Table 10		6N/31W-11D4	Alamo Pintado Road	84	343705120071001	COSB	3/7	54.83		3/9	66.93		12.1
Table 10		6N/31W-13D1	Santa Ynez: nr Hyw 246	111	343623120061201	COSB	3/7	118.18		3/9	120.73		2.55
Table 10		7N/31W-23P1	Los Olivos: Matties Tav	93	344002120070001	COSB	---	---		3/9	87.14		---
Table 10		7N/31W-36L2	Refugio Rd N of Baseln	95	343831120055001	COSB	3/7	119.39		3/9	118.44		-0.95
Table 10		8N/31W-36H1	Midland School	98	344354120051501	COSB	3/7	9.84		3/10	32.44		22.6
Table 10		6N/30W-1R3	Happy Canyon	108	343718119592001	COSB	3/6	160.58		3/10	160.96		0.38
Table 10		6N/30W-7G5	S Ynez off Meadowvale	109	343651120043401	COSB	3/7	94.14		3/9	90.17		-3.97
Table 10		6N/30W-7G6	S Ynez off Meadowvale	110	343651120043402	COSB	3/7	92.87		3/9	89.67		-3.2
Table 10		6N/30W-11G4	Happy Cyn: Westerly	107	343650120002501	COSB	3/6	176.55		3/28	187.47		10.92
Table 10		7N/30W-16B1	Sedgewick Ranch	116	344127120023301	COSB	3/6	35.32		3/10	31.43		-3.89
Table 10		7N/30W-19H1	SY Upl: Long Cyn Loop	117	344028120041801	COSB	3/6	179.82		3/10	179.21		-0.61
Table 10		7N/30W-22E1	Bar-Go Ranch	118	344023120015101	COSB	3/6	8.54		3/10	9.47		0.93
Table 10		7N/30W-24Q1	Starlane Ranch	120	343956119592401	COSB	3/6	54.68	F	3/11	54.07		-0.61
Table 10		7N/30W-27H1	Bar-Go Ranch	122	343935120010801	COSB	3/6	---		3/10	10.73		---
Table 10		7N/30W-29D1	SY Upl: Long Cyn Loop	123	343946120035801	COSB	3/6	25.29		3/10	59.61		34.32
Table 10		7N/30W-30M1	SY Upl: Long Cyn Loop	124	343921120051601	COSB	---	---		3/9	275.93	S	---
Table 10		7N/30W-33M1	300 ft W of Mora Ave	126	343833120030901	COSB	3/7	254.94		3/28	251.14		-3.8
Table 10		8N/30W-30R1	Midland School	96	344420120041701	COSB	3/7	5.36		3/10	23.49		18.13
Table 10		6N/29W-6F1	Happy Cyn: Kastner	101	343746119583101	COSB	3/6	17.43		3/10	19.17		1.74
Table 10		6N/29W-6G1	Happy Cyn: Kastner	102	343746119582201	COSB	3/6	52.45		3/10	53.97		1.52
Table 10		6N/29W-7L1	N of Rd to Phillips Rnch	103	343646119583001	COSB	3/6	243.93	F	3/11	258.44	F	14.51
Table 10		6N/29W-8P1	Phillips Ranch @ House	104	343632119573301	COSB	3/6	---	D	3/11	---		---
Table 10		6N/29W-8P2	Phillips Ranch @ House	105	343632119573302	COSB	3/6	257.47		3/11	255.58		-1.89

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