NOTICE

Regular Meeting of the
BOARD OF DIRECTORS
SANTA YNEZ RIVER WATER CONSERVATION DISTRICT
will be held at the
VANDENBERG VILLAGE COMMUNITY SERVICES DISTRICT
3745 Constellation Rd., Lompoc, California
at 6:30 pm, Wednesday, December 1, 2021

***AS PER SANTA BARBARA COUNTY HEALTH OFFICER ORDER NO. 2021-10.5**
IN PERSON ATTENDEES MUST WEAR FACE COVERINGS AT ALL TIMES WHILE ATTENDING THE MEETING IN AN INDOOR PUBLIC SETTING

Remote participation also available via ZOOM

You do NOT need to create a ZOOM account or login with email for meeting participation.

ZOOM.us - "Join a Meeting"
Meeting ID: 974 7650 7959 Meeting Passcode: 241687

DIRECT LINK: https://zoom.us/j/97476507959?pwd=dGZwK2tyVm9ZOXNSdGtOWXYvNlUxQT09

DIAL-IN NUMBER: 1-669-900-6833
PHONE MEETING ID: 974 7650 7959 # Meeting Passcode: 241687 #

If your device does not have a microphone or speakers, you can call in for audio with the phone number and Meeting ID listed above to listen and participate while viewing the live presentation online.

In the interest of clear reception and efficient administration of the meeting, all persons participating remotely are respectfully requested to mute their line after logging or dialing-in and at all times unless speaking.

Teleconference Meeting During Coronavirus (COVID-19) Emergency: As a result of the COVID-19 pandemic, this meeting will be available via teleconference as recommended by Santa Barbara County Public Health and authorized by State Assembly Bill 361.

Important Notice Regarding Public Participation in Teleconference Meeting: Those who wish to provide public comment on an Agenda Item, or who otherwise are making a presentation to the Board of Directors, may participate in the meeting using the dial-in number and passcode above. Those wishing to submit written comments instead, **please submit comments and materials to the District via electronic mail at athompson@syrwcd.com**. All submittals of written comments must be received by the District no later than 5:00 p.m. on Tuesday, November 30, 2021 and should indicate **"PUBLIC COMMENT"** in the subject line. To the extent practicable, public comments and materials received in advance pursuant to this timeframe will be read into the public record during the meeting. Public comments and materials not read into the record will become part of the post-meeting Board packet materials available to the public and posted on the District's website.

In the interest of clear reception and efficient administration of the meeting, all persons participating in this teleconference are respectfully requested to mute their phones after dialing-in and at all times unless speaking.

AGENDA ON FOLLOWING PAGE

AGENDA OF REGULAR MEETING

I. Call to Order and Roll Call

II. Pledge of Allegiance

III. Consider adopting Resolution 703 "Resolution Initially Authorizing Remote Teleconference Meetings Under AB361"

IV. Additions, if any, to the Agenda

V. Public Comment (Any member of the public may address the Board relating to any non-agenda matter within the Board's jurisdiction. The total time for all public participation shall not exceed fifteen minutes and the time allotted for each individual shall not exceed five minutes. No action will be taken by the Board at this meeting on any public item.)

Staff recommends any potential new agenda items based on issues raised be held for discussion under Agenda Item XI, Requests from the Board of Directors for items to be included on the next Agenda.

VI. Consideration of the Minutes of the Special Meeting of September 8, 2021

VII. General Manager Report – Status, discussion and possible Board action on the following subjects:

A. Water Rights Release 2021

B. Surface Water Report

C. Financial Reports, Monthly Warrants, Audit and Quarterly Investment Report

D. 2022 Re-Districting and consider adoption of Resolution No. 704 "Declaring Its Intent to Adjust Division Boundaries and Notice of Hearing"

E. LAFCO Nominations and Election

VIII. Groundwater Program Manager Report:

A. Groundwater Production, Reporting and Charges

1. Update on January to June 2021 groundwater reporting period
2. Update on December 2021 groundwater reporting
3. Update on efforts to capture delinquent groundwater reporting and well registrations

B. Sustainable Groundwater Management Act (SGMA) Update

1. Status update on the three GSPs for the Basin

2. Consider adoption of Resolutions No. 705, 706, and 707 "Approving Adoption for Groundwater Sustainability Plan for the (Central, Eastern, Western) Management Area of the Santa Ynez River Valley Groundwater Basin"

3. Consider approval of change order to GSI Water Solutions Task Order for GSP Preparation in the EMA

4. Consider issuing new Task Order for GSI Water Solutions to prepare annual report in the EMA

5. Consider issuing new Task Order for Stetson Engineers to prepare annual reports in the WMA and CMA

6. SGMA Finances and GSP implementation budget

IX. Attorney Report

X. Reports, acts by Board members, questions of staff, status reports, announcements, observations, and other matters, and/or communications not requiring action

XI. Requests from the Board of Directors for items to be included on the next Agenda. The next meeting is scheduled as a regular meeting for March 2, 2022, at 6:30 pm.

In compliance with the California Water Code, regular meetings are scheduled for the first Wednesday in March, June, September, and December at various locations within the District. Special meetings may be held at any location within the District.

XII. Closed Session

To accommodate the video/teleconferencing format of this meeting, the online public participation will be closed for a specified amount of time while the Board of Directors convenes into closed session. Upon the conclusion of the specified amount of time, the online public participation will be reopened for the remaining Agenda Items.

The Board will hold a closed session to discuss the following items:

A. Conference with Legal Counsel - Pending Litigation (Gov. Code, § 54956.9, subd. (d)(1)): Wolff vs SYRWCD, Superior Court of California, County of Santa Barbara, Case No. 20CV01552

B. Conference with Legal Counsel – Pending Litigation (Gov. Code, § 54956.9, subd. (d)(1)) relating to proceedings pending before the State Water Resources Control Board (SWRCB) regarding Permits 11308 and 11310 issued on Applications 11331 and 11332 of the United States Bureau of Reclamation for the Cachuma Project, and complaints filed by the California Sport Fishing Protection Alliance regarding the operation of the Cachuma Project and SWRCB Order WR 89-18; proposed changes to the place and purpose of use of waters obtained through aforementioned permits for the Cachuma Project; and Reclamation's Petition for Reconsideration or Rehearing re Order WR 2019-0148; and proceedings related to SWRCB Permit No. 15878 (Application A022423) held by the City of Solvang including the City of Solvang's Petitions for Change and Extension of Time.

C. Conference with Legal Counsel – Anticipated Litigation (Gov. Code, § 54956.9, subd. (d)(2)): Significant exposure to litigation (One Matter).

D. Conference with Legal Counsel – Anticipated Litigation (Gov. Code, § 54956.9, subd. (d)(4)): Possible initiation of litigation (One Matter).

XIII. Reconvene into Open Session / Closed Session Report

XIV. Adjournment

[This agenda was posted on the District's website (syrwcd.com) and at 3669 Sagunto Street, Suite 101, Santa Ynez, California, and notice delivered in accordance with Government Code Section 54954. In compliance with the Americans with Disabilities Act, if you need special assistance to review agenda materials or participate in this meeting, please contact the District at (805) 693-1156. Notification 72 hours prior to the meeting will enable the District to make reasonable arrangements to ensure accessibility to this meeting.]

Santa Barbara County
PUBLIC Health
DEPARTMENT

Public Health Administration

300 North San Antonio Road ◆ Santa Barbara, CA 93110-1316
805/681-5100 ◆ FAX 805/681-5191

Van Do-Reynoso, MPH, PhD *Director*
Suzanne Jacobson, CPA *Chief Financial Officer*
Paige Batson, MA, PHN, RN *Deputy Director*
Darrin Eisenbarth *Deputy Director*
Dana Gamble, LCSW *Interim Deputy Director*
Polly Baldwin, MD, MPH *Medical Director*
Henning Ansorg, MD *Health Officer*

HEALTH OFFICIALS AB 361 SOCIAL DISTANCE RECOMMENDATION

Issued: September 28, 2021

COVID-19 disease prevention measures, endorsed by the Centers for Disease Control and Prevention, include vaccinations, facial coverings, increased indoor ventilation, handwashing, and physical distancing (particularly indoors).

Since March 2020, local legislative bodies-such as commissions, committees, boards, and councils- have successfully held public meetings with teleconferencing as authorized by Executive Orders issued by the Governor. Using technology to allow for virtual participation in public meetings is a social distancing measure that may help control transmission of the SARS-CoV-2 virus. Public meetings bring together many individuals (both vaccinated and potentially unvaccinated), from multiple households, in a single indoor space for an extended time. For those at increased risk for infection, or subject to an isolation or quarantine order, teleconferencing allows for full participation in public meetings, while protecting themselves and others from the COVID-19 virus.

Utilizing teleconferencing options for public meetings is an effective and recommended social distancing measure to facilitate participation in public affairs and encourage participants to protect themselves and others from the COVID-19 disease. This recommendation is further intended to satisfy the requirement of the Brown Act (specifically Gov't Code Section 54953(e)(1)(A)), which allows local legislative bodies in the County of Santa Barbara to use certain available teleconferencing options set forth in the Brown Act.

Henning Ansorg, MD
Public Health Officer
County of Santa Barbara

Van Do-Reynoso, MPH, PhD
Public Health Director
County of Santa Barbara

RESOLUTION NO. 703

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SANTA YNEZ RIVER WATER CONSERVATION DISTRICT INITIALLY AUTHORIZING REMOTE TELECONFERENCE MEETINGS UNDER AB 361

WHEREAS, meetings of the Board of Directors of the **Santa Ynez River Water Conservation District** (District) are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963), so that any member of the public may attend, participate, and watch the District conduct its business;

WHEREAS, Government Code section 54953(e), added by Assembly Bill 361 (2021) ("AB361"), provides for remote teleconferencing participation in meetings by members of a legislative body, without compliance with the requirements of Government Code section 54953(b)(3), subject to certain conditions and requirements; and

WHEREAS, the District wishes to invoke the provisions of AB361 to authorize teleconference meetings subject to the provisions of Government Code section 54953(e);

NOW, THEREFORE, BE IT RESOLVED THAT:

Section 1. Findings. The Board of Directors hereby finds as follows:

(a) As provided by Government Code section 54953(e)(1), a proclaimed state of emergency exists under the California Emergency Services Act, as declared by the Governor on March 4, 2020.

(b) As provided by Government Code section 54953(e)(1), the County of Santa Barbara Health Department has imposed or recommended measures to promote social distancing, specifically Santa Barbara County Health Order No. 2021-10.5 (see also Santa Barbara County Public Health Department Health Officials AB 361 Social Distance Recommendation issued September 28, 2021).

Section 2. Procedures for Teleconference Meetings. The District shall hold meetings to allow for teleconference participation pursuant to the requirements of Government Code section 54953(e).

Section 3. Effective Date. This resolution shall take effect immediately upon its adoption.

Section 4. Renewal. Pursuant to Government Code section 54953(e)(3), the District may consider findings regarding the state of emergency every 30 days.

WE, THE UNDERSIGNED, being the duly qualified and acting President and Secretary, respectively, of the Board of Directors of the Santa Ynez River Water Conservation District, do hereby certify that the above and foregoing Resolution was duly and regularly adopted and passed by the Board of Directors at a regular meeting duly held on the 1st day of December, 2021 by the following vote:

AYES, and in favor thereof, Directors:

NOES, Directors:

ABSENT/ABSTAINING, Directors:

_____
Cynthia Allen, President

_____
Amber Thompson, Secretary

D R A F T

SPECIAL MEETING MINUTES

SANTA YNEZ RIVER WATER CONSERVATION DISTRICT
September 08, 2021

A special meeting of the Board of Directors of the Santa Ynez River Water Conservation District was held on Wednesday, September 08, 2021. As a result of the COVID-19 emergency and Governor Newsom's Executive Orders to protect public health by issuing shelter-in-home standards, limiting public gatherings, and requiring social distancing, this meeting occurred solely via teleconference as authorized by and in furtherance of Executive Order Nos. N-29-20 and N-33-20 and in accordance with the latest Santa Barbara County Heath Office Order.

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Directors Present: Cynthia Allen Mark Altshuler Art Hibbits Steve Jordan Brett Marymee

Others Present: General Manager Kevin Walsh, Groundwater Program Manager Bill Buelow, Board Secretary Amber Thompson, Legal Counsel Steve Torigiani, and Legal Counsel Josh George (closed session only)

I. CALL TO ORDER

President Allen called the meeting to order at 6:33 pm.

II. ROLL CALL

Ms. Thompson called roll. All Directors were present providing a quorum.

III. ADDITIONS, IF ANY, TO THE AGENDA

There were no additions to the agenda.

IV. PUBLIC COMMENT

There was no public comment. Ms. Thompson announced she did not receive any public comments prior to the meeting.

V. CONSIDERATION TO APPROVE MINUTES

President Allen submitted the minutes of the regular meeting of June 2, 2021 for Board approval. Director Hibbits made a MOTION to approve the minutes. Director Jordan seconded the motion and it passed 4-0-1 by the following roll call vote:

AYES, Directors: Cynthia Allen, Mark Altshuler, Art Hibbits, Steve Jordan,
NOES, Directors: None
ABSTAIN, Directors: Brett Marymee

VI. GENERAL MANAGER REPORT

A. Water Rights Release 2021

Mr. Walsh advised that a Downstream Water Rights Releases from Lake Cachuma began August 1, 2021 and is scheduled to end on November 1, 2021, subject to change depending on conditions. No discussion followed, no action.

B. Surface Water Report

Mr. Walsh presented Rainfall and Reservoir Summary, Cachuma Daily Operations, Downstream Users Accounting and Dewatered Groundwater Storage report. He reported that there was no Gin Chow release in 2021. He reviewed the National Weather Service's Winter 2021-22 precipitation outlook. He provided an update on the Santa Barbara County Water Agency Cloud Seeding program. Discussion followed, no action.

C. Financial Reports, Monthly Warrant Reports and 4th Quarter Investment Report

Mr. Walsh presented the financial report through July 31, 2021. The Board reviewed the financial reports and notable items for Period 1 of FY 2021-22. No discussion, no action.

Mr. Walsh presented Warrant Lists for June, July, and August 2021. June 2021 Warrant List noted that previously lost/missing checks (Nos. 5277-5293) were found after the June meeting. Therefore, these check numbers were not voided, as previously reported, and were used for warrants in June and July 2021. Director Hibbits made a MOTION to ratify the warrant lists as presented (nos. 5277- 5293 and 5308-5336 plus ACH transactions) for a total of $222,147.34. Director Marymee seconded, and the motion passed unanimously by the following roll call vote:

AYES, Directors: Cynthia Allen, Mark Altshuler, Art Hibbits, Steve Jordan, Brett Marymee
NOES, Directors: None
ABSENT, Directors: None

Mr. Walsh presented the Quarterly Investment Report for 4th Quarter of FY 2020-21 and said investments were made in accordance with policy and sufficient funds are available to meet District obligations in accordance with law. No discussion, no action.

D. 2022 Re-Districting

Mr. Walsh said that there is nothing new to report about the 2022 Redistricting efforts as the 2020 U.S. Census population database was just released. Staff is working with a consultant to create division boundaries with updated population and determine boundary adjustment needs, if any. No discussion, no action.

VII. GROUNDWATER PROGRAM MANAGER REPORT

A. Groundwater Production, Reporting and Charges

Mr. Buelow reviewed income received from Groundwater Pump Charges and Groundwater Production reported to date. Mr. Buelow provided an update on delinquent groundwater reporting and well registrations. Discussion followed, no action.

B. Sustainable Groundwater Management Act (SGMA) Update

Mr. Buelow reported that the three GSAs received presentations on Projects and Management Actions, overviews of the complete Draft GSPs and presentations on future governance and self-funding options. Discussion followed, no action.

VIII. ATTORNEY REPORT

Legal Counsel Steve Torigiani reported on a couple of legislative items.

IX. REPORTS, ACTS BY BOARD MEMBERS, QUESTIONS OF STAFF, STATUS REPORTS, ANNOUNCEMENTS, OBSERVATIONS AND OTHER MATTERS, AND/OR COMMUNICATIONS NOT REQUIRING ACTION

There were no requests.

X. REQUEST FOR ITEMS TO BE INCLUDED ON THE NEXT AGENDA

There were no requests.

XI. NEXT REGULAR MEETING IS SCHEDULED FOR DECEMBER 1, 2021, LOCATION TBD

The next Board meeting will be a Regular meeting on December 1, 2021 at 6:30 pm, location to be determined. President Allen suggested Vandenberg Village CSD's conference room as an available location for an in-person meeting with teleconference capabilities.

XIII. CLOSED SESSION

The Board convened into Closed Session from 8:12 pm to 8:39 pm to discuss the following items:

A. Conference with Legal Counsel - Pending Litigation (Gov. Code, § 54956.9, subd. (d)(1)): Wolff vs SYRWCD, Superior Court of California, County of Santa Barbara, Case No. 20CV01552

B. Conference with Legal Counsel – Pending Litigation (Gov. Code, § 54956.9, subd. (d)(1)) relating to proceedings pending before the State Water Resources Control Board (SWRCB) regarding Permits 11308 and 11310 issued on Applications 11331 and 11332 of the United States Bureau of Reclamation for the Cachuma Project, and complaints filed by the California Sport Fishing Protection Alliance regarding the operation of the Cachuma Project and SWRCB Order WR 89-18; proposed changes to the place and

purpose of use of waters obtained through aforementioned permits for the Cachuma Project; and Reclamation's Petition for Reconsideration or Rehearing re Order WR 2019-0148; and proceedings related to SWRCB Permit No. 15878 (Application A022423) held by the City of Solvang including the City of Solvang's Petitions for Change and Extension of Time.

C. Conference with Legal Counsel – Anticipated Litigation (Gov. Code, § 54956.9, subd. (d)(2)): Significant exposure to litigation (One Matter).

D. Conference with Legal Counsel – Anticipated Litigation (Gov. Code, § 54956.9, subd. (d)(4)): Possible initiation of litigation (One Matter).

XIV. RECONVENE OPEN SESSION/REPORT FROM CLOSED SESSION

President Allen advised there is nothing to report from Closed Session.

XV. ADJOURNMENT

There being no further business, President Allen adjourned the meeting at 8:40 pm.

_____ _____

Cynthia Allen, President Amber M. Thompson, Secretary

SANTA YNEZ RIVER WATER CONSERVATION DISTRICT

MEMORANDUM

DATE: 1 December 2021

TO: Cynthia Allen, Mark Altshuler, Art Hibbits, Brett Marymee, Steve Jordan, Steve Torigiani

FROM: Kevin D. Walsh

SUBJECT: AGENDA ITEM VI
General Manager Report

A. Water Rights Release 2021

A Below Narrows Account (BNA) release began on August 2nd 2021, at 8:00 am. The release ended on October 22nd 2021. The total BNA release was 4,649 acre-feet. The balances in the ANA account are about 8,000 acre-feet and 4,365 acre-feet in the BNA account.

If the upcoming 2021-22 winter is dry, a release for summer 2022 may be warranted.

Mixing of State Water with the Water Rights Release from Lake Cachuma did not occur. This was due to Reclamation using the outlet works to supply gravity flow to maintain the steelhead habitat in Hilton Creek. Mixing cannot occur under these conditions, due to National Marine Fisheries restrictions. An alternate release point from the Central Coast Water Authority (CCWA) pipeline is needed to insure mixing opportunities in the future. A request has been made to CCWA to provide such an alternative release point and is now pending.

B. Surface Water Report

Winter 2021-22 Precipitation Outlook. With regard to the "El Niño Southern Oscillation" (aka **ENSO**: a recurring climate pattern involving changes in the temperature of waters in the central and eastern tropical Pacific Ocean), the data indicates a probability of a La Nina condition developing over the winter of 2021-2022. Whereas El Nino years are associated with wet weather, La Nina years correlate to below average rainfall for Southern California. This is not a very precise correlation.

Cloud Seeding. The Santa Barbara County Water Agency Cloud Seeding program has been suspended due to the destruction of vegetation in the watershed caused by the 2017 Thomas

and Whittier Fires. Recently, the County has indicated that they are planning to resume this program. A decision will be based on the recovery of the watershed and other factors.

Attachments:

- Rainfall and Reservoir Status Report
- Cachuma Daily Operations
- Downstream User Accounting Report

C. Financial Report

Fiscal Year 2020-21 Audit – June 30, 2021 Financial Statements

A formal presentation of the FY 2020-21 Audit by the firm of Bartlett, Pringle, and Wolf is tentatively schedule for the March 2, 2022 meeting.

Balance Sheets and Income Statements for Period 4 ending October 31, 2021 for the current Fiscal Year 2021-22 are attached.

Notables for Period 4:

- Revenues. As of October 31, 2021, the year-to-date income over budget expectations, interest income is below expectations and will continue that way. Income from investments is expected to be less than budgeted. Despite the FY 2021-22 budget having significantly reduced interest income as compared to FY 2020-21, the Local Agency Investment Fund (LAIF) interest rates have dropped from over 2% in 2019-20 to 1.36% in June 2020 and 0.58% in November 2020 to 0.20% in November 2021. The result has been significantly reduced interest income to date.

- Expenses. No change to year-end projections. Groundwater charges Administration is over budget due to increased activity in Period 1 for well registration compliance, and increased property transfers. Legal expenses for SGMA were accounted for in the budgeted SGMA costs. On the Income Statement these costs are broken out separately.

- Contingencies. No change to year-end projections.

- Reserves. No change to year-end projections.

Quarterly Investment Report

Certification for FY 2021-22 1st Quarter Investment Report is attached.

Warrants

The Monthly Warrants are attached.

Recommend Motion to Approve September, October, November Warrants.
Roll call vote.

D. 2022 Redistricting

See attached staff memorandum regarding proposed 2022 Redistricting, maps and Resolution No. 704 "Declaring Its Intent to Change Division Boundaries and Notice of Hearing".

Recommend Motion to Adopt Resolution No. 704 "Declaring Its Intent to Change Division Boundaries and Notice of Hearing".

Roll call vote.

E. LAFCO Nominations and Election

See attached notice from LAFCO regarding "Call for Nominations for and Notice of Election for LAFCO Regular Special District Member; Election Date is January 24, 2022".

KDW/amt

Enclosures

Santa Barbara County - Flood Control District

130 East Victoria Street, Santa Barbara CA 93101 - 805.568.3440 - www.countyofsb.org/pwd

Rainfall and Reservoir Summary

Updated 8am: 11/22/2021 **Water Year: 2022** **Storm Number: NA**

Notes: Daily rainfall amounts are recorded as of 8am for the previous 24 hours. Rainfall units are expressed in inches.
All data on this page are from automated sensors, are preliminary, and subject to verification.
*Each Water Year (WY) runs from Sept 1 through Aug 31 and is designated by the calendar year in which it ends
County Real-Time Rainfall and Reservoir Website link: ➢ http://www.countyofsb.org/hydrology

Rainfall	ID	24 hrs	Storm 0day(s)	Month	Year*	% to Date	% of Year*	AI
Buellton (Fire Stn)	*233*	0.00	0.00	0.11	1.33	68%	8%	
Cachuma Dam (USBR)	*332*	0.00	0.00	0.11	1.77	84%	9%	
Carpinteria (Fire Stn)	*208*	0.00	0.00	0.03	1.00	49%	6%	
Cuyama (Fire Stn)	*436*	0.00	0.00	0.00	0.57	53%	7%	
Figueroa Mtn. (USFS Stn)	*421*	0.00	0.00	0.17	2.28	81%	11%	10.3
Gibraltar Dam (City Facility)	*230*	0.00	0.00	0.03	2.86	113%	11%	10.1
Goleta (Fire Stn-Los Carneros)	*440*	0.00	0.00	0.02	1.60	73%	9%	
Lompoc (City Hall)	*439*	0.00	0.00	0.07	1.23	74%	8%	10.6
Los Alamos (Fire Stn)	*204*	0.00	0.00	0.11	1.18	71%	8%	
San Marcos Pass (USFS Stn)	*212*	0.00	0.00	0.06	5.47	148%	16%	
Santa Barbara (County Bldg)	*234*	0.01	0.00	0.05	1.62	79%	9%	
Santa Maria (City Pub.Works)	*380*	0.00	0.00	0.18	1.55	97%	12%	
Santa Ynez (Fire Stn /Airport)	*218*	0.00	0.00	0.09	1.48	82%	9%	
Sisquoc (Fire Stn)	*256*	0.00	0.00	0.15	1.22	66%	8%	

County-wide percentage of "Normal-to-Date" rainfall : 81%

County-wide percentage of "Normal Water-Year" rainfall : 9%

County-wide percentage of "Normal Water-Year" rainfall calculated assuming no more rain through Aug. 31, 2022 (End of WY2022).

AI (Antecedent Index / Soil Wetness)
6.0 and below = Wet (min. = 2.5)
6.1 - 9.0 = Moderate
9.1 and above = Dry (max. = 12.5)

Reservoirs

Reservoir Elevations referenced to NGVD-29.
**Cachuma is full and subject to spilling at elevation 750 ft.
However, the lake is surcharged to 753 ft. for fish release water.
(Cachuma water storage is based on Dec 2013 capacity revision)

Click on Site for Real-Time Readings	Spillway Elev. (ft)	Current Elev. (ft)	Max. Storage (ac-ft)	Current Storage (ac-ft)	Current Capacity (%)	Storage Change Mo.(ac-ft)	Storage Change Year*(ac-ft)
Gibraltar Reservoir	1,400.00	1,371.79	4,693	192	4.1%	-14	-82
Cachuma Reservoir	753.**	711.76	193,305	92,462	47.8%	-1,034	-6,808
Jameson Reservoir	2,224.00	2,205.16	4,848	2,797	57.7%	-68	-288
Twitchell Reservoir	651.50	NA	194,971	NA		NA	NA

Previous Rainfall and Reservoir Summaries

CACHUMA DAILY OPERATIONS

Month & Year: November 2021

Time of Observations: 0830 Evaporation Pan Factor: 72%

Day	Beginning Storage:		93,533	Surface Area	Rainfall		Evaporation			CCWA Inflow	Releases						Computed Inflow
	Elevation	Storage	Change								Park Diversion	South Coast	Hilton Creek	WR 89-18	Outlet	Spillway	
	ft	acre-feet	acre-feet	acres	inches	acre-feet	inches	acre-feet		acre-feet		acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet
1	712.31	93,496	(37)	1,884	-		0.080	9.0		9.4		22.7	2.6	-	17.0	-	4.9
2	712.28	93,439	(57)	1,883	-		0.020	2.3		-		22.6	2.7	-	17.0	-	(12.4)
3	712.26	93,402	(37)	1,882	-		0.100	11.3		-		26.1	2.6	-	16.0	-	19.0
4	712.23	93,345	(57)	1,881	-		0.100	11.3		-		28.3	2.6	-	17.0	-	2.2
5	712.20	93,289	(56)	1,881	-		0.140	15.8		-		28.4	2.7	-	17.0	-	7.9
6	712.17	93,232	(57)	1,880	-		0.070	7.9		-		28.6	2.7	-	17.0	-	(0.8)
7	712.14	93,176	(56)	1,879	0.01	1.6	0.090	10.1		-		29.5	2.7	-	18.0	-	2.8
8	712.11	93,120	(56)	1,878	-		0.090	10.1		-		28.5	2.6	-	16.0	-	1.2
9	712.08	93,044	(76)	1,878	0.01	1.6	0.050	5.6		-		28.8	2.7	-	17.0	-	(23.4)
10	712.06	93,026	(18)	1,877	0.10	15.6	0.040	4.5		-		28.2	2.6	-	17.0	-	18.7
11	712.03	92,969	(57)	1,876	-		0.050	5.6		-		36.6	2.7	-	17.0	-	4.9
12	712.01	92,932	(37)	1,876	-		0.190	21.4		-		39.8	2.6	-	17.0	-	43.8
13	711.96	92,838	(94)	1,874	-		0.120	13.5		-		67.4	2.6	-	17.0	-	6.5
14	711.91	92,744	(94)	1,873	-		0.130	14.6		-		70.5	2.7	-	17.0	-	10.8
15	711.88	92,687	(57)	1,872	-		0.130	14.6		36.8		49.9	2.6	-	17.0	-	(9.7)
16	711.86	92,650	(37)	1,872	-		0.110	12.4		37.5		48.4	2.6	-	17.0	-	5.9
17	711.84	92,612	(38)	1,871	-		0.100	11.2		37.5		46.4	2.7	-	17.0	-	1.8
18	711.82	92,574	(38)	1,871	-		0.070	7.9		37.5		48.0	2.6	-	17.0	-	(0.0)
19	711.80	92,537	(37)	1,870	-		0.060	6.7		37.5		46.3	2.5	-	17.0		(2.0)
20																	
21																	
22																	
23																	
24																	
25																	
26																	
27																	
28																	
29																	
30																	
TOTALS			-996		0.12	18.8	1.740	195.9	-	196.2	-	725.0	50.1	-	322.0	-	82.0

Park Usage Rain Yr. Total

C A C H U M A
Santa Ynez River - Downstream Users Accounting
September 2021

SUMMARY

RESERVOIR			
	Computed Inflow		382.5
Releases			1258.3
Fish		0.0	
Water rights		1258.3	
Leakage		0.0	
Spills			0.0
Valves		0.0	
Spillway		0.0	
Leakage		0.0	
	Total Downstream Releases . .		1258.3
Diversions			2396.4
South Coast		2394.7	
Park (SYRWCD ID #1)		1.7	
SYRWCD ID #1		0.0	
	Total Reservoir Outflows . .		3654.7
CCWA Inflow		568.2	
Releases Affecting Accounts		1258.3	
Project Savings		0.0	
ABOVE NARROWS ACCOUNT (ANA)			
Previous Months ANA			9474.0
ANA Credit		382.5	
Releases from ANA		1258.3	
BNA Releases Not Reaching Narrows		0.0	
ANA Dewatered Storage:	Current	18209.0	
	Previous	17270.0	
	Change	939.0	
Spills Reducing ANA		0.0	
Current ANA			8598.2
BELOW NARROWS ACCOUNT (BNA)			
Previous Months BNA			4365.0
Measured Flow at Narrows		0.0	
Salsipuedes Creek Contribution		3.5	
Releases from BNA		0.0	
BNA Releases Reaching Narrows		0.0	
Constructive Flow at Narrows		0.0	
Elevation of Indicator well (feet)		0.0	
Percolation from Measured Flow		0.0	
Percolation from Constructive Flow		0.0	
BNA Credit		0.0	
Spills Reaching Narrows		0.0	
BNA Dewatered Storage:	Current	19018.0	
	Previous	18492.0	
	Change	526.0	
Spills Reducing BNA		0.0	
Current BNA			4365.0

Notes: All values are in acre-feet unless otherwise indicated.
Date of Report: 10/20/2021
USING SAN LUCAS CREEK AS FIRST CHECKPOINT
UPSTREAM OPERATIONS ADJUSTMENT ALL NEG OR ZERO

SY River Water District
BALANCE SHEET
OCTOBER 31, 2021

ASSETS

ASSETS		
Mechanics Checking #7071-01	$3,238.21	
Mechanics #7311 (GW Revenue)	230,223.77	
Mechanics #7313 (2nd MM)	3,186.89	
Mechanics #7314 (Grant Funds)	3,097.09	
LAIF	1,571,542.04	
SBIF	390,752.76	
Prepaid Expenses	395.00	
Temporary Suspense Acount	(440.00)	
TOTAL ASSETS		2,201,995.76
TOTAL ASSETS		$2,201,995.76

LIABILITIES AND EQUITY

LIABILITIES		
Accounts Payable	45,435.97	
Accrued Payroll Taxes	51.65	
SGMA Funds Interest Income	97.09	
SGMA Funds Due to other Govts	(460,117.74)	
TOTAL LIABILITIES		(414,533.03)
TOTAL LIABILITIES		(414,533.03)
RESERVES		
Unappropriated Reserves	2,626,581.14	
RETAINED EARNINGS-CURRENT YEAR	(10,052.35)	
TOTAL RESERVES		2,616,528.79
TOTAL LIABILITIES AND EQUITY		$2,201,995.76

SY River Water District

INCOME STATEMENT

FOR THE 4 PERIODS ENDED OCTOBER 31, 2021

	PERIOD TO DATE			YEAR TO DATE		
	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE
INCOME						
DWR Grant Reimbursement	$.00	.00	.00	.00	.00	.00
Ground Water Charges	8,877.73	3,000.00	5,877.73	284,853.90	266,000.00	18,853.90
SB Co. Property Taxes	16,966.08	10,500.00	6,466.08	16,966.08	10,500.00	6,466.08
Interest Income, all sources	27.79	.00	27.79	1,390.99	2,100.00	(709.01)
Miscellaneous Income	.00	.00	.00	.00	.00	.00
TOTAL INCOME	25,871.60	13,500.00	12,371.60	303,210.97	278,600.00	24,610.97
GROSS PROFIT	25,871.60	13,500.00	12,371.60	303,210.97	278,600.00	24,610.97
EXPENSES:						
EXPENSES, OPERATIONS						
Employee Compensation	32,229.50	32,250.00	20.50	128,918.00	129,000.00	82.00
Payroll (SS & Medicare)	2,494.24	2,333.33	(160.91)	9,942.52	9,333.32	(609.20)
Employee Benefits	405.27	441.67	36.40	1,621.08	1,766.68	145.60
Retirement Costs	2,256.06	2,250.00	(6.06)	9,024.24	9,000.00	(24.24)
Outside Staff Support	380.00	416.67	36.67	1,520.00	1,666.68	146.68
Director Fees	375.00	400.00	25.00	375.00	400.00	25.00
Director Fees SGMA	675.00	300.00	(375.00)	1,350.00	1,050.00	(300.00)
Ground Water Charges Admin.	3,150.00	4,166.67	1,016.67	19,642.93	16,666.68	(2,976.25)
Office Supplies-Incl Computer	454.40	250.00	(204.40)	1,916.93	1,000.00	(916.93)
IT Services	.00	166.67	166.67	.00	666.68	666.68
Communications	516.29	541.67	25.38	2,216.72	2,166.68	(50.04)
Travel & Subsistance	(382.80)	583.33	966.13	302.70	2,333.32	2,030.62
Audit/Accounting	.00	.00	.00	.00	.00	.00
Insurance, Bonds, Work. Comp	.00	.00	.00	16,944.29	18,000.00	1,055.71
Misc. Expense	24.74	250.00	225.26	332.41	1,000.00	667.59
Dues	.00	.00	.00	.00	.00	.00
Tax Admin Fee/LAFCO Cost	.00	.00	.00	703.00	300.00	(403.00)
Office Occupancy	1,820.63	1,875.00	54.37	7,849.93	7,500.00	(349.93)
Credit Card Processing Fees	23.84	.00	(23.84)	157.57	.00	(157.57)
TOTAL EXPENSES, OPERATIONS	44,422.17	46,225.01	1,802.84	202,817.32	201,850.04	(967.28)
EXPENSES, SGMA						
SGMA General	.00	.00	.00	15.50	.00	(15.50)
SGMA WMA	10,500.00	15,000.00	4,500.00	10,796.60	45,000.00	34,203.40
SGMA CMA	11,000.00	10,000.00	(1,000.00)	11,296.55	30,000.00	18,703.45
SGMA EMA	.00	4,166.67	4,166.67	296.55	12,500.01	12,203.46
TOTAL EXPENSES, SGMA	21,500.00	29,166.67	7,666.67	22,405.20	87,500.01	65,094.81
EXPENSES, LEGAL						
General & Misc	93.54	833.33	739.79	3,052.09	3,333.32	281.23
WR89-18	.00	.00	.00	.00	.00	.00
Upper SYR Ops	.00	.00	.00	.00	.00	.00
WR 2019-0148 Decision; EIR	442.50	2,083.33	1,640.83	4,248.00	8,333.32	4,085.32
Fisheries, Legal	265.50	1,666.67	1,401.17	2,566.50	6,666.68	4,100.18
HR	.00	416.67	416.67	.00	1,666.68	1,666.68
SGMA	11,024.50	.00	(11,024.50)	38,363.25	.00	(38,363.25)
GW Program	.00	.00	.00	870.00	.00	(870.00)

SY River Water District

INCOME STATEMENT

FOR THE 4 PERIODS ENDED OCTOBER 31, 2021

	PERIOD TO DATE			YEAR TO DATE		
	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE
TOTAL EXPENSES, LEGAL	$11,826.04	5,000.00	(6,826.04)	49,099.84	20,000.00	(29,099.84)
EXPENSES, ENGINEER						
General & Misc.	.00	833.33	833.33	4,796.23	3,333.32	(1,462.91)
Annual G.W. Report	.00	.00	.00	.00	.00	.00
WR 89-18 Operations	5,499.75	20,000.00	14,500.25	22,651.72	32,000.00	9,348.28
Upper SYR Operations	.00	833.33	833.33	.00	3,333.32	3,333.32
WR 2019-0148 Decision; EIR	828.00	2,083.33	1,255.33	7,366.25	8,333.32	967.07
Fisheries Hydrology	953.25	2,916.67	1,963.42	1,335.25	11,666.68	10,331.43
Fisheries Consulting	.00	1,250.00	1,250.00	.00	5,000.00	5,000.00
TOTAL EXPENSES, ENGINEER	7,281.00	27,916.66	20,635.66	36,149.45	63,666.64	27,517.19
EXPENSES, CONTINGENCIES						
All Zones, General	2,791.51	4,166.67	1,375.16	2,791.51	16,666.68	13,875.17
Tenant Improvements	.00	.00	.00	.00	.00	.00
TOTAL EXPENSES, CONTINGENCIES	2,791.51	4,166.67	1,375.16	2,791.51	16,666.68	13,875.17
TOTAL EXPENSES	87,820.72	112,475.01	24,654.29	313,263.32	389,683.37	76,420.05
NET INCOME FROM OPERATIONS	(61,949.12)	(98,975.01)	37,025.89	(10,052.35)	(111,083.37)	101,031.02
EARNINGS BEFORE INCOME TAX	(61,949.12)	(98,975.01)	37,025.89	(10,052.35)	(111,083.37)	101,031.02
NET INCOME (LOSS)	$(61,949.12)	(98,975.01)	37,025.89	(10,052.35)	(111,083.37)	101,031.02

QUARTERLY INVESTMENT REPORT

(REF. CGC 53646 (B) (1) AND 53646 (E))

SANTA YNEZ RIVER WATER CONSERVATION DISTRICT

1ST QUARTER, FY 2021-22

JULY, AUGUST, SEPTEMBER 2021

Certification is hereby provided that:

A. All investment actions executed during the last quarter have been made in full compliance with the Investment Policy; and,

B. Sufficient funds exist so that the District will meet its expenditure obligations for the next six months as required by CGC 53646 (b) (2) and (3), respectively.

CERTIFICATION:

Kevin Walsh
Kevin D. Walsh, General Manager

8 November 2021
Date

William J. Buelow
William J. Buelow, Treasurer

11/8/2021
Date

SANTA YNEZ RIVER WATER CONSERVATION DISTRICT

SEPTEMBER 2021 WARRANT LIST FOR BOARD APPROVAL

NUMBER	DATE	PAYEE	DESCRIPTION	AMOUNT
ACH	9/2/2021	Payroll	August 16-31, 2021 Salary	$ 9,186.04
ACH	9/2/2021	Employment Development Dept.	EDD Tax Deposit (August 16-30, 2021)	$ 950.21
ACH	9/2/2021	Lincoln Financial Group	457 Plan Combined Contributions (#1 September)	$ 3,113.61
ACH	9/2/2021	Mechanics Bank (Payroll Acct)	Payroll Tax Deposit (August 16-30, 2021)	$ 5,225.69
5337	9/15/2021	Judith K. Adams	August 2021 GW Admin Service	$ 693.75
5338	9/15/2021	William Buelow	August 2021 Expense Reimbursement	$ 142.31
5339	9/15/2021	Guardian	August 2021 Dental, Vision, Life, LTD & ADD Insurance	$ 405.27
5340	9/15/2021	Jim Heyerly	September 2021 Rent	$ 1,500.00
5341	9/15/2021	Onsite Computers & Design	6 Anti-virus and 10 email protection software licenses	$ 870.00
5342	9/15/2021	Alex Pappas	August 2021 SGMA-CMA well depth evaluations	$ 5,016.58
5343	9/15/2021	Pacific Gas & Electric	August 2021 Electric Service	$ 350.85
5344	9/15/2021	Shirley Scales Bookkeeping	August 2021 GW Admin Service	$ 3,330.00
5345	9/15/2021	Stetson Engineers	July 2021 Engineering Service	$ 6,019.82
5346	9/15/2021	US Bank Corp	August 2021 CalCard	$ 1,303.43
5347	9/15/2021	Valley Bookkeeping Services	August 2021 Bookkeeping	$ 380.00
5348	9/15/2021	Young Wooldridge	August 2021 Legal Service	$ 16,525.11
5349	9/19/2021	Young Wooldridge	July 2021 Legal Service	$ 8,856.72
ACH	9/16/2021	Payroll	September 1-15, 2021 Salary	$ 9,186.04
ACH	9/16/2021	Cynthia Allen	8/23/21 CMA & 8/26/21 EMA Meetings	$ 138.52
ACH	9/16/2021	Mark Altshuler	8/25/21 WMA Meeting	$ 69.26
ACH	9/16/2021	Art Hibbits	8/23/21 CMA & 8/25/21 WMA Meetings	$ 138.52
ACH	9/16/2021	Steve Jordan	8/25/21 WMA Meeting	$ 69.26
ACH	9/16/2021	Employment Development Dept.	EDD Tax Deposit (September 1-15, 2021)	$ 950.21
ACH	9/16/2021	Lincoln Financial Group	457 Plan Combined Contributions (#2 September)	$ 3,113.61
ACH	9/16/2021	Mechanics Bank (Payroll Acct)	Payroll Tax Deposit (September 1-15, 2021)	$ 5,294.57
			TOTAL	**$ 82,829.38**

SANTA YNEZ RIVER WATER CONSERVATION DISTRICT

OCTOBER 2021 WARRANT LIST FOR BOARD APPROVAL

NUMBER	DATE	PAYEE	DESCRIPTION		AMOUNT
ACH	10/4/2021	Payroll	September 16-31, 2021 Salary	$	9,186.04
ACH	10/4/2021	Employment Development Dept.	EDD Tax Deposit (September 16-30, 2021)	$	950.21
ACH	10/4/2021	Lincoln Financial Group	457 Plan Combined Contributions (#1 October)	$	3,113.61
ACH	10/4/2021	Mechanics Bank (Payroll Acct)	Payroll Tax Deposit (September 16-30, 2021)	$	5,225.69
5350	10/14/2021	Judith K. Adams	September 2021 GW Admin Service	$	431.25
5351	10/14/2021	Guardian	October 2021 Dental, Vision, Life, LTD & ADD Insurance	$	405.27
5352	10/14/2021	Jim Heyerly	October 2021 Rent	$	1,500.00
5353	10/14/2021	Inklings Printing Co.	SGMA Newsletter #5 and envelopes (SYRWCD mailing)	$	1,210.41
5354	10/14/2021	Pacific Gas & Electric	September 2021 Electric Service	$	366.46
5355	10/14/2021	Shirley Scales Bookkeeping	September 2021 GW Admin Service	$	3,978.00
5356	10/14/2021	Staples Credit Plan	Office Supplies	$	304.47
5357	10/14/2021	Stetson Engineers	August 2021 Engineering Service	$	10,359.14
5358	10/14/2021	US Bank Corp	September 2021 CalCard	$	1,150.36
5359	10/14/2021	Valley Bookkeeping Services	September 2021 Bookkeeping	$	380.00
5360	10/14/2021	Young Wooldridge	September 2021 Legal Service	$	11,891.97
5361	10/14/2021	Alex Pappas	September 2021 WRR tracking and GW research	$	2,494.60
5362	10/14/2021	Alex Pappas	Replace lost check #5327 from August 2021	$	267.00
ACH	10/19/2021	Payroll	October 1-15, 2021 Salary	$	9,186.04
ACH	10/19/2021	Cynthia Allen	9/1/21 District Meeting	$	69.26
ACH	10/19/2021	Mark Altshuler	9/1/21 District Meeting	$	69.26
ACH	10/19/2021	Art Hibbits	9/1/21 District Meeting	$	69.26
ACH	10/19/2021	Steve Jordan	9/1/21 District Meeting	$	69.26
ACH	10/19/2021	Brett Marymee	9/1/21 District Meeting	$	69.26
ACH	10/19/2021	Employment Development Dept.	EDD Tax Deposit (October 1-15, 2021)	$	950.21
ACH	10/19/2021	Lincoln Financial Group	457 Plan Combined Contributions (#2 October)	$	3,113.61
ACH	10/19/2021	Mechanics Bank (Payroll Acct)	Payroll Tax Deposit (October 1-15, 2021)	$	5,283.09
			TOTAL	**$**	**72,093.73**

SANTA YNEZ RIVER WATER CONSERVATION DISTRICT

NOVEMBER 2021 WARRANT LIST FOR BOARD APPROVAL

NUMBER	DATE	PAYEE	DESCRIPTION		AMOUNT
ACH	11/2/2021	Payroll	October 16-31, 2021 Salary	$	9,186.04
ACH	11/2/2021	Employment Development Dept.	EDD Tax Deposit (October 16-30, 2021)	$	950.21
ACH	11/2/2021	Lincoln Financial Group	457 Plan Combined Contributions (#1 November)	$	3,113.61
ACH	11/2/2021	Mechanics Bank (Payroll Acct)	Payroll Tax Deposit (October 16-30, 2021)	$	5,225.69
5363	11/12/2021	William Buelow	October 2021 Expense Reimbursement	$	57.98
5364	11/12/2021	California Special Districts	2022 Annual Dues	$	3,154.00
5365	11/12/2021	Guardian	November 2021 Dental, Vision, Life, LTD & ADD Insurance	$	405.27
5366	11/12/2021	Jim Heyerly	November 2021 Rent	$	1,500.00
5367	11/12/2021	JDL Mapping	2022 Redistricting Proposal	$	2,450.00
5368	11/12/2021	Alex Pappas	October 2021 WRR tracking and GW research	$	1,930.20
5369	11/12/2021	Pacific Gas & Electric	October 2021 Electric Service	$	220.63
5370	11/12/2021	Shirley Scales Bookkeeping	October 2021 GW Admin Service	$	2,115.00
5371	11/12/2021	Staples Credit Plan	Office Supplies	$	79.85
5372	11/12/2021	Stetson Engineers	September 2021 Engineering Service	$	6,453.00
5373	11/12/2021	US Bank Corp	October 2021 CalCard	$	735.87
5374	11/12/2021	Valley Bookkeeping Services	October 2021 Bookkeeping	$	380.00
5375	11/12/2021	Young Wooldridge	October 2021 Legal Service	$	11,914.54
ACH	11/16/2021	Payroll	November 1-15, 2021 Salary	$	9,338.29
ACH	11/16/2021	Cynthia Allen	10/20 & 10/25 CMA; 10/21 & 10/28/21 EMA Meetings	$	277.05
ACH	11/16/2021	Art Hibbits	10/20 & 10/25/21 CMA Meetings	$	138.52
ACH	11/16/2021	Steve Jordan	10/27/21 WMA Meeting	$	69.26
ACH	11/16/2021	Brett Marymee	10/21 & 10/28/21 EMA Meetings	$	138.52
ACH	11/16/2021	Employment Development Dept.	EDD Tax Deposit (November 1-15, 2021)	$	950.21
ACH	11/16/2021	Lincoln Financial Group	457 Plan Combined Contributions (#2 November)	$	3,113.61
ACH	11/16/2021	Mechanics Bank (Payroll Acct)	Payroll Tax Deposit (November 1-15, 2021)	$	5,024.49
			TOTAL	**$**	**68,921.84**

.SANTA YNEZ RIVER WATER CONSERVATION DISTRICT

MEMORANDUM

Date: December 1, 2021

To: Cindy Allen Mark Altshuler Art Hibbits Steve Jordan Brett Marymee

From: Kevin Walsh

Subject: Proposed Adjusted Division Boundaries

Recommendation

Adopt Resolution No. 704 "Declaring Its Intent to Adjust Division Boundaries and Notice of Hearing", direct staff to publish a Notice of Hearing to be held on March 2, 2022 and complete the other items necessary to adopt a resolution adjusting division boundaries.

Requirements

Reapportionment must be considered every ten years using population data from the federal decennial census. Senate Bill 594 (Glazer), signed into law late September 2021, took effect immediately. The measure requires all special districts with board member elections by division to pass a board resolution adopting adjusted division boundaries by April 17, 2022, if their regular election is on the same day as the statewide November 2022 general election (Election Code § 22000.1(b)(1).). The District's next general election (Jordan, Allen) is November 8, 2022.

Should Directors decide to adjust division boundaries, then a Resolution of Intent and Notice of Hearing, including a preliminary description of division boundary adjustments, must be approved and published locally. After the noticed hearing, a resolution adjusting the boundaries and describing the final boundary adjustments, in detail, must be approved and provided to the County. To meet the April 17, 2022 deadline, these activities should occur no later than the scheduled March 2, 2022 regular board meeting. Should the Directors decide not to adjust division boundaries, then a resolution to that effect, including the justification for not making changes, should be adopted and provided to the County.

Elections Code Section 22000 requires the District, using the federal decennial census as a basis, to adjust the boundaries of its divisions so they are equal in population "as far as practicable." This standard is similar to the "substantial equality" rule applied to state legislators. The goal is to establish divisions with equal populations in each. However, in adjusting boundaries, Elections Code Section 22000 expressly provides that the Board may consider the following factors: 1) topography, 2) geography, 3) cohesiveness, contiguity, integrity and compactness of territory, and 4) communities of interest.

The equal population estimate is determined as follows. For SYRWCD, the District's population is divided by five to determine the average or equal population of each division. The

difference between the actual population in each division and the average division population is determined, and that difference is divided by the average to determine the division's variance in percent. The absolute difference between the highest and lowest percentage variances is the range, also referred to as the deviation.

In determining what population deviation between divisions would be acceptable to be equal "as far as practicable" while applying the other factors to be considered, it would be convenient to have a clear-cut "safe harbor" deviation. Unfortunately, case law provides no such specific standard. However, it does show generally that with a deviation of over 10%, the burden to justify that number would be on the public agency, while with a deviation of 10% or less, the burden to show that the deviation is not justified would shift to the challenger. Plans with deviations higher than 10% have been accepted by the courts and deviations lower have been rejected, depending on the circumstances.

There is also case law addressing whether the proper measure should be population or the number of eligible voters. Population speaks to equal representation and eligible voters speak to electoral equality. In California, population is the acceptable standard. However, the California Attorney General has opined that California law allows for, but does not require, the exclusion of certain classes of population, including among others, persons convicted of a crime. This latter point is potentially relevant because the Lompoc Federal Penitentiary is within Division 3 of the District (Altshuler).

Methods and Results

Census Block population data are used to estimate the district and division existing populations, and from this to calculate the division variances and overall deviation. In a few cases, the Census Blocks do not exactly line up with either the district or division boundaries. Thus, in the final analysis while both the existing and proposed populations are believed to be very close, (within 4 or 5 persons), there was a need to do a very small amount of interpolating of some of the Census Block data.

The current divisions were set in 2012, after review of the 2010 census. **Table 1** shows the current division populations, the division average or equal population, and the variances in absolute numbers and by percentage. The high/low differential deviation is 31.7%.

The attached **Figure 1** shows the existing 2012 division boundaries, the 2020 census populations within those boundaries, and, represented by the large blue numerals, the number of persons each division needs to either gain (+ number) or loose (– number), in order to reach the target goal of having the average population in each division.

Table 1 – Current Divisions with Current Population

2012 Division	2020 Current Population	2020 Average Population Target	Population Variance	Percent Variance
1	16,703	14,848	-1,855	-12.49
2	15,307	14,848	-459	-3.09
3	11,922	14,848	2,856	19.23
4	14,506	14,848	342	-2.30
5	15,732	14,848	-884	-5.95
District	74,240			

NOTE: Variance and Percent numbers indicate what adjustments are needed for each division to meet the target population. Examples: Division 1 needs to have 1,855 persons shifted out of the division, thus the negative number. Division 3 needs to gain 2,856 persons, thus the positive number.

In 2002 and 2012, division populations were equalized to match more-or-less the representative of the groundwater basins. For example, Divisions 1 and 2 represent the Lompoc Plain and the City of Lompoc. Division 3 represents the Lompoc Upland and a small portion of the City/Lompoc Plain. Division 4 represents the Buellton Upland, Santa Rita Upland, eastern Lompoc Plain, and the River Alluvium. Division 5 represents the Santa Ynez Upland and the River Alluvium. Buellton was recognized as a community of interest that, if possible, should be kept whole, but that was not possible in 2012 and was divided along Highway 101. Because the City of Lompoc is almost three times bigger than the average division size (43,000 versus 14,848), it is necessarily split into three divisions.

Proposed Adjusted Division Boundaries

During the last ten years, Division 3 experienced a relatively large population decrease, primarily as the result of a significant net decrease in the population of the Federal Penitentiary of about 3,382 persons. This was equalized by moving a portion of City of Lompoc Census Blocks from Division 1 to Division 3. Division 5 grew in population compared to Division 4, requiring a shift in Census Blocks from Division 5 to Division 4. This allowed for the City of Buellton as a community of interest to be kept undivided, intact, entirely within Division 4 as it had been prior to the 2012 re-adjustment.

For 2020, there were some changes to the Census Block boundaries by the Federal Government. This, combined with a desire to achieve compactness where possible and respect major physical divisions and natural boundaries (eg. Highways 1, 246, and H Street), resulted in some additional minor shifting of Census Blocks between Divisions 1, 2, 3, and 4.

All proposed boundary changes and associated populations are shown in cross hatch on the attached **Figure 2**.

The recommended proposed boundary adjustments would produce the populations and variances shown on **Table 2**, which would result in a high/low differential deviation of just 4.03% compared to the existing 31.72%. and, in my opinion, meet the as far as practicable, equal in population standard and otherwise comply with Election Code section 22000.

Table 2 – Proposed Boundary Adjustments by Population

2020 Division	2020 Proposed Population	2020 Average Population Target	Population Variance	Percent Variance
1	14,841	14,848	7	0.05%
2	14,968	14,848	-120	-0.81%
3	14,897	14,848	-48	-0.32%
4	15,066	14,848	-218	-1.47%
5	14,468	14,848	380	2.56%
District	74,240			

NOTE: Variance and Percent numbers indicate what adjustments could be made to each division to meet the target population. Examples: Division 1 needs to have 7 persons shifted into the division, thus the positive number. Division 2 needs to lose 120 persons, thus the negative number.

The attached **Figure 3** is the proposed map of the new division boundaries, which, if approved by the Board, would be submitted to the County in the acceptable format along with a legal description of the boundaries.

RESOLUTION NO. 704

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SANTA YNEZ RIVER WATER CONSERVATION DISTRICT DECLARING ITS INTENT TO ADJUST DIVISION BOUNDARIES AND NOTICE OF HEARING

WHEREAS, Election Code section 22000 requires certain special districts (including Santa Ynez River Water Conservation District) to adjust their division boundaries after each federal decennial census, and using that census as the basis, adjust the boundaries of any divisions so that the divisions are, as far as practicable, equal in population and in compliance with Section 10201 of Title 52 of the United States Code, as amended, to the extent those provisions are applicable; and

WHEREAS, Election Code section 22000 further provides that in adjusting the boundaries of the divisions, the board may give consideration to the following factors: (1) topography, (2) geography, (3) cohesiveness, contiguity, integrity, and compactness of territory, and (4) community of interests of the division; and

WHEREAS, recently enacted Senate Bill No. 594 provides that the governing board of a district that has a regular election to elect members of its governing board on the same date as the 2022 statewide general election shall adopt adjusted boundaries of the divisions no later than April 17, 2022 (Election Code § 22000.1(b)(1)); and

WHEREAS, the Board of Directors of the Santa Ynez River Water Conservation District has determined that it is advisable in order to comply with applicable state law, e.g., Election Code sections 22000 and 22000.1, and in the best interests of the District and the electors, to adjust the boundaries of the District's divisions; and

WHEREAS, a proposed adjustment of the boundaries of the divisions based on an analysis of population deviation between divisions has been submitted to the Board of Directors which meets constitutional requirements; and

WHEREAS, a memorandum from the General Manager setting forth the proposed adjusted boundaries is on file in the District office in Santa Ynez; and

WHEREAS, the Board of Directors desires to call a public hearing to consider the proposed adjustment of the division boundaries;

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

SECTION 1: The Board of Directors deems it advisable in order to comply with applicable state law, e.g., Election Code sections 22000 and 22000.1, and in the best interests of the District and the electors, to adjust the boundaries of the divisions.

SECTION 2: The Board of Directors hereby gives notice that it proposes to adjust the boundaries of the divisions according to the attached maps which were also made

available on the District website (SYRWCD.com). The website will allow for zoom feature and scaling.

SECTION 3: The Board of Directors hereby gives notice that a hearing will be held on the 2nd day of March 2022 at 6:30 p.m., at the Vandenberg Village Community Services District, 3745 Constellation Rd., Lompoc, California, with teleconference for remote participation, for the purpose of considering said adjustment of division boundaries.

SECTION 4: At the hearing, any member of the public may appear before the Board of Directors and object to the making of the proposed adjustment or adjustments or petition that a adjustment be made otherwise than as proposed.

SECTION 5: At the hearing, the Board shall hear all objections and petitions which are presented to the Board, and thereupon the Board may make such adjustment or adjustments in the boundaries of the divisions as it determines to be for the best interests of the District.

SECTION 6: Notice of intention to adjust the boundaries of the divisions shall be published at least once a week for two weeks prior to the time appointed for the hearing in some newspaper or newspapers published in each of the counties in which any part of the District is situated.

WE, THE UNDERSIGNED, being the duly qualified and acting President and Secretary, respectively, of the Board of Directors of the Santa Ynez River Water Conservation District, do hereby certify that the above and foregoing Resolution was duly and regularly adopted and passed by the Board of Directors at a regular meeting duly held on the 1st day of December 2021 by the following vote:

AYES, and in favor thereof, Directors:

NOES, Directors:

ABSENT/ABSTAINING, Directors:

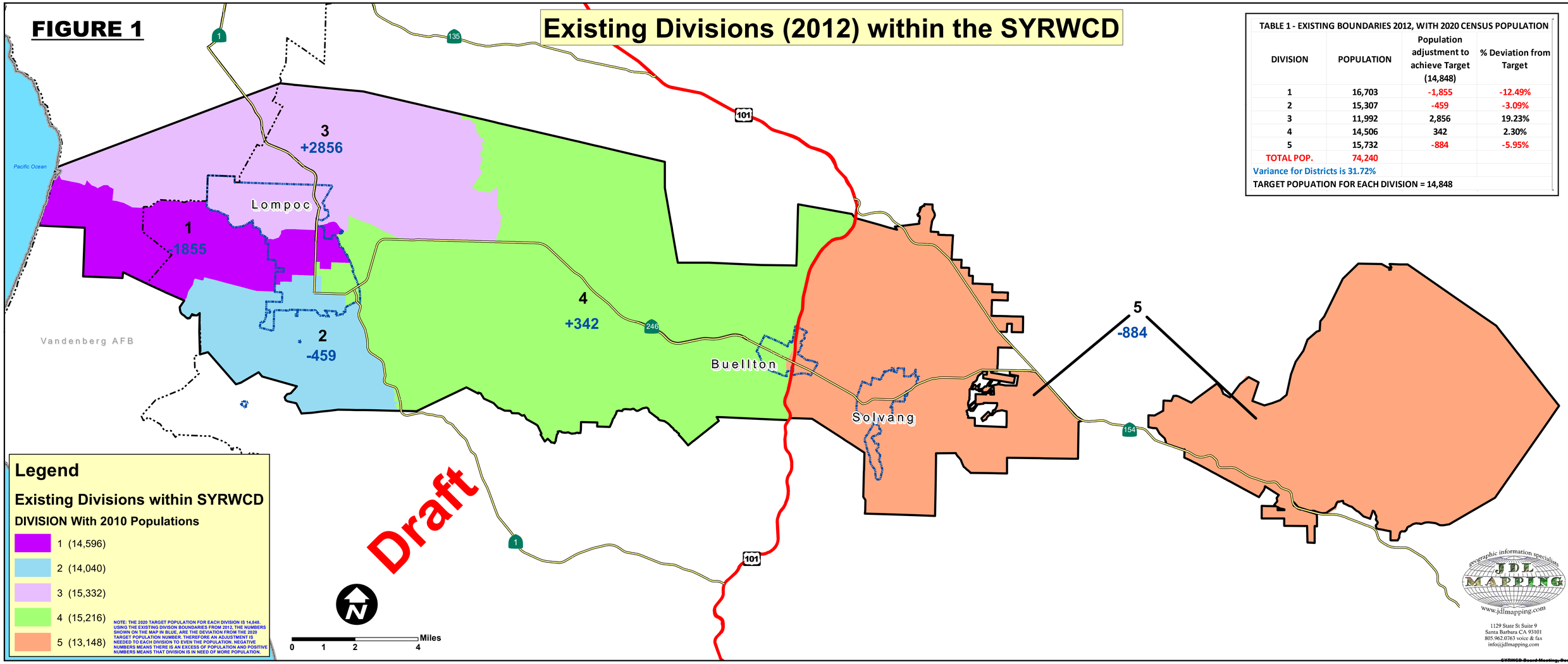
_____
Cynthia Allen, President

_____
Amber Thompson, Secretary

FIGURE 1

Existing Divisions (2012) within the SYRWCD

TABLE 1 - EXISTING BOUNDARIES 2012, WITH 2020 CENSUS POPULATION			
DIVISION	POPULATION	Population adjustment to achieve Target (14,848)	% Deviation from Target
1	16,703	-1,855	-12.49%
2	15,307	-459	-3.09%
3	11,992	2,856	19.23%
4	14,506	342	2.30%
5	15,732	-884	-5.95%
TOTAL POP.	74,240		
Variance for Districts is 31.72%			
TARGET POPUATION FOR EACH DIVISION = 14,848			



Legend

Existing Divisions within SYRWCD

DIVISION With 2010 Populations

- 1 (14,596)
- 2 (14,040)
- 3 (15,332)
- 4 (15,216)
- 5 (13,148)

NOTE: THE 2020 TARGET POPULATION FOR EACH DIVISION IS 14,848. USING THE EXISTING DIVISON BOUNDARIES FROM 2012, THE NUMBERS SHOWN ON THE MAP IN BLUE, ARE THE DEVIATION FROM THE 2020 TARGET POPULATION NUMBER. THEREFORE AN ADJUSTMENT IS NEEDED TO EACH DIVISION TO EVEN THE POPULATION. NEGATIVE NUMBERS MEANS THERE IS AN EXCESS OF POPULATION AND POSITIVE NUMBERS MEANS THAT DIVISION IS IN NEED OF MORE POPULATION.

geographic information specialists
JDL MAPPING
www.jdlmapping.com
1129 State St Suite 9
Santa Barbara CA 93101
805.962.0763 voice & fax
info@jdlmapping.com

FIGURE 2

Proposed Population Changes for Divisions within the SYRWCD

TABLE 2 - PROPOSED BOUNDARIES WITH 2020 CENSUS POPULATION			
DIVISION	Proposed Division Population	Population adjustment to achieve Target (14,848)	% Deviation from Target
1	14,841	7	0.05%
2	14,968	-120	-0.81%
3	14,897	-48	-0.32%
4	15,066	-218	-1.47%
5	14,468	380	2.56%
TOTAL POP.	74,240		
Variance for Districts is 4.03%			
TARGET POPUATION FOR EACH DIVISION = 14,848			

Pacific Ocean

Vandenberg AFB

Lompoc

Buellton

Solvang

From Division 3 to Division 1 (Pop Zero)

From Division 1 to Division 3 (Pop -2879)

From Division 4 to Division 1 (Pop -903)

From Division 2 to Division 1 (Pop -479)

From Division 2 to Divison 4 (Pop -766)

From Division 4 to Division 2 (Pop -889)

From Division 5 to Division 4 (Pop -1264)

Draft

Legend

Existing Divisions within SYRWCD

- 1
- 2
- 3
- 4
- 5
- DISTRICT BOUNDARY

Division Population Changes

- From Division 1 to Division 3 (Pop -2879)
- From Division 2 to Division 1 (Pop -479)
- From Division 2 to Divison 4 (Pop -766)
- From Division 3 to Division 1 (Pop Zero)
- From Division 4 to Division 1 (Pop -903)
- From Division 4 to Division 2 (Pop -889)
- From Division 5 to Division 4 (Pop -1264)

- City Boundaries
- Vandenberg AFB

N

0 1 2 4 Miles

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info@jdlmapping.com

FIGURE 3

Proposed Divisions within SYRWCD with Adjusted Division Boundaries

TABLE 1 - EXISTING BOUNDARIES 2012, WITH 2020 CENSUS POPULATION

DIVISION	POPULATION	Population adjustment to achieve Target (14,848)	% Deviation from Target
1	16,703	-1,855	-12.49%
2	15,307	-459	-3.09%
3	11,992	2,856	19.23%
4	14,506	342	2.30%
5	15,732	-884	-5.95%
TOTAL POP.	74,240		
Variance for Districts is 31.72%			
TARGET POPUATION FOR EACH DIVISION = 14,848			

TABLE 2 - PROPOSED BOUNDARIES WITH 2020 CENSUS POPULATION

DIVISION	Proposed Division Population	Population adjustment to achieve Target (14,848)	% Deviation from Target
1	14,841	7	0.05%
2	14,968	-120	-0.81%
3	14,897	-48	-0.32%
4	15,066	-218	-1.47%
5	14,468	380	2.56%
TOTAL POP.	74,240		
Variance for Districts is 4.03%			
TARGET POPUATION FOR EACH DIVISION = 14,848			

Pacific Ocean

Lompoc

Vandenberg AFB

Buellton

Solvang

Draft

Legend

Proposed Divisions within SYRWCD

DIVISION/(PROPOSED POPULATION)

- 1 (14,841)
- 2 (14,968)
- 3 (14,897)
- 4 (15,066)
- 5 (14,468)
- DISTRICT BOUNDARY (74,240)

City Boundaries

Vandenberg AFB

NOTE: TARGET POPULATION FOR 2022 DIVISIONS IS 14,848

0 1 2 4 Miles

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LAFCO

Santa Barbara Local Agency Formation Commission
105 East Anapamu Street ◆ Santa Barbara CA 93101
805/568-3391 ◆ FAX 805/568-2249
www.sblafco.org ◆ lafco@sblafco.org

November 22, 2021

TO: Members of the Independent Special District Selection Committee

SUBJECT: Nominations for and Election of Regular Special District Member to LAFCO;

CALL FOR NOMINATIONS FOR AND NOTICE OF ELECTION FOR LAFCO REGULAR

SPECIAL DISTRICT MEMBER; ELECTION DATE IS JANUARY 24, 2022

This is a Call for Nominations and Notice of Election of a special district member to serve as the special district regular member on LAFCO. It is recommended that this be placed on your Board's Agenda. The Election will be held at the Santa Barbara Chapter of the CSDA Annual Meeting **on January 24, 2022**, pending a quorum. The Committee is made up of the presiding officer of each district; however, if a presiding officer is unable to participate, a district board may appoint one of its members as an alternate to participate in the presiding officer's place, a copy of the meeting minutes showing the appointment needs to be presented.

A Nomination Form is attached and must be filled out and signed by the presiding officer of a district or, if that person is unable to participate, then by his or her alternate as designated by the district board. (See GC § 56332.) Nominations are requested by no later than January 14, 2022; however, nominations after that date, including at the January 24, 2022 meeting, will be accepted.

Notice: There will be no election if pursuant to Government Code section 56332(c)(2), "[at] the end of the nomination period, if only one candidate is nominated for a vacant seat, that candidate shall be deemed appointed" to the Commission.

Alternative Procedure. If more than one person is nominated and a quorum cannot be achieved at the January 24, 2022, meeting, the LAFCO Executive Officer will conduct a mailed ballot election.

1. **LAFCO Regular Special District Member.** The current term of office of the current Regular Special District Member ends on March 1, 2022. The term of office shall be four years or until the appointment and qualification of his or her successor. The new term of office ends on March 1, 2026.

2. **Voting Requirements.** The Independent Special District Selection Committee consist of the presiding officer of the legislative body of each independent special district. If the presiding officer of an independent special district is unable to participate in the nomination process or an election, the legislative body of the district may appoint one of its members as an alternate to participate in the presiding officer's place.

3. **Quorum; Majority Vote; Possible Runoff Election.** There are 38 special districts. For the election to be valid, at least 20 valid votes must be received. Election shall be by a majority of those voting, and not by plurality. In the event that a nominee does not receive a majority of votes cast, a runoff election shall be held between the two nominees receiving the highest number of votes.

Nominations for one Regular Special District Member should be submitted to the LAFCO Executive Officer, at the following address, faxed, or emailed by **January 14, 2022** Nomination Forms are attached to this notice.

Santa Barbara Local Agency Formation Commission
105 East Anapamu Street, Santa Barbara CA 93101
FAX 805/568-2249
Email Address: lafco@sblafco.org

Please contact the LAFCO office if you have any questions.

Sincerely,

Mike Prater
Executive Officer

Enc.

SANTA BARBARA
LOCAL AGENCY FORMATION COMMISSION

NOMINATION FOR <u>REGULAR</u> SPECIAL DISTRICT MEMBER *Return to*: Executive Officer Santa Barbara LAFCO 105 East Anapamu Street, Room 407 Santa Barbara CA 93101 or FAX to (805) 568-2249 or email to lafco@sblafco.org	LAFCO STAFF USE Date Received: _____

Please print in ink or type

POSITION SOUGHT: Regular Special District Member

NAME OF NOMINEE: _____

NOMINEE'S DISTRICT: _____

MAILING ADDRESS:

_____

_____

π

Phone: Bus. _____. Cell: _____

SIGNATURE OF NOMINATOR:

_____
Name of Independent Special District

_____
Signature

_____.
Print Name

Nominator Title (please check one)

☐ Presiding Officer of the Special District Board

☐ Presiding Officer's alternate as designated by Special District Board to vote or make a nomination in this election. (Gov. Code sec. 56332.)

Date: _____

ADDITIONAL INFORMATION: On this form or an accompanying letter, describe the nominee's personal interests, qualifications, experience, education, volunteer activities or community organization memberships that may bear on the nomination for the Alternate Special District Member: This information will be distributed to all independent special districts.

SANTA YNEZ RIVER WATER CONSERVATION DISTRICT

MEMORANDUM

DATE: 01 December 2021

TO: Cynthia Allen, Mark Altshuler, Art Hibbits, Steve Jordan, Brett Marymee, Kevin Walsh, Amber Thompson, Steve Torigiani, Brett Stroud

FROM: Bill Buelow, Groundwater Program Manager

SUBJECT: **AGENDA ITEM VIII -** Groundwater Program Manager Report

A. Groundwater Production, Reporting, and Charges

1) Receive Update on Groundwater Revenue for Production of January 2021 – June 2021. The cumulative total of groundwater fees received is **$285,362.29** for the second half of FY 20-21 groundwater reporting period.

Staff Recommendation: No action. This item is informational only.

2) December 2021 Groundwater Reporting Period 01 July – December 31, 2021
   a. December mailing preparation has started for period July 1 – Dec 31, 2021.
   b. Consider upgrade to reporting process in FY 2022-23 budget cycle.

Staff Recommendation: Provide direction on updating groundwater reporting program

3) Receive Update on Delinquent Groundwater Production Reporting and Well Registrations. Staff continue to follow-up on delinquent reporting and well registration.

Staff Recommendation: No action. This item is informational only.

B. SGMA Update

1) Receive Status update on the three GSPs for the Basin. During the past three months the consultants have prepared Public Drafts of the three GSPs. The drafts were put out for public comment for 45 days, September-October. Consultants are working on response to comments and Final Draft. GSA will consideration adoption during the first week of January. Final GSPs are due to DWR by January 31, 2022.

Staff Recommendation: Provide feedback and questions on the GSP preparation activities.

2) Consider adoption of Resolutions No. 705, 706, and 707 "Approving Adoption for Groundwater Sustainability Plan for the (Central, Eastern, Western) Management Area of the Santa Ynez River Valley Groundwater Basin". Approval will authorize either of the SYRWCD Director representatives on each GSA to approve adoption of the respective Groundwater Sustainability Plan.

Staff Recommendation: Approve Resolutions No. 705, 706, and 707

3) Consider approval of change order to GSI Water Solutions Task Order for GSP Preparation in the EMA. See attached change order request. The EMA GSA committee has asked that SYRWCD modify its Task Order with GSI and approve the additional $53,000 to complete the GSP for the EMA. New Not to Exceed will be $179,000. Funds for change order are expected to be covered by the existing grant funds or agency contributions.

   Staff Recommendation: Authorize staff to approve change order under the existing task order with revised Not to Exceed of $179,000

4) Consider issuing new Task Order for GSI Water Solutions to prepare annual report in the EMA. See attached Scope of Work and Cost Estimate. The EMA GSA committee has asked that SYRWCD consider issuing a new Task Order with GSI in an amount Not to Exceed $61,000 to complete the SGMA annual report on behalf of the EMA. Funding will be covered by agency contributions from the City of Solvang, ID #1 and SYRWCD.

   Staff Recommendation: Authorize staff to work with other EMA agency staff on cost sharing for the new Task Order, once the cost sharing is agreed, issue GSI a new task order under the existing contract with a Not to Exceed of $61,000

5) Consider issuing new Task Order for Stetson Engineers to prepare annual reports in the WMA and CMA. See attached Scope of Work and Cost Estimate. The WMA and CMA GSA committees have asked that SYRWCD consider issuing new Task Orders with Stetson in the amount of $35,000 and $25,000 respectively for the WMA and CMA to complete the SGMA annual report on behalf of the WMA and CMA. Funding will be covered by agency contributions as per the cost share agreements in each Memorandum of Agreement.

   Staff Recommendation: Authorize staff to issue new task order to Stetson under the existing contract with a Not to Exceed of $60,000

6) SGMA Finances and GSP implementation budget. Please see attached financial summaries for each GSA for the second quarter of FY 2021-2022. GSP submittal will start implementation of the three GSPs. Budgeting for the remainder of FY 2021-22 and for 2022-23 is currently underway. Continued support of GSAs by agencies is anticipated until GSA can establish fee structure and governance.

   Staff Recommendation: No action. This item is informational only.

EXECUTIVE SUMMARY

ES Abstract

This Groundwater Sustainability Plan (GSP) is prepared in accordance with the 2014 Sustainable Groundwater Management Act (SGMA) and covers the Central Management Area (CMA) of the Santa Ynez River Valley Groundwater Basin (Basin or SYRVGB) located in coastal central California. There is one principal aquifer in the CMA: the Buellton Aquifer which covers the Buellton Upland and the older formations that lie under the Santa Ynez River alluvium near the City of Buellton. The Santa Ynez River is the primary surface water source within the Basin. The subflow of the Santa Ynez River is considered part of the river flow and is managed as surface water pursuant to the administrative authority and jurisdiction of the State Water Resources Control Board (SWRCB) over waters flowing in known and definite channels. The analyses conducted for this GSP indicate that current Basin conditions are sustainable and no undesirable results (defined as significant and unreasonable impacts to sustainability indicators) are occurring. Potential undesirable results have been identified and specific minimum thresholds have been developed to help ensure that undesirable results do not occur under future conditions. Potential project operations and management actions designed to maintain and improve groundwater conditions and sustainability have been identified and are described within this GSP.

ES Chapter 1: Introduction

ES Introduction, Agency, and Communication (GSP Sections 1a, 1b, 1c)

SGMA requires that the Basin develop one or more GSPs that outline how the Basin will achieve groundwater sustainability by 2042. Physical and political complexities within the Basin resulted in decisions by local public agencies to develop three GSPs under a coordination agreement to satisfy SGMA requirements for the entire Basin. The Western, Central, and Eastern Management Areas (WMA, CMA, and EMA) make up the Basin. This GSP is prepared to address the SGMA requirements for the CMA portion of the Basin.

The primary sustainability goal and purpose of these GSPs are to manage groundwater resources in the WMA, CMA, and EMA without causing undesirable results and facilitate long-term beneficial uses of groundwater within the Basin. Beneficial uses of groundwater in the Basin include municipal, domestic, and agricultural uses, in addition to riparian habitat that supports environmental ecosystems.

In 2016 and 2017, three local Groundwater Sustainability Agencies (GSA) were established for the Basin. Three GSA-eligible public entities ratified an agreement and formed the CMA GSA, with each of the public entities having a seat on the CMA GSA Committee. Two of the three member agencies, the City of Buellton and the Santa Ynez River Water Conservation District both have voting seats on the Committee, whereas the Santa Barbara County Water Agency has a non-voting seat.

During the development of this GSP the CMA GSA committee met regularly on SGMA matters. The GSA developed an Outreach and Engagement Plan to facilitate engagement with stakeholders. A volunteer public Citizens Advisory Group (CAG) was created with members representing a group of groundwater users to help solicit public feedback on GSP elements. Newsletters and press releases about the GSA and SGMA were created and distributed through numerous channels, including utility bills. All three management areas used a centralized website to aid with communications, tracking meetings, and receiving public comments.

ES Plan Area (GSP Section 1d)

The Basin is a coastal groundwater basin measuring approximately 317 square miles, located in Santa Barbara County, California. Each of the three management areas of the Basin is covered by a GSP; this GSP is for the CMA, which is approximately 32.8 square miles. The CMA itself is divided into two subareas based on hydrogeology and topography: the Buellton Upland which are relatively steep topography, and the Santa Ynez River Alluvium which consists of the relatively flat area cut by the historical movements of the Santa Ynez River. The Santa Ynez River Alluvium is the subflow area, and the subflow of the River in that area is not groundwater as defined by SGMA and thus is not be managed by the CMA GSA, because such subflow constitutes subterranean water flowing in known and definite channels that is treated as surface water and subject to the jurisdiction and management of SWRCB.

Approximately 95% of the CMA is privately held land. There is Federal Bureau of Land Management land, State California Wildlife Conservation Board land, as well as local cities, school districts, and other district properties.

The public water agencies in the CMA are the City of Buellton Water Department, and there are several small Mutual Water Companies (MWC) which supply water outside of the city. The Central Coast Water Authority (CCWA), a wholesale water agency, operates a water pipeline that passes through the CMA and conveys imported water primarily from the State Water Project to the City of Buellton within the CMA.

Population data for communities within the CMA indicate that most people live near or within the City of Buellton or along the highway 246 corridor.

There are three General Plans, or equivalent plan areas, outlining land use in the CMA. The City of Buellton has a General Plan within its jurisdiction. The Santa Ynez Valley Community Plan is a specific General Plan from the County of Santa Barbara for the area around the city. The entire CMA is within the general plan area of the County of Santa Barbara.

ES 4 Additional GSP Elements (GSP Section 1e)

A data management system was implemented for this GSP in accordance with the SMGA. As part of its communications and public outreach, the CMA GSA prepared and distributed the Data Management Plan, a whitepaper describing the data management system. The DMS was then implemented.

ES Chapter 2: Basin Setting

ES Hydrogeologic Conceptual Model (GSP Section 2a)

A hydrogeologic conceptual model was developed and used to identify existing and projected groundwater conditions for the Basin. The hydrogeologic conceptual model presents the various conceptual components of the CMA's groundwater system, including the geologic setting; aquifer extents; physical properties, including water imports; and land use.

The geologic setting is related to the northward movement of the Pacific Plate relative to the North America Plate. Groundwater is found in younger geologic formations that have been uplifted and

deformed into a large syncline fold. The Santa Ynez River has cut through and filled in the existing geology. Alluvium subareas are where the Santa Ynez River cut into underlying non-water bearing units causing a 'bedrock channel,' which limits groundwater flow. The definable bottom and lateral extents of the Basin were determined using the three-dimensional geologic model included in the hydrogeologic conceptual model. For groundwater management purposes one principal aquifer, the Buellton Aquifer, was defined as the principal formation in the Buellton Upland subarea, and the lower non-alluvial formation in the Santa Ynez River Alluvium (SYRA) subarea. The SYRA subarea consists of upper alluvial formations in a bedrock channel that convey the Santa Ynez River and the subflow of the river. Accordingly, the Santa Ynez River and its subflow are managed by the SWRCB.

The topography of the CMA is varied with low hills with steep canyons in the north and a relatively flat plain towards the south around the Santa Ynez River. Rainfall is highly influenced by local topography. However, local slope and soil types influence runoff and the amount of potential recharge to the aquifers in any particular location.

Since 1997, the CCWA has delivered State Water Project water to the Basin through the 130 mile long Coastal Branch Pipeline that enters the Basin at Vandenberg Space Force Base and terminates at Lake Cachuma. State Project Water deliveries from the pipeline are received by the City of Buellton in the CMA. Other water from this pipeline is delivered to ID No.1, City of Solvang, and Lake Cachuma, east and upstream of the CMA. The Tecolote Tunnel conveys water from Lake Cachuma to the Santa Barbara County south coast including the cities of Santa Barbara, Goleta, Montecito, and Carpinteria. The Tecolote Tunnel was completed in 1955 and is the newest of three tunnels used for exporting Santa Ynez River water to the south coast of Santa Barbara County.

Groundwater within the CMA is primarily used for agriculture, which represents the largest proportion of land and water use within the Basin. Other uses of groundwater in the basin include municipal and light industrial, small domestic uses, and environmental uses, such as groundwater dependent ecosystems.

ES Groundwater Conditions (GSP Section 2b)

This GSP describes historical, existing, and projected groundwater conditions with regard to each of the six SGMA sustainability indicators including: the chronic lowering of groundwater levels, significant and

unreasonable reduction of groundwater in storage, significant and unreasonable seawater intrusion, degraded water quality, land subsidence, and depletion of interconnected surface water.

Groundwater elevation data was collected from wells throughout the CMA, in both the seasonal high (spring) and seasonal low (fall) conditions. Groundwater contours were developed by interpolating between monitoring wells. Groundwater levels were plotted over time (hydrographs) were developed to show the change in groundwater elevation at each location over time to evaluate groundwater levels and groundwater storage.

Groundwater storage over time was compared against the year type and groundwater pumping: year type was found to be a primary influence on groundwater storage. To support this analysis, a quantitate method using flow at the Salsipuedes Creek measured by the U.S. Geologic Survey (USGS) streamflow gage is described which identify the qualitative “dry” and “wet” years.

Location of known potential groundwater contamination sites were identified. The responsibility of remediating groundwater is not under the jurisdiction of the GSA but lies with other state and local agencies. Assessments to beneficial users in the basin and an assessment of recent (2015-2018) groundwater quality data were made for six constituents identified by the SWRCB. The goal of the GSP is to ensure than groundwater quality is not further degraded by groundwater pumping managed under this GSP. As an inland management area seawater intrusion was not applicable, but is addressed by the coastal WMA GSP.

Land subsidence was determined to be unlikely due to the geologic setting of the CMA, and the nature of the aquifer. Recent remote sensing data provided by Department of Water Resources (DWR) from 2015 – present show very little change in land surface elevation. Additionally, historical infrastructure records do not indicate land subsidence.

In the CMA, interconnected surface water for both the Santa Ynez River and its tributaries to the Buellton Aquifer is unlikely given that there is little perennial surface water in the CMA. The Santa Ynez River is separated from the Buellton Aquifer by bedrock west of the Buellton Bend. The extent that the Buellton Aquifer underlies the Santa Ynez River and alluvial subflow deposits east of the Buellton Bend is a data gap that will be addressed during the first year of GSP implementation (see Chapter 5). However, the

surface water of the Santa Ynez River within the CMA is directly influenced by releases from Cachuma Reservoir and by diversions via shallow wells in the alluvial subflow deposits, both of which are administered by the SWRCB.

Groundwater Dependent Ecosystems (GDEs) in the CMA were assessed using an assumed rooting depth and the current depth to groundwater. A map of the GDEs in the CMA was developed. Potential GDEs along the CMA upland tributaries were greater than 30 feet above the groundwater table and were screened out of consideration for future groundwater management. The exception being an isolated area near the confluence of Santa Rosa Creek and the Santa Ynez River mainstem, where groundwater levels are estimated to be within 30-feet of the ground surface. This area will be surveyed to evaluate the potential for GDEs. Potential GDEs along the Santa Ynez River are not considered vulnerable due to historically stable water levels, based on a review of previous studies done in the area. The stability may in part be due to the management of the Santa Ynez River under SWRCB Order 2019-148.

ES Water Budgets (GSP Section 2c)

Water budgets are calculations of the flows of water in and out of the various components of the Basin's surface water and groundwater systems. The various components of the water budget are introduced in the hydrogeologic conceptual model. Three water budget periods were created: historical, current, and projected. Water flows in any particular year are highly dependent on the weather, and to a lesser extent, the antecedent conditions. The selection of hydrologic years for each of the three budget periods was coordinated with the other two management areas (WMA and EMA).

The period of 1982 through 2018 was selected as the historical period. Stream flow along Salsipuedes Creek were used as a proxy for water supply conditions in the Basin. Flows during this historical period are similar to the long-term monitoring at the same gage, indicating that the years are likely representative of the long-term period. The years from 2012 to 2018 were all relatively dry years, so the current period was started in 2011. To meet the 50-year planning horizon required by SGMA, the projected period is 2018 through 2072.

The length of the historical water budget in this GSP is 36 years, which exceeds the 10-year SGMA requirement. For surface water, the average inflows were 100,200 acre-feet per year (AFY) and ranged

from 4,570 to 724,710 AFY, with most of this variability influenced by the Santa Ynez River flows. Surface water outflows were on average 100,070 AFY and ranged from 7,085 to 710,805 AFY. Groundwater is less variable, with inflows ranging between 1,990 to 6,570 AFY, and an average inflow of 3,550 AFY. The two primary drivers of variability in groundwater were percolation from surface water and recharge from precipitation. Groundwater outflows ranged from 1,450 to 5,590 AFY with an average of 3,540 AFY. Agricultural pumping was the largest influence on groundwater flow and had the greatest variation over the historical period. The average annual pumping total of 2,760 AFY (Table 2c.2-5) for the historical period (1982 through 2018, 37 years) resulted in zero net change in groundwater storage in the Buellton Aquifer, so this water budget analysis indicates that the sustainable perennial yield of the CMA is approximately 2,800 AFY.

For the current period (2011 through 2018), surface water average inflows were 32,040 acre-feet per year (AFY) and ranged from 9,130 to 141,660 AFY, with most of this variability influenced by the Santa Ynez River flows. Surface water outflows were on average 32,040 AFY and ranged from 11,100 to 140,540 AFY. Groundwater is less variable for the current period, with inflows ranging between 2,150 to 4,160 AFY, and an average inflow of 2,810 AFY. For groundwater, the two primary drivers of variability were percolation from surface water and recharge from precipitation. Groundwater outflows ranged from 3,000 to 5,290 AFY, and an average of 4,170 AFY. Agricultural pumping was the largest influence on groundwater flow and had the greatest variation over this current period.

The projected period water budget estimates population increases, projected precipitation and climate change factors. However, population of the Buellton area is expected to grow by up to 45% over the 20-year planning period (by 2042), but water use is expected to grow by only 15%. Within the 50 year planning period (by 2072) the total water usage is expected to increase by 20%. Groundwater demand is expected to increase from 3,015 AFY in 2018 to 3,198 AFY in 2042, and 3,328 AF in 2072. Projected water availability is expected to be relatively similar to historical conditions, which will likely result in a loss of groundwater storage, unless projects and management actions are undertaken to maintain sustainability.

ES Chapter 3: Monitoring and Sustainable Management Criteria

ES Monitoring Networks (GSP Section 3a)

The Monitoring Networks section of the GSP summarizes the parameters that were monitored in the Basin and identifies representative sites for monitoring for five applicable SGMA sustainability indicators. Seawater intrusion is not directly applicable to the non-coastal CMA.

Federal, state, and local monitoring networks are responsible for groundwater monitoring in the CMA, are described in this GSP. Prior to 2019 the United States Geological Survey (USGS) conducted groundwater level monitoring in the CMA and the entire Basin. Starting in 2019 the groundwater level monitoring was taken over by the Santa Barbara County Water Agency. The City of Buellton also collects groundwater levels in its wells. Estimates for groundwater storage rely on using the same network data.

Groundwater quality is currently monitored by two programs in the CMA:

- Public water system monitoring of drinking water sources by water suppliers as reported to Safe Drinking Water Information System; and
- Monitoring by commercial agriculture as part of the Irrigated Lands Regulatory Program.

Land subsidence is monitored using monthly remote sensing satellite data, which covers the entire CMA. Additionally, there is a continuous GPS (CGPS) station in the CMA, and the Central Coast Water Authority, which operates the State Water Project pipeline, has remote access to operators that can be contacted in the event of subsidence. The remote sensing tracks elevation change, while CGPS tracks elevation and horizontal movement. If a decline in land surface elevation is observed, a follow-up analysis would need to be conducted to determine whether the cause was subsidence from groundwater depletion.

Finally, two U.S. Geological Survey stream gages measure and record surface water flows, each within one mile of the CMA east and west boundaries. Monitoring of potential surface water depletion is performed by collecting groundwater levels in wells near the Santa Ynez River.

These existing monitoring networks were reviewed, and wells were selected from each based upon representativeness. Additionally, several areas were identified as locations where the network could be improved.

ES Sustainable Management Criteria (GSP Section 3b)

This section identifies the stainability goal of the Basin, conditions of undesirable results for each of the six SGMA sustainability indicators, Minimum Thresholds at the representative sites, and Measurable Objectives. These criteria are described below and summarized in **Table ES.1**.

Sustainability goals were identified as follows:

(1) Maintain long-term groundwater elevation at levels adequate to support existing and anticipated beneficial uses,

(2) Maintain a sufficient volume of groundwater in storage to ensure groundwater availability during periods of drought and recovery during wet climate conditions,

(3) Maintain water quality conditions to support ongoing beneficial use of groundwater for agricultural, municipal, domestic, and industrial and environmental uses.

For each of the five applicable SGMA sustainability indicators the potential undesirable result was identified. The potential undesirable result is determined, quantified based on the identification criteria, and the potential effects on beneficial users are described.

Undesirable results from chronic lowering of groundwater levels would result in beneficial well users' access to water being impaired. This impairment would require more energy to pump water and potential replacement of wells to access water. This undesirable result could occur if groundwater extractions exceed the sustainable yield over a period of years. Evaluation of this potential undesirable result will be based on direct measurements of groundwater levels.

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Table ES.1
Sustainable Management Criteria Indicator Summary for the CMA

Sustainability Indicator	Minimum Threshold	Measurement	Measurable Objective	Undesirable Result
Chronic lowering of groundwater levels	Water level minimum thresholds for Representative Monitoring Wells (RMWs) screened in the Buellton Aquifer established 15 feet or more below the 2020 levels.	Groundwater elevations measured at 4 RMWs screened in the Buellton Aquifer.	Spring 2011 groundwater elevations.	Spring groundwater elevations that drop below the established groundwater elevation minimum thresholds in more than 50% of the RMWs for 2 consecutive non-drought years.
Reduction of groundwater in storage	Water level minimum thresholds for RMWs screened in the Buellton Aquifer established 15 feet or more below the 2020 levels.	Groundwater elevations are used a proxy for the total volume of groundwater in storage. Groundwater elevations will be measured at 4 RMWs screened in the Buellton Aquifer	Spring 2011 groundwater elevations.	Spring groundwater elevations that drop below the established groundwater elevation minimum thresholds in more than 50% of the RMWs for 2 consecutive non-drought years.
Seawater Intrusion	Not applicable: non-coastal management area	Not applicable.	Not applicable.	Not applicable.
Degraded Water Quality	For all constituents except Nitrate and Total Dissolved Solids (TDS), minimum threshold concentrations were established as the Water Quality Objectives by RWQCB. Nitrate minimum threshold concentration established at the drinking water Maximum Contaminate Level (MCL), and TDS is the drinking water Secondary Maximum Contaminate Level (SMCL).	Salt and nutrient concentrations measured at 7 RMWs.	For Nitrate and TDS: the MCL and SMCL. Other constituents: Median Groundwater Quality Objectives.	Minimum threshold exceedances for each constituent in more than 50% of the RMWs for 2 consecutive non-drought years.
Subsidence	A decline of six inches from 2015 land surface elevation resulting from groundwater extractions.	Review of publicly available land subsidence satellite data and continuous GPS data.	Land subsidence less than two inches compared to the 2015 InSAR data.	Land subsidence associated with groundwater production that exceeds half a foot from 2015 conditions.
Depletion of interconnected surface water	Groundwater Elevations near the Santa Ynez River that drop 15 feet or more below the Santa Ynez River channel bottom.	Groundwater elevations measured at three RMWs.	Groundwater elevations equal to five feet below the elevation of the Santa Ynez River channel bottom.	Groundwater elevations near the Santa Ynez River that drop 15 feet or more below the channel bottom in 2 of the 3 surface water depletion RMWs for 2 consecutive non-drought years.

RMW = Representative monitoring wells; RWQCB = Regional Water Quality Control Board; MCL =maximum contaminate level; SMCL = secondary maximum contaminate level; TDS = total dissolved solids; GPS = Global Positioning System; InSAR = Interferometric synthetic aperture radar; mg/L = milligrams per liter

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The potential undesirable result from chronic lowering of groundwater levels is less water available for beneficial users using existing infrastructure. This impairment would require more energy to pump water and potential replacement of wells to access water. This undesirable result could occur if groundwater extractions exceed the sustainable yield over a period of years. Evaluation of this potential undesirable result will be based on direct measurements of groundwater levels.

Groundwater storage is the volume of water that is stored in an aquifer. The potential undesirable result of a decline in groundwater storage is less water available for beneficial users, meaning that the water is physically not present to be extracted. As with groundwater levels, groundwater storage is related to pumping and other outflows exceeding the amount of water inflows into the groundwater basin over a period of years. Groundwater storage will be estimated using the groundwater elevation data to assess the volume of water involved.

In the CMA there is no direct potential undesirable result from seawater intrusion.

Potential undesirable results from degradation of water quality is impaired beneficial uses of the groundwater. To assess water quality, specific salts and nutrients are chosen for analysis. Specifically, concentrations of total dissolved solids, chloride, sulfate, boron, sodium, and nitrate.

Potential undesirable results due to land subsidence may include damage to surface infrastructure and collapsed pore space in the aquifers. Land-surface elevation changes are quantified by a remote sensing (satellite) system which uses interference patterns between radar returns to accurately calculate changes in elevation over a wide region.

The potential undesirable results related to depletions in interconnected surface water may result in impacts to groundwater dependent ecosystems. The Santa Ynez River and River alluvium are under the jurisdiction of the SWRCB. The SWRCB retains administrative authority over the surface flow and subflow of the Santa Ynez River, including wells that divert the subflow. Depletions in interconnected surface water are evaluated by assessing water levels in potential GDE areas.

With each of the six potential undesirable results described above, specific minimum thresholds were determined to protect against the potential undesirable results. For groundwater levels, minimum

thresholds were based on well screen elevations and historical low groundwater levels. For groundwater storage, minimum thresholds are based on the number of wells that met the groundwater level criteria. Minimum thresholds for water quality are based on Water Quality Objectives from the SWRCB. The land subsidence minimum threshold six inches or less relative to the 2015 elevations. Minimum thresholds for interconnected surface water will be monitored by measured water level elevations in nearby wells at or above historical low water levels and within 15 feet of the elevation of the river channel bottom.

Quantifiable goals for the maintenance or improvement of the Basin were identified as the measurable objectives. Groundwater elevations pre-drought conditions (i.e., Spring 2011) were identified as the measurable objective for groundwater levels and storage. No decline in water quality relative to 2015 was set for water quality. Less than two inches of land subsidence since 2015 was set for land subsidence. Finally, to protect surface water, nearby groundwater levels no lower than 5 feet below the local river channel bottom was set as the measurable objective.

Impacts of setting these management criteria on neighboring groundwater basins is expected to be minimal as the CMA is not directly connected to neighboring groundwater basins.

ES Chapter 4: Projects and Management Actions (GSP Section 4)

Projects and Management actions (PMAs) will be implemented to maintain groundwater sustainability in the CMA. The PMAs are categorized into four groups based on when each PMA would be implemented. Group 1 PMAs would be initiated within the first year after GSP submittal. Group 1 Management Actions such as water conservation, tiered pumping fees and the installation of well meters are anticipated to close any shortfalls in maintaining the sustainable yield identified in the water budget and maintain sustainability goals. Additional Group 1 PMAs will increase water supplies further such as increased recharge through stormwater capture and supplemental imported water projects.

If Group 1 PMAs fail to have the expected results, then further actions through the implementation of other PMA groups 2, 3, and 4 will be required. PMAs in Group 2 and 3 will be implemented when the early warning and Minimum Threshold triggers for the sustainability indicators are reached.

The CMA GSA is taking an adaptive management approach to CMA management over the planning horizon. Consequently, potential projects and management actions will continuously be considered and evaluated over the planning horizon to ensure that the most beneficial and economically feasible projects and management actions are implemented to achieve the sustainability goal in the CMA and Basin. Proposed projects and management actions may be modified, as necessary, if the intended project benefits are not realized in the intended timeframe.

ES Chapter 5: Implementation (GSP Section 5)

This chapter describes actions to implement this GSP. Five implementation categories are described.

Implementation Group 1 is completion of work started during the drafting of this GSP. This is completion of data collection and survey work that commenced during the development of this GSP. This includes surveying all representative wells in the representative monitoring network. Additionally, data collected during the SkyTEM Airborne Geophysics aerial electromagnetic survey will be evaluated and used to update the existing geologic model, hydrogeologic conceptual model and numeric groundwater model.

Implementation Group 2 resolves data gaps in the monitoring network and the conceptual framework as identified in this GSP. This includes determining information about monitoring wells that currently have no well perforation information by video surveying and sounding, and working with landowners on adding voluntary wells to the water level and quality monitoring network. A new piezometer will also be needed to assess and monitor a potential GDE on Santa Rosa Creek. A new surface water gage at the mouth of the Santa Ynez River is also considered.

Implementation Group 3 implementation items are data collection actions to allow for improved management of the CMA. Efforts to improve data collection information on water use in the Basin will be done, including the collection of additional information from well owners. In addition, the GSA will require the installation of water meters on all wells (excluding *de minimis* domestic wells).

Implementation Group 4 and Implementation Group 5 is improved data management and SGMA updates. The former consists of update and utilized the data management system, the latter is completing SGMA

annual reports (first due in 2022) and 5-year assessment and updates to the GSP (first due in 2027) will be done as required by SGMA.

Executive Summary [§354.4(a)]

ES-1 Introduction

The Sustainable Groundwater Management Act (SGMA), effective as of January of 2015, created a new statewide framework for managing California's groundwater at the local level. SGMA empowers local agencies to form groundwater sustainability agencies (GSAs) tasked with developing groundwater sustainability plans (GSPs), such as this document. A GSP is a detailed road map for maintaining or bringing a designated groundwater basin into a sustainable condition within the next 20 years. When a basin is managed sustainably, groundwater conditions are maintained in a manner that avoids undesirable results, such as chronic lowering of groundwater levels, or significant and unreasonable depletion of supply, reduction of groundwater storage, degraded water quality, land subsidence, or depletions of interconnected surface waters.

In his signing statement, Governor Brown emphasized that "groundwater management in California is best accomplished locally." The Santa Ynez River Valley Groundwater Basin (Basin) is divided into three management areas: the Western Management Area (WMA), the Central Management Area (CMA), and the Eastern Management Area (EMA), each with its own GSA and GSP. In 2017, the Santa Ynez River Water Conservation District (SYRWCD), Santa Barbara County Water Agency, the City of Solvang, and the SYRWCD, Improvement District No. 1 (ID No. 1) signed a Memorandum of Agreement (MOA) to form the EMA GSA. This GSP describes the pathway to groundwater sustainability for the EMA.

This GSP describes the EMA physical setting, quantifies historical, present, and future water budgets, develops quantifiable management objectives that account for the interests of the EMA's beneficial groundwater uses and users, and identifies a group of projects and management actions that will allow the EMA to maintain or achieve sustainability within 20 years of plan adoption. This document also includes the list of references and technical studies, documentation of the stakeholder engagement process used in the development of this plan, and several supporting appendices. The EMA GSA has taken many steps, starting with stakeholder engagement, to complete the GSP in accordance with the requirements of SGMA and related SGMA regulations.

The EMA GSA has provided multiple venues for stakeholder engagement to encourage interested parties and the public to provide input based on their perspectives and priorities and to enable the GSA to provide updates to the public in a timely manner. The GSA created a Citizen Advisory Group (CAG) representing a variety of water user groups in the EMA to capture perspectives of all stakeholders throughout the development of the GSP. This plan considers the sources and uses of water in the EMA and the changes that might occur due to population growth, potential expansion of irrigated agriculture, and changes in rainfall, streamflow, and evapotranspiration due to climate change. This plan also considers groundwater dependent ecosystems, or GDEs, which are habitats in which plants and animals rely on groundwater for survival.

The EMA GSA established sustainable management criteria (SMCs) to avoid significant and unreasonable conditions caused by groundwater use that could lead to undesirable results for a number of sustainability indicators listed in SGMA. As indicated above, the sustainability indicators include chronic lowering of groundwater levels, significant and unreasonable depletion of supply, reduction of groundwater storage, degraded water quality, land subsidence, and depletion of interconnected surface water. SGMA also requires that GSAs identify GDEs and assess the effects of changing groundwater levels on GDEs. The GSP includes a robust groundwater monitoring program and defines projects and management actions that have been developed to maintain long-term groundwater sustainability.

The organization of this plan is as follows:

- **Section 1 – Introduction to Plan Contents:** An introduction to the GSP, including a description of its purpose and a brief description of the EMA.
- **Section 2 – Administrative Information:** Includes the following:
  - Information on the EMA GSA as an organization and a brief description of the agencies participating in the GSA, including information on the legal authority of the GSA to plan and coordinate groundwater sustainability for the EMA.
  - An overview description of the EMA, including land use and agencies with jurisdiction, a description of the existing groundwater management plans and regulatory programs, any programs for conjunctive use, and urban land use programs that might have an effect on, or be affected by, this GSP.
  - The EMA GSA's communications and engagement planning and implementation, public feedback and stakeholder comments on the plan, how feedback was incorporated into the GSP, and responses to comments received (*Note: comments and responses to comments will be included in the final draft of the GSP, once all public comments have been received*)
- **Section 3 – Basin Setting:** Includes the following:
  - An explanation of the hydrogeologic conceptual model developed for the EMA that includes descriptions of the regional hydrology and geology, principal aquifers and aquitards, and a description of the data gaps in the current model.
  - A detailed description of the groundwater conditions, including groundwater elevations and changes in storage, groundwater quality for drinking water and agricultural irrigation and trends over time, an evaluation of land subsidence, locations where surface water and groundwater are interconnected, and the identification and distribution of groundwater-dependent ecosystems.
  - A presentation of the historical, current, and projected future water budgets for the EMA; how the water budgets were developed; an estimate of sustainable yield for the EMA; and the effects of climate change using the California Department of Water Resources (DWR) climate change assumptions.
- **Section 4 – Monitoring Networks:** A detailed description of the monitoring objectives and monitoring in the EMA for groundwater levels, storage, water quality, land subsidence, interconnected surface water, representative monitoring sites, and a description of the data management and reporting system.
- **Section 5 – Sustainable Management Criteria:** Defines the sustainability goal for the EMA; describes the process through which the SMCs were established; describes significant and unreasonable effects that could lead to undesirable results as a result of groundwater use; describes and defines SMCs regarding chronic lowering of groundwater levels, significant and unreasonable reduction in groundwater storage, seawater intrusion, degraded groundwater quality, land subsidence, and depletion of interconnected surface water; and describes the minimum thresholds, measurable objectives, and interim milestones to avoid undesirable results.
- **Section 6 – Projects and Management Actions:** Provides a grouping and description of each project and management action that may be developed and implemented by the EMA GSA to avoid undesirable results and ensure sustainability within 20 years of GSP adoption.
- **Section 7 – Groundwater Sustainability Plan Implementation:** Describes the implementation sequence for projects and management actions, overall schedule, estimated implementation costs, and sources of funding.

Summaries of the key technical sections of this GSP are presented below.

ES-2 Basin Setting (GSP Section 3)

Section 3 of the GSP describes the physical setting and characteristics of the EMA, including the basin boundaries, geologic formations and structures, and principal aquifer units. The hydrogeologic conceptual model describes how the groundwater system works and is based on the available body of data and prior studies of the Basin's geology, hydrology, and water quality. In this GSP, the hydrogeologic conceptual model provides a framework for subsequent sections of the basin setting, including groundwater conditions and water budgets. Together these sections provide the basis for understanding the groundwater resources in the EMA and support the GSA's efforts to achieve groundwater sustainability in the EMA and the Basin by 2042. This plan will be updated as required to maintain this goal.

ES-2.1 Hydrogeologic Conceptual Model and Principal Aquifers

Figure ES-1 is a diagram generally depicting the hydrogeologic system of the EMA, including its topographic setting, underlying geologic system, principal aquifers, generalized recharge and discharge areas for the aquifers, and water inflows and outflows. Two principal aquifers have been identified in the EMA: the Paso Robles Formation and the Careaga Sand. Water present within the Santa Ynez River Alluvium is considered surface water by the State Water Resources Control Board (SWRCB) and is not managed by the GSAs. Therefore, the Santa Ynez River Alluvium is not classified in this GSP as a principal aquifer.

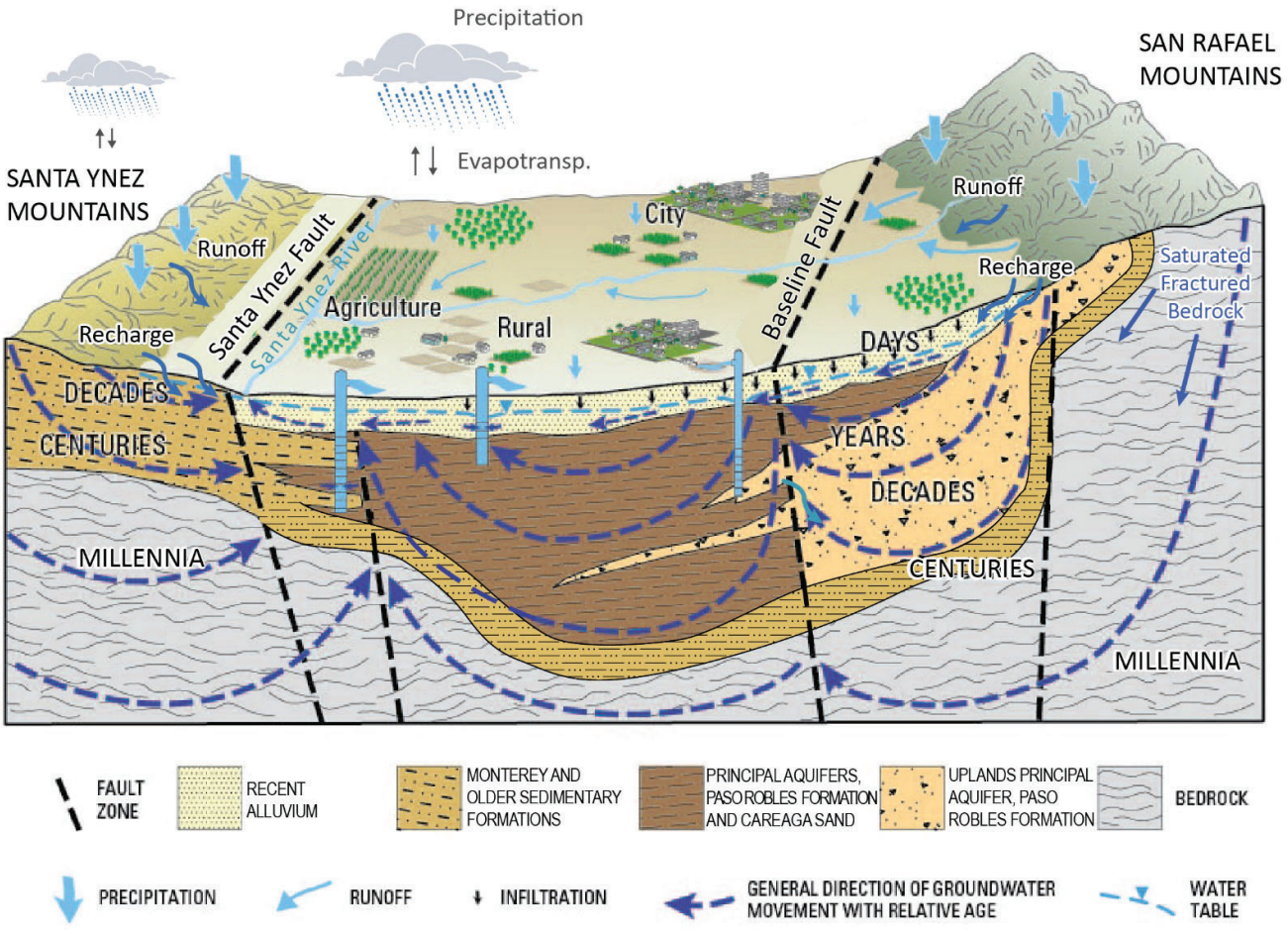

Figure ES-1. Hydrogeologic Conceptual Model and Principal Aquifers

The Paso Robles Formation makes up the majority of the groundwater storage in the EMA. This aquifer is present in the Santa Ynez Uplands area of the EMA, extending from the ground surface to approximately 3,500 feet below ground surface, with an average thickness of about 1,500 feet. The Paso Robles Formation is made of relatively thin sand and gravel layers interbedded with thicker layers of silt and clay. The upper portion of the Paso Robles formation tends to contain more coarse-grained materials and produces groundwater at higher flow rates than the more fine-grained lower portion.

The Careaga Sand lies below the Paso Robles Formation in the Santa Ynez Uplands and below the Santa Ynez River gravels near the City of Solvang. In the Santa Ynez Uplands, the Careaga Sand is typically about 800 feet thick on average and varies between 200 and 900 feet. Generally, the Careaga Sand is less permeable than the Paso Robles Formation. Wells drawing water from the Careaga Sand typically provide less water than wells screened in the Paso Robles Formation. Because the material in this aquifer is relatively uniform and fine, wells completed in the Careaga Sand often have sanding problems.

ES-2.2 Recharge and Discharge in the EMA

Within the Santa Ynez Uplands area of the EMA, sources of groundwater recharge include percolation of precipitation, infiltration into and through streambeds, urban and agricultural return flows, septic system return flows (leachate), and water system distribution losses. Within the shallow alluvial sand and gravel beds of tributaries in the Santa Ynez Uplands, portions of the ephemeral streams contribute to groundwater recharge into the underlying Paso Robles Formation. Where the Careaga Sand is exposed at ground surface in the Purisima Hills and along Alamo Pintado Creek, a considerable amount of water from precipitation and streamflow can recharge this aquifer. Groundwater recharge to principal aquifers also occurs from mountain front recharge. Mountain front recharge includes (1) direct recharge from the underlying bedrock along the San Rafael Mountains to the north and east and from the Santa Ynez Mountains to the south and (2) runoff from the mountains that subsequently percolates into the ground.

Natural groundwater discharge areas in the EMA include springs and seeps, groundwater discharge to surface water, and evapotranspiration by plants whose roots tap into groundwater in the alluvium along creeks and streams. Groundwater discharge as subsurface outflow from the Santa Ynez Uplands portion of the EMA is relatively small. Much of the groundwater flow exits the uplands as surface water flow leaving the tributaries just upstream of the confluence with the Santa Ynez River. Very small quantities of groundwater flow may occur through fractures in the bedrock in the Ballard Canyon area. Surface water also discharges from the EMA as underflow from the Santa Ynez River Alluvium that crosses into the CMA every year.

ES-2.3 Groundwater Conditions

Groundwater wells completed in the Paso Robles Formation have water levels that have been relatively stable over long periods except during drought periods. Water levels in the Paso Robles Formation show a strong correlation with climatic conditions. Some wells show water elevation decreases of more than 100 feet during prolonged drought cycles, but most wells appear to fully recover within a few years when the drought conditions end. Changes in water levels are also related to groundwater pumping. The Paso Robles Formation is the most productive and most widely pumped aquifer in the EMA. During periods of drought, water levels decline in response to a combination of increased pumping and decreased recharge. Seasonal fluctuations in water levels in the Paso Robles Formation appear to be relatively small (less than 30 feet).

Wells completed in the Careaga Sand also show long-term stability of water levels since the mid-1960s, with minimal change in water level elevation. Water levels in some wells show muted correlation with climatic conditions, exhibiting minor decreases during drought conditions and rising water levels during wet periods. One reason for the stable water levels in the Careaga Sand is that there is much less groundwater pumping compared to the Paso Robles Formation. Wells completed in the Careaga Sand typically have relatively low

yields compared to the yields of the Paso Robles Formation. The volume of water extracted from the Careaga Sand is likely a small portion of the total available storage, which may explain why water levels do not show significant decline due to drought conditions.

Groundwater in the EMA is generally suitable for use as potable water and for agriculture. While there are some wells that currently have constituent concentrations that exceed Basin Water Quality Objectives set by the Regional Water Quality Control Board, it is possible that some of these exceedances are a result of natural conditions and not caused by land use or other anthropogenic activities. Elevated boron concentrations are naturally occurring in many central coast basins, and elevated total dissolved solids (TDS), chloride, and sodium are often associated with rocks of marine origin that are present in the EMA. EMA agricultural stakeholders have not indicated that these concentrations are impacting agricultural production.

ES-2.4 Interconnected Groundwater and Surface Water

The Santa Ynez River is the primary surface water drainage feature in the EMA, flowing from east to west. The EMA also includes both perennial and intermittent creeks that flow into the Santa Ynez River or into Cachuma Reservoir (Lake Cachuma). The surface water system of the Santa Ynez River and its base flow is not managed under the GSP as part of the groundwater system because groundwater in the EMA uplands does not interconnect with the river except where upland groundwater discharges to tributaries that then flow into the river.

Tributaries to the Santa Ynez River on the north side of the EMA cut through the uplands and provide recharge to the Paso Robles Formation. On the southern ends of the tributaries, groundwater present in the tributary alluvium encounters relatively impermeable bedrock adjacent to and beneath the Santa Ynez River, which forces the groundwater to discharge to surface water at these locations. This is most evident on the far southern ends of Alamo Pintado and Zanja de Cota Creeks at the confluence with the Santa Ynez River.

ES-2.5 Groundwater Dependent Ecosystems (GDEs)

GDEs are defined under SGMA as "ecological communities of species that depend on groundwater emerging from aquifers or on groundwater occurring near the ground surface." GDE types include terrestrial vegetation that is supported by shallow groundwater that discharges to seeps, springs, wetlands, streams, and estuaries. Figure ES-2 shows the locations of potential GDEs in the EMA, as identified through screening methods developed by The Nature Conservancy and from local data on the spatial and temporal variations in the water table depth below ground surface. Biological surveys have not been completed in preparation of this GSP, but the presence of these potential GDEs will be verified during GSP implementation.

Several palustrine and riverine wetland features, three mapped springs, and five types of vegetation communities are present within the EMA. The five vegetation types are the following:

- Coast Live Oak
- Valley Oak
- Riparian Mixed Hardwoods
- Riversidean Alluvial Scrub
- Willow

The potential GDEs are further categorized based on their proximity to, and association with, the regional confined principal aquifers in the EMA. Category A GDEs are associated with the principal aquifers and may be affected by groundwater management activities, while Category B GDEs show a hydrogeologic separation from the principal aquifers and are unlikely to be affected by groundwater management activities. Category A GDEs are concentrated in the southwestern portion of the EMA in the areas surrounding the lower, generally perennial reaches of Alamo Pintado and Zanja de Cota Creeks. Category B GDEs are located in the northern and eastern portion of the EMA. The Category A potential GDEs are considered in the development of sustainable management criteria (Section 5) and in projects and management actions (Section 6).

EMA

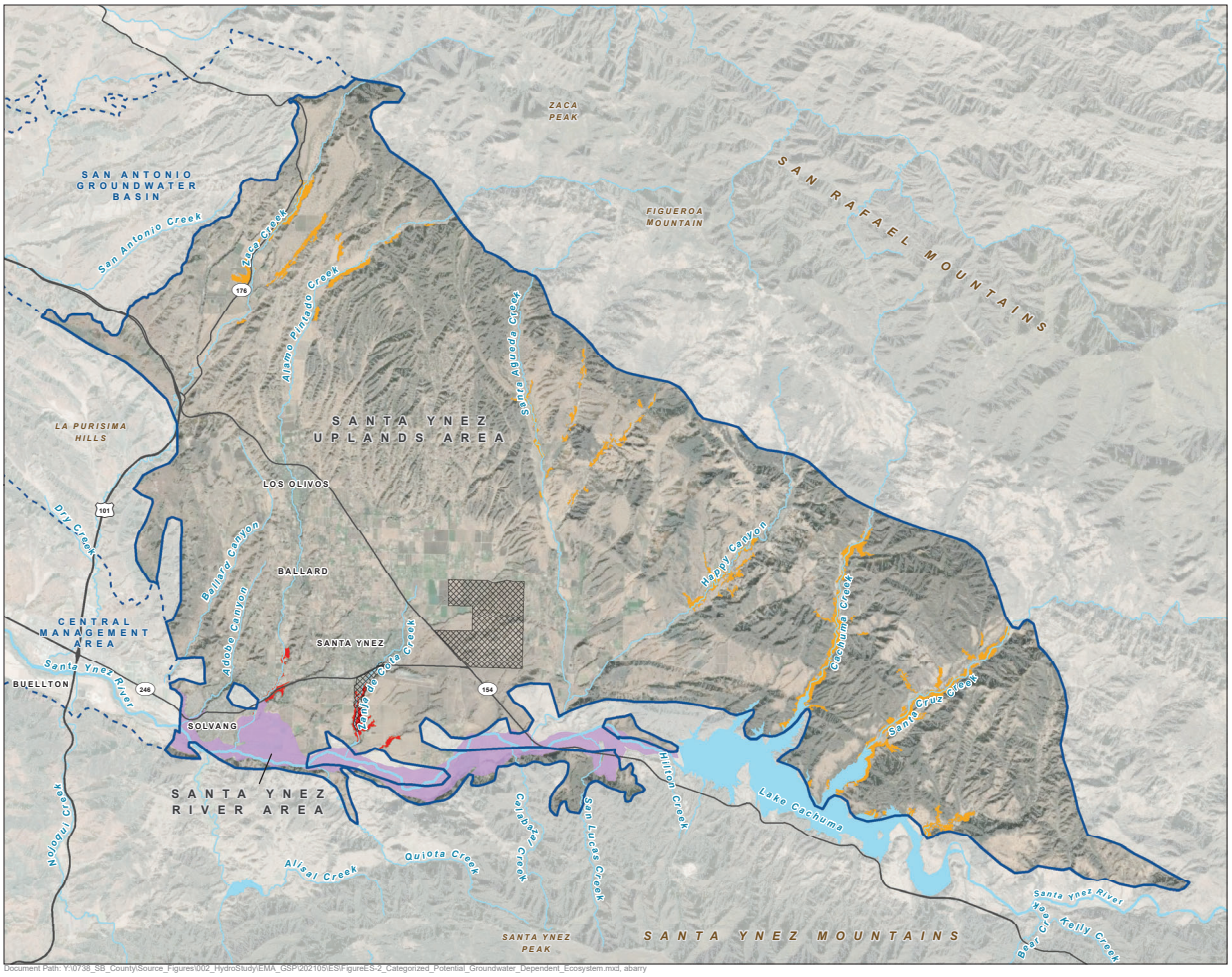

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FIGURE ES-2

Categorized Potential Groundwater Dependent Ecosystems

Santa Ynez River Valley Groundwater Basin – Eastern Management Area Groundwater Sustainability Plan

LEGEND

- Santa Ynez River Area

Native Communities Commonly Associated with Groundwater (NCCAG)

- Category A – Potential GDE Associated with a Principal Aquifer (184 acres[2])
- Category B – Potential GDE Unlikely to be Affected by Groundwater Management Activities (1,546 acres[2])

All Other Features

- Eastern Management Area Bulletin 118 Boundary
- Other Bulletin 118 Groundwater Basin Boundary
- Chumash Reservation Boundary
- Major Road
- Watercourse
- Waterbody

NOTE

1. GDE: Groundwater Dependent Ecosystem
2. Includes both NCCAG Wetland and Vegetation acreage

N

0 5,000 10,000 15,000 Feet

Date: September 2, 2021
Data Sources: ESRI, USGS, Maxar 2019, USFWS

GSI Water Solutions, Inc.

ES-2.6 Water Budget Development

A water budget defines the sources and uses of water in a groundwater basin and how they have changed over time. The water budget in this GSP is an inventory and accounting of total surface water and groundwater inflows (recharge) and outflows (discharge) from the EMA, including the following:

Surface Water Inflows (Santa Ynez River):

- Streamflow and subsurface inflow into the Santa Ynez River Alluvium from both the upstream Santa Ynez River and Santa Ynez Uplands tributaries
- Runoff of precipitation into streams and rivers or diversion structures that enter the EMA from the surrounding watershed
- Irrigation return flow to the Santa Ynez River Alluvium
- Return flows from septic systems
- Imported surface water (e.g., from the State Water Project)

Surface Water Outflows (Santa Ynez River):

- Streamflow exiting the EMA through the Santa Ynez River and Zaca Creek
- Subsurface flow through the Santa Ynez River Alluvium downstream towards the Central Management Area
- Pumping from river wells completed in the Santa Ynez River Alluvium
- Evapotranspiration by plants

Groundwater Inflows:

- Recharge from precipitation
- Percolation of tributary flows to groundwater
- Subsurface groundwater inflow, including mountain front recharge
- Irrigation return flow (water not consumed by crops/landscaping)
- Percolation of treated wastewater
- Septic tank return flows
- Urban irrigation return flow (including water distribution system leakage)

Groundwater Outflows:

- Groundwater pumping
- Evapotranspiration by plants
- Subsurface groundwater outflows to adjoining groundwater systems
- Groundwater discharge to surface water

The historical and current water budget analysis was developed in a tabular accounting by water year using various publicly available data sets. The projected water budget analysis was developed in part using the EMA numerical groundwater flow model. The groundwater inflow and outflow components of the water budget are related to the principal aquifers, the Paso Robles Formation and the Careaga Sand, in the Santa Ynez Uplands portion of the EMA. The difference between inflows to and outflows from the groundwater system in the Santa Ynez Uplands is equal to the change of groundwater in storage.

The estimated inflow and outflow components as well as the estimated sustainable yield are presented in this GSP. SGMA requires that, within 20 years, basins avoid significant and unreasonable effects that could lead to undesirable results as a result of groundwater use. Undesirable results include chronic lowering of groundwater levels over time that leads to a significant and unreasonable depletion of supply. This can occur when the average annual amount of groundwater extraction exceeds the long-term average annual supply of water to the basin. It is normal for groundwater basins to experience increases and decreases in storage in response to the normal dry and wet hydrologic cycles.

The water budget for the historical period of 1982 through 2018 indicates that total groundwater outflow exceeded the total inflow in the EMA by an average of 1,830 AFY, as shown in Figure ES-3.

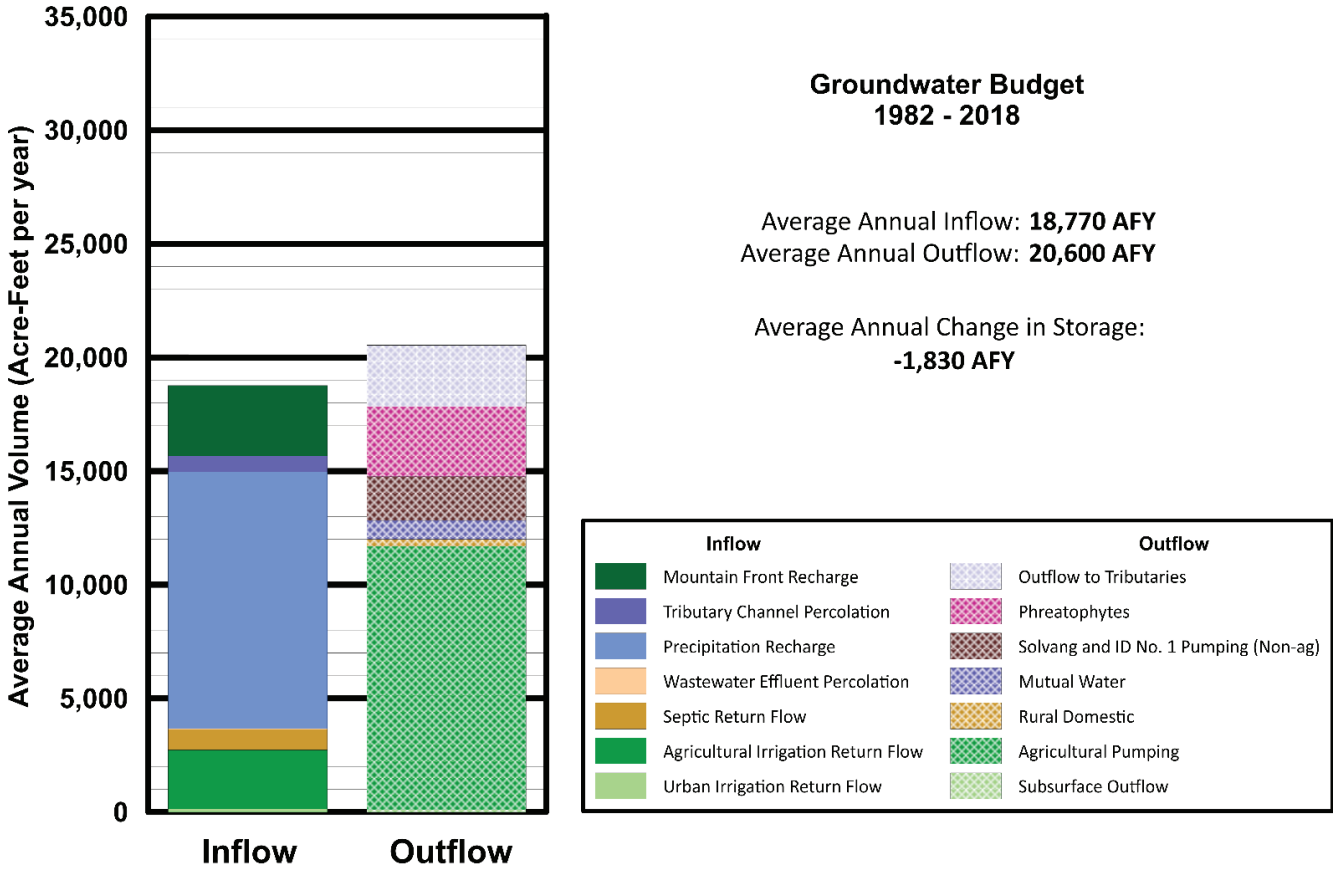

Figure ES-3. Average Groundwater Budget Volumes, Historical Period (1982 through 2018)

The sustainable yield in the EMA was estimated by adding the average change of groundwater in storage (negative 1,830 AFY) to the estimated total average amount of groundwater pumping (14,700 AFY) for the historical period. This results in a sustainable yield of about 12,870 AFY. This estimated value reflects historical climatic and hydrologic conditions and provides insight into the average amount of groundwater pumping that can be sustained in the EMA without causing undesirable results as defined by SGMA. The sustainable yield is not a fixed constant value but can fluctuate over time as the groundwater inflows and outflows change; thus, the calculated sustainable yield within the EMA can be estimated and likely modified during a future update of the GSP, depending on the representativeness of the long-term hydrologic conditions present at that time or availability of improved estimates of the water budget components.

ES-2.7 Projected Water Budget

The projected water budget is used to assess how future land use, pumping, and climate conditions affect the EMA. Based on the conditions documented in the historical water budget, the inflow and outflow from the EMA were estimated throughout the GSP implementation period through 2042 as well as for 50 total years after this GSP is submitted, through 2072. Historical climate values were projected forward into the future, and modified by projected climate change impacts on streamflow, recharge, evapotranspiration, and precipitation. The subsurface groundwater inflow and outflow components were projected using anticipated future land uses, population growth, and related pumping volumes.

The DWR-provided climate change data are based on the California Water Commission's Water Storage Investment Program climate change analysis results, which used global climate models and radiative forcing scenarios recommended for hydrologic studies in California by the Climate Change Technical Advisory Group. Climate data from the recommended General Circulation Model models and scenarios have also been downscaled and aggregated to generate an ensemble time series of change factors that describe the projected change in precipitation and evapotranspiration (ET) values for climate conditions that are expected to prevail at midcentury and late century, centered around 2030 and 2070, respectively.

Within the entire Basin, and therefore the EMA, streamflow is projected to increase slightly on average, by 0.5 percent in 2030 and 3.8 percent in 2070, based on the DWR climate change factors and other factors in the variable infiltration capacity analyses for the Basin. The projected changes to streamflow resulting from the climate change factors have been applied to the flow that will occur through the tributaries that flow through the Santa Ynez Uplands and ultimately into the Santa Ynez River. Crops require more water to sustain growth in a warmer climate, and this increased water requirement is characterized in climate models using the rate of ET. Under 2030 conditions, the EMA is projected to experience average annual ET increases of 3.8 percent relative to the historical period. Under 2070 conditions, annual ET is projected to increase by 8 percent relative to the historical period. The seasonal timing of precipitation in the EMA is projected to change. Sharp decreases in early fall and late spring precipitation accompanied by increases in winter and early summer precipitation are projected to occur. Under 2030 conditions, the largest monthly changes would occur in May with projected decreases of 14 percent, while increases of approximately 9 percent and 10 percent are projected in March and August, respectively. Under 2070 conditions, decreases of up to 31 percent are projected in May while the largest increases are projected to occur in September (25 percent) and January (17 percent). The EMA is projected to experience minimal changes in total annual precipitation.

Groundwater outflows from the Santa Ynez Uplands are projected to exceed inflows in the future in the absence of GSA management actions. During the historical period, production from wells in the Santa Ynez Uplands served increasing demands for areas that did not have access to surface water supply. In the future, it is assumed surface water supplies, including imported water sources, will not be sufficient to meet new demand from agricultural, municipal, and industrial uses, and therefore increased demand would be supplied by local groundwater.

The combined effects of these changes in supply and demand are that total groundwater pumping in the EMA may increase by approximately 1.1 percent, from 14,760 AFY under historical conditions to 14,920 AFY under 2042 conditions, and to 14,840 AFY by 2072, unless measures are implemented to increase supply or reduce demand. The water budget calculations indicate that the current deficit (outflows exceeding inflows) could increase to an average of 2,060 AFY in 2042 and further to 2,270 AFY in 2072. This analysis demonstrates that, if demand for groundwater increases in the future, projects and management actions may be needed to address the current and projected deficit anticipated to remain in 2042, the year that DWR requires the Basin to be balanced and sustainable without undesirable results.

The projected water budget for year 2042 conditions is presented in Figure ES-4, which breaks out the inflow and outflow components of the water budget.

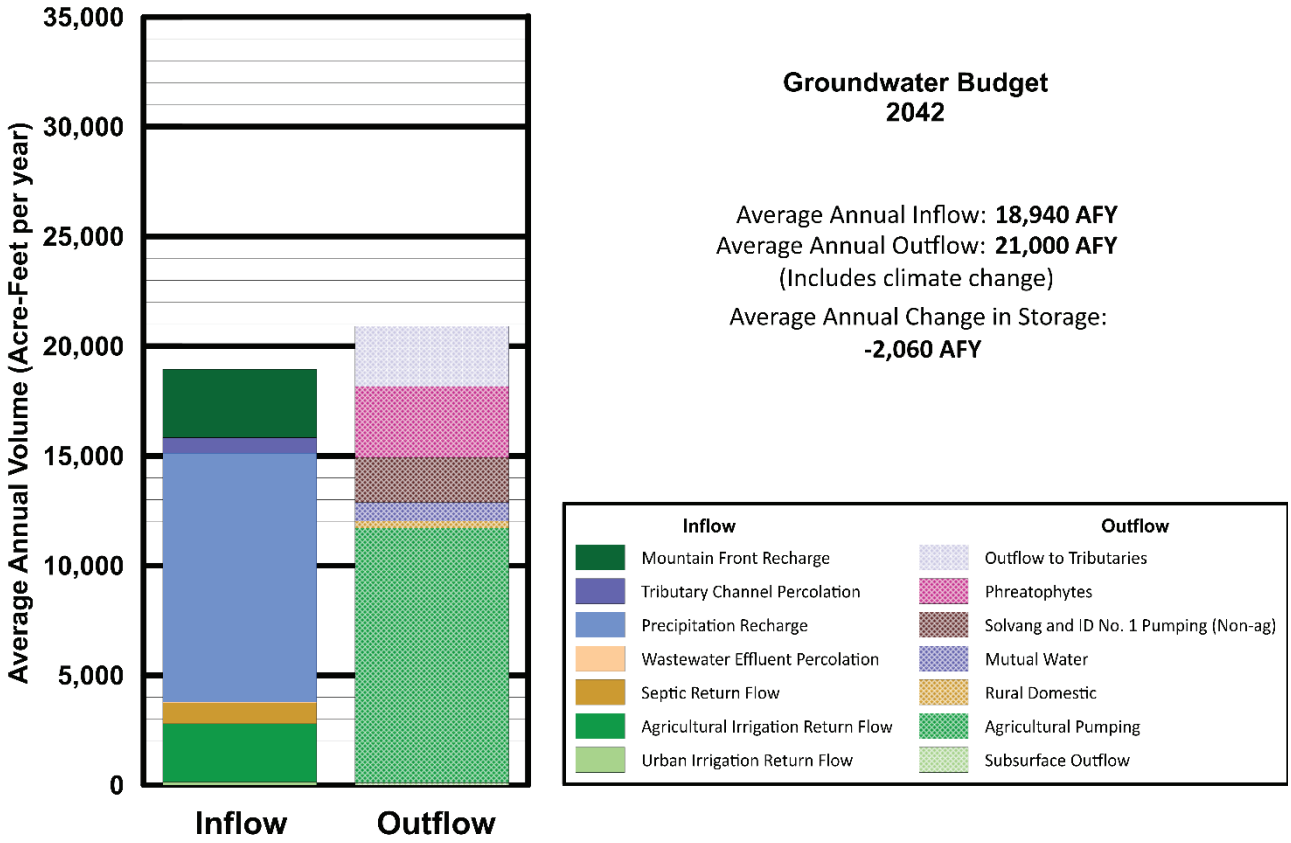

Figure ES-4. Projected Groundwater Budget, 2042

ES-3 Monitoring Networks (GSP Section 4)

This section of the GSP describes existing monitoring networks and improvements to the monitoring networks that will be developed for implementation of the EMA GSP. The monitoring networks presented in this section are largely based on existing monitoring sites. During the 20-year GSP implementation period, it may be necessary to expand the existing monitoring networks and identify or install more monitoring sites to fully demonstrate sustainability and improve the groundwater flow model.

The groundwater level monitoring network section of this GSP is largely based on historical groundwater data compiled by the U.S. Geological Survey National Water Information System program, the California Statewide Groundwater Elevation Monitoring program, and semi-annual groundwater monitoring conducted by Santa Barbara County. The groundwater quality monitoring network section of this GSP is largely based on historical groundwater data compiled by the USGS Groundwater Ambient Monitoring and Assessment Program.

ES-3.1 Monitoring Plan for Water Levels, Change in Storage, Water Quality

The GSP monitoring network is composed of aquifer-specific wells that are screened in one of the two principal aquifers in the EMA (the Paso Robles Formation or the Careaga Sand). A total of 24 representative wells—defined in the SGMA regulations as monitoring sites that are representative of groundwater conditions

in each of the principal aquifers—make up the groundwater level monitoring network in the EMA. Representative wells are spatially distributed to provide information across most of the EMA, have a reasonably long record of data so that trends can be determined, and have hydrograph signatures that are representative of groundwater levels in wells in the surrounding area. Additionally, there are 13 wells in the EMA that are monitored by Santa Barbara County that do not meet the criteria of representative wells, totaling 37 wells that are currently monitored in the EMA. The monitoring network will enable the collection of data to assess sustainability indicators, evaluate the effectiveness of management actions and projects that are designed to achieve sustainability, and evaluate adherence to minimum thresholds and measurable objectives for each applicable sustainability indicator.

The representative wells network consists of 24 wells (15 wells in the Paso Robles Formation and 9 wells in the Careaga Sand) that will be used to monitor groundwater levels and storage. Ten wells are production wells used for agricultural irrigation, seven wells are domestic drinking water wells, and seven wells are municipal drinking water wells. While not ideal for use as monitoring wells because they are production wells, these wells are currently included as representative wells because of their locations in the EMA, available well construction information, and long periods of record. The groundwater level monitoring network will be used to create groundwater elevation contour maps and calculate change of groundwater in storage for each principal aquifer.

The geographic distribution of this selection of representative wells allows for the collection of data to evaluate groundwater gradients and flow directions over time as well as the annual change in storage. Furthermore, the monitoring frequency of the wells will allow for the monitoring of seasonal highs and lows. Because wells were chosen with the existing lengths of historical data records in mind, future groundwater data will be comparable to the historical data. This coverage accounts for the ability to use each site for monitoring multiple sustainability indicators.

The groundwater quality monitoring network includes a total of 61 wells. This includes 26 municipal and public water system wells that were identified by reviewing data available from the SWRCB Division of Drinking Water, 25 agricultural supply wells, and 10 domestic supply wells included in the groundwater quality monitoring network. These wells were identified by reviewing data available from the SWRCB Irrigated Lands Regulatory Program (ILRP). In the future, wells that are sampled as part of the ILRP will be used to assess groundwater quality at agricultural and domestic wells.

ES-3.2 Monitoring Plan for Land Subsidence

Locally defined significant and unreasonable conditions for land subsidence are (1) land subsidence rates exceeding rates estimated by using InSAR (satellite-based land surface elevation monitoring) data processed by TRE ALTAMIRA, Inc. for the period from June 13, 2015, through September 19, 2019, and by the National Aeronautics and Space Administration for the period between spring of 2015 and summer of 2017; and (2) land subsidence that causes significant and unreasonable damage to or substantially interferes with groundwater supply, land uses, infrastructure, and property interests. Total measured change in land surface elevation in the EMA based on these sources has been less than 0.06 foot (ft), or 0.015 ft per year. Recorded subsidence could be due to tectonic activity, groundwater extraction, oil and gas extraction, or a combination of the three. This is considered a minor rate of land surface elevation change and is relatively insignificant and not a major concern for the EMA GSA. The EMA GSA will continue to monitor annual land surface elevation change using InSAR and UNAVCO satellite systems.

ES-3.3 Monitoring Plan for Interconnected Surface Water and GDEs

Avoiding significant and unreasonable adverse impacts on beneficial uses of interconnected surface water present in the EMA is the focus of the depletion of interconnected surface sustainability indicator. To avoid significant and unreasonable adverse impacts to high-priority GDEs, groundwater levels will be used as a

proxy for monitoring interconnected surface water. Shallow monitoring wells, or piezometers, are planned to be installed and monitored within the areas identified near the confluence of both Alamo Pintado and Zanja de Cota Creeks with the Santa Ynez River (see Figure 4-4). Monitoring of groundwater levels will be conducted to assess whether there is potential for a long-term depletion of interconnected surface water and undesirable results. Groundwater levels measured below the maximum rooting depth of GDEs—along with observed significant and unreasonable loss of habitat relative to conditions existing when SGMA was enacted—would be considered an undesirable result.

ES-4 Sustainable Management Criteria (SMCs) (GSP Section 5)

Section 5 defines the criteria by which sustainability will be evaluated, defines conditions that constitute sustainable groundwater management, and discusses the process by which the EMA GSA will characterize undesirable results and establish minimum thresholds and measurable objectives for each sustainability indicator in the EMA. Section 5 presents the data and methods used to develop SMCs and demonstrates how these criteria influence beneficial uses and users. The SMCs are considered initial criteria and will be reevaluated and potentially modified in the future as new data become available.

Sustainability indicators are the effects caused by groundwater conditions occurring throughout the EMA that, when significant, unreasonable, and caused by groundwater use, become undesirable results. Undesirable results are one or more of the following effects:

- Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon
- Significant and unreasonable reduction in groundwater storage
- Significant and unreasonable degraded groundwater quality
- Significant and unreasonable land subsidence that substantially interferes with surface land uses
- Depletion of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

A wide variety of information was used to define minimum thresholds and measurable objectives for each sustainability indicator, which are measured at representative wells. Minimum thresholds and measurable objectives are generally defined as follows:

- **Minimum Threshold** – A minimum threshold is the numeric value for each sustainability indicator that is used to define undesirable results. For example, a particular groundwater level might be a minimum threshold if lower groundwater levels would result in a significant and unreasonable reduction of groundwater in storage or depletion of supply.
- **Measurable Objective** – Measurable objectives are specific, quantifiable goals or targets that reflect the EMA's desired groundwater conditions and allow the EMA GSA to achieve the sustainability goal within 20 years.

ES-4.1 Sustainability Goal

Because each of the groundwater management areas together encompass the entire Basin, a single sustainability goal has been adopted for the entire Santa Ynez River Valley Groundwater Basin as follows:

> In accordance with the Sustainable Groundwater Management Act (SGMA), the sustainability goal for the Santa Ynez River Valley Groundwater Basin (Basin) is to sustainably manage the groundwater resources in the Western, Central, and Eastern Management Areas to ensure that the Basin is operated within its sustainable yield for the protection of reasonable and beneficial uses and users of groundwater. The absence of undesirable results, as defined by SGMA and the Groundwater Sustainability Plans (GSPs),

will indicate that the sustainability goal has been achieved. Sustainable groundwater management as implemented through the GSPs is designed to ensure that:

1. Long-term groundwater elevations are adequate to support existing and future reasonable and beneficial uses throughout the Basin,

2. A sufficient volume of groundwater storage remains available during drought conditions and recovers during wet conditions,

3. Groundwater production, and projects and management actions undertaken through SGMA, do not degrade water quality conditions in order to support ongoing reasonable and beneficial uses of groundwater for agricultural, municipal, domestic, industrial, and environmental purposes.

Groundwater resources will be managed through projects and management actions implemented under the GSPs by the respective Groundwater Sustainability Agencies (GSAs). Management of the Basin will be supported by monitoring groundwater levels, groundwater in storage, groundwater quality, land surface elevations, interconnected surface water, and seawater intrusion. The GSAs will adaptively manage any projects and management actions to ensure that the GSPs are effective and undesirable results are avoided.

The EMA GSP includes a monitoring program (see Section 4) that addresses each of the applicable sustainability indicators. If, based on the results of the monitoring program, minimum thresholds are exceeded such that undesirable effects are present or imminent, the GSA will identify management actions and projects that will be implemented to avoid an undesirable result (see Section 6). Other projects and management actions may be implemented immediately upon GSP adoption, without a specific nexus to undesirable results, to achieve the sustainability goal, address data gaps, and collect important data regarding basin conditions that are necessary for effective management of the EMA.

ES-4.2 Qualitative Objectives for Meeting Sustainability Goals

Qualitative objectives are designed to help stakeholders understand the overall purpose for sustainably managing groundwater resources (e.g., avoid chronic lowering of groundwater levels) and reflect the local economic, social, and environmental values within the EMA. A qualitative objective is often compared to a mission statement. The qualitative objectives for the EMA are the following:

- **Avoid Chronic Lowering of Groundwater Levels**
  - Maintain groundwater levels that continue to support current and ongoing beneficial uses and users of groundwater use in the EMA.
- **Avoid Significant and Unreasonable Reduction of Groundwater Storage**
  - Maintain sufficient groundwater volumes in storage to sustain current and ongoing beneficial uses and users of groundwater which maintains access to groundwater supplies, including during prolonged drought conditions while avoiding permanent degradation of GDEs resulting from groundwater pumping.
- **Avoid Significant and Unreasonable Degraded Groundwater Quality**
  - Maintain groundwater access to suitable water quality for all beneficial uses to ensure sustainability of groundwater drinking water supplies for all beneficial uses.
  - Evaluate changes in groundwater quality resulting from groundwater pumping.

- **Avoid Significant and Unreasonable Land Subsidence that Substantially Interferes with Surface Land Uses**
  - Reduce or prevent land subsidence that causes significant and unreasonable effects to groundwater supply, current land uses, and water supply infrastructure, and property interests.
- **Avoid Significant and Unreasonable Depletion of Interconnected Surface Water**
  - Avoid depletions of interconnected surface water that have significant and unreasonable adverse impacts to beneficial uses of the surface water, including GDEs, caused by groundwater pumping.
  - Maintain sufficient groundwater levels to maintain areas of interconnected surface water existing as of January 2015 when SGMA became effective.

ES-4.3 General Process for Establishing Sustainable Management Criteria

This section presents the process that was used to develop the SMCs for the EMA, including input obtained from EMA stakeholders, the criteria used to define undesirable results, and the information used to establish minimum thresholds and measurable objectives.

ES-4.3.1 Obtain Public Input

The public input process was developed in conjunction with the GSA member agencies and included engagement with local stakeholders, the public at large, and interested parties on GSP issues. This included the formation of the Citizen's Advisory Group (CAG), whose members were selected by the GSA Committee because they represent the various beneficial uses and users of groundwater in the EMA. The SMCs and beneficial uses presented in this section were developed using a combination of information from public input, public meetings, written comments submitted to the GSA, hydrogeologic analysis, and meetings with CAG members.

ES-4.3.2 Define Undesirable Results

Defining what is considered undesirable is one of the first steps in the SMC development process. The qualitative objectives for meeting sustainability goals are presented as ways of avoiding undesirable results for each of the sustainability indicators. The absence of undesirable results defines sustainability. The following are the general criteria used to define undesirable results in the EMA:

- There must be significant and unreasonable effects caused by groundwater conditions occurring throughout the Basin.
- A minimum threshold is exceeded in a specified number of representative wells over a prescribed period such that there is a depletion of supply.
- Impacts to beneficial uses, including to GDEs, are likely to occur.

These criteria may be refined periodically during the 20-year GSP implementation period based on monitoring data and analysis.

ES-4.4 Summary of Sustainable Management Criteria

Table ES-1 summarizes the SMCs for the six groundwater sustainability indicators. The table describes the type(s) of potential undesirable results associated with each sustainability indicator, the minimum thresholds, and measurable objectives for each indicator. Detailed discussions of the SMCs for each groundwater sustainability indicator are provided in Sections 5.5 through 5.10 of this GSP.

Table ES-1. Summary of Sustainable Management Criteria

Potential Undesirable Results	Minimum Threshold	Measurable Objective	Other Notes
Chronic Lowering of Groundwater Levels			
Groundwater levels in the Paso Robles Formation or Careaga Sand aquifers remain below minimum thresholds after 2 consecutive years of average and above-average precipitation in 50 percent of representative wells. Agricultural, municipal, and domestic wells are unable to produce historic average quantities due to chronic decline in groundwater levels.	Paso Robles Formation wells: 15 feet below spring 2018 levels. Careaga Sand wells: 12 feet below spring 2018 levels.	Average groundwater levels measured at each representative monitoring site prior to the recent drought beginning in Water Year 2012.	Extended drought or high rates of pumping (exceeding the long-term rate of recharge) could lead to significant and unreasonable effects on groundwater levels.
Significant and Unreasonable Reduction of Groundwater in Storage			
Same as for chronic lowering of groundwater levels.	Same as for chronic lowering of groundwater levels.	Same as for chronic lowering of groundwater levels.	Same as for chronic lowering of groundwater levels.
Seawater Intrusion			
Not applicable (EMA is an inland basin)	N/A	N/A	N/A
Significant and Unreasonable Degraded Groundwater Quality			
Concentrations of regulated contaminants in untreated groundwater pumped from private domestic wells, agricultural wells, or municipal wells exceed regulatory thresholds as a result of pumping or GSA activities. Groundwater pumping or GSA activities cause concentrations of total dissolved solids (TDS), chloride, sulfate, boron, sodium, or nitrate to increase and exceed Basin Water Quality Objectives (WQOs) and is greater than concentrations in January 2015.	Concentrations of TDS, chloride, sulfate, boron, sodium, and nitrate are equal to or greater than WQOs in 50 percent of representative wells or are equal to concentrations in January 2015.	Do not make contamination issues worse; maintain groundwater quality equal to or below regulatory standards for contaminants, or equal to or below concentrations in January 2015. Maintain groundwater quality related to salts and nutrients equal to or below WQOs, or equal to or below concentrations in January 2015.	Minimum thresholds are not established for contaminants because state regulatory agencies have the responsibility and authority to regulate and direct actions that address contamination.

Potential Undesirable Results	Minimum Threshold	Measurable Objective	Other Notes
Significant and Unreasonable Land Subsidence that Substantially Interferes with Surface Land Uses			
Significant and unreasonable subsidence caused by groundwater extraction exceeds the minimum threshold *and* causes damage to structures and infrastructure and substantially interferes with surface land uses.	The rate of subsidence does not exceed 0.08 ft (1 inch) per year for 3 consecutive years.	Maintenance of current conditions as measured at the 95 percent confidence range of InSAR data, 0.053 ft per year.	Based on InSAR-measured subsidence and UNAVCO CGPS stations.
Depletion of Interconnected Surface Water that has Significant and Unreasonable Adverse Impacts to Beneficial Uses of Surface Water			
Permanent loss or significant and unreasonable adverse impacts to existing native riparian or aquatic habitat in the Category A (high-priority) GDE area due to lowered groundwater levels caused by pumping.	Groundwater levels measured at the piezometers proposed to be installed in the GDE areas of Alamo Pintado and Zanja de Cota Creeks are 15 ft below the streambed.	Groundwater levels measured at 5 ft below the streambed (using the same piezometers as for the minimum threshold).	Avoiding impacts to GDEs will also avoid depletion of surface water that discharges to the Santa Ynez River. The areas near the confluence of Alamo Pintado and Zanja de Cota Creeks with the Santa Ynez River are the only locations identified in the EMA where groundwater from a principal aquifer is interconnected with surface water.

Notes

CGPS = Continuous Global Positioning System
GDE = groundwater-dependent ecosystem
TDS = total dissolved solids
WQO = Water Quality Objective

Appendix I of this GSP presents a well location map and hydrographs showing the minimum threshold levels for each representative well that will be used to monitor for chronic lowering of groundwater levels and depletion of storage. The locations of GDEs near the confluence of Alamo Pintado and Zanja de Cota Creeks with the Santa Ynez River and the proposed interconnected surface water monitoring network are shown in Figure 4-4.

Interim milestones show how the GSA would move from current conditions to meeting the measurable objectives in the 20-year GSP implementation horizon. While no significant and unreasonable effect has been observed in the EMA as a result of lowering of groundwater levels to date, interim milestones are being proposed for lowering of groundwater levels and change in groundwater storage to ensure that the GSA is on track for eliminating the storage deficit going forward. The GSA intends to move forward with selected projects and management actions (see GSP Section 6) very early after GSP submittal to ensure that groundwater levels recover when normal or above normal rainfall conditions return. No interim milestones are proposed for degraded groundwater quality, land subsidence, or depletion of interconnected surface water, because no significant or unreasonable effects have been observed in the EMA associated with these sustainability indicators.

ES-5 Management Actions and Projects (GSP Section 6)

Section 6 of the GSP describes the management actions that will be developed and implemented in the EMA to attain and maintain sustainability in accordance with SGMA regulations. Management actions are activities that support groundwater sustainability through policy and regulations without infrastructure. These actions are intended to optimize groundwater use to avoid undesirable results, consistent with SGMA regulations. Many are also intended to help improve the understanding of the EMA, enhance the monitoring program, enhance improved water use practices, and improve information upon which the GSA may make decisions. Projects are defined as activities supporting groundwater sustainability that require infrastructure.

The potential management actions described in this section include the following:

- Address data gaps
- Groundwater pumping fee program
- Well registration and well meter installation programs
- Water use efficiency programs
- Groundwater Base Pumping Allocation program
- Groundwater Extraction Credit marketing and trading program
- Voluntary agricultural crop fallowing and crop conversion programs

The identified management actions and potential future projects are categorized into three groups, with the management actions in Group 1 to be initiated within 1 year of GSP adoption by the GSA. The Group 2 management actions and Group 3 projects may be considered for implementation in the future as conditions dictate and the effectiveness of the other management actions are assessed. Group 1 management actions are focused primarily on filling identified data gaps, developing funding for GSA operations and future EMA monitoring, registering and metering wells, and developing new and expanding existing water use efficiency programs for implementation within the EMA. The Group 2 management actions and Group 3 projects may not be necessary if the implementation of Group 1 management actions results in conditions in the EMA that are trending toward meeting the EMA GSA sustainability goals and measurable objectives.

The projects and management actions included in this section should be considered a list of options that will be refined during GSP implementation. Stakeholders will be provided an opportunity to participate in the public process before projects and actions are undertaken. The effect of the management actions will be reviewed periodically, and additional Group 2 management actions and Group 3 projects may be considered and implemented as necessary to avoid undesirable results. A graphical depiction of the implementation sequence is presented in Figure ES-5.

Management actions included in the GSP are summarized below and are described in more detail in Sections 6.3 through 6.10.

ES-5.1 Group 1 Management Action 1 – Address Data Gaps

Data gaps have been identified that require additional information because they are important for management of the EMA in the future. The following management actions will help fill these data gaps:

- Expanding Monitoring Well Network in the EMA to Increase Spatial Coverage and Well Density
- Performing Video Surveys in Representative Wells That Do Not Have Adequate Well Construction Records
- Installing Shallow Piezometers in Alamo Pintado Creek and Zanja de Cota Creek Identified GDE Areas
- Reviewing/Updating Water Usage Factors and Crop Acreages and Update Water Budget
- Surveying and Investigating Additional Potential GDEs in the EMA

ES-5.1.1 Expand Monitoring Well Network in the EMA to Increase Spatial Coverage and Well Density

The areas where additional monitoring well data is needed are depicted in Figure 4-2. The data gap areas in both the Paso Robles Formation and the Careaga Sand units (the northwestern and north central portions of the uplands from Los Olivos to the northern boundary of the EMA, including the northern reaches of Zaca Creek and Alamo Pintado Creek) are locations where additional monitoring wells would improve the understanding of basin conditions. The proposed strategy for adding monitoring wells to the monitoring network will be to first incorporate existing wells to the extent possible. If an existing well in a particular area cannot be identified or permission to use data from an existing well cannot be secured to fill a data gap, then a new monitoring well may be considered.

ES-5.1.2 Perform Video Surveys in Representative Wells That Currently Do Not Have Adequate Construction Records to Confirm Well Construction

Several of the representative wells that are planned to be included in the GSP monitoring well network do not have adequate documentation about their depths, geologic formations intersected, casing characteristics, screened intervals, pump settings, and/or well construction details. To address this data gap, the EMA GSA will perform video logging to ascertain well construction details, and the location of well production zones. Concurrent with the video surveys, EMA GSA representatives will interview each well owner regarding the well maintenance history, operational issues or events, surface issues that may affect the well, and water quality within the well.

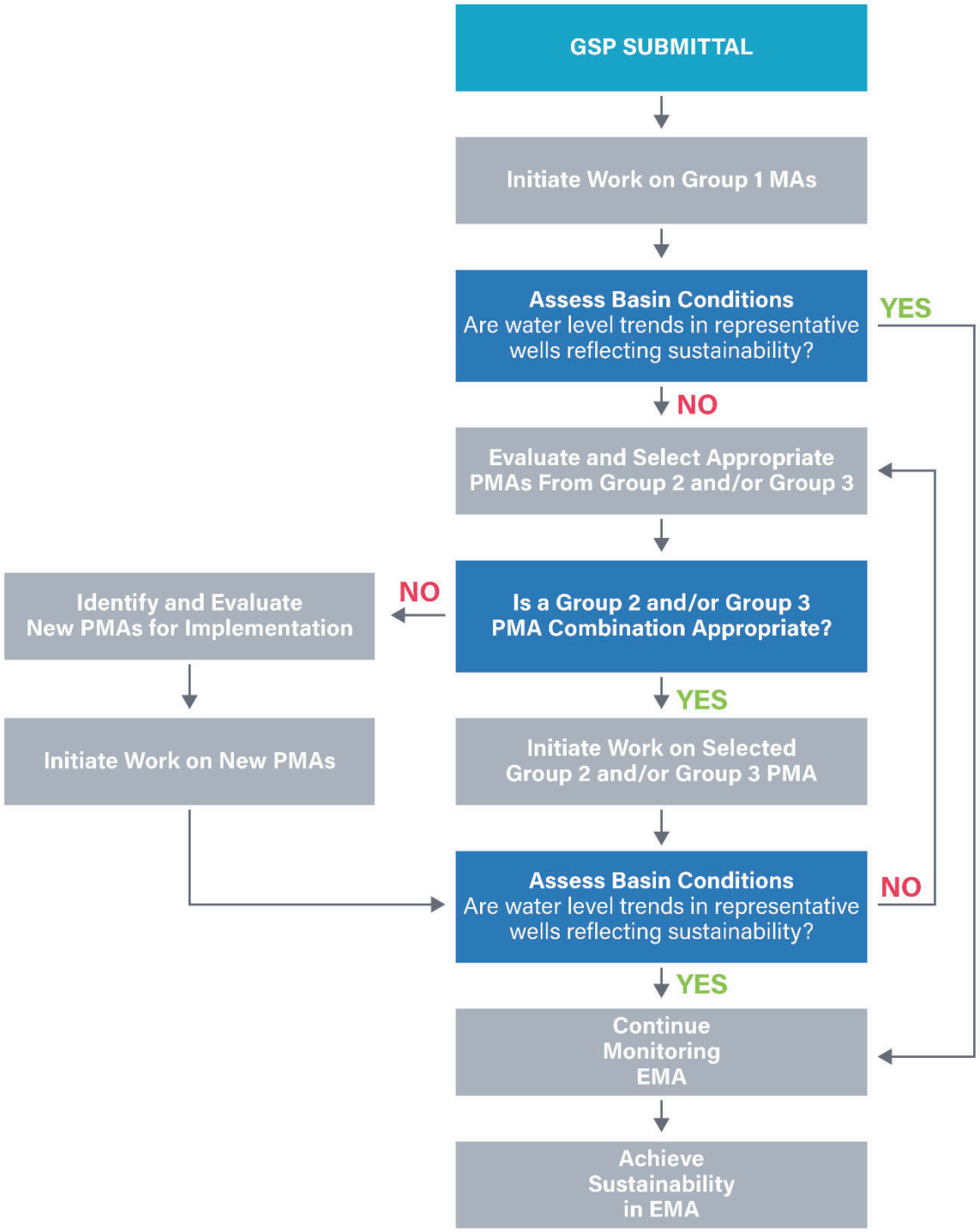

Figure ES-5. Adaptive Implementation Strategy for Projects and Management Actions

ES-5.1.3 Install Shallow Piezometers in Alamo Pintado Creek and Zanja de Cota Creek Identified GDE Areas

To avoid undesirable results to GDEs and interconnected surface water discharging to the Santa Ynez River from the tributaries, construction of two shallow piezometers, are proposed within the GDE areas identified near the confluence of Alamo Pintado and Zanja de Cota Creeks with the Santa Ynez River (see Figure 4-4). The two proposed shallow piezometers will provide valuable data that will allow an enhanced understanding of the interconnected surface water system in high priority GDE areas and provide the basis for future refinements in the EMA hydrogeologic conceptual model.

ES-5.1.4 Review/Update Water Usage Factors and Crop Acreages and Update Water Budget

While the accuracy of the DWR and SYRWCD data for irrigated crops for the recent years is relatively high, uncertainty remains regarding the estimates of water use on the irrigated lands within the EMA. To address this uncertainty, the EMA GSA plans to review and update water usage factors and crop acreages, which will be incorporated into future refinements in the EMA water budget.

ES-5.1.5 Survey and Investigate Potential GDEs in the EMA

No biological or habitat surveys have been completed to verify the existence of potential GDEs in preparation of this GSP. A preliminary evaluation indicates there is insufficient data available to confirm the existence of the full nature and extent of Category A (high-priority) potential GDEs. To address this uncertainty, the recommended next step is to conduct field surveys to document and characterize the Category A potential GDEs. The findings from the proposed field surveys could be incorporated into future refinements in the EMA hydrogeologic conceptual model and SMCs.

ES-5.2 Group 1 Management Action 2 – Groundwater Pumping Fee Program

As part of the GSP implementation process, the EMA GSA will explore various financing options to cover its operational costs and to generate funding for the ongoing EMA monitoring program and the implementation of Group 1 management actions and potential future Group 2 management actions and Group 3 projects. Based on the results of these efforts, the EMA GSA may adopt a management action to levy groundwater pumping fees to generate funding for the EMA GSA. The initial financing evaluation will be focused on program design, policy and regulatory development, compliance with the California Environmental Quality Act, and stakeholder outreach. The EMA GSA will identify and evaluate the most effective and equitable fee structure for the EMA.

ES-5.3 Group 1 Management Action 3 – Well Registration and Well Meter Installation Programs

Well registration is intended to establish an accurate count of all the active wells in the EMA. Well metering is intended to improve estimates of the amount of groundwater extracted from the EMA. The EMA GSA will require that all groundwater production wells, including wells used by de minimis pumpers, be registered with the EMA GSA. The GSA may also develop and implement reporting protocols applicable to de minimis pumpers to ensure their production is reflected in the total amount of pumping in the EMA and to address circumstances where de minimis pumpers are or may be exceeding the de minimum thresholds. The EMA GSA will require all non-de minimis groundwater pumpers to report extractions at an interval to be determined by the EMA GSA using an approved method to estimate production. Guidelines and a regulatory framework will be developed to implement this program, which may also include a system for reporting and accounting for water conservation initiatives, voluntary irrigated land fallowing (temporary and permanent),

stormwater capture projects, or other activities that individual pumpers may elect to implement. Group 1 Management Action 4 – Water Use Efficiency Programs

Urban, rural, and agricultural water use efficiency has been practiced in the EMA for more than two decades and has been effective in significantly reducing water use within the region outside of the EMA. Existing programs promote responsible design of landscapes and appropriate choices of appliances, irrigation equipment, and other water-using devices to enhance the efficient use of water. The water use efficiency management actions—to be developed for implementation by municipal, agricultural, and rural domestic pumpers—will promote expansion and supplementation of the water use efficiency programs that currently exist. These programs will also be aligned with the requirements of water conservation mandates that been put in place by the State of California. Two types of water use efficiency programs are proposed:

- **Urban and Domestic Water Use Efficiency Programs:** Initiatives that promote increasing water use efficiency by achieving reductions in the amount of water used for municipal, commercial, industrial, landscape irrigation, rural domestic, and aesthetic purposes. These programs can include incentives, public education, technical support, and other efficiency-enhancing programs.
- **Agricultural Water Use Efficiency Programs:** Initiatives that promote increasing water use and irrigation efficiency and achieving reductions in the amount of water used for agricultural irrigation. These programs can include incentives, public education, technical support, training, implementation of BMPs, and other efficiency-enhancing programs.

ES-5.4 Group 2 Management Action 5 – Groundwater Base Pumping Allocation

If Group 1 management actions do not avoid chronic groundwater level declines and reduction of groundwater in storage over the next 20-year period and beyond, the EMA GSA may seek to develop and implement a regulatory program to allocate a volume of groundwater to be pumped by users annually from the EMA. This program is referred to herein as the base pumping allocation (BPA) program. The amount of pumping reduction (if needed in the future) is uncertain and will depend on several factors including climate conditions, the effectiveness and timeliness of voluntary actions by pumpers, and the success of other planned and potential projects and management actions. The groundwater BPA Program would require various analyses and steps, including but not limited to:

- Establishing a methodology for determining baseline pumping considering:
  - Sustainable yield of the EMA
  - Groundwater level trends
  - Historical groundwater production
  - Land uses and corresponding water use requirements
  - Compliance with the California Environmental Quality Act
- Establishing a methodology to consider, among other factors determine groundwater, water rights and evaluation of anticipated benefits from other relevant actions individual pumpers take
- An implementation timeline
- Approving a formal regulation to enact the program

A baseline pumping allocation schedule could be implemented and adjusted over time, as needed, and according to relevant factors, to meet groundwater extraction targets in the EMA (consistent with the sustainable yield). Analyses would be updated periodically as new data are developed.

ES-5.5 Group 2 Management Action 6 – Groundwater Extraction Credit (GEC) Marketing and Trading Program

As previously described, the EMA GSA may, as needed, develop and implement a Groundwater BPA Program that would assign pumping allocations in the EMA annually and, if necessary, impose a schedule on the pumping allocations over time to bring total pumping in the EMA within its sustainable yield within 20 years of GSP adoption. In conjunction with a Groundwater BPA Program, the EMA GSA may also pursue the development and implementation of a Groundwater Extraction Credit (GEC) Marketing and Trading Program to provide increased flexibility to groundwater producers in using their pumping allocations. The program could enable voluntary transfers of allocations between parties, on a temporary or permanent basis, through an exchange of GECs. Among other potential benefits, a GEC Marketing and Trading Program could assist existing groundwater users or new groundwater users in acquiring needed groundwater supplies from other pumpers, in the form of GECs, to support economic activities in the EMA, encourage and incentivize water conservation, enable temporary and permanent fallowing of agricultural lands, and facilitate a control of pumping allocations as needed during the 20-year GSP implementation period. As part of a GEC Marketing and Trading Program, the EMA GSA may consider a policy to define groundwater extraction carryover provisions from year to year and/or to allow multi-year pumping averages.

ES-5.6 Group 2 Management Action 7 – Voluntary Agricultural Crop Fallowing and Crop Conversion Programs

The EMA GSA has identified voluntary agricultural crop fallowing and crop conversion as a potential management action that may be considered if Group 1 management actions are not proving effective in achieving sustainability in the EMA within 20 years of GSP adoption. As deemed necessary during the GSP implementation period, the EMA GSA may develop programs that would permit voluntary fallowing and land use conversions on a temporary or permanent basis as a means of reducing total water production in the EMA. As with the Groundwater BPA and GEC Marketing and Trading Programs discussed above, an important consideration in developing a voluntary fallowing and crop conversion program would be to include protections of water rights for producers who choose to fallow or carry out their land use conversions. As part of this management action, the EMA GSA would develop an EMA-wide accounting system that tracks landowners who decide to voluntarily fallow or convert their land and reduce groundwater pumping or otherwise refrain from using groundwater.

ES-5.7 Group 3 Projects

Although the EMA GSA has no near-term plans to initiate construction of any specific projects for the purposes of achieving groundwater sustainability, the EMA GSA and/or other local agencies may be interested in proceeding with the study, planning, preliminary design/engineering, and permitting phases for several projects that were identified for potential future consideration. A description of the projects that the EMA GSA identified for future consideration and associated summary information are presented in Sections 6.10.1 through 6.10.10.

The projects that the EMA GSA identified for future consideration include:

- Distributed Storm Water Managed Aquifer Recharge (DSW-MAR) Basins (In-Channel and Off-Stream Basins)
- City of Solvang / Santa Ynez Community Services District WWTF Recycled Water and Reuse In Lieu of Groundwater Pumping or Indirect Potable Reuse
- Los Olivos Community Services District WWTF Recycled Water and Reuse In Lieu of Groundwater Pumping or Indirect Potable Reuse

- Santa Ynez Band of Chumash Indians WWTF Recycled Water and Reuse In Lieu of Groundwater Pumping or Indirect Potable Reuse
- GSA to become a Funding Partner to the Santa Barbara County Precipitation Enhancement Program
- Conjunctive Use – Managed Aquifer Recharge (MAR) Projects Using Imported (State Water Project [SWP] and Santa Ynez River [SYR]) Water
- In Lieu Recharge Projects to Deliver Unused and Surplus Imported Water to Offset Groundwater Extractions
- Aquifer Storage and Recovery Projects

ES-6 Groundwater Sustainability Plan Implementation (GSP Section 7)

Section 7 provides a conceptual road map for efforts to implement the GSP after adoption and discusses implementation effects in accordance with SGMA regulations. This implementation plan is based on the current understanding of the EMA's conditions and anticipated administrative considerations that affect the management actions described in Section 6. Projects and management actions will address data gaps and reduce uncertainty, improve understanding of basin conditions and how they may change over time, and create opportunities to promote conservation and optimize water use in the EMA.

The EMA GSA plans to continually monitor and assess groundwater levels relative to SMCs, and under conditions where minimum thresholds are projected to be reached, the EMA GSA will perform assessments to determine whether the trends are related to groundwater pumping, drought conditions, or other factors. If groundwater level data are trending toward reaching minimum thresholds as a direct consequence of groundwater pumping in the EMA, then the EMA GSA may consider the implementation of Group 2 management actions and Group 3 projects. Conceptual planning-level cost estimates for implementing each management action are presented in Table 7-1, and potential funding sources are described in Section 7.7.

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EXECUTIVE SUMMARY

ES Abstract

This Groundwater Sustainability Plan (GSP) is prepared in accordance with the 2014 Sustainable Groundwater Management Act (SGMA) and covers the Western Management Area (WMA) of the Santa Ynez River Valley Groundwater Basin (Basin or SYRVGB) located in coastal central California. There are two principal aquifers within the WMA: an Upper Aquifer, consisting of younger alluvial sediments that are primarily associated with river and surface water geomorphic processes, and a Lower Aquifer, which is more extensive throughout the Basin and consists of older geologic depositions. Marginal geologic formations containing perched water-bearing soils are also identified within the Basin but are not principal aquifers managed under SGMA. The Santa Ynez River is the primary surface water source within the Basin. The subflow of the Santa Ynez River is considered part of the river flow and is managed as surface water pursuant to the administrative authority and jurisdiction of the State Water Resources Control Board (SWRCB) over waters flowing in known and definite channels. The analyses conducted for this GSP indicate that current Basin conditions are generally sustainable. Potential undesirable results (defined as significant and unreasonable impacts to sustainability indicators) have been identified and specific minimum thresholds have been developed to help ensure that undesirable results do not occur under future conditions. Potential project operations and management actions designed to maintain and improve groundwater conditions and sustainability have been identified and are described within this GSP.

ES Chapter 1: Introduction

ES Introduction, Administrative Information, and Notes and Communication (GSP Sections 1a, 1b, 1c)

SGMA requires that the Basin develop one or more GSPs that outline how the Basin will achieve groundwater sustainability by 2042. Physical and political complexities within the Basin resulted in decisions by local public agencies to develop three GSPs under a coordination agreement to satisfy SGMA requirements for the entire Basin. The Western, Central, and Eastern Management Areas (WMA, CMA,

and EMA) make up the Basin. This GSP has been prepared to address the SGMA requirements for the WMA portion of the Basin.

The primary sustainability goal and purpose of these GSPs are to manage groundwater resources in the WMA, CMA, and EMA without causing undesirable results and facilitate long-term beneficial uses of groundwater within the Basin. Beneficial uses of groundwater in the Basin include municipal, domestic, and agricultural uses, in addition to riparian habitat that supports environmental ecosystems.

In 2016 and 2017, five local Groundwater Sustainability Agencies (GSA) were established for the Basin. Five GSA eligible public entities ratified an agreement and formed the WMA GSA, with each of the public entities having a seat on the WMA GSA Committee. Four of the five member agencies, the City of Lompoc, Vandenberg Village Community Services District, Mission Hills Community Services District, and the Santa Ynez River Water Conservation District all have voting seats on the Committee, whereas the Santa Barbara County Water Agency has a non-voting seat.

During the development of this GSP the WMA GSA Committee met regularly on SGMA matters. The GSA developed an Outreach and Engagement Plan to facilitate engagement with stakeholders. A volunteer public Citizens Advisory Group (CAG) was created, with members representing a group of groundwater users to help solicit public feedback on GSP elements. Newsletters and press releases about the GSA and SGMA were created and distributed through numerous channels, including utility bills. All three management areas used a centralized website to aid with communications, tracking meetings, and receiving public comments.

ES Plan Area (GSP Section 1d)

The Basin is a coastal groundwater basin measuring approximately 317 square miles, located in Santa Barbara County, California. Each of the three management areas of the Basin is covered by a GSP; this GSP is for the WMA, which is approximately 133.7 square miles. The WMA itself is divided into six subareas based on hydrogeology and topography: the Lompoc Plain, Lompoc Terrace, Lompoc Upland, Santa Rita Upland, Santa Ynez River Alluvium, and the Burton Mesa. The Lompoc Plain, Lompoc Upland, and Santa Rita Upland form the majority of the total extent of the WMA. The Lompoc Terrace and Burton Mesa are almost entirely within the federal Vandenberg Space Force Base (VSFB; formerly Vandenberg Air Force

Base) boundary and are mostly perched aquifers. These two subareas have generally been excluded from past water resources studies of the Basin. The Santa Ynez River Alluvium is the subflow area, and the subflow of the Santa Ynez River in that area is not groundwater as defined by SGMA and thus is not be managed by the WMA GSA, because such subflow constitutes subterranean water flowing in known and definite channels that is treated as surface water and subject to the jurisdiction and management of the SWRCB.

Approximately 44% of the WMA is part of VSFB. The California Department of Parks and Recreation manages the La Purísima Mission State Historic Park, and the California Department of Fish and Wildlife manages the Burton Mesa Ecological Reserve as well as the offshore Vandenberg State Marine Reserve. Other public lands within the WMA include the Lompoc Federal Correctional Complex, local cities, school districts, and other district properties.

The public water agencies that formed the WMA GSA are the City of Lompoc, Vandenberg Village CSD, and Mission Hills CSD. Other water agencies in the WMA include American Water (supplies VSFB) and the small Mutual Water Companies (MWC) of Santa Rita, Tularosa, and Vista Hills. The Central Coast Water Authority (CCWA), a wholesale water agency, operates a water pipeline that passes through the WMA and conveys imported water primarily from the State Water Project to the VSFB within the WMA and other agencies upstream of the WMA. Most people living in the WMA live near or within the City of Lompoc and adjacent communities of Vandenberg Village, or Mission Hills.

Three general plan areas, or equivalent areas, outlining land use in the WMA. The entire WMA is within the general plan area of the County of Santa Barbara. The City of Lompoc has a general plan for use within its jurisdiction, and the California Coastal Zone has a local coastal program under the California Coastal Commission. Additionally, the federal VSFB has its own plan governing land uses.

ES Additional GSP Elements (GSP Section 1e)

A data management system was implemented for this GSP in accordance with the SMGA. As part of its communications and public outreach, the WMA GSA prepared and distributed the Data Management Plan, a whitepaper describing the planned data management system (DMS). The DMS was then implemented.

ES Chapter 2: Basin Setting

ES Hydrogeologic Conceptual Model (GSP Section 2a)

A hydrogeologic conceptual model was developed and used to identify existing and projected groundwater conditions for the Basin. The hydrogeologic conceptual model presents the various conceptual components of the WMA's groundwater system, including the geologic setting; aquifer extents; physical properties, including water imports; and land use.

The geologic setting is related to the northward movement of the Pacific Plate relative to the North America Plate. Groundwater is found in younger geologic formations that have been uplifted and deformed into a large syncline fold. The Santa Ynez River has cut through and filled in the existing geology. The estuary and the Santa Ynez River Alluvium subarea are where the Santa Ynez River has cut into underlying non-water bearing units, causing a 'bedrock channel' that limits groundwater flow. The definable bottom and lateral extents of the Basin were determined using the three-dimensional geologic model included in the hydrogeologic conceptual model. For groundwater management purposes, two principal aquifers were defined based on the Lompoc Plain location: the Upper Aquifer, which consists of alluvial sediments, and the Lower Aquifer, which consists of the water-bearing Careaga Sand and Paso Robles Formation. The Orcutt Sand geologic unit is extensive over the Burton Mesa and most of the Lompoc Terrace, but water is perched, disconnected, and generally not used. The Santa Ynez River Alluvium subarea consists of alluvial formations in a bedrock channel that convey the Santa Ynez River and the subflow of the river. Accordingly, the Santa Ynez River and its subflow are managed by the SWRCB.

The topography of the WMA is varied, relatively flat in the Lompoc Plain, with hilly in the Lompoc Upland and Santa Rita Upland along the northern boundary. Rainfall is highly influenced by local topography. However, local slope and soil types influence runoff and the amount of potential recharge to the aquifers in any particular location.

Since 1997, the CCWA has delivered State Water Project water to the Basin though the 130 mile long Coastal Branch Pipeline that enters the Basin at Vandenberg Space Force Base and terminates at Lake Cachuma. State Project Water deliveries from the pipeline are received by the Vandenberg Space Force Base in the WMA. Other water from this pipeline is delivered to City of Buellton, ID No.1, City of Solvang,

and Lake Cachuma, east and upstream of the WMA. The Tecolote Tunnel conveys water from Lake Cachuma to Santa Barbara County south coast including the cities of Santa Barbara, Goleta, Montecito, and Carpinteria. The Tecolote Tunnel was completed in 1955 and is the newest of three tunnels used for exporting Santa Ynez River water to the south coast of Santa Barbara County.

Groundwater within the WMA is primarily used for agriculture, which represents the largest proportion of land and water use within the Basin. Other uses of groundwater in the basin include municipal and light industrial, small domestic uses, and environmental uses, such as groundwater dependent ecosystems.

ES Groundwater Conditions (GSP Section 2b)

This GSP describes historical, existing, and projected groundwater conditions with regard to each of the six SGMA sustainability indicators including the chronic lowering of groundwater levels, significant and unreasonable reduction of groundwater in storage, significant and unreasonable seawater intrusion, degraded water quality, land subsidence, and depletion of interconnected surface water).

Groundwater elevation data was collected from wells throughout the WMA, in both the seasonal high (spring) and seasonal low (fall) conditions, for both the Upper Aquifer and the Lower Aquifer. Two sets of groundwater level contours were developed by interpolating between monitoring wells. Groundwater elevations in wells representing the Lower Aquifer were generally found to be higher than in the Upper Aquifer, which is similar to the results of past studies. Additionally, fall water levels were lower than spring levels, with the greatest difference being within the larger agriculturally developed portions of the WMA. In addition to preparing groundwater level contours, groundwater levels were plotted over time (hydrographs) to show the groundwater level trends at specific locations within the WMA.

Groundwater storage over time was compared against the year type and groundwater pumping: year type was found to be a primary influence on groundwater storage. To support this analysis, a quantitate method using flow at the Salsipuedes Creek measured by the U.S. Geologic Survey (USGS) streamflow gage is described which identify the qualitative “dry” and “wet” years.

Location of known potential groundwater contamination sites were identified. The responsibility of remediating groundwater is not under the jurisdiction of the GSA but lies with other state and local agencies. Assessments to beneficial users in the basin and an assessment of recent (2015-2018)

groundwater quality data were made for six constituents identified by the SWRCB. The goal of the GSP is to ensure than groundwater quality is not further degraded by groundwater pumping managed under this GSP.

Because the WMA is a coastal basin, seawater intrusion was considered a potential concern. There are several miles between the coast and beneficial uses inland of VSFB. On an annual basis, there are both surface and groundwater flows through the aquifer to the ocean. Long-term monitoring at two wells shows that conditions for chloride, sodium, and salinity are relatively constant over multiple decades.

Land subsidence was determined to be unlikely due to the geologic setting of the WMA. Recent remote sensing data provided by Department of Water Resources (DWR) from 2015 – present show very little change in land surface elevation. Additionally, historical infrastructure records do not indicate land subsidence.

An evaluation of interconnected surface water for both the Santa Ynez River and its tributaries as a result of groundwater management actions was determined to be unlikely, given that there is little perennial surface water in the Basin. In the Lompoc Plain, the Upper Aquifer is seasonally hydraulically connected to the Santa Ynez River. The surface water of the Santa Ynez River is directly influenced by releases from Cachuma Reservoir and by diversions via shallow wells in the alluvial subflow deposits upstream of the Lompoc Narrows, both of which are administered by the SWRCB. The surface water leaving the WMA (entering the Pacific Ocean) is a data gap that will be addressed with installation of a gage near the estuary.

Groundwater Dependent Ecosystems (GDEs) in the WMA were assessed using an assumed rooting depth and the current depth to groundwater. A map of the GDEs in the WMA was developed. Potential GDEs along the WMA upland tributaries were greater than 30 feet above the groundwater table and were screened out of consideration for future groundwater management. Potential GDEs along the Santa Ynez River are not considered vulnerable due to historically stable water levels, based on a review of previous studies done in the area. The stability may in part be due to the management of the Santa Ynez River under SWRCB Order 2019-148.

ES Water Budget (GSP Section 2c)

Water budgets are calculations of the flows of water in and out of the various components of the Basin's surface water and groundwater systems. The various components of the water budget are introduced in the hydrogeologic conceptual model. Three water budget periods were created: historical, current, and projected. Water flows in any particular year are highly dependent on the weather, and to a lesser extent, the antecedent conditions. The selection of hydrologic years for each of the three budget periods was coordinated with the other two management areas (CMA and EMA).

The period of 1982 through 2018 was selected as the historical period. Stream flow along Salsipuedes Creek were used as a proxy for water supply conditions in the Basin. Flows during this historical period are similar to the long-term monitoring at the same gage, indicating that the years are likely representative of the long-term period. The years from 2012 to 2018 were all relatively dry years, so the current period was started in 2011. To meet the 50-year planning horizon required by SGMA, the projected period is 2018 through 2072.

The length of the historical water budget in this GSP is 36 years, which exceeds the 10-year SGMA requirement. For surface water, the average inflows were 116,290 acre-feet per year (AFY) and ranged from 5,870 to 827,250 AFY, with most of this variability influenced by the Santa Ynez River flows. Surface water outflows were on average 39,630 AFY and ranged from 12,660 to 158,810 AFY. Groundwater is less variable, with inflows ranging between 14,420 to 54,610 AFY, and an average inflow of 31,000 AFY. The two primary drivers of variability in groundwater were percolation from surface water and recharge from precipitation. Groundwater outflows ranged from 24,610 to 39,720 AFY, with an average of 32,000 AFY. Agricultural pumping was the largest influence on groundwater flow and had the greatest variation over the historical period. The total groundwater pumping during the historical period averaged 27,300 AFY. The current estimate of the sustainable yield, defined by SGMA as the maximum quantity of water that can be withdrawn annually without causing undesirable results, is currently estimated to be 26,400 AFY for the WMA based on the historical water budget.

For the current period (2011 through 2018), surface water average inflows were 37,890 AFY and ranged from 9,520 to 168,190 AFY, with most of this variability influenced by the Santa Ynez River flows. Surface water outflows were on average 39,630 AFY and ranged from 12,660 to 158,810 AFY. Groundwater is less

variable for the current period, with inflows ranging between 16,420 and 42,050 AFY, and an average inflow of 31,030 AFY. For groundwater, the two primary drivers of variability were percolation from surface water and recharge from precipitation. Groundwater outflows ranged from 27,880 to 37,580 AFY, with an average of 32,240 AFY. Agricultural pumping was the largest influence on groundwater flow and had the greatest variation over this current period.

The projected period water budget estimates population increases, projected precipitation, and climate change factors. The City of Lompoc's 2020 Urban Water Management Plan projects water demand to increase by 30% in the 20-year planning period. Population growth and water demands in the remaining area of the WMA was estimated to follow recent trends with a 5% increase currently expected over the 20-year planning period (by 2042), and a 10% increase over the 50-year planning period (by 2072). Groundwater demand is expected to increase from 26,150 AFY in 2018 to 28,157 AFY in 2042 and 29,266 AFY in 2072. Projected water availability is expected to be relatively to the increase in demand which is projected to result in a loss of groundwater storage of up to 3,000 AFY, unless projects and management actions are undertaken to maintain sustainability.

ES Chapter 3: Monitoring Network and Sustainable Management Criteria

ES Monitoring Networks (GSP Section 3a)

The Monitoring Networks section of the GSP summarizes the parameters that were monitored in the Basin and identifies representative sites for monitoring for each of the six SGMA sustainability indicators.

Federal, state, and local monitoring networks are responsible for groundwater monitoring in the WMA, are described in this GSP. Prior to 2019, the U.S. Geological Survey conducted groundwater level monitoring in the WMA and the entire Basin. Starting in 2019 the groundwater level monitoring was taken over by the Santa Barbara County Water Agency. Local agencies, including the City of Lompoc and Vandenberg Village CSD, also collect groundwater level information. Estimates for groundwater storage rely on using the same network data.

Groundwater quality is currently monitored by three programs in the WMA:

- The U.S. Geological Survey-directed monitoring program;

- Public water system monitoring of drinking water sources by water suppliers as reported to Safe Drinking Water Information System (including City of Lompoc, Vandenberg Village CSD, Mission Hills CSD); and
- Monitoring by commercial agriculture as part of the Irrigated Lands Regulatory Program

Seawater intrusion is monitored in wells based on water quality sampling.

Land subsidence is monitored using monthly remote sensing satellite data, which covers the entire WMA. Additionally, there is a continuous GPS (CGPS) station in the WMA, and the Central Coast Water Authority, which operates the State Water Project pipeline, has remote access to operators that can be contacted in the event of subsidence. The remote sensing tracks elevation change, while CGPS tracks elevation and horizontal movement. If a decline in land surface elevation is observed, a follow-up analysis would need to be conducted to determine whether the cause was subsidence from groundwater depletion.

Finally, three U.S. Geological Survey stream gages measure and record surface water flows. Monitoring of potential surface water depletion is performed by collecting groundwater levels in wells near the Santa Ynez River.

These existing monitoring networks were reviewed, and wells were selected from each based upon representativeness. Additionally, several areas were identified as locations where the network could be improved.

ES Sustainable Management Criteria (GSP Section 3b)

This section identifies the sustainability goal of the Basin, conditions of undesirable results for each of the six SGMA sustainability indicators, minimum thresholds at the representative sites, and measurable objectives. These criteria are described below and summarized in Table ES-1.

Sustainability goals were identified as follows:

- Maintain long-term groundwater elevation at levels adequate to support existing and anticipated beneficial uses.

- Maintain a sufficient volume of groundwater in storage to ensure groundwater availability during periods of drought and recovery during wet climate conditions.
- Maintain water quality conditions to support ongoing beneficial use of groundwater for agricultural, municipal, domestic, and industrial and environmental interests.

For each of the six SGMA sustainability indicators, the potential undesirable result is identified and quantified based on the identification criteria, and the potential effects on beneficial users are described.

Table ES-1
Sustainable Management Criteria Indicator Summary for the WMA

Sustainability Indicator	Minimum Threshold	Measurement	Measurable Objective	Undesirable Result
Chronic lowering of groundwater levels	Water level minimum thresholds for Representative Monitoring Wells (RMWs) screened in the Upper Aquifer established 10 feet below the 2020 levels. Water level minimum thresholds for RMWs screened in the Lower Aquifer established 20 feet or more below 2020 levels.	Groundwater elevations measured at 13 RMWs screened in the Upper Aquifer, and 13 RMWs screened in the Lower Aquifer.	Spring 2011 groundwater elevations.	Spring groundwater elevations that drop below the established groundwater elevation minimum thresholds in more than 50% of the RMWs for 2 consecutive years.
Reduction of groundwater in storage	Water level minimum thresholds for RMWs screened in the Upper Aquifer established 10 feet below the 2020 levels. Water level minimum thresholds for RMWs screened in the Lower Aquifer established 20 feet or more below 2020 levels	Groundwater elevations are used a proxy for the total volume of groundwater in storage. Groundwater elevations will be measured at 13 RMWs screened in the Upper Aquifer and 13 RMWs screened in the Lower Aquifer	Spring 2011 groundwater elevations.	Spring groundwater elevations that drop below the established groundwater elevation minimum thresholds in more than 50% of the RMWs for 2 consecutive years.
Seawater Intrusion	500 mg/L isocontour migrates east of the 2015 extent, out of the Vandenberg Space Force Base and into the WMA's jurisdictional boundary.	Chloride concentration isocontour maps and time-series of chloride concentrations measured at 17N/35W-17M1 and 7N/35W-21G2	The current extent of the 500 mg/L chloride isocontour.	The landward migration of the 500 mg/L chloride isocontour east of the Vandenberg Space Force Base jurisdictional boundary and corresponding increasing chloride concentration trends measured at 7N/35W-17K20 and 7N/35W-21G2.
Degraded Water Quality	For all constituents except Nitrate, minimum threshold concentrations were established near the historical high constituent concentrations based on individual time-series of concentration graphs and to ensure that the average minimum threshold concentrations do not exceed the RWQCB's established Water Quality Objectives by RWQCB. Nitrate minimum threshold concentration established at the drinking water Maximum Contaminate Level (MCL)	Salt and nutrient concentrations measured at 16 RMWs	The minimum of the secondary maximum contaminant levels (where applicable) and the 2015 groundwater concentration.	Minimum threshold exceedances for each constituent in more than 50% of the RWMs for 2 consecutive years.
Subsidence	A decline of six inches from 2015 land surface elevation resulting from groundwater extractions.	Review of publicly available land subsidence satellite data and continuous GPS data.	Land subsidence less than two inches compared to the 2015 InSAR data.	Land subsidence associated with groundwater production that exceeds half a foot from 2015 conditions.
Depletion of interconnected surface water	Groundwater Elevations in the Upper Aquifer and near the Santa Ynez River that drop 10 feet or more below 2020 groundwater elevation.	Groundwater elevations measured at three RMWs: 7N/34W-35K9, 7N/34W-29F2, and 7N/35W-21G2.	Groundwater elevations at 7N/35W-21G02, 7N/34W-29F02, and 7N/34W-35K09 equal to five feet below the elevation of the Santa Ynez River channel bottom.	Groundwater elevations in the Upper Aquifer that drop 10 feet or more below 2020 groundwater elevations in 2 of the 3 surface water depletion RMWs for 2 consecutive years.

RMW = Representative monitoring wells; RWQCB = Regional Water Quality Control Board; MCL =maximum contaminate level; SMCL = secondary maximum contaminate level; TDS = total dissolved solids; GPS = Global Positioning System; InSAR = Interferometric synthetic aperture radar; mg/L = milligrams per liter

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The potential undesirable result from chronic lowering of groundwater levels is less water available for beneficial users using existing infrastructure. This impairment would require more energy to pump water and potential replacement of wells to access water. This undesirable result could occur if groundwater extractions exceed the sustainable yield over a period of years. Evaluation of this potential undesirable result will be based on direct measurements of groundwater levels.

Groundwater storage is the volume of water that is stored in an aquifer. The potential undesirable result of a decline in groundwater storage is less water available for beneficial users, meaning that the water is physically not present to be extracted. As with groundwater levels, groundwater storage is related to pumping and other outflows exceeding the amount of water inflows into the groundwater basin over a period of years. Groundwater storage will be estimated using the groundwater elevation data to assess the volume of water involved.

The potential undesirable result from seawater intrusion is high salinity and other dissolved analytes that would make groundwater unusable for beneficial users. Seawater intrusion is quantified based on the chloride concentrations in wells and will be assessed using periodic sampling and measurements of water chemistry at indicator wells.

Potential undesirable result from degradation of water quality in the aquifer is impaired beneficial uses of the groundwater. To assess water quality, specific salts and nutrients are chosen for analysis. Specifically, concentrations of total dissolved solids, chloride, sulfate, boron, sodium, and nitrate.

Potential undesirable results due to land subsidence may include damage to surface infrastructure and collapsed pore space in the aquifers. Land surface elevation changes are quantified by a remote sensing (satellite) system that uses interference patterns between radar returns to accurately calculate changes in elevation over a wide region.

The potential undesirable results related to depletions in interconnected surface water may result in impacts to groundwater dependent ecosystems. The Santa Ynez River and River alluvium are under the jurisdiction of the SWRCB. The SWRCB retains administrative authority over the surface flow and subflow of the Santa Ynez River, including wells that divert the subflow. Depletions in interconnected surface water are evaluated by assessing water levels in potential GDE areas.

With each of the six potential undesirable results described above, specific minimum thresholds were determined to protect against the potential undesirable results. For groundwater levels, thresholds were based on where well screen elevations, sea level, and historical groundwater levels. For groundwater storage, minimum thresholds are based on the number of wells that met the groundwater level criteria. For seawater intrusion, thresholds were based on a chloride iso-contour protective of beneficial users. Minimum thresholds for water quality are based on Water Quality Objectives from the SWRCB. The land subsidence minimum threshold six inches or less relative to the 2015 elevations. Minimum thresholds for interconnected surface water will be monitored by measured water level elevations in nearby wells at or above historical low water levels and within 15 feet of the elevation of the river channel bottom.

Quantifiable goals for the maintenance or improvement of the Basin were identified as the measurable objectives. Groundwater elevations pre-drought conditions (i.e., Spring 2011) were identified as the measurable objective for groundwater levels and storage. Maintaining the current location of the chloride iso-contour near the Santa Ynez River estuary was established as the seawater intrusion measurable objective. No decline in water quality relative to 2015 was set for water quality. Less than two inches of land subsidence since 2015 was set for land subsidence. Finally, to protect surface water, nearby groundwater levels no lower than 5 feet below the local river channel bottom was set as the measurable objective.

Impacts of setting these management criteria on neighboring groundwater basins are expected to be minimal because the WMA is minimally connected to neighboring groundwater basins.

ES Chapter 4: Projects and Management Actions (GSP Section 4)

Projects and Management actions (PMAs) will be implemented to maintain groundwater sustainability in the WMA. The PMAs are categorized into four groups based on when each PMA would be implemented. Group 1 PMAs would be initiated within the first year after GSP submittal. Group 1 Management Actions such as water conservation, tiered pumping fees and the installation of well meters are anticipated to close any potential shortfalls in maintaining the sustainable yield identified in the water budget and maintain sustainability goals. Additional Group 1 PMAs will increase water supplies further such as increased recharge through stormwater capture and recycled water projects.

If Group 1 PMAs fail to have the expected results, then further actions through the implementation of other PMA groups 2, 3, and 4 will be required. PMAs in Group 2 and 3 will be implemented when the early warning and Minimum Threshold triggers for the sustainability indicators are reached.

The WMA GSA is taking an adaptive management approach to WMA management over the planning horizon. Consequently, potential projects and management actions will continuously be considered and evaluated over the planning horizon to ensure that the most beneficial and economically feasible projects and management actions are implemented to achieve the sustainability goal in the WMA and Basin. Proposed projects and management actions may be modified, as necessary, if the intended project benefits are not realized in the intended timeframe.

ES Chapter 5: Implementation (GSP Section 5)

This chapter describes actions to implement this GSP. Five implementation categories are described.

Implementation Group 1 is completion of work started during the drafting of this GSP. This is completion of data collection and survey work that commenced during the development of this GSP. This includes surveying all representative wells in the representative monitoring network. Additionally, data collected during the SkyTEM Airborne Geophysics aerial electromagnetic survey will be evaluated and used to update of the existing geologic model, hydrogeologic conceptual model, and numeric groundwater model.

Implementation Group 2 resolves data gaps in the monitoring network and the conceptual framework as identified in this GSP. This includes determining information about monitoring wells that currently have

no well perforation information by video surveying and sounding, and working with landowners on adding voluntary wells to the water level and quality monitoring network. A new surface water gage at the mouth of the Santa Ynez River is also considered.

Implementation Group 3 implementation items are data collection actions to allow for improved management of the WMA. Efforts to improve data collection information on water use in the Basin will be done, including additional information from well owners. In addition, the GSA will require the installation of water meters on all wells (excluding *de minimis* domestic wells).

Implementation Group 4 and Implementation Group 5 is improved data management and SGMA updates. The former consists of update and utilized the data management system, the latter is completing SGMA annual reports (first due in 2022) and 5-year assessment and updates to the GSP (first due in 2027) will be done as required by SGMA.

RESOLUTION NO. 705

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SANTA YNEZ RIVER WATER CONSERVATION DISTRICT APPROVING ADOPTION OF GROUNDWATER SUSTAINABILITY PLAN FOR THE CENTRAL MANAGEMENT AREA OF THE SANTA YNEZ RIVER VALLEY GROUNDWATER BASIN

WHEREAS, the Santa Ynez River Water Conservation District is a member of the Groundwater Sustainability Agency for the Central Management Area in the Santa Ynez River Valley Groundwater Basin ("GSA"), formed by Memorandum of Agreement dated January 11, 2017 ("MOA");

WHEREAS, the GSA prepared a Draft Groundwater Sustainability Plan ("Draft GSP") for the Central Management Area, which was published for public comment on September 11, 2021;

WHEREAS, after the close of public comment, the GSA prepared a Final Groundwater Sustainability Plan ("Final GSP"), which has been presented to the Santa Ynez River Water Conservation District for its approval;

WHEREAS, under the MOA, the Santa Ynez River Water Conservation District is represented on the GSA Committee, which must approve and adopt the Final GSP;

WHEREAS, the Santa Ynez River Water Conservation District finds that the Final GSP complies with the requirements of the Sustainable Groundwater Management Act ("SGMA"); and

NOW THEREFORE, the Board of Directors of the Santa Ynez River Water Conservation District hereby resolves as follows:

1) Each of the recitals above is true and correct and is incorporated herein by reference.

2) The Board of Directors finds that the Final GSP, as presented, is consistent with the requirements of SGMA.

3) The Board of Directors hereby instructs its representative(s) on the GSA Committee to vote, on the Santa Ynez River Water Conservation District's behalf, to adopt the Final GSP in substantially the form presented to the Board of Directors, subject to such minor changes as are approved by the representative(s).

The foregoing resolution being on motion of Director _____, seconded by Director _____, was authorized by the following vote:

AYES, and in favor thereof, Directors:

NOES, Directors:

ABSENT/ABSTAINING, Directors:

I HEREBY CERTIFY that the foregoing resolution is the resolution of said district as duly passed and adopted by said Board of Directors the 1st of December 2021.

_____

Cynthia Allen, President

_____

Amber M. Thompson, Secretary

RESOLUTION NO. 706

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SANTA YNEZ RIVER WATER CONSERVATION DISTRICT APPROVING ADOPTION OF GROUNDWATER SUSTAINABILITY PLAN FOR THE EASTERN MANAGEMENT AREA OF THE SANTA YNEZ RIVER VALLEY GROUNDWATER BASIN

WHEREAS, the Santa Ynez River Water Conservation District is a member of the Groundwater Sustainability Agency for the Eastern Management Area in the Santa Ynez River Valley Groundwater Basin ("GSA"), formed by Memorandum of Agreement dated April 27, 2017 ("MOA");

WHEREAS, the GSA prepared a Draft Groundwater Sustainability Plan ("Draft GSP") for the Eastern Management Area, which was published for public comment on September 9, 2021;

WHEREAS, after the close of public comment, the GSA prepared a Final Groundwater Sustainability Plan ("Final GSP"), which has been presented to the Santa Ynez River Water Conservation District for its approval;

WHEREAS, under the MOA, the Santa Ynez River Water Conservation District is represented on the GSA Committee, which must approve and adopt the Final GSP;

WHEREAS, the Santa Ynez River Water Conservation District finds that the Final GSP complies with the requirements of the Sustainable Groundwater Management Act ("SGMA"); and

NOW THEREFORE, the Board of Directors of the Santa Ynez River Water Conservation District hereby resolves as follows:

1) Each of the recitals above is true and correct and is incorporated herein by reference.

2) The Board of Directors finds that the Final GSP, as presented, is consistent with the requirements of SGMA.

3) The Board of Directors hereby instructs its representative(s) on the GSA Committee to vote, on the Santa Ynez River Water Conservation District's behalf, to adopt the Final GSP in substantially the form presented to the Board of Directors, subject to such minor changes as are approved by the representative(s).

The foregoing resolution being on motion of Director _____, seconded by Director _____, was authorized by the following vote:

AYES, and in favor thereof, Directors:

NOES, Directors:

ABSENT/ABSTAINING, Directors:

I HEREBY CERTIFY that the foregoing resolution is the resolution of said district as duly passed and adopted by said Board of Directors the 1st of December 2021.

_____

Cynthia Allen, President

_____

Amber M. Thompson, Secretary

RESOLUTION NO. 707

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SANTA YNEZ RIVER WATER CONSERVATION DISTRICT APPROVING ADOPTION OF GROUNDWATER SUSTAINABILITY PLAN FOR THE WESTERN MANAGEMENT AREA OF THE SANTA YNEZ RIVER VALLEY GROUNDWATER BASIN

WHEREAS, the Santa Ynez River Water Conservation District is a member of the Groundwater Sustainability Agency for the Western Management Area in the Santa Ynez River Valley Groundwater Basin ("GSA"), formed by Memorandum of Agreement dated January 11, 2017 ("MOA");

WHEREAS, the GSA prepared a Draft Groundwater Sustainability Plan ("Draft GSP") for the Western Management Area, which was published for public comment on September 11, 2021;

WHEREAS, after the close of public comment, the GSA prepared a Final Groundwater Sustainability Plan ("Final GSP"), which has been presented to the Santa Ynez River Water Conservation District for its approval;

WHEREAS, under the MOA, the Santa Ynez River Water Conservation District is represented on the GSA Committee, which must approve and adopt the Final GSP;

WHEREAS, the Santa Ynez River Water Conservation District finds that the Final GSP complies with the requirements of the Sustainable Groundwater Management Act ("SGMA"); and

NOW THEREFORE, the Board of Directors of the Santa Ynez River Water Conservation District hereby resolves as follows:

1) Each of the recitals above is true and correct and is incorporated herein by reference.

2) The Board of Directors finds that the Final GSP, as presented, is consistent with the requirements of SGMA.

3) The Board of Directors hereby instructs its representative(s) on the GSA Committee to vote, on the Santa Ynez River Water Conservation District's behalf, to adopt the Final GSP in substantially the form presented to the Board of Directors, subject to such minor changes as are approved by the representative(s).

The foregoing resolution being on motion of Director _____, seconded by Director _____, was authorized by the following vote:

AYES, and in favor thereof, Directors:

NOES, Directors:

ABSENT/ABSTAINING, Directors:

I HEREBY CERTIFY that the foregoing resolution is the resolution of said district as duly passed and adopted by said Board of Directors the 1st of December 2021.

_____

Cynthia Allen, President

_____

Amber M. Thompson, Secretary

MEMORANDUM

Budget Increase Request – EMA GSP Preparation

To: Mr. Bill Buelow/SYRWCD

From: Jeff Barry, GSI Water Solutions, Inc.
Tim Nicely, GSI Water Solutions, Inc.

Date: November 15, 2021

GSI's budget on the GSP preparation project is nearly spent and there is more to do on the project in response to the clear need for addressing the copious number of public comments that were received in response to the public draft of EMA's GSP. This memorandum presents a request to increase our budget on the EMA's GSP preparation project. There are several reasons why our original budget estimate was not adequate including:

- More meetings than planned with GSA staff and EMA CAG. These meetings were dictated by the needs of the project in order to deal with a range of issues that arose from public comments and concerns raised by the CAG and GSA Committee. For example, we needed more meetings to discuss SMCs.
- More effort than originally planned to respond to public comments. A substantial number of comments were received that required detailed responses. Some of the additional GSA staff calls centered on how to respond to these comments.
- Additional effort needed to coordinate with Stetson regarding issues that are common to all three GMAs within the Basin.

We are nearing completion of the GSP but there is more to do to wrap up the final GSP and upload it to the DWR portal. Activities we anticipate that are left to do that will require additional budget include:

- Three public meetings with CAG and GSA Committee to review comments and adopt the GSP.
- Two GSA staff meetings to discuss finalizing the response to comments and GSP.
- Prepare a comment and response log, finish responding to comments, and complete final editing of the GSP document.
- Wrap up remaining DMS activities.
- Upload GSP and DMS to DWR portal – we estimate that this can be completed for less than what was in our original budget.

The following table presents our approved budget by Task and estimate of the additional budget needed to complete the project.

Description	Approved Budget	Budget Request	New Total
Task 1 – GSP Outline	$2,000	$0	$2,000
Task 2 – Administrative Draft GSP	$56,000	$27,000	$83,000
Task 3 – Public and Final Draft	$48,800	$30,000	$78,800
Task 4 – Upload Documents to DWR	$20,000	-$4,800	$15,200
Project Totals	**$126,800**	**$52,200**	**$179,000**

If this budget increase is approved, the budget increase needed to complete the GSP is $52,200 and our new contract fee total is $179,000. You may indicate your acceptance of this budget request by signing below. Please feel free to call me if you have any questions. We appreciate working with you and the other GSA staff, CAG, and GSA Committee and look forward to successful completion of the GSP!

Sincerely,
GSI Water Solutions, Inc.

Jeff Barry
Principal

Tim Nicely, PG, CHg
Supervising Hydrogeologist

_____ _____

Approved Date

GSI Water Solutions, Inc.

October 13, 2021

Bill Buelow, Groundwater Program Manager
Santa Ynez River Valley Water Conservation District
P.O. Box 719
Santa Ynez, CA 93460

Proposal for First Annual Report for the Santa Ynez River Valley Groundwater Basin, Eastern Management Area Groundwater Sustainability Plan

Dear Mr. Buelow:

GSI Water Solutions, Inc. (GSI), is pleased to present our proposal to help the Eastern Management Area Groundwater Sustainability Agency (EMA GSA) partners develop the first annual report for the EMA portion of the Santa Ynez River Valley Groundwater Basin's (Basin) Groundwater Sustainability Plan (GSP). We have partnered with the GSA to develop the GSP since the beginning of the process and will be able to leverage this familiarity and first-hand knowledge to ensure on-time delivery and compliance with state regulations. Here is what we bring to the table as your partner:

- **A streamlined project delivery.** Our team is highly knowledgeable of the specifics of the EMA portion of the Basin and the needs and issues of each stakeholder. This will enable us to work effectively and efficiently, helping to keep the project on track to meet the tight deadlines.
- **The ability to foster collaboration and consensus.** We have earned a reputation for drawing independent, evidence-based conclusions to help all parties come together in a collaborative, cooperative manner. This has helped us build trust and credibility with the stakeholders within the EMA. Our unbiased approach allows us to work effectively with stakeholders, facilitate timely reviews and decision-making, and help stakeholders find common ground to build consensus.
- **Considerable experience helping clients comply with the Sustainable Groundwater Management Act (SGMA):** We are leading a number of GSP development efforts and serve as technical advisors to several others, and we have helped other GSAs with the completion and submission of annual reports. We understand what the California Department of Water Resources (DWR) is looking for in an annual report and will be able to use this experience to set the template for the reporting structure and content.

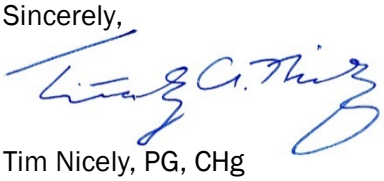
The GSP for the EMA portion of the Basin outlines steps for achieving sustainability within 20 years. To measure the effectiveness of the plan and demonstrate to DWR that the Basin is on track to manage groundwater sustainably, the GSA will need to compile data and prepare annual reports that summarize the results of monitoring efforts, document changes in groundwater supplies, tabulate basin-wide groundwater use, and track the effectiveness of GSP implementation efforts. The EMA is looking for a consultant to help with the development of its first annual report, which will need to be approved by the GSAs and submitted to DWR by March 31, 2022.

Developing a report that accomplishes these requirements 2 months after the GSP is submitted will require the support of a consultant that is not only highly knowledgeable of the technical and hydrogeologic considerations of the plan, but also able to establish trust and credibility among the diverse group of stakeholders that will have

input into the report presentation and conclusions. GSI brings both of these elements: deep familiarity with the plan and the Basin, and a reputation for high-quality work with the ability to listen to and address the complex needs of the GSAs.

Thank you for your consideration of our proposal. This proposal is valid for 90 days. We look forward to the opportunity to support this project for the Basin. Please do not hesitate to contact me with questions.

Sincerely,



Tim Nicely, PG, CHg
Supervising Hydrogeologist
GSI Water Solutions, Inc.
805.701.1245
tnicely@gsiws.com

Section 1: Approach, and Scope of Work

Experience Providing SGMA-Related Services

GSI is a specialized groundwater and water resources consulting firm that helps clients develop and manage groundwater supplies to ensure long-term sustainability and reliability. Our hydrogeologists and water resources consultants are experts in groundwater management and supply planning, specifically as it relates to SGMA compliance. This work includes evaluating the complexities of water in the subsurface, developing water budgets that can achieve sustainability, identifying potential undesirable results, collaborating with basin stakeholders on technical matters and helping to identify commonalities that set the stage for a collaborative process, and identifying and implementing practical solutions to achieve sustainability goals. Our SGMA experience includes the following projects:

	Hydrogeologic assessments	Groundwater management planning	Groundwater modeling and water budgets	Data management systems	Groundwater/surface water interaction	Stakeholder engagement	GSA support/GSP preparation	Grant administration
GSP Development, Santa Ynez River Valley Eastern Management Area GSA ▪ Santa Barbara County, CA	▪	▪	▪	▪	▪	▪	▪	
GSP Development, San Antonio Basin GSA ▪ Santa Barbara County, CA	▪	▪	▪	▪	▪	▪	▪	
GSP Development, Santa Clarita Valley GSA ▪ Santa Clarita, CA	▪	▪	▪	▪	▪	▪	▪	
Expertise and Input to the Paso Robles Basin GSP, Shandon-San Juan Water District (SSJWD) and Estrella-El Pomar-Creston Water District (EPCWD) ▪ San Luis Obispo County, CA	▪	▪	▪		▪	▪	▪	
Hydrogeological Characterization and GSP Preparation, Atascadero Basin GSA ▪ Atascadero, CA	▪	▪	▪		▪	▪	▪	
Hydrogeological Characterization and GSP Preparation, Cuyama Basin GSA ▪ Santa Barbara and San Luis Obispo County, CA	▪	▪			▪		▪	
GSP Preparation, Carpinteria Valley Basin GSA ▪ Carpinteria, CA	▪	▪		▪		▪	▪	
GSP Preparation, San Luis Obispo Valley GSA ▪ San Luis Obispo, CA	▪	▪	▪		▪	▪	▪	
GSP Preparation, Arroyo Grande GSA ▪ Arroyo Grande, CA	▪	▪	▪		▪	▪	▪	
SGMA/GSP Preparation, Mid-Kaweah and Greater Kaweah GSAs ▪ Tulare, CA	▪	▪	▪		▪	▪	▪	
SGMA Basin Boundary Modification, Santa Clarita Valley GSA ▪ Santa Clarita, CA	▪	▪				▪	▪	
SGMA Support for GSA Formation, Santa Clarita Valley GSA ▪ Santa Clarita, CA						▪	▪	▪
Hydrogeological Characterization and GSP Preparation, Fox Canyon Groundwater Management Agency ▪ Ventura County, CA	▪	▪	▪			▪	▪	
SGMA Basin Boundary Modification, Los Osos Valley Groundwater Basin ▪ Los Osos, CA	▪	▪						
SGMA Basin Boundary Modification, Atascadero Mutual Water Company and Templeton Community Services District ▪ Atascadero, CA	▪	▪				▪	▪	
SGMA Basin Boundary Modification for the Santa Maria Groundwater Basin, San Luis Obispo County ▪ San Luis Obispo, CA	▪	▪				▪	▪	

Examples of Related Annual Reporting Projects and GSP Projects

In addition to SGMA-specific projects, GSI's experts have worked on numerous annual reporting projects. The following projects speak to GSI's ability to deliver a comprehensive annual report that meets DWR requirements.

Groundwater Sustainability Plan Annual Reports, Paso Robles Basin GSP

San Luis Obispo County, California

GSI has prepared the first two annual reports for the Paso Robles Basin GSP. The annual reports provide an overview of groundwater extractions, surface water use, groundwater elevation trends, change of groundwater in storage, and progress towards Basin sustainability which occurred over the prior water year. These reports are required by SGMA.

Expertise and Input to the Paso Robles Basin GSP

Shandon-San Juan Water District (SSJWD) and Estrella-El Pomar-Creston Water District (EPCWD), San Luis Obispo County, California

On behalf of the two agricultural water districts in the Paso Robles Sub-basin, GSI provides technical expertise and assistance in support of the preparation of the basin-wide GSP. Paul Sorensen acts as an extension of staff for the SSJWD, which is one of four GSAs in the basin, representing the district in a working group of staff members from the four GSAs that provides guidance to the GSP consultant team regarding the development of the GSP. In his role with the districts, Paul has reviewed and assisted in the writing of all chapters and components of the GSP, and participates in GSP staff meetings. GSI staff continues to provide support work on GSP implementation.

Adjudicated Groundwater Basin Annual Report Preparation

Northern Cities Management Area (NCMA), Santa Maria River Valley Groundwater Basin, San Luis Obispo County, California

GSI manages the preparation and submittal of the court-mandated annual reports for the NCMA in the Santa Maria River Valley Groundwater Basin—which represents the Cities of Pismo Beach, Arroyo Grande, and Grover Beach, and the Oceano Community Services District. Tasks include sampling and monitoring key sentry wells in the Northern Cities area to assess potential seawater intrusion and providing technical support and report preparation of quarterly and annual reporting required by the Superior Court and by DWR as a result of the Santa Maria Basin adjudication.

Groundwater Monitoring and Reporting

Santa Paula Water Recycling Facility, City of Santa Paula, California

For more than a decade, GSI team member Tim Nicely has helped the City of Santa Paula comply with California Regional Water Quality Control Board groundwater monitoring and reporting requirements. Work has involved design of water recycling facility percolation ponds and installation of a network of dedicated groundwater monitoring wells and water level transducers. To confirm that the project does not adversely affect groundwater quality of the Santa Paula groundwater basin, GSI conducts monthly groundwater sampling and prepared quarterly and annual monitoring reports on behalf of the City, presenting groundwater elevation contours and historical water quality data in compliance with permit requirements.

California Valley Solar Ranch Annual Report

High Plains Ranch II, LLC, San Luis Obispo County, California

GSI team member Tim Nicely prepared annual operations-phase groundwater monitoring reports for the California Valley Solar Ranch, a 250-megawatt photovoltaic power plant in eastern San Luis Obispo County. The project's conditional use permit stipulated the preparation of a groundwater monitoring and reporting plan with annual reporting of groundwater conditions. GSI collected all required data and developed the reports—which detailed groundwater levels, water quality, and pumping monitoring results—and analyzed trends in groundwater levels to determine whether project pumping resulted in declines of 5 feet or more below the baseline trend at nearby private monitoring wells.

GSP Development

San Luis Obispo Valley Basin, San Luis Obispo County, California

GSI is a lead member of the consultant team helping to develop the GSP for the San Luis Obispo Basin. GSI's primary role is to develop the technical aspects of the GSP, including characterizing basin conditions, developing a coupled groundwater and surface water model, assessing surface water and groundwater interconnections, developing water budgets, assisting in the development of sustainable management criteria, and identifying undesirable results. GSI is also communicating technical information to stakeholders to ensure that the hydrogeologic details and the nuances of the SGMA process are well understood by all parties.

GSP Development

San Antonio Basin GSA, Santa Barbara County, California

GSI is helping the San Antonio Basin GSA prepare a GSP for this predominantly agricultural basin. The GSI team is using data and information recently developed by U.S. Geological Survey (USGS) to characterize groundwater conditions in the basin and reduce the cost of preparing the GSP. We are working with USGS to use its groundwater model to develop water budgets and assess various groundwater management alternatives intended to recover groundwater to sustainable levels. GSI is also supporting stakeholder outreach efforts.

Project Approach

Because we are familiar with the details of the EMA's GSP, we understand what is needed to develop an annual report template that meets DWR requirements and provides an effective yardstick for measuring the success of plan implementation over time.

Section 356.2 of the SGMA emergency regulations outlines the specific requirements of the annual report, which must be submitted to DWR by April 1 of each year following adoption of the GSP. With the intended adoption and subsequent submittal of the EMA's GSP by January 31, 2022, the first annual report for the Basin is due by April 1, 2022. The regulations require that the annual report be based on the preceding water year (a water year covers the period from October 1 to September 30); thus the 2022 annual report for the Basin would, by regulation, report on data from October 1, 2018, through September 30, 2021. Because this is the first annual report, the data for this report will include all new data from the end of the period of record of the GSP. The period of record of the EMA's GSP for estimates of groundwater extractions and groundwater in storage is through water year 2018; water level data for illustration of long-term water elevation changes (hydrographs) is through October 2020.

DWR requires that the annual report describe the effectiveness of GSP implementation. One of the means by which the GSAs can measure effectiveness and demonstrate to DWR that the plan is on track to achieve sustainability is through the compilation of data and information that summarize the results of the monitoring efforts, document changes in groundwater supplies, tabulate basin-wide groundwater use and changes in irrigated acreage, and document progress toward meeting interim milestones and (ultimately) basin sustainability. Given the limited amount of new data that will have become available since adoption of the GSP and the lack of time to implement the GSP, this first annual report will not have a lot of information on meeting sustainability goals and instead will focus primarily on observed water level trends and groundwater storage changes since water year 2018.

Compiling the most recent data, assessing the effectiveness of the beginning of the implementation plan, and preparing the first annual report is an extension of work that the GSI team has already been performing in support of the GSP. Our group is experienced with the preparation of annual reports for a multitude of clients and will bring a familiarity and efficiency to the process that allows us a head start in the process as we continue our established procedures for gathering and managing data, preparing annual reports, and providing technical expertise to the Basin GSAs. At the same time, the GSI team is committed to finding ways to improve data collection and analysis and will engage the GSA to ensure the ongoing collection and reporting of meaningful data.

Scope of Work

GSI developed the following scope of work based on our understanding of the requirements as outlined in the SGMA Emergency Regulations, and our experience preparing various other annual reports to meet DWR and other agency standards.

Task 1 – Data Analysis and Representation

Several discrete data sets are required to be included in DMS and presented in the annual report, including the following:

- Groundwater elevation data (for each principal aquifer)
- Groundwater extraction
- Surface water supply
- Total water use
- Change in groundwater in storage

The following sections describe the data types that will be presented as required in the annual reports. The datasets will be appended to the DMS data tables that are compiled in compliance with GSP requirements. These data will be uploaded to the DWR website in an as part of this task along with the annual report.

Task 1.1 Groundwater Elevation Data. Groundwater elevation data are collected and compiled through the County of Santa Barbara groundwater level monitoring program, operated by the Santa Barbara County (County) Water Agency with data collected twice a year (typically in April and October) and by the City of Solvang on a monthly basis. We are aware of the difference in the number of monitoring wells in the County water level monitoring program and the GSP's representative monitoring well network.

For purposes of preparing water level contour maps of each of the principal aquifers (Paso Robles Formation Aquifer and the Careaga Sand Aquifer) will be prepared representing groundwater conditions in April 2019, October 2019, April 2020, and October 2021.

The representative monitoring well network includes hydrographs for 24 monitoring wells, which is a subset of the County monitoring program. Each of the hydrographs presented in the GSP will be updated with data through October 2021.

Task 1.2 Groundwater Extraction. Groundwater extraction data is compiled and represented in the GSP through 2018. These data will be updated, including the estimates of extractions, water use by sector, and methodology of measurement. Updated groundwater extraction information will be estimated using data provided by SYRWCD (including ID-1), extraction data from the mutual water companies in the basin, crop coverage information derived from satellite imagery, and crop water use factors provided by SYRWCD. To the extent possible, we will follow the same methodology used during the preparation of the GSP. We will prepare estimates of groundwater use by sector and method of measurement, and will provide a map showing general locations and volumes of extraction.

Task 1.3 Surface Water Supply. The regulations require that a description of surface water supplies be incorporated into the report. Use of surface water in the EMA is relatively small but well documented. These data will be compiled and described, and incorporated into the total Basin water use data compilation and descriptions (Task 2.4).

Task 1.4 Total Water Use. We will compile and present total EMA water use information, including water sector, water source type, method of measurement, and a relative representation of accuracy of the measurement methodology (DWR standards in other annual report submittals that we are familiar with require qualitative judgments such as "high," "medium," and "low").

Task 1.5 Change in Groundwater in Storage. Calculations of changes in groundwater in storage in each of the principal aquifers as presented in the GSP were performed through use of the groundwater flow model. To perform similar calculations for the first annual report would require updating the model, which is neither planned nor advised for the annual reporting effort. An alternative standard method for calculating changes in groundwater in storage from one year to another is to create water level contour maps for each year of interest (Task 2.1) and calculate the volume changes between years. This method is approved by DWR. An ArcGIS® tool will be used to compute the volume difference between the initial groundwater surface and following year's groundwater surface. By applying hydraulic property values (e.g., storage coefficient) for the principal aquifers (Paso Robles Formation and Careaga Sand aquifers), we can compute a change in the volume of water present in each aquifer. It is not necessary to know the total volume of groundwater in storage; it is the storage change (positive or negative) from year to year that we want to know. The following is the step-by-step process we intend to apply to estimate change in storage in the principal aquifers:

1. Create a water level contour map for spring of 2019 using groundwater level elevation data from the monitoring program and Surfer® contouring and 3D surface mapping software. We will use professional judgment to adjust contours in places that do not make sense.
2. Import the Surfer file into ArcGIS and adjust the contoured water level elevation surface to fit the boundaries of the EMA.
3. Repeat steps 1 and 2 for spring of 2020 water level data.
4. Using ArcGIS, compute the difference in the water surface elevation between spring 2018 and spring 2019 water level data and compute the volume of saturated aquifer that has changed between the two years for each principal aquifer. This calculation will be conducted to compute the change in storage between the fall and spring periods for 2019, 2020 and 2021.
5. Review the storage coefficients to assess representativeness. In our opinion, an average value may be suitable for this computation because the water levels measured in wells represent an integrated average water level, as (1) the wells are screened across multiple zones, and (2) there are no laterally continuous confining layers; shallow and deep water bearing zones are interconnected. We will use the storage coefficient used in the calibrated groundwater model.
6. Multiply the specific yield or storage coefficient values by the volume calculated in Step 4. This is the change in groundwater in storage between spring 2018 and spring 2019.
7. Calculate the change in storage between spring and fall periods for 2019, 2020 and 2021 water level data by repeating the preceding steps.
8. Determine whether this makes technical sense and identify where the biggest changes (plus or minus) are occurring.

This task is a relatively straightforward effort because the water level contour maps will be prepared as part of Task 1.1. Note that the resulting calculated change in storage values may be slightly different from the values that would otherwise be calculated as a model output because the methodologies are different and the averaged storativity value may or may not be fully representative of variable conditions throughout the Paso Robles Formation incorporated into the numerical model, both laterally and vertically. We believe this difference in methodologies is recognized and anticipated.

Task 2 – Report Preparation, including Plan Implementation Progress

The overall purpose of the annual report is to update and use the compiled data to assess the progress that the EMA GSA and various stakeholders are making towards the ultimate goal of Basin sustainability. The results of the data analysis will be evaluated and compared with the goals of the GSP implementation plan, then described in the annual report to demonstrate to DWR the efforts of the GSA and the effectiveness of GSP implementation. Because this annual report will be submitted two months after the submittal of the GSP, it will not have much information on meeting sustainability goals or achieving sustainability and instead will focus primarily on observed water level trends and groundwater storage changes since the GSP was developed. Initial efforts to implement management actions described in the GSP will also be described.

Building off of our experience with the preparation and submittal of numerous annual reports, the general outline of the necessary components of the annual report structure described in the SGMA Emergency Regulations, GSI will prepare an initial administrative draft report for GSA staff review. The report will be based on data collected and the analysis performed as described above, on other data that may become available, and on ongoing discussions with the GSA staff. The general organization of the report is expected to be the following:

- Executive Summary
- Introduction

- Basin Description (brief recapture of GSP description)
- Groundwater Conditions
  - Groundwater Monitoring Network
  - Groundwater Elevations, including water level contour maps and updated hydrographs (Task 1.1)
  - Change in Groundwater in Storage (Task 1.5)
- Water Supply and Demand (Tasks 1.2, 1.3, and 1.4)
- Progress Towards Basin Sustainability
- Summary, Conclusions, and Recommendations
- Appendices
  - A. Groundwater Monitoring Program Well Information
  - B. Hydrographs
  - C. Precipitation
  - D. Groundwater in Storage Calculation and Specific Yield/Storage Coefficient Discussion
  - E. Groundwater in Storage Sensitivity Analysis
  - F. Water Budget Data

Deliverables include the following:

- Administrative draft report, for review and approval by the GSA staff
- Draft report, for review by the GSA staff and the public
- Final report

Task 3 – Report Submittal

Following final approval of the annual report by the GSA, GSI will submit the report to DWR in accordance with the department's requirements. We are familiar with the SGMA reporting process and template on the DWR portal for annual reporting adjudicated basins, and have submitted several SGMA and adjudicated basin annual reports to DWR.

Task 4 – Meetings

GSI has budgeted for the following meetings:

- GSA staff meetings (5), including the kickoff meeting
- Public workshop on the draft report

Task 5 – Project Management and Administration

Our approach to managing this project will include the following key elements:

- **High-caliber local expertise.** The key individuals identified, including Tim Nicely, Jeff Barry, Andy Lapostol and Nate Page, have worked extensively together in the region and are the same team members who have been heavily involved in the development the EMA GSP. They will oversee and provide the resources for the collection of high-quality, reliable data, evaluate the acquired data, and develop conclusions and recommendations based on their expertise and local knowledge.
- **Timely results.** Submittal of the annual report has a firm deadline, which means that all project deliverable deadlines must be met, without fail. We are confident that we are able to commit resources to accomplish all tasks in a timely manner and deliver accurate data and a meaningful analysis that meet the GSA's needs.
- **Quality control.** We stake our reputation on the quality of our work. We rely on rigorous quality assurance/quality control procedures, including principal-level oversight and approval of all work products, to ensure meaningful and accurate data collection and reporting.

- **Data protection.** Our team members will use our existing information technology systems to store, back up, and protect the EMA data.

The annual report must be completed efficiently in order to complete it within budget. We understand that there are limited funds to complete this work, so it is imperative that we stay within scope to avoid surprises. To achieve this, we are proposing a small and focused team led by Tim Nicely. Tim will be responsible for assuring that our work is completed within budget and on schedule. Tim will rely on financial performance information provided by GSI's accounting group and will inform the GSA on a regular basis regarding the status of scope, schedule, and budget.

GSI's project management approach built on clear and frequent communication with our clients. As such, the team will maintain close communications with GSA staff. We have been fortunate to develop a close working relationship with all members of the GSA staff working group, and fully intend to continue that rapport.

Scope and Budget Assumptions:

- The GSA will provide timely assistance in providing the following data:
  - Water levels for spring and fall of 2019, 2020 and 2021
  - Groundwater production data for the City of Solvang and Santa Ynez River Water Conservation District Improvement District No. 1 for 2019, 2020, and 2021
  - Santa Ynez River Water Conservation District self-reported pumping data office that will enable estimation of irrigation demand for 2019, 2020 and 2021

- Our scope includes:
  - Five GSA staff meetings, including the kickoff meeting, lasting 2 hours each
  - Public workshop on the draft report
  - One set of revisions to administrative draft report
  - One set of revisions to public draft report
  - One set of minor revisions to final annual report

Section 2: Staffing

The following key team members will be responsible for the on-time, on-budget delivery of project deliverables.

Tim Nicely, PG, CHG
Supervising Hydrogeologist

EXPERIENCE
20+ years

EDUCATION
BS, Soil Science

Role: Project Manager
Tim works with clients throughout California to manage valuable water resources. His expertise includes all aspects of hydrogeology and geology, specifically related to groundwater supply, groundwater basin analysis, and water resource management. Tim's experience includes GSP development, preparation of annual reports, regional groundwater basin evaluations, groundwater quality studies, calculating perennial yield and basin water balance components, among other hydrogeologic specialties. Tim has been heavily involved in the development of the EMA GSP.

Jeff Barry
Principal Hydrogeologist

EXPERIENCE
35+ years

EDUCATION
MS, Hydrogeology/Hydrology; BS, Resource Management

Role: Senior Review
Jeff is a hydrogeologist with more than three decades of experience conducting groundwater resource development projects and groundwater management programs in California and the Pacific Northwest. Jeff has considerable hands-on knowledge regarding SGMA, having provided SGMA support to a number of GSAs and water purveyors. This work has involved consulting services for GSA formation, grant writing, GDE analysis, and successful boundary modification requests to DWR. Currently, he is managing GSP development for the EMA GSA, the Santa Clarita Valley GSA, and the San Antonio Basin GSA. He is a founding principal at GSI.

Andy Lapostol
Project Hydrogeologist

EXPERIENCE
6 years

EDUCATION
BS, Geology

Role: Technical Support
Andy has expertise in aspects of consulting industry including data compilation and analysis central to the preparation of GSPs for the Santa Ynez River Valley Eastern Management Area GSA and the Kaweah Subbasin in the San Joaquin Valley. In addition, Andy has experience in groundwater and soil sampling, groundwater monitoring, drilling and subcontractor oversight, lithologic logging, and writing technical reports. He provides essential support to project managers in GSI's California offices.

Nate Page, PG
Managing Hydrogeologist

EXPERIENCE
14 years

EDUCATION
MS, Hydrogeophysics; BS, Geology

Role: Technical Support
Nate has expertise in aspects of hydrogeology, hydrology, and geographic information system (GIS) analysis specifically related to groundwater sustainability, groundwater basin analysis, and water resource management. Nate's experience includes GSP development, including assessment of surface water/groundwater interaction and groundwater dependent ecosystems (GDEs), basin-scale water budget development and water quality assessments, and development of sustainable management criteria. Nate has provided hydrogeologic technical support for the EMA GSP.

Section 3: Fee Proposal and Schedule

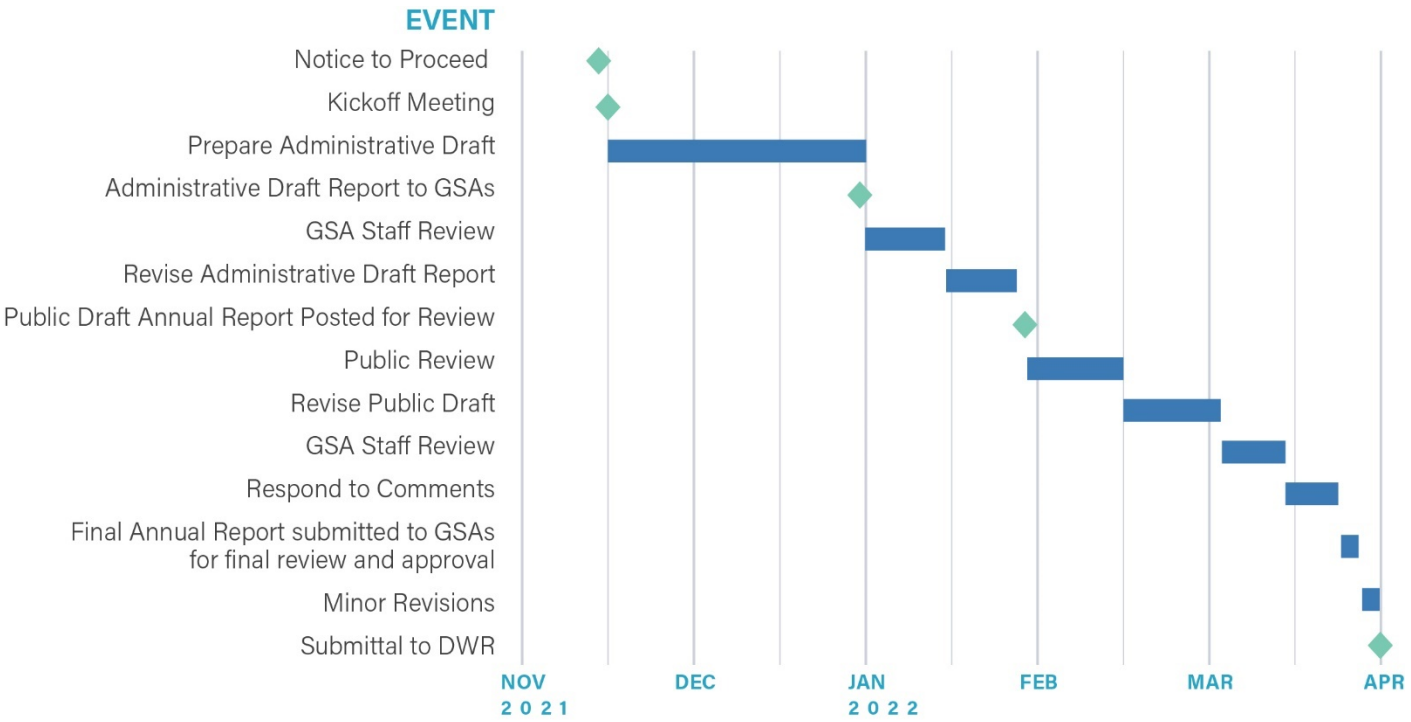
Fee Proposal

Table 1 presents a task-by-task breakdown of our proposed budget for all required services. No expenses for travel, lodging or meals are included in our cost proposal because we assume they are unnecessary.

	Labor Hours	Labor Cost	Outside Services	Direct Expenses	Total
Task 1 – Data Analysis and Representation	170	$26,656	$0	$0	**$26,656**
Task 2 – Report Preparation	160	$24,226	$0	$0	**$24,226**
Task 3 – Report Submittal	3	$536	$0	$0	**$536**
Task 4 – Meetings	32	$6,262	$0	$0	**$6,262**
Task 5 – Project Management and Administration	12	$2,431	$0	$0	**$2,431**
Project Totals	**377**	**$60,111**	**$0**	**$0**	**$60,111**

Schedule

Meeting your schedule is a top priority for the GSI team. The schedule is extremely tight; the GSI team and GSA staff must adhere to the project milestones. The following schedule outlines a way to submit the final deliverable by March 31, 2022; however, we anticipate working with the GSA staff as an initial task to modify and finalize these dates. We will adhere to the final schedule through close management of the team and communication and coordination with the GSA project manager and GSA members. Should any schedule deviation occur, the GSI team will address it promptly and propose a solution to the GSA project manager.



From: Curtis Lawler
To: Bill Buelow
Cc: Miles McCammon; Robyn Krueger
Subject: Draft SOW for SGMA Annual Reports
Date: Wednesday, May 26, 2021 5:43:13 PM
Attachments: 2021-05-26_SGMA_Annual_Report_Scope_Costs.docx

Hi Bill, attached is a Draft SOW for the SGMA Annual Reports. The total estimated costs are $35,000 for the WMA and $25,000 for the CMA for the first year of reporting. Please let us know if you have any questions or want any edits. Thank you, Curtis

Curtis Lawler, P.E.
Water Resources Engineer
Stetson Engineers Inc.
2171 E. Francisco Blvd, Suite K, San Rafael CA 94901
Phone: 415 457 0701 Fax: 415 457 1638 Cell: 510 685 8980

SYRWCD CMA
BALANCE SHEET
SEPTEMBER 30, 2021

Assets

Current Assets		
Mechanics Bank #5472	$83,865.38	
Other Current Assets	1,000.00	
TOTAL Current Assets		84,865.38
TOTAL Assets		$84,865.38

Liabilities AND Equity

TOTAL Liabilities		.00
Net Position		
Retained Earnings	148,763.63	
Retained Earnings-Current Year	(63,898.25)	
TOTAL Net Position		84,865.38
TOTAL Liabilities AND Equity		$84,865.38

SYRWCD CMA
INCOME STATEMENT
FOR THE 3 PERIODS ENDED SEPTEMBER 30, 2021

	QUARTER TO DATE ACTUAL	PERCENT	YEAR TO DATE ACTUAL	PERCENT
TOTAL Revenue	$.00	.0 %	.00	.0
Gross Profit	.00	.0	.00	.0
Expenses:				
Consultants				
Stakeholder Engagement	3,347.00	.0	3,347.00	.0
GSP - HCM	1,086.50	.0	1,086.50	.0
GSP - Water Budget, GW Models	1,303.00	.0	1,303.00	.0
GSP - Monitor/Measure	3,406.25	.0	3,406.25	.0
GSP - Sustainable Mgt Criteria	8,995.50	.0	8,995.50	.0
GSP - Projects/Mgt Actions	7,594.50	.0	7,594.50	.0
GSP - GSP Doc	19,348.00	.0	19,348.00	.0
GSP-AEM Survey	18,817.50	.0	18,817.50	.0
TOTAL Consultants	63,898.25	.0	63,898.25	.0
TOTAL Expenses	63,898.25	.0	63,898.25	.0
Net Income from Operations	(63,898.25)	.0	(63,898.25)	.0
Earnings before Income Tax	(63,898.25)	.0	(63,898.25)	.0
Net Income (Loss)	$(63,898.25)	.0 %	(63,898.25)	.0

SYRWCD EMA
BALANCE SHEET
SEPTEMBER 30, 2021

Assets

Current Assets		
Mechanics Bank #5843	$153,205.39	
Other Current Assets	1,000.00	
TOTAL Current Assets		154,205.39
TOTAL Assets		$154,205.39

Liabilities AND Equity

TOTAL Liabilities		.00
Net Position		
RETAINED EARNINGS - PRIOR	211,037.93	
Retained Earnings-Current Year	(56,832.54)	
TOTAL Net Position		154,205.39
TOTAL Liabilities AND Equity		$154,205.39

SYRWCD EMA
INCOME STATEMENT
FOR THE 3 PERIODS ENDED SEPTEMBER 30, 2021

	QUARTER TO DATE ACTUAL	QUARTER TO DATE PERCENT	YEAR TO DATE ACTUAL	YEAR TO DATE PERCENT
TOTAL Revenue	$.00	.0 %	.00	.0
Gross Profit	.00	.0	.00	.0
Expenses:				
Operating Expenses				
Public Relations	181.79	.0	181.79	.0
TOTAL Operating Expenses	181.79	.0	181.79	.0
Consultants				
GSP - GSP Doc	54,893.25	.0	54,893.25	.0
Basin Coordination	1,757.50	.0	1,757.50	.0
TOTAL Consultants	56,650.75	.0	56,650.75	.0
TOTAL Expenses	56,832.54	.0	56,832.54	.0
Net Income from Operations	(56,832.54)	.0	(56,832.54)	.0
Earnings before Income Tax	(56,832.54)	.0	(56,832.54)	.0
Net Income (Loss)	$(56,832.54)	.0 %	(56,832.54)	.0

SYRWCD WMA
BALANCE SHEET
SEPTEMBER 30, 2021

Assets

Current Assets		
Mechanics Bank #8301	$93,396.21	
Other Current Assets	1,000.00	
TOTAL Current Assets		94,396.21
TOTAL Assets		$94,396.21

Liabilities AND Equity

TOTAL Liabilities		.00
Net Position		
Retained Earnings	143,038.46	
Retained Earnings-Current Year	(48,642.25)	
TOTAL Net Position		94,396.21
TOTAL Liabilities AND Equity		$94,396.21

SYRWCD WMA
INCOME STATEMENT
FOR THE 3 PERIODS ENDED SEPTEMBER 30, 2021

	QUARTER TO DATE ACTUAL	QUARTER TO DATE PERCENT	YEAR TO DATE ACTUAL	YEAR TO DATE PERCENT
Revenue:				
Revenue				
Operating Assessments	$27,374.00	100.0 %	27,374.00	100.0
TOTAL Revenue	27,374.00	100.0	27,374.00	100.0
TOTAL Revenue	27,374.00	100.0	27,374.00	100.0
Gross Profit	27,374.00	100.0	27,374.00	100.0
Expenses:				
Consultants				
Stakeholder Engagement	6,407.50	23.4	6,407.50	23.4
GSP - HCM	1,116.00	4.1	1,116.00	4.1
GSP - Monitor/Measure	5,600.50	20.5	5,600.50	20.5
GSP - Sustainable Mgt Criteria	9,589.00	35.0	9,589.00	35.0
GSP - Projects/Mgt Actions	10,040.25	36.7	10,040.25	36.7
GSP - GSP Doc	24,445.50	89.3	24,445.50	89.3
GSP - AEM Survey	18,817.50	68.7	18,817.50	68.7
TOTAL Consultants	76,016.25	277.7	76,016.25	277.7
TOTAL Expenses	76,016.25	277.7	76,016.25	277.7
Net Income from Operations	(48,642.25)	(177.7)	(48,642.25)	(177.7)
Earnings before Income Tax	(48,642.25)	(177.7)	(48,642.25)	(177.7)
Net Income (Loss)	$(48,642.25)	(177.7)%	(48,642.25)	(177.7)