Appendix A

Groundwater Sustainability Agency Resolutions and Memorandum of Agreement

BEFORE THE BOARD OF SUPERVISORS

of the

COUNTY OF SAN LUIS OBISPO

Tuesday, May 16, 2017

PRESENT: Supervisors Bruce S. Gibson, Adam Hill, Lynn Compton, Debbie Arnold, and Chairperson John Peschong

ABSENT: None

RESOLUTION NO. 2017-134

RESOLUTION FORMING THE PASO BASIN – COUNTY OF SAN LUIS OBISPO GROUNDWATER SUSTAINABILITY AGENCY AND FINDING THAT THE PROJECT IS EXEMPT FROM SECTION 21000 *ET SEQ.* OF THE CALIFORNIA PUBLIC RESOURCES CODE (CEQA)

The following Resolution is hereby offered and read:

WHEREAS, in 2014, the California Legislature adopted, and the Governor signed into law, three bills (SB 1168, AB 1739, and SB 1319) collectively referred to as the Sustainable Groundwater Management Act (SGMA) (Water Code §§ 10720 *et seq.*), that became effective on January 1, 2015, and that have been subsequently amended; and

WHEREAS, the intent of SGMA, as set forth in Water Code section 10720.1, is to provide for the sustainable management of groundwater basins at a local level by providing local groundwater agencies with the authority, and technical and financial assistance necessary, to sustainably manage groundwater; and

WHEREAS, SGMA requires the formation of a groundwater sustainability agency (GSA) or agencies for all basins designated by the California Department of Water Resources (DWR) as high or medium priority on or before June 30, 2017; and

WHEREAS, SGMA further requires the adoption of a groundwater sustainability plan (GSP) for all basins designated by DWR as high or medium priority and subject to critical conditions of overdraft on or before January 31, 2020; and

WHEREAS, the Paso Robles Area Groundwater Subbasin (Basin No. 3-004.06) (Basin) has been designated by DWR as a high priority basin subject to critical conditions of overdraft; and

WHEREAS, the County of San Luis Obispo is a "local agency" within the Basin as defined in Water Code Section 10721(n) and thus is eligible to form a GSA in the Basin; and

WHEREAS, the Salinas Valley Basin Groundwater Sustainability Agency, City of El Paso de Robles, San Miguel Community Services District, Heritage Ranch Community Services District, and Shandon-San Juan Water District are also local agencies within the Basin, and it is anticipated that they will each become the GSA for their respective service areas within the Basin; and

WHEREAS, on April 6, 2017, the San Luis Obispo Local Agency Formation Commission (LAFCO) conditionally approved the formation of the Estrella-El Pomar-Creston Water District (EPCWD) for the purpose of serving as (or part of) a GSA and which could be formed as early as Fall 2017; and

WHEREAS, although it is anticipated that the EPCWD will desire to become the GSA for its service area consistent with LAFCO's conditional approval, this decision cannot be made or effectuated until the EPCWD is formed, the Board of Directors are seated and the Board of Directors holds the necessary public hearing; and

WHEREAS, the County of San Luis Obispo's SGMA Strategy specifically acknowledges the possibility that a new eligible local agency may be formed shortly after the June 30, 2017 deadline and permits the County of San Luis Obispo to include the potential future service area of the EPCWD in its initial boundary submittal to DWR and then permits them through future action by the Board of Supervisors to subsequently withdraw from serving as the GSA within said area; and

WHEREAS, the County of San Luis Obispo desires to form a GSA to cover all areas within the Basin within the County of San Luis Obispo that will not otherwise be covered by a GSA as of the June 30, 2017 deadline; and

WHEREAS, the County of San Luis Obispo published a notice of public hearing consistent with the requirements contained within Water Code Section 10723(b); and

WHEREAS, the Board of Supervisors conducted such a public hearing on May 16, 2017; and

WHEREAS, the County of San Luis Obispo is committed to the sustainable management of groundwater within the Paso Basin and intends to coordinate with the other GSAs and affected parties, and to consider the interests of all beneficial users and uses of groundwater within the Paso Basin through a memorandum of agreement with the other GSAs.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED by the Board of Supervisors of the County of San Luis Obispo, State of California, that:

Section 1: The foregoing recitals are true and correct and are incorporated herein by reference.

Section 2: The County of San Luis Obispo hereby decides to become the GSA for, and undertake sustainable groundwater management within, the portions of the Basin within the County of San Luis Obispo, with the exception of the portions of the Basin located within the boundaries of the City of El Paso de Robles, the San Miguel Community Services District, the Heritage Ranch Community Services District, and the Shandon-San Juan Water District ("GSA Boundary"). A map of the GSA Boundary is attached hereto as Exhibit A and incorporated herein.

Section 3: The Director of Public Works of the County of San Luis Obispo, or designee, is hereby authorized and directed to submit notice of adoption of this Resolution in addition to all other information required by SGMA, including but not limited to, all information required by Water Code Section 10723.8, to DWR, and to support the development and maintenance of an interested persons list as described in Water Code Section 10723.4 and a list of interested parties as described in Water Code Section 10723.8(a)(4).

Section 4: The Director of Public Works of the County of San Luis Obispo, or designee, is hereby authorized to take such other and further actions as may be necessary to effectuate the purposes of this Resolution.

Section 5: The Board of Supervisors finds that the adoption of this Resolution is exempt from the requirements of the California Environmental Quality Act (Public Resources Code §§ 21000 et seq.) (CEQA) pursuant to Section 15061(b)(3) of the CEQA Guidelines.

Section 6: The Environmental Coordinator of the County of San Luis Obispo is hereby directed to file a Notice of Exemption in accordance with the provisions of CEQA.

Upon motion of Supervisor Arnold, seconded by Chairperson Peschong, and on the following roll call vote, to wit:

AYES: Supervisors Arnold, Chairperson Peschong, Gibson, Hill and Compton

NOES: None

ABSENT: None

ABSTAINING: None

the foregoing resolution is hereby adopted on the 16th day of May, 2017.

John Peschong
Chairperson of the Board of Supervisors

ATTEST:

TOMMY GONG
Clerk of the Board of Supervisors

By: Annette Ramirez
Deputy Clerk

[SEAL]

APPROVED AS TO FORM AND LEGAL EFFECT:

RITA L. NEAL
County Counsel

By: /s/ Erica Stuckey
Deputy County Counsel

Dated: May 4, 2017

L:\Water Resources\2017\May\BOS\Paso Basin GSA formation\SGMA rsl_Paso_GWB_r4.docx CB.jc

STATE OF CALIFORNIA,)
) **ss.**
COUNTY OF SAN LUIS OBISPO)

I, Tommy Gong, County Clerk and ex-officio Clerk of the Board of Supervisors, in and for the County of San Luis Obispo, State of California, do hereby certify the foregoing to be a full, true and correct copy of an order made by the Board of Supervisors, as the same appears spread upon their minute book.

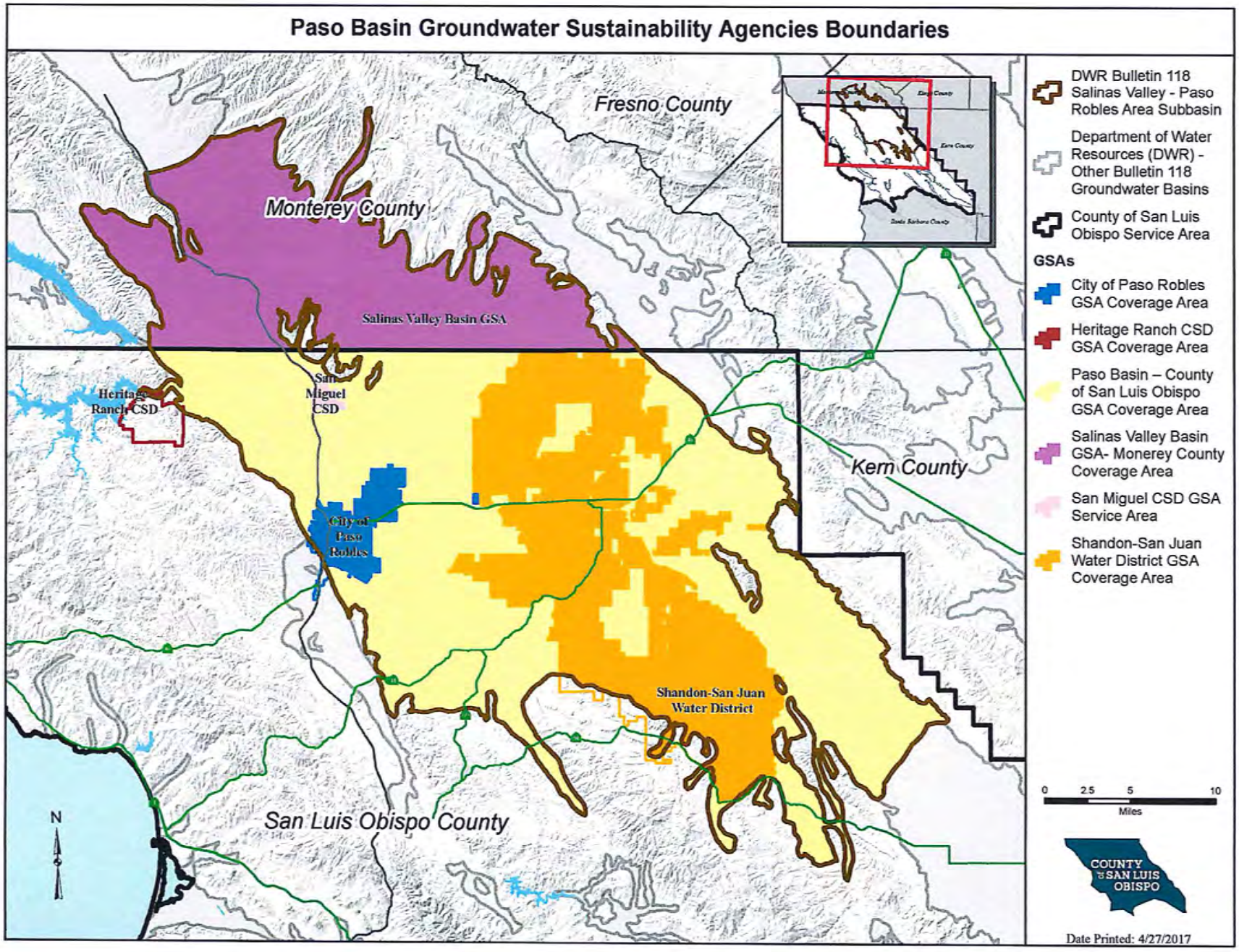
WITNESS my hand and the seal of said Board of Supervisors, affixed this 16th day of May, 2017.

Tommy Gong
County Clerk and Ex-Officio Clerk
of the Board of Supervisors

(SEAL)

By: _____
Deputy Clerk

EXHIBIT A


Paso Basin Groundwater Sustainability Agencies Boundaries
Fresno County
Monterey County
Salinas Valley Basin GSA
San Miguel CSD
Heritage Ranch CSD
City of Paso Robles
Kern County
Shandon-San Juan Water District
San Luis Obispo County
N
DWR Bulletin 118 Salinas Valley - Paso Robles Area Subbasin
Department of Water Resources (DWR) - Other Bulletin 118 Groundwater Basins
County of San Luis Obispo Service Area
GSAs
City of Paso Robles GSA Coverage Area
Heritage Ranch CSD GSA Coverage Area
Paso Basin – County of San Luis Obispo GSA Coverage Area
Salinas Valley Basin GSA- Monerey County Coverage Area
San Miguel CSD GSA Service Area
Shandon-San Juan Water District GSA Coverage Area
0 2.5 5 10
Miles
COUNTY OF SAN LUIS OBISPO
Date Printed: 4/27/2017

CITY OF EL PASO DE ROBLES

"The Pass of the Oaks"

January 26, 2017

Sent via U.S. Postal Service & Electronic Mail to MarkNordberg@water.ca.gov

Mr. Mark Nordberg, GSA Project Manager
Senior Engineering Geologist
Department of Water Resources
901 P Street, Room 213A
P.O. Box 942836
Sacramento, CA 94236
Mark.Nordberg@water.ca.gov

Subject: Notice of Election to Become a Groundwater Sustainability Agency for a Portion of the Paso Robles Sub-Basin of the Salinas Basin

Dear Mr. Nordberg:

Pursuant to California Water Code Section 10723.8, the City of Paso Robles (City), a political subdivision of the State of California, gives notice to the California Department of Water Resources (DWR) of the City's decision to become a Groundwater Sustainability Agency (GSA) and to undertake sustainable groundwater management in the Paso Robles Sub-Basin (DWR Basin No. 3-4.06) (Basin) in accordance with the Sustainable Groundwater Management Act (SGMA). The GSA will be known as the Paso Robles City GSA. The City overlies the Basin and the proposed service area of the GSA lies entirely within the City's jurisdictional boundaries.

In accordance with section 10723(b) of the Water Code and section 6066 of the Government Code, a notice of public hearing was published in a newspaper of general circulation in the City of Paso Robles and San Luis Obispo County regarding the City's intent to consider forming a GSA. Copies of the proof of publication and published notices are included as Enclosure 1.

On January 17, 2017, the Paso Robles City Council (Council) held a public hearing regarding its decision to form a GSA in accordance with California Water Code Section 10723(b). No written comments were received before the public hearing and no negative comments or objections were made during the hearing.

After holding the public hearing, the Council approved Resolution 17-009 (Enclosure 2), electing to become a GSA over the portion of the Basin within the jurisdiction of the City, as further depicted in Exhibit A to the Resolution and in shape files included herein as Enclosure 3. No new bylaws, ordinances, or authorities for the governance of the GSA have been adopted by the City at this time.

The City is coordinating with other local agencies that overlie the Basin and intends to work cooperatively with these agencies to jointly manage groundwater in the Basin.

The Council has authorized the City's Public Works Director, Dick McKinley, to negotiate inter-agency agreements with local public agencies overlying the Basin, as necessary, for the purposes of implementing a cooperative and coordinated governance structure to sustainably manage the Basin.

To date, the San Miguel Community Services District has provided notice to DWR of its intent to form a GSA over the Basin, but not over the area proposed for the City GSA. To the City's knowledge, no other entities within the City's proposed GSA service area have provided notice to DWR to become a GSA.

Pursuant to California Water Code Section 10723.2, the City will consider the interests of all beneficial uses and users of groundwater, as well as those responsible for implementing a Groundwater Sustainability Plan (GSP). An initial list of stakeholders and interested parties is described below:

a. Holders of overlying groundwater rights – the majority of individuals and entities exercising groundwater rights within that portion of the Basin located within the jurisdiction of the City have a County well permit, or a City permit, and compliance with the County or City ordinances. Those entities include agricultural users, domestic users, other overlying users, and public or private landowners. The list of those private parties pumping groundwater within the City of Paso Robles City limits is included as Enclosure 4.
b. Municipal well operators – the City.
c. Public water systems – the City.
d. Local land use planning agencies – the City.
e. Environmental users of groundwater - None
f. Surface water users, if there is a hydrologic connection between surface and groundwater basins - None
g. California Native American tribes – None.
h. Disadvantaged communities, including but not limited to, those served by private domestic wells or small community water systems or ratepayers and domestic well owners - None.
i. Entities listed in Section 10927 that are monitoring and reporting groundwater elevations in all or part of a groundwater basin managed by the GSA – the City of Paso Robles files, contributes, and/or maintain California Statewide Groundwater Elevation Monitoring (CASGEM) monitoring data with the DWR through San Luis Obispo County.
j. It is anticipated that other entities may form a GSA over part of the Paso Robles sub-basin, including San Luis Obispo County, San Miguel CSD, a future Shandon-San Juan Water District (which is in the LAFCO process), a future Estrella-El Pomar-Creston Water District (which is in the LAFCO process), and several different groups in Monterey County.

The City intends to engage in an open, collaborative and inclusive process to work cooperatively with stakeholders to develop and implement a GSP or multiple GSPs for the Basin and will maintain a list of interested parties to be included in the formation of the GSP(s). An initial list

of those interested parties is included in Enclosure 5. The City intends to work with San Luis Obispo County, San Miguel CSD, and the two Water Districts which are currently being formed to work with several interested parties, holding regular meetings, and considering comments, to prepare a GSP that would serve all of the GSAs in San Luis Obispo County overlying the Paso Robles sub-basin, and would be fully coordinated with the GSPs prepared in Monterey County.

The following information is included in this notice and transmittal pursuant to California Water Code Section 10723.8 (a):

1. Notice of Public Hearing pursuant to Government Code Section 6066
2. City Resolution No. 17-009 (with Exhibit A – Paso Robles Sub-basin Maps)
3. City of Paso Robles Boundary shape files

If you have any questions, or require additional information, please contact the City Public Works Director, Dick McKinley, at (805) 237-3861 or via email at dmckinley@prcity.com.

Sincerely,

Thomas Frutchey
City Manager

Enclosures: No. 1: Notice of Public Hearing pursuant to Government Code Section 6066
No. 2: City of Paso Robles Resolution No. 17-009 (with Exhibit A – Paso Robles Sub-basin Maps)
No. 3: City of Paso Robles Boundary shape files (electronic files only)
No. 4: List of private parties who pump from the groundwater basin within the City limits of the City of Paso Robles
No. 5: List of interested parties who would be advised and encouraged to participate in the process of preparing the GSP.

C: Mike McKenzie, DWR - South Central Region
Senior Engineering Geologist
3374 East Shields Avenue
Fresno, CA 93726
Charles.McKenzie@water.ca.gov

Dick McKinley, City Public Works Director
Wade Horton, County of San Luis Obispo Public Works Director
Warren Frace, City Community Development Director
Christopher Alakel, City Water Resource Manager

Append a list of interested parties who receive a copy of this notice (See Enclosure 5)

ENCLOSURE NO. 1

NOTICE OF PUBLIC HEARING

NOTICE OF PASO ROBLES CITY COUNCIL

PUBLIC HEARING

DATE OF MEETING: **TUESDAY, JANUARY 17, 2017**

TIME OF MEETING: **6:30 PM**

PLACE OF MEETING: **COUNCIL CHAMBER, 1ST FLOOR, CITY HALL, 1000 SPRING STREET, PASO ROBLES, CALIFORNIA, 93446**

PROJECT NAME: **RESOLUTION REQUEST AUTHORIZING THE CITY OF EL PASO DE ROBLES TO BECOME A GROUNDWATER SUSTAINABILITY AGENCY OVER THE PASO ROBLES SUB-BASIN UNDER THE CITY LIMITS OF THE CITY OF EL PASO DE ROBLES**

APPLICANT: **CITY OF EL PASO DE ROBLES**

FOR ADDITIONAL INFORMATION PLEASE CONTACT CITY PUBLIC WORKS DIRECTOR: Dick McKinley at (805) 237-3861 or at: dmckinley@prcity.com

PLEASE ACCEPT THIS AS A NOTICE TO INFORM YOU, as a property owner, tenant or interested citizen, that the City Council of the City of El Paso de Robles, California will conduct a public hearing, as part of a scheduled City Council meeting, on the following project:

Notice is hereby given that the City Council of the City of El Paso de Robles will consider authorizing the City to become a Groundwater Sustainability Agency (GSA) over that portion of the Paso Robles Sub-basin that lies under the City limits of the City of El Paso de Robles, per California Water Code Sections 10723 to 10727. In 2014, the California Legislature and the Governor passed into law the Sustainable Groundwater Management Act (SGMA), which provides a new framework for best management of resources in California. Implementation of SGMA is achieved through formation of GSAs and through preparation and implementation of Groundwater Sustainability Plans (GSPs). The City has a groundwater basin that is governed by SGMA legislation, the Paso Robles Sub-basin of the Salinas Basin. This groundwater sub-basin is designated by the State as a high priority basin and must comply with SGMA requirements.

Once the GSA is formed, the City will then be required to develop and implement a GSP that provides a roadmap for managing the basin on a sustainable basis. The City believes it is essential for the City to be a GSA. SGMA provides GSAs with access to various powers and authorities to ensure sustainable management. Becoming a GSA will confirm the City's role as the local groundwater management agency, ensure access to SGMA authorities, and preserve access to grant funding or other opportunities that may be limited to GSAs.

The decision of the City Council is final.

COMMUNICATIONS

This item may begin at any time after the time specified. Any interested person may address the City Council to express support or opposition to this issue. Time allotted to each speaker is determined by the Chair and, in general, is limited to three (3) minutes.

Those unable to attend the hearing may write a letter to the Mayor and City Council, Attention: City Clerk, City Hall, 1000 Spring Street, Paso Robles, CA 93446, OR, you can reach us by email at cityclerk@prcity.com OR FAX at (805) 237-4032. All communications will be forwarded to the Mayor and City Council.

If you wish to challenge the Council's actions on the above proceedings in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence to the City Council at or prior to the public hearing. All correspondence should be delivered to the City Clerk (at the above address) to be included in the record of the proceedings, at or prior to the time of the public hearing. Correspondence must be received no later than 5:00 pm on January 17, 2017.

This material is available in alternative formats upon request. To order information in an alternative format, or to arrange for a sign language or oral interpreter for the meeting, please call the City Clerk's office at least 5 working days prior to the meeting at (805) 237-3960 (voice) or visit the City of Paso Robles website at www.prcity.com.

Dick McKinley
Public Works Director
1/3/2017

THE TRIBUNE
Newspaper of the Central Coast

3825 South Higuera • Post Office Box 112 • San Luis Obispo, California 93406-0112 • (805) 781-7800

In The Superior Court of The State of California
In and for the County of San Luis Obispo
AFFIDAVIT OF PUBLICATION

AD # 2855235
CITY OF PASO ROBLES
PUBLIC WORKS

STATE OF CALIFORNIA
ss.
County of San Luis Obispo

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen and not interested in the above entitled matter; I am now, and at all times embraced in the publication herein mentioned was, the principal clerk of the printers and publishers of THE TRIBUNE, a newspaper of general Circulation, printed and published daily at the City of San Luis Obispo in the above named county and state; that notice at which the annexed clippings is a true copy, was published in the above-named newspaper and not in any supplement thereof – on the following dates to wit; JANUARY 3, 10, 2017 that said newspaper was duly and regularly ascertained and established a newspaper of general circulation by Decree entered in the Superior Court of San Luis Obispo County, State of California, on June 9, 1952, Case #19139 under the Government Code of the State of California.

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Marlena Mangel
(Signature of Principal Clerk)
DATED: JANUARY 10, 2017
AD COST: $750.20

NOTICE OF PASO ROBLES CITY COUNCIL PUBLIC HEARING

DATE OF MEETING: TUESDAY, JANUARY 17, 2017

TIME OF MEETING: 6:30 PM

PLACE OF MEETING: COUNCIL CHAMBER, 1ST FLOOR, CITY HALL, 1000 SPRING STREET, PASO ROBLES, CALIFORNIA, 93446

PROJECT NAME: RESOLUTION REQUEST AUTHORIZING THE CITY OF EL PASO DE ROBLES TO BECOME A GROUNDWATER SUSTAINABILITY AGENCY OVER THE PASO ROBLES SUB-BASIN UNDER THE CITY LIMITS OF THE CITY OF EL PASO DE ROBLES

APPLICANT: CITY OF EL PASO DE ROBLES

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Once the GSA is formed, the City will then be required to develop and implement a GSP that provides a roadmap for managing the basin on a sustainable basis. The City believes it is essential for the City to be a GSA. SGMA provides GSAs with access to various powers and authorities to ensure sustainable management. Becoming a GSA will confirm the City's role as the local groundwater management agency, ensure access to SGMA authorities, and preserve access to grant funding or other opportunities that may be limited to GSAs.

The decision of the City Council is final.

COMMUNICATIONS

This item may begin at any time after the time specified. Any interested person may address the City Council to express support or opposition to this issue. Time allotted to each speaker is determined by the Chair and, in general, is limited to three (3) minutes.

Those unable to attend the hearing may write a letter to the Mayor and City Council, Attention: City Clerk, City Hall, 1000 Spring Street, Paso Robles, CA 93446, OR, you can reach us by email at cityclerk@prcity.com OR FAX at (805) 237-4032. All communications will be forwarded to the Mayor and City Council.

If you wish to challenge the Council's actions on the above proceedings in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence to the City Council at or prior to the public hearing. All correspondence should be delivered to the City Clerk (at the above address) to be included in the record of the proceedings, at or prior to the time of the public hearing. Correspondence must be received no later than 5:00 pm on January 17, 2017.

This material is available in alternative formats upon request. To order information in an alternative format, or to arrange for a sign language or oral interpreter for the meeting, please call the City Clerk's office at least 5 working days prior to the meeting at (805) 237-3960 (voice) or visit the City of Paso Robles website at www.prcity.com.

Dick McKinley
Public Works Director
1/3/2017
Jan. 3, 10, 2017 2855235


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DEPARTMENTS CITY COUNCIL ADVISORY BODIES PLANNING COMMISSION
CITY GOVERNMENT
Address
City of Paso Robles
1000 Spring Street
Paso Robles, CA 93446
Map
Phone
(805) 227-PASO
(7276)
FAX
(805) 237-6565
Hours
Mon-Fri 8am to 5pm
E-mail
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PRESS RELEASES & PUBLIC NOTICES
City Manager's Task Force on Medical Marijuana - Meeting Reminder
Posted: January 23, 2017
Public Notice: City Council Workshop - Review of Draft Short-Term Rental Ordinance
Posted: January 19, 2017
Free Tax Assistance at the Library
Posted: January 13, 2017
Sierra Backpacking Adventure Presentation at the Library
Posted: January 13, 2017
Paso Robles to Honor Martin Luther King Jr.
Posted: January 10, 2017
Residential Structure Fire - 3126 Spring Street #3
Posted: January 9, 2017
Notice of Public Hearing: Resolution Request Authorizing the City of Paso Robles to become a Groundwater Sustainability Agency Over the Paso Robles Sub-Basin Under the City Limits of the City of Paso Robles
Posted: January 3, 2017
Attempted Bank Robbery
Posted: January 3, 2017
Residential Structure Fire - 14th Street
Posted: January 3, 2017
Volunteers Wanted: Housing Authority Board of Commissioners
Posted: December 27, 2016
Volunteers Wanted: Planning Commission
Posted: December 27, 2016
Residential Structure Fire
Posted: December 23, 2016
Mayor Martin and Supervisor-Elect Peschong Confer
Posted: December 19, 2016
Seeking Musical Performers for 2017 Summer Concert Series
Posted: December 15, 2016
HOT TOPICS
Level 2 Watering Restrictions are In Effect!
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2016 CA Building Code
1037 N.S.
Airport Commission
1036 N.S.
Marijuana Regulation
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ENCLOSURE NO. 2

CITY OF PASO ROBLES RESOLUTION NO. 17-009

RESOLUTION NO. 17-009

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EL PASO DE ROBLES AUTHORIZING THE CITY TO BECOME A GROUNDWATER SUSTAINABILITY AGENCY FOR THE PASO ROBLES SUB-BASIN OF THE SALINAS BASIN FOR THE AREA THAT LIES BENEATH AND WITHIN THE JURISDICTIONAL BOUNDARIES OF THE CITY OF EL PASO DE ROBLES

WHEREAS, in 2014 the California Legislature and the Governor passed into law the Sustainable Groundwater Management Act (SGMA) for local management of groundwater resources in California through the formation of Groundwater Sustainability Agencies (GSAs) and through preparation and implementation of Groundwater Sustainability Plans (GSPs); and

WHEREAS, the City overlies a portion of the Paso Robles Sub-basin of the Salinas Groundwater Basin, which is subject to SGMA, and thus one or more GSAs must be formed for the Sub-basin by June 30, 2017, or the Sub-basin may be subject to regulation by the State Water Resources Control Board; and

WHEREAS, the City is a "local agency" as that term is defined by SGMA, and as such is authorized to form a GSA to manage groundwater resources in the Sub-basin and within the City's jurisdictional boundaries in accordance with SGMA and other applicable laws and authorities; and

WHEREAS, the City desires to form a GSA to manage groundwater resources in the Sub-basin beneath and within the City's jurisdictional boundaries (and excluding that portion of the City's boundaries that overlie the Atascadero Sub-basin as designated by the Department of Water Resources); and

WHEREAS, the City intends that its GSA will work cooperatively with the other GSAs that have formed or will be formed in the Paso Robles Sub-basin to prepare one or more GSPs by January 2020, so that groundwater resources in the Sub-basin will be properly managed and sustainable in accordance with the provisions of SGMA; and

WHEREAS, it is essential that the City form this GSA because SGMA grants GSAs substantial additional powers and authorities to ensure sustainable groundwater management. Acting as the GSA within the City's jurisdictional boundaries will, among other things, confirm the City's role as the local groundwater management agency, ensure access to SGMA authorities, and preserve access to grant funding and other opportunities that may be available to GSAs; and

WHEREAS, pursuant to the requirements of SGMA, the City held a public hearing on this date after publication of notice pursuant to California Government Code section 6066 to consider adoption of this Resolution.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EL PASO DE ROBLES DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. All of the above recitals are true and correct and incorporated herein by reference.

Section 2. The Mayor is authorized to sign a resolution for the City of El Paso de Robles to become a Groundwater Sustainability Agency in accordance with the Sustainable Groundwater Management Act over the portion of the Paso Robles Sub-basin which lies under and within the jurisdictional boundaries of the City of Paso Robles (and excluding that portion of the City's boundaries that overlie the Atascadero Sub-basin as designated by the Department of Water Resources).

Section 3. The City Manager is authorized and directed to submit a notice of this Resolution along with all other required information to the California Department of Water Resources in accordance with the Sustainable Groundwater Management Act.

Section 4. The City Groundwater Sustainability Agency shall consider the interests of all beneficial uses and users of groundwater within the jurisdictional boundaries of the City and will develop an outreach program for all such stakeholders.

Section 5. The City Groundwater Sustainability Agency shall establish and maintain a list of persons interested in receiving notices regarding the City's involvement in the preparation of one or more Groundwater Sustainability Plans in the Paso Robles Sub-basin, where any person may request in writing to be placed on the City's list of interested persons.

APPROVED this 17TH day of January, 2017, by the following vote:

AYES: Gregory, Hamon, Strong, Reed, Martin
NOES:
ABSENT:
ABSTAIN:

Steven W. Martin, Mayor

ATTEST:

Kristen L. Buxkemper, Deputy City Clerk

I hereby certify that the foregoing is a full, true and correct copy of Resolution 17-009 Authorizing the City to become a Groundwater Sustainability Agency for the PR Sub-Basin. on file in the Office of the City Clerk.
In witness hereof, my hand and official seal:

1/23/17
Date

Kristen L Buxkemper
Deputy City Clerk

82481.00000\29454130.2

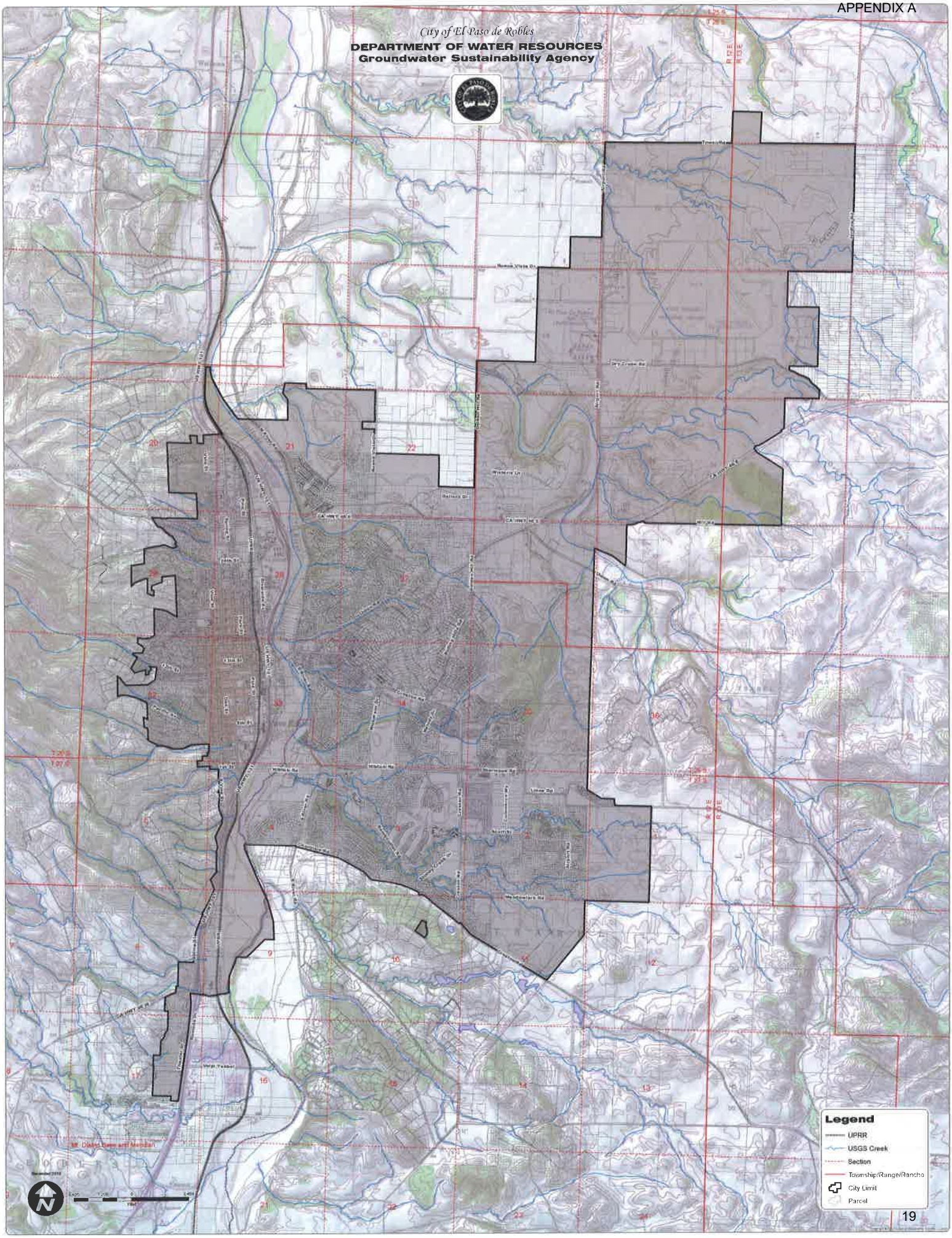
ENCLOSURE NO. 3

CITY OF PASO ROBLES BOUNDARY MAP
(SHAPE FILES ARE ELECTRONIC ONLY)

City of El Paso de Robles

DEPARTMENT OF WATER RESOURCES

Groundwater Sustainability Agency



ENCLOSURE NO. 4

LIST OF PRIVATE PARTIES

APN_1	Owner	Assessee	Address1	City	State	Zip
008022001	SALMANZADEH FAMILY TRUST	SALMANZADEH JULIE TRE ETAL	3700 SPRING ST	PASO ROBLES	CA	93446
009461049	R & H GOLF LP A CA LP	R & H GOLF LP A CA LP	1460 SPANISH CAMP RD	PASO ROBLES	CA	93446
009751022	PEREZ EDDIE F & ELAYNE L	PEREZ EDDIE F & ELAYNE L	2464 CRESTON RD	PASO ROBLES	CA	93446
009795001	OLSEN INVESTMENTS LLC	OLSEN INVESTMENTS LLC	3161 LINNE RD	PASO ROBLES	CA	93446
009795002	OLSEN INVESTMENTS LLC A CA LLC	OLSEN INVESTMENTS LLC A CA LLC	3161 LINNE RD	PASO ROBLES	CA	93446
009795005	GOULART LOIS D REVOCABLE LIVING TRUST	GOULART LOIS D TRE	255 HANSON RD	PASO ROBLES	CA	93446
009796004	CONDICT WINFIELD S FAMILY TRUST	CONDICT WAYNE A TRE ETAL	1 CHATTANOOGA ST	IRVINE	CA	92620
009796006	CONDICT PRESTON F	VANKLEY F & J ETAL	1556 SENTIMENTAL LN	OUR TOWN	CA	93446
009796009	CONDICT GREGORY R	CONDICT GREGORY R HEIRS OF ETAL	PO BOX 3889	PASO ROBLES	CA	93447
009796010	CONDICT RANDALL C	TOSCH AJ & M ETAL	560 AAROE DR	OUR TOWN	CA	93446
009796017	CONDICT KEVIN C	BUETTNER LILLIAN M TRE ETAL	9416 CUMMINGS RD	DURHAM	CA	95938
009796018	CONDICT WAYNE A	CONDICT WAYNE A	1557 SENTIMENTAL LN	OUR TOWN	CA	93446
009796020	CONDICT WINFIELD S FAMILY TRUST	CONDICT WAYNE A TRE ETAL	1 CHATTANOOGA ST	IRVINE	CA	92620
009821002	ESTRADA SILAS & TERESA TRUST	ESTRADA SILAS TRE ETAL	220 S VINE ST	PASO ROBLES	CA	93446
009821007	COOK JOHN & KATHLEEN LIVING TRUST	COOK JOHN H TRE ETAL	1466 LA CIMA RD	SANTA BARBARA	CA	93101
009851012	CGLPT ENTERPRISES GEN PTP	CGLPT ENTERPRISES GEN PTP	4490 BUENA VISTA DR	PASO ROBLES	CA	93446
009863006	GAVIN TODD	GAVIN TODD	2550 CATTLEMAN WAY	PASO ROBLES	CA	93446
009863007	HARROD PASO LP A CA LP	HARROD PASO LP	PO BOX 3200	SALINAS	CA	93912
009863009	HARROD PASO LP A CA LP	HARROD PASO LP	PO BOX 3200	SALINAS	CA	93912
025011026	WOODRUM CHAD	WOODRUM CHAD & MELISSA	805 RED CLOUD RD	PASO ROBLES	CA	93446
025011027	WEBER MICHAEL E	WEBER MICHAEL E	1640 LYLE LN	PASO ROBLES	CA	93446
025011028	COLLINS JULIA	COLLINS JULIA & RODNEY	1690 LYLE LN	PASO ROBLES	CA	93446
025011029	DREA MELISSA L	DREA MELISSA L	17 GILBERT HILL	BERMUDA	FR	99999
025011031	GONZALES CRISTINA S	SIMOES MATILDE L ETAL	1575 LYLE LN	PASO ROBLES	CA	93446
025011032	CRUME ALFRED G	CRUME ALFRED G & MARY R	1555 LYLE LN	PASO ROBLES	CA	93446
025362001	WHITE BRUCE	WHITE BRUCE	PO BOX 539	PASO ROBLES	CA	93447
025362004	BLAKE DANIEL A & JANICE A LIVING TRUST	BLAKE DANIEL A TRE ETAL	4374 UNION RD	PASO ROBLES	CA	93446
025362009	GRAF TRUST	GRAF FRANCES A TRE	2902 ARDMORE RD	PASO ROBLES	CA	93446
025362011	GOLDSTEIN FAMILY LLC A CA LLC	GOLDSTEIN FAMILY LLC	1355 HIGHWAY 46 WEST	PASO ROBLES	CA	93446
025362012	VIEIRA RICHARD A & KATHLEEN M 2009 REVOCABLE TRUST	VIEIRA KATHLEEN M TRE ETAL	2910 ARDMORE RD	PASO ROBLES	CA	93446
025362013	HONZEL CHARLES R	HONZEL CHARLES R & PL	PO BOX 1332	PASO ROBLES	CA	93446
025362036	EHRKE JAMES T	EHRKE JAMES T	9926 SAGE HILL WY	ESCONDIDO	CA	92026
025371017	RAK FRANK R JR REVOCABLE LIVING TRUST	RAK FRANK R JR TRE	PO BOX 3212	PASO ROBLES	CA	93447
025371021	HAYLEY JULIET E	HAYLEY MICHAEL S & JULIET E	3189 E HWY 46	PASO ROBLES	CA	93446
025371024	OBRIEN DAVID P	OBRIEN DAVID P & LIESL A	2785 CLARK VALLEY RD	LOS OSOS	CA	93402
025381008	WILCOX RANCH LP A CA LP	WILCOX RANCH LP	67225 SARGENTS RD	SAN ARDO	CA	93450
025390004	GREGORY CHARLES S & DAWN P 2009 REVOCABLE TRUST	GREGORY CHARLES S TRE ETAL	PO BOX 4068	PASO ROBLES	CA	93447
025390009	RIVER OAKS II LLC A DE LLC	RIVER OAKS II LLC	PO BOX 4280	PASO ROBLES	CA	93447
025410005	BAER DEREK A	BAER DEREK A & SONJIA M	1711 EXPERIMENTAL STATON RD	PASO ROBLES	CA	93446
025410007	MOE MARILYN R 2009 REVOCABLE TRUST	MOE MARILYN R TRE	1631 EXPERIMENTAL STATION	PASO ROBLES	CA	93446
025410008	DOBROTH ERIC	DOBROTH ERIC & SARA	1700 EXPERIMENTAL STATION RD	PASO ROBLES	CA	93446
025410009	CVT TRUST (TR 1)	TSUI CHERYL V TRE ETAL	1520 EXPERIMENTAL STATION RD	PASO ROBLES	CA	93446
025410010	LAPOINTE PAUL & JOYCE LIVING TRUST	LAPOINTE PAUL E TRE ETAL	1412 EXPERIMENTAL STATION RD	PASO ROBLES	CA	93446
025411004	SIMPSON ANDREA	SIMPSON ANDREA	2935 WATSON CT E	CONCORD	CA	94518
025411013	HARDWICK TRUST OF 1999	HARDWICK THOMAS K TRE ETAL	908 WALNUT DR	PASO ROBLES	CA	93446
025422013	JOHNSTON PETER F & JOCELYN W FAMILY TRUST	JOHNSTON PETER F TRE ETAL	1815 EXPERIMENTAL STATION RD	PASO ROBLES	CA	93446
025434006	DIAMOND STERLING & JUDY REVOCABLE TRUST	DIAMOND STERLING N TRE ETAL	5920 BUENA VISTA DR	PASO ROBLES	CA	93446
025434007	BUTTERFIELD JACOB B	BUTTERFIELD JACOB B & LAURIE A	200 CRESTMONT	SLO	CA	93401
025435008	PASO ROBLES HORSE PARK A CA LLC	PASO ROBLES HORSE PARK A CA LLC	2279 WILLOW CREEK RD	PASO ROBLES	CA	93446
025435010	SMITH GARY D	SMITH GARY D ETAL	8105 SAN DIEGO RD	ATASCADERO	CA	93422
025436013	PASO ROBLES CITY OF	CITY OF PASO ROBLES (955)	1000 SPRING ST	PASO ROBLES	CA	93446
025436015	BOATMAN GARY P	HOFFMAN GWYNN H TRE ETAL	1511 PARK ST	PASO ROBLES	CA	93446
025436018	WILSON RUSSELL R INTER VIVOS TRUST	WILSON RUSSELL R TRE	3580 AIRPORT RD	PASO ROBLES	CA	93446
025436019	DIDONNA ANTHONY & MAXINE TRUST	DIDONNA ANTHONY R TRE ETAL	3490 AIRPORT RD	PASO ROBLES	CA	93446
025436029	HANDLEY JERRY L	HANDLEY JERRY L & KATHERINE A	PO BOX 1011	PASO ROBLES	CA	93447
025436039	EBERLE WINERY LTD A LTD PTP	EBERLE WINERY LTD	PO BOX 2459	PASO ROBLES	CA	93447
025441001	PR11 LLC A CA LTD LIABILITY COMPANY	PR11 LLC A CA LTD LIABILITY COMPANY	2021 THE ALAMEDA #145	SAN JOSE	CA	95126
025441002	PR11 LLC A CA LTD LIABILITY COMPANY	PR11 LLC A CA LTD LIABILITY COMPANY	2021 THE ALAMEDA #145	SAN JOSE	CA	95126
025441004	RUTZ FAMILY INC A CA CORP	RUTZ FAMILY INC	PO BOX 2030	PASO ROBLES	CA	93447
025442003	PASO ROBLES VINEYARDS INC A CALIFORNIA CORPORATION	PASO ROBLES VINEYARDS INC A CA COR	PO BOX 2030	PASO ROBLES	CA	93447
025442005	GEARHART KELLY V	MILLER JAMES H JR ETAL	PO BOX 4725	PASO ROBLES	CA	93447
025442006	PASO ROBLES VINEYARD INC A CALIF CORP	PASO ROBLES VINEYARD INC A CAL COR	PO BOX 2030	PASO ROBLES	CA	93447
025442007	PASO ROBLES VINEYARDS INC A CALIFORNIA CORPORATION	PASO ROBLES VINEYARDS INC A CA COR	PO BOX 2030	PASO ROBLES	CA	93447
025442008	PASO ROBLES VINEYARDS INC A CALIFORNIA CORPORATION	PASO ROBLES VINEYARDS INC A CA COR	PO BOX 2030	PASO ROBLES	CA	93447
025442009	PASO ROBLES VINEYARDS INC A CALIFORNIA CORPORATION	PASO ROBLES VINEYARDS INC A CA COR	PO BOX 2030	PASO ROBLES	CA	93447
025442010	BALDWIN MARIETTE	BALDWIN MARIETTE	PO BOX 182	PASO ROBLES	CA	93447
025442011	PASO ROBLES VINEYARDS INC A CALIFORNIA CORPORATION	PASO ROBLES VINEYARDS INC A CA COR	PO BOX 2030	PASO ROBLES	CA	93447
025442012	PASO ROBLES VINEYARDS INC A CALIFORNIA CORPORATION	PASO ROBLES VINEYARDS INC A CA COR	PO BOX 2030	PASO ROBLES	CA	93447
025442013	PASO ROBLES VINEYARDS INC A CALIFORNIA CORPORATION	PASO ROBLES VINEYARDS INC A CA COR	PO BOX 2030	PASO ROBLES	CA	93447
025442014	PASO ROBLES VINEYARDS INC A CALIFORNIA CORPORATION	PASO ROBLES VINEYARDS INC A CA COR	PO BOX 2030	PASO ROBLES	CA	93447
025442015	PASO ROBLES VINEYARDS INC A CALIFORNIA CORPORATION	PASO ROBLES VINEYARDS INC A CA COR	PO BOX 2030	PASO ROBLES	CA	93447
025442017	PASO ROBLES VINEYARDS INC A CALIFORNIA CORPORATION	PASO ROBLES VINEYARDS INC A CA COR	PO BOX 2030	PASO ROBLES	CA	93447
025442018	PASO ROBLES VINEYARDS INC A CALIFORNIA CORPORATION	PASO ROBLES VINEYARDS INC A CA COR	PO BOX 2030	PASO ROBLES	CA	93447
025442020	GEARHART KELLY V	MILLER JAMES H JR ETAL	PO BOX 4725	PASO ROBLES	CA	93447
025442021	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025442022	VINA VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025442023	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025443002	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025443013	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025443015	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025443016	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025443017	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025443018	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025443019	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025444001	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025444004	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025444006	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025444008	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025444009	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025444010	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025444011	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025444012	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025444013	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447
025444014	VINO VISTA LLC A CA LLC	VINO VISTA LLC	PO BOX 510	PASO ROBLES	CA	93447

ENCLOSURE NO. 5

LIST OF INTERESTED PARTIES

City of Paso Robles GSA

Interested Parties List

John Neil	AMWC	jneil@amwc.us
Willy Cunha	Shandon-San Juan Water District	wcunha@sunviewvineyards.com
Nick DeBar	City of Atascadero	ndebar@atascadero.org
Tom Moss	Monterey County	mosst@co.monterey.ca.us
Rob Johnson	Monterey County Water Resources Agency	johnsonr@co.monterey.ca.us
Steve Sinton	Shandon-San Juan Water District	sjsinton@earthlink.net
Patricia Wilmore	Paso Robles Wine Country Alliance	pwilmore@pasowine.com
Darrell Gentry	San Miguel CSD	darrell.gentry@sanmiguelcsd.org
Paul Clark	SLO County Farm Bureau	paul@paulclarklaw.com
Jeff Briltz	Templeton CSD	jbriltz@templetoncsd.org
Dana Merrill	Estrella-El Pomar-Creston Water District	info@mesavineyard.com
Jerry Reaugh	Estrella-El Pomar-Creston Water District	jerry@reaughj.com
Sue Harvey	Environmental - North County Watch	susan@ifsusan.com
Randy Diffenbaugh	Rancho Salinas Mutual Benefit Water Company	rdiff@yahoo.com
Sue Luft	Rural Residential	luftsue@gmail.com
Larry Werner	Engineering	lwerner@northcoastengineering.com
Courtney Howard	SLO County	choward@co.slo.ca.us
Carolyn Berg	SLO County	cberg@co.slo.ca.us
Angela Ruberto	SLO County	aruberto@co.slo.ca.us
John Wallace	Engineering	johnw@wallacegroup.us
John Dornellas	Heritage Ranch CSD	john@heritageranchcsd.org
John Hollenbeck	Engineering	johnhollenbeckpe@gmail.com
Steve Baker	Rural Residential	sbaker1440@gmail.com
Mladen Bandov	SLO County	mbandov@co.slo.ca.us
Kari Wagner	Engineering	kariw@wallacegroup.us
Rachelle Rickard	City of Atascadero	rrickard@atascadero.org
Iris Priestaf	Engineering	IPriestaf@toddgroundwater.com
Kevin Peck	Shandon-San Juan Water District	kp538349@gmail.com
Susan Hayes	Farm Supply	shayes@farmsupplycompany.com
Craig Thomas	Spanish Lakes Mutual Water Company	cncthomas@charter.net
Jim Hagen	Spanish Lakes Mutual Water Company	jdhagen44@hotmail.com
Mark Gabler	Walnut Hills Mutual Water Company	mark.gabler@att.net
Dan Lloyd	Santa Ysabel Ranch Mutual Water Company	danrlloyd@yahoo.com
Karen Capadona	Green River Mutual Water Company	kncapadona@gmail.com
Greg Powell	Mustang Springs Mutual Water Company	greg@make-it.com
Susan Howard	Shandon CSA 16	susan@shilohtax.com

SHANDON-SAN JUAN WATER DISTRICT

RESOLUTION 17-003
RESOLUTION FORMING THE SHANDON-SAN JUAN GROUNDWATER SUSTAINABILITY AGENCY

The following Resolution is hereby offered and read:

WHEREAS, in 2014, the California Legislature adopted, and the Governor signed into law, three bills (SB 1168, AB 1739, and SB 1319) collectively referred to as the Sustainable Groundwater Management Act (SGMA) (Water Code §§ 10720 *et seq.*), that became effective on January 1, 2015, and that have been subsequently amended; and

WHEREAS, the intent of SGMA, as set forth in Water Code section 10720.1, is to provide for the sustainable management of groundwater basins at a local level by providing local groundwater agencies with the authority, and technical and financial assistance necessary, to sustainably manage groundwater; and

WHEREAS, SGMA requires the formation of a groundwater sustainability agency (GSA) or agencies for all basins designated by the California Department of Water Resources (DWR) as high or medium priority on or before June 30, 2017; and

WHEREAS, SGMA further requires the adoption of a groundwater sustainability plan (GSP) for all basins designated by DWR as high or medium priority and subject to critical conditions of overdraft on or before January 31, 2020; and

WHEREAS, the Paso Robles Area Groundwater Subbasin (Basin No. 3-004.06) (Basin) has been designated by DWR as a high priority basin subject to critical conditions of overdraft; and

WHEREAS, the Shandon-San Juan Water District is a "local agency" within the Basin as defined in Water Code Section 10721(n) and thus is eligible to form a GSA in the Basin; and

WHEREAS, the Salinas Valley Basin Groundwater Sustainability Agency, City of El Paso de Robles, San Miguel Community Services District, Heritage Ranch Community Services District, and the County of San Luis Obispo are also local agencies within the Basin, and it is anticipated that they will each become the GSA for their respective service areas within the Basin; and

WHEREAS, adoption of a GSA is exempt from the requirements of the California Environmental Quality Act (Public Resources Code §§ 21000 et seq.) (CEQA) pursuant to Section 15061(b)(3) of the CEQA Guidelines; and

WHEREAS, on April 6, 2017, the San Luis Obispo Local Agency Formation Commission (LAFCO) conditionally approved the formation of the Estrella-El Pomar-Creston Water District (EPCWD) for the purpose of serving as (or part of) a GSA for its portion of the Basin and which could be formed as early as Fall 2017; and

WHEREAS, the Shandon-San Juan Water District desires to form a GSA to cover all areas within the boundaries of the Shandon-San Juan Water District as of the June 30, 2017 deadline; and

WHEREAS, the Shandon-San Juan Water District has published a notice of public hearing consistent with the requirements contained within Water Code Section 10723(b); and

WHEREAS, the Shandon-San Juan Water District conducted such a public hearing on June 8, 2017; and

WHEREAS, the Shandon-San Juan Water District is committed to the sustainable management of groundwater within the Paso Basin in the manner required by SGMA and intends to coordinate with the other GSAs and affected parties, and to consider the interests of all beneficial users and uses of groundwater within the Paso Basin through a memorandum of agreement with the other GSAs.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED by the Board of the Shandon-San Juan Water District, that:

Section 1: The foregoing recitals are true and correct and are incorporated herein by reference.

Section 2: The Shandon-San Juan Water District hereby decides to become the GSA for, and undertake sustainable groundwater management within the boundaries of the Shandon-San Juan Water District, and A map of the GSA Boundary is attached hereto as Exhibit A and incorporated herein.

Section 3: The President of the Board of the Shandon-San Juan Water District, or designee, is hereby authorized and directed to submit notice of adoption of this Resolution in addition to all other information required by SGMA, including but not limited to, all information required by Water Code Section 10723.8, to DWR, and to support the development and maintenance of an interested persons list as described in Water Code Section 10723.4 and a list of interested parties as described in Water Code Section 10723.8(a)(4).

Section 4: The President of the Board of the Shandon-San Juan Water District, or designee, is hereby authorized to take such other and further actions as may be necessary to effectuate the purposes of this Resolution.

Upon motion of Director Turrentine, seconded by Director Sinton,

and on the following roll call vote, to wit:

AYES: 5

NOES: 0

ABSENT: 0

ABSTAINING: 0

the foregoing resolution is hereby adopted on the 8th day of June, 2017.

Willy Cunha,
President of the Board of Directors

ATTEST:

Stephanie Bertoux,
Secretary of the Board of Directors

Dated: June 8, 2017

NOTICE OF EXEMPTION

SHANDON-SAN JUAN WATER DISTRICT

365 TRUESDALE RD. • PO BOX 150 • SHANDON • CALIFORNIA 93461 • (805) 239-0555

Forming Shandon-San Juan Ground Sustainability Agency

Project Location (Specific address):	**Project Applicant & Phone No.:**
Paso Robles Groundwater Base	Shandon-San Juan Water District (805) 239-0555
Project Location (County):	**Applicant Address (specific):**
San Luis Obispo	365 Truesdale RD. PO Box 150
	Shandon, CA 93461

Description of Nature, Purpose and Beneficiaries of Project

Form a Groundwater Sustainability Agency (GSA) for the District portion of the Paso Robles Groundwater Basin. To cooperate with the other Basin GSA's to write a single Groundwater Sustainability Plan (GSP).

Name of Public Agency Approving Project: Shandon-San Juan Water District

Exempt Status:

Statutory Exemption {Sec. 15262 }

Reasons why project is exempt: The activity is statutorily exempt from CEQA because it is a planning study that collects inventories groundwater data and studies & uses that data to create a GSP. The GSP will include water budgets, strategies, and potential actions projects and programs. Future implementation of any identified actions, projects or programs would be subject to CEQA review.

Willy Cunha President Board of Director
Shandon- San Juan Water District (805) 239-0555

Lead Agency Contact Person **Telephone**

Signature _____ Date 06/05/17

Name (Print) Willy Cunha Title President of the Board of Directors

P.O. Box 180
1150 Mission Street
San Miguel, CA 93451

Tel. 805-467-3388
Fax 805-467-9212

www.sanmiguelcsd.org

November 22, 2016

Mark Nordberg, GSA Project Manager
Sustainable Groundwater Management Program
California Department of Water Resources
901 P Street, Room 213A
P.O. Box 942836
Sacramento, CA 94236

Re: San Miguel Community Services District Notice of Intent to become a Groundwater Sustainability Agency for Portions of the Paso Robles Groundwater Basin

Dear Mr. Nordberg:

Pursuant to California Water Code section 10723.8 of the Sustainable Groundwater Management Act of 2014 ("SGMA"), the San Miguel Community Services District ("SMCSD") hereby provides this notice of its decision to become a Groundwater Sustainability Agency ("GSA") for those portions of the Paso Robles Groundwater Sub-basin ("PR Basin"), Department of Water Resources ("DWR"), Bulletin 118, Sub-basin No. 3-04.06 within SMCSD's service area and sphere of influence. SMCSD's service area and sphere of influence overlie a portion of the PR Basin as depicted in Exhibit 1.

As mandated under SGMA, DWR has identified the PR Basin as a high priority basin. Accordingly, the PR Basin must be managed sustainably by one or more GSAs in accordance with the timelines established in SGMA. SMCSD is a local public agency of the State of California organized and operating under the Community Services District Law ("CSD Law"), Government Code §61000 *et seq*. Per Government Code §61100(a) & (b) of the CSD Law, SMCSD has activated powers to "supply water for any beneficial uses, in the same manner as a municipal water district, formed pursuant to the Municipal Water District Law of 1911, Division 20 (commencing with Section 71000) of the Water Code" and to "collect, treat, or dispose of sewage, wastewater, recycled water, and storm water" within its service area in "the same manner as a sanitary district, formed pursuant to the Sanitary District Act of 1923, Division 6 (commencing with Section 6400) of the Health and Safety Code." Pursuant to Government Code §61100(a) & (b), SMCSD exercises water supply and management responsibilities throughout its service area.

SMCSD's water management responsibilities in the PR Basin include operation and maintenance of a wastewater treatment plant, management and infiltration of treated wastewater into the PR Basin via SMCSD owned infiltration ponds, and supplying customers with water for beneficial use by pumping groundwater from the PR Basin. Becoming a GSA will support SMCSD's existing efforts to eliminate overdraft in the SMCSD's portion of the PR Basin while protecting water quality and ensuring future water supply sustainability in the San Miguel area (in

cooperation with the County of San Luis Obispo and other water supply agencies in the PR Basin).

In accordance with Section 10723(b) of the Water Code, and Section 6066 of the Government Code, SMCSD published a notice of public hearing regarding SMCSD' s potential decision to become a GSA. The notice of public hearing was published in a newspaper of general circulation in northern San Luis Obispo County, the Paso Robles Press and San Luis Obispo Tribune, thereby notifying interested parties and the public of SMCSD's intent to consider becoming a GSA in portions of the PR Basin.

The notice and proof of publication is enclosed herewith as Exhibit 2. On October 27, 2016, the SMCSD Board of Directors, at a properly noticed special board meeting, held a public hearing to consider whether SMCSD should file a notice of intent to become a GSA for a portion of the PR Basin. No written comments were received prior to the public hearing, and the SMCSD heard and considered the verbal comments of the members of the public who provided comments at the October 27, 2016 public hearing.

Following closure of the public hearing, SMCSD's Board of Directors adopted Resolution No. 2016-34, enclosed herewith as Exhibit 3, wherein SMCSD's governing body determined to become a GSA for all of those portions of the PR Basin within SMCSD's service area and sphere of influence. SMCSD is not proposing any new bylaws, ordinances, or other new authorities associated with this GSA formation, but it will continue to work collaboratively with the County of San Luis Obispo and other water supply agencies, as well as other neighboring local agencies, to ensure all of the groundwater in the PR Basin is managed in accordance with the requirements of SGMA.

To the best of SMCSD's knowledge, other entities considering formation of a GSA near SMCSD's service area and sphere of influence in the PR Basin may include:

- County of San Luis Obispo
- City of Paso Robles
- City of Atascadero
- Templeton Community Services District, and
- Atascadero Mutual Water District.

The SMCSD Board of Directors in Resolution No. 2016-34 authorized the Board President and District General Manager and District General Counsel to negotiate MOUs, or other appropriate agreement(s), with other public agencies and/or entities that utilize or manage water in the PR Basin, as may be necessary for the purpose of implementing a cooperative, coordinated governance structure for the management of the PR Basin.

SMCSD has begun discussions with the agencies listed above, stakeholders, and interested parties overlying portions of the PR Basin near SMCSD's service area and sphere of influence, and is working cooperatively with these parties to establish basin-wide coordination and governance for groundwater management (while reducing, to the maximum extent practical, duplication of effort, overlap of jurisdiction, and inter-agency conflict).

As required by Water Code Section 10723.8(a)(4), SMCSD established and is maintaining a list of interested parties that will continue to be amended as necessary during the GSA formation and Groundwater Sustainability Plan ("GSP") development process. As required by SGMA, SMCSD will consider all classes of beneficial uses and users of groundwater within the PR Basin, as well as the interests of those entities responsible for developing GSPs.

An initial list of interested parties is enclosed herewith as Exhibit 4. The interested persons list will be used by SMCSD to ensure that, pursuant to California Water Code Section 10723.2, SMCSD considers the interests of all beneficial uses and users of groundwater in the PR Basin, as well as those responsible for implementing a GSP or GSPs in the PR Basin. SMCSD will update the interested parties list as new information becomes available and negotiations with other public agencies progress.

It is my understanding, based on opinion of SMCSD's legal counsel, that all applicable and required information listed in Water Code §10723.8(a) has been provided to DWR in this correspondence and supporting exhibits. SMCSD's GSA formation notification to DWR complies with all of the requirements of SGMA (as amended). However, to the extent that DWR requires additional information to complete the GSA formation notification process, SMCSD will promptly provide such information.

If you have any questions, or require further information, please contact Darrell Gentry, SMCSD General Manager at (805) 467-3388.

Sincerely,

Darrell Gentry

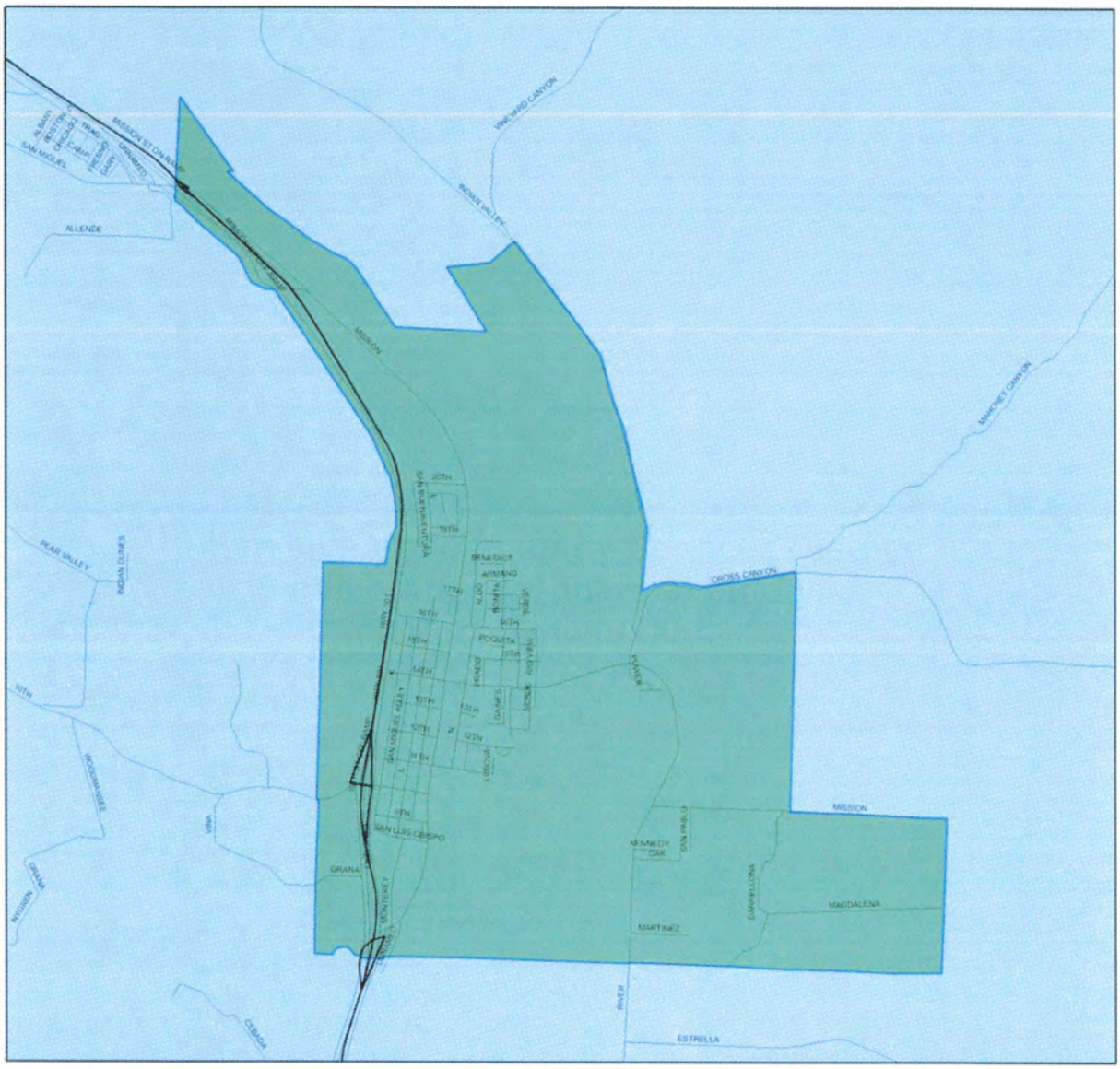
Darrell Gentry,
District General Manager
San Miguel Community Services District

Attachments: Exhibits 1-4

EXHIBIT 1

(PR BASIN AREA MAP/ESTRELLA SUB-BASIN MAP)

San Miguel Community Services District
Service Area & Sphere of Influence
Recommendation

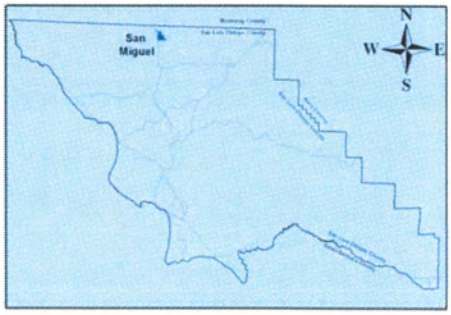


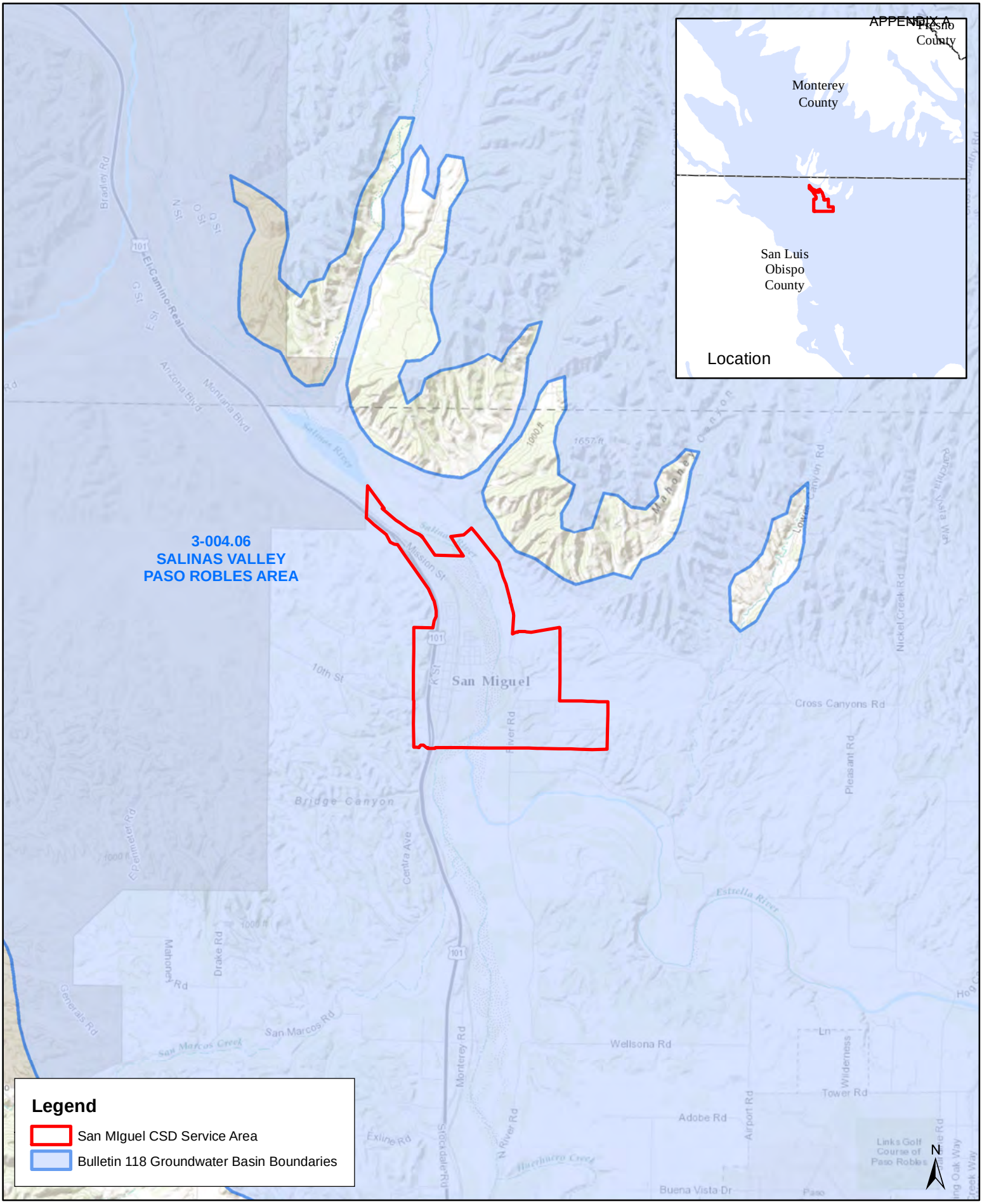
Legend

- Major Roads
- Service Area
- Sphere of Influence (Same as Service Area)

LOCAL AGENCY FORMATION COMMISSION
SLO LAFCO

Prepared By SLOLAFCO
Name: San Miguel_SOI Bndy
Date: 7/1/2013





San Miguel Community Services District
GSA Submittal

0 0.5 1 2 Miles

For a map of all the GSA's submitted, see: http://www.water.ca.gov/groundwater/sgm/gsa_map.cfm

Date: 12/16/2016

EXHIBIT 2

(NOTICE OF PUBLIC HEARING

PROOF OF PUBLICATION)

SAN MIGUEL COMMUNITY SERVICES DISTRICT

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN THAT THE San Miguel Community Services District Board of Directors will hold a public hearing on:

Thursday, October 27, 2016, 7:00 P.M., 1150 Mission Street to consider the following:

1. Adopting **Resolution No 2016-33**, To Form a Groundwater Sustainability Agency (GSA) pursuant to California Water Code section 10723.8 of the Sustainable Groundwater Management Act of 2014 for all properties within the District water service and sphere of influence boundaries.

Description:

2. To consider approving the enacting resolution to form and establish a GSA for purpose of managing water resources within the jurisdictional and sphere of influence boundaries of the San Miguel Community Services District that establishes the following objectives:

> A consistent and minimum reliable water supply is essential to the public health, safety and welfare of the people and community of San Miguel, and
>
> Will enact rules, regulations and standards for water reuse, recycling, conservation, and
>
> Work collaboratively with others to eliminate or reduce overdraft conditions that may exist in the SMCSD's portion of the PR Basin, while protecting water quality and ensuring future water supply sustainability in the San Miguel area (in cooperation with the County of San Luis Obispo and other water supply agencies in the PR Basin), and to assure that the San Miguel Area portion of the Basin is managed in accordance with the requirements of SGMA

The GSA will be comprised of the SMCSD Board of Directors who may enact voluntary and mandatory measures to achieve these specified objectives.

Proposed Environmental Determination:

Categorical Exemption, Class 7, Regulatory Action Taken to Protect Natural Resource.

A copy of the Categorical Exemption form is available at District office and available upon request or at the District website. District contact information is: www.sanmiguelcsd.org or phone – (805) 467-3388.

Interested persons are invited to be present at the public hearing and will be given an opportunity to speak in favor or in opposition to the above-proposed ordinance. Written comments are also acceptable, if submitted or delivered to the District office prior to the public hearing.

Information regarding the proposed ordinance is on file at the District office or may be found on the District's website, www.sanmiguelcsd.org.

BY ORDER OF THE SAN MIGUEL COMMUNITY SERVICES DISTRICT BOARD OF DIRECTORS.

DARRELL W. GENTRY, GENERAL MANAGER AND SECRETARY TO THE BOARD

Date: September 28, 2016

Published Once on Friday, October 7, 2016

and Once on Friday, October 14, 2016

ROBLES CA 93446
If Corporation or LLC-Print State of Incorporation/Organization

I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)

/S/DEBRA LINDBERG

This statement was filed with the County Clerk of San Luis Obispo County on 09/21/2016

TRANSACTING BUSINESS DATE: NOT APPLICABLE

CERTIFICATION

I hereby certify that this copy is a correct copy of

THE TOTAL AMOUNT DUE. Trustor(s): JAMES M. DIMAURO AND NINA M. DIMAURO Recorded: 11/4/2005 as Instrument No. 2005093503 of Official Records in the office of the Recorder of SAN LUIS OBISPO County, California; Date of Sale: 10/31/2016 at 11:00AM Place of Sale: In the breezeway adjacent to the County General Services Building located at 1087 Santa Rosa Street San Luis Obispo, California 93401 Amount of unpaid balance and other charges: $117,345.15 The purported property address is: 2290 HERITAGE LOOP RD, PASO ROBLES, CA 93446 Assessor's Parcel No.: 012-190-029

NOTICE TO POTENTIAL

any incorrectness of the property address or other common designation, if any, shown herein. If no street address or other common designation is shown, directions to the location of the property may be obtained by sending a written request to the beneficiary within 10 days of the date of first publication of this Notice of Sale. If the sale is set aside for any reason, including if the Trustee is unable to convey title, the Purchaser at the sale shall be entitled only to a return o f the monies paid to the Trustee. This shall be the Purchaser's sole and exclusive remedy. The purchaser shall have no further recourse against the Trustor, the Trustee, the Beneficiary, the Beneficiary's Agent,

TOMMY GONG,
County Clerk
By ABAUTISTA, Deputy

New Fictitious Business Name Statement, Expires 09/20/2021

PUB: 9-30, 10-7, 10-14, 10-21-2016 LEGAL #5451

NOTICE OF TRUSTEE'S SALE

T.S. No.: 2016-CA006964 Loan No.: XXXXX Order No.: 5822494 APN: 048-071-020,018,014,012, 010, 048-071-008,004, & 085-171-008

YOU ARE IN DEFAULT UNDER A DEED OF TRUST DATED 9/13/2007. UNLESS YOU TAKE ACTION TO PROTECT YOUR PROPERTY, IT MAY BE SOLD AT A PUBLIC SALE. IF YOU NEED AN EXPLANATION OF THE NATURE OF THE PROCEEDING AGAINST YOU, YOU SHOULD CONTACT A LAWYER.
A public auction sale to the highest bidder for cash, cashier's check drawn on a state or national bank, a check drawn by a state or federal credit union, or a check drawn by a state or federal savings and loan association, or savings association, or savings bank specified in section 5102 of the Financial Code and authorized to do business in this state. Sale will be held by the duly appointed trustee as shown below, of all right, title, and interest conveyed to and now held by the trustee in the hereinafter described property under and pursuant to a Deed of Trust described below. The sale will be made, but without covenant or warranty, expressed or implied, regarding title, possession, or encumbrances, to pay the remaining principal sum of the note(s) secured by the Deed of Trust, with interest and late charges thereon, as provided in the note(s), advances, under the terms of the Deed of Trust, interest thereon, fees, charges and expenses of the Trustee for the total amount (at the time of the initial publication of the Notice of Sale) reasonably estimated to be set forth below. The amount may be greater on the day of sale.

BENEFICIARY MAY ELECT TO BID LESS THAN THE TOTAL

APPENDIX A

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SAN MIGUEL COMMUNITY SERVICES DISTRICT
NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN THAT THE San Miguel Community Services District Board of Directors will hold a public hearing on:
Thursday, October 27, 2016, 7:00 P.M., 1150 Mission Street to consider the following:
1. Adopting Resolution No 2016-33, To Form a Groundwater Sustainability Agency (GSA) pursuant to California Water Code section 10723.8 of the Sustainable Groundwater Management Act of 2014 for all properties within the District water service and sphere of influence boundaries.
Description:
2. To consider approving the enacting resolution to form and establish a GSA for purpose of managing water resources within the jurisdictional and sphere of influence boundaries of the San Miguel Community Services District that establishes the following objectives:
A consistent and minimum reliable water supply is essential to the public health, safety and welfare of the people and community of San Miguel, and
Will enact rules, regulations and standards for water reuse, recycling, conservation, and
Work collaboratively with others to eliminate or reduce overdraft conditions that may exist in the SMCSD's portion of the PR Basin, while protecting water quality and ensuring future water supply sustainability in the San Miguel area (in cooperation with the County of San Luis Obispo and other water supply agencies in the PR Basin), and to assure that the San Miguel Area portion of the Basin is managed in accordance with the requirements of SGMA

The GSA will be comprised of the SMCSD Board of Directors who may enact voluntary and mandatory measures to achieve these specified objectives.
Proposed Environmental Determination:
Categorical Exemption, Class 7, Regulatory Action Taken to Protect Natural Resource.
A copy of the Categorical Exemption form is available at District office and available upon request or at the District website. District contact information is: www.sanmiguelcsd.org or phone – (805) 467-3388.
Interested persons are invited to be present at the public hearing and will be given an opportunity to speak in favor or in opposition to the above-proposed ordinance. Written comments are also acceptable, if submitted or delivered to the District office prior to the public hearing.
Information regarding the proposed ordinance is on file at the District office or may be found on the District's website, www.sanmiguelcsd.org.
BY ORDER OF THE SAN MIGUEL COMMUNITY SERVICES DISTRICT BOARD OF DIRECTORS.
DARRELL W. GENTRY, GENERAL MANAGER AND SECRETARY TO THE BOARD
Date: September 28, 2016 Published Once on Friday, October 7, 2016 and Once on Friday, October 14, 2016

EXHIBIT 3

(DISTRICT ADOPTING RESOLUTION)

ORIGINAL

RESOLUTION NO. 2016- 34

RESOLUTION OF THE BOARD OF DIRECTORS OF SAN MIGUEL COMMUNITY SERVICES DISTRICT TO BECOME A GROUNDWATER SUSTAINABILITY AGENCY FOR A PORTION OF THE PASO ROBLES GROUNDWATER BASIN WITHIN THE BOUNDARIES AND SPHERE OF INFLUENCE FOR SAN MIGUEL COMMUNITY SERVICES DISTRICT

WHEREAS in September 2014, the Sustainable Groundwater Management Act SGMA was signed into law with an effective date of January 1, 2015 and codified at California Water Code Section 10720 et seq., and

WHEREAS the legislative intent of SGMA is to among other goals: provide sustainable management of alluvial groundwater basins and sub-basins AS defined by the California Department of Water Resources (DWR); to enhance local management of groundwater; to establish minimum standards for sustainable groundwater management and to provide specified local agencies authority and the technical and financial assistance necessary to sustainably manage groundwater, and

WHEREAS the Water Code, Section 10723a authorizes a local agency with water supply water management or local land use responsibilities or a combination of local agencies with such responsibilities overlying a groundwater basin to decide to become a Groundwater Sustainability Agency GSA under SGMA, and

WHEREAS San Miguel Community Services District (SMCSD) is a local agency with water management responsibilities exercised per Government Code 61100 b within SMCSD's service area including management and infiltration of treated wastewater throughout the SMCSD service area, and

WHEREAS sustainable groundwater management of high priority basins as designated by DWR is required by SGMA, and

WHEREAS the service area of SMCSD overlies portions of the Estrella sub-basin of a portion of the Paso Robles Groundwater Basin DWR Bulletin 118 Basin No. 9-7 hereinafter the SLR Basin which is designated by DWR as a high priority basin, and

WHEREAS California Water Code Section 10723.8 requires that a local agency deciding to serve as a GSA notify DWR within 30 days of the local agency's decision to become a GSA authorized to undertake sustainable groundwater management within a basin and

WHEREAS California Water Code Section 10723.8 mandates that 90 days following the posting by DWR of the local agency's decision to become a GSA that entity shall be presumed to be the exclusive GSA for the designated area within the basin the agency is managing as described in the notice provided that no other GSA formation notice covering the same area has been submitted to DWR, and

ORIGINAL

WHEREAS SMCSD intends to pursue a memorandum of understanding or other Agreement(s) with one or more local agencies in the PR Basin that will achieve the common purpose of creating a governance structure for the entire PR Basin that ensures all of the PR Basin is sustainably managed in a transparent and effective manner under one or more groundwater sustainability plans GSPs, and

WHEREAS in accordance with Section 10723b of the California Water Code and Section 6066 of the California Government Code, a notice of public hearing was published in a general circulation newspaper in San Luis Obispo County regarding SMCSDs intent to consider becoming a GSA for a portion of the PR Basin, and

WHEREAS becoming a GSA supports the SMCSD's ongoing efforts to maintain and replenish the PR Basin, while working to eliminate over-drafting and ensure water supply sustainability within its service area boundaries in cooperation with the state recognized GSA's located within the Paso Robles Basin.

NOW THEREFORE THE SMCSD BOARD OF DIRECTORS HEREBY FINDS DETERMINES RESOLVES AND ORDERS AS FOLLOWS:

Section 1. The above recitals and each of them are true and correct.

Section 2. The SMCSD Board of Directors hereby decides and determines that SMCSD shall become the GSA for all of those portions of the PR Basin underlying or within the jurisdictional boundaries/sphere of influence of SMCSD.

Section 3. SMCSD Staff is directed to submit to DWR within thirty 30 days of the approval of this Resolution all documentation and information required by Water Code Section 10723.8 to support SMCSD's formation of a GSA.

Section 4. The Board President of SMCSD is authorized to execute memorandum(s) of understanding that memorializes the synergistic manner in which SMCSD maintains and/or replenishes its portion of the PR Basin with treated wastewater and otherwise cooperates in the management of the PR Basin in accordance with developed groundwater model(s) and groundwater management plan(s) that protects basin water quality in the Estrella portion of the PR Basin, while ensuring groundwater levels do not drop below specified levels.

Section 5. Board President and District General Manager are further authorized to pursue and negotiate with other local agencies and interested parties in the Estrella portion of the PR Basin such other agreements associated with SGMA compliance as may be deemed prudent by the Board President and/or General Manager. Such agreements-which shall generally be for the purpose of developing and implementing a cooperative and coordinated governance structure for future management of groundwater in some or the entire PR Basin-shall be submitted by the President to the SMCSD Board for consideration and possible approval.

ORIGINAL

Section 6. The approval of this Resolution and the actions described herein are exempt from the requirements of the California Environmental Quality Act CEQA since:
1) they are not a project for purposes of CEQA Guidelines 14 Cal. Code Regs. 15378 b5 because the approval will not result in direct or indirect physical changes in the environment, and
2) it can be seen with certainty that there is no possibility that the approval in question may have a significant effect on the environment. CEQA Guidelines 14 Cal. Code Regs. 15061b3. Staff is directed to file and post within five 5 business days a Notice of Exemption associated with this approval with the Clerk of the Board of Supervisors of San Luis Obispo County.

Section 7. The Secretary to the Board does hereby certifies the adoption of this resolution.

PASSED APPROVED AND ADOPTED this 27th day of October 2016 by the following Vote:

AYES BUCKMAN, DAWES, GREEN, KALVANS, REUCK

NOES

ABSENT

John Green, Board President
San Miguel Community Services District

ATTEST:
Darrell W. Gentry, General Manager and
Secretary to the Board of Directors

APPROVED AS TO FORM:
Doug White, District General Counsel

EXHIBIT 4

(LIST OF INTERESTED PARTIES)

4-H Clubs- Paso Robles
807 Sycamore canyon
Paso Robles, CA 93446

4-H Clubs- San Luis Obispo
2156 Sierra Way #C
San Luis Obispo, CA 93422

Agricultural Liaison Advisory Board (ALAB)

Almira Water Association
P.O. Box 752
Paso Robles, CA 93447

Arciero Winery
5011 CA-46
Paso Robles, CA 93446

Atascadero Mutual Water Company
5005 El Camino Real
Atascadero, CA 93422

Atascadero State Hospital
10333 El Camino Real
Atascadero, CA 93422

Cal Trans Shandon Rest Stop
1120 N Street MS 49 Ca-46
Sacramento, CA 95814

Camp Roberts
billeting office, bldg 6037
Camp Roberts, CA 93451

Central Coast Salmon Enhancement
229 Stanley Ave.
Arroyo Grande, CA 93420

Central Coast Vineyard Team
5915 El Camino Real
Atascadero, CA 93422

Central Coast Wine Grape Growers Association

Chumash Casino Resort
3400 E. Hwy 246
Santa Ynez, CA 93460

City of Atascadero
6500 Palma Ave.
Atascadero, CA 93422

City of Atascadero
6500 Palma Ave.
Atascadero, CA 93422

City of Paso Robles
1000 Spring Street
Paso Robles, CA 93446

City of Paso Robles
1000 Spring Street
Paso Robles, CA 93446

County of Monterey
168 West Alisal Street 3rd fl
Salinas, CA 93901

County of Monterey
40 Church St
Salinas, CA 93901

County of San Luis Obispo
1055 Monterey Street
San Luis Obispo, CA 93408

County of San Luis Obispo Planning Department & Planning Commission
976 Osos Street #200
San Luis Obispo, CA 93408

Courtside Cellars
425 Mission Street
San Miguel, CA 93451

Creston Country Store
6330 Webster Rd.
Creston, CA 93432

Creston Elementary School
5105 O'donovan Rd.
Creston, CA 93432

Department of Water Resources
416 9th Street
Sacramento, CA 95814

El Paso De Robles Youth Correction Facility
4545 Airport Road
Paso Robles, CA 93446

Garden Farms Community Water District
17005 Walnut Ave.
Atascadero, CA 93422

Green River Mutual Water Company
5 Grace Dr.
Paso Robles, CA 93446

Grower-Shipper Association
512 Pajaro Street
Salinas, CA 93901

Heritage Ranch CSD
4870 Heritage Road
Paso Robles, CA 93446

Hunter Ranch Golf Course
4041 CA-46
Paso Robles, CA 93446

Land Conservancy of San Luis Obispo
1137 Pacific Street #A
San Luis Obispo, CA 93401

Local Chapter California Certified Organic Farms
P.O. Box 838
Paso Robles, CA 93447

Meridian Vineyard
7000 Hwy 46
Paso Robles, CA 93446

Mustang Springs Mutual Water Company
1606 Spring Street
Paso Robles, CA 93446

Paso Robles Chamber of Commerce
1225 Park Street
Paso Robles, CA 93446

Paso Robles Vintners and Growers Association
930 10th Street
Paso Robles, CA 93446

Pleasant Valley Elementary
4025 Ranchita Canyon Road
San Miguel , CA 93451

Salinan Nation Cultural Association
P.O. Box 56
Lockwood, CA 93932

Heritage Ranch CSD
4870 Heritage Road
Paso Robles, CA 93446

Independent Grape Growers of Paso Robles
P.O. Box 599
Paso Robles, CA 93447

Las Posas Tablas Resource Conservation District
65 S. Main Street #107
Templeton, CA 93465

Longbranch Saloon
6258 Webster Road
Creston, CA 93432

Monterey County Parks Department
168 West Alisal Street 2rd fl
Salinas, CA 93901

Native American Heritage Commission
915 Capital Mall #364
Sacramento, CA 95814

Paso Robles RV Ranch
398 Exline Road
Paso Robles, CA 93446

Paso Robles Wine Country Alliance
1446 Spring Street #103
Paso Robles, CA 93446

Rancho Salinas Mutual Benefit Water Company
3563 Empleo Street
San Luis Obispo, CA 93408

San Luis Obispo Council of Government (SLO COG)
919 Palm Street #T
San Luis Obispo, CA 93401

Huerhuero Ranch
9620 Huer Huero Road
Creston, CA 93432

Jack Ranch Cafe
19215 CA-46
Shandon, CA 93461

Loading Chute
6350 Webster Road
Creston, CA 93432

Los Robles Mobile Estates
3165 Theatre Dr.
Paso Robles, CA 93446

Monterey County Water Resources Agency
893 Blanco Circle
Salinas, CA 93901

North County Farmers Market Association
P.O. Box 1783
Paso Robles, CA 93447

Paso Robles Truck Plaza (San Paso)
81 Wellsona Rd.
Paso Robles, CA 93446

Pete Johnston GM
2485 Theater Drive
Paso Robles, CA 93446

Regional Water Quality Control Board
320 West Fourth St #200
Los Angeles, CA 90013

San Luis Obispo County Flood Control & Water Conservation
976 Osos Street #206
San Luis Obispo, CA 93408

San Miguel Cemetery District
P.O. Box 237
San Miguel, CA 93451

San Miguel School District
1601 L Street
San Miguel, CA 93451

SATCOM- Camp Roberts
Billeting office, bldg 6037
Camp Roberts, CA 93451

SLO County Farm Supply
1450 Ramada Dr.
Paso Robles, CA 93446

Spanish Lakes Mutual Water Company
1330 Morro Road
Atascadero, CA 93422

The Nature Conservancy
99 Pacific St
Monterey, CA 93940

UC Cooperative Extension
349 San Benito Street #115
Hollister, CA 95023

USDA Farm Service Agency
880 Campus Drive
Sandford, CA 93230

San Miguel Advisory Council
P.O. Box 822
San Miguel , CA 93451

San Miguel Chamber of Commerce
P.O. Box 385
San Miguel, CA 93451

Santa Ynez Band of Mission Indians
P.O. Box 517
Santa Ynez, CA 93460

SLO County Cattlemen
P.O. Box 302
Paso Robles, CA 93447

SLO County Visitors & Conference Bureau
1334 Marsh Street
San Luis Obispo, CA 93401

Templeton CSD
420 Crocker St.
Templeton, CA 93465

The Nature Conservancy
895 Napa Ave
Morro Bay, CA 93442

Upper Salinas-Las Tablas Resource Conservation District
65 S. Main St. #107
Templeton , CA 93465

Walnut Hills Mutual Water Company
245 Nutwood Circle
Paso Robles, CA 93446

San Miguel Catholic Church—Monterey Diocese
P.O. Box 69
San Miguel , CA 93451

San Miguel CSD
P.O. Box 180
San Miguel, CA 93451

Santa Ysabel Ranch Mutual Water Company
P.O. Box 1988
Atascadero, CA 93422

SLO County Cattlewomen
9765 Carrisa Hwy
Santa Margarita, CA 93453

SLO Farm Bureau
4875 Morabito Place
San Luis Obispo, CA 93401

Templeton CSD
420 Crocker St.
Templeton, CA 93465

U.S. Fish & Wildlife
1849 C Street NW
Washington, DC 20240

USDA Conservation Service
21001 Elliot Road
Lockeford, CA 95237

MEMORANDUM OF AGREEMENT REGARDING PREPARATION OF A GROUNDWATER SUSTAINABILITY PLAN FOR THE PASO ROBLES GROUNDWATER BASIN

This Memorandum of Agreement regarding Preparation of a Groundwater Sustainability Plan for the Paso Robles Groundwater Basin ("MOA") is entered into by and between the City of El Paso de Robles ("City"), the San Miguel Community Services District ("SMCSD"), the Heritage Ranch Community Services District ("HRCSD"), the County of San Luis Obispo ("County") and the Shandon-San Juan Water District ("SSJWD") (each referred to individually as a "Party" and collectively as the "Parties") for purposes of preparing a groundwater sustainability plan for the Paso Robles Area Subbasin.

Recitals

WHEREAS, on September 16, 2014, Governor Jerry Brown signed into law Senate Bills 1168 and 1319 and Assembly Bill 1739, known collectively as the Sustainable Groundwater Management Act (Water Code §§ 10720 *et seq.*) ("SGMA"), which became effective on January 1, 2015 and which have been and may continue to be amended from time to time; and

WHEREAS, SGMA requires the establishment of a groundwater sustainability agency ("GSA") or agencies for all basins designated as medium or high priority by the California Department of Water Resources ("DWR") on or before June 30, 2017; and

WHEREAS, SGMA further requires the adoption of a groundwater sustainability plan ("GSP") or coordinated GSPs for all basins designated by DWR as high or medium priority and subject to critical conditions of overdraft on or before January 31, 2020; and

WHEREAS, DWR has designated the Paso Robles Area Subbasin (Basin No. 3-004.06) ("Basin") as a high priority basin subject to critical conditions of overdraft; and

WHEREAS, each of the Parties has decided to become the GSA within its respective service area overlying the Basin and has informed DWR of its decision and intent to undertake sustainable groundwater management therein; and

WHEREAS, each of the Parties desires to collectively develop and implement a single GSP to sustainably manage the portions of the Basin underlying their combined service areas (*i.e.* all portions of the Basin located within the County of San Luis Obispo); and

WHEREAS, the Parties share the common goal of cost effective, sustainable groundwater management that considers the interests and concerns of all beneficial uses and users of groundwater within the Basin; and

WHEREAS, on April 6, 2017, the San Luis Obispo Local Agency Formation Commission conditionally approved the formation of the Estrella-El Pomar-Creston Water District ("EPCWD"), subject to, among other things, a successful vote on the formation pursuant to Water Code Section 34500, for purposes of serving as a GSA within its service area; and

WHEREAS, the EPCWD, if formed, will not be formed until after the June 30, 2017 deadline, and the County included the potential service area of the EPCWD within the Paso Basin – County of San Luis Obispo Groundwater Sustainability Agency that the County formed on May 16, 2017 by Resolution 2017-134; and

WHEREAS, the Parties acknowledge the cooperative efforts of the working group, including representatives of each Party and the applicant and several petitioners desiring to form the EPCWD, that commenced meeting in August 2016 and that culminated in this MOA; and

WHEREAS, this MOA provides for the future addition of EPCWD as a Party to this MOA provided that certain conditions are satisfied, including, but not limited to, a successful vote on the formation of the EPCWD pursuant to Water Code Section 34500 and the County Board of Supervisors decides to withdraw from serving as the GSA for the EPCWD service area; and

WHEREAS, the active involvement and cooperation of all users of groundwater within the Basin is highly valued by the Parties and their continued willing cooperation in SGMA implementation is deemed critical for successful sustainable management of the Basin.

NOW, THEREFORE, it is mutually understood and agreed as follows:

Section 1
Purpose

The purpose of this MOA is to establish a committee to develop a single GSP that will be considered for adoption by each individual Party and subsequently submitted to DWR for approval. This MOA may also serve as the basis for continued cooperation among the Parties in the management of the Basin during the period between adoption of the GSP by each Party and approval of the GSP by DWR. As more specifically set forth in Section 12.2 below, this MOA shall automatically terminate upon DWR's approval of the GSP for the Basin.

Section 2
Term

This MOA shall become effective on the date that the last of the five (5) Parties signs ("Effective Date") and shall remain in effect until terminated in accordance with Section 9.2 or Section 12.2 below.

Section 3
EPCWD

If and only if the EPCWD is formed and its Board of Directors decides to become the GSA within its service area and the County Board of Supervisors decides to withdraw from serving as the GSA within said area, the EPCWD may become a Party to this Agreement by signing the Addition of Party to Memorandum of Agreement regarding Preparation of a Groundwater Sustainability Plan for the Paso Robles Groundwater Basin in the form attached hereto as Exhibit A ("Addition") provided that the County Board of Supervisors has accepted the Addition as part of its decision to withdraw.

Section 4
Paso Basin Cooperative Committee

4.1 The Parties hereby establish the Paso Basin Cooperative Committee ("Cooperative Committee") which shall be composed of a member and alternate member from each of the five (5) Parties.

4.2 The governing body of each Party shall promptly appoint a member and alternate member to the Cooperative Committee. Each Cooperative Committee member and alternate member shall serve at the pleasure of the appointing Party, and may be removed from the Cooperative Committee by the appointing Party at any time. Each Cooperative Committee member's compensation, if any, for his or her service on the Cooperative Committee shall be the responsibility of the appointing Party.

4.3 If and only if the EPCWD becomes a Party to this MOA in accordance with Section 3 of this MOA, the Cooperative Committee shall also include a member and alternate member from the EPCWD appointed by the EPCWD.

4.4 The Cooperative Committee shall conduct activities related to GSP development and SGMA implementation at the pleasure and under the guidance of the Parties, including, but not limited to:

A. Development of a GSP that achieves the goals and objectives outlined in SGMA;
B. Review and participation in the selection of consultants related to Cooperative Committee efforts, as more specifically set forth in Section 6 below;
C. Development of recommended annual budgets and additional funding needs for consideration and approval of the Parties and development of a record of expenditures, in accordance with and subject to Section 5 below. Consistent with Section 7 below, it is expected that each of the Parties will contribute in-kind staff support; therefore, recommended annual budgets

shall generally not include the staff or overhead costs of any Party associated with participation in this MOA;

D. Development of a plan that describes the anticipated tasks to be performed under this MOA and a schedule for performing said tasks;

E. Implementation of the actions and/or policies undertaken pursuant to this MOA and resolution of any issues related to these actions and/or policies;

F. Development of measures that may be implemented in the event insufficient or unsatisfactory progress is being made in development of the GSP;

G. Development of a stakeholder participation plan that includes public outreach and education programs and workshops as appropriate and that involves the interested stakeholders in developing and implementing the GSP (*e.g.* workshops at key milestones); if determined necessary by the Cooperative Committee and supported by the Parties, the Cooperative Committee may lead implementation of the stakeholder participation plan or other stakeholder engagement activities;

H. Establishment from time to time of one or more standing or *ad hoc* committees to assist in carrying out the purposes and objectives of the Cooperative Committee as may be necessary;

I. Recommendation that each individual Party adopt the GSP developed under this MOA;

J. Resolution of differences among the Parties;

K. Coordination with neighboring GSAs in the Salinas Valley Groundwater Basin and with neighboring GSPs as may be required and/or to ensure no adverse effects.

4.5 The Cooperative Committee shall meet at least quarterly to carry out the activities described above. The Cooperative Committee shall prepare and maintain minutes of its meetings, and all meetings of the Cooperative Committee shall be conducted in accordance with the Ralph M. Brown Act (Government Code §§ 54950 *et seq.*). A majority of the members of the Cooperative Committee shall constitute a quorum for purposes of transacting business, except that less than a quorum may vote to adjourn the meeting. Attendance at all Cooperative Committee meetings may be augmented to include Parties' staff or consultants to ensure that the appropriate expertise is available.

4.6 Subject to Section 4.7 below, on all matters considered by the Cooperative Committee, the vote of each member shall be weighted in accordance with the following percentages:

City Member	15%
SMCSD Member	3%
HRCSD Member	1%

SSJWD Member	20%
County Member	61%

4.7 If and only if the EPCWD becomes a Party to this MOA in accordance with Section 3 of this MOA, the voting percentages set forth in Section 4.6 shall be modified as follows:

City Member	15%
SMCSD Member	3%
HRCSD Member	1%
SSJWD Member	20%
County Member	32%
EPCWD Member	29%

4.8 Any action or recommendation considered by the Cooperative Committee shall require the affirmative vote of 67 percent based on the percentages set forth in Section 4.6 or 4.7 above, as applicable. Notwithstanding the foregoing, the following shall require the affirmative vote of 100 percent based on the percentages set forth in Section 4.6 or 4.7 above, as applicable: (A) a recommendation that each of the Parties adopt the GSP or adopt any amendment thereto prepared in response to comments from DWR and (B) a recommendation that the Parties amend this MOA. For purposes of determining whether the requisite voting threshold has been met, the voting percentage of each member must be included in the calculation with the following limited exception: in the event that a member recuses himself or herself (A) said member's voting percentage shall be allocated *pro rata* to the other members for purposes of determining whether the 67 percent threshold has been met and (B) said members' affirmative vote shall not be required to reach the 100 percent threshold (i.e. all members who have not recused themselves must vote in the affirmative). Without limiting the foregoing, an absence by any member(s) shall not result in any *pro rata* distribution for purposes of determining whether the 67 percent threshold has been met or result in elimination of the requirement that said member vote in the affirmative for purposes of determining whether the 100 percent threshold has been met.

4.9 The creation of the Cooperative Committee shall not be construed as a delegation of any powers or authorities, and all powers and authorities of each individual Party shall reside with that Party.

Section 5
Funding

5.1 The Fiscal Year of the Cooperative Committee shall be July 1 through June 30.

5.2 For Fiscal Years 2017 – 2018, 2018 – 2019 and 2019 – 2020, the Cooperative Committee shall develop a recommended budget for consideration by each Party. Subject to each Party's approval of the budget for the relevant Fiscal Year, each Party shall be responsible

for funding a portion of said budgeted costs in accordance with the percentages set forth in Section 4.6 or Section 4.7 above, as applicable. Neither the Cooperative Committee nor any Party on behalf of the Cooperative Committee shall make any financial expenditures or incur any financial obligations or liabilities pursuant to this MOA for Fiscal Years 2017 – 2018, 2018 – 2019 or 2019 – 2020 prior to approval of the budget for the relevant Fiscal Year by each Party.

5.3 For Fiscal Year 2020 – 2021 and following, the Cooperative Committee shall develop a recommended budget and recommended contribution percentages for consideration by each Party. Subject to each Party's approval of the budget and its contribution percentage, each Party shall be responsible for funding a portion of said budgeted costs in accordance with the percentages approved by each Party. Neither the Cooperative Committee nor any Party on behalf of the Cooperative Committee shall make any financial expenditures or incur any financial obligations or liabilities pursuant to this MOA for Fiscal Year 2020 – 2021 and following prior to approval of the budget and contribution percentages for the relevant Fiscal Year by each Party.

5.4 It is anticipated that the vast majority of budgeted costs will involve costs for consultant services. Consequently, most contributions shall be paid to the City in the manner described in Section 6.6 below. For budgeted costs that do not involve consultant services (if any), the Cooperative Committee shall determine the manner in which such contributions shall be paid consistent with Section 5.2 and Section 5.3 above.

5.5 The Cooperative Committee shall make recommendations related to any additional non-budgeted funding needs, but shall have no authority to require any Party to contribute funds over and above those included in the budgets approved by each Party.

5.6 On an annual basis, the Cooperative Committee and/or contracting agent shall provide the Parties with a record of expenditures from the previous Fiscal Year related to this MOA.

Section 6
Engagement of Consultants

6.1 It is anticipated that the Cooperative Committee will desire to retain the services of one or more consultants in conducting the activities identified in Section 4.4 above, including, but not necessarily limited to, its development of the GSP.

6.2 The City agrees to act as the contracting agent on behalf of the Cooperative Committee and shall follow its own procurement policies in the engagement of such consultant(s) subject to Section 6.3 below.

6.3 The City agrees that the Parties and the Cooperative Committee shall be included in the selection of any consultant retained by the City on behalf of the Cooperative Committee.

More specifically, staff representatives from each of the Parties shall be given an opportunity to review and approve all requests for proposals prior to their release and to participate in the various stages of the selection process, including, but not limited to, review of proposals and participation on interview panels. In addition, the City shall not issue a notice to proceed to any selected consultant until the Cooperative Committee has confirmed the consultant and related contract.

6.4 The Cooperative Committee may request that the City terminate a consultant contract entered into on behalf of the Cooperative Committee subject to and in accordance with the terms specified in the contract.

6.5 All consultant contracts entered into by the City on behalf of the Cooperative Committee shall include the following: (A) a provision that the consultant shall not commence work until a notice to proceed is issued and acknowledgement that a notice to proceed will not be issued until the Cooperative Committee confirms the consultant and contract; (B) a provision requiring that the consultant name each Party, its employees, officers and agents as an additional insured; and (C) an expected spend plan estimating the amount of the not to exceed contract amount that the consultant expects to invoice the City each month.

6.6 Upon receipt of each invoice from a consultant retained on behalf of the Cooperative Committee, the City shall calculate each Party's payment obligation based on the percentages set forth in Section 4.6 or Section 4.7, as applicable, or on the percentages approved by each Party as set forth in Section 5.3, depending on the Fiscal Year. The City shall submit an invoice to each Party showing the foregoing calculation, and each Party shall remit payment to the City within thirty (30) days.

Section 7
Roles and Responsibilities of the Parties

In addition to performance of the roles and responsibilities set forth above related to, among other things, appointment of members and alternate members to the Cooperative Committee, consideration of annual budgets and cost contributions and participation in the selection of consultants, the Parties shall:

A. Work to jointly to meet the objectives of this MOA through, among other things, coordination of all activities related to fulfillment of said objectives;
B. Internally or jointly designate a staff person(s) to provide expertise and existing information in a timely manner and to participate in the development of the GSP and/or related technical studies and/or other materials or actions being considered by the Cooperative Committee;
C. Upon recommendation of the Cooperative Committee, consider adoption of the GSP and, as defined in the GSP once approved, implement the GSP within its respective GSA service area. Notwithstanding the foregoing, nothing contained

in this MOA shall be construed as obligating any Party to adopt the GSP developed under this MOA, or as preventing any Party from adopting the GSP developed under this MOA in the event that the Cooperative Committee fails to recommend approval or another Party (or Parties) elects not to adopt the GSP developed under this MOA;

D. Bring any dispute over any of the activities discussed in this MOA to the Cooperative Committee in order to provide the Cooperative Committee with an opportunity to resolve the dispute.

Section 8
Interagency Communication and Providing Proper Notice

8.1 In order to provide for consistent and effective communication among the Parties, each Party agrees to designate a representative as its central point of contact on all matters relating to this MOA and the GSP. Additional representatives from the community or staff may be appointed to serve as points of contact on specific actions or issues.

8.2 All notices, statements or payments related to implementing the objectives of this MOA shall be deemed to have been duly given if given in writing and delivered electronically, personally or mailed by first-class, registered, or certified mail to the Parties at the addresses set forth in Exhibit B. Notwithstanding any other provision of this MOA, the Parties may update Exhibit B from time to time without formally amending this MOA.

Section 9
Withdrawal and Termination

9.1 Any Party may unilaterally withdraw from this MOA without causing or requiring termination of this MOA. Withdrawal shall become effective upon thirty (30) days written notice to the remaining Parties' designated addresses as listed in Exhibit B. Nothing contained in this Section 9 shall be construed as prohibiting a Party that has withdrawn from this MOA from developing its own GSP for its service area within the Basin. A Party that has withdrawn from this MOA shall remain obligated to pay its percentage cost share of expenses and obligations as outlined in the current budget incurred, accrued or encumbered up to the date the Party provided notice of withdrawal, including, but not limited to, its cost share obligation under any existing consultant contract for which the City has issued a notice to proceed. If a Party withdraws, the Cooperative Committee shall reassess the contributions of each remaining Party to fund the current budget and determine if the Cooperative Committee needs to request the contribution of additional funding from the governing board of each Party.

9.2 This MOA may be terminated upon unanimous written consent of all current Parties.

Section 10
Amendments

This MOA may be amended only by unanimous written consent of all current Parties. Approval from a Party is valid only after that Party's governing body approves the amendment at a public meeting. Neither individual Cooperative Committee members nor individual members of the Parties' governing boards have the authority, express or implied, to amend, modify, waive or in any way alter this MOA or the terms and conditions hereof.

Section 11
Indemnification

No Party, nor any officer or employee of a Party, shall be responsible for any damage or liability occurring by reason of anything done or omitted to be done by another Party under or in connection with this MOA. The Parties further agree, pursuant to Government Code Section 895.4, that each Party shall fully indemnify and hold harmless each other Party and its agents, officers, employees and contractors from and against all claims, damages, losses, judgments, liabilities, expenses and other costs, including litigation costs and attorney fees, arising out of, resulting from, or in connection with any work delegated to or action taken or omitted to be taken by such Party under this MOA.

Section 12
Miscellaneous

12.1 Execution in Counterparts. This MOA may be executed in counterparts.

12.2 Automatic Termination of MOA. This MOA shall automatically terminate upon DWR's approval of the adopted GSP. Depending on the content of the GSP, the Parties may decide to enter into a new agreement to coordinate GSP implementation.

12.3 Choice of Law. This MOA is made in the State of California, under the Constitution and laws of said State and is to be so construed.

12.4 Severability. If any provision of this MOA is determined to be invalid or unenforceable, the remaining provisions shall remain in force and unaffected to the fullest extent permitted by law and regulation.

12.5 Entire Agreement. This MOA constitutes the sole, entire, integrated and exclusive agreement between the Parties regarding the contents herein. Any other contracts, agreements, terms, understandings, promises, representations not expressly set forth or referenced in this writing are null and void and of no force and effect.

12.6 Construction and Interpretation. The Parties agree and acknowledge that this MOA has been developed through negotiation, and that each Party has had a full and fair

opportunity to revise the terms of this MOA. Consequently, the normal rule of construction that any ambiguities are to be resolved against the drafting party shall not apply in construing or interpreting this MOA.

IN WITNESS WHEREOF, the Parties have executed this MOA on the dates shown below.

CITY OF EL PASO DE ROBLES

By: _____
Tom Frutchey

Its: City Manager

Date: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: _____

Date: _____

SHANDON SAN JUAN WATER DISTRICT

By: _____
Willy Cunha

Its: President, Board of Directors

Date: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: _____

Date: _____

COUNTY OF SAN LUIS OBISPO

By: _____
John Peschong

Its: Chair, Board of Supervisors

Date: 8/22/2017

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: _____

Date: 8/25/2017

HERITAGE RANCH COMMUNITY SERVICES DISTRICT

By: _____
Scott Duffield

Its: General Manager

Date: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: _____

Date: _____

ATTEST:

Tommy Gong, County Clerk-Recorder and Ex-Officio Clerk of the Board of Supervisors

By, _____
Deputy Clerk

opportunity to revise the terms of this MOA. Consequently, the normal rule of construction that any ambiguities are to be resolved against the drafting party shall not apply in construing or interpreting this MOA.

IN WITNESS WHEREOF, the Parties have executed this MOA on the dates shown below.

CITY OF EL PASO DE ROBLES

By: THOMAS FRUTCHEY
Tom Frutchey

Its: City Manager

Date: 9-20-17

APPROVED AS TO FORM AND LEGAL EFFECT:

By: J. P. Yap

Its: City Attorney

Date: 9/20/17

SHANDON SAN JUAN WATER DISTRICT

By: _____
Willy Cunha

Its: President, Board of Directors

Date: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: _____

Date: _____

COUNTY OF SAN LUIS OBISPO

By: _____
John Peschong

Its: Chair, Board of Supervisors

Date: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: _____

Date: _____

HERITAGE RANCH COMMUNITY SERVICES DISTRICT

By: _____
Scott Duffield

Its: General Manager

Date: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: _____

Date: _____

opportunity to revise the terms of this MOA. Consequently, the normal rule of construction that any ambiguities are to be resolved against the drafting party shall not apply in construing or interpreting this MOA.

IN WITNESS WHEREOF, the Parties have executed this MOA on the dates shown below.

CITY OF EL PASO DE ROBLES

By: _____
Tom Frutchey

Its: City Manager

Date: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: _____

Date: _____

SHANDON SAN JUAN WATER DISTRICT

By: Willy Cunha
Willy Cunha

Its: President, Board of Directors

Date: 7-26-2017

APPROVED AS TO FORM AND LEGAL EFFECT:

By: Young Woodbridge, LLP
Its: District Counsel

Date: 7/26/17

COUNTY OF SAN LUIS OBISPO

By: _____
John Peschong

Its: Chair, Board of Supervisors

Date: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: _____

Date: _____

HERITAGE RANCH COMMUNITY SERVICES DISTRICT

By: _____
Scott Duffield

Its: General Manager

Date: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: _____

Date: _____

opportunity to revise the terms of this MOA. Consequently, the normal rule of construction that any ambiguities are to be resolved against the drafting party shall not apply in construing or interpreting this MOA.

IN WITNESS WHEREOF, the Parties have executed this MOA on the dates shown below.

CITY OF EL PASO DE ROBLES

By: _____
Tom Frutchey

Its: City Manager

Date: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: _____

Date: _____

SHANDON SAN JUAN WATER DISTRICT

By: _____
Willy Cunha

Its: President, Board of Directors

Date: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: _____

Date: _____

COUNTY OF SAN LUIS OBISPO

By: _____
John Peschong

Its: Chair, Board of Supervisors

Date: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: _____

Date: _____

HERITAGE RANCH COMMUNITY SERVICES DISTRICT

By: Scott Duffield
Scott Duffield

Its: General Manager

Date: 07/31/2017

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____

Its: District Counsel

Date: 7/26/17

SAN MIGUEL COMMUNITY
SERVICES DISTRICT

By: _____
Rob Roberson

Its: Interim General Manager

Date: 8/29/2017

APPROVED AS TO FORM AND
LEGAL EFFECT:

By: _____

Its: Daniel White

Date: 9/6/17

EXHIBIT A

Addition of Party to Memorandum of Agreement regarding Preparation of a Groundwater Sustainability Plan for the Paso Robles Groundwater Basin

WHEREAS, certain local agencies that each decided to become the groundwater sustainability agency within their respective service areas overlying the Paso Robles Area Subbasin (Basin No. 3-004.06) have entered into an agreement entitled "Memorandum of Agreement regarding Preparation of a Groundwater Sustainability Plan for the Paso Robles Groundwater Basin" ("Agreement"); and

WHEREAS, the Estrella-El Pomar-Creston Water District ("EPCWD") could not be an original signatory to the Agreement, because it had not yet been formed; and

WHEREAS, Section 3 of the Agreement sets forth the process by which the EPCWD can become a party to the Agreement provided that certain conditions are met; and

WHEREAS, the EPCWD has received and reviewed a copy of the Agreement; and

WHEREAS, on _____, the EPCWD Board of Directors held a public hearing and by Resolution _____decided to become the groundwater sustainability agency within its service area and a signatory to the Agreement; and

WHEREAS, on _____, the County of San Luis Obispo Board of Supervisors held a public hearing and by Resolution _____decided to withdraw from serving as the groundwater sustainability agency within the EPCWD's service area and to accept the signature below.

NOW, THEREFORE, acknowledging that the recitals above are correct and are part of this agreement, the EPCWD, upon acceptance by signature below by the County of San Luis Obispo Board of Supervisors, shall become a party to the Agreement effective immediately. The EPCWD shall bear the benefits and enjoy the burdens of the Agreement as though the EPCWD had originally executed said Agreement as it now exists or may be amended in the future, and for so long as the Agreement remains in effect or for so long as the EPCWD is a party to the Agreement.

ACCEPTED AND APPROVED BY THE ESTRELLA-EL POMAR-CRESTON WATER DISTRICT BOARD OF DIRECTORS:

By: _____ Date: _____

Its: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____ Date: _____

Its: _____

Address for purposes of Exhibit B to the Agreement:

Estrella-El Pomar-Creston Water District

_____

_____

Attention: _____

ACCEPTED AND APPROVED BY
THE COUNTY OF SAN LUIS OBISPO
BOARD OF SUPERVISORS IN ACCORDANCE WITH
THE AGREEMENT:

By: _____ Date: _____

Its: _____

APPROVED AS TO FORM AND LEGAL EFFECT:

By: _____ Date: _____

Its: _____

EXHIBIT B
PARTY ADDRESS LIST

County of San Luis Obispo
976 Osos Street, Room 206
San Luis Obispo, CA 93408
Attention: Wade Horton, Public Works Director

City of El Paso de Robles
1000 Spring Street
Paso Robles, CA 93451
Attention: Dick McKinley, Public Works Director

San Miguel Community Services District
1150 Mission Street
San Miguel, CA 93451
Attention: Rob Roberson, Interim General Manager

Heritage Ranch Community Services District
4870 Heritage Road
Paso Robles, CA 93446
Attention: Scott Duffield, General Manager

Shandon San Juan Water District
365 Truesdale Road PO Box 150
Shandon, CA 93461
Attention: Willy Cunha, President, Board of Directors

Appendix B

Additional Well Logs Used to Supplement Cross Sections and Precipitation Data

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0188056

DWR Use Only – Do Not Fill In

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Page 1 of 2

Owner's Well Number SVW3

Date Work Began 07/24/2013 Date Work Ended 7/26/2013

Local Permit Agency San Luis Obispo County Environmental Health Services

Permit Number 2013-116 Permit Date 7/3/13

Geologic Log

Orientation ⦿ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Direct Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description (Describe material, grain size, color, etc)
0	30	Conductor
0	600	Brown Clay Streaks w/Sand, Course and Fine
600	645	Cemented Course Sands w/Brown Clay
645	750	Course Sand w/Brown Clay
750	940	Brown Clay w/Course Sand
940	1,090	Fine Sand w/Brown Clay

Total Depth of Boring 1090 Feet

Total Depth of Completed Well 790 Feet

Well Owner

Well Location

Address 3385 Truesdale Road

City Shandon County San Luis Obispo

Latitude 35 Deg 36 Min 1776 Sec N Longitude 120 Deg 22 Min 1767 Sec W

Datum Dec. Lat. 35.60477 Dec. Long. 120.37158

APN Book Page Parcel

Township 27S Range 15E Section 4 M

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

SEE ATTACHED MAP

West East

South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

⦿ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

⦿ Water Supply
☐ Domestic ☐ Public
☑ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water 194 (Feet below surface)

Depth to Static Water Level 194 (Feet) Date Measured 09/25/2013

Estimated Yield * 3,000 (GPM) Test Type Step-Drawndown

Test Length 6.8 (Hours) Total Drawdown 243 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	30	36	Conductor	Low Carbon Steel	1/4	30		
0	330	26	Blank	Mild Steel	5/16	16.5		
330	640	26	Screen	HSLA Ful Flo	5/16	16.5	Louver	0.080
640	655	26	Blank	HSLA	5/16	16.5		
655	665	26	Screen	HSLA Ful Flo	5/16	16.5	Louver	0.080
665	680	26	Blank	HSLA	5/16	16.5		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	60	Cement	6 Sack Slurry
60	800	Filter Pack	80-1/4x10, 20-8x16
800	1,090	Fill	Cuttings

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
(Person, Firm or Corporation)

P.O. Box 184 (Address) Templeton (City) CA (State) 93465 (Zip)

Signed (C-57 Licensed Water Well Contractor) 10/25/2013 (Date Signed) 927400 (C-57 License Number)

DWR 188 REV. 1/2006

-RECEIVED

NOV 19 2013

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0188056

Page 2 of 2

Owner's Well Number SVW3

Date Work Began 07/24/2013 Date Work Ended 7/26/2013

Local Permit Agency San Luis Obispo County Environmental Health Services

Permit Number 2013-116 Permit Date 7/3/13

DWR Use Only – Do Not Fill In

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Direct Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc

Total Depth of Boring 1090 Feet

Total Depth of Completed Well 790 Feet

Well Owner

Well Location

Address 3385 Truesdale Road

City Shandon County San Luis Obispo

Latitude 35 Deg. 36 Min. 1776 Sec. N Longitude 120 Deg. 22 Min. 1767 Sec. W

Datum Dec. Lat. 35.60477 Dec. Long. 120.37158

APN Book Page Parcel

Township 27S Range 15E Section 4

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(Sketch must be drawn by hand after form is printed.)

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West East

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Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * (GPM) Test Type

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
680	700	26	Screen	HSLA Ful Flo	5/16	16.5	Louver	0.080
700	730	26	Blank	HSLA	5/16	16.5		
730	750	26	Screen	HSLA Ful Flo	5/16	16.5	Louver	0.080
750	790	26	Blank	Mild Steel	5/16	16.5		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
(Person, Firm or Corporation)

P.O. Box 184 (Address) Templeton (City) CA (State) 93465 (Zip)

Signed (C-57 Licensed Water Well Contractor) 1025/2013 (Date Signed) 927400 (C-57 License Number)

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

APPENDIX B

e0188056

WELL PERMIT PLOT PLAN

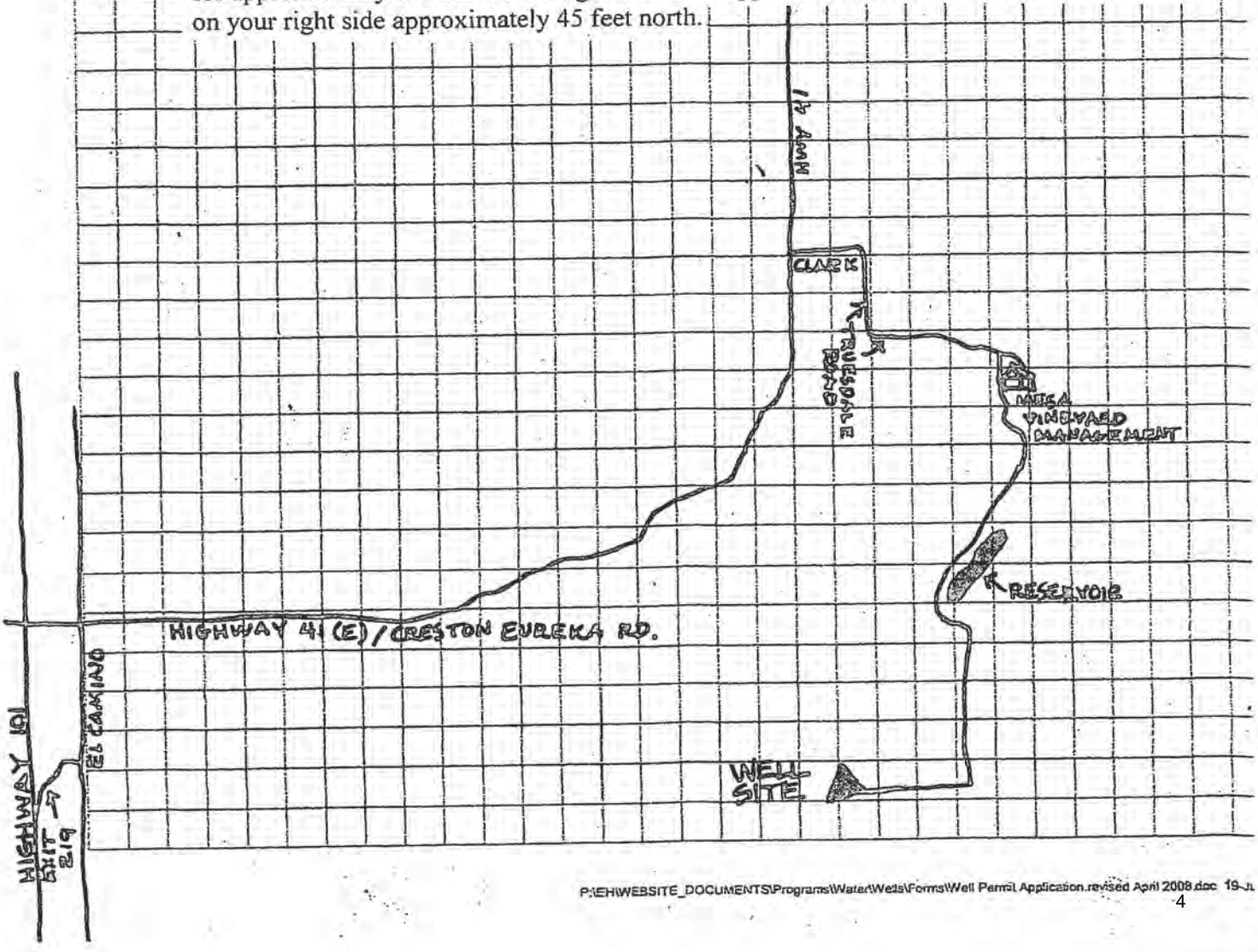
SAN LUIS OBISPO COUNTY ENVIRONMENTAL HEALTH SERVICES
2156 Sierra Way
San Luis Obispo, California 93401
Telephone: 805-781-5544

SCALE: ¼ inch = 25 feet

INDICATE BELOW THE **EXACT LOCATION** OF PROPOSED WELL WITH RESPECT TO THE FOLLOWING ITEMS: PROPERTY LINES, WATER BODIES OR WATER COURSES, DRAINAGE PATTERN, ROADS, EXISTING WELLS, SEWERS AND PRIVATE SEWAGE DISPOSAL SYSTEMS, ANIMAL ENCLOSURES AND ANY OTHER CONCENTRATED SOURCES OF POLLUTION. **INCLUDE DIMENSIONS.** ALL PROPOSED WELL SITES SHALL BE DESIGNATED WITH A FLAGGED SURVEYOR'S STAKE LABELED "WELL SITE." DRILLING SHALL NOT COMMENCE UNT THIS APPLICATION IS APPROVED.

Assessor's Parcel Number-

Take Highway 101 (N) and take Exit #219 toward Morro Road/Highway 41. Turn left onto El Camino Real at the stop light. Drive to the next stop light, approximately 500 feet. Turn right onto CA-41/Creston Eureka Road and drive for approximately 18 miles. Turn right onto Clark Road and drive for approximately 1/2 mile. Turn right onto Truesdale Road and drive for approximately 1 mile. Truesdale turns to the left. Continue on Truesdale for approximately another 1 mile. 3385 Truesdale Road is on your right. There will be a sign that says "Mesa Vineyard Management" Turn right and drive approximately 400 feet. Turn right before building and drive approximately 100 feet. Turn left along side the building and drive approximately 250 feet. Turn right and drive approximately 1/4 mile. There will be a reservoir on your left. Drive along side of the reservoir and round to the left. Turn right and drive along side vineyards (to your right) for approximately 1/4 mile. Turn right and drive approximately 1/4 mile. Well site will be on your right side approximately 45 feet north.



*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0188061

Page 1 of 2

Owner's Well Number SJW4

Date Work Began 07/31/2013 Date Work Ended 8/2/2013

Local Permit Agency San Luis Obispo County Environmental Health Department

Permit Number 2013-117 Permit Date 7/3/13

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N Latitude W Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Direct Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	30	Conductor
0	465	Fine Brown Sand w/Streaks of Brown Clay
465	502	Gravel (Rough Drilling)
502	745	Course Sand w/Streaks of Brown Clay
745	815	Small Gravel (Rough Drilling)
815	975	Fine Sand
975	1,050	Course Sand w/Less Brown Clay

Total Depth of Boring 1050 Feet

Total Depth of Completed Well 1040 Feet

Well Owner

Well Location

Address 2575 San Juan Road

City Shandon County San Luis Obispo

Latitude 35 Deg. 37 Min. 4814 Sec. N Longitude 120 Deg. 22 Min. 257 Sec. W

Datum Dec. Lat. 35.62997 Dec. Long. 120.36792

APN Book Page Parcel

Township 26S Range 15E Section 33 C

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

SEE ATTACHED MAP

West East

South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
☐ Domestic ☐ Public
☑ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water 140 (Feet below surface)

Depth to Static Water Level 140 (Feet) Date Measured 08/02/2013

Estimated Yield * 1,000 (GPM) Test Type Air Lift

Test Length 6.0 (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	30	36	Conductor	Low Carbon Steel	1/4	30		
0	200	26	Blank	Mild Steel	5/16	16.5		
200	410	26	Screen	HSLA	5/16	16.5	Louver	0.070
410	470	26	Blank	Mild Steel	5/16	16.5		
470	500	26	Screen	HSLA	5/16	16.5	Louver	0.070
500	590	26	Blank	Mild Steel	5/16	16.5		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	60	Cement	6 Sack Slurry
60	850	Filter Pack	80-1/4*10&20-8*16
850	1,050	Fill	Cuttings

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Address Templeton City CA State 93465 Zip

Signed C-57 Licensed Water Well Contractor

11-1-13 Date Signed

927400 C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

RECEIVED

NOV 19 2013

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File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0188061

Page 2 of 2

Owner's Well Number SJW4

Date Work Began 07/31/2013 Date Work Ended 8/2/2013

Local Permit Agency San Luis Obispo County Environmental Health Department

Permit Number 2013-117 Permit Date 7/3/13

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N Latitude W Longitude

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Direct Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	30	Conductor
0	465	Fine Brown Sand w/Streaks of Brown Clay
465	502	Gravel (Rough Drilling)
502	745	Course Sand w/Streaks of Brown Clay
745	815	Small Gravel (Rough Drilling)
815	975	Fine Sand
975	1,050	Course Sand w/Less Brown Clay

Total Depth of Boring 1050 Feet

Total Depth of Completed Well 1040 Feet

Well Owner

Well Location

Address 2575 San Juan Road

City Shandon County San Luis Obispo

Latitude 35 Deg. 37 Min. 4814 Sec. N Longitude 120 Deg. 22 Min. 257 Sec. W

Datum _____ Dec. Lat. 35.62997 Dec. Long. 120.36792

APN Book _____ Page _____ Parcel _____

Township 26S Range 15E Section 33

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

West East

South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete

Activity

◉ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
☐ Domestic ☐ Public
☑ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static Water Level _____ (Feet) Date Measured _____

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
590	630	26	Screen	HSLA	5/16	16.5	Louver	0.070
630	700	26	Blank	Mild Steel	5/16	16.5		
700	730	26	Screen	HSLA	5/16	16.5	Louver	0.070
730	750	26	Blank	Mild Steel	5/16	16.5		
750	810	26	Screen	HSLA	5/16	16.5	Louver	0.070
810	840	26	Blank	Mild Steel	5/16	16.5		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Tyson R. Davis, Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Address Templeton City CA State 93465 Zip

Signed _____ C-57 Licensed Water Well Contractor

11-1-13 Date Signed

927400 C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

e0188061

WELL PERMIT PLOT PLAN

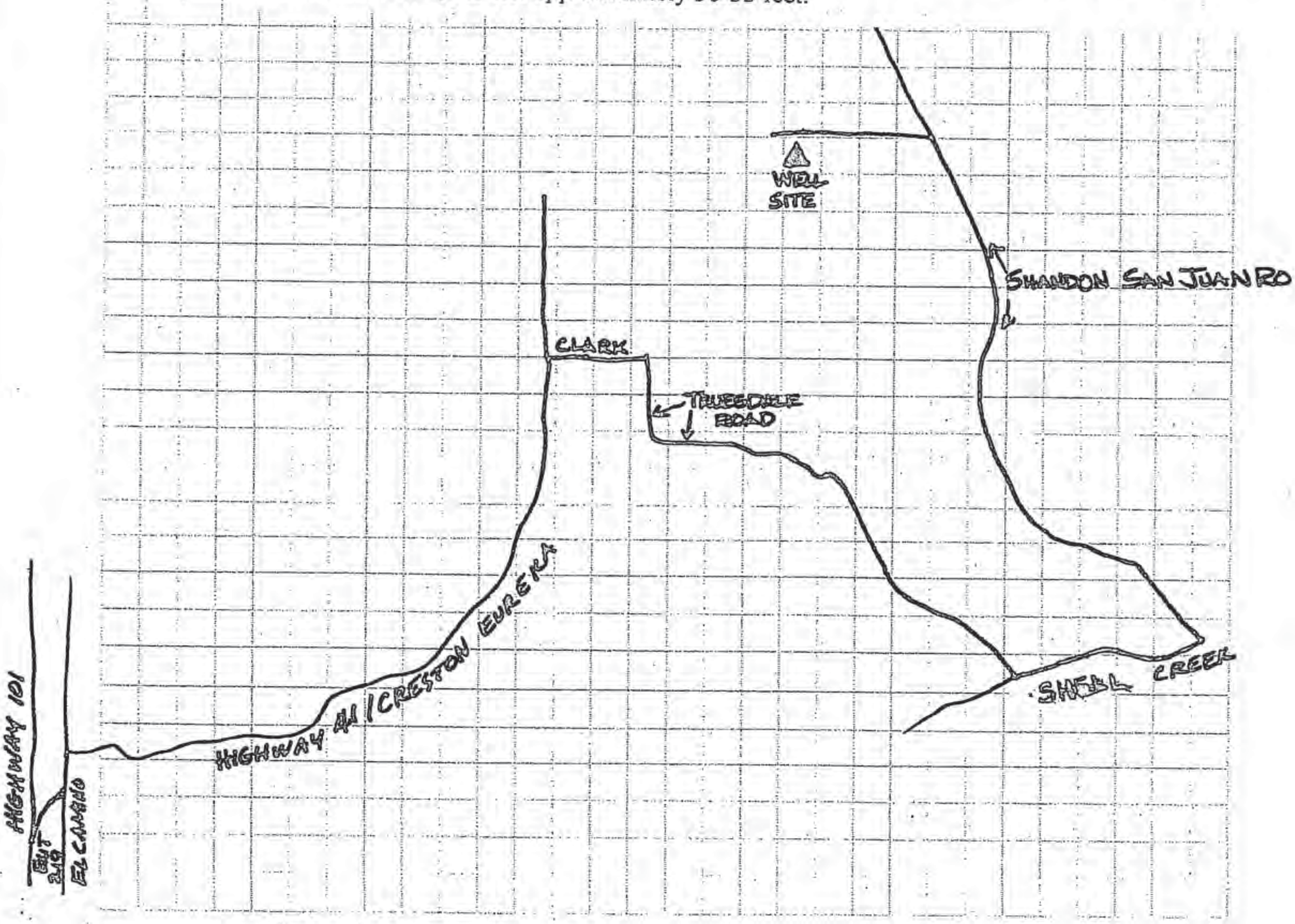
SAN LUIS OBISPO COUNTY ENVIRONMENTAL HEALTH SERVICES
2156 Sierra Way
San Luis Obispo, California 93401
Telephone: 805-781-5544

SCALE: ¼ inch = 25 feet

INDICATE BELOW THE **EXACT LOCATION** OF PROPOSED WELL WITH RESPECT TO THE FOLLOWING ITEMS: PROPERTY LINES, WATER BODIES OR WATER COURSES, DRAINAGE PATTERN, ROADS, EXISTING WELLS, SEWERS AND PRIVATE SEWAGE DISPOSAL SYSTEMS, ANIMAL ENCLOSURES AND ANY OTHER CONCENTRATED SOURCES OF POLLUTION. **INCLUDE DIMENSIONS.** ALL PROPOSED WELL SITES SHALL BE DESIGNATED WITH A FLAGGED SURVEYOR'S STAKE LABELED "WELL SITE." DRILLING SHALL NOT COMMENCE UNTIL THIS APPLICATION IS APPROVED.

Assessor's Parcel Number-

Take Highway 101 (N) and take Exit #219 toward Morro Road/Highway 41. Turn left onto El Camino Real at the stop light. Drive to the next stop light, approximately 500 feet. Turn right onto CA-41/Creston Eureka Road and drive for approximately 18 miles. Turn right onto Clark Road and drive for approximately 1/2 mile. Turn right onto Truesdale Road and drive for approximately 4 miles. Turn left on Shell Creek Road and drive for approximately 3/4 mile. Turn left onto Shandon San Juan Road and drive for approximately 2.9 miles and turn left onto dirt road. Drive a little over 1/4 mile and the Well Site is on your left approximately 50-55 feet.



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File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0162372

DWR Use Only – Do Not Fill In

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Page 1 of 2

Owner's Well Number Continental Vineyards

Date Work Began 08/01/2012 Date Work Ended 8/10/2012

Local Permit Agency County of San Luis Obispo Public Health

Permit Number 2012-149 Permit Date 7/30/12

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
0	40	Clay
40	55	Gravel
55	65	Clay
65	150	Gravel
150	160	Clay
160	165	Gravel
165	180	Clay
180	200	Gravel
200	230	Clay
230	280	Gravel
280	318	Clay
318	320	Sand
320	336	Clay
336	340	Gravel
340	355	Clay
355	360	Gravel
360	370	Clay
370	390	Gravel
390	400	Clay
400	435	Gravel
435	480	Clay
480	530	Gravel
530	560	Clay
560	605	Gravel
605	620	Clay
620	635	Gravel
635	650	Clay
650	730	Clay
730	810	Clay
810	830	Gravel

Total Depth of Boring 1,110 Feet

Total Depth of Completed Well 1,100 Feet

Well Owner

Well Location

Address 11000 Hwy. 46E

City Paso Robles County San Luis Obispo

Latitude 35 Deg. 67 Min. 95 Sec. N Longitude 120 Deg. 48 Min. 19 Sec. W

Datum Decimal Lat. Decimal Long.

APN Book Page Parcel 019,121,013

Township 26S Range 14E Section 8

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

West

SEE ATTACHED

East

South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water 205 (Feet below surface)

Depth to Static Water Level 205 (Feet) Date Measured 09/04/2012

Estimated Yield * 1,900 (GPM) Test Type Constant Rate

Test Length 12.0 (Hours) Total Drawdown 89 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
0	320	24	Blank	Low Carbon Steel	.250	14		
320	560	24	Screen	Low Carbon Steel	.250	14	Louver	0.080
560	600	24	Blank	Low Carbon Steel	.250	14		
600	650	24	Screen	Low Carbon Steel	.250	14	Louver	0.080
650	720	24	Blank	Low Carbon Steel	.250	14		
720	760	24	Screen	Low Carbon Steel	.250	14	Louver	0.080

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	6 Sac Slurry
50	1,110	Filter Pack	1/4 * 10

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed [signature] 8-25-12 927400
C-57 Licensed Water Well Contractor Date Signed C-57 License Number

DWR 188 REV. 1/2006

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DEC 5 2012

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

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File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0162372

DWR Use Only – Do Not Fill In

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Page 2 of 2

Owner's Well Number Continental Vineyards

Date Work Began 08/01/2012 Date Work Ended 8/10/2012

Local Permit Agency County of San Luis Obispo Public Health

Permit Number 2012-149 Permit Date 7/30/12

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
830	860	Clay
860	920	Gravel
920	990	Clay
990	1,030	Gravel
1030	1,040	Clay
1040	1,080	Gravel
1080	1,110	Clay

Total Depth of Boring 1,110 Feet

Total Depth of Completed Well 1,100 Feet

Well Owner

Well Location

Address 11000 Hwy. 46E

City Paso Robles County San Luis Obispo

Latitude 35 Deg. 67 Min. 95 Sec. N Longitude 120 Deg. 48 Min. 19 Sec. W

Datum Decimal Lat. Decimal Long.

APN Book Page Parcel 019.121.013

Township 26S Range 14E Section 8

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

West East

South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * (GPM) Test Type

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
760	800	24	Blank	Low Carbon Steel	.250	14		
800	1,080	24	Screen	Low Carbon Steel	.250	14	Louver	0.080
1,080	1,100	24	Blank	Low Carbon Steel	.250	14		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465
Address City State Zip

Signed
C-57 Licensed Water Well Contractor

8-25-12
Date Signed

927400
C-57 License Number

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

e0162372

WELL PERMIT PLOT PLAN

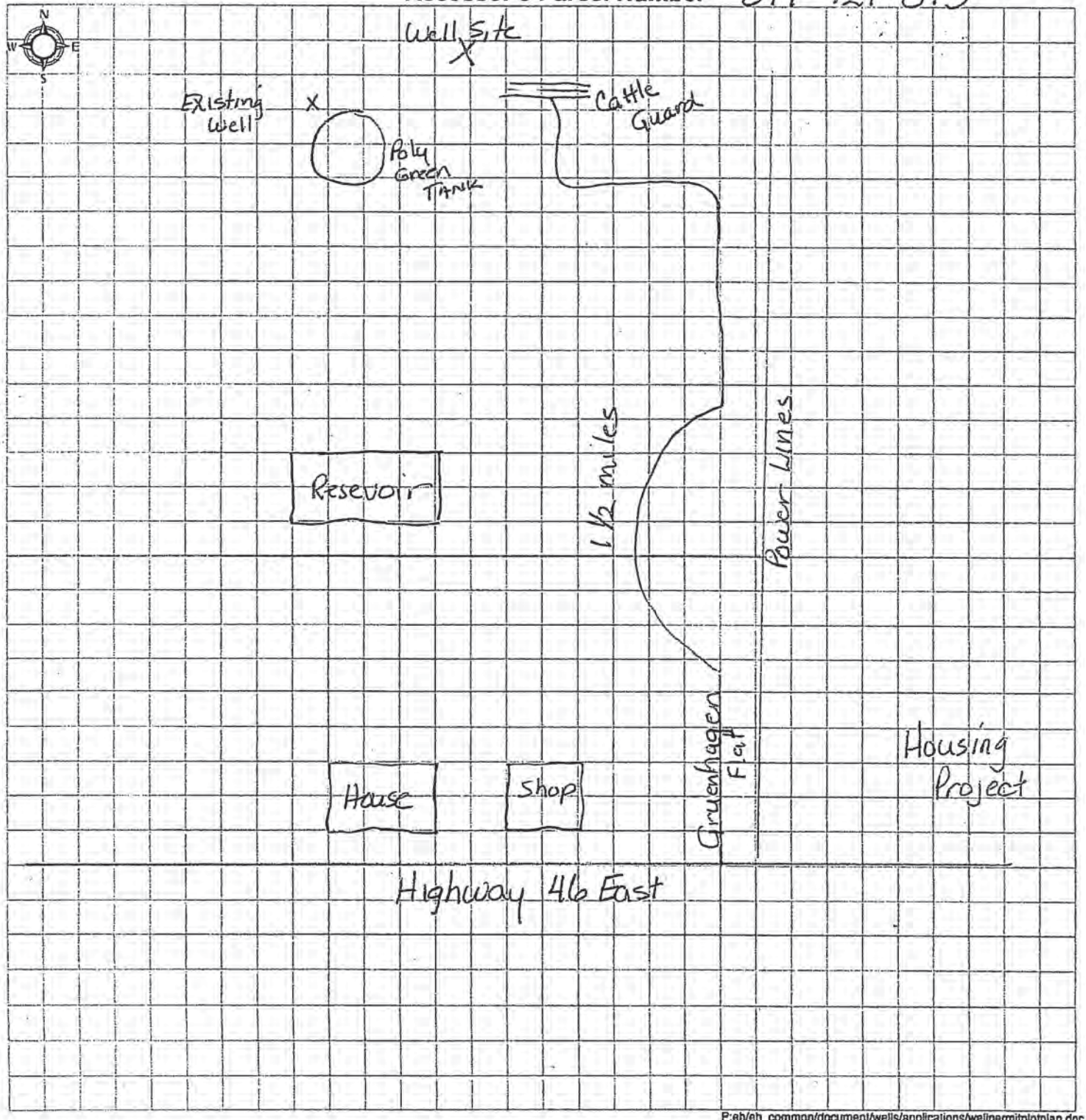
SAN LUIS OBISPO COUNTY ENVIRONMENTAL HEALTH SERVICES
2156 Sierra Way
San Luis Obispo, California 93401
Telephone: 805-781-5544

SCALE: ¼" = 25'

Indeck Paso Robles, LLC

INDICATE BELOW THE **EXACT LOCATION** OF PROPOSED WELL WITH RESPECT TO THE FOLLOWING ITEMS: PROPERTY LINES, WATER BODIES OR WATER COURSES, DRAINAGE PATTERN, ROADS, EXISTING WELLS, SEWERS AND PRIVATE SEWAGE DISPOSAL SYSTEMS, ANIMAL ENCLOSURES AND ANY OTHER CONCENTRATED SOURCES OF POLLUTION. **INCLUDE DIMENSIONS.** ALL PROPOSED WELL SITES SHALL BE DESIGNATED WITH A FLAGGED SURVEYOR'S STAKE LABELED "WELL SITE." DRILLING SHALL NOT COMMENCE UNTIL THIS APPLICATION IS APPROVED.

Assessor's Parcel Number- 019-121-013



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Page 1 of 4

Owner's Well Number John Hancock Well #1

Date Work Began 11/01/2012 Date Work Ended 2/26/2013

Local Permit Agency San Luis Obispo County Environmental Health Services

Permit Number 2012-229 Permit Date 10/15/12

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0164974

DWR Use Only – Do Not Fill In

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description: Describe material, grain size, color, etc
0	40	Conductor
40	80	Clay
80	90	Gravel
90	100	Clay
100	110	Clay
110	120	Gravel
120	150	Course Sand
150	165	Gravel w/Clay
165	205	Gravel
205	210	Clay
210	220	Gravel
220	230	Gravel
230	240	Gravel
240	250	Clay
250	260	Clay
260	270	Clay
270	290	Clay
290	300	Clay
300	310	Clay
310	320	Gravel
320	330	Gravel
330	340	Clay
340	350	Clay
350	360	Clay
360	370	Clay
370	380	Gravel
380	390	Gravel
390	400	Clay
400	410	Clay
410	420	Clay

Total Depth of Boring 1393 Feet

Total Depth of Completed Well 870 Feet

Well Owner

Well Location

Address Exit 241, San Miguel

City San Miguel County San Luis Obispo

Latitude 35 Deg. 76 Min. 464 Sec. N Longitude 120 Deg. 72 Min. 51 Sec. W

Datum Decimal Lat. Decimal Long.

APN Book Page Parcel 027,011,036

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well
○ Modification/Repair
○ Deepen
○ Other
○ Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply
☐ Domestic ☐ Public
☑ Irrigation ☐ Industrial
○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * (GPM) Test Type

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	40	36	Conductor	Mild Steel	5/16	30		
0	195	24	Blank	Mild Steel	5/16	14.5		
195	210	24	Screen	Mild Steel	5/16	14.5	Louver	0.070
210	220	24	Blank	Mild Steel	5/16	14.5		
220	270	24	Screen	Copper Bearing	5/16	14.5	Louver	0.070
270	290	24	Blank	Copper Bearing	5/16	14.5		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description
0	50	Cement	6 Sak
50	1,388	Filter Pack	75% SRI #6
			25% SRI #8

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Pacific Coast Well Drilling, Inc. (Person, Firm or Corporation)

P.O. Box 184 (Address) Templeton (City) CA (State) 93465-0184 (Zip)

Signed (C-57 Licensed Water Well Contractor) 1/17/13 (Date Signed) 927400 (C-57 License Number)

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

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OCT 29 2013

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File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0164974

DWR Use Only – Do Not Fill In

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Page 2 of 4

Owner's Well Number John Hancock Well #1

Date Work Began 11/01/2012 Date Work Ended 2/26/2013

Local Permit Agency San Luis Obispo County Environmental Health Services

Permit Number 2012-229 Permit Date 10/15/12

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc
420	430	Clay
430	440	Clay
440	450	Clay
450	460	Clay
460	470	Clay
470	480	Clay
480	490	Clay
490	500	Clay
500	510	Clay
510	520	Gravel/Clay
520	530	Clay
530	540	Clay
540	550	Slurry/Clay
550	560	Clay
560	570	Clay
570	575	Gravel
575	580	Clay
580	625	Gravel
625	660	Course Sand
660	755	Clay w/Sand
755	805	Rough Drilling
805	910	Sand/Gravel, Brown, Sandy Clay
910	930	Sand/Gravel, Brown, Sandy Clay
930	940	Clay
940	950	Clay/Sandy
950	960	Clay/Sandy
960	970	Clay/Sandy
970	980	Clay/Sandy
980	990	Gravel
990	1,000	Gravel

Total Depth of Boring 1393 Feet

Total Depth of Completed Well 870 Feet

Well Owner

Well Location

Address Exit 241, San Miguel

City San Miguel County San Luis Obispo

Latitude 35 Deg. 76 Min. 464 Sec. N Longitude 120 Deg. 72 Min. 51 Sec. W

Datum Decimal Lat. Decimal Long.

APN Book Page Parcel 027,011,036

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

West East

South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well

○ Modification/Repair

○ Deepen ○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection
○ Dewatering
○ Heat Exchange
○ Injection
○ Monitoring
○ Remediation
○ Sparging
○ Test Well
○ Vapor Extraction
○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * (GPM) Test Type

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
290	350	24	Screen	Copper Bearing	5/16	14.5	Louver	0.070
350	370	24	Blank	Copper Bearing	5/16	14.5		
370	410	24	Screen	Copper Bearing	5/16	14.5	Louver	0.070
410	450	24	Blank	Copper Bearing	5/16	14.5		
450	530	24	Screen	Copper Bearing	5/16	14.5	Louver	0.070
530	580	24	Blank	Copper Bearing	5/16	14.5		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description

Attachments

☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Pacific Coast Well Drilling, Inc.
Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465-0184
Address City State Zip

Signed
C-57 Licensed Water Well Contractor

1/17/13
Date Signed

927400
C-57 License Number

DWR 188 REV. 1/2006

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Well Completion Report

Refer to Instruction Pamphlet

No. e0164974

Page 3 of 4

Owner's Well Number John Hancock Well #1

Date Work Began 11/01/2012 Date Work Ended 2/26/2013

Local Permit Agency San Luis Obispo County Environmental Health Services

Permit Number 2012-229 Permit Date 10/15/12

DWR Use Only – Do Not Fill In

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc.
1,000	1,010	Sandy Clay
1,010	1,020	Sandy Clay
1020	1,030	Gravel
1030	1,040	Sandy Clay
1040	1,050	Clay
1050	1,060	Sandy Clay
1060	1,070	Sandy Clay
1070	1,080	Sandy Clay
1080	1,090	Gravel
1090	1,100	Gravel
1100	1,110	Gravel
1110	1,120	Sandy Clay
1120	1,130	Sandy Clay
1130	1,140	Sandy Clay
1140	1,150	Sandy Clay
1150	1,160	Clay
1160	1,170	Clay
1170	1,180	Clay
1180	1,190	Sandy Clay
1190	1,200	Clay Brown
1200	1,220	Small Gravel, Sandy Clay
1220	1,240	Brown Clay
1240	1,255	Rough Drilling Gravel
1255	1,295	Brown Clay
1295	1,305	Gravel
1305	1,335	Clay
1335	1,356	Course Sand
1356	1,363	Gravel/Course Sand
1363	1,366	Clay
1366	1,368	Gravel/Course Sand

Total Depth of Boring 1393 Feet

Total Depth of Completed Well 870 Feet

Well Owner

Well Location

Address Exit 241, San Miguel

City San Miguel County San Luis Obispo

Latitude 35 Deg. 76 Min. 464 Sec. N Longitude 120 Deg. 72 Min. 51 Sec. W

Datum Decimal Lat. Decimal Long.

APN Book Page Parcel 027.011.036

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

West East

South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * (GPM) Test Type

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
580	600	24	Screen	Copper Bearing	5/16	14.5	Louver	0.070
600	660	24	Blank	Copper Bearing	5/16	14.5		
660	700	24	Screen	Copper Bearing	5/16	14.5	Louver	0.070
700	740	24	Blank	Copper Bearing	5/16	14.5		
740	790	24	Screen	Copper Bearing	5/16	14.5	Louver	0.070
790	810	24	Blank	Copper Bearing	5/16	14.5		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

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Person, Firm or Corporation

P.O. Box 184 Templeton CA 93465-0184
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Signed C-57 Licensed Water Well Contractor

1/17/13 Date Signed

927400 C-57 License Number

DWR 188 REV. 1/2006

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File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0164974

Page 4 of 4

Owner's Well Number John Hancock Well #1

Date Work Began 11/01/2012 Date Work Ended 2/26/2013

Local Permit Agency San Luis Obispo County Environmental Health Services

Permit Number 2012-229 Permit Date 10/15/12

DWR Use Only – Do Not Fill In

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log

Orientation ◉ Vertical ○ Horizontal ○ Angle Specify

Drilling Method Reverse Circulation Rotary Drilling Fluid Bentonite mud

Depth from Surface Feet	to Feet	Description Describe material, grain size, color, etc.
1,368	1,375	Clay
1,375	1,385	Rough Drilling Sand
1385	1,393	Clay/Silt

Total Depth of Boring 1393 Feet

Total Depth of Completed Well 870 Feet

Well Owner

Well Location

Address Exit 241, San Miguel

City San Miguel County San Luis Obispo

Latitude 35 Deg. 76 Min. 464 Sec. N Longitude 120 Deg. 72 Min. 51 Sec. W

Datum Decimal Lat. Decimal Long.

APN Book Page Parcel 027,011,036

Township Range Section

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

West East

South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

◉ New Well

○ Modification/Repair

○ Deepen

○ Other

○ Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

◉ Water Supply

☐ Domestic ☐ Public

☑ Irrigation ☐ Industrial

○ Cathodic Protection

○ Dewatering

○ Heat Exchange

○ Injection

○ Monitoring

○ Remediation

○ Sparging

○ Test Well

○ Vapor Extraction

○ Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)

Depth to Static Water Level (Feet) Date Measured

Estimated Yield * (GPM) Test Type

Test Length (Hours) Total Drawdown (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet	to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
810	830	24	Screen	Copper Bearing	5/16	14.5	Louver	0.070
830	870	24	Blank	Copper Bearing	5/16	14.5		

Annular Material

Depth from Surface Feet	to Feet	Fill	Description

Attachments

☐ Geologic Log

☐ Well Construction Diagram

☐ Geophysical Log(s)

☐ Soil/Water Chemical Analyses

☐ Other

Attach additional information, if it exists.

Certification Statement

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Signed (C-57 Licensed Water Well Contractor) 1/17/13 (Date Signed) 927400 (C-57 License Number)

DWR 188 REV. 1/2006

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

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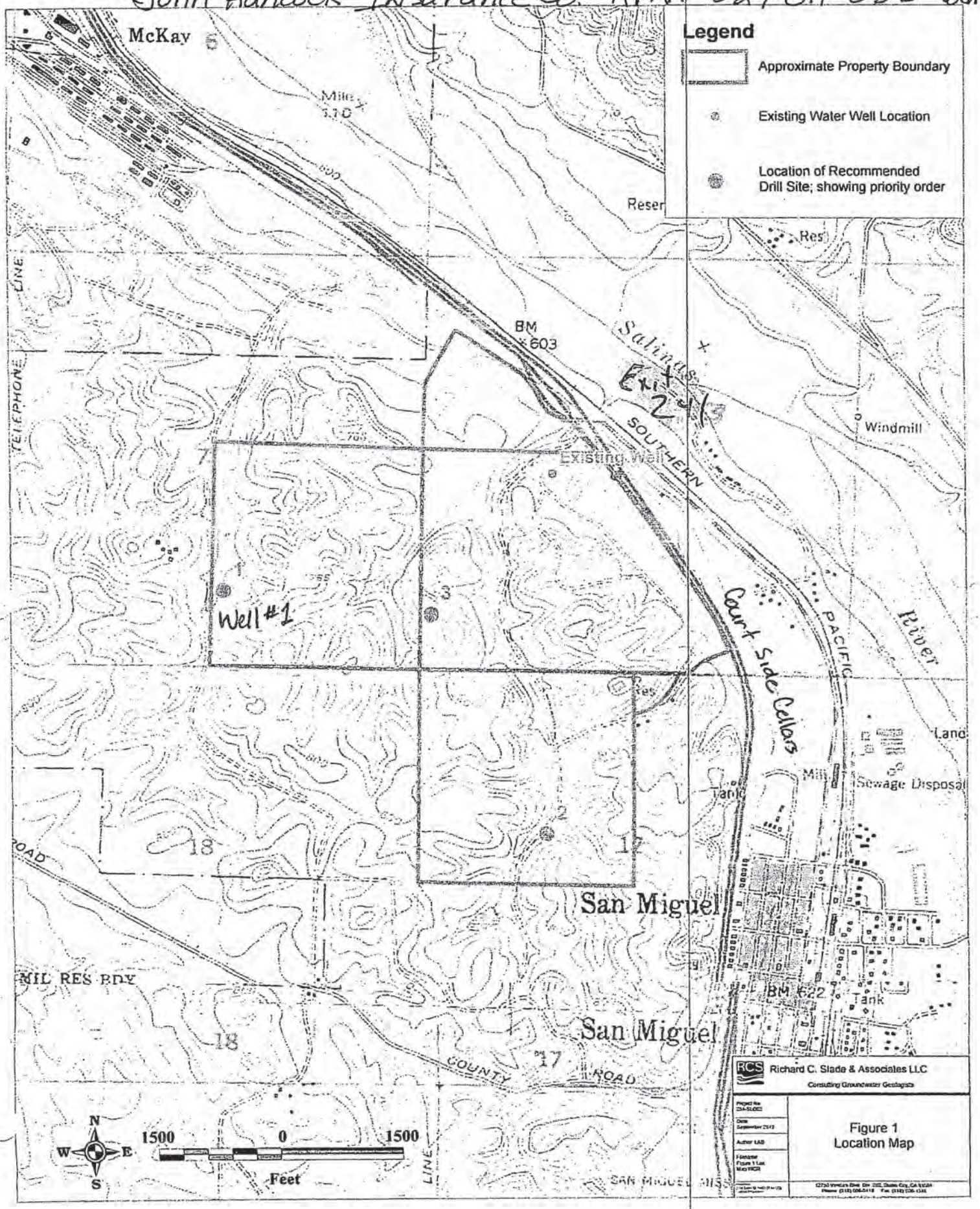
OCT 29 2013

John Hancock Insurance Co. APN: 027-011-036 Well #1



ORIGINAL
File with DWR
Page 1 of 1
Owner's Well No. _____

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. e016462

DWR USE ONLY — DO NOT FILL IN
24S/13E-36
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Date Work Began 9-16-04 Ended 9-22-04
Local Permit Agency Monterey County Health Dept
Permit No. 04-07838 Permit Date 7-26-04

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Rotary FLUID Bentonite

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	2	Top soil
2	5	Brown clay
5	7	Sand & gravel
7	65	Lite green clay
65	75	Sand & gravel
75	140	Lite brown clay
140	150	Shale gravel
150	160	Brown clay
160	175	Coarse sand & gravel
175	180	Brown clay
180	250	Brown clay with gravel
250	260	Sand & gravel
260	280	Brown clay
280	295	Shale gravel
295	400	Brown clay
400	425	Shale gravel
425	430	Brown clay
430	465	Shale gravel-layers brown clay
465	520	Brown clay
520	535	Shale gravel
535	560	Lite blue clay
560	585	Shale gravel Hog Cyn Rd →
585	620	Lite blue clay
620	690	Shale gravel some lite brown shale
690	700	Blue clay
NOTE: ANY PERSON REMOVING THE CAP FROM THIS WELL OTHER THAN MILLER DRILLING CO OR AUTHORIZED CONTRACTOR APPROVED BY US WILL VOID ALL STRUCTURAL WARRANTIES.		

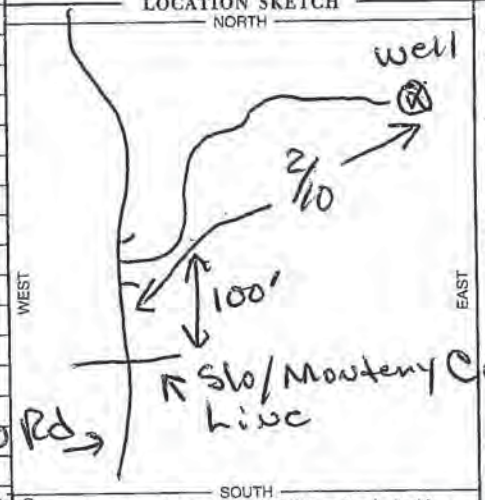
TOTAL DEPTH OF BORING 700 (Feet)
TOTAL DEPTH OF COMPLETED WELL 695 (Feet)

WELL OWNER

WELL LOCATION

Address 77509 Hog Cyn
City San Miguel
County Monterey County
APN Book 424 Page 151 Parcel 027
Township 24S Range 13E Section 36
Latitude 35 DEG. 47 MIN. 30.9 SEC. NORTH Longitude 120 DEG. 32 MIN. 18.1 SEC. WEST

LOCATION SKETCH



*Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. **PLEASE BE ACCURATE & COMPLETE.***

ACTIVITY (✓)
X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)
WATER SUPPLY
X Domestic ___ Public
___ Irrigation ___ Industrial
___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 520 (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 410 (Ft.) & DATE MEASURED 9-22-04
ESTIMATED YIELD 14@500 (GPM) & TEST TYPE Blow test
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
75@680
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	520	9 7/8	X				F480 PVC	5	.265	
520	540	9 7/8		X			F480 PVC	5	.265	.040 P
540	560	9 7/8	X				F480 PVC	5	.265	
560	600	9 7/8		X			F480 PVC	5	.265	.040 P
600	620	9 7/8	X				F480 PVC	5	.265	
620	695	9 7/8		X			F480 PVC	5	.265	.040 P

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	61	X			
61	695				Bye

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Miller Drilling Company (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 301 North Main Street CITY Templeton STATE Calif. ZIP 93465
Signed _____ (WELL DRILLER/AUTHORIZED REPRESENTATIVE)
DATE SIGNED 9-23-04
C-57 LICENSE NUMBER 324634 AA

DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

Owner's Well No. _____

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. e030073

Date Work Began 09-29-05, Ended 10-5-05

Local Permit Agency Monterey County Health Dept

Permit No. 05-10531 Permit Date 7-05

DWR USE ONLY — DO NOT FILL IN
24S/13E-33
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Rotary FLUID Bentonite

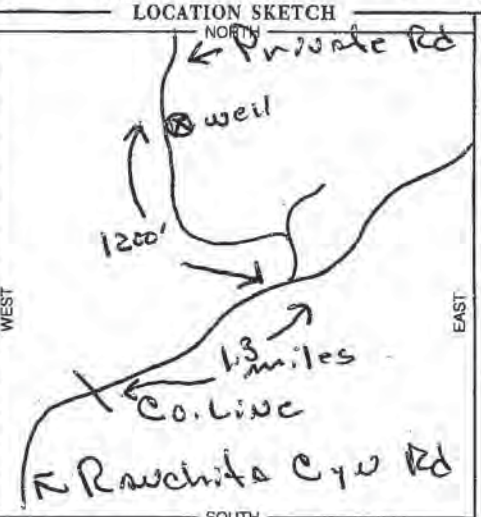
DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	5	Top soil
5	30	Sand & gravel
30	60	Brown clay
60	90	Sand & gravel
90	110	Brown clay
110	115	Sand & gravel
115	160	Brown clay
160	220	Sand & gravel
220	330	Brown clay with gravel cemented
330	350	Sand & gravel
350	360	Brown clay with gravel
360	390	Sand & gravel
390	470	Brown clay with gravel, tight
470	485	Shale gravel
485	500	Brown clay with gravel, tight
500	510	Shale gravel
510	650	Brown claywith gravel, tight
650	680	Blue clay
NOTE:		
ANY PERSON		REMOVING THE CAP FROM THIS WELL
OTHER THAN		MILLER DRILLING CO OR AUTHORIZED
CONTRACTOR		APPROVED BY US WILL VOID ALL
STRUCTURAL		WARRANTIES.

TOTAL DEPTH OF BORING 680 (Feet)
TOTAL DEPTH OF COMPLETED WELL 650 (Feet)

WELL LOCATION

Address Ranchita Cyn LOT 2 Tract 3A South 1/2
City San Miguel
County Monterey
APN Book 424 Page 405 Parcel 058
Township 24S Range 13E Section 33
Latitude 35 DEG. 48.126 MIN. NORTH SEC. Longitude 120 DEG. 34.064 MIN. WEST SEC.

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USES (✓)

WATER SUPPLY
X Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 470 (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL 332 (Ft.) & DATE MEASURED 10-5-05
ESTIMATED YIELD 20@440 (GPM) & TEST TYPE Blow test
TEST LENGTH 75@640 (Hrs.) TOTAL DRAWDOWN _____ (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	470	9 7/8	X				F480 PVC	5	.265	
470	550	9 7/8		X			F480 PVC	5	.265	.040 P
550	570	9 7/8	X				F480 PVC	5	.265	
570	590	9 7/8		X			F480 PVC	5	.265	.040 P
590	610	9 7/8	X				F480 PVC	5	.265	
610	650	9 7/8		X			F480 PVC	5	.265	.040 P

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	60	X			
60	650				Lapis3 mix

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other _____

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

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DWR 188 REV. 11-97

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

Paso Robles Historical Precipitation by Water Year

Water Year	Annual Precipitation (inches)[a]	Water Year	Annual Precipitation (inches)	Water Year	Annual Precipitation (inches)
1894	4.95	1937	22.57	1979	14.09
1895	15.3	1938	31.1	1980	19.73
1896	14.31	1939	8.72	1981	11.14
1897	15.5	1940	15.14	1982	15.62
1898	4.77	1941	30.5	1983	26.21
1899	11.3	1942	15.28	1984	8.54
1900	11.66	1943	16.91	1985	9.29
1901	22.84	1944	12.3	1986	17.1
1902	11.15	1945	12	1987	7.48
1903	11.24	1946	11.46	1988	13.81
1904	0.44	1947	10.05	1989	9.47
1906	8.48	1948	10.43	1990	7.22
1907	22	1949	10.61	1991	13.9
1908	15.31	1950	11.97	1992	14.35
1909	---	1951	9.82	1993	26.43
1910	15.78	1952	18.15	1994	11.45
1911	26.05	1953	10.9	1995	29.86
1912	12.37	1954	11.27	1996	13.76
1913	9.17	1955	11.19	1997	17.55
1914	18.88	1956	17.28	1998	26.77
1915	24.96	1957	10.94	1999	9.37
1916	21.02	1958	26.49	2000	13.21
1917	17.53	1959	7.87	2001	15.43
1918	14.82	1960	9.07	2002	8.32
1919	11.55	1961	8.66	2003	13.76
1920	13.06	1962	17.23	2004	9.51
1921	14.14	1963	17.06	2005	33.21
1922	21.37	1964	10.14	2006	15.55
1923	15.74	1965	12.56	2007	6.59
1924	6.11	1966	11.94	2008	13.8
1925	12.95	1967	24.55	2009	9.06
1926	14.56	1968	7.95	2010	20.99
1927	21.91	1969	31.5	2011	21.97
1928	11.5	1970	8.97	2012	10.8
1929	9.83	1971	10.9	2013	7.18
1930	10.99	1972	7.65	2014	6.16
1931	12.23	1973	22.83	2015	12.35
1932	16.5	1974	17.22	2016	10.46
1933	9.62	1975	11.24	2017	23.77
1934	11.62	1976	9.26	2018	10.62
1935	21.45	1977	7.55	2019	20.56
1936	18.16	1978	24.89		

Notes:

[a] Annual precipitation calculated as sum of daily values as reported by National Oceanic Atmospheric Administration Climate Data Online for Paso Robles Station (USC00046730)

--- = incomplete or inaccurate data

Source: https://www.ncdc.noaa.gov/cdo-web/, downloaded 10/29/19

Appendix C

Methodology for Identifying Potential Groundwater Dependent Ecosystems

INTRODUCTION

Groundwater dependent ecosystems (GDEs) within the Paso Robles Subbasin are identified in accordance with §354.16(g) of the Groundwater Sustainability Plan regulations. The procedure for identifying GDEs follows guidance developed by

The Nature Conservancy (TNC) and detailed in the *Groundwater Dependent Ecosystems under the Sustainable Groundwater Management Act: Guidance for Preparing Groundwater Sustainability Plans* report (Rohde et al., 2018). This process differentiates between indicators of Groundwater Dependent Ecosystems (iGDEs), potential Groundwater Dependent Ecosystems, and true Groundwater Dependent Ecosystems.

- iGDEs were developed by The Nature Conservancy in partnership with the California Department of Fish and Wildlife (DFW) and DWR using the best available statewide data. The iGDEs are identified using locations of springs and seeps, wetlands, and vegetation known to use groundwater. The Nature Conservancy also uses the term "Natural Communities Commonly Associated with Groundwater" to refer to these iGDEs.

- Potential GDE are iGDEs that, through mapping analyses, may be connected to shallow groundwater and therefore be supported by shallow groundwater.

- True GDEs are potential GDE's that have been field verified to establish that they are supported by groundwater. The methodology described herein does not identify true GDEs.

The procedure consists of the following steps:

- Review geospatial data from TNC that showing indicators of groundwater dependent ecosystems (iGDEs) within the Subbasin

- Assess the connection to groundwater for indicators of groundwater dependent ecosystems

- Identify potential GDEs. Potential GDEs are iGDEs that might be connected to groundwater. Potential GDEs should be field verified before they are established as true GDEs.

Geospatial data showing iGDEs were downloaded from TNC's website for Natural Communities Commonly Associated with Groundwater

(NCCAG; https://gis.water.ca.gov/app/NCDatasetViewer). The iGDEs present in the Paso Robles Subbasin include potential GDEs identified as Wetlands or GDE Vegetation. All iGDEs in the Subbasin, as identified by TNC, are shown on Figure C-1.

Datasets used to assess the potential connection of the iGDEs to groundwater include the San Luis Obispo (SLO) County surface geologic map (County of San Luis Obispo, 2007), measured groundwater levels in the San Luis Obispo County groundwater monitoring network, geospatial data included in the National Hydrographic Dataset (NHD) provided by the U.S. Geological Survey showing the location of mapped springs and seeps, and the updated numerical groundwater flow model of the Paso Robles Subbasin.

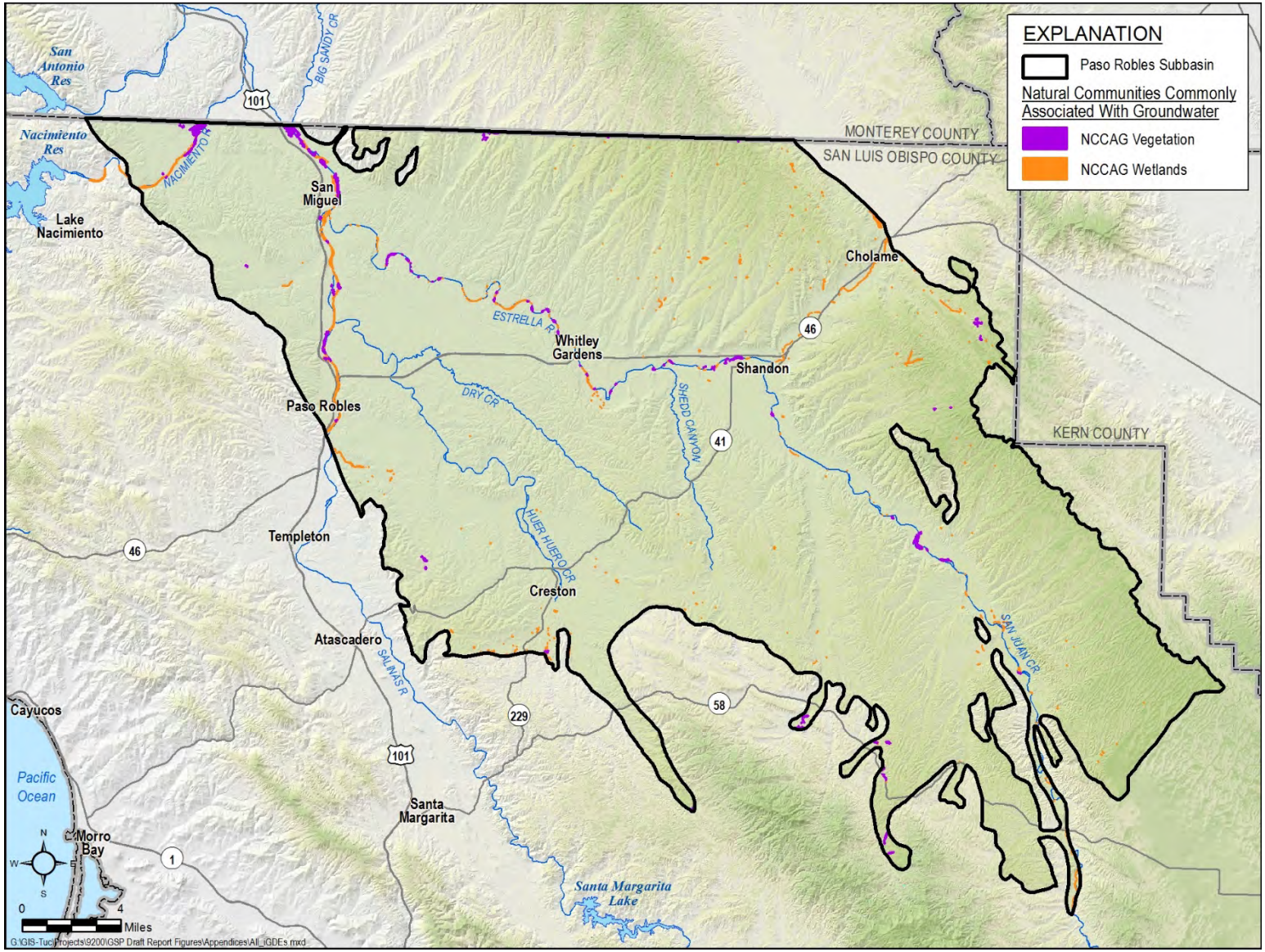


Figure C-1: Areas with Indicators of Groundwater Dependent Ecosystems (iGDEs) (*from TNC*)

CRITERIA FOR CONNECTION TO GROUNDWATER

The iGDEs identified by TNC data can only be potential GDEs if they are connected to a groundwater source that supports the vegetation or wetlands. Potential iGDEs that are supported by streamflows, soil moisture, or shallow perched aquifers, rather than by a regional groundwater aquifer, are not considered GDEs for this report. The report by Rohde et al. (2018) provides a general list of questions, or criteria, applicable to all iGDEs for assessing connection to groundwater. These general questions are:

- Is the iGDE underlain by a shallow unconfined or perched aquifer that has been delineated as being part of a Bulletin 118 principal aquifer in the Subbasin?
- Is the depth to groundwater under the iGDE less than 30 feet?
- Is the iGDE located in an area known to discharge groundwater (e.g. springs/seeps)?

The datasets described above are used to assess the potential connection of iGDEs to groundwater based on the three criteria listed above. To be considered a potential GDE, the iGDEs must satisfy at least one of the three criteria described above; or the landforms around the iGDE must suggest the area could support potential GDEs. Following the suggestions in Rhode (2018), example landforms that could support potential GDEs might be mapped springs, seeps, or a break in the slope of the ground. In the absence of more formal field reconnaissance, the results of this screening level analysis only identify potential GDEs in the Subbasin. Additional field verification is necessary to definitively determine the true GDEs in the Paso Robles Subbasin.

Question 1: Is the iGDE underlain by a shallow unconfined or perched aquifer that has been delineated as being part of a Bulletin 118 principal aquifer in the Subbasin?

Bulletin 118 (DWR, 2003) identifies two primary water-bearing formations in the Subbasin: Quaternary alluvium (Qa) and the Plio-Pleistocene-age Paso Robles formation (QTp). The Qa's thickness ranges from 30 to 130 feet and is highly permeable relative to the QTp. Groundwater in the Qa occurs under unconfined, or water-table conditions. The Qa extent shown on Figure C-2 was determined based on the surficial geologic map of San Luis Obispo County (San Luis Obispo County, 2007). This analysis assumes that all iGDEs that overlie the Quaternary alluvial unit are connected to shallow groundwater Qa sediments, and are therefore classified as potential GDEs as recommended by Rohde and others (2018). The Qa's extent and coincident potential GDEs are shown on Figure C-2. Most iGDEs within the Subbasin fall within the Qa extent.

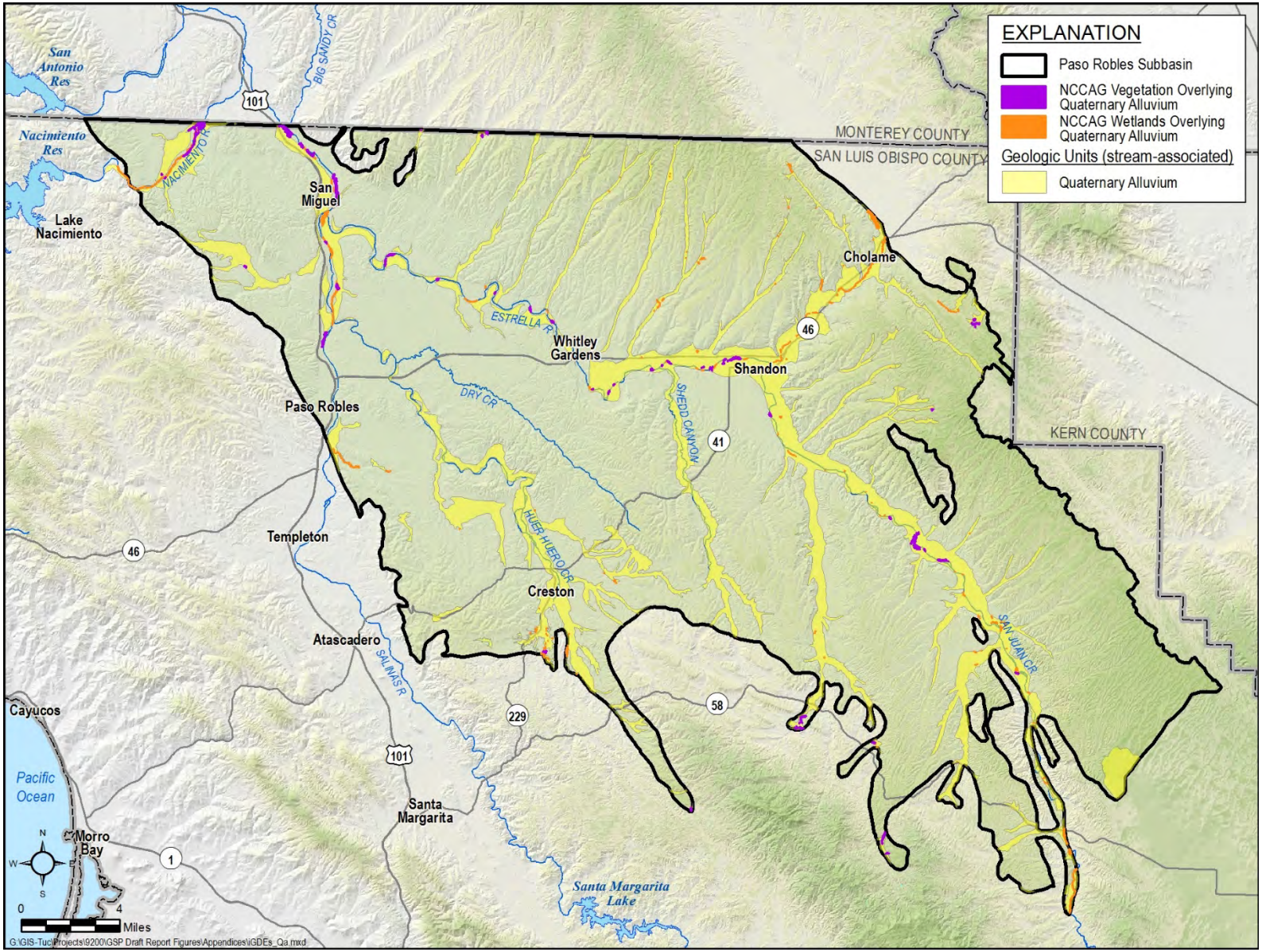


Figure C-2: iGDEs Associated with the Shallow, Unconfined Quaternary Alluvial (Qa) Aquifer

This criterion clearly has the potential to overestimate the number of potential GDEs in the Subbasin. The subjective assessment of what constitutes a shallow unconfined aquifer may result in identifying potential GDEs in areas that do not have the underlying groundwater to support the GDE. This emphasizes the need for field verification of the potential GDEs identified in this GSP.

Question 2: Is depth to groundwater under the iGDE less than 30 feet?

Depth to water is routinely measured by San Luis Obispo County staff within a network of monitoring wells. Figure C-3 shows the locations of San Luis Obispo County monitoring wells completed in the Qa. This analysis uses spring 2017 depth to water data where available. A representative value for spring depth to water was used based on review of historical groundwater levels to establish depth to water for wells at which spring 2017 data were unavailable. Wells where depth to water is less than 30 feet are shown in blue on Figure C-3. Wells where depth to water is greater than 30 feet are shown in yellow. Results from the groundwater model were used to supplement the measured groundwater level data. The simulated spring 2016 groundwater elevations were analyzed to further identify areas where depth to water is less than 30 feet. Based on the measured groundwater level data and model results, iGDEs overlying areas where estimated depth to groundwater is less than 30 feet are shown on Figure C-3.

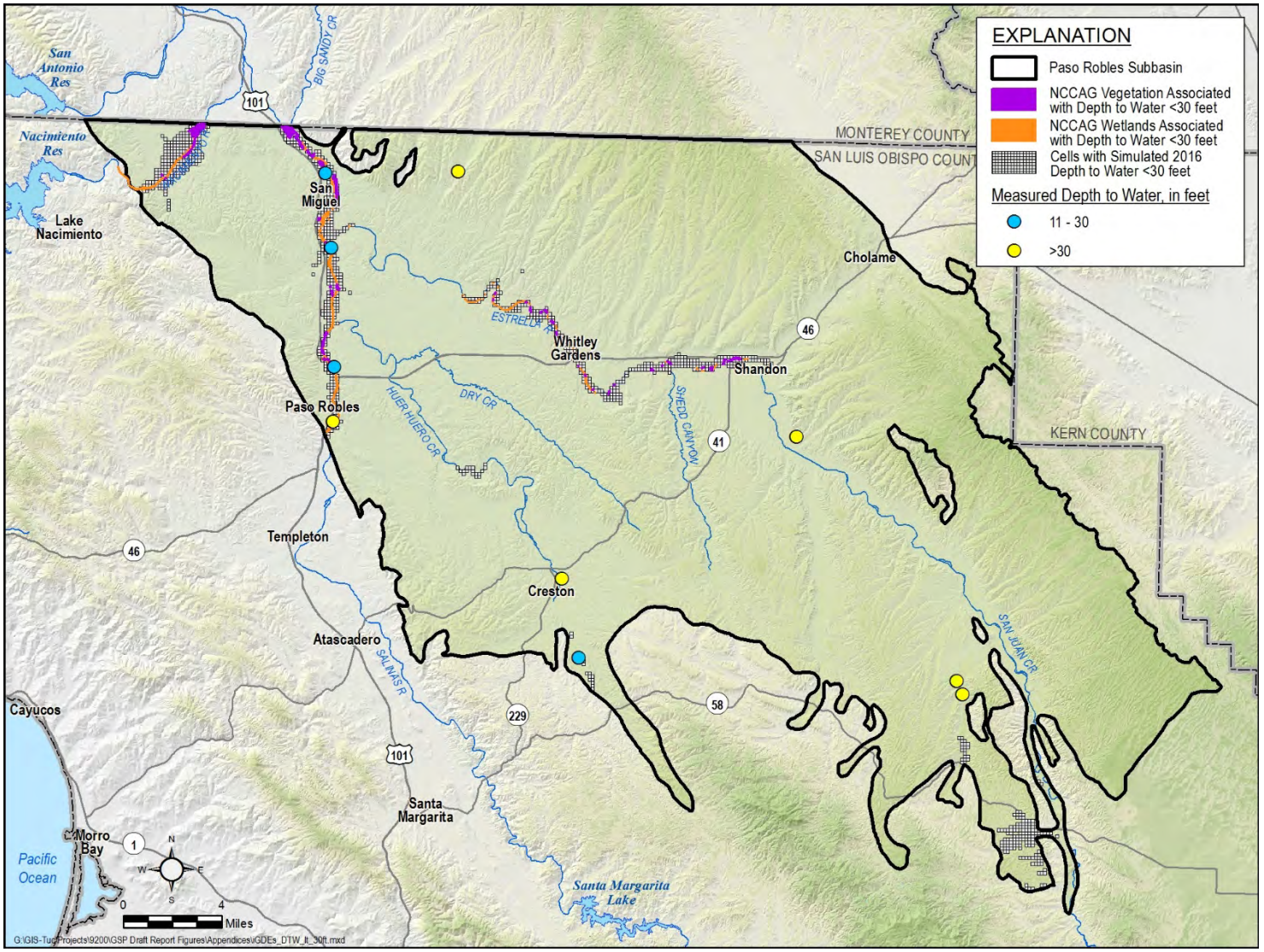


Figure C-3: Qa monitoring wells, Model Cells with Depth to Water Less than 30 Feet, and Potential GDEs based on Depth to Groundwater Less than 30 Feet

Is the iGDE located in an area known to discharge groundwater (e.g., springs/seeps)?

Springs and seeps in the Subbasin identified in National Hydrography Dataset (NHD) tend to be located in the foothills of the Santa Lucia and Temblor mountain ranges, which bound the Subbasin to the west and east, respectively.

Figure C-4 shows the location of NHD seeps and springs. iGDEs within 0.5 miles of a seep/spring point are classified as potential GDEs.

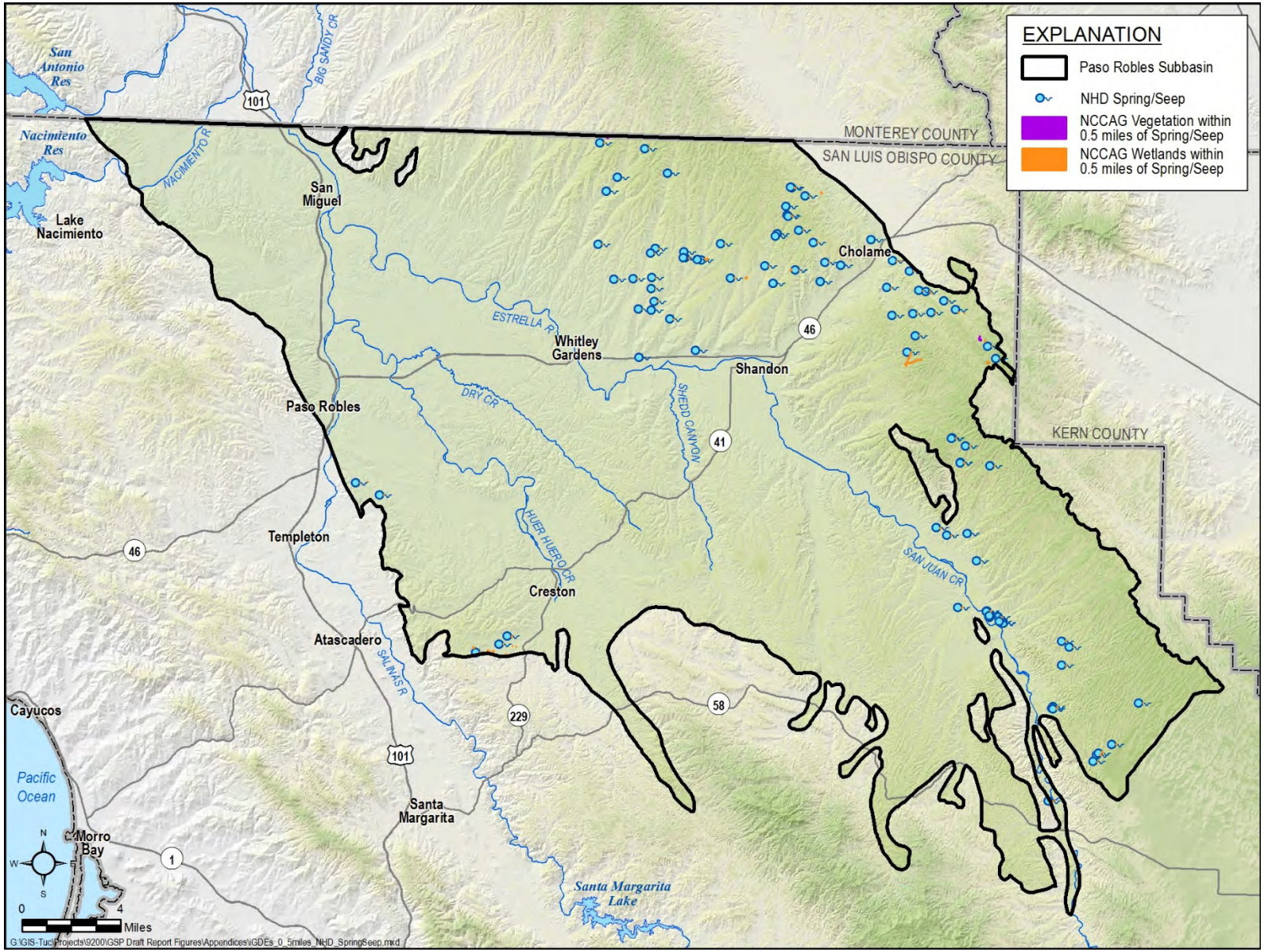


Figure C-4: NHD Springs and Seeps and iGDEs Within 0.5 Miles of a Spring or Seep

FINAL DELINEATION OF POTENTIAL GROUNDWATER DEPENDENT ECOSYSTEMS

After evaluating the three criteria listed above for connection to groundwater, additional iGDEs were identified that should be classified as potential GDEs based on landforms that suggest potential GDEs, effectively loosening the criteria for association with either the shallow alluvial aquifer or springs and seeps. The purpose for this task was to ensure that the extent of potential GDEs would err on the side of estimating maximum GDE extent. Specifically:

1. iGDEs within 0.5 miles of the mapped Qa outcrop are assumed to be hydraulically connected to the shallow alluvial aquifer. Furthermore, iGDEs that appear to be physically connected with other identified potential GDEs in the Qa were manually identified and added to the extent of potential GDEs. Figure C-5 shows all potential GDEs resulting from this analysis.
2. Remaining iGDEs were evaluated to determine their relationship to areas where seeps and springs might occur. These include areas near mapped clusters of seeps and springs such as the northeast mountainous region of the Subbasin shown on Figure C-6; or areas with breaks in the slope of the land surface that may cause “groundwater to emerge or vegetation to congregate on the surface” (Rohde and others, 2018). Figure C-6 shows all potential GDEs associated with known springs or seeps or located in areas that potentially host springs or seeps.

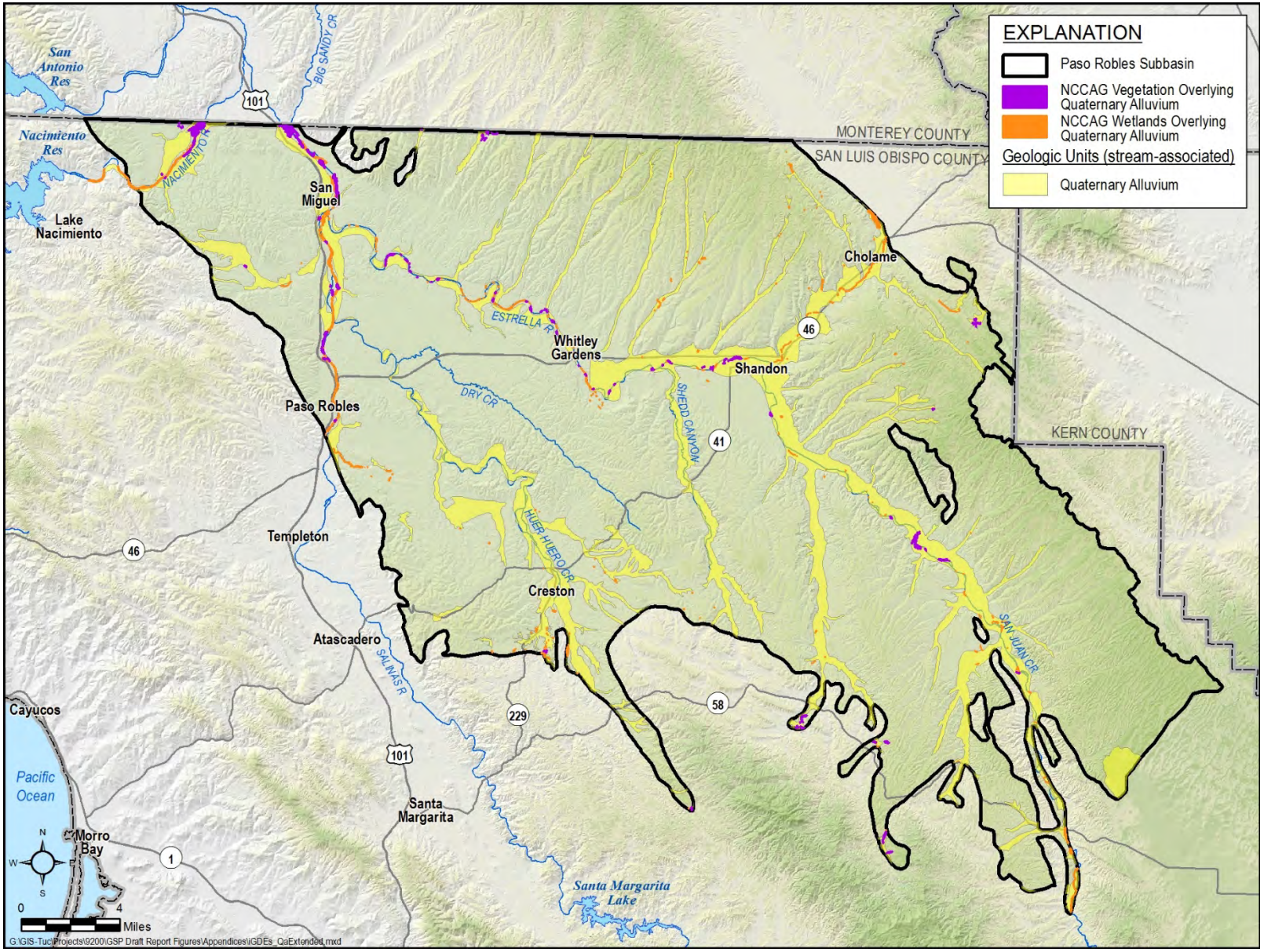


Figure C-5: iGDEs Associated with Quaternary Alluvium (Overlying, Within 0.5 miles, or Manually Selected)

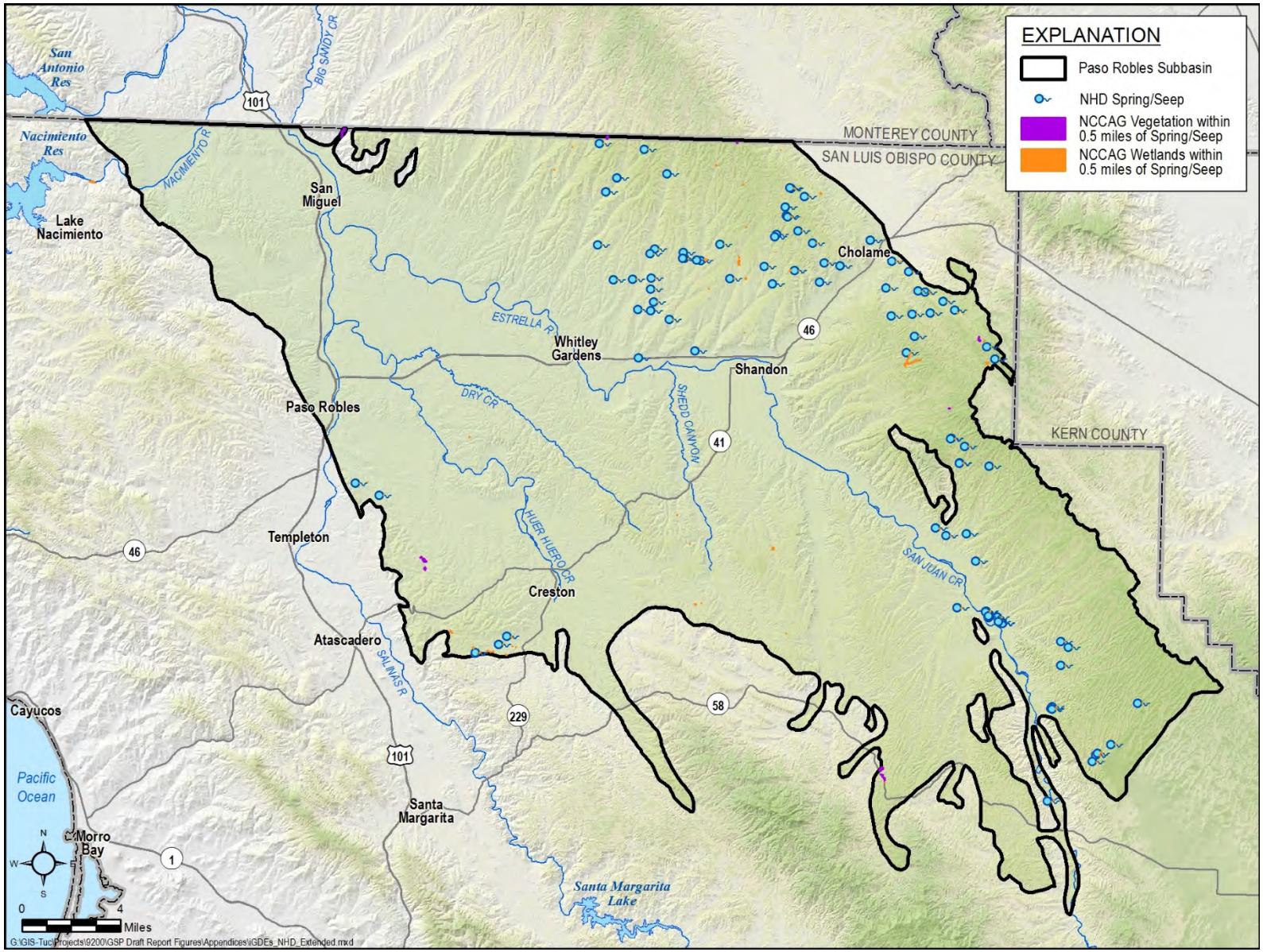


Figure C-6: iGDEs Associated with Springs or Seeps or Located in an Area with Potential Springs or Seeps

Measured groundwater levels within SLO County do not suggest additional areas where groundwater is close enough to the surface to be a significant source for natural communities. The report by Rhode et al. (2018) lists additional spatial data that could be considered for identifying GDS including Critical Habitat for Threatened and Endangered Species, California Protected Areas, and Areas of Conservation Emphasis. None of these datasets show additional potential GDEs in the Subbasin. No additional potential GDEs were identified based on a review of local water and environmental management reports.

The final set of potential GDEs in the Subbasin are shown in Figure C-7. Field verification is necessary to assess whether these potential GDEs are true GDEs.

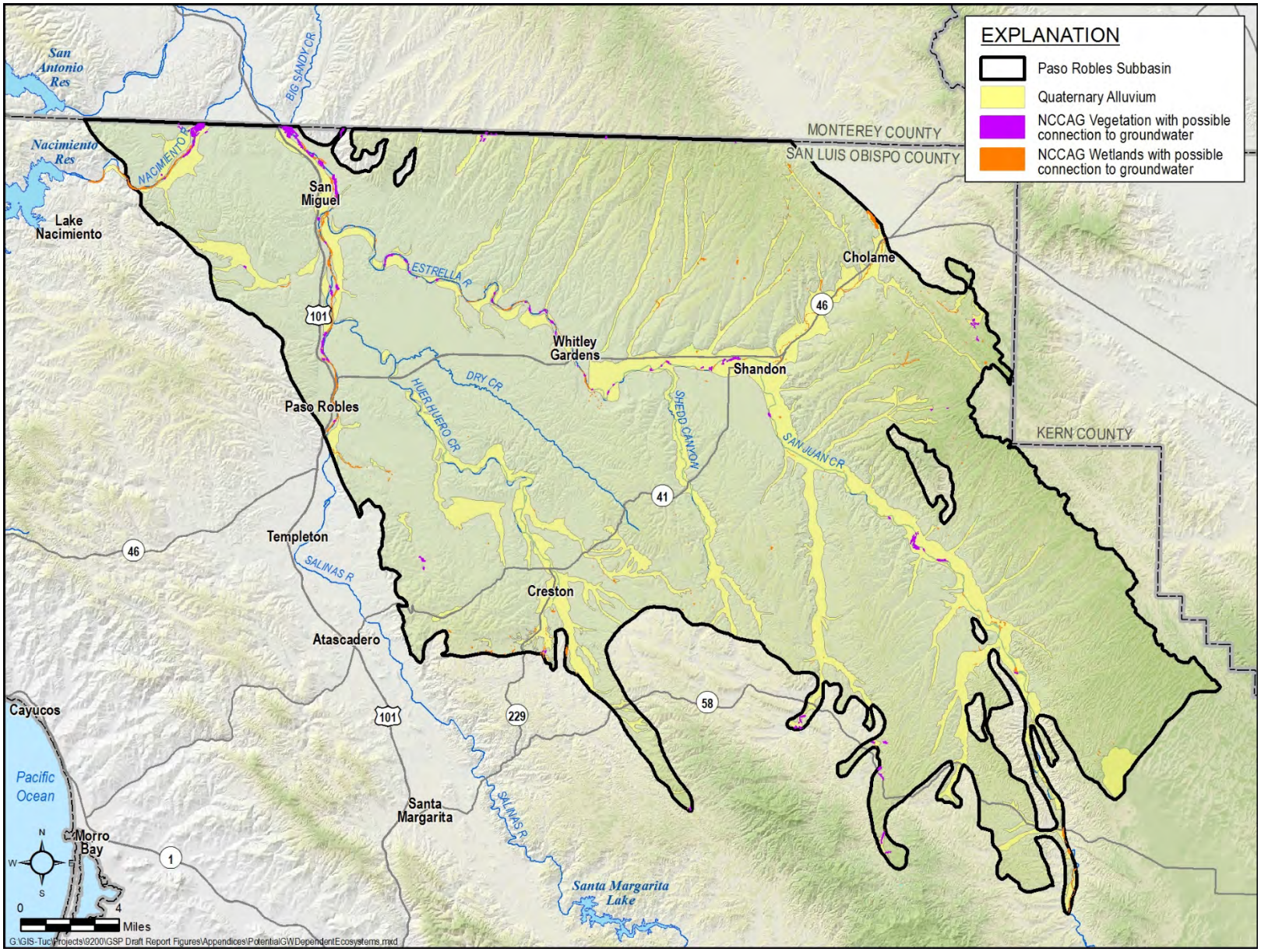


Figure C-7: Extent of Potential GDEs

REFERENCES

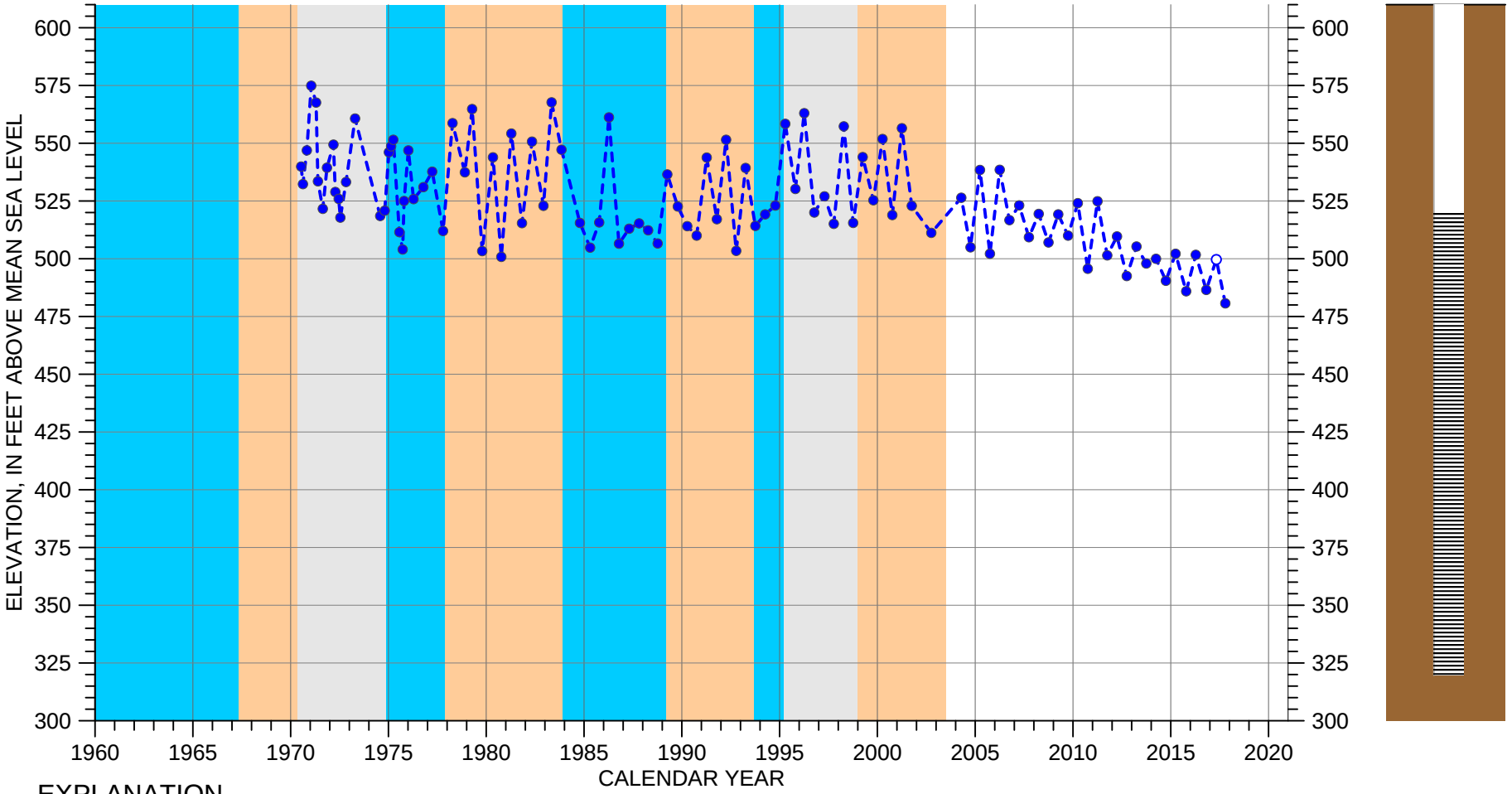
Rohde, M. M., S. Matsumoto, J. Howard, S. Liu, L. Riege, and E.J. Remson, 2018, Groundwater Dependent Ecosystems under the Sustainable Groundwater Management Act: Guidance for Preparing Groundwater Sustainability Plans: The Nature Conservancy, San Francisco, California.

California Department of Water Resources (DWR), 2003, Bulletin 118 Basin Descriptions: Salinas Valley Groundwater Basin, Paso Robles Area Subbasin, accessed at https://water.ca.gov/Programs/Groundwater-Management/ Bulletin-118

County of San Luis Obispo, Planning and Building Department, 2007, Surface geology map, accessed at https://lib.calpoly.edu/gis/browse.jsp?by=e&e=2

Appendix D

Hydrographs



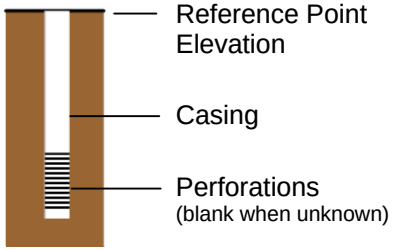
EXPLANATION

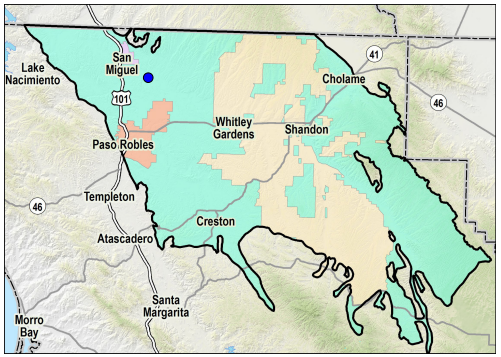
GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET





Well Depth: 400 feet
Screened Interval: 200-400 feet below ground surface
Reference Point Elevation: 719.7 feet above mean sea level

* Measurement reported as not static

MEASURED WATER LEVELS FOR 25S/12E-26L01

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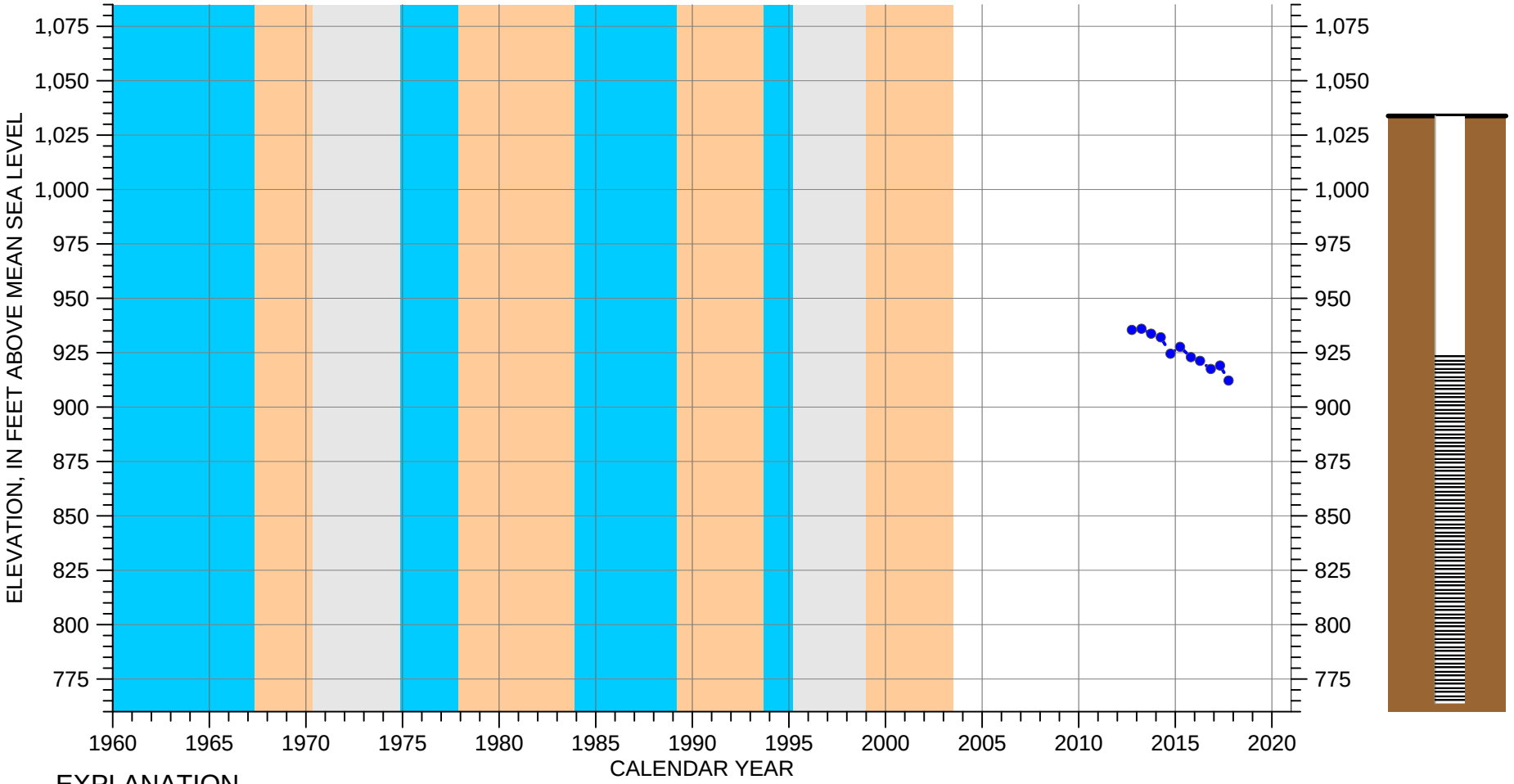

EXPLANATION

GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET

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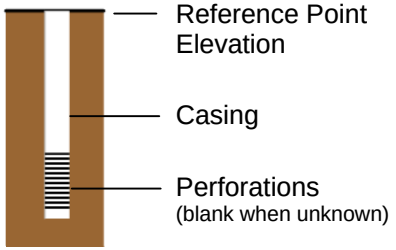
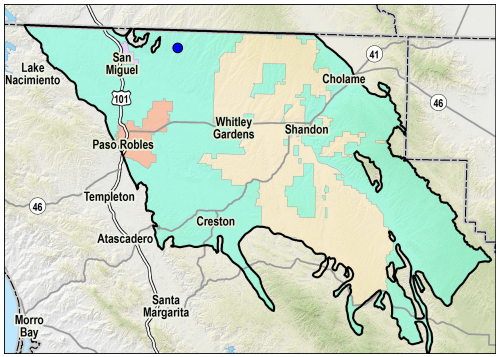
* Measurement reported as not static





MEASURED WATER LEVELS FOR 25S/13E-08L02

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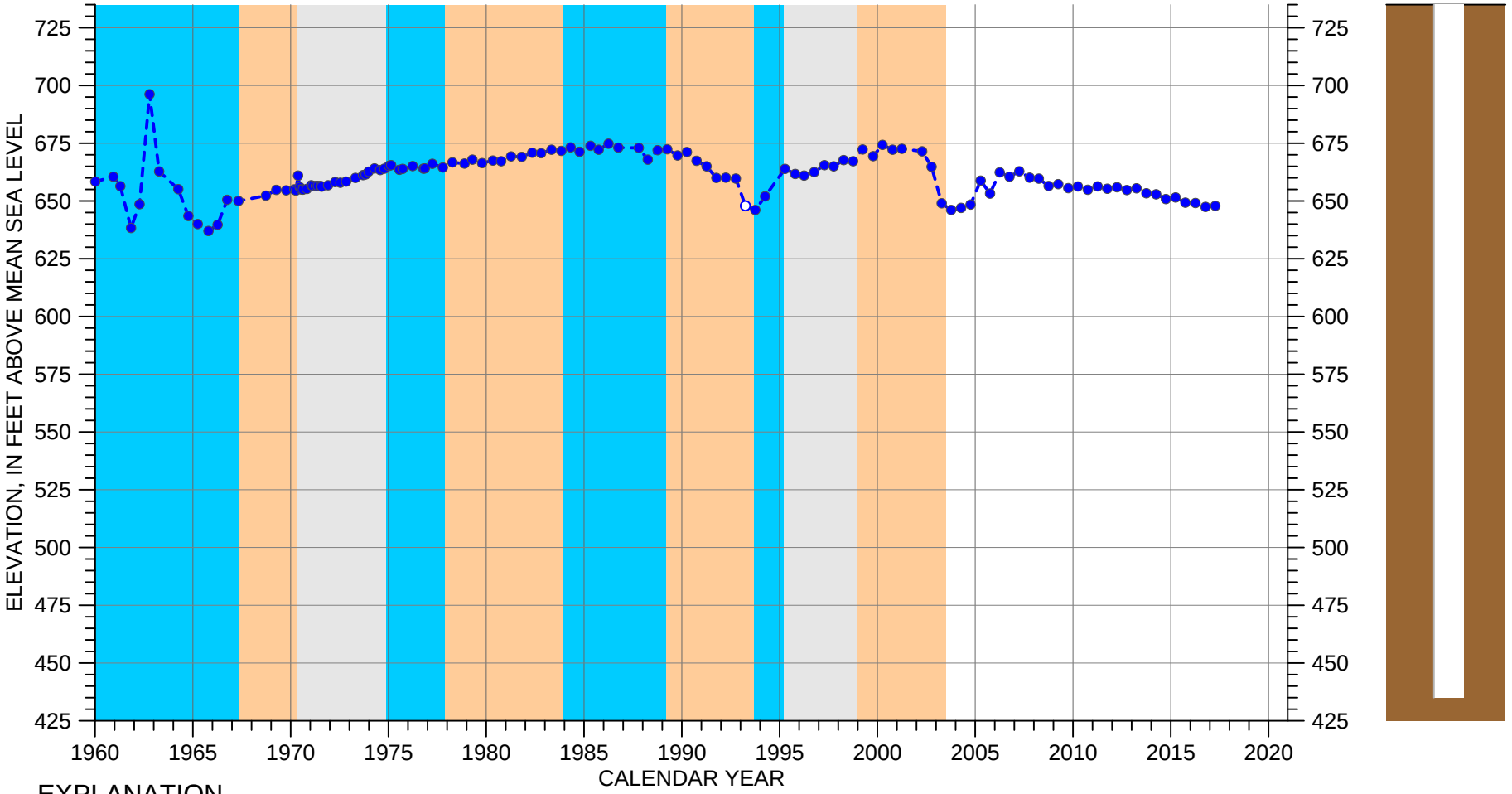

EXPLANATION

GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

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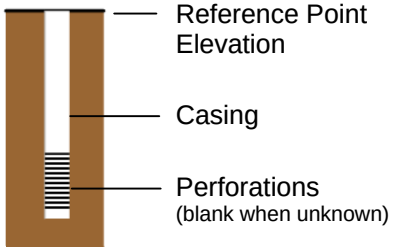

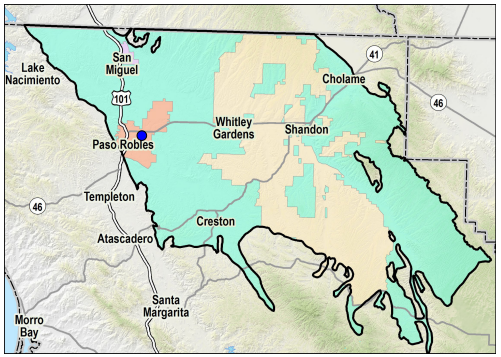

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Screened Interval: unknown
Reference Point Elevation: 835 feet above mean sea level

* Measurement reported as not static

MEASURED WATER LEVELS FOR 26S/12E-26E07

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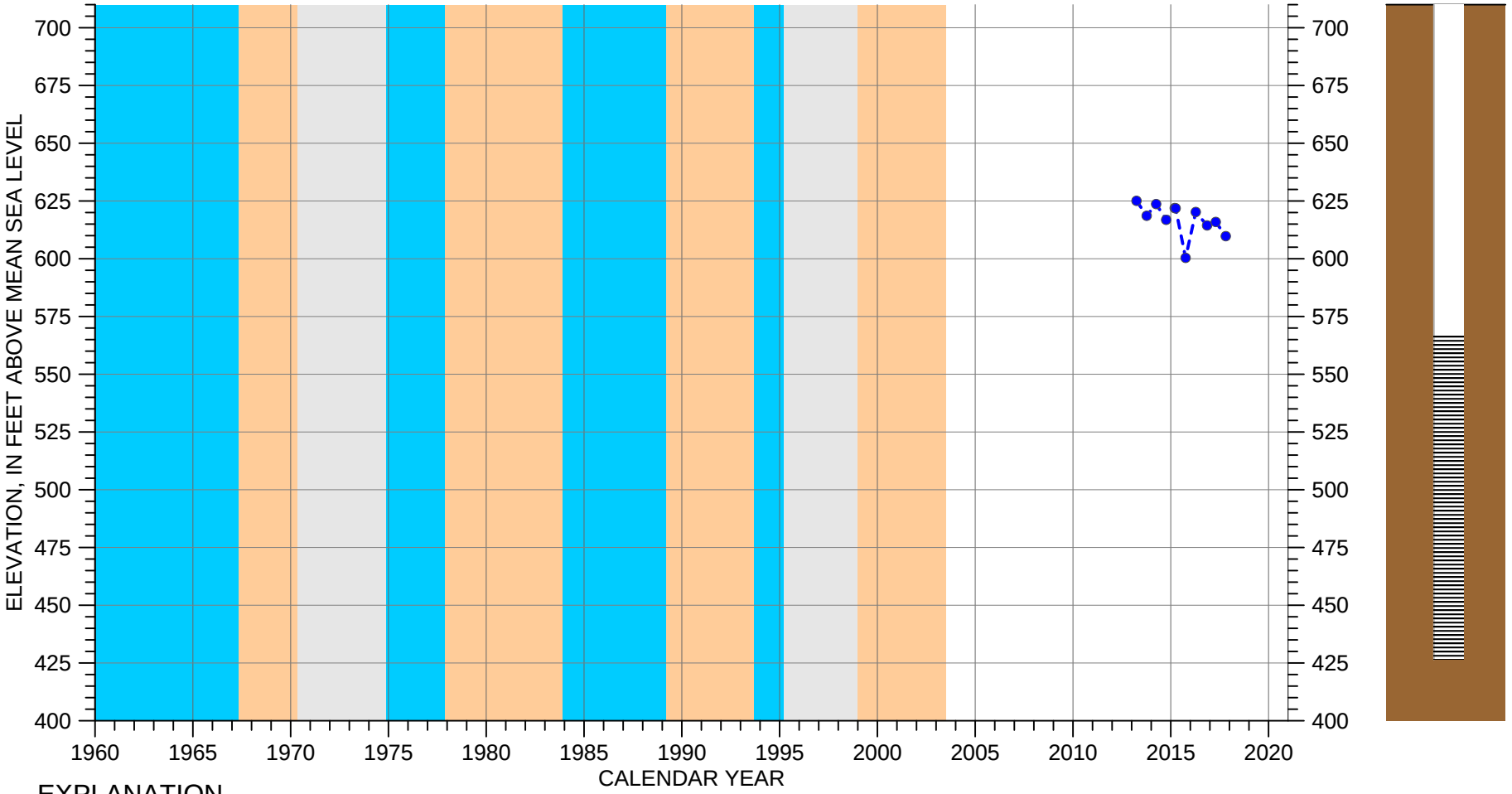

EXPLANATION

GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

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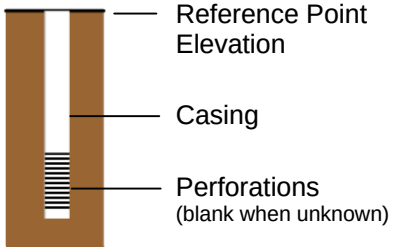

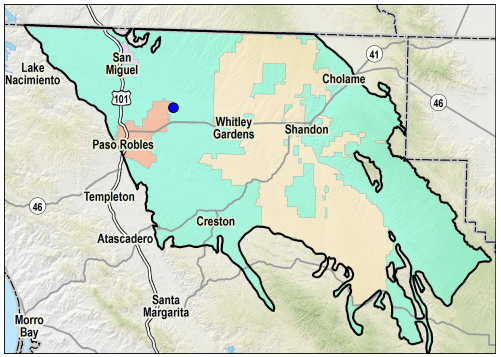

Well Depth: 400 feet
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Reference Point Elevation: 827.9 feet above mean sea level

* Measurement reported as not static

MEASURED WATER LEVELS FOR 26S/13E-08M01

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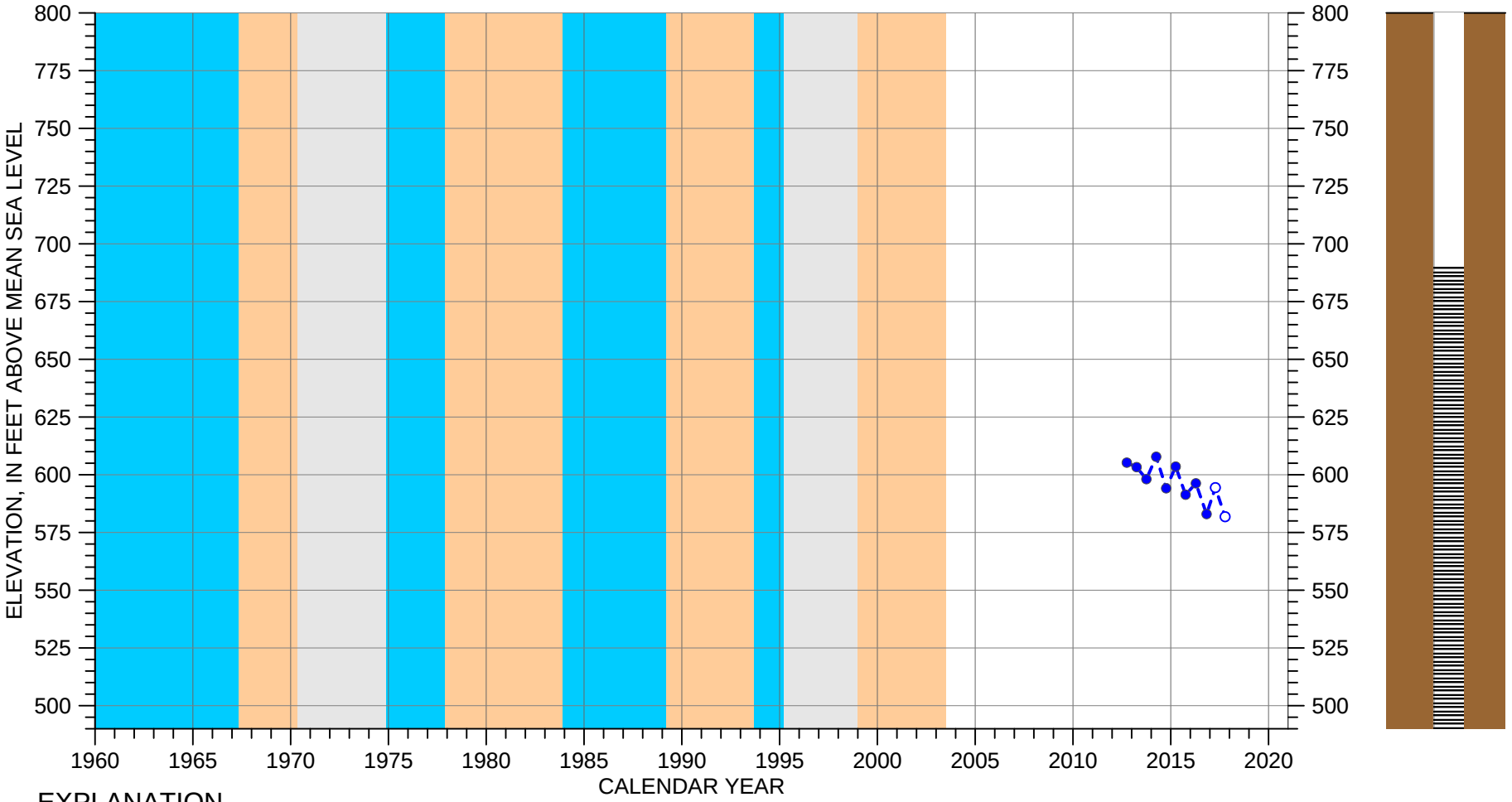

EXPLANATION

GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

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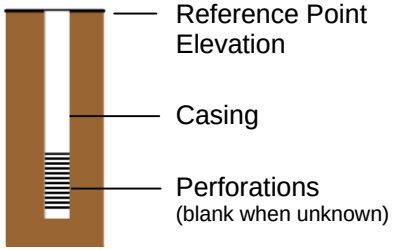

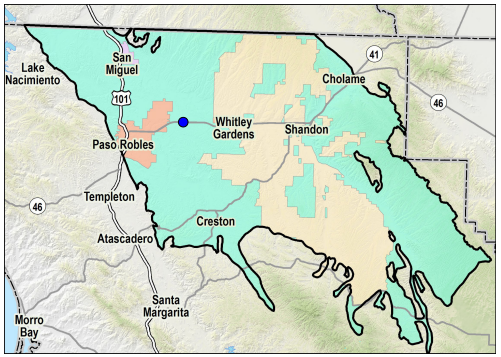

Well Depth: 400 feet
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Reference Point Elevation: 890.2 feet above mean sea level

* Measurement reported as not static

MEASURED WATER LEVELS FOR 26S/13E-16N01

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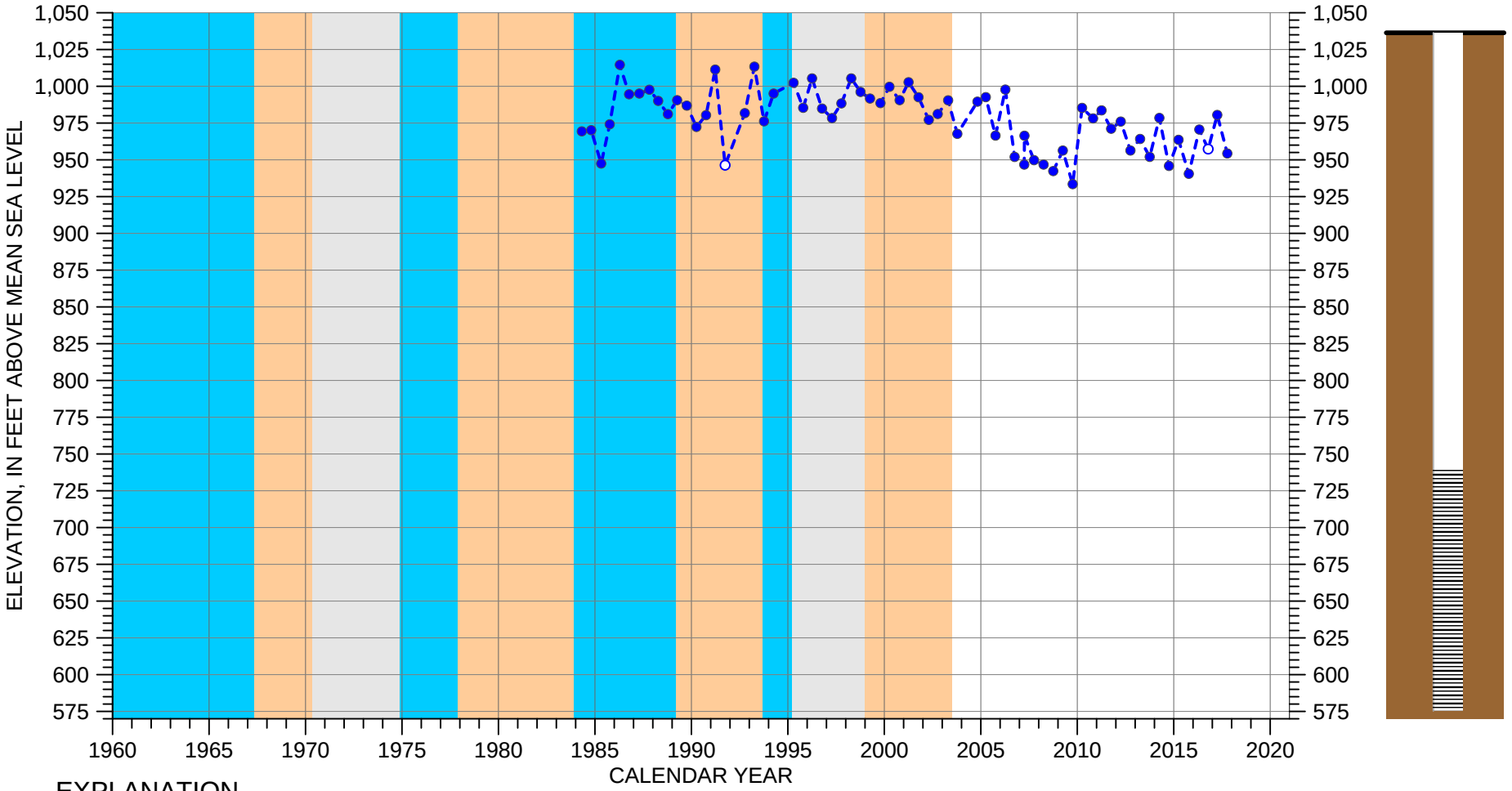


EXPLANATION

GROUNDWATER ELEVATION

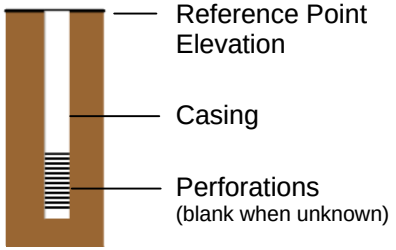
MEASUREMENT NOT VERIFIED*

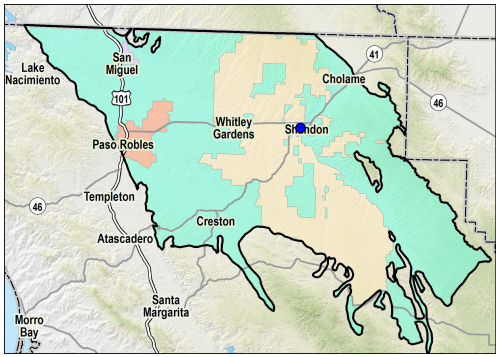
CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET

Well Depth: 461 feet
Screened Interval: 297-461 feet below ground surface
Reference Point Elevation: 1036.36 feet above mean sea level

* Measurement reported as not static





MEASURED WATER LEVELS FOR 26S/15E-20B04

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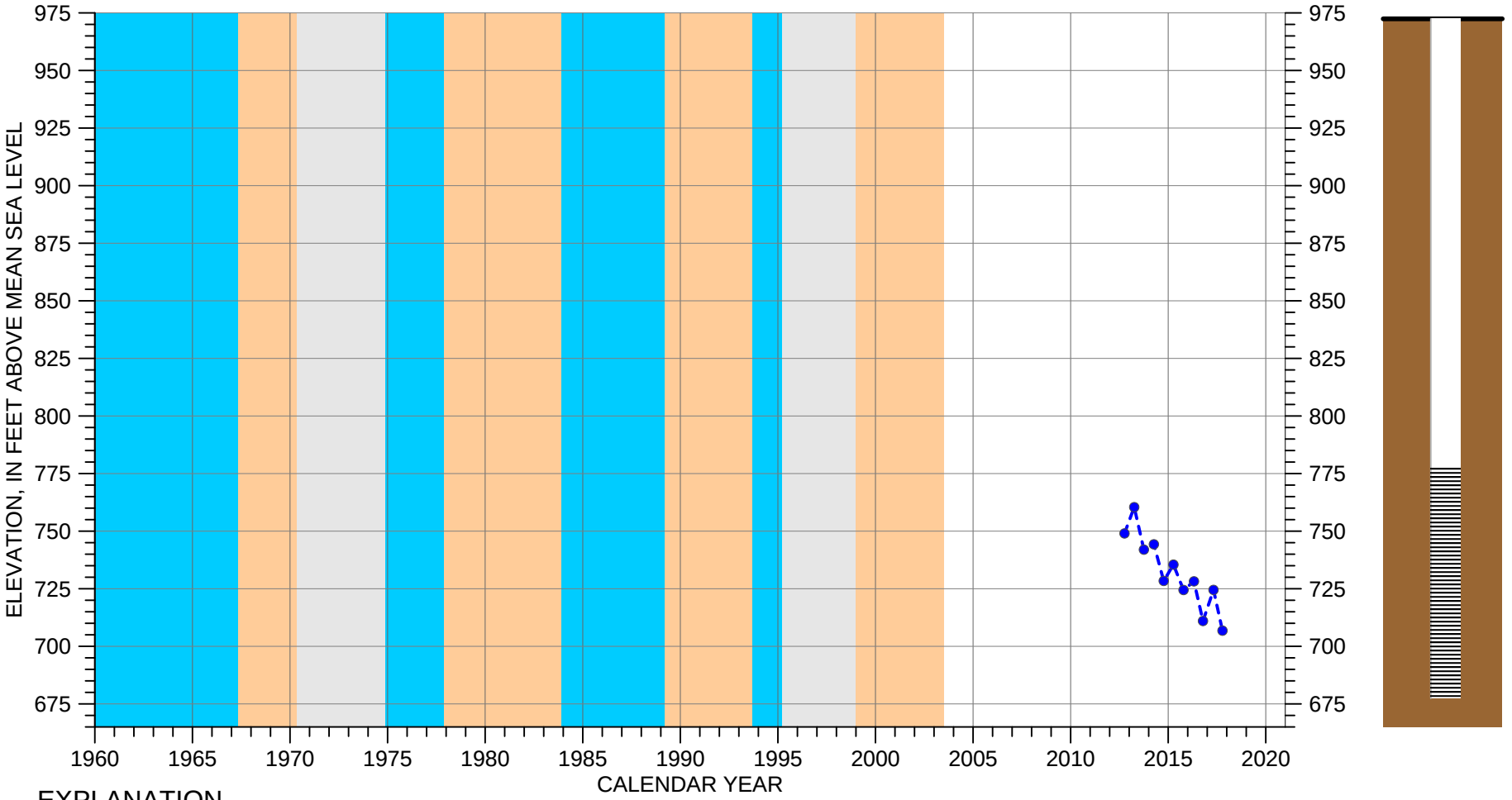


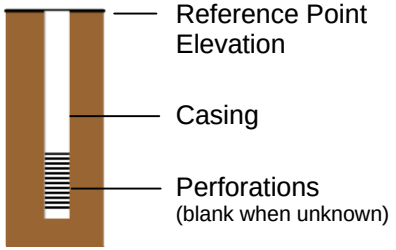
EXPLANATION

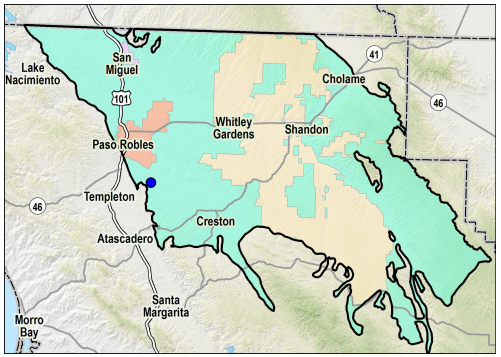
GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET





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* Measurement reported as not static

MEASURED WATER LEVELS FOR 27S/12E-13N01

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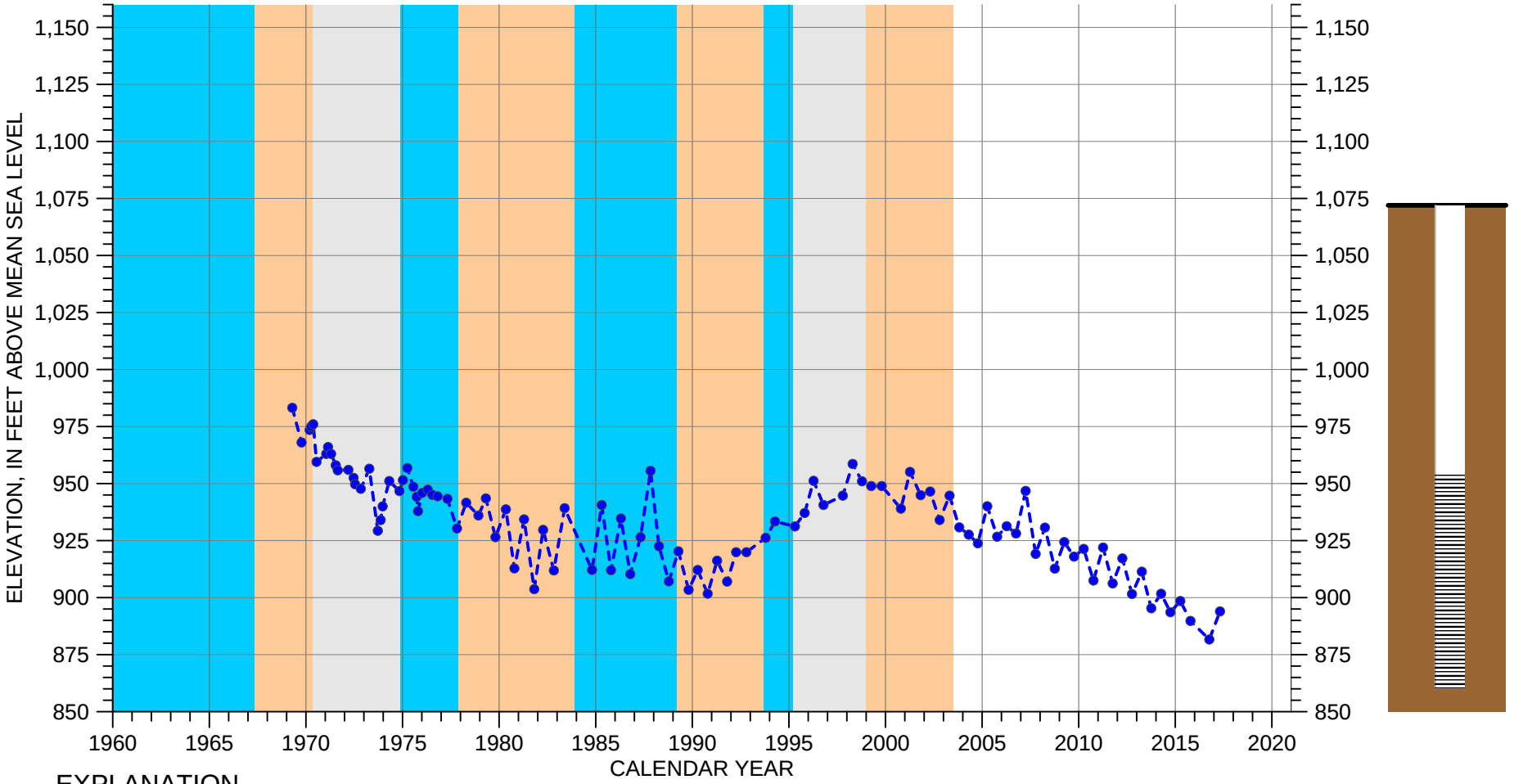


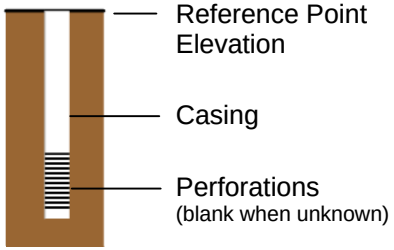
EXPLANATION

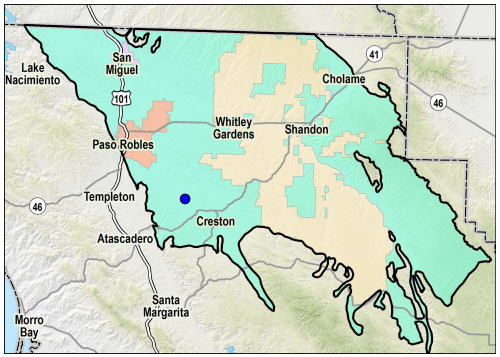
GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET



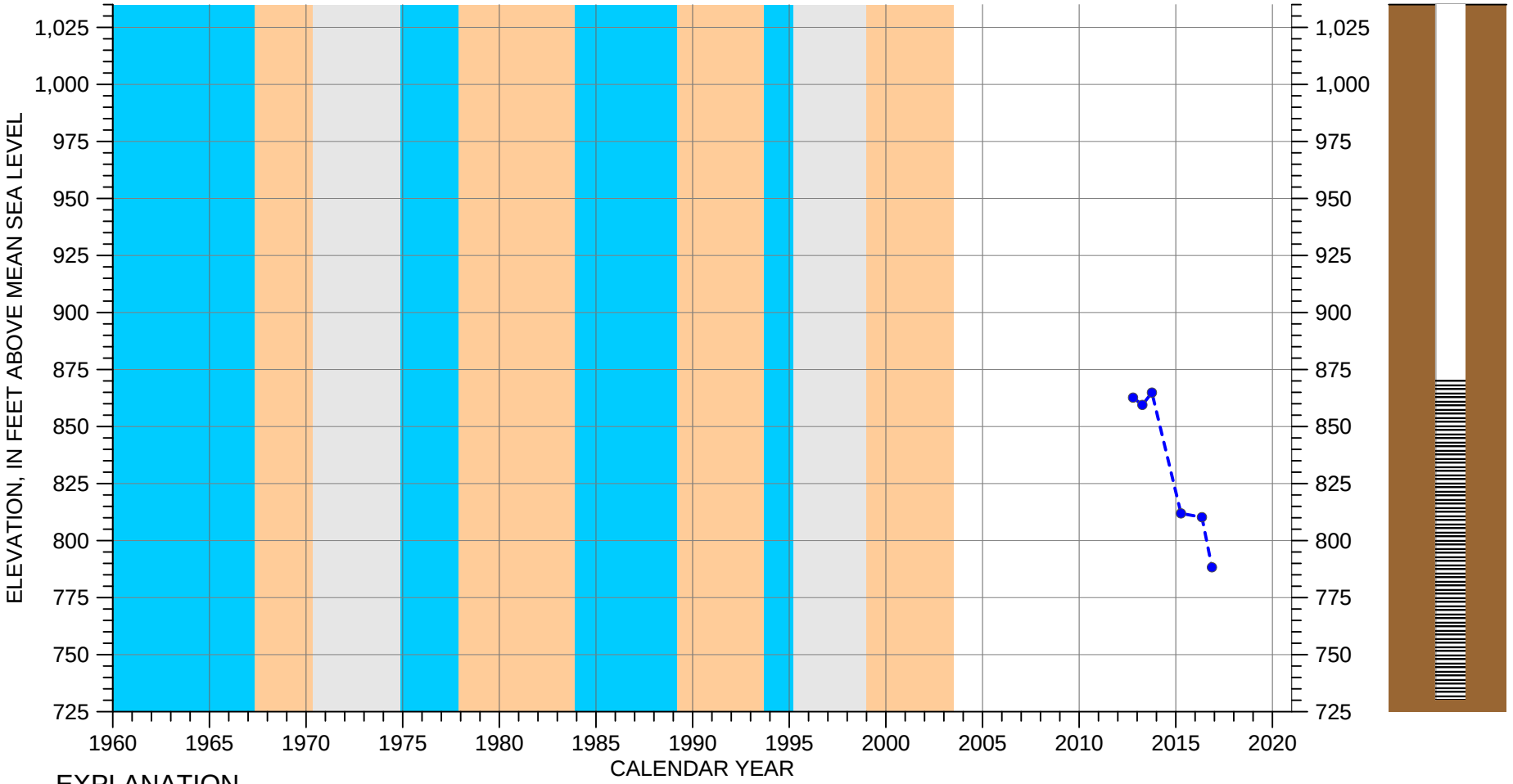


Well Depth: 212 feet
Screened Interval: 118-212 feet below ground surface
Reference Point Elevation: 1072 feet above mean sea level

* Measurement reported as not static

MEASURED WATER LEVELS FOR 27S/13E-28F01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only_noSMC\Fig09_27S_13E-28F01.grf



EXPLANATION

GROUNDWATER ELEVATION

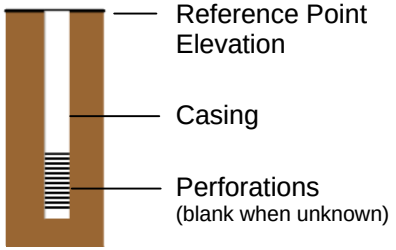
MEASUREMENT NOT VERIFIED*

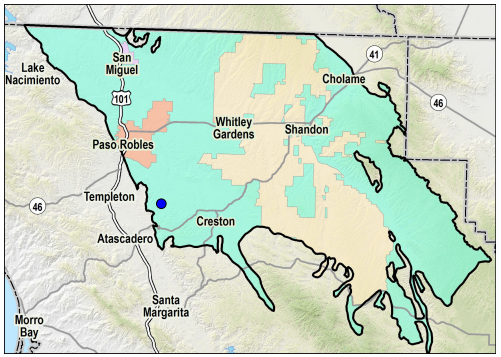
CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET

Well Depth: 355 feet
Screened Interval: 215-235, 275-355 feet below ground surface
Reference Point Elevation: 1086.7 feet above mean sea level

* Measurement reported as not static





MEASURED WATER LEVELS FOR 27S/13E-30N01

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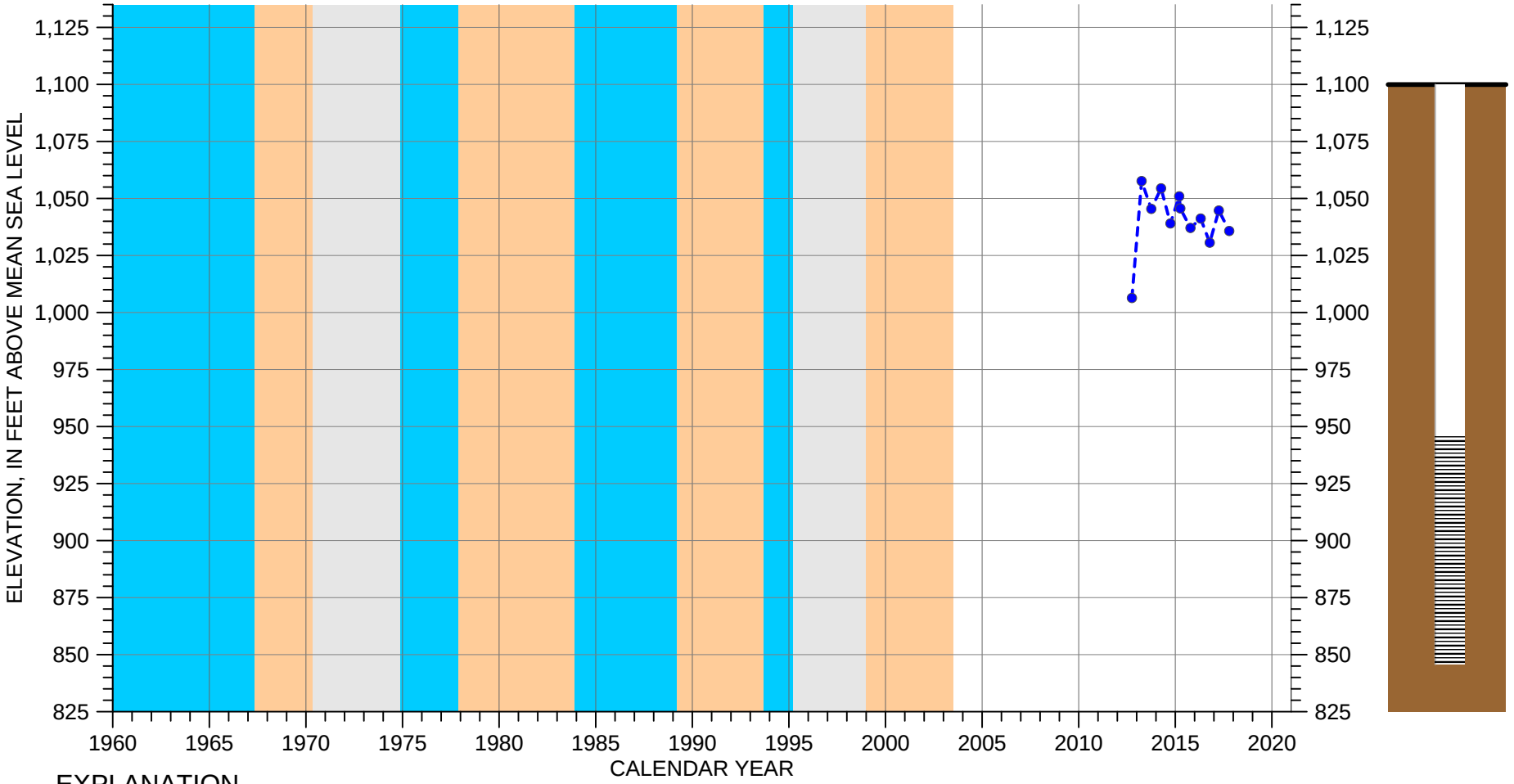


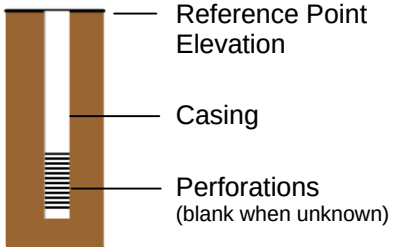
EXPLANATION

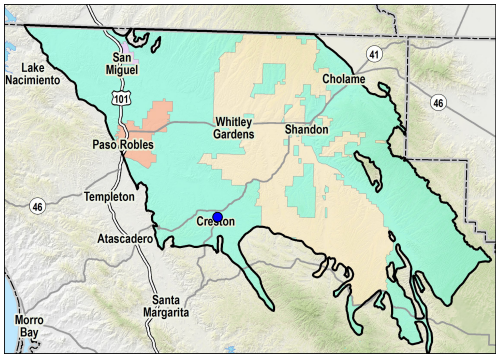
GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



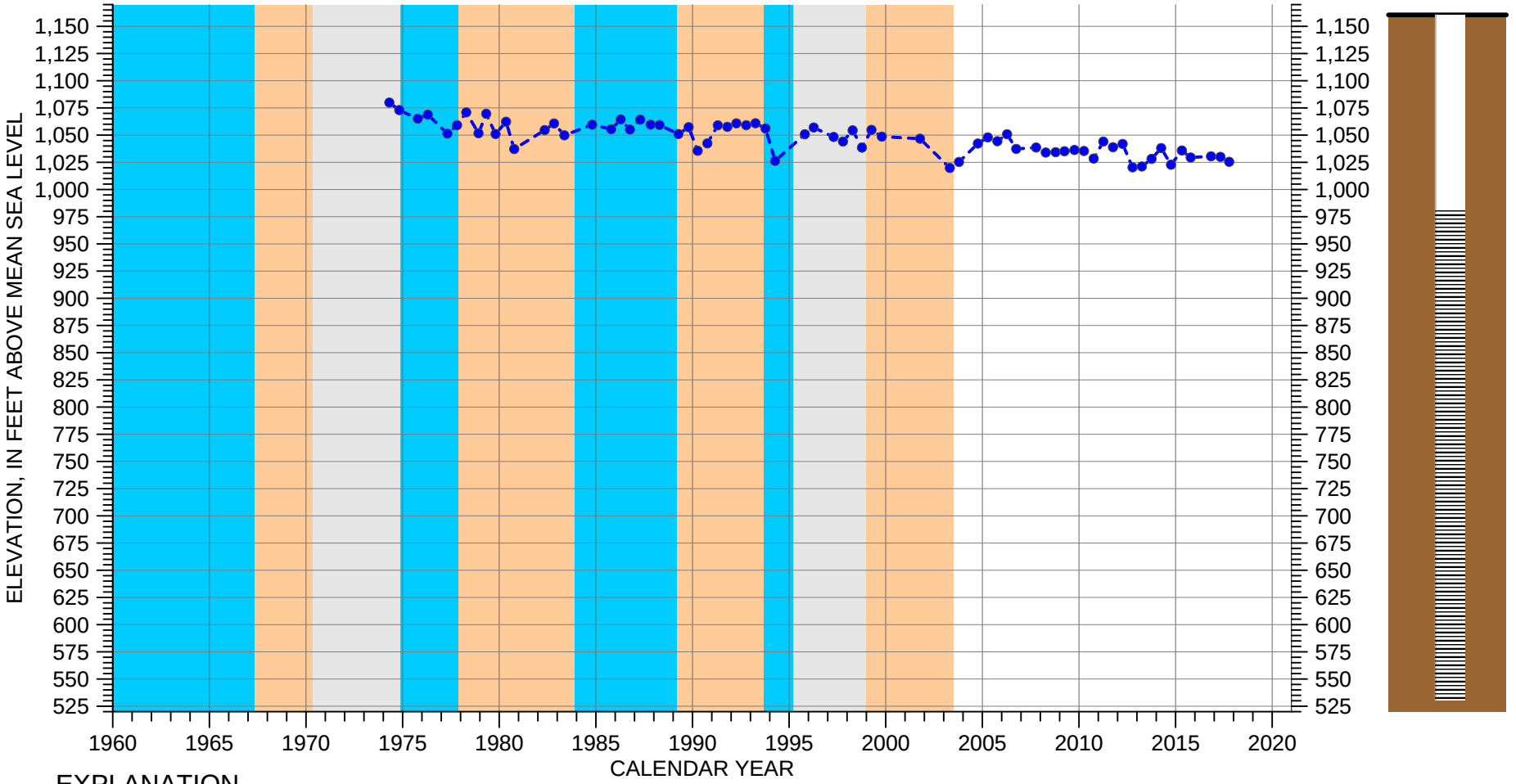


Well Depth: 254 feet
Screened Interval: 154-254 feet below ground surface
Reference Point Elevation: 1099.9 feet above mean sea level

* Measurement reported as not static

MEASURED WATER LEVELS FOR 28S/13E-01B01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only_noSMC\Fig11_28S_13E-01B01.grf



EXPLANATION

GROUNDWATER ELEVATION

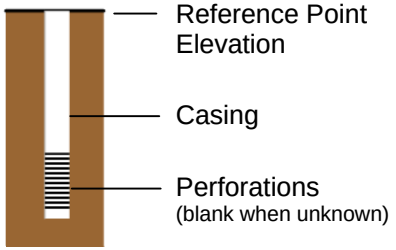
MEASUREMENT NOT VERIFIED*

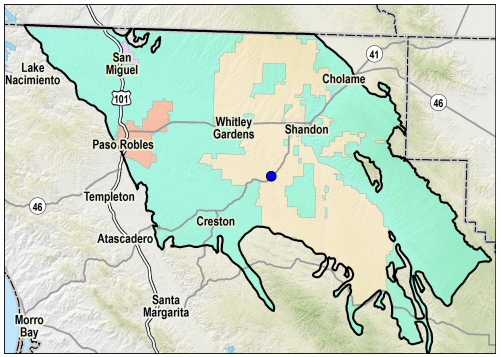
CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET

Well Depth: 630
Screened Interval: 180-630 feet below ground surface
Reference Point Elevation: 1160.5 feet above mean sea level

* Measurement reported as not static





MEASURED WATER LEVELS FOR 27S/14E-11R01

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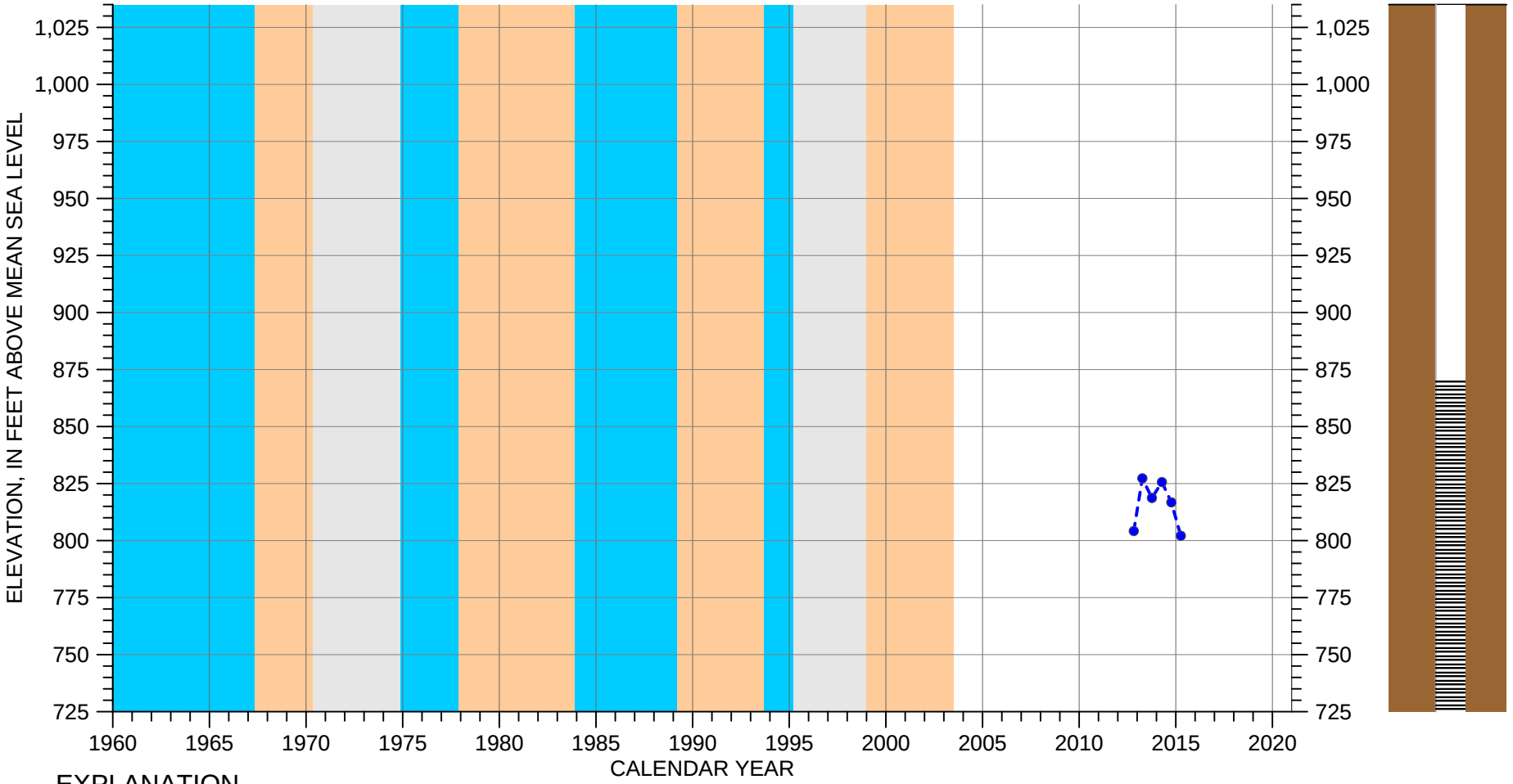


EXPLANATION

GROUNDWATER ELEVATION

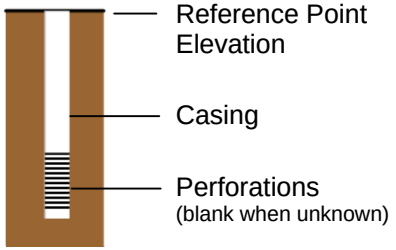
MEASUREMENT NOT VERIFIED*

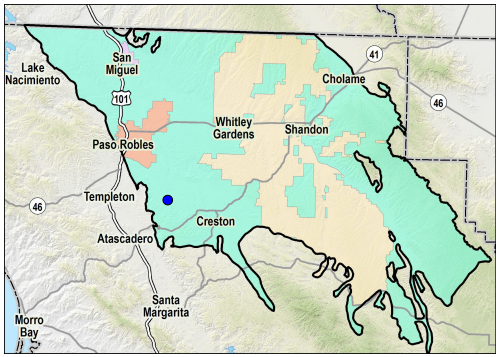
CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET

Well Depth: 685
Screened Interval: 225-685 feet below ground surface
Reference Point Elevation: 1095 feet above mean sea level

* Measurement reported as not static





MEASURED WATER LEVELS FOR 27S/13E-30J01

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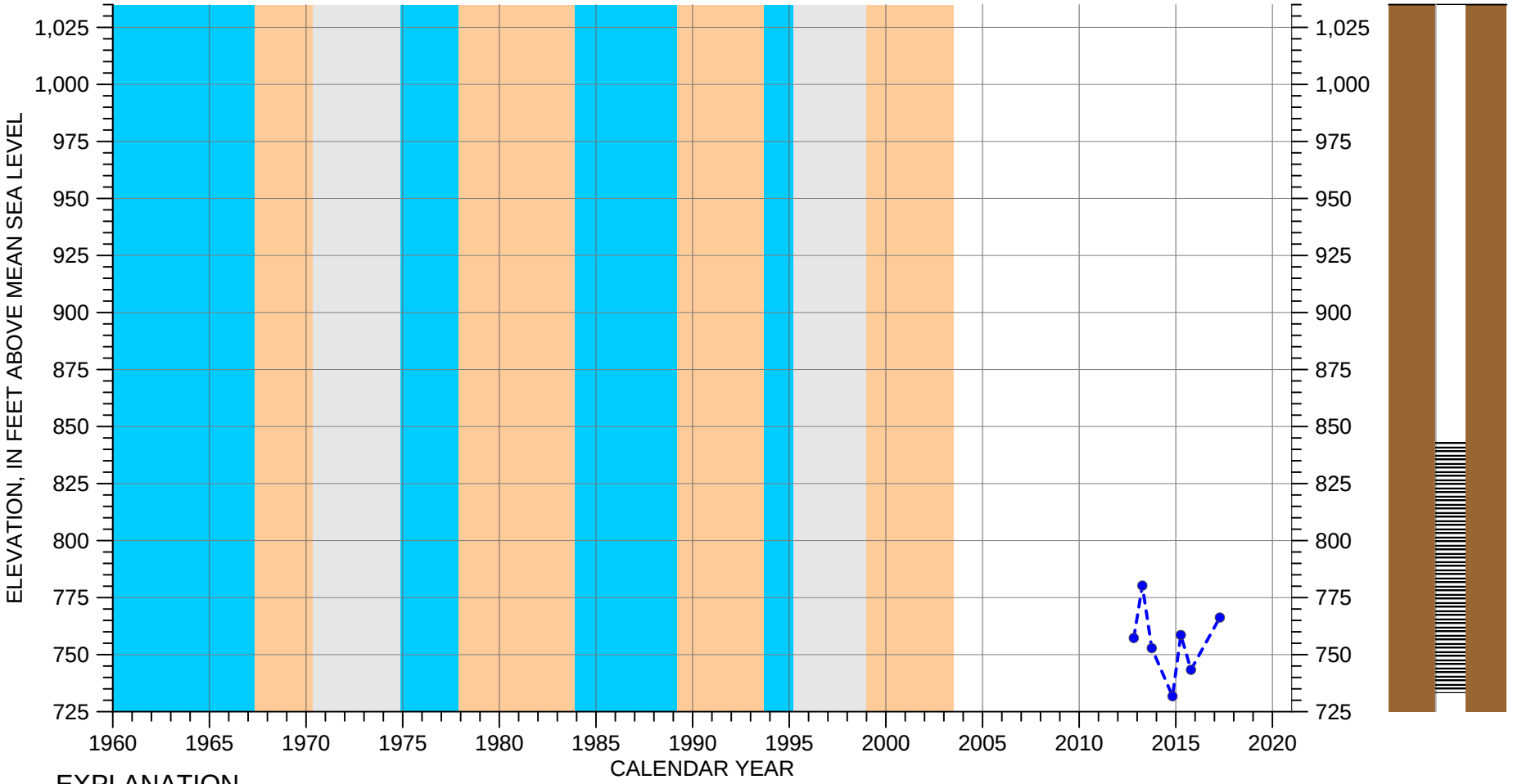


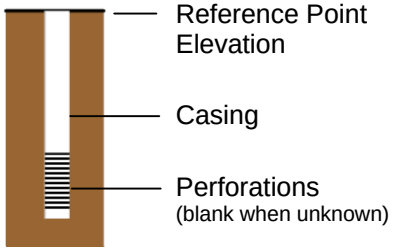
EXPLANATION

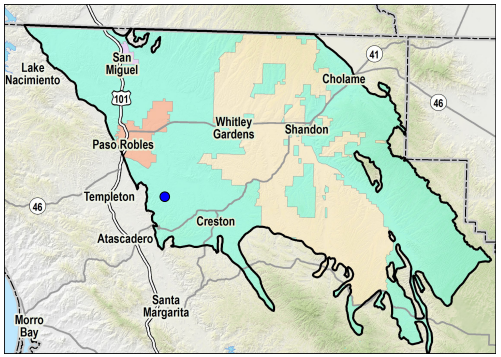
GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET



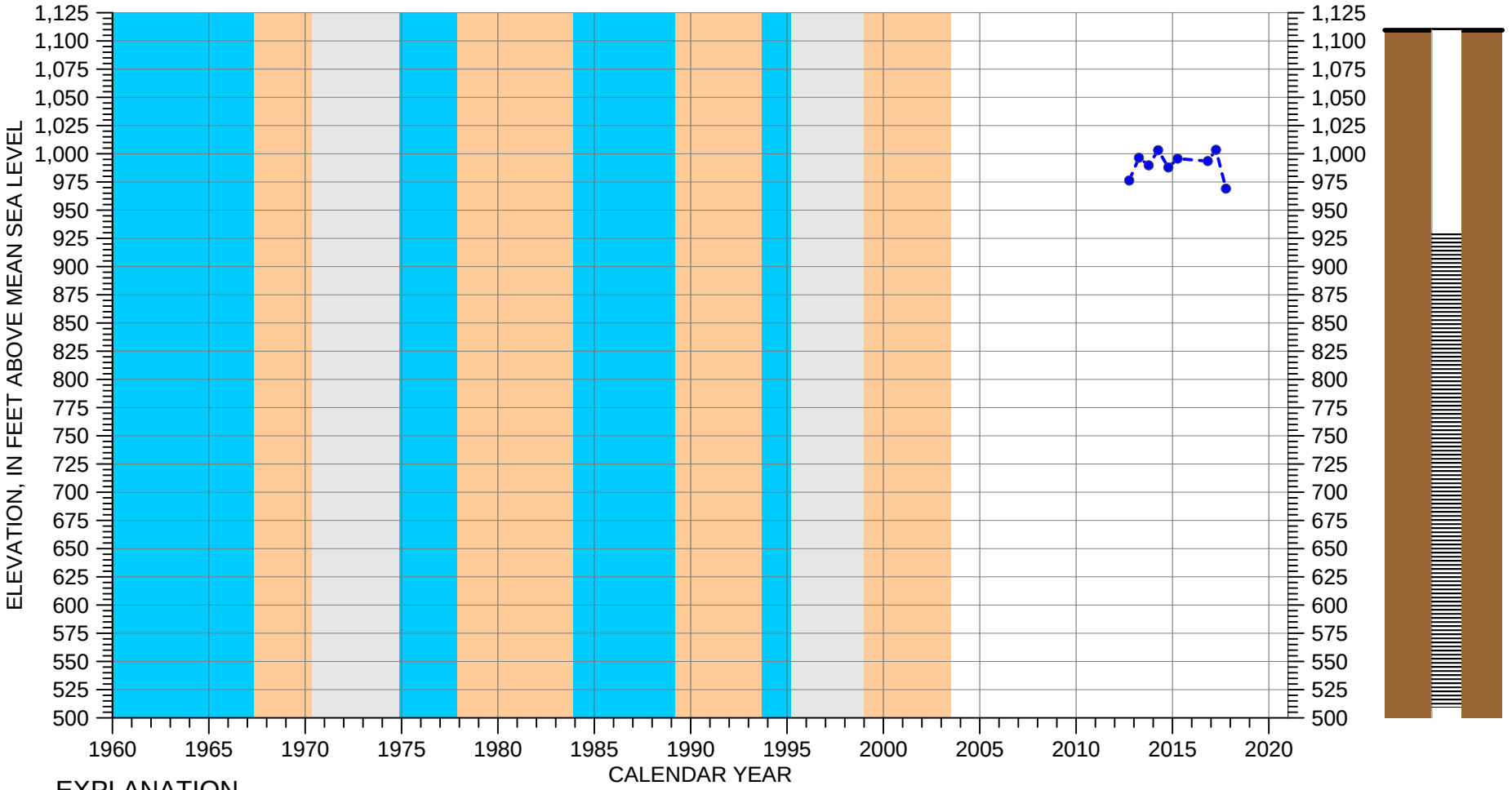


Well Depth: 310
Screened Interval: 200-310 feet below ground surface
Reference Point Elevation: 1043.2 feet above mean sea level

* Measurement reported as not static

MEASURED WATER LEVELS FOR 27S/13E-30F01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only_noSMC\Fig14_27S_13E-30F01.grf



EXPLANATION

GROUNDWATER ELEVATION

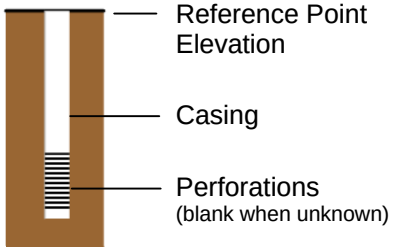
MEASUREMENT NOT VERIFIED*

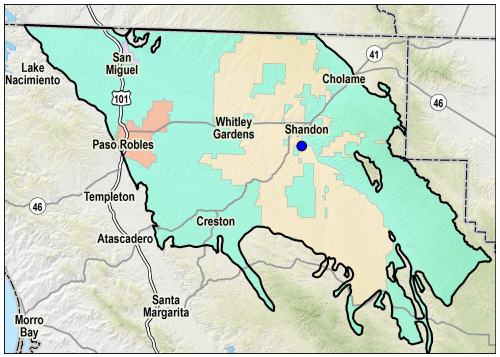
CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET

Well Depth: 600
Screened Interval: 180-600 feet below ground surface
Reference Point Elevation: 1109.5 feet above mean sea level

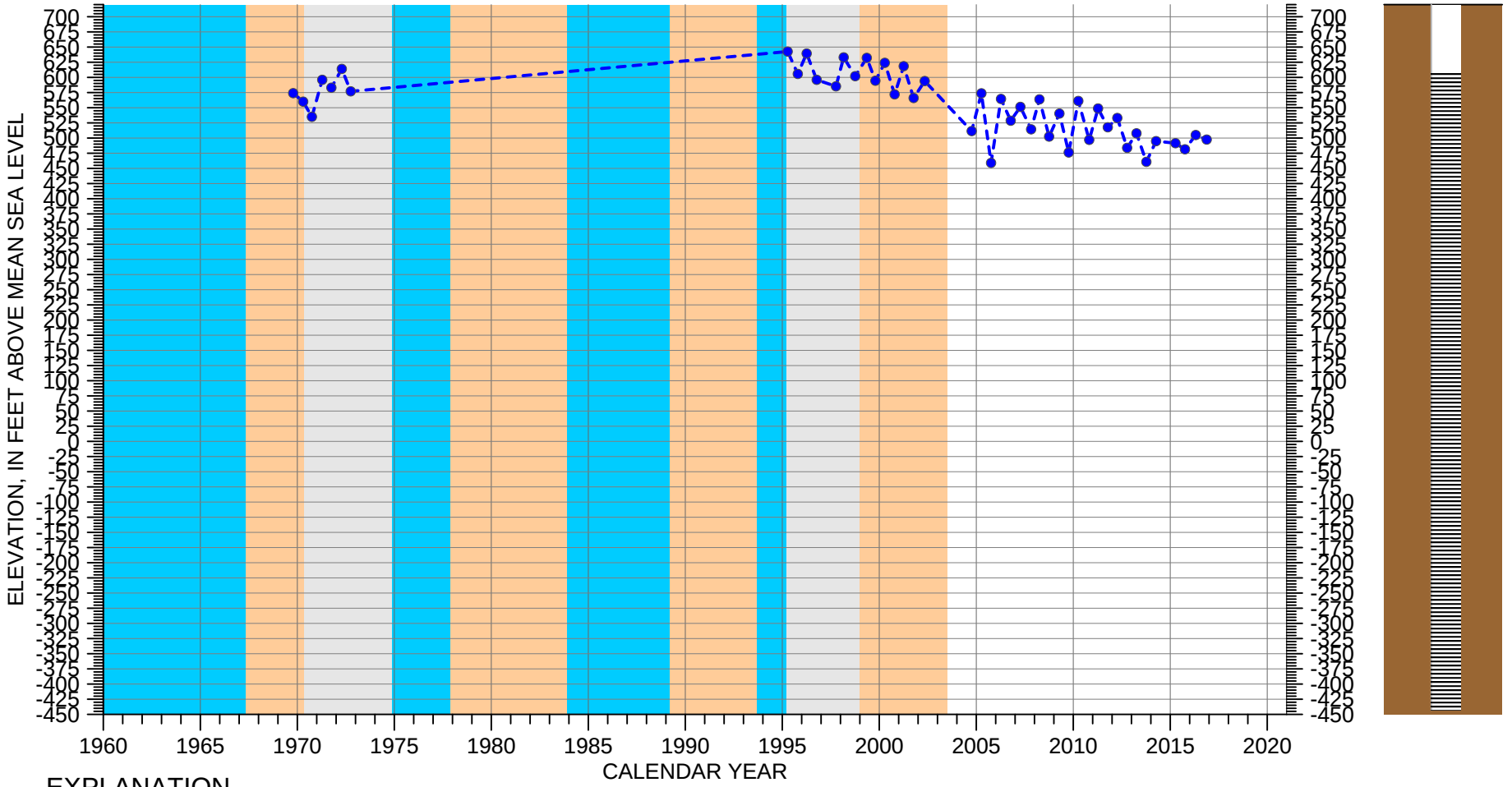
* Measurement reported as not static





MEASURED WATER LEVELS FOR 26S/15E-29R01

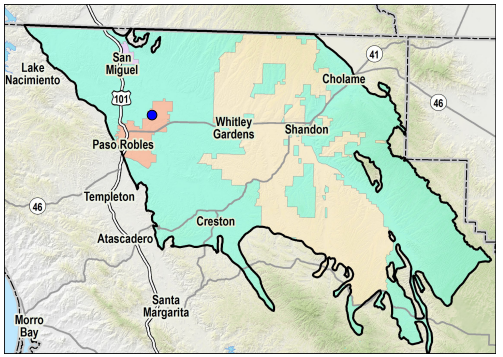
S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only_noSMC\Fig15_26S_15E-29R01.grf



EXPLANATION

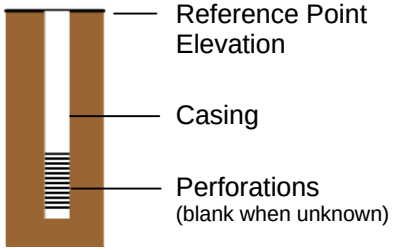
GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*



CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET

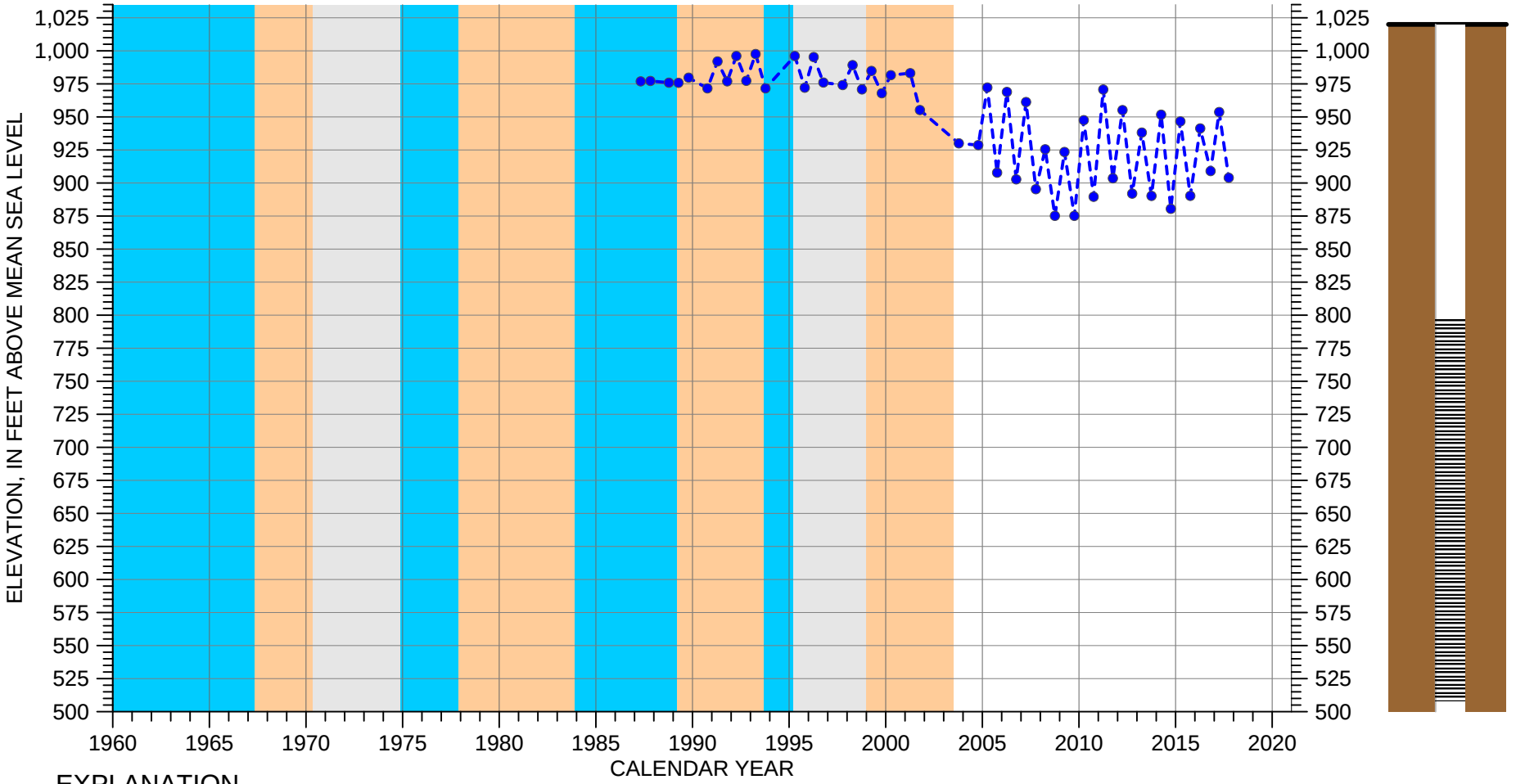


Well Depth: 1230
Screened Interval: 180-~1230 feet below ground surface
Reference Point Elevation: 790 feet above mean sea level

* Measurement reported as not static

MEASURED WATER LEVELS FOR 26S/12E-14H01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only_noSMC\Fig16_26S_12E-14H01.grf



EXPLANATION

GROUNDWATER ELEVATION

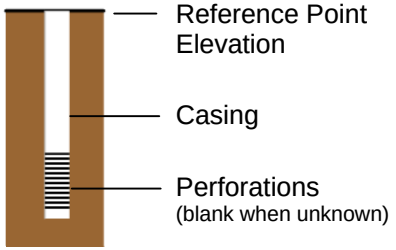
MEASUREMENT NOT VERIFIED*

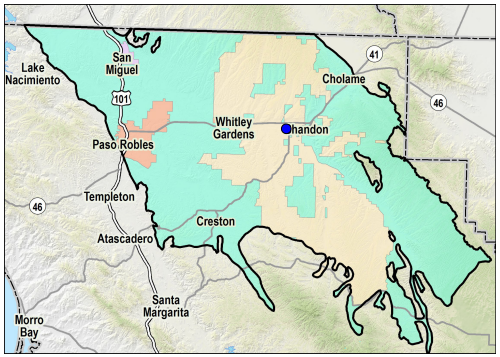
CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET

Well Depth: 512
Screened Interval: 223-512 feet below ground surface
Reference Point Elevation: 1020 feet above mean sea level

* Measurement reported as not static





MEASURED WATER LEVELS FOR 26S/15E-19E01

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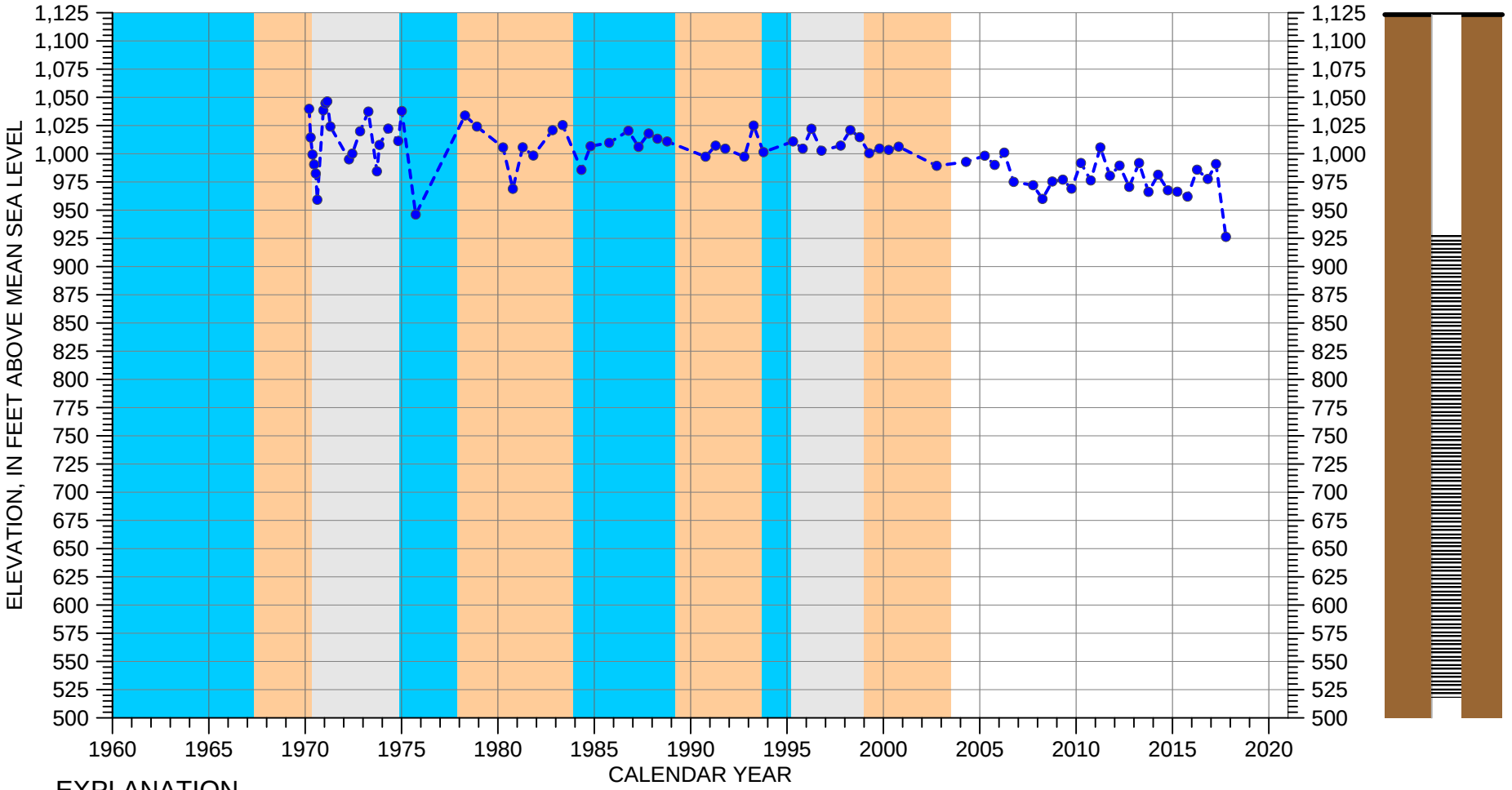


EXPLANATION

GROUNDWATER ELEVATION

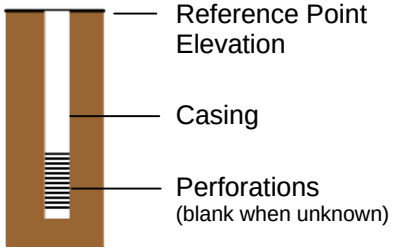
MEASUREMENT NOT VERIFIED*

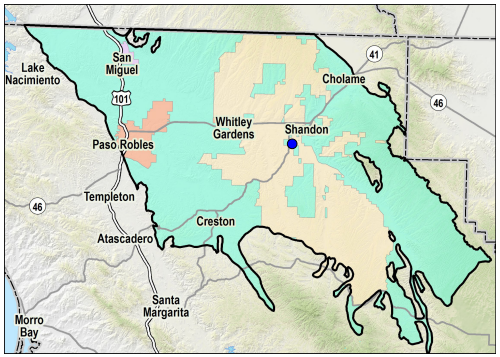
CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET

Well Depth: 605
Screened Interval: 195-605 feet below ground surface
Reference Point Elevation: 1123.3 feet above mean sea level

* Measurement reported as not static





MEASURED WATER LEVELS FOR 26S/15E-30J01

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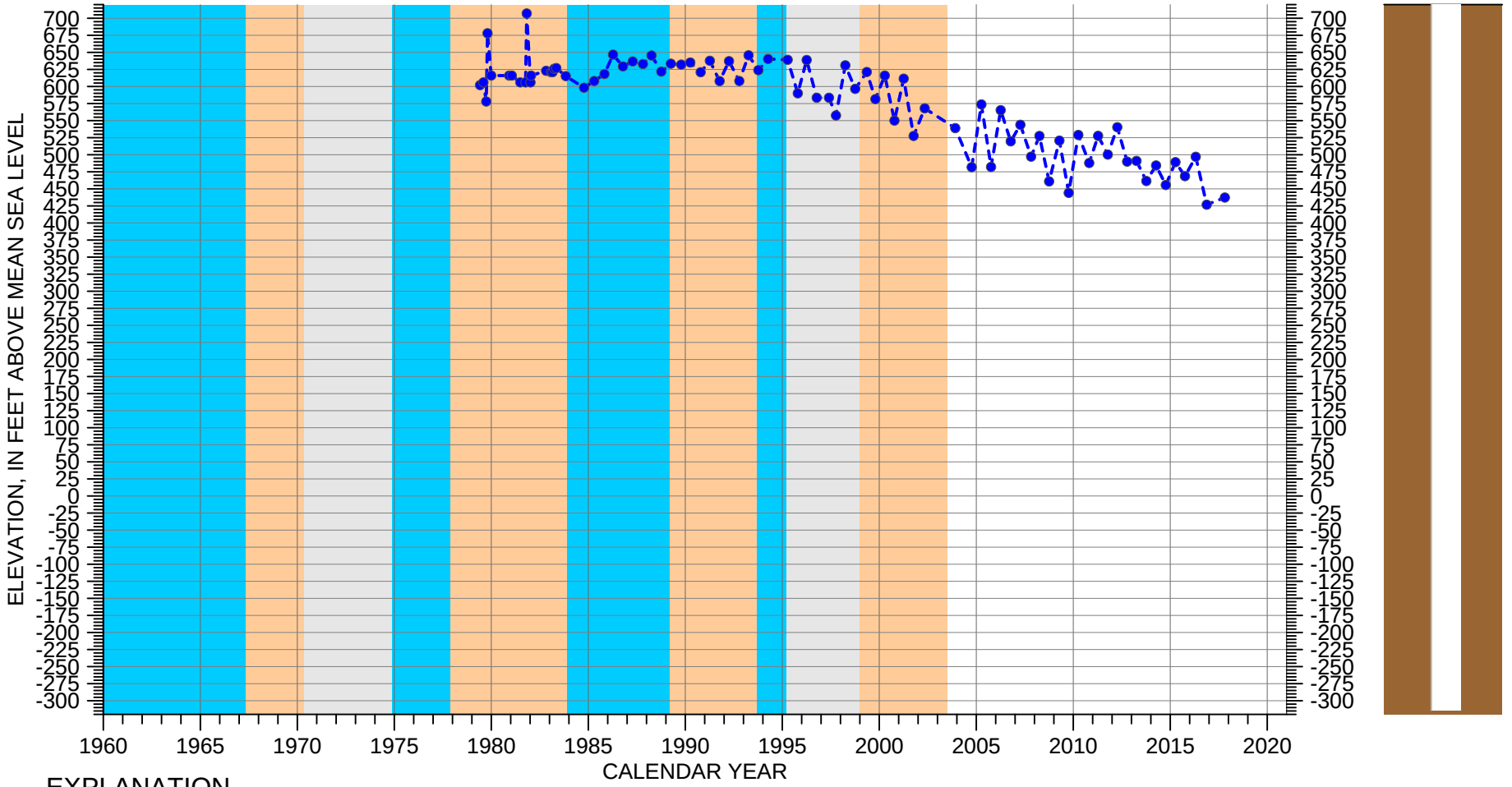


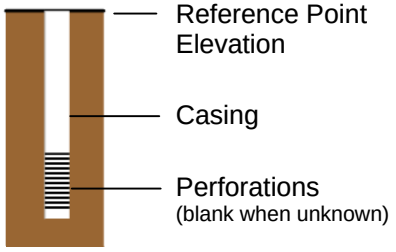
EXPLANATION

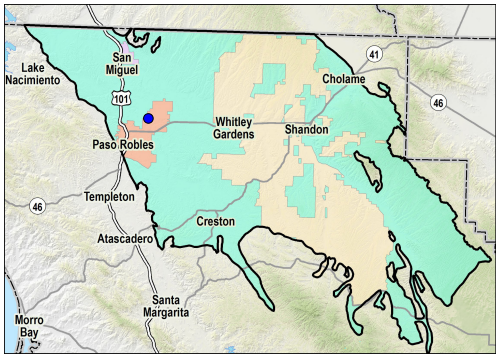
GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET



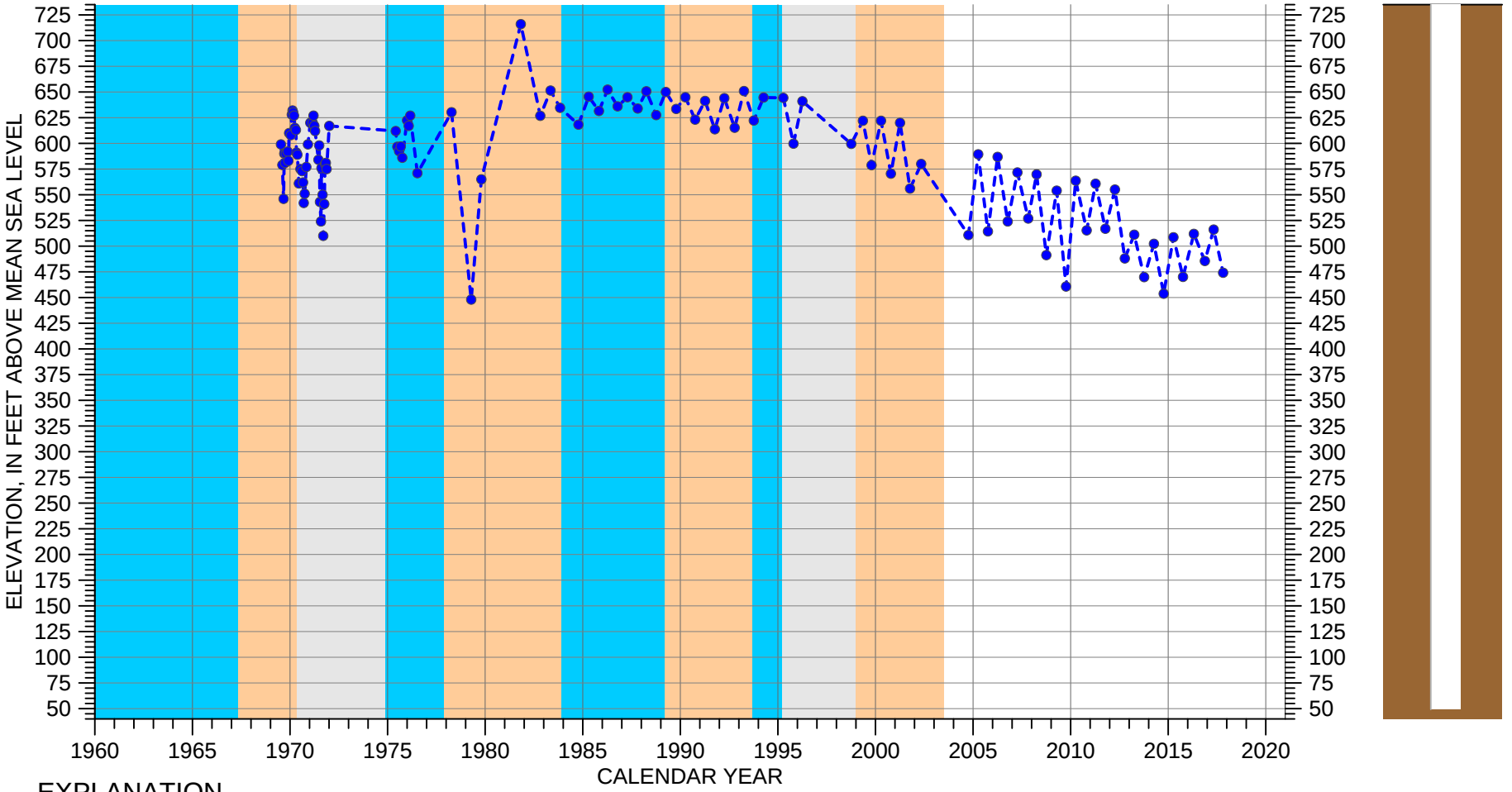


Well Depth: 1100
Screened Interval: unknown
Reference Point Elevation: 786 feet above mean sea level

* Measurement reported as not static

MEASURED WATER LEVELS FOR 26S/12E-14K01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only_noSMC\Fig19_26S_12E-14K01.grf



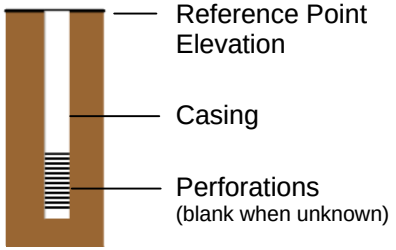
EXPLANATION

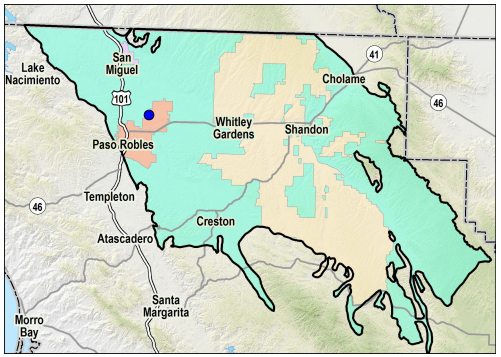
GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



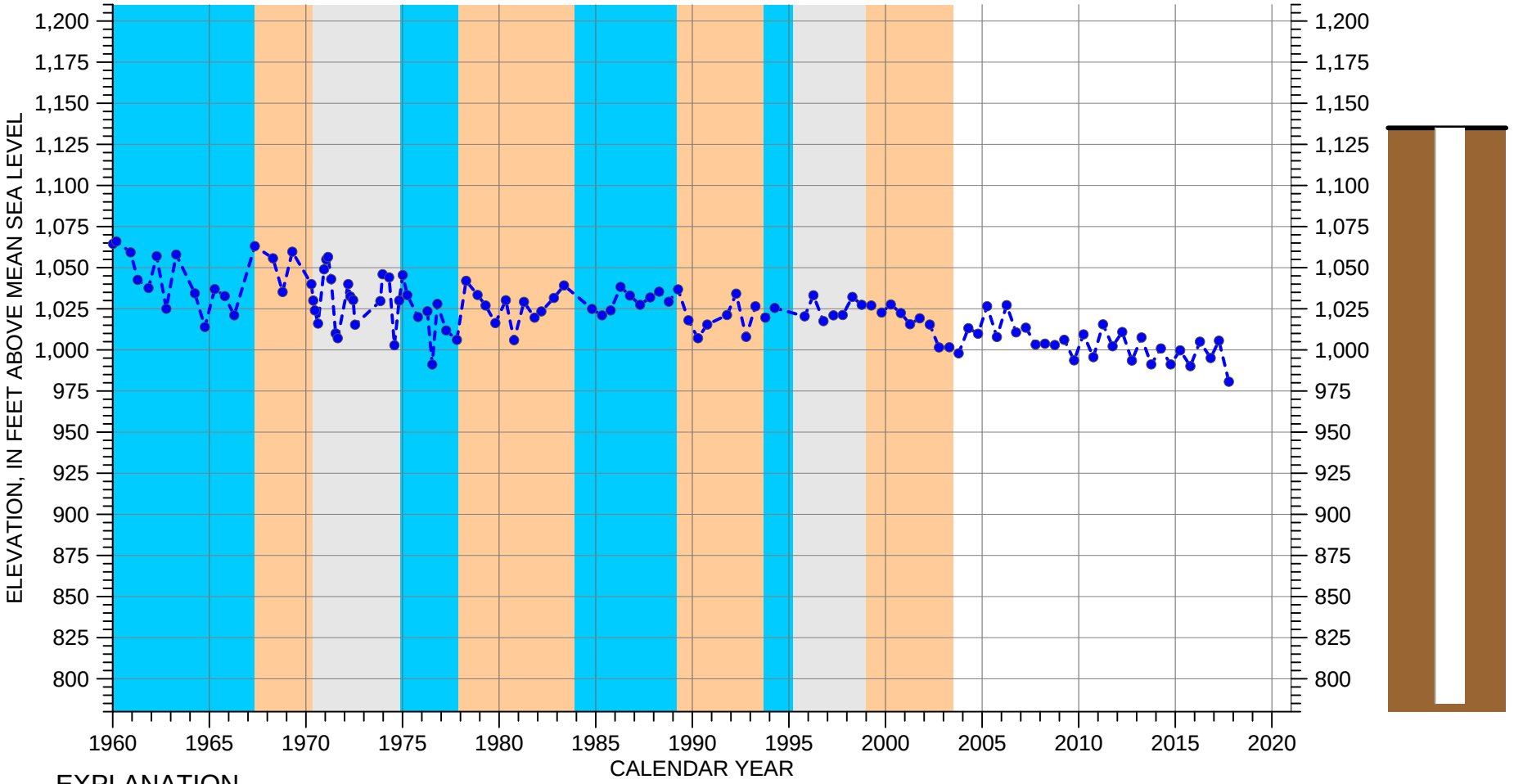


Well Depth: 740
Screened Interval: unknown
Reference Point Elevation: 789.3 feet above mean sea level

* Measurement reported as not static

MEASURED WATER LEVELS FOR 26S/12E-14G01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only_noSMC\Fig20_26S_12E-14G01.grf



EXPLANATION

GROUNDWATER ELEVATION

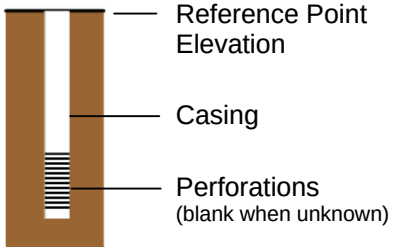
MEASUREMENT NOT VERIFIED*

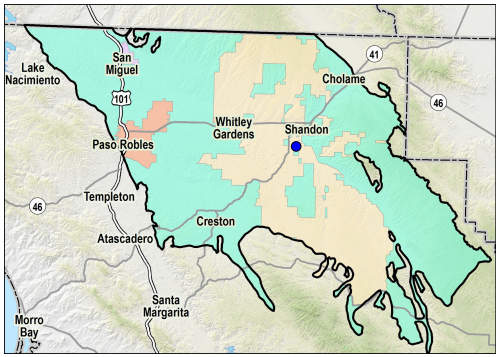
CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET

Well Depth: 350
Screened Interval: unknown
Reference Point Elevation: 1135 feet above mean sea level

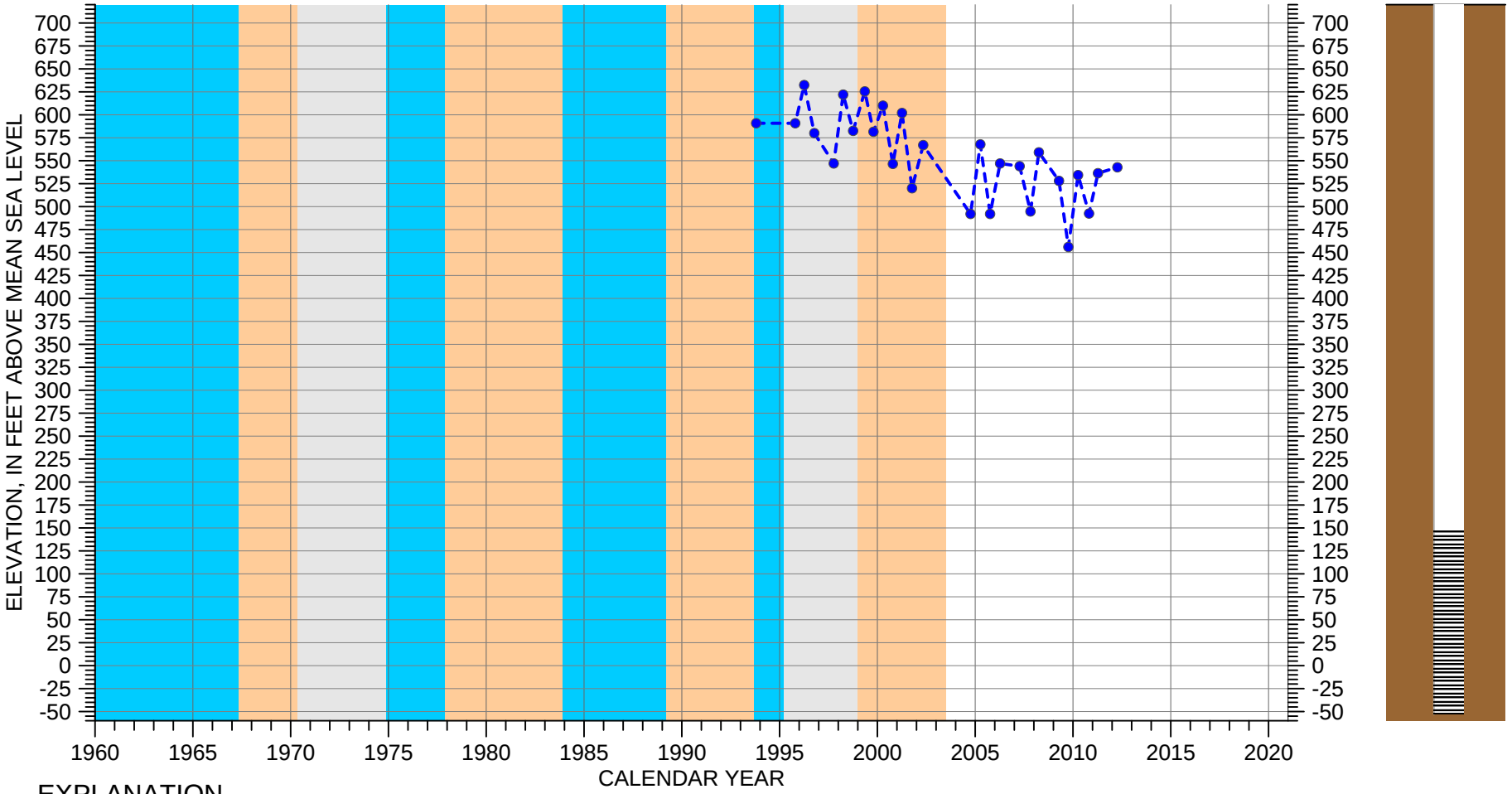
* Measurement reported as not static





MEASURED WATER LEVELS FOR 26S/15E-29N01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only_noSMC\Fig21_26S_15E-29N01.grf



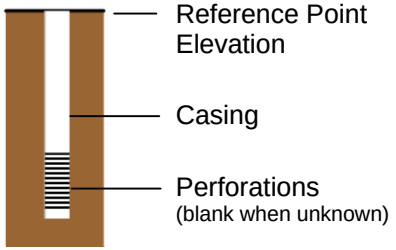
EXPLANATION

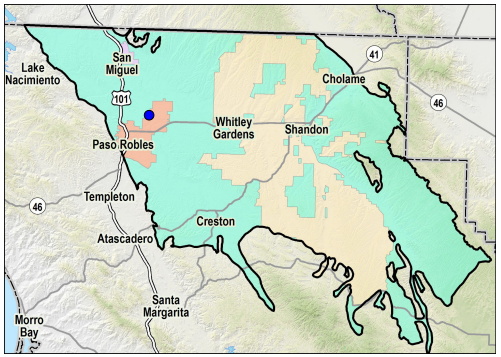
GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET



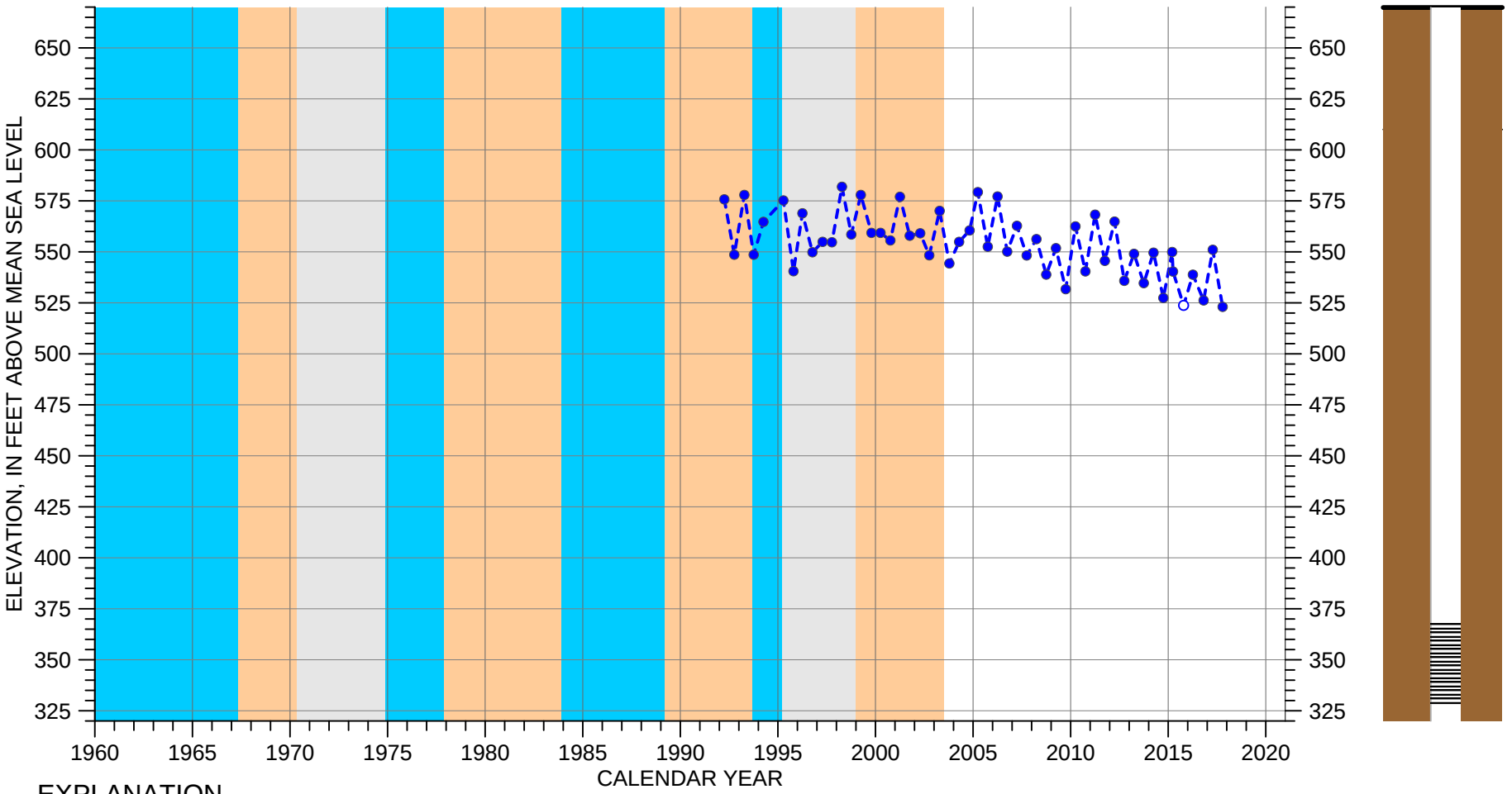


Well Depth: 840
Screened Interval: 640- ~840 feet below ground surface
Reference Point Elevation: 787 feet above mean sea level

* Measurement reported as not static

MEASURED WATER LEVELS FOR 26S/12E-14G02

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only_noSMC\Fig22_26S_12E-14G02.grf



EXPLANATION

GROUNDWATER ELEVATION

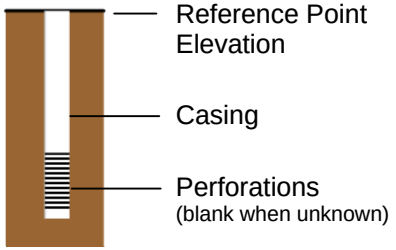
MEASUREMENT NOT VERIFIED*

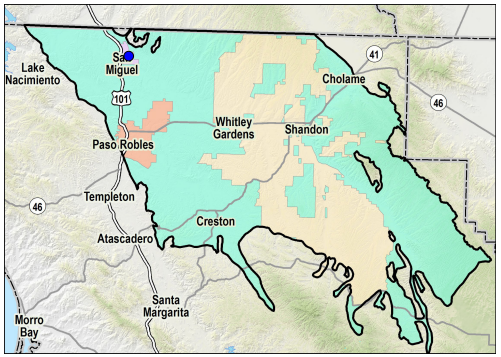
CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET

Well Depth: 350 feet
Screened Interval: 300-310, 330-340 feet below ground surface
Reference Point Elevation: 669.8 feet above mean sea level

* Measurement reported as not static





MEASURED WATER LEVELS FOR 25S/12E-16K05

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Appendix E

Summary of Model Update and Modifications

Appendix E. Summary of Model Update and Modifications

LIST OF FIGURES

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E1 INTRODUCTION

This appendix briefly summarizes modeling work done for the GSP. A hydrologic modeling platform was developed for the Paso Robles Subbasin during the period from 2005 through 2016. This modeling platform was adapted for the GSP. Modeling work conducted for the GSP included the following activities:

- Updating the platform with recent hydrologic information
- Modifying certain components of the platform to address computational issues identified during the update process
- Adapting the water budgeting process to be consistent with the new boundary of the Paso Robles Subbasin[1]. Figure E-1 of the GSP shows the new Subbasin Boundary (in green); the GSP only applies to the new Subbasin area, thus, water budgets reported in the GSP do not include areas within the former Subbasin boundary that lie north of the San Luis Obispo County Line and do not include the Atascadero Subbasin. Therefore, groundwater budgets reported in the GSP are not directly comparable to previously reported groundwater budgets.

[1] The Subbasin boundary was formally modified by the California Department of Water Resources on February 11, 2019. Information on the modified boundary can be found at https://water.ca.gov/Programs/Groundwater-Management/Basin-Boundary-Modifications.

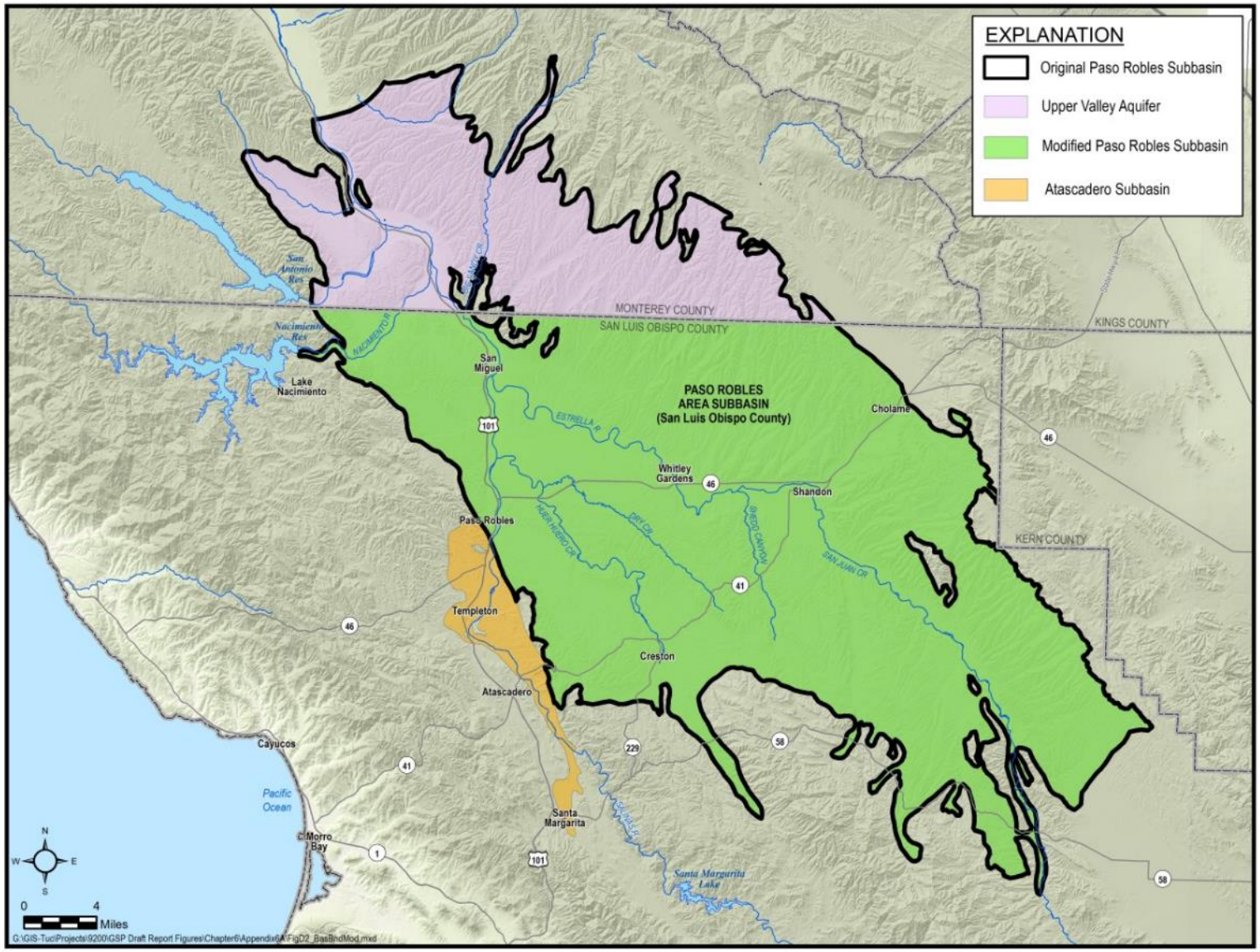


Figure E-1. Map Showing Paso Robles Subbasin Boundary

This appendix summarizes the model update process and effects of changes to the modeling platform and the change in Subbasin boundary on computed groundwater budgets, and presents a comparison between previously reported groundwater budgets and the computed groundwater budget for the GSP.

The appendix is subdivided into the following sections.

- Description of GSP Model
- Model Update
- Model Modifications
- Comparison of Groundwater Budgets

The hydrologic modeling platform includes a numerical groundwater flow model and two additional models that are used to compute groundwater model input data for streamflow, recharge, and groundwater pumping [Geoscience Support Services, Inc. (GSSI), 2014 and 2016]. The two additional models consist of a Soil Water Balance (SWB) spreadsheet model and a surface water model. The interrelationship between the groundwater model, SWB model, and surface water model are shown on Figure E-2. Hereafter in this appendix, the original hydrologic modeling platform developed by GSSI is referred to as "the GSSI model."

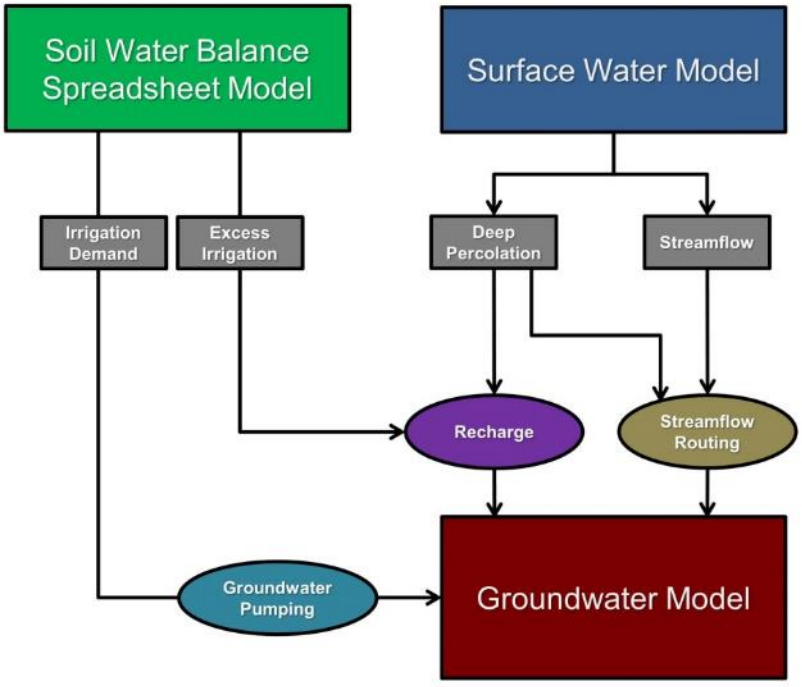


Figure E-2. Schematic for Modeling Platform

The GSSI model was updated for the GSP. The model update process included compiling hydrologic data and preparing model input files to extend the simulation time period from 2012 through 2016. Model modifications included changes to model structure, input/output processing routines, and model assumptions. Modifications were made to address issues that had a potentially significant impact on the computed water budget and groundwater storage deficit. These modifications were made to develop an updated estimate of the groundwater storage deficit that must be addressed during implementation of the GSP.

As was planned from the outset of GSP development, and to meet critical deadlines, the GSP model was not recalibrated. In lieu of recalibration, a focused comparison of model-projected and observed groundwater elevations at wells and stream flows at selected stream gages was conducted. Results of this comparison indicated that the calibration of the GSP model was similar to the GSSI model, thus, the model was considered appropriate for use on the GSP. The GSP model will be recalibrated in the future when additional hydrogeologic data are available.

E1.1 Overview of Differences in Computed Sustainable Yield

Previous and current estimates of sustainable yield of the Subbasin were computed using the modeling platform. Both the model modifications and the change in Subbasin boundary influence the computed sustainable yield. Over the historical base period from 1981 through 2011, the computed sustainable yield from the 2016 GSSI model is about 89,700 acre-feet per year (AFY). This estimate of sustainable yield pertains to the original Subbasin boundary and the Atascadero Subbasin. By comparison, the computed sustainable yield for the modified Subbasin boundary from the updated GSP model is about 59,800 AFY. The difference between these two values is nearly 30,000 AFY. About 80% of this difference is due to changes in the Subbasin boundary. The remaining difference is the result of modifications made to the model components.

E2 DESCRIPTION OF GSP MODEL

E2.1 Soil Water Balance Spreadsheet Model

The SWB model uses rainfall, evapotranspiration, soil, and crop data to estimate groundwater irrigation demand for crops in the Subbasin. Irrigated crops in the Paso Robles Subbasin are assigned to seven crop categories (Carollo and others, 2012), including alfalfa, nursery, pasture, citrus, deciduous, vegetables, and vineyard. For the GSP model, geospatial crop datasets compiled by the Agricultural Commissioner's Office of San Luis Obispo County were intersected with different climate zones and soil types in both the Paso Robles Subbasin and surrounding watershed. For each of the seven crop categories, existing discrete SWB models were extended in time for each unique intersection of crop acreage, climate zone, and soil type to cover the current period (2012-2016).

The underlying structure and data requirements are identical for all of the SWB spreadsheet models, except vineyards. All of the SWB models operate on a daily time step, and require daily precipitation and reference evapotranspiration rates as input. SWB models developed for vineyards also require daily minimum temperature data to estimate frost prevention groundwater pumping during March and April.

The SWB model computes daily irrigation demand rates in inches. Groundwater pumping to satisfy the irrigation demand is higher than the actual crop demand due to excess irrigation losses, which depend on assumed irrigation efficiency. The study documented by GSSI (2014) defined irrigation efficiency for each of the seven crop categories, and those efficiency values were also used in this study. The difference between groundwater pumping and crop irrigation demand is assumed to percolate past the base of the root zone, ultimately becoming groundwater recharge. This recharge is referred to as irrigation return flow in Chapter 6.

E2.2 Surface Water Model

A surface water model was developed by GSSI (2014) for the watershed contributing to the Paso Robles Subbasin. The surface water model was developed using the Hydrologic Simulation Program – Fortran (HSPF) code. The model simulates land surface processes and surface water flow at the subwatershed scale (Bicknell and others, 2001). The surface water model simulates daily time steps, and requires daily precipitation, reference evapotranspiration, and reservoir releases as input. Historical watershed simulations developed by GSSI (2014) used land use data for 1985, 1997, and 2011 in the surface water model. The 2011 land use data were used to update the GSP model.

The surface water model simulates deep percolation of precipitation past the base of the root zone and streamflow leaving the outlet of each subwatershed. The amount of deep percolation of

precipitation computed by the surface water model was included in the recharge assigned to the groundwater model, and simulated streamflow at the subwatershed outlet was used to compute surface flow rates for stream segments simulated in the groundwater model.

E2.3 Groundwater Model

The groundwater flow model for the Paso Robles Subbasin uses the MODFLOW-2005 code (GSSI, 2014 and 2016). The extent and structure of the GSSI model are based on an earlier version of the groundwater flow model developed by Fugro (2005). Groundwater inflows simulated in the model include areal recharge, subsurface inflow at the model boundaries, and streambed percolation. Areal recharge includes both recharge from precipitation and irrigation return flow. Groundwater outflows simulated in the model include subsurface flow out of the Subbasin, groundwater pumping, and riparian evapotranspiration.

Areal recharge and subsurface inflow are computed based on excess irrigation from the SWB model and deep percolation of precipitation from the surface water model. Streambed percolation depends on both simulated water table elevation and simulated streamflow, which in turn is based on simulated streamflow from the surface water model. Agricultural groundwater pumping is specified based on irrigation demand computed in the SWB model.

E3 MODEL UPDATE

SGMA regulations require estimation of surface water and groundwater budgets for both a historical base period and current period. For the Subbasin, the historical base period covers Water Years (WY) 1981 through 2011 and the current period covers WY 2012 through 2016. The existing model covers only the historical base period (GSSI, 2014; GSSI, 2016). To comply with SGMA regulations for developing a current water budget, it was necessary to update the 2016 version of the GSSI model to include hydrologic data from 2012 through 2016.

Each of the three components of the modeling platform was updated to include the current period. Table E-1 lists datasets used for the model update, along with the source for each dataset.

Table E-1. Data Sources for Model Update

Dataset	Responsible Agency or Entity	Type of Data	Data Source
Meteorological Data			
Paso Robles Station (46730); Santa Margarita Booster Station (47933)	NOAA[1]	Daily precipitation	https://www.ncdc.noaa.gov/cdo-web/datatools/findstation
San Miguel Wolf Ranch (47867)	NOAA[1]	Daily precipitation	ftp://ftp.ncdc.noaa.gov/pub/data/hpd/auto/v2/beta/
Oak Shores WWTP (201)	San Luis Obispo County	Daily precipitation	Electronic transmittal from SLO County
Paso Robles	WWG[2]	Daily reference evapotranspiration	Electronic transmittal
Atascadero (163)	CIMIS[3]	Daily reference evapotranspiration	https://cimis.water.ca.gov/WSNReportCriteria.aspx
Hydrologic Data			
Nacimiento Reservoir	Monterey County Water Resources Agency	Daily reservoir releases	http://www.co.monterey.ca.us/government/government-links/water-resources-agency/projects-facilities/historical-data#wra
San Antonio Reservoir	Monterey County Water Resources Agency	Daily reservoir releases	http://www.co.monterey.ca.us/government/government-links/water-resources-agency/projects-facilities/historical-data#wra
Salinas Dam	San Luis Obispo County	Daily reservoir releases	https://wr.slocountywater.org/site.php?site_id=25&site=2d50a617-2e23-4efc-a9be-e3a2c4a7100b
Water Use Data			
San Miguel CSD	San Miguel CSD	Monthly groundwater pumping	Excel file (Paso_Water_Use_Tables_v7.xlsx) received from GEI Consultants on 14 June 2018; data provided to GEI by San Miguel CSD
City of Paso Robles	City of Paso Robles	Monthly groundwater pumping	Excel file (Paso_Water_Use_Tables_v7.xlsx) received from GEI Consultants on 14 June 2018; data provided to GEI by City

			of Paso Robles
Templeton CSD	Templeton CSD	Annual groundwater pumping	Water Supply Buffer Update, January 31, 2018
Atascadero MWC	Atascadero MWC	Annual groundwater pumping	Atascadero MWC Urban Water Management Plan
Small commercial pumping	N/A	Annual groundwater pumping	For pumping that started before 2010, projected based on historic use in 2016 model (linear regression trend). For water use that began in 2010; assume 1% annual increase through 2016.
Domestic pumping	N/A	Annual groundwater pumping	Projected based on historic use in 2016 model (linear regression trend).
Agricultural pumping	N/A	Annual groundwater pumping	Pumping based on groundwater demand from soil water-balance spreadsheets
Wastewater Recharge			
Wastewater recharge (all utilities)	N/A	Annual recharge to groundwater from wastewater	Projected based on rates in 2016 model (linear regression trend).
Crop Data			
San Luis Obispo County, 2013-2016	San Luis Obispo County	Geospatial data attributed with acreage and crop group	Electronic transmittal from SLO County
State of California, 2014	CA DWR[4]	Geospatial data attributed with acreage and crop group	https://gis.water.ca.gov/app/CADWRLandUseViewer/

(1) National Oceanic and Atmospheric Administration

(2) Western Weather Group

(3) California Irrigation Management Information System

(4) California Department of Water Resources

E4 MODEL MODIFICATIONS

E4.1 Modifications to Model Components

Groundwater budgets for the Subbasin were derived from the groundwater flow model, which depends on the SWB models and surface water model for key input data. During the model update process for the GSP model, several modifications were made to the individual models to improve two computational aspects of the model.

E4.1.1 Modifications to Agricultural Irrigation Routing

In the model input files developed by GSSI and provided to the GSAs by the County of San Luis Obispo, irrigation return flow was routed to the surface water model. This irrigation return flow was treated as an external lateral surface inflow to the land surface. The surface water model combines this water with all direct precipitation that was not intercepted by the crop canopy. Some of the water accumulating at the land surface becomes streamflow. The remaining water enters the soil root zone. In the GSSI model, excess irrigation return flow water accumulating in the upper and lower soil root zones was subject to evapotranspiration. However, excess irrigation return flow represents water that has moved past the root zone, and should not be subject to evapotranspiration. Thus, irrigation return flow was inadvertently subjected to soil evaporation twice. The net effect of double-counting soil evaporation was to underestimate the quantity of water that ended up as deep percolation to groundwater.

The models were modified so that irrigation return flow calculated in the SWB models was routed to groundwater recharge in the groundwater flow model instead of routed to the surface water model. As a result, areal recharge specified in the GSP model is greater than areal recharge specified in the GSSI model.

E4.1.2 Modifications to Streamflow Routing Outside the Paso Robles Subbasin

In the GSSI model, subsurface inflow was computed as the sum of irrigation return flow, deep percolation of direct precipitation, and streambed percolation occurring outside the Subbasin boundaries. Streambed percolation was computed by HSPF as an outflow from each stream reach. The streambed percolation was computed using reference information from the HSPF Best Management Practices toolkit developed by the U.S. Environmental Protection Agency (GSSI, 2014).

Modifications were made to the process described above to ensure consistency in the simulated water balance. In HSPF, stream outflows and streambed percolation are routed to the next downstream stream reach. Consequently, when a stream enters the margin of the Paso Robles

Subbasin, HSPF routes all of the streamflow and streambed percolation into the stream network within the Subbasin. However, in the GSSI model, the streambed percolation water was also being added to the groundwater model as subsurface inflow. This means percolating water through streambeds in the watershed outside of the Subbasin was being double counted: as both stream inflow and subsurface inflow.

To avoid double counting the inflow, M&A modified the groundwater model input files so that subsurface inflow no longer included HSPF model-computed streambed percolation outside the Paso Robles, Atascadero, and Upper Valley Subbasins. The primary effect of this change was a reduction in subsurface inflow into the groundwater model. A secondary effect of this change was a reduction in inflow to streams inside the Subbasin boundary due to excess subsurface inflow.

Reduction in stream inflows as a result of modifications described above is due to an input processing procedure developed by GSSI (2016). Specifically, the 2016 version of the GSSI model included an empirical procedure for re-assigning computed subsurface inflow above a threshold value as surface water inflow to streams inside the Subbasin boundaries. The GSP model uses the same procedure; however, streambed percolation is no longer double counted, thus computed subsurface inflow in excess of the threshold is lower in the GSP model than compared to the GSSI (2016) model.

E4.1.3 Summary of Effects of Model Modifications

The net effect of correcting excess agricultural irrigation routing was to increase areal recharge within the Paso Robles Subbasin. The net effect of removing streambed percolation computed by the surface water model from subsurface inflow to the groundwater model was to reduce both subsurface inflow and surface water inflow to streams in the groundwater flow model. The combined effect of these two modifications was to reduce the amount of water recharging the groundwater system in the Subbasin.

E4.2 Change in Subbasin Boundary

The boundary of the Paso Robles Subbasin changed between completion of the 2016 GSSI model and the GSP model update.

In 2018, the California Department of Water Resources (DWR) redefined the Paso Robles Subbasin boundary in response to two basin boundary modification requests. As a result of this modification, the Atascadero Subbasin, and all land north of the Monterey County line are no longer included in the Paso Robles Subbasin (Figure E-1). The modified Subbasin area (in green) is addressed in the GSP. Groundwater budgets for the GSP are reported for the smaller Subbasin area. Previous groundwater budgets using the 2016 GSSI model were reported for the entire original Paso Robles Groundwater Subbasin, including the Atascadero Subbasin (GSSI, 2016).

Therefore, the GSP groundwater budgets are not directly comparable to the previous groundwater budgets.

E5 COMPARISON OF GROUNDWATER BUDGETS

Differences between previously published groundwater budgets and the groundwater budget published in the GSP are caused by:

- Modifications made to the modeling platform components
- Changes in the Subbasin boundary

These changes have a direct effect on the computed water budget, long-term groundwater storage deficit and sustainable yield in the Subbasin.

The effect of modifying the modeling platform on groundwater storage deficit and sustainable yield can be quantified by comparing the computed water budgets from 2016 GSSI and GSP models for the same Subbasin boundary. The effect of changing the Subbasin boundary on groundwater storage deficit and sustainable yield can be quantified by comparing the computed groundwater budget of the original Paso Robles Subbasin boundary to the groundwater budget of the modified Paso Robles Subbasin boundary using either the 2016 GSSI or GSP model.

E5.1 Effect of Model Modifications on Water Budgets

This section summarizes changes in water budget components, groundwater storage deficit, and sustainable yield that result from modifications made to the individual models of the modeling platform. Table E-2 compares annual average groundwater pumping rates by water use sector for the historical base period (1981 to 2011) specified for the original Paso Robles Subbasin boundary in the GSSI (2016) and GSP models.

Table E-2. Simulated Groundwater Pumping

	Original Subbasin Boundary	
Water Use Sector	GSSI (2016)	GSP model
Agricultural	75,900	75,800
Municipal	12,000	12,000
Rural-Domestic	2,800	2,800
Small Commercial	2,200	2,200
Total	92,900	92,800

Note: All values in AFY

Annual average groundwater pumping rates are nearly identical between the two models. The small increase of 100 AFY in annual average agricultural pumping in the GSP model is the result of minor modifications made to the model data processing spreadsheets.

Table E-3 compares simulated annual average inflow and outflow components of the groundwater budget for the original Paso Robles Subbasin boundary for the historical base period for the GSSI (2016) and GSP models.

Table E-3. Comparison of Annual Average Inflow and Outflow Components

	Original Subbasin Boundary	
	GSSI (2016)	GSP model
Inflow		
Streamflow Percolation	53,000	39,500
Total Recharge[1]	50,500	51,600
Treated Wastewater Leakage	5,600	5,600
Total Inflow	109,100	96,700
Outflow		
Groundwater Pumping	92,900	92,800
Discharge to Streams and Rivers	14,300	13,200
Riparian Evapotranspiration	3,500	3,500
Subsurface Outflow [2]	1,600	1,600
Total Outflow	112,300	111,100

Notes: All values in AFY

(1) Includes areal recharge and subsurface inflow from the surrounding watershed

(2) Includes subsurface outflow in the Salinas Alluvium and Paso Robles Formation at the northern boundary of the original Paso Robles Subbasin

Total inflow in the GSP model is about 12,400 AFY lower than the GSSI (2016) model for the original Subbasin boundary. The reduction in total inflow reflects the net change in inflow caused by a reduction of 13,500 AFY in streambed percolation and an increase of 1,100 AFY in total recharge. The changes in streamflow and recharge are described in Section D-E4.1.

Table E-4 compares the computed annual average groundwater storage deficit and sustainable yield from the GSSI (2016) and GSP models, for the original Subbasin boundary and historical base period of 1981 through 2011.

Table E-4. Annual Average Groundwater Storage Deficit and Sustainable Yield

	Original Subbasin Boundary	
	GSSI (2016)	GSP model
Storage Deficit	3,200	14,400
Sustainable Yield	89,700	78,400

Note: All values in AFY

The computed annual average storage deficit for the original Subbasin boundary for the GSP model is about 11,200 AFY greater than the GSSI (2016) model. The increase in the computed storage deficit is due almost entirely to the reduction in total groundwater inflows, as shown in Table E-3. The reduction in total inflow is the result of the reduction in streamflow that resulted from modifying the model components. Consequently, the annual average sustainable yield of the original Subbasin boundary estimated using the GSP model is about 11,300 AFY lower than that computed by the GSSI model.

E5.2 Effect of Changes in Subbasin Boundary on Water Budgets

This section summarizes changes in water budget components, groundwater storage deficit, and sustainable yield that result from the change in Subbasin boundary. The 2016 GSSI model was used for this evaluation because it does not included the effect of modifications made to the model components discussed in Section D-E5.1. Table E-5 compares annual average groundwater pumping rates by water use sector specified for both the original and modified Subbasin boundaries, for the historical base period, and for the 2016 GSSI model.

Table E-5. Simulated Groundwater Pumping

	GSSI (2016) model	
Water Use Sector	Original Subbasin Boundary	Modified Subbasin Boundary
Agricultural	75,900	65,400
Municipal	12,000	3,100
Rural-Domestic	2,800	2,500
Small Commercial	2,200	1,400
Total	92,900	72,400

Note: All values in AFY

Simulated annual average total pumping rate is about 20,500 AFY lower for the modified Subbasin boundary compared to the original Subbasin boundary. The total amount of groundwater pumping is lower because pumping in the Atascadero Subbasin and the portion of the original Paso Robles Subbasin located in Monterey County is no longer accounted for in the modified Subbasin. Thus, the reduction in pumping is equivalent to the amount of groundwater pumping in the Atascadero Subbasin and in the portion of the original Paso Robles Subbasin located in Monterey County.

Table E-6 compares simulated annual average inflow and outflow components of the groundwater budget for the original and modified Subbasin boundaries, the historical base period, and the 2016 GSSI model.

Table E-6. Comparison of Simulated Inflow and Outflow

	GSSI (2016) model	
	Original Subbasin Boundary	Modified Subbasin Boundary
Inflow		
Streamflow Percolation	53,000	36,700
Total Recharge	50,500	34,000
Wastewater Pond Leakage	5,600	3,400
Subsurface Inflow [1]	0	3,600
Total Inflow	109,100	77,700
Outflow		
Groundwater Pumping	92,900	72,400
Discharge to Streams and Rivers	14,300	8,100
Riparian Evapotranspiration	3,500	1,700
Subsurface Outflow [2]	1,600	2,500
Total Outflow	112,300	84,700

Note: All values in AFY

(1) Subsurface inflow from the Atascadero Subbasin

(2) Subsurface outflow from the Paso Robles Subbasin to the Upper Valley Subbasin.

E5.2.1 Differences in Simulated Inflows

Total simulated annual average groundwater inflow is about 31,400 AFY lower for the modified Subbasin than the original Subbasin. The reduction reflects the net change in streamflow percolation, recharge, wastewater pond leakage, and subsurface inflow, as described further below.

- Simulated annual average streamflow percolation for the modified Subbasin boundary is about 16,300 AFY lower compared to the original Subbasin boundary. The lower streamflow percolation is due to reductions in the number and length of stream channels present within the modified Subbasin boundary compared to the original Subbasin boundary.
- Simulated annual average recharge for the modified Subbasin boundary is about 16,500 AFY lower compared to the original Subbasin boundary. The lower recharge is due to:
    - Smaller area within the modified Subbasin, resulting in less areal recharge from direct precipitation
    - Smaller area of irrigated fields within the modified Subbasin, resulting in less recharge from irrigation return flow

    - Reduced length of contact between Subbasin and surrounding watershed, resulting in less subsurface inflow

- Simulated annual average wastewater pond leakage for the modified Subbasin boundary is about 2,200 AFY lower compared to the original Subbasin boundary. Wastewater pond leakage is lower because it does not include wastewater pond leakage within the Atascadero Subbasin.
- Simulated annual average subsurface inflow for the modified Subbasin boundary is about 3,600 AFY higher compared to the original Subbasin boundary. Subsurface inflow to the modified Subbasin includes groundwater flow from the Atascadero Subbasin into the Paso Robles Subbasin. When modeling the original Subbasin boundary, which includes both the Atascadero Subbasin and Paso Robles Subbasin, the flow between the Subbasins was an internal flow within the model and not an inflow crossing the boundary of the model.

E5.2.2 Differences in Simulated Outflows

Total simulated annual average outflow for the modified Subbasin boundary is about 27,600 AFY lower compared to the original Subbasin boundary. The reduction in total simulated outflow is due to changes in simulated discharge to rivers and streams, riparian evapotranspiration, and subsurface outflow, as described further below.

- Simulated annual average total groundwater pumping for the modified Subbasin is about 20,500 AFY lower than that of original Subbasin. The amount of groundwater pumping is lower because the modified Subbasin boundary does not include pumping from the Atascadero Subbasin or the portion of the original Paso Robles Subbasin in Monterey County.
- Simulated annual average discharge to streams and rivers for the modified Subbasin boundary is about 6,200 AFY lower compared to the original Subbasin boundary. The lower discharge to rivers and streams is due to exclusion of channel segments that receive groundwater discharge in the Atascadero Subbasin and portion of the original Paso Robles Subbasin in Monterey County.
- Simulated annual average riparian evapotranspiration for the modified Subbasin boundary is about 1,800 AFY lower compared to the original Subbasin boundary. The amount of riparian evapotranspiration is lower because the number and length of stream channels along which riparian vegetation are lower in the modified Subbasin compared to the original Subbasin.
- Simulated annual average subsurface outflow for the modified Subbasin boundary is about 900 AFY higher compared to the original Subbasin boundary. Similar to subsurface inflow, the higher subsurface outflow occurs because this flow crosses a

boundary (the Monterey County line) when modeling the modified Subbasin boundary, whereas, this flow is internally accounted for when modeling the original Subbasin boundary.

E5.2.3 Differences in Simulated Sustainable Yield

Table E-7 compares the computed average annual groundwater storage deficit and sustainable yield for the original and modified Subbasin boundaries, the historical base period, and using the 2016 GSSI model.

Table E-7. Average Annual Groundwater Storage Deficit and Sustainable Yield

	2016 GSSI Model	
	Original Subbasin	Modified Subbasin
Storage Deficit	3,200	7,000
Sustainable Yield	89,700	65,400

Note: All values in AFY

The computed annual average storage deficit from the 2016 GSSI model is about 3,200 AFY for the original Subbasin. Groundwater storage deficits similar to this value have been commonly reported in the Paso Robles Subbasin in the past. For the modified Subbasin, the computed annual average storage deficit from the 2016 GSSI model is about 7,000 AFY. Therefore, the computed annual average groundwater storage deficit for the modified Subbasin is about 3,800 AFY higher compared to the original Subbasin. The increase in computed annual average groundwater storage deficit is the result of differences in the magnitude of reductions in total inflow and total outflow.

Figure E-3 shows a map of computed sustainable yields from the 2016 GSSI model. The area of the original Paso Robles Subbasin outside of the modified Subbasin (green area) has been divided into the Atascadero Subbasin and the Upper Valley Aquifer Subbasin for illustration purposes. The sustainable yield of the Upper Valley Aquifer, Paso Robles, and Atascadero Subbasins shown on Figure E-3 sum to the sustainable yield of the original Subbasin as listed in Table E-7.

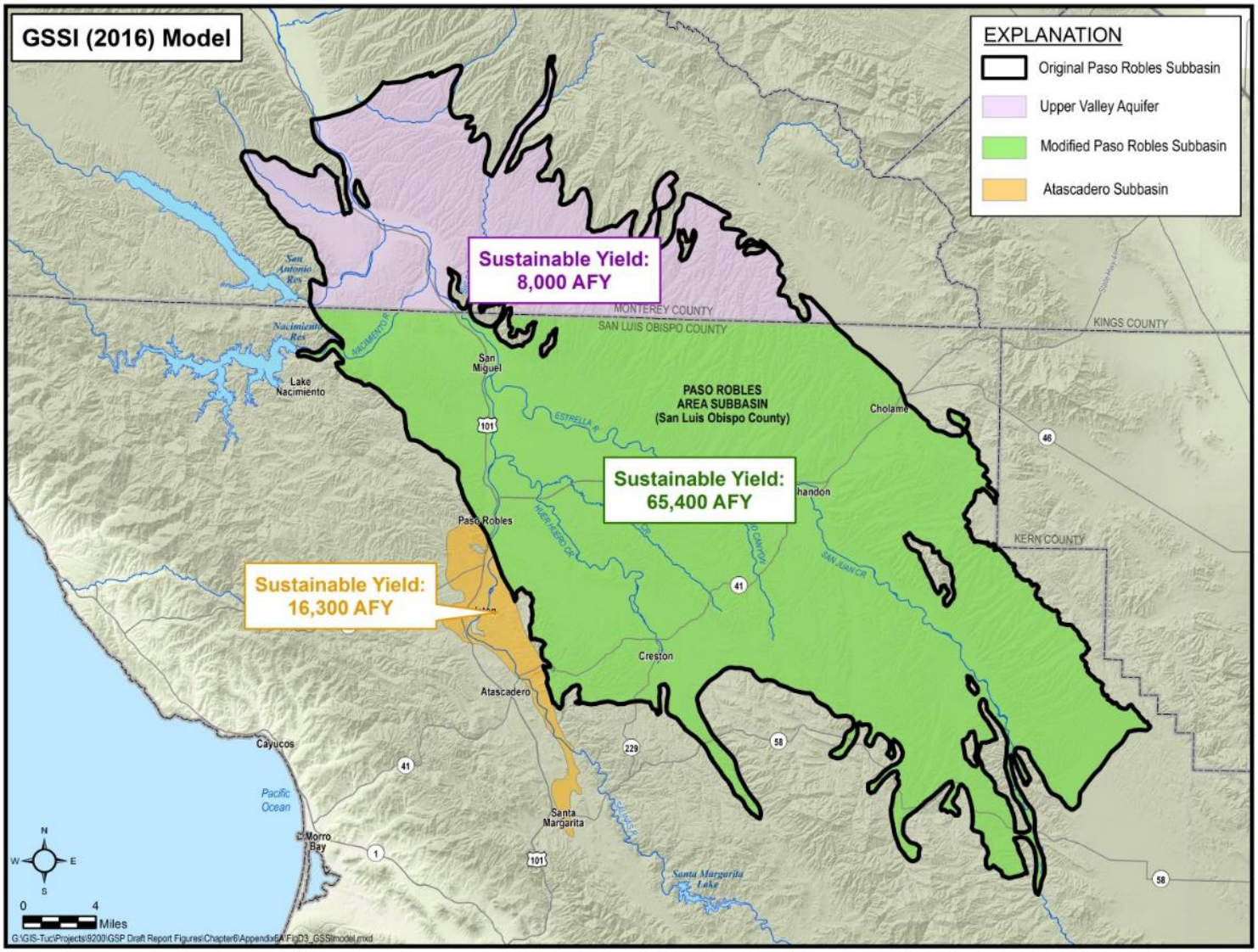


Figure E-3. Sustainable Yield Computed by GSSI (2016) Model

E5.3 Combined Effect of Model Modifications and Changes in Subbasin Boundary on Water Budgets

This section summarizes changes in water budget components, groundwater storage deficit, and sustainable yield that result from both modifications made to model components and the change the Subbasin boundary. For this evaluation, the GSP model was used because it includes both types of changes. Table E-8 compares annual average groundwater pumping rates by water use sector specified for both the original and modified Subbasin boundaries, for the historical base period, using the GSP model.

Table E-8. Simulated Groundwater Pumping for GSP Model

	GSP Model	
Water Use Sector	Original Subbasin	Modified Subbasin
Agricultural	75,800	65,400
Municipal	12,000	3,100
Rural-Domestic	2,800	2,500
Small Commercial	2,200	1,400
Total	92,800	72,400

Note: All values in AFY

Table E-9 compares simulated annual average inflow and outflow components of the groundwater budget for the original and modified Subbasin boundaries, for the historical base period, using the GSP model.

Table E-9. Comparison of Simulated Inflow and Outflow for GSP Model

	GSP model	
	Original Subbasin	Modified Subbasin
Inflow		
Streamflow Percolation	39,500	26,900
Total Recharge	51,600	38,000
Wastewater Pond Leakage	5,600	3,400
Subsurface Inflow[1]	--	3,100 [1]
Total Inflow	96,700	71,400
Outflow		
Groundwater Pumping	92,800	72,400
Discharge to Streams and Rivers	13,200	7,300
Riparian Evapotranspiration	3,500	1,700
Subsurface Outflow	1,600 [2]	2,600 [3]
Total Outflow	111,100	84,000

Note: All values in AFY

(1) Subsurface inflow from the Atascadero Subbasin

(2) Includes subsurface outflow in the Salinas Alluvium and Paso Robles Formation at the northern boundary of the original Paso Robles Subbasin

(3) Subsurface outflow from the Paso Robles Subbasin to the Upper Valley Subbasin.

E5.3.1 Differences in Simulated Inflows

Total simulated annual average groundwater inflow is about 25,300 AFY lower for the modified Subbasin than the original Subbasin. The reduction reflects the net change in streamflow percolation, recharge, wastewater pond leakage, and subsurface inflow, as described further below.

- Simulated annual average streamflow percolation for the modified Subbasin boundary is about 12,600 AFY lower compared to the original Subbasin boundary. The lower streamflow percolation is due to reductions in the number and length of stream channels present within the modified Subbasin boundary compared to the same for original Subbasin boundary.
- Simulated annual average recharge for the modified Subbasin boundary is about 13,600 AFY lower compared to the original Subbasin boundary. The lower recharge is due to:
    - Smaller area within the modified Subbasin, resulting in less recharge from direct precipitation
    - Smaller area of irrigated fields in the modified Subbasin, resulting in less recharge from irrigation return flow
    - Reduced length of contact between Subbasin and surrounding watershed, resulting in less subsurface inflow
- Simulated annual average wastewater pond leakage for the modified Subbasin boundary is about 2,200 AFY lower compared to the original Subbasin boundary. The amount of wastewater pond leakage is lower because the modified Subbasin does not include wastewater pond leakage within the Atascadero Subbasin.
- Simulated annual average subsurface inflow for the modified Subbasin boundary about 3,100 AFY higher compared to the original Subbasin boundary. Subsurface inflow to the modified Subbasin includes groundwater flow from the Atascadero Subbasin into the Paso Robles Subbasin. When modeling the original Subbasin boundary, which includes both the Atascadero Subbasin and Paso Robles Subbasin, the flow between the Subbasins is an internal flow within the model and not an inflow crossing the boundary of the modified Subbasin.

E5.3.2 Differences in Simulated Outflows

Total simulated annual average outflow for the modified Subbasin boundary is about 27,100 AFY lower compared to the original Subbasin boundary. The reduction in total simulated outflow is due to changes in simulated discharge to rivers and streams, riparian evapotranspiration, and subsurface outflow, as described further below.

- Simulated annual average total groundwater pumping for the modified Subbasin is reduced by about 20,400 AFY compared to the original Subbasin. The amount of groundwater pumping is lower because the modified Subbasin does not include pumping from the Atascadero Subbasin or the portion of the original Paso Robles Subbasin in Monterey County.
- Simulated annual average discharge to streams and rivers for the modified Subbasin boundary is about 5,900 AFY compared to the original Subbasin boundary. The amount of discharge to rivers and streams is lower because the modified Subbasin does not include channel segments that receive groundwater discharge in the Atascadero Subbasin and portion of the original Paso Robles Subbasin in Monterey County.
- Simulated annual average riparian evapotranspiration for the modified Subbasin boundary is about 1,800 AFY lower compared to the original Subbasin boundary. The amount of riparian evapotranspiration is lower because the modified Subbasin has fewer stream channels and shorter stream channel lengths along which riparian vegetation is present than the original Subbasin.
- Simulated annual average subsurface outflow for the modified Subbasin boundary is about 1,000 AFY higher compared to the original Subbasin boundary. Similar to subsurface inflow, the higher subsurface outflow occurs because this flow crosses a boundary (the Monterey County line) when modeling the modified Subbasin, whereas, this flow is internally accounted for when modeling the original Subbasin.

E5.3.3 Differences in Computed Sustainable Yield

Table E-10 compares the computed average annual groundwater storage deficit and sustainable yield for the original and modified Subbasin boundaries, the historical base period, and for the GSP model.

Table E-10. Average Annual Groundwater Storage Deficit and Sustainable Yield

	GSP Model	
	Original Subbasin	Modified Subbasin
Storage Deficit	14,400	12,600
Sustainable Yield	78,400	59,800

Note: All values in AFY

The computed annual average storage deficit from the GSP model is about 14,400 AFY for the original Subbasin boundary. For the modified Subbasin, the computed annual average storage deficit from the GSP model is about 12,600 AFY. Therefore, the computed annual average groundwater storage deficit for the modified Subbasin boundary is about 1,800 AFY lower compared to the original Subbasin boundary. The decrease in computed annual average groundwater storage deficit is the result of differences in the magnitude of reductions in total inflow and total outflow.

Figure E-4 shows a map of computed sustainable yields from the GSP model. The area of the original Paso Robles Subbasin outside of the modified Subbasin (green area) has been divided into the Atascadero Subbasin and the Upper Valley Aquifer Subbasin for illustration purposes. The sustainable yield of the Upper Valley Aquifer, Paso Robles, and Atascadero Subbasins shown on Figure E-4 sum to the sustainable yield of the original Subbasin as listed in Table E-10.

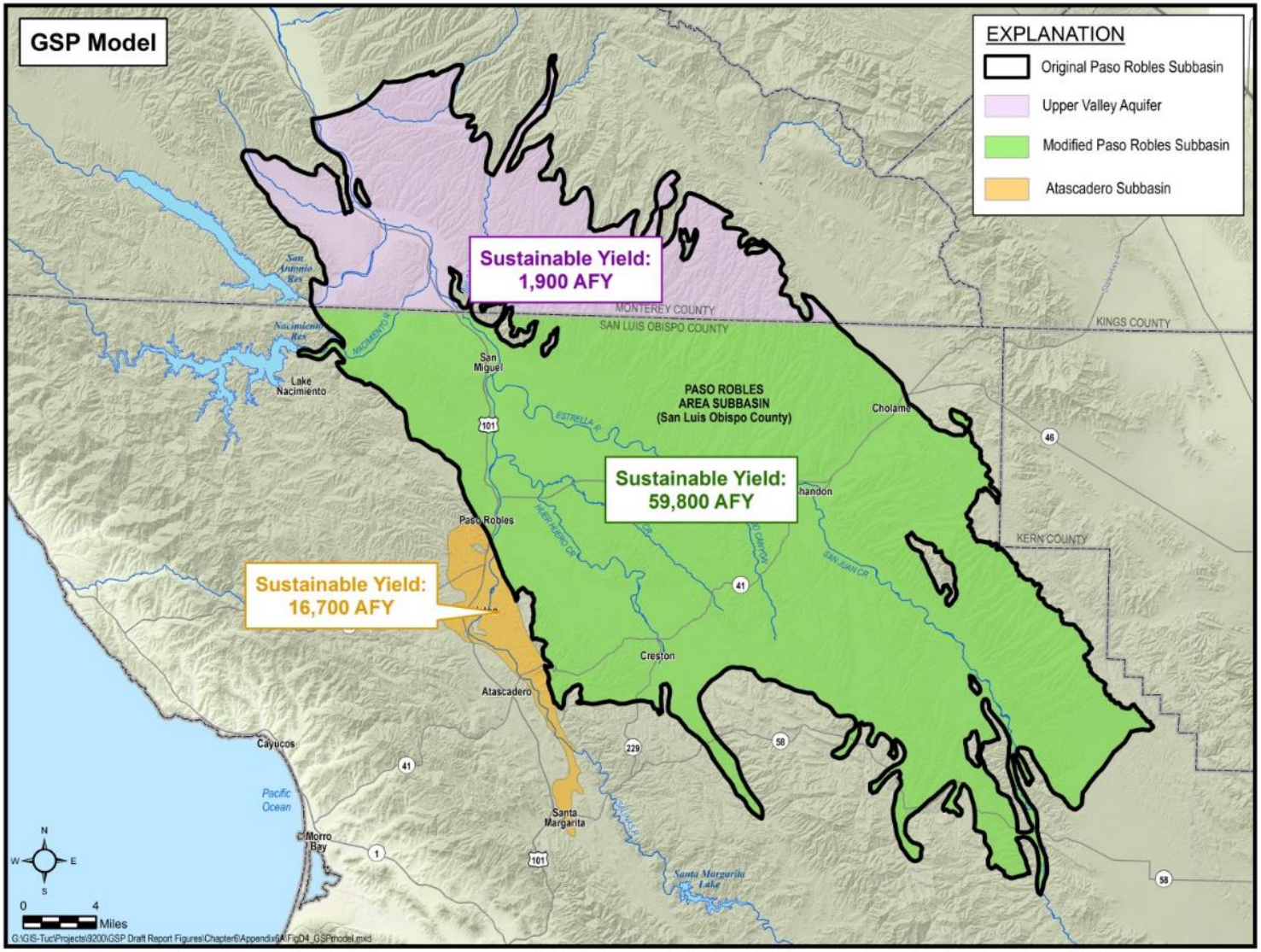


Figure E-4. Sustainable Yield as Computed by GSP Model

E6 CONCLUSIONS

Both the model modifications and the change in Subbasin boundary influence the computed sustainable yield. Over the historical base period, the computed sustainable yield for the original Subbasin boundary from the 2016 GSSI model is about 89,700 AFY. By comparison, the computed sustainable yield for the modified Subbasin boundary from the updated GSP model is about 59,800 AFY. The difference between these two values is nearly 30,000 AFY. Most of this difference is due to changes in the Subbasin boundary. The computed sustainable yield from 2016 GSSI model for the modified Subbasin boundary is 65,400 AFY; a reduction of about 24,300 AFY from the sustainable yield of the original Subbasin. The change in Subbasin boundary accounts for about 80% of the reduction in reported sustainable yields. The remaining difference is the result of modifications made to the model components.

Appendix F

Monitoring Protocols

County of San Luis Obispo Procedures for Measuring Depth to Water in Groundwater Wells

The following procedures must be followed when conducting depth to water measurements for the County of San Luis Obispo and the San Luis Obispo County Flood Control and Water Conservation District's groundwater monitoring program. These procedures are adapted from the USGS publication "Groundwater Technical Procedures of the U.S. Geological Survey" compiled by William L. Cunningham and Charles W. Schalk in 2011 and "Best Management Practices for the Sustainable Management of Groundwater – Monitoring Protocols, Standards and Sites" published by the California Department of Water Resources in December 2016.

Key Terms

1. RP (Reference Point): Total distance from the measuring point (typically the top of casing) to the surface of the water
2. WS: Length of wetted chalk on steel tape.
3. FT ABOVE: Distance from measuring point reference to land surface.
4. DIST to WATER: The distance from the measuring point to the water surface. RP – WS – FT ABOVE = DIST to Water.
5. OBS INIT: In the well book, note the initials of the person performing the measuring in this column. Determined by the login user on the iPad.
6. REMARKS or COMMENTS: Note any special remarks regarding the measurement of each well, including, any significant factors potentially affecting the well level, pumping or temporary blocked access, changes in RP, etc.
7. PUMPING: Fill the pumping column according to the Pumping Key Legend
    a. D = Dry
    b. E = Estimated
    c. F = Flowing
    d. N = Nearby pumping
    e. R = Recently pumped
    f. S = See well book
    g. T = Temporarily no access

Preparation

1. Groundwater elevation data, which will form the basis of basin-wide water table and piezometric maps, should approximate conditions at a discrete period in time. Therefore, all groundwater levels in a basin should be collected within as short a time as possible, preferably within a **1 to 2-week period**.
2. Check well log books for notifications about **one week** before you begin performing the bi-annual well measuring.
    a. Go through all the well data log books to check which wells have a special note of notifying owner. Make sure you contact the owners in accordance with the instructions.
    b. This information is also listed by well data book here: G:\WR\Tech Unit\x Groundwater\Well Information Resources\Well Books\Well Number Lists.
3. Verify the description of the well using the field iPad GIS program.

a. You must ensure that you are measuring the correct well by comparing it to the iPad GIS and well book as well as any other description of the well.
b. There should be a picture of every well in each of the data books and iPad database.

Reference Point

1. Verify the Reference Point (RP) by using the field iPad GIS program.
    a. Depth to groundwater must be measured relative to an established RP on the well casing. The RP can be identified with a permanent marker, paint spot, or a notch in the lip of the well casing. By convention in open casing monitoring wells, the RP is located on the north side of the well casing.
    b. In the well book and in the well database, there are pictures and descriptions of the RP to be used for each well. Always ask questions if you are uncertain about the location of the RP.
2. Make sure the measured RP is equal to the one listed on the first well card for each well. Note if there is a difference.
3. If no RP is apparent, measure the depth to groundwater from the north side of the top of the well casing, and note it in the comments.
4. If an access becomes blocked or a RP changes for any reason, this must be noted in the Comments, the new RP elevation must be surveyed, and the new value of RP feet above or below ground surface must be measured and recorded. New photographs to identify the new RP must also be taken and put into the iPad well database. All measurements are to be made in US Survey feet.

Measurement

1. After locating the RP, remove any cap, lid, or plug that covers the monitoring access point, listening for pressure release. If a release is observed, wait and allow the water level to equilibrate. Note in the Comments that a pressure release was observed and whether the pressure was causing air to flow out of or into the casing.
2. Never measure a well while it is pumping. Instead, record a P in the Pumping column and include any relevant notes in the Comments. If possible, visit the well later in the day or on a different day to obtain a static water level measurement.
3. If the well is rebounding or drawing down, record the appropriate code in the Pumping Key. Make a note of the distance that the water moved (up or down) and the time between measurements in the Comments. If possible, visit the well later in the day or on a different day to try and obtain a static water level measurement.
4. **Depth to groundwater must be measured to an accuracy of 0.01 feet.**
    a. This is true when using both the steel tape and the electronic sounding tape. The steel tape should be used in wells that have a history of oil on the surface of the water.
    b. Also use the steel tape if there are obstructions or tight spaces in the casing in which the electronic sounding tape could get stuck. Otherwise, use the electronic sounding tape.

   c. Repeat measurement after 15 minutes to verify that the static levels are not rebounding. Repeat until measurements are consistent. Typically, this should not be repeated over 3 times. But this process is left to the discretion of the technician. If consistency is not achieve, add note in the Comments.
5. See **Appendix A** for measurement and recording procedures using the steel tape.
6. See **Appendix B** for measurement and recording procedures using the sounder and electronic sounding tape.
7. Complete the well card and electronic water level measurement field form in accordance with the recording procedures.
   a. Assess the area around the well to determine any significant factors potentially affecting the well level and note any factors that may influence the depth to water readings, such as weather, nearby irrigation, flooding, tidal influence, and well condition.
   b. If there is a questionable measurement or the measurement could not be obtained, note it in the in the Pumping column and in the Comments.

Special Cases

1. If you find a well that has not been monitored during the past three monitoring periods and this information has been documented in the Comments (e.g. could not find, no access to old RP, well removed, etc.), make a special note and mark this well page in the book. Inform the Technical Unit Supervisor, so that the well can be removed from the well books.
2. If you are unable to measure a well, due to pumping or temporary blocked access for example, note the reason in the Comments.
3. In some wells, a layer of oil may float on the water surface.
   a. If the oil layer is a foot or less thick, use the steel tape. See **Appendix A** for the procedure for using the steel tape. Read the steel tape at the top of the oil mark and use this value for the water-level measurement instead of the wetted chalk mark. The measurement will differ slightly from the water level that would be measured were the oil not present. If there is oil in the well, it must be noted in the Comments and an E for estimated must be entered in the Pumping column of the electronic water level measurement field form.
   b. If several feet of oil are present in the well, or if it is necessary to know the thickness of the oil layer, a commercially available water-detector paste can be used that will detect the presence of water in the oil. The paste is applied to the lower end of the tape and will show the top of the oil as a wet line, and the top of the water will show as a distinct color change. Because oil density is about three-quarters that of water, the water level can be estimated by adding the thickness of the oil layer times its density to the oil- water interface elevation.

Decontamination

1. Do not decontaminate the tape between measurements at the same well. Only decontaminate the tape after completing the well measurement and before moving on to the next well.
2. To decontaminate the electronic sounding tape or steel tape, use a bleach water solution of 50 mg/liter (0.005 percent) to avoid any cross-contamination between wells.

3. If there is oil on the tape, use a non-toxic degreaser and remove all traces of oil before you use the bleach solution.

Appendix A: Procedure for Steel Tape

Materials and Instruments

1. A steel tape graduated in feet, tenths, and hundredths of feet
2. Blue carpenters' chalk
3. Well book
4. Pencil and eraser
5. iPad and electronic water level measurement field form
6. Wrenches with adjustable jaws and other tools to remove well cap

Data Accuracy and Limitations

1. A graduated steel tape is commonly accurate to 0.01 feet.
2. The water level should be within 500 feet of the land surface for steel tapes.
3. If the well casing is not plumb, the depth to water will have to be corrected.
4. When measuring deep water levels, tape expansion and stretch is an additional consideration.

Instructions

1. Chalk the lower 20 to 40 feet of the tape by pulling the tape across a piece of blue carpenter's chalk. The wetted chalk mark will identify that part of the tape that was submerged.
2. Lower the weight and tape into the well until the lower end of the tape is submerged below the water. The weight and tape should be lowered into the water slowly to prevent splashing. Continue to lower the end of the tape into the well until the next graduation (a whole-foot mark) is opposite the measuring RP, record this number in the RP column of the electronic water level measurement field form. The length of tape needed to reach the water surface can be estimated from previous water-level measurements. Otherwise, the length of tape needed to reach the water surface will have to be found by trial and error.
3. Rapidly bring the tape to the surface before the wetted chalk mark dries and becomes difficult to read.

Recording

1. Record the number of the wetted chalk mark in the WS column of the well book card.
2. Subtract the wetted chalk mark number (WS) from to the measuring RP. Record this number in the FT ABOVE column of the well book card.

3. Apply the RP correction to get the depth to water below (or above) the land-surface. If the RP is above land surface, the distance between the RP and land surface datum is subtracted from the depth to water from the RP to obtain the depth to water below land surface. If the RP is below land surface precede the RP correction value with a minus (-) sign and subtract the distance between the RP and land surface datum from the depth to water from the RP to obtain the depth to water below land surface. Record this number in the DIST TO WATER column of the well book card.
4. Record initials of the in the OBS. INT. column.
5. Once you have calculated and recorded the measurement in the well book, open the WELLS app on the iPad. Select the well you are measuring by clicking the blue “i” symbol. This should bring up all previous information on that specific well. If you wish to add a picture of the well to the information, select the camera icon next to “Add Data.”
6. Click “Add Data” and select “Tape” for “Tool Used.” Input your measurement into the “Tape Reading” section of the electronic water level measurement field form. Click “Update.” You have successfully measured the well level.

Maintenance

1. Maintain the tape in good working condition by periodically physically checking the tape for rust, breaks, kinks, and possible stretch due to the suspended weight of the tape and the tape weight.
2. Our steel tapes are sent to USGS for calibration every two years.

Appendix B: Procedure for Electronic Sounding Tape

Materials and Instruments

1. Sounder and electric sounding tape
2. iPad and electronic water level measurement field form
3. Wrenches with adjustable jaws and other tools to remove well cap

Data Accuracy and Limitations

1. Oil, ice, or other debris may interfere with the water level measurement
2. Corrections to the measurements are necessary if the well casing is angled, and when measuring deep water levels because of tape expansion and stretch

Instructions

1. When using the sounder to measure depth to groundwater, it is generally good practice to use the least sensitive setting. Using a more sensitive setting will sometimes give false positives due to a wet or leaking casing. If you suspect that the casing has a hole, mention it in the Comments column on the electronic water level measurement field form. Do your best to ascertain the approximate depth of the hole relative to the reference point.
2. Approach the well with the sounder in hand. Then, place the sounder level on the ground or another surface near the opening of the well. Turn on the sounder device by turning the dial with “SENSITIVITY” written in bold letters above it to the least sensitive setting possible. Press the lest button located on the same side as the knob. If you successfully turned on the sounder, a ringing noise will be clearly produced, and the red light above the test button will remain solid until you let go of the button. If there is no sound, start over.
3. Once the sounder is on, pull out the silver end of the tape and prepare to lower it into the well. Loosen the wheel knob on the other side of the sounder, opposite of both the test button and the “SENSITIVITY” knob. Once this knob is loosened, place the silver end of the tape into the entrance of the well. If the silver end does not begin to descend on its own, you may need to feed it into the entrance until there is enough weight for it to draw down by itself.
4. **Do not let go of the sounder.** If the well opening is big enough, the sounder may fall in. At that point, it will be lost. This equipment is expensive, and there are only so many in the County’s possession. If the sounder becomes stuck, report its location to the Technical Unit Supervisor.

5. As you feed the silver end of the tape into the well or as it draws down under its own weight, belay the tape with your hand so that the tape is not damaged by the entrance of the well. Keep the descent as smooth as possible and avoid letting the silver end descend too quickly. If the well happens to be dry and the silver end hits the ground too hard, it may damage the equipment.
6. Once the same ringing noise from the test button sounds, pull the tape back until the noise is no longer heard. Then, slowly let the silver end descend again without belaying the line with your hand, as this may lead to an inaccurate measurement. Once you hear the ringing noise again, place your index finger at the point that the tape enters the well. Turn the tape over, and read the tape for the depth to groundwater measurement.
7. **You may now turn off the sounder; the ringing that it produces will be quite loud.**

Recording

1. When reading the tape, **ensure you record the full measurement.** Often, the depth to groundwater will not be an exact number (e.g. 100.00 ft). Numbers between 1 and 9 are tenths (0.10s) of a foot. Therefore, if your finger is on a number between 1 and 9, you must backtrack on the tape until you reach the next whole number. For example, if the number was six and the next whole number was 145, the full measurement would be 145.6 ft.
2. Once you have double-checked the measurement, open the WELLS app on the iPad. Select the well you are measuring by clicking the blue “i” symbol. This should bring up all previous information on that specific well. If you wish to add a picture of the well to the information, select the camera icon next to “Add Data.”
3. Click “Add Data” and select the “Sounder” for “Tool Used.”
4. The reference elevation should already be calculated. If the reference elevation is missing, determine your current altitude. (This can be done by searching “what is my altitude” on Google.)
5. For “Tape Reading (RP),” input your measurement in both the left and right field.
6. Continue to “Feet Above.” “Feet Above” is the height of the well entrance from the ground. This simple measurement can be determined using a measuring tape or a ruler. If the measurement is already in the form, do not change it.
7. Once you have inputted all the information, click “Update.” You have successfully measured the well level.

Calibration:

Our sounders are sent to USGS for calibration every two years.

Flowmeter Calibration Test Report

Well Owner:	Well Operator:
Owner Address:	Operator Address:
City, State, Zip:	City, State, Zip:
Owner Telephone:	Operator Telephone:
Contact Person:	Contact Person:
State Well Number:	Owner's Well Number:
Well or Site Address:	Thomas Guide - Page & Section:
Meter Manufacturer:	Is This Meter New from Manufacturer? YES NO
Meter Serial Number:	Discharge Pipe Size (inches):
Manufacturer Date:	Tap Size & Type:
Meter Size (inches):	Meter Bypass Piping: YES NO Other
Meter Units: AF CF Gal MI/h Other	Is This A Bypass Meter?: YES NO
Meter Multiplier	Underground Vault: YES NO Other
Meter Type:	Pump Motor/Engine (horsepower):

Meter Use: Agricultural Domestic Municipal Industrial

Calibration or Repair Test Results

	Meter End	Meter Start	Volume Pumped	Run Time	Flow rate	Accuracy (%)
Test 1						
Test 2						
Test 3						

Remarks

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

MONITORING AND REPORTING PROGRAM
ORDER NO. R3-2017-0002-01

TIER 1

DISCHARGERS ENROLLED UNDER
CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR
DISCHARGES FROM IRRIGATED LANDS

This Monitoring and Reporting Program Order No. R3-2017-0002-01 (MRP) is issued pursuant to California Water Code (Water Code) sections 13267 and 13269, which authorize the California Regional Water Quality Control Board, Central Coast Region (hereafter Central Coast Water Board) to require preparation and submittal of technical and monitoring reports. Water Code section 13269 requires a waiver of waste discharge requirements to include as a condition the performance of monitoring and the public availability of monitoring results. *Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands*, Order No. R3-2017-0002 (Order) includes criteria and requirements for three tiers. This MRP sets forth monitoring and reporting requirements for **Tier 1 Dischargers** enrolled under the Order. A summary of the requirements is shown below.

SUMMARY OF MONITORING AND REPORTING REQUIREMENTS FOR TIER 1:

Part 1: Surface Receiving Water Monitoring and Reporting *(cooperative or individual)*
Part 2: Groundwater Monitoring and Reporting *(cooperative or individual)*

Pursuant to Water Code section 13269(a)(2), monitoring requirements must be designed to support the development and implementation of the waiver program, including, but not limited to, verifying the adequacy and effectiveness of the waiver's conditions. The monitoring and reports required by this MRP are to evaluate effects of discharges of waste from irrigated agricultural operations and individual farms/ranches on waters of the state and to determine compliance with the Order.

MONITORING AND REPORTING BASED ON TIERS

The Order and MRP include criteria and requirements for three tiers, based upon those characteristics of individual farms/ranches at the operation that present the highest level of waste discharge or greatest risk to water quality. Dischargers must meet conditions of the Order and MRP for the appropriate tier that applies to their land and/or the individual farm/ranch. Within a tier, Dischargers comply with requirements based on the

specific level of discharge and threat to water quality from individual farms/ranches. The lowest tier, Tier 1, applies to dischargers who discharge the lowest level of waste (amount or concentration) or pose the lowest potential to cause or contribute to an exceedance of water quality standards in waters of the State or of the United States. The highest tier, Tier 3, applies to dischargers who discharge the highest level of waste or pose the greatest potential to cause or contribute to an exceedance of water quality standards in waters of the State or of the United States. Tier 2 applies to dischargers whose discharge has a moderate threat to water quality. Water quality is defined in terms of regional, state, or federal numeric or narrative water quality standards. Per the Order, Dischargers may submit a request to the Executive Officer to approve transfer to a lower tier. If the Executive Officer approves a transfer to a lower tier, any interested person may request that the Central Coast Water Board conduct a review of the Executive Officer's determination.

PART 1. SURFACE RECEIVING WATER MONITORING AND REPORTING REQUIREMENTS

The surface receiving water monitoring and reporting requirements described herein are generally a continuation of the surface receiving water monitoring and reporting requirements of Monitoring and Reporting Program Order No. 2012-0011-01, as revised August 22, 2016, with the intent of uninterrupted regular monitoring and reporting during the transition from Order No. R3-2012-0011-01 to Order No. R3-2017-0002-01.

Monitoring and reporting requirements for surface receiving water identified in Part 1.A. and Part 1.B. apply to Tier 1 Dischargers. Surface receiving water refers to water flowing in creeks and other surface waters of the State. Surface receiving water monitoring may be conducted through a cooperative monitoring program on behalf of Dischargers, or Dischargers may choose to conduct surface receiving water monitoring and reporting individually. Key monitoring and reporting requirements for surface receiving water are shown in Tables 1 and 2.

A. Surface Receiving Water Quality Monitoring

1. Dischargers must elect a surface receiving water monitoring option (cooperative monitoring program or individual receiving water monitoring) to comply with surface receiving water quality monitoring requirements, and identify the option selected on the Notice of Intent (NOI).

2. Dischargers are encouraged to choose participation in a cooperative monitoring program (e.g., the existing Cooperative Monitoring Program or a similar program) to comply with receiving water quality monitoring requirements. Dischargers not participating in a cooperative monitoring program must conduct surface receiving water quality monitoring individually that achieves the same purpose.

3. Dischargers (individually or as part of a cooperative monitoring program) must conduct surface receiving water quality monitoring to a) assess the impacts of their waste discharges from irrigated lands to receiving water, b) assess the status of receiving water quality and beneficial use protection in impaired waterbodies dominated by irrigated agricultural activity, c) evaluate status, short term patterns and long term trends (five to ten years or more) in receiving water quality, d) evaluate water quality impacts resulting from agricultural discharges (including but not limited to tile drain discharges), e) evaluate stormwater quality, f) evaluate condition of existing perennial, intermittent, or ephemeral streams or riparian or wetland area habitat, including degradation resulting from erosion or agricultural discharges of waste, and g) assist in the identification of specific sources of water quality problems.

Surface Receiving Water Quality Sampling and Analysis Plan

4. **By March 1, 2018, or as directed by the Executive Officer**, Dischargers (individually or as part of a cooperative monitoring program) must submit a surface receiving water quality Sampling and Analysis Plan (SAAP) and Quality Assurance Project Plan (QAPP); this requirement is satisfied if an approved SAAP and QAPP addressing all surface receiving water quality monitoring requirements described in this Order has been submitted pursuant to Order No. R3-2012-0011 and associated Monitoring and Reporting Programs. Dischargers (or a third party cooperative monitoring program) must develop the Sampling and Analysis Plan to describe how the proposed monitoring will achieve the objectives of the MRP and evaluate compliance with the Order. The Sampling and Analysis Plan may propose alternative monitoring site locations, adjusted monitoring parameters, and other changes as necessary to assess the impacts of waste discharges from irrigated lands to receiving water. The Executive Officer must approve the Sampling and Analysis Plan and QAPP.

5. The Sampling and Analysis Plan must include the following minimum required components:
    a. Monitoring strategy to achieve objectives of the Order and MRP;
    b. Map of monitoring sites with GIS coordinates;
    c. Identification of known water quality impairments and impaired waterbodies per the 2010 Clean Water Act 303(d) List of Impaired Waterbodies (List of Impaired Waterbodies);
    d. Identification of beneficial uses and applicable water quality standards;
    e. Identification of applicable Total Maximum Daily Loads;
    f. Monitoring parameters;
    g. Monitoring schedule, including description and frequencies of monitoring events;

h. Description of data analysis methods;

6. The QAPP must include receiving water and site-specific information, project organization and responsibilities, and quality assurance components of the MRP. The QAPP must also include the laboratory and field requirements to be used for analyses and data evaluation. The QAPP must contain adequate detail for project and Water Board staff to identify and assess the technical and quality objectives, measurement and data acquisition methods, and limitations of the data generated under the surface receiving water quality monitoring. All sampling and laboratory methodologies and QAPP content must be consistent with U.S. EPA methods, State Water Board's Surface Water Ambient Monitoring Program (SWAMP) protocols and the Central Coast Water Board's Central Coast Ambient Monitoring Program (CCAMP). Following U.S. EPA guidelines[1] and SWAMP templates[2], the receiving water quality monitoring QAPP must include the following minimum required components:
    a. Project Management. This component addresses basic project management, including the project history and objectives, roles and responsibilities of the participants, and other aspects.
    b. Data Generation and Acquisition. This component addresses all aspects of project design and implementation. Implementation of these elements ensures that appropriate methods for sampling, measurement and analysis, data collection or generation, data handling, and quality control activities are employed and are properly documented. Quality control requirements are applicable to all the constituents sampled as part of the MRP, as described in the appropriate method.
    c. Assessment and Oversight. This component addresses the activities for assessing the effectiveness of the implementation of the project and associated QA and QC activities. The purpose of the assessment is to provide project oversight that will ensure that the QA Project Plan is implemented as prescribed.
    d. Data Validation and Usability. This component addresses the quality assurance activities that occur after the data collection, laboratory analysis and data generation phase of the project is completed. Implementation of these elements ensures that the data conform to the specified criteria, thus achieving the MRP objectives.

[1] USEPA. 2001 (2006) USEPA Requirements for Quality Assurance Project Plans (QA/R-5) Office of Environmental Information, Washington, D.C. USEPA QA/R-5
[2] http://waterboards.ca.gov/water_issues/programs/swamp/tools.shtml#qa

7. The Central Coast Water Board may conduct an audit of contracted laboratories at any time in order to evaluate compliance with the QAPP.

8. The Sampling and Analysis Plan and QAPP, and any proposed revisions are subject to approval by the Executive Officer. The Executive Officer may also revise the Sampling and Analysis Plan, including adding, removing, or changing monitoring site locations, changing monitoring parameters, and other changes as necessary to assess the impacts of waste discharges from irrigated lands to receiving water.

Surface Receiving Water Quality Monitoring Sites

9. The Sampling and Analysis Plan must, at a minimum, include monitoring sites to evaluate waterbodies identified in Table 1, unless otherwise approved by the Executive Officer. The Sampling and Analysis Plan must include sites to evaluate receiving water quality impacts most directly resulting from areas of agricultural discharge (including areas receiving tile drain discharges). Site selection must take into consideration the existence of any long term monitoring sites included in related monitoring programs (e.g. CCAMP and the existing CMP). Sites may be added or modified, subject to prior approval by the Executive Officer, to better assess the pollutant loading from individual sources or the impacts to receiving waters caused by individual discharges. Any modifications must consider sampling consistency for purposes of trend evaluation.

Surface Receiving Water Quality Monitoring Parameters

10. The Sampling and Analysis Plan must, at a minimum, include the following types of monitoring and evaluation parameters listed below and identified in Table 2:

    a. Flow Monitoring;
    b. Water Quality (physical parameters, metals, nutrients, pesticides);
    c. Toxicity (water and sediment);
    d. Assessment of Benthic Invertebrates.

11. All analyses must be conducted at a laboratory certified for such analyses by the State Department of Public Health (CDPH) or at laboratories approved by the Executive Officer. Unless otherwise noted, all sampling, sample preservation, and analyses must be performed in accordance with the latest edition of *Test Methods for Evaluating Solid Waste*, SW-846, U.S. EPA, and analyzed as specified herein by the above analytical methods and reporting limits indicated. Certified laboratories can be found at the web link: http://www.cdph.ca.gov/certlic/labs/Documents/ELAPLablist.xls

12. Water quality and flow monitoring is used to assess the sources, concentrations, and loads of waste discharges from individual farms/ranches and groups of Dischargers to surface waters, to evaluate impacts to water quality and beneficial uses, and to evaluate the short term patterns and long term trends in receiving water quality. Monitoring data must be compared to existing numeric and narrative water quality objectives.

13. Toxicity testing is to evaluate water quality relative to the narrative toxicity objective. Water column toxicity analyses must be conducted on 100% (undiluted) sample. At sites where persistent unresolved toxicity is found, the Executive Officer may require concurrent toxicity and chemical analyses and a Toxicity Identification Evaluation (TIE) to identify the individual discharges causing the toxicity.

Surface Receiving Water Quality Monitoring Frequency and Schedule

14. The Sampling and Analysis Plan must include a schedule for sampling. Timing, duration, and frequency of monitoring must be based on the land use, complexity, hydrology, and size of the waterbody. Table 2 includes minimum monitoring frequency and parameter lists. Agricultural parameters that are less common may be monitored less frequently. Modifications to the receiving water quality monitoring parameters, frequency, and schedule may be submitted for Executive Officer consideration and approval. At a minimum, the Sampling and Analysis Plan schedule must consist of monthly monitoring of common agricultural parameters in major agricultural areas, including two major storm events during the wet season (October 1 – April 30).

15. Storm event monitoring must be conducted within 18 hours of storm events, preferably including the first flush run-off event that results in significant increase in stream flow. For purposes of this MRP, a storm event is defined as precipitation producing onsite runoff (surface water flow) capable of creating significant ponding, erosion or other water quality problem. A significant storm event will generally result in greater than 1-inch of rain within a 24-hour period.

16. Dischargers (individually or as part of a cooperative monitoring program) must perform receiving water quality monitoring per the Sampling and Analysis Plan and QAPP approved by the Executive Officer.

B. Surface Receiving Water Quality Reporting

Surface Receiving Water Quality Data Submittal

1. Dischargers (individually or as part of a cooperative monitoring program) must submit water quality monitoring data to the Central Coast Water Board electronically, in a format specified by the Executive Officer and compatible with SWAMP/CCAMP electronic submittal guidelines, each January 1, April 1, July 1, and October 1.

Surface Receiving Water Quality Monitoring Annual Report

2. **By July 1, 2017,** and every July 1 annually thereafter, Dischargers (individually or as part of a cooperative monitoring program) must submit an Annual Report, electronically, in a format specified by the Executive Officer including the following minimum elements:
    a. Signed Transmittal Letter;
    b. Title Page;
    c. Table of Contents;
    d. Executive Summary;
    e. Summary of Exceedance Reports submitted during the reporting period;
    f. Monitoring objectives and design;
    g. Monitoring site descriptions and rainfall records for the time period covered;
    h. Location of monitoring sites and map(s);
    i. Tabulated results of all analyses arranged in tabular form so that the required information is readily discernible;
    j. Summary of water quality data for any sites monitored as part of related monitoring programs, and used to evaluate receiving water as described in the Sampling and Analysis Plan.
    k. Discussion of data to clearly illustrate compliance with the Order and water quality standards;
    l. Discussion of short term patterns and long term trends in receiving water quality and beneficial use protection;
    m. Evaluation of pesticide and toxicity analyses results, and recommendation of candidate sites for Toxicity Identification Evaluations (TIEs);
    n. Identification of the location of any agricultural discharges observed discharging directly to surface receiving water;
    o. Laboratory data submitted electronically in a SWAMP/CCAMP comparable format;
    p. Sampling and analytical methods used;
    q. Copy of chain-of-custody forms;
    r. Field data sheets, signed laboratory reports, laboratory raw data;
    s. Associated laboratory and field quality control samples results;
    t. Summary of Quality Assurance Evaluation results;

u. Specify the method used to obtain flow at each monitoring site during each monitoring event;
v. Electronic or hard copies of photos obtained from all monitoring sites, clearly labeled with site ID and date;
w. Conclusions.

PART 2. GROUNDWATER MONITORING AND REPORTING REQUIREMENTS

Groundwater monitoring may be conducted through a cooperative monitoring and reporting program on behalf of growers, or Dischargers may choose to conduct groundwater monitoring and reporting individually. Qualifying cooperative groundwater monitoring and reporting programs must implement the groundwater monitoring and reporting requirements described in this Order, unless otherwise approved by the Executive Officer. An interested person may seek review by the Central Coast Water Board of the Executive Officer's approval or denial of a cooperative groundwater monitoring and reporting program.

Key monitoring and reporting requirements for groundwater are shown in Table 3.

A. Groundwater Monitoring

1. Dischargers must sample private domestic wells and the primary irrigation well on their farm/ranch to evaluate groundwater conditions in agricultural areas, identify areas at greatest risk for nitrogen loading and exceedance of drinking water standards, and identify priority areas for follow up actions.

2. Dischargers must sample at least one groundwater well for each farm/ranch on their operation, including groundwater wells that are located within the property boundary of the enrolled county assessor parcel numbers (APNs). For farms/ranches with multiple groundwater wells, Dischargers must sample all domestic wells and the primary irrigation well. For the purposes of this MRP, a "domestic well" is any well that is used or may be used for domestic use purposes, including any groundwater well that is connected to a residence, workshop, or place of business that may be used for human consumption, cooking, or sanitary purposes. Groundwater monitoring parameters must include well screen interval depths (if available), general chemical parameters, and general cations and anions listed in Table 3.

3. Dischargers must conduct two rounds of monitoring of required groundwater wells during calendar year 2017; one sample collected during spring (**March - June)** and one sample collected during fall **(September - December)**.

4. Groundwater samples must be collected by a qualified third party (e.g., consultant, technician, person conducting cooperative monitoring) using proper sampling methods, chain-of-custody, and quality assurance/quality

control protocols. Groundwater samples must be collected at or near the well head before the pressure tank and prior to any well head treatment. In cases where this is not possible, the water sample must be collected from a sampling point as close to the pressure tank as possible, or from a cold-water spigot located before any filters or water treatment systems.

5. Laboratory analyses for groundwater samples must be conducted by a State certified laboratory according to U.S. EPA approved methods; unless otherwise noted, all monitoring, sample preservation, and analyses must be performed in accordance with the latest edition of *Test Methods for Evaluating Solid Waste*, SW-846, United States Environmental Protection Agency, and analyzed as specified herein by the above analytical methods and reporting limits indicated. Certified laboratories can be found at the web link below: http://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/docs/resources4growers/2016_04_11_labs.pdf

6. If a discharger determines that water in any domestic well exceeds 10 mg/L of nitrate as N, the discharger or third party must provide notice to the Central Coast Water Board within 24 hours of learning of the exceedance. For domestic wells on a Discharger's farm/ranch that exceed 10 mg/L nitrate as N, the Discharger must provide written notification to the users within 10 days of learning of the exceedance and provide written confirmation of the notification to the Central Coast Water Board.

   The drinking water notification must include the statement that the water poses a human health risk due to elevated nitrate concentration, and include a warning against the use of the water for drinking or cooking. In addition, Dischargers must also provide prompt written notification to any new well users (e.g. tenants and employees with access to the affected well), whenever there is a change in occupancy.

   For all other domestic wells not on a Discharger's farm/ranch but that may be impacted by nitrate, the Central Coast Water Board will notify the users promptly.

   The drinking water notification and confirmation letters required by this Order are available to the public.

B. Groundwater Reporting

1. **Within 60 days of sample collection,** Dischargers must coordinate with the laboratory to submit the following groundwater monitoring results and information, electronically, using the Water Board's GeoTracker electronic deliverable format (EDF):
   a. GeoTracker Ranch Global Identification Number

b. Field point name (Well Name)
c. Field Point Class (Well Type)
d. Latitude
e. Longitude
f. Sample collection date
g. Analytical results
h. Well construction information (e.g., total depth, screened intervals, depth to water), as available

2. Dischargers must submit groundwater well information required in the electronic Notice of Intent (eNOI) for each farm/ranch and update the eNOI to reflect changes in the farm/ranch information within 30 days of the change. Groundwater well information reported on the eNOI includes, but is not limited to:

a. Number of groundwater wells present at each farm/ranch
b. Identification of any groundwater wells abandoned or destroyed (including method destroyed) in compliance with the Order
c. Use for fertigation or chemigation
d. Presence of back flow prevention devices
e. Number of groundwater wells used for agricultural purposes
f. Number of groundwater wells used for or may be used for domestic use purposes (domestic wells).

PART 3. GENERAL MONITORING AND REPORTING REQUIREMENTS

A. Submittal of Technical Reports

1. Dischargers must submit reports in a format specified by the Executive Officer. A transmittal letter must accompany each report, containing the following penalty of perjury statement signed by the Discharger or the Discharger's authorized agent:

   "In compliance with Water Code §13267, I certify under penalty of perjury that this document and all attachments were prepared by me, or under my direction or supervision following a system designed to assure that qualified personnel properly gather and evaluate the information submitted. To the best of my knowledge and belief, this document and all attachments are true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment".

2. If the Discharger asserts that all or a portion of a report submitted pursuant to this Order is subject to an exemption from public disclosure (e.g. trade secrets or secret processes), the Discharger must provide an explanation of how those portions of the reports are exempt from public disclosure. The

Discharger must clearly indicate on the cover of the report (typically an electronic submittal) that the Discharger asserts that all or a portion of the report is exempt from public disclosure, submit a complete report with those portions that are asserted to be exempt in redacted form, submit separately (in a separate electronic file) unredacted pages (to be maintained separately by staff). The Central Coast Water Board staff will determine whether any such report or portion of a report qualifies for an exemption from public disclosure. If the Central Coast Water Board staff disagrees with the asserted exemption from public disclosure, the Central Coast Water Board staff will notify the Discharger prior to making such report or portions of such report available for public inspection.

B. Central Coast Water Board Authority

1. Monitoring reports are required pursuant to section 13267 of the California Water Code. Pursuant to section 13268 of the Water Code, a violation of a request made pursuant to section 13267 may subject you to civil liability of up to $1000 per day.

2. The Water Board needs the required information to determine compliance with Order No.R3-2017-0002. The evidence supporting these requirements is included in the findings of Order No.R3-2017-0002.

_____

John M. Robertson
Executive Officer

March 8, 2017

_____

Date

Table 1. Major Waterbodies in Agricultural Areas[1]

Hydrologic SubArea	Waterbody Name	Hydrologic SubArea	Waterbody Name
30510	Pajaro River	30920	Quail Creek
30510	Salsipuedes Creek	30920	Salinas Reclamation Canal
30510	Watsonville Slough	31022	Chorro Creek
30510	Watsonville Creek[2]	31023	Los Osos Creek
30510	Beach Road Ditch[2]	31023	Warden Creek
30530	Carnadero Creek	31024	San Luis Obispo Creek
30530	Furlong Creek[2]	31024	Prefumo Creek
30530	Llagas Creek	31031	Arroyo Grande Creek
30530	Miller's Canal	31031	Los Berros Creek
30530	San Juan Creek	31210	Bradley Canyon Creek
30530	Tesquisquita Slough	31210	Bradley Channel
30600	Moro Cojo Slough	31210	Green Valley Creek
30910	Alisal Slough	31210	Main Street Canal
30910	Blanco Drain	31210	Orcutt Solomon Creek
30910	Old Salinas River	31210	Oso Flaco Creek
30910	Salinas River (below Gonzales Rd.)	31210	Little Oso Flaco Creek
30920	Salinas River (above Gonzales Rd. and below Nacimiento R.)	31210	Santa Maria River
30910	Santa Rita Creek[2]	31310	San Antonio Creek[2]
30910	Tembladero Slough	31410	Santa Ynez River
30920	Alisal Creek	31531	Bell Creek
30920	Chualar Creek	31531	Glenn Annie Creek
30920	Espinosa Slough	31531	Los Carneros Creek[2]
30920	Gabilan Creek	31534	Arroyo Paredon Creek
30920	Natividad Creek	31534	Franklin Creek

[1] At a minimum, monitoring sites must be included for these waterbodies in agricultural areas, unless otherwise approved by the Executive Officer. Monitoring sites may be proposed for addition or modification to better assess the impacts of waste discharges from irrigated lands to surface water. Dischargers choosing to comply with surface receiving water quality monitoring, individually (not part of a cooperative monitoring program) must only monitor sites for waterbodies receiving the discharge.

[2] These creeks are included because they are newly listed waterbodies on the 2010 303(d) list of Impaired Waters that are associated with areas of agricultural discharge.

Table 2. Surface Receiving Water Quality Monitoring Parameters

Parameters and Tests	RL[3]	Monitoring Frequency[1]
Photo Monitoring		
Upstream and downstream photographs at monitoring location		With every monitoring event
WATER COLUMN SAMPLING		
Physical Parameters and General Chemistry		
Flow (field measure) (CFS) following SWAMP field SOP[9]	.25	Monthly, including 2 stormwater events
pH (field measure)	0.1	”
Electrical Conductivity (field measure) (µS/cm)	2.5	”
Dissolved Oxygen (field measure) (mg/L)	0.1	”
Temperature (field measure) (^{o}C)	0.1	”
Turbidity (NTU)	0.5	”
Total Dissolved Solids (mg/L)	10	”
Total Suspended Solids (mg/L)	0.5	”
Nutrients		
Total Nitrogen (mg/L)	0.5	Monthly, including 2 stormwater events
Nitrate + Nitrite (as N) (mg/L)	0.1	”
Total Ammonia (mg/L)	0.1	”
Unionized Ammonia (calculated value, mg/L))		”
Total Phosphorus (as P) (mg/L)	0.02	
Soluble Orthophosphate (mg/L)	0.01	”
Water column chlorophyll a (µg/L)	1.0	“
Algae cover, Floating Mats, % coverage	-	“
Algae cover, Attached, % coverage	-	“
Water Column Toxicity Test		
Algae - *Selenastrum capricornutum (*96-hour chronic; Method1003.0 in EPA/821/R-02/013)	-	4 times each year, twice in dry season, twice in wet season
Water Flea – *Ceriodaphnia dubia* (7-day chronic; Method 1002.0 in EPA/821/R-02/013)	-	”
Midge - *Chironomus spp.* (96-hour acute; Alternate test species in EPA 821-R-02-012)	-	“

Parameters and Tests	RL[3]	Monitoring Frequency[1]
Toxicity Identification Evaluation (TIE)	-	As directed by Executive Officer
Pesticides[2] /Herbicides (µg/L)		
Organophosphate Pesticides		
Azinphos-methyl	0.02	2 times in both 2017 and 2018, once in dry season and once in wet season of each year, concurrent with water toxicity monitoring
Chlorpyrifos	0.005	”
Diazinon	0.005	”
Dichlorvos	0.01	”
Dimethoate	0.01	”
Dimeton-s	0.005	”
Disulfoton (Disyton)	0.005	”
Malathion	0.005	”
Methamidophos	0.02	”
Methidathion	0.02	“
Parathion-methyl	0.02	“
Phorate	0.01	“
Phosmet	0.02	“
Neonicotinoids		
Thiamethoxam	.002	“
Imidacloprid	.002	“
Thiacloprid	.002	“
Dinotefuran	.006	“
Acetamiprid	.01	“
Clothianidin	.02	“
Herbicides		
Atrazine	0.05	“
Cyanazine	0.20	“
Diuron	0.05	“
Glyphosate	2.0	“
Linuron	0.1	“
Paraquat	0.20	“
Simazine	0.05	“
Trifluralin	0.05	“
Metals (µg/L)		
Arsenic (total) [5,7]	0.3	2 times in both 2017 and 2018, once in dry season and once in wet season of each year, concurrent with water toxicity monitoring
Boron (total) [6,7]	10	“
Cadmium (total & dissolved) [4.5,7]	0.01	“

Parameters and Tests	RL[3]	Monitoring Frequency[1]
Copper (total and dissolved) [4,7]	0.01	"
Lead (total and dissolved) [4,7]	0.01	"
Nickel (total and dissolved) [4,7]	0.02	"
Molybdenum (total) [7]	1	"
Selenium (total)[7]	0.30	"
Zinc (total and dissolved) [4.5,7]	0.10	"
Other (µg/L)		
Total Phenolic Compounds[8]	5	2 times in 2017, once in spring (April-May) and once in fall (August-September)
Hardness (mg/L as CaCO3)	1	"
Total Organic Carbon (ug/L)	0.6	"
SEDIMENT SAMPLING		
Sediment Toxicity - *Hyalella azteca* 10-day static renewal (EPA, 2000)		2 times each year, once in spring (April-May) and once in fall (August-September)
Pyrethroid Pesticides in Sediment (µg/kg)		
Gamma-cyhalothrin	2	2 times in both 2017 and 2018, once in spring (April-May) and once in fall (August-September) of each year, concurrent with sediment toxicity sampling
Lambda-cyhalothrin	2	"
Bifenthrin	2	"
Beta-cyfluthrin	2	"
Cyfluthrin	2	"
Esfenvalerate	2	"
Permethrin	2	"
Cypermethrin	2	"
Danitol	2	"
Fenvalerate	2	"
Fluvalinate	2	"
Other Monitoring in Sediment		
Chlorpyrifos (µg/kg)	2	"
Total Organic Carbon	0.01%	"
		"
Sediment Grain Size Analysis	1%	"

[1]Monitoring frequency may be used as a guide for developing alternative Sampling and Analysis Plans implemented by individual growers.
[2]Pesticide list may be modified based on specific pesticide use in Central Coast Region. Analytes on this list must be reported, at a minimum.
[3] Reporting Limit, taken from SWAMP where applicable.
[4] Holmgren, Meyer, Cheney and Daniels. 1993. Cadmium, Lead, Zinc, Copper and Nickel in Agricultural Soils of the United States. J. of Environ. Quality 22:335-348.

[5]Sax and Lewis, ed. 1987. Hawley's Condensed Chemical Dictionary. 11th ed. New York: Van Nostrand Reinhold Co., 1987. Zinc arsenate is an insecticide.
[6]Http://www.coastalagro.com/products/labels/9%25BORON.pdf; Boron is applied directly or as a component of fertilizers as a plant nutrient.
[7]Madramootoo, Johnston, Willardson, eds. 1997. Management of Agricultural Drainage Water Quality. International Commission on Irrigation and Drainage. U.N. FAO. SBN 92-6-104058.3.
[8]http://cat.inist.fr/?aModele=afficheN&cpsidt=14074525; Phenols are breakdown products of herbicides and pesticides. Phenols can be directly toxic and cause endocrine disruption.
[9]See SWAMP field measures SOP, p. 17
mg/L – milligrams per liter; ug/L – micrograms per liter; ug/kg – micrograms per kilogram;
NTU – Nephelometric Turbidity Units; CFS – cubic feet per second.

Table 3. Groundwater Sampling Parameters

Parameter	RL	Analytical Method[3]	Units
pH	0.1	Field or Laboratory Measurement EPA General Methods	pH Units
Specific Conductance	2.5		µS/cm
Total Dissolved Solids	10		mg/L
Total Alkalinity as $CaCO_3$		EPA Method 310.1 or 310.2	
Calcium	0.05	General Cations[1] EPA 200.7, 200.8, 200.9	
Magnesium	0.02		
Sodium	0.1		
Potassium	0.1		
Sulfate (SO4)	1.0	General Anions EPA Method 300 or EPA Method 353.2	
Chloride	0.1		
Nitrate + Nitrite (as N)[2] or Nitrate as N	0.1		

[1]General chemistry parameters (major cations and anions) represent geochemistry of water bearing zone and assist in evaluating quality assurance/quality control of groundwater monitoring and laboratory analysis.
[2]The MRP allows analysis of "nitrate plus nitrite" to represent nitrate concentrations (as N). The "nitrate plus nitrite" analysis allows for extended laboratory holding times and relieves the Discharger of meeting the short holding time required for nitrate.
[3]Dischargers may use alternative analytical methods approved by EPA.
RL – Reporting Limit; µS/cm – micro siemens per centimeter

Table 4. Tier 1 - Time Schedule for Key Monitoring and Reporting Requirements (MRPs)

REQUIREMENT	TIME SCHEDULE[1]
Submit Sampling And Analysis Plan and Quality Assurance Project Plan (SAAP/QAPP) for Surface Receiving Water Quality Monitoring *(individually or through cooperative monitoring program)*	By March 1, 2018, or as directed by the Executive Officer; satisfied if an approved SAAP/QAPP has been submitted pursuant to Order No. R3-2012-0011 and associated MRPs
Initiate surface receiving water quality monitoring *(individually or through cooperative monitoring program)*	Per an approved SAAP and QAPP
Submit surface receiving water quality monitoring data *(individually or through cooperative monitoring program)*	Each January 1, April 1, July 1, and October 1

Submit surface receiving water quality Annual Monitoring Report *(individually or through cooperative monitoring program)*	By July 1 2017; annually thereafter by July 1
Initiate monitoring of groundwater wells	First sample from March-June 2017, second sample from September-December 2017
Submit groundwater monitoring results	Within 60 days of the sample collection

[1] Dates are relative to adoption of this Order, unless otherwise specified.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

MONITORING AND REPORTING PROGRAM
ORDER NO. R3-2017-0002-02

TIER 2

DISCHARGERS ENROLLED UNDER
THE CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR
DISCHARGES FROM IRRIGATED LANDS

This Monitoring and Reporting Program Order No. R3-2017-0002-02 (MRP) is issued pursuant to California Water Code (Water Code) sections 13267 and 13269, which authorize the California Regional Water Quality Control Board, Central Coast Region (hereafter Central Coast Water Board) to require preparation and submittal of technical and monitoring reports. Water Code section 13269 requires a waiver of waste discharge requirements to include as a condition the performance of monitoring and the public availability of monitoring results. *Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands*, Order No. R3-2017-0002 (Order) includes criteria and requirements for three tiers. This MRP sets forth monitoring and reporting requirements for **Tier 2 Dischargers** enrolled under the Order. A summary of the requirements is shown below.

SUMMARY OF MONITORING AND REPORTING REQUIREMENTS FOR TIER 2:

Part 1: Surface Receiving Water Monitoring and Reporting *(cooperative or individual)*
Part 2: Groundwater Monitoring and Reporting *(cooperative or individual)*
Total Nitrogen Applied Reporting *(required for subset of Tier 2 Dischargers if farm/ranch growing any crop with high nitrate loading risk to groundwater);*
Part 3: Annual Compliance Form

Pursuant to Water Code section 13269(a)(2), monitoring requirements must be designed to support the development and implementation of the waiver program, including, but not limited to, verifying the adequacy and effectiveness of the waiver's conditions. The monitoring and reports required by this MRP are to evaluate effects of discharges of waste from irrigated agricultural operations and individual farms/ranches on waters of the state and to determine compliance with the Order.

MONITORING AND REPORTING BASED ON TIERS

The Order and MRP include criteria and requirements for three tiers, based upon those characteristics of the individual farms/ranches at the operation that present the highest level of waste discharge or greatest risk to water quality. Dischargers must meet conditions of the Order and MRP for the appropriate tier that applies to their land and/or the individual farm/ranch. Within a tier, Dischargers comply with requirements based on the specific level of discharge and threat to water quality from individual farms/ranches. The lowest tier, Tier 1, applies to dischargers who discharge the lowest level of waste (amount or concentration) or pose the lowest potential to cause or contribute to an exceedance of water quality standards in waters of the State or of the United States. The highest tier, Tier 3, applies to dischargers who discharge the highest level of waste or pose the greatest potential to cause or contribute to an exceedance of water quality standards in waters of the State or of the United States. Tier 2 applies to dischargers whose discharge has a moderate threat to water quality. Water quality is defined in terms of regional, state, or federal numeric or narrative water quality standards. Per the Order, Dischargers may submit a request to the Executive Officer to approve transfer to a lower tier. If the Executive Officer approves a transfer to a lower tier, any interested person may request that the Central Coast Water Board conduct a review of the Executive Officer's determination.

PART 1. SURFACE RECEIVING WATER MONITORING AND REPORTING REQUIREMENTS

The surface receiving water monitoring and reporting requirements described herein are generally a continuation of the surface receiving water monitoring and reporting requirements of Monitoring and Reporting Program Order No. 2012-0011-02, as revised August 22, 2016, with the intent of uninterrupted regular monitoring and reporting during the transition from Order No. R3-2012-0011-02 to Order No. R3-2017-0002-02.

Monitoring and reporting requirements for surface receiving water identified in Part 1.A. and Part 1.B. apply to Tier 2 Dischargers. Surface receiving water refers to water flowing in creeks and other surface waters of the State. Surface receiving water monitoring may be conducted through a cooperative monitoring program on behalf of Dischargers, or Dischargers may choose to conduct surface receiving water monitoring and reporting individually. Key monitoring and reporting requirements for surface receiving water are shown in Tables 1 and 2. Time schedules are shown in Table4.

A. Surface Receiving Water Quality Monitoring

1. Dischargers must elect a surface receiving water monitoring option (cooperative monitoring program or individual receiving water monitoring) to comply with surface receiving water quality monitoring requirements, and identify the option selected on the Notice of Intent (NOI).

2. Dischargers are encouraged to choose participation in a cooperative monitoring program (e.g., the existing Cooperative Monitoring Program or a similar program) to comply with receiving water quality monitoring requirements. Dischargers not participating in a cooperative monitoring program must conduct surface receiving water quality monitoring individually that achieves the same purpose.

3. Dischargers (individually or as part of a cooperative monitoring program) must conduct surface receiving water quality monitoring to a) assess the impacts of their waste discharges from irrigated lands to receiving water, b) assess the status of receiving water quality and beneficial use protection in impaired waterbodies dominated by irrigated agricultural activity, c) evaluate status, short term patterns and long term trends (five to ten years or more) in receiving water quality, d) evaluate water quality impacts resulting from agricultural discharges (including but not limited to tile drain discharges), e) evaluate stormwater quality, f) evaluate condition of existing perennial, intermittent, or ephemeral streams or riparian or wetland area habitat, including degradation resulting from erosion or agricultural discharges of waste, and g) assist in the identification of specific sources of water quality problems.

Surface Receiving Water Quality Sampling and Analysis Plan

4. **By March 1, 2018, or as directed by the Executive Officer**, Dischargers (individually or as part of a cooperative monitoring program) must submit a surface receiving water quality Sampling and Analysis Plan (SAAP) and Quality Assurance Project Plan (QAPP); this requirement is satisfied if an approved SAAP and QAPP addressing all surface receiving water quality monitoring requirements described in this Order has been submitted pursuant to Order No.R3-2012-0011 and associated Monitoring and Reporting Programs. Dischargers (or a third party cooperative monitoring program) must develop the Sampling and Analysis Plan to describe how the proposed monitoring will achieve the objectives of the MRP and evaluate compliance with the Order. The Sampling and Analysis Plan may propose alternative monitoring site locations, adjusted monitoring parameters, and other changes as necessary to assess the impacts of waste discharges from irrigated lands to receiving water. The Executive Officer must approve the Sampling and Analysis Plan and QAPP.

5. The Sampling and Analysis Plan must include the following minimum required components:
    a. Monitoring strategy to achieve objectives of the Order and MRP;
    b. Map of monitoring sites with GIS coordinates;

c. Identification of known water quality impairments and impaired waterbodies per the 2010 Clean Water Act 303(d) List of Impaired Waterbodies (List of Impaired Waterbodies);
d. Identification of beneficial uses and applicable water quality standards;
e. Identification of applicable Total Maximum Daily Loads;
f. Monitoring parameters;
g. Monitoring schedule, including description and frequencies of monitoring events;
h. Description of data analysis methods;

6. The QAPP must include receiving water and site-specific information, project organization and responsibilities, and quality assurance components of the MRP. The QAPP must also include the laboratory and field requirements to be used for analyses and data evaluation. The QAPP must contain adequate detail for project and Water Board staff to identify and assess the technical and quality objectives, measurement and data acquisition methods, and limitations of the data generated under the surface receiving water quality monitoring. All sampling and laboratory methodologies and QAPP content must be consistent with U.S. EPA methods, State Water Board's Surface Water Ambient Monitoring Program (SWAMP) protocols and the Central Coast Water Board's Central Coast Ambient Monitoring Program (CCAMP). Following U.S. EPA guidelines[1] and SWAMP templates[2], the receiving water quality monitoring QAPP must include the following minimum required components:
    a. Project Management. This component addresses basic project management, including the project history and objectives, roles and responsibilities of the participants, and other aspects.
    b. Data Generation and Acquisition. This component addresses all aspects of project design and implementation. Implementation of these elements ensures that appropriate methods for sampling, measurement and analysis, data collection or generation, data handling, and quality control activities are employed and are properly documented. Quality control requirements are applicable to all the constituents sampled as part of the MRP, as described in the appropriate method.
    c. Assessment and Oversight. This component addresses the activities for assessing the effectiveness of the implementation of the project and associated QA and QC activities. The purpose of the assessment is to provide project oversight that

[1] USEPA 2001 (2006) USEPA requirements for Quality Assurance Project Plans (QA/R-5) Office of Environmental Information, Washington, D.C. USEPA QA/R-5
[2] http://waterboards.ca.gov/water_issues/programs/swamp/tools.shtml#qa

will ensure that the QA Project Plan is implemented as prescribed.

d. Data Validation and Usability. This component addresses the quality assurance activities that occur after the data collection, laboratory analysis and data generation phase of the project is completed. Implementation of these elements ensures that the data conform to the specified criteria, thus achieving the MRP objectives.

7. The Central Coast Water Board may conduct an audit of contracted laboratories at any time in order to evaluate compliance with the QAPP.

8. The Sampling and Analysis Plan and QAPP, and any proposed revisions are subject to approval by the Executive Officer. The Executive Officer may also revise the Sampling and Analysis Plan, including adding, removing, or changing monitoring site locations, changing monitoring parameters, and other changes as necessary to assess the impacts of waste discharges from irrigated lands to receiving water.

Surface Receiving Water Quality Monitoring Sites

9. The Sampling and Analysis Plan must, at a minimum, include monitoring sites to evaluate waterbodies identified in Table 1, unless otherwise approved by the Executive Officer. The Sampling and Analysis Plan must include sites to evaluate receiving water quality impacts most directly resulting from areas of agricultural discharge (including areas receiving tile drain discharges). Site selection must take into consideration the existence of any long term monitoring sites included in related monitoring programs (e.g. CCAMP and the existing CMP). Sites may be added or modified, subject to prior approval by the Executive Officer, to better assess the pollutant loading from individual sources or the impacts to receiving waters caused by individual discharges. Any modifications must consider sampling consistency for purposes of trend evaluation.

Surface Receiving Water Quality Monitoring Parameters

10. The Sampling and Analysis Plan must, at a minimum, include the following types of monitoring and evaluation parameters listed below and identified in Table 2:

    a. Flow Monitoring;
    b. Water Quality (physical parameters, metals, nutrients, pesticides);
    c. Toxicity (water and sediment);
    d. Assessment of Benthic Invertebrates.

11. All analyses must be conducted at a laboratory certified for such analyses by the State Department of Public Health (CDPH) or at laboratories approved by the Executive Officer. Unless otherwise noted, all sampling, sample preservation, and analyses must be performed in accordance with the latest edition of *Test Methods for Evaluating Solid Waste*, SW-846, U.S. EPA, and analyzed as specified herein by the above analytical methods and reporting limits indicated. Certified laboratories can be found at the web link: http://www.cdph.ca.gov/certlic/labs/Documents/ELAPLablist.xls

12. Water quality and flow monitoring is used to assess the sources, concentrations, and loads of waste discharges from individual farms/ranches and groups of Dischargers to surface waters, to evaluate impacts to water quality and beneficial uses, and to evaluate the short term patterns and long term trends in receiving water quality. Monitoring data must be compared to existing numeric and narrative water quality objectives.

13. Toxicity testing is to evaluate water quality relative to the narrative toxicity objective. Water column toxicity analyses must be conducted on 100% (undiluted) sample. At sites where persistent unresolved toxicity is found, the Executive Officer may require concurrent toxicity and chemical analyses and a Toxicity Identification Evaluation (TIE) to identify the individual discharges causing the toxicity.

Surface Receiving Water Quality Monitoring Frequency and Schedule

14. The Sampling and Analysis Plan must include a schedule for sampling. Timing, duration, and frequency of monitoring must be based on the land use, complexity, hydrology, and size of the waterbody. Table 2 includes minimum monitoring frequency and parameter lists. Agricultural parameters that are less common may be monitored less frequently. Modifications to the receiving water quality monitoring parameters, frequency, and schedule may be submitted for Executive Officer consideration and approval. At a minimum, the Sampling and Analysis Plan schedule must consist of monthly monitoring of common agricultural parameters in major agricultural areas, including two major storm events during the wet season (October 1 – April 30).

15. Storm event monitoring must be conducted within 18 hours of storm events, preferably including the first flush run-off event that results in significant increase in stream flow. For purposes of this MRP, a storm event is defined as precipitation producing onsite runoff (surface water flow) capable of creating significant ponding, erosion or other water quality problem. A

significant storm event will generally result in greater than 1-inch of rain within a 24-hour period.

16. Dischargers (individually or as part of a cooperative monitoring program) must perform receiving water quality monitoring per the Sampling and Analysis Plan and QAPP approved by the Executive Officer.

B. Surface Receiving Water Quality Reporting

Surface Receiving Water Quality Data Submittal

1. Dischargers (individually or as part of a cooperative monitoring program) must submit water quality monitoring data to the Central Coast Water Board electronically, in a format specified by the Executive Officer and compatible with SWAMP/CCAMP electronic submittal guidelines, each January 1, April 1, July 1, and October 1.

Surface Receiving Water Quality Monitoring Annual Report

2. By July 1, 2017, and every July 1 annually thereafter, Dischargers (individually or as part of a cooperative monitoring program) must submit an Annual Report, electronically, in a format specified by the Executive Officer including the following minimum elements:

a. Signed Transmittal Letter;
b. Title Page;
c. Table of Contents;
d. Executive Summary;
e. Summary of Exceedance Reports submitted during the reporting period;
f. Monitoring objectives and design;
g. Monitoring site descriptions and rainfall records for the time period covered;
h. Location of monitoring sites and map(s);
i. Tabulated results of all analyses arranged in tabular form so that the required information is readily discernible;
j. Summary of water quality data for any sites monitored as part of related monitoring programs, and used to evaluate receiving water as described in the Sampling and Analysis Plan.
k. Discussion of data to clearly illustrate compliance with the Order and water quality standards;
l. Discussion of short term patterns and long term trends in receiving water quality and beneficial use protection;
m. Evaluation of pesticide and toxicity analyses results, and recommendation of candidate sites for Toxicity Identification Evaluations (TIEs);

n. Identification of the location of any agricultural discharges observed discharging directly to surface receiving water;
o. Laboratory data submitted electronically in a SWAMP/CCAMP comparable format;
p. Sampling and analytical methods used;
q. Copy of chain-of-custody forms;
r. Field data sheets, signed laboratory reports, laboratory raw data;
s. Associated laboratory and field quality control samples results;
t. Summary of Quality Assurance Evaluation results;
u. Specify the method used to obtain flow at each monitoring site during each monitoring event;
v. Electronic or hard copies of photos obtained from all monitoring sites, clearly labeled with site ID and date;
w. Conclusions.

PART 2. GROUNDWATER MONITORING AND REPORTING REQUIREMENTS

Groundwater monitoring may be conducted through a cooperative monitoring and reporting program on behalf of growers, or Dischargers may choose to conduct groundwater monitoring and reporting individually. Qualifying cooperative groundwater monitoring and reporting programs must implement the groundwater monitoring and reporting requirements described in this Order, unless otherwise approved by the Executive Officer. An interested person may seek review by the Central Coast Water Board of the Executive Officer's approval or denial of a cooperative groundwater monitoring and reporting program.

Key monitoring and reporting requirements for groundwater are shown in Table 3.

A. Groundwater Monitoring

1. Dischargers must sample private domestic wells and the primary irrigation well on their farm/ranch to evaluate groundwater conditions in agricultural areas, identify areas at greatest risk for nitrogen loading and exceedance of drinking water standards, and identify priority areas for follow up actions.

2. Dischargers must sample at least one groundwater well for each farm/ranch on their operation, including groundwater wells that are located within the property boundary of the enrolled county assessor parcel numbers (APNs). For farms/ranches with multiple groundwater wells, Dischargers must sample all domestic wells and the primary irrigation well. For the purposes of this MRP, a "domestic well" is any well that is used or may be used for domestic use purposes, including any groundwater well that is connected to a residence, workshop, or place of business that may be used for human consumption, cooking, or sanitary purposes. Groundwater monitoring

parameters must include well screen interval depths (if available), general chemical parameters, and general cations and anions listed in Table 3.

3. Dischargers must conduct two rounds of monitoring of required groundwater wells during calendar year 2017; one sample collected during spring (**March - June)** and one sample collected during fall **(September - December)**.

4. Groundwater samples must be collected by a qualified third party (e.g., consultant, technician, person conducting cooperative monitoring) using proper sampling methods, chain-of-custody, and quality assurance/quality control protocols. Groundwater samples must be collected at or near the well head before the pressure tank and prior to any well head treatment. In cases where this is not possible, the water sample must be collected from a sampling point as close to the pressure tank as possible, or from a cold-water spigot located before any filters or water treatment systems.

5. Laboratory analyses for groundwater samples must be conducted by a State certified laboratory according to U.S. EPA approved methods; unless otherwise noted, all monitoring, sample preservation, and analyses must be performed in accordance with the latest edition of *Test Methods for Evaluating Solid Waste*, SW-846, United States Environmental Protection Agency, and analyzed as specified herein by the above analytical methods and reporting limits indicated. Certified laboratories can be found at the web link below: http://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/docs/resources4growers/2016_04_11_labs.pdf

6. If a discharger determines that water in any domestic well exceeds 10 mg/L of nitrate as N, the discharger or third party must provide notice to the Central Coast Water Board within 24 hours of learning of the exceedance. For domestic wells on a Discharger's farm/ranch, that exceed 10 mg/L of nitrate as N, the Discharger must provide written notification to the users within 10 days of learning of the exceedance and provide written confirmation of the notification to the Central Coast Water Board.

   The drinking water notification must include the statement that the water poses a human health risk due to elevated nitrate concentration, and include a warning against the use of the water for drinking or cooking. In addition, Dischargers must also provide prompt written notification to any new well users (e.g. tenants and employees with access to the affected well), whenever there is a change in occupancy.

   For all other domestic wells not on a Discharger's farm/ranch but that may be impacted by nitrate, the Central Coast Water Board will notify the users promptly.

The drinking water notification and confirmation letters required by this Order are available to the public.

B. Groundwater Reporting

1. **Within 60 days of sample collection,** Dischargers must coordinate with the laboratory to submit the following groundwater monitoring results and information, electronically, using the Water Board's GeoTracker electronic deliverable format (EDF):
    a. GeoTracker Ranch Global Identification Number
    b. Field point name (Well Name)
    c. Field Point Class (Well Type)
    d. Latitude
    e. Longitude
    f. Sample collection date
    g. Analytical results
    h. Well construction information (e.g., total depth, screened intervals, depth to water), as available

2. Dischargers must submit groundwater well information required in the electronic Notice of Intent (eNOI) for each farm/ranch and update the eNOI to reflect changes in the farm/ranch information within 30 days of the change. Groundwater well information reported on the eNOI includes, but is not limited to:
    a. Number of groundwater wells present at each farm/ranch
    b. Identification of any groundwater wells abandoned or destroyed (including method destroyed) in compliance with the Order
    c. Use for fertigation or chemigation
    d. Presence of back flow prevention devices
    e. Number of groundwater wells used for agricultural purposes
    f. Number of groundwater wells used for or may be used for domestic use purposes (domestic wells).

C. Total Nitrogen Applied Reporting

1. By March 1, 2018, and by March 1 annually thereafter, Tier 2 Dischargers growing any crop with a high potential to discharge nitrogen to groundwater must record and report total nitrogen applied for each specific crop that was irrigated and grown for commercial purposes on that farm/ranch during the preceding calendar year (January through December).

    Crops with a high potential to discharge nitrogen to groundwater are: beet, broccoli, cabbage, cauliflower, celery, Chinese cabbage (napa), collard, endive, kale, leek, lettuce (leaf and head), mustard, onion (dry and green),

spinach, strawberry, pepper (fruiting), and parsley.

Total nitrogen applied must be reported on the Total Nitrogen Applied Report form as described in the Total Nitrogen Applied Report form instructions.

Total nitrogen applied includes any product containing any form or concentration of nitrogen including, but not limited to, organic and inorganic fertilizers, slow release products, compost, compost teas, manure, and extracts.

2. The Total Nitrogen Applied Report form includes the following information:
    a. General ranch information such as GeoTracker file numbers, name, location, acres.
    b. Nitrogen concentration of irrigation water
    c. Nitrogen applied in pounds per acre with irrigation water
    d. Nitrogen present in the soil
    e. Nitrogen applied with compost and amendments
    f. Specific crops grown
    g. Nitrogen applied in pounds per acre with fertilizers and other materials to each specific crop grown
    h. Crop acres of each specific crop grown
    i. Whether each specific crop was grown organically or conventionally
    j. Basis for the nitrogen applied
    k. Explanation and comments section
    l. Certification statement with penalty of perjury declaration
    m. Additional information regarding whether each specific crop was grown in a nursery, greenhouse, hydroponically, in containers, and similar variables.

PART 3. ANNUAL COMPLIANCE FORM

Tier 2 Dischargers must submit annual compliance information, electronically, on the Annual Compliance Form. The purpose of the electronic Annual Compliance Form is to provide information to the Central Coast Water Board to assist in the evaluation of threat to water quality from individual agricultural discharges of waste and measure progress towards water quality improvement and verify compliance with the Order and MRP. Time schedules are shown in Table 4.

A. Annual Compliance Form

1. **By March 1, 2018, and updated annually thereafter by March 1**, Tier 2 Dischargers must submit an Annual Compliance Form electronically, in a

format specified by the Executive Officer. The electronic Annual Compliance Form includes, but is not limited to the following minimum requirements[1]:

a. Question regarding consistency between the Annual Compliance Form and the electronic Notice of Intent (eNOI);
b. Information regarding type and characteristics of discharge (e.g., number of discharge points, estimated flow/volume, number of tailwater days);
c. Identification of any direct agricultural discharges to a stream, lake, estuary, bay, or ocean;
d. Identification of specific farm water quality management practices completed, in progress, and planned to address water quality impacts caused by discharges of waste including irrigation management, pesticide management, nutrient management, salinity management, stormwater management, and sediment and erosion control to achieve compliance with this Order; and identification of specific methods used, and described in the Farm Plan consistent with Order Provision 44.g., for the purposes of assessing the effectiveness of management practices implemented and the outcomes of such assessments;
e. Proprietary information question and justification;
f. Authorization and certification statement and declaration of penalty of perjury.

PART 5. GENERAL MONITORING AND REPORTING REQUIREMENTS

A. Submittal of Technical Reports

1. Dischargers must submit reports in a format specified by the Executive Officer. A transmittal letter must accompany each report, containing the following penalty of perjury statement signed by the Discharger or the Discharger's authorized agent:

   "In compliance with Water Code §13267, I certify under penalty of perjury that this document and all attachments were prepared by me, or under my direction or supervision following a system designed to assure that qualified personnel properly gather and evaluate the information submitted. To the best of my knowledge and belief, this document and all attachments are true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment".

[1] Items reported in the Annual Compliance Form are due by March 1, 2018, and annually thereafter, unless otherwise specified.

2. If the Discharger asserts that all or a portion of a report submitted pursuant to this Order is subject to an exemption from public disclosure (e.g. trade secrets or secret processes), the Discharger must provide an explanation of how those portions of the reports are exempt from public disclosure. The Discharger must clearly indicate on the cover of the report (typically an electronic submittal) that the Discharger asserts that all or a portion of the report is exempt from public disclosure, submit a complete report with those portions that are asserted to be exempt in redacted form, submit separately (in a separate electronic file) unredacted pages (to be maintained separately by staff). The Central Coast Water Board staff will determine whether any such report or portion of a report qualifies for an exemption from public disclosure. If the Central Coast Water Board staff disagrees with the asserted exemption from public disclosure, the Central Coast Water Board staff will notify the Discharger prior to making such report or portions of such report available for public inspection.

B. Central Coast Water Board Authority

1. Monitoring reports are required pursuant to section 13267 of the California Water Code. Pursuant to section 13268 of the Water Code, a violation of a request made pursuant to section 13267 may subject you to civil liability of up to $1000 per day.

2. The Water Board needs the required information to determine compliance with Order No. R3-2017-0002. The evidence supporting these requirements is included in the findings of Order No. R3-2017-0002.

_____

John M. Robertson
Executive Officer

March 8, 2017
_____
Date

Table 1. Major Waterbodies in Agricultural Areas[1]

Hydrologic SubArea	Waterbody Name	Hydrologic SubArea	Waterbody Name
30510	Pajaro River	30920	Quail Creek
30510	Salsipuedes Creek	30920	Salinas Reclamation Canal
30510	Watsonville Slough	31022	Chorro Creek
30510	Watsonville Creek[2]	31023	Los Osos Creek
30510	Beach Road Ditch[2]	31023	Warden Creek
30530	Carnadero Creek	31024	San Luis Obispo Creek
30530	Furlong Creek[2]	31024	Prefumo Creek
30530	Llagas Creek	31031	Arroyo Grande Creek
30530	Miller's Canal	31031	Los Berros Creek
30530	San Juan Creek	31210	Bradley Canyon Creek
30530	Tesquisquita Slough	31210	Bradley Channel
30600	Moro Cojo Slough	31210	Green Valley Creek
30910	Alisal Slough	31210	Main Street Canal
30910	Blanco Drain	31210	Orcutt Solomon Creek
30910	Old Salinas River	31210	Oso Flaco Creek
30910	Salinas River (below Gonzales Rd.)	31210	Little Oso Flaco Creek
30920	Salinas River above Gonzales Rd. and below Nacimiento R.)	31210	Santa Maria River
30910	Santa Rita Creek[2]	31310	San Antonio Creek[2]
30910	Tembladero Slough	31410	Santa Ynez River
30920	Alisal Creek	31531	Bell Creek
30920	Chualar Creek	31531	Glenn Annie Creek
30920	Espinosa Slough	31531	Los Carneros Creek[2]
30920	Gabilan Creek	31534	Arroyo Paredon Creek
30920	Natividad Creek	31534	Franklin Creek

[1] At a minimum, monitoring sites must be included for these waterbodies in agricultural areas, unless otherwise approved by the Executive Officer. Monitoring sites may be proposed for addition or modification to better assess the impacts of waste discharges from irrigated lands to surface water. Dischargers choosing to comply with surface receiving water quality monitoring, individually (not part of a cooperative monitoring program) must only monitor sites for waterbodies receiving the discharge.

[2] These creeks are included because they are newly listed waterbodies on the 2010 303(d) list of Impaired Waters that are associated with areas of agricultural discharge.

Table 2. Surface Receiving Water Quality Monitoring Parameters

Parameters and Tests	RL[3]	Monitoring Frequency[1]
Photo Monitoring		
Upstream and downstream photographs at monitoring location		With every monitoring event
WATER COLUMN SAMPLING		
Physical Parameters and General Chemistry		
Flow (field measure) (CFS) following SWAMP field SOP[9]	.25	Monthly, including 2 stormwater events
pH (field measure)	0.1	”
Electrical Conductivity (field measure) (µS/cm)	2.5	”
Dissolved Oxygen (field measure) (mg/L)	0.1	”
Temperature (field measure) (^{o}C)	0.1	”
Turbidity (NTU)	0.5	”
Total Dissolved Solids (mg/L)	10	”
Total Suspended Solids (mg/L)	0.5	”
Nutrients		
Total Nitrogen (mg/L)	0.5	Monthly, including 2 stormwater events
Nitrate + Nitrite (as N) (mg/L)	0.1	”
Total Ammonia (mg/L)	0.1	”
Unionized Ammonia (calculated value, mg/L))		”
Total Phosphorus (as P) (mg/L)	0.02	
Soluble Orthophosphate (mg/L)	0.01	”
Water column chlorophyll a (µg/L)	1.0	“
Algae cover, Floating Mats, % coverage	-	“
Algae cover, Attached, % coverage	-	“
Water Column Toxicity Test		
Algae - *Selenastrum capricornutum (*96-hour chronic; Method1003.0 in EPA/821/R-02/013)	-	4 times each year, twice in dry season, twice in wet season
Water Flea – *Ceriodaphnia dubia* (7-day chronic; Method 1002.0 in EPA/821/R-02/013)	-	”
Midge - *Chironomus spp.* (96-hour acute; Alternate test species in EPA 821-R-02-012)	-	“

Parameters and Tests	RL[3]	Monitoring Frequency[1]
Toxicity Identification Evaluation (TIE)	-	As directed by Executive Officer
Pesticides[2] /Herbicides (µg/L)		
Organophosphate Pesticides		
Azinphos-methyl	0.02	2 times in both 2017 and 2018, once in dry season and once in wet season of each year, concurrent with water toxicity monitoring
Chlorpyrifos	0.005	"
Diazinon	0.005	"
Dichlorvos	0.01	"
Dimethoate	0.01	"
Dimeton-s	0.005	"
Disulfoton (Disyton)	0.005	"
Malathion	0.005	"
Methamidophos	0.02	"
Methidathion	0.02	"
Parathion-methyl	0.02	"
Phorate	0.01	"
Phosmet	0.02	"
Neonicotinoids		
Thiamethoxam	.002	"
Imidacloprid	.002	"
Thiacloprid	.002	"
Dinotefuran	.006	"
Acetamiprid	.01	"
Clothianidin	.02	
Herbicides		
Atrazine	0.05	"
Cyanazine	0.20	"
Diuron	0.05	"
Glyphosate	2.0	"
Linuron	0.1	"
Paraquat	0.20	"
Simazine	0.05	"
Trifluralin	0.05	"
Metals (µg/L)		
Arsenic (total) [5,7]	0.3	2 times in both 2017 and 2018, once in dry season and once in wet season of each year, concurrent with water toxicity monitoring
Boron (total) [6,7]	10	"

Parameters and Tests	RL[3]	Monitoring Frequency[1]
Cadmium (total & dissolved) [4.5,7]	0.01	"
Copper (total and dissolved) [4,7]	0.01	"
Lead (total and dissolved) [4,7]	0.01	"
Nickel (total and dissolved) [4,7]	0.02	"
Molybdenum (total) [7]	1	"
Selenium (total)[7]	0.30	"
Zinc (total and dissolved) [4.5,7]	0.10	"
Other (µg/L)		
Total Phenolic Compounds[8]	5	2 times in 2017, once in spring (April-May) and once in fall (August-September)
Hardness (mg/L as CaCO3)	1	"
Total Organic Carbon (ug/L)	0.6	"
SEDIMENT SAMPLING		
Sediment Toxicity - *Hyalella azteca* 10-day static renewal (EPA, 2000)		2 times each year, once in spring (April-May) and once in fall (August-September)
Pyrethroid Pesticides in Sediment (µg/kg)		
Gamma-cyhalothrin	2	2 times in both 2017 and 2018, once in spring (April-May) and once in fall (August-September) of each year, concurrent with sediment toxicity sampling
Lambda-cyhalothrin	2	"
Bifenthrin	2	"
Beta-cyfluthrin	2	"
Cyfluthrin	2	"
Esfenvalerate	2	"
Permethrin	2	"
Cypermethrin	2	"
Danitol	2	"
Fenvalerate	2	"
Fluvalinate	2	"
Other Monitoring in Sediment		
Chlorpyrifos (µg/kg)	2	"
Total Organic Carbon	0.01%	"
		"
Sediment Grain Size Analysis	1%	"

[1]Monitoring is ongoing through all five years of the Order, unless otherwise specified. Monitoring frequency may be used as a guide for developing alternative Sampling and Analysis Plan.
[2]Pesticide list may be modified based on specific pesticide use in Central Coast Region. Analytes on this list must be reported, at a minimum.

[3] Reporting Limit, taken from SWAMP where applicable.
[4] Holmgren, Meyer, Cheney and Daniels. 1993. Cadmium, Lead, Zinc, Copper and Nickel in Agricultural Soils of the United States. J. of Environ. Quality 22:335-348.
[5]Sax and Lewis, ed. 1987. Hawley's Condensed Chemical Dictionary. 11th ed. New York: Van Nostrand Reinhold Co., 1987. Zinc arsenate is an insecticide.
[6]Http://www.coastalagro.com/products/labels/9%25BORON.pdf; Boron is applied directly or as a component of fertilizers as a plant nutrient.
[7]Madramootoo, Johnston, Willardson, eds. 1997. Management of Agricultural Drainage Water Quality. International Commission on Irrigation and Drainage. U.N. FAO. SBN 92-6-104058.3.
[8]http://cat.inist.fr/?aModele=afficheN&cpsidt=14074525; Phenols are breakdown products of herbicides and pesticides. Phenols can be directly toxic and cause endocrine disruption.
[9]See SWAMP field measures SOP, p. 17
mg/L – milligrams per liter; ug/L – micrograms per liter; ug/kg – micrograms per kilogram;
NTU – Nephelometric Turbidity Units; CFS – cubic feet per second;

Table 3. Groundwater Monitoring Parameters

Parameter	RL	Analytical Method[3]	Units
pH	0.1	Field or Laboratory Measurement EPA General Methods	pH Units
Specific Conductance	2.5		µS/cm
Total Dissolved Solids	10		mg/L
Total Alkalinity as CaCO3	1	EPA Method 310.1 or 310.2	
Calcium	0.05	General Cations[1] EPA 200.7, 200.8, 200.9	
Magnesium	0.02		
Sodium	0.1		
Potassium	0.1		
Sulfate (SO4)	1.0	General Anions EPA Method 300 or EPA Method 353.2	
Chloride	0.1		
Nitrate + Nitrite (as N)[2] or Nitrate as N	0.1		

[1]General chemistry parameters (major cations and anions) represent geochemistry of water bearing zone and assist in evaluating quality assurance/quality control of groundwater sampling and laboratory analysis.
[2]The MRP allows analysis of "nitrate plus nitrite" to represent nitrate concentrations (as N). The "nitrate plus nitrite" analysis allows for extended laboratory holding times and relieves the Discharger of meeting the short holding time required for nitrate.
[3]Dischargers may use alternative analytical methods approved by EPA.
RL – Reporting Limit; µS/cm – micro siemens per centimeter

Table4. Tier 2 - Time Schedule for Key Monitoring and Reporting Requirements (MRPs)

REQUIREMENT	TIME SCHEDULE[1]
Submit Sampling And Analysis Plan and Quality Assurance Project Plan (SAAP/QAPP) for Surface Receiving Water Quality Monitoring (*individually or through cooperative monitoring program*)	By March 1, 2018, or as directed by the Executive Officer; satisfied if an approved SAAP/QAPP has been submitted pursuant to Order No. R3-2012-0011 and associated MRPs
Initiate surface receiving water quality monitoring (*individually or through cooperative monitoring program*)	Per an approved SAAP and QAPP
Submit surface receiving water quality monitoring data (*individually or through cooperative monitoring program*)	Each January 1, April 1, July 1, and October 1
Submit surface receiving water quality Annual Monitoring Report *(individually or through cooperative monitoring program*)	By July 12017: annually thereafter by July 1
Initiate monitoring of groundwater wells	First sample from March-June 2017, second sample from September-December 2017
Submit electronic Annual Compliance Form	March 1, 2018 and every March 1 annually thereafter
Submit groundwater monitoring results	Within 60 days of the sample collection
Tier 2 Dischargers with farms/ranches growing high risk crops: Report total nitrogen applied on the Total Nitrogen Applied form	March 1, 2018 and every March 1annually thereafter

[1] Dates are relative to adoption of this Order or enrollment date for Dischargers enrolled after the adoption of this Order, unless otherwise specified.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

MONITORING AND REPORTING PROGRAM
ORDER NO. R3-2017-0002-03

TIER 3

DISCHARGERS ENROLLED UNDER
CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR
DISCHARGES FROM IRRIGATED LANDS

This Monitoring and Reporting Program Order No. R3-2017-0002-03 (MRP) is issued pursuant to California Water Code (Water Code) sections 13267 and 13269, which authorize the California Regional Water Quality Control Board, Central Coast Region (hereafter Central Coast Water Board) to require preparation and submittal of technical and monitoring reports. Water Code section 13269 requires a waiver of waste discharge requirements to include as a condition, the performance of monitoring and the public availability of monitoring results. *Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands,* Order No. R3-2017-0002 (Order), includes criteria and requirements for three tiers. This MRP sets forth monitoring and reporting requirements for **Tier 3 Dischargers** enrolled under the Order. A summary of the requirements is shown below.

SUMMARY OF MONITORING AND REPORTING REQUIREMENTS FOR TIER 3:

Part 1: Surface Receiving Water Monitoring and Reporting *(cooperative or individual)*
Part 2: Groundwater Monitoring and Reporting *(cooperative or individual)*
Total Nitrogen Applied Reporting *(required for subset of Tier 3 Dischargers if farm/ranch growing any crop with high nitrate loading risk to groundwater);*
Part 3: Annual Compliance Form
Part 5: Individual Surface Water Discharge Monitoring and Reporting
Part 6: Irrigation and Nutrient Management Plan *(required for subset of Tier 3 Dischargers if farm/ranch has High Nitrate Loading Risk)*
Part 7: Water Quality Buffer Plan *(required for subset of Tier 3 Dischargers if farm/ranch contains or is adjacent to a waterbody impaired for temperature, turbidity or sediment)*

Pursuant to Water Code section 13269(a)(2), monitoring requirements must be designed to support the development and implementation of the waiver program, including, but not limited to, verifying the adequacy and effectiveness of the waiver's conditions. The monitoring and reports required by this MRP are to evaluate effects of discharges of waste from irrigated agricultural operations and individual farms/ranches on waters of the state and to determine compliance with the Order.

MONITORING AND REPORTING BASED ON TIERS

The Order and MRP includes criteria and requirements for three tiers, based upon those characteristics of the individual farms/ranches at the operation that present the highest level of waste discharge or greatest risk to water quality. Dischargers must meet conditions of the Order and MRP for the appropriate tier that applies to their land and/or the individual farm/ranch. Within a tier, Dischargers comply with requirements based on the specific level of discharge and threat to water quality from individual farms/ranches. The lowest tier, Tier 1, applies to dischargers who discharge the lowest level of waste (amount or concentration) or pose the lowest potential to cause or contribute to an exceedance of water quality standards in waters of the State or of the United States. The highest tier, Tier 3, applies to dischargers who discharge the highest level of waste or pose the greatest potential to cause or contribute to an exceedance of water quality standards in waters of the State or of the United States. Tier 2 applies to dischargers whose discharge has a moderate threat to water quality. Water quality is defined in terms of regional, state, or federal numeric or narrative water quality standards. Per the Order, Dischargers may submit a request to the Executive Officer to approve transfer to a lower tier. If the Executive Officer approves a transfer to a lower tier, any interested person may request that the Central Coast Water Board conduct a review of the Executive Officer's determination.

PART 1. SURFACE RECEIVING WATER MONITORING AND REPORTING REQUIREMENTS

The surface receiving water monitoring and reporting requirements described herein are generally a continuation of the surface receiving water monitoring and reporting requirements of Monitoring and Reporting Program Order No. 2012-0011-03, as revised August 22, 2016, with the intent of uninterrupted regular monitoring and reporting during the transition from Order No. R3-2012-0011-03 to Order No. R3-2017-0002-03.

Monitoring and reporting requirements for surface receiving water identified in Part 1.A. and Part 1.B. apply to Tier 3 Dischargers. Surface receiving water refers to water flowing in creeks and other surface waters of the State. Surface receiving water monitoring may be conducted through a cooperative monitoring program on behalf of Dischargers, or Dischargers may choose to conduct surface receiving water monitoring and reporting individually. Key monitoring and reporting requirements for surface receiving water are shown in Tables 1 and 2. Time schedules are shown in Table 5.

A. Surface Receiving Water Quality Monitoring

1. Dischargers must elect a surface receiving water monitoring option (cooperative monitoring program or individual receiving water monitoring) to comply with surface receiving water quality monitoring requirements, and identify the option selected on the Notice of Intent (NOI).

2. Dischargers are encouraged to choose participation in a cooperative monitoring program (e.g., the existing Cooperative Monitoring Program or a similar program) to comply with receiving water quality monitoring requirements. Dischargers not participating in a cooperative monitoring program must conduct surface receiving water quality monitoring individually that achieves the same purpose.

3. Dischargers (individually or as part of a cooperative monitoring program) must conduct surface receiving water quality monitoring to a) assess the impacts of their waste discharges from irrigated lands to receiving water, b) assess the status of receiving water quality and beneficial use protection in impaired waterbodies dominated by irrigated agricultural activity, c) evaluate status, short term patterns and long term trends (five to ten years or more) in receiving water quality, d) evaluate water quality impacts resulting from agricultural discharges (including but not limited to tile drain discharges), e) evaluate stormwater quality, f) evaluate condition of existing perennial, intermittent, or ephemeral streams or riparian or wetland area habitat, including degradation resulting from erosion or agricultural discharges of waste, and g) assist in the identification of specific sources of water quality problems.

Surface Receiving Water Quality Sampling and Analysis Plan

4. **By March 1, 2018, or as directed by the Executive Officer**, Dischargers (individually or as part of a cooperative monitoring program) must submit a surface receiving water quality Sampling and Analysis Plan (SAAP) and Quality Assurance Project Plan (QAPP); this requirement is satisfied if an approved SAAP and QAPP addressing all surface receiving water quality monitoring requirements described in this Order has been submitted pursuant to Order No.R3-2012-0011 and associated Monitoring and Reporting Programs. Dischargers (or a third party cooperative monitoring program) must develop the Sampling and Analysis Plan to describe how the proposed monitoring will achieve the objectives of the MRP and evaluate compliance with the Order. The Sampling and Analysis Plan may propose alternative monitoring site locations, adjusted monitoring parameters, and other changes as necessary to assess the impacts of waste discharges from irrigated lands to receiving water. The Executive Officer must approve the Sampling and Analysis Plan and QAPP.

5. The Sampling and Analysis Plan must include the following minimum required components:
    a. Monitoring strategy to achieve objectives of the Order and MRP;
    b. Map of monitoring sites with GIS coordinates;

c. Identification of known water quality impairments and impaired waterbodies per the 2010 Clean Water Act 303(d) List of Impaired Waterbodies (List of Impaired Waterbodies);
d. Identification of beneficial uses and applicable water quality standards;
e. Identification of applicable Total Maximum Daily Loads;
f. Monitoring parameters;
g. Monitoring schedule, including description and frequencies of monitoring events;
h. Description of data analysis methods;

6. The QAPP must include receiving water and site-specific information, project organization and responsibilities, and quality assurance components of the MRP. The QAPP must also include the laboratory and field requirements to be used for analyses and data evaluation. The QAPP must contain adequate detail for project and Water Board staff to identify and assess the technical and quality objectives, measurement and data acquisition methods, and limitations of the data generated under the surface receiving water quality monitoring. All sampling and laboratory methodologies and QAPP content must be consistent with U.S. EPA methods, State Water Board's Surface Water Ambient Monitoring Program (SWAMP) protocols and the Central Coast Water Board's Central Coast Ambient Monitoring Program (CCAMP). Following U.S. EPA guidelines[1] and SWAMP templates[2], the receiving water quality monitoring QAPP must include the following minimum required components:
    a. Project Management. This component addresses basic project management, including the project history and objectives, roles and responsibilities of the participants, and other aspects.
    b. Data Generation and Acquisition. This component addresses all aspects of project design and implementation. Implementation of these elements ensures that appropriate methods for sampling, measurement and analysis, data collection or generation, data handling, and quality control activities are employed and are properly documented. Quality control requirements are applicable to all the constituents sampled as part of the MRP, as described in the appropriate method.
    c. Assessment and Oversight. This component addresses the activities for assessing the effectiveness of the implementation of the project and associated QA and QC activities. The purpose of the assessment is to provide project oversight that

[1] USEPA. 2001 (2006) USEPA Requirements for Quality Assurance Project Plans (QA/R-5) Office of Environmental Information, Washington, D.C. USEPA QA/R-5
[2] http://waterboards.ca.gov/water_issues/programs/swamp/tools.shtml#qa

will ensure that the QA Project Plan is implemented as prescribed.

d. Data Validation and Usability. This component addresses the quality assurance activities that occur after the data collection, laboratory analysis and data generation phase of the project is completed. Implementation of these elements ensures that the data conform to the specified criteria, thus achieving the MRP objectives.

7. The Central Coast Water Board may conduct an audit of contracted laboratories at any time in order to evaluate compliance with the QAPP.

8. The Sampling and Analysis Plan and QAPP, and any proposed revisions are subject to approval by the Executive Officer. The Executive Officer may also revise the Sampling and Analysis Plan, including adding, removing, or changing monitoring site locations, changing monitoring parameters, and other changes as necessary to assess the impacts of waste discharges from irrigated lands to receiving water.

Surface Receiving Water Quality Monitoring Sites

9. The Sampling and Analysis Plan must, at a minimum, include monitoring sites to evaluate waterbodies identified in Table 1, unless otherwise approved by the Executive Officer. The Sampling and Analysis Plan must include sites to evaluate receiving water quality impacts most directly resulting from areas of agricultural discharge (including areas receiving tile drain discharges). Site selection must take into consideration the existence of any long term monitoring sites included in related monitoring programs (e.g. CCAMP and the existing CMP). Sites may be added or modified, subject to prior approval by the Executive Officer, to better assess the pollutant loading from individual sources or the impacts to receiving waters caused by individual discharges. Any modifications must consider sampling consistency for purposes of trend evaluation.

Surface Receiving Water Quality Monitoring Parameters

10. The Sampling and Analysis Plan must, at a minimum, include the following types of monitoring and evaluation parameters listed below and identified in Table 2:

    a. Flow Monitoring;
    b. Water Quality (physical parameters, metals, nutrients, pesticides);
    c. Toxicity (water and sediment);
    d. Assessment of Benthic Invertebrates.

11. All analyses must be conducted at a laboratory certified for such analyses by the State Department of Public Health (CDPH) or at laboratories approved by the Executive Officer. Unless otherwise noted, all sampling, sample preservation, and analyses must be performed in accordance with the latest edition of *Test Methods for Evaluating Solid Waste*, SW-846, U.S. EPA, and analyzed as specified herein by the above analytical methods and reporting limits indicated. Certified laboratories can be found at the web link: http://www.cdph.ca.gov/certlic/labs/Documents/ELAPLablist.xls

12. Water quality and flow monitoring is used to assess the sources, concentrations, and loads of waste discharges from individual farms/ranches and groups of Dischargers to surface waters, to evaluate impacts to water quality and beneficial uses, and to evaluate the short term patterns and long term trends in receiving water quality. Monitoring data must be compared to existing numeric and narrative water quality objectives.

13. Toxicity testing is to evaluate water quality relative to the narrative toxicity objective. Water column toxicity analyses must be conducted on 100% (undiluted) sample. At sites where persistent unresolved toxicity is found, the Executive Officer may require concurrent toxicity and chemical analyses and a Toxicity Identification Evaluation (TIE) to identify the individual discharges causing the toxicity.

Surface Receiving Water Quality Monitoring Frequency and Schedule

14. The Sampling and Analysis Plan must include a schedule for sampling. Timing, duration, and frequency of monitoring must be based on the land use, complexity, hydrology, and size of the waterbody. Table 2 includes minimum monitoring frequency and parameter lists. Agricultural parameters that are less common may be monitored less frequently. Modifications to the receiving water quality monitoring parameters, frequency, and schedule may be submitted for Executive Officer consideration and approval. At a minimum, the Sampling and Analysis Plan schedule must consist of monthly monitoring of common agricultural parameters in major agricultural areas, including two major storm events during the wet season (October 1 – April 30).

15. Storm event monitoring must be conducted within 18 hours of storm events, preferably including the first flush run-off event that results in significant increase in stream flow. For purposes of this MRP, a storm event is defined as precipitation producing onsite runoff (surface water flow) capable of creating significant ponding, erosion or other water quality problem. A

significant storm event will generally result in greater than 1-inch of rain within a 24-hour period.

16. Dischargers (individually or as part of a cooperative monitoring program) must perform receiving water quality monitoring per the Sampling and Analysis Plan and QAPP approved by the Executive Officer.

B. Surface Receiving Water Quality Reporting

Surface Receiving Water Quality Data Submittal

1. Dischargers (individually or as part of a cooperative monitoring program) must submit water quality monitoring data to the Central Coast Water Board electronically, in a format specified by the Executive Officer and compatible with SWAMP/CCAMP electronic submittal guidelines, each January 1, April 1, July 1, and October 1.

Surface Receiving Water Quality Monitoring Annual Report

2. By July 1, 2017, and every July 1 annually thereafter, Dischargers (individually or as part of a cooperative monitoring program) must submit an Annual Report, electronically, in a format specified by the Executive Officer including the following minimum elements:

a. Signed Transmittal Letter;
b. Title Page;
c. Table of Contents;
d. Executive Summary;
e. Summary of Exceedance Reports submitted during the reporting period;
f. Monitoring objectives and design;
g. Monitoring site descriptions and rainfall records for the time period covered;
h. Location of monitoring sites and map(s);
i. Tabulated results of all analyses arranged in tabular form so that the required information is readily discernible;
j. Summary of water quality data for any sites monitored as part of related monitoring programs, and used to evaluate receiving water as described in the Sampling and Analysis Plan.
k. Discussion of data to clearly illustrate compliance with the Order and water quality standards;
l. Discussion of short term patterns and long term trends in receiving water quality and beneficial use protection;

m. Evaluation of pesticide and toxicity analyses results, and recommendation of candidate sites for Toxicity Identification Evaluations (TIEs);
n. Identification of the location of any agricultural discharges observed discharging directly to surface receiving water;
o. Laboratory data submitted electronically in a SWAMP/CCAMP comparable format;
p. Sampling and analytical methods used;
q. Copy of chain-of-custody forms;
r. Field data sheets, signed laboratory reports, laboratory raw data;
s. Associated laboratory and field quality control samples results;
t. Summary of Quality Assurance Evaluation results;
u. Specify the method used to obtain flow at each monitoring site during each monitoring event;
v. Electronic or hard copies of photos obtained from all monitoring sites, clearly labeled with site ID and date;
w. Conclusions.

PART 2. GROUNDWATER MONITORING AND REPORTING REQUIREMENTS

Groundwater monitoring may be conducted through a cooperative monitoring and reporting program on behalf of growers, or Dischargers may choose to conduct groundwater monitoring and reporting individually. Qualifying cooperative groundwater monitoring and reporting programs must implement the groundwater monitoring and reporting requirements described in this Order, unless otherwise approved by the Executive Officer. An interested person may seek review by the Central Coast Water Board of the Executive Officer's approval or denial of a cooperative groundwater monitoring and reporting program.

Key monitoring and reporting requirements for groundwater are shown in Table 3.

A. Groundwater Monitoring

1. Dischargers must sample private domestic wells and the primary irrigation well on their farm/ranch to evaluate groundwater conditions in agricultural areas, identify areas at greatest risk for nitrogen loading and exceedance of drinking water standards, and identify priority areas for follow up actions.

2. Dischargers must sample at least one groundwater well for each farm/ranch on their operation, including groundwater wells that are located within the property boundary of the enrolled county assessor parcel numbers (APNs). For farms/ranches with multiple groundwater wells, Dischargers must sample all domestic wells and the primary irrigation well. For the purposes of this MRP, a "domestic well" is any well that is used or may be used for domestic

use purposes, including any groundwater well that is connected to a residence, workshop, or place of business that may be used for human consumption, cooking, or sanitary purposes. Groundwater monitoring parameters must include well screen interval depths (if available), general chemical parameters, and general cations and anions listed in Table 3.

3. Dischargers must conduct two rounds of monitoring of required groundwater wells during calendar year 2017; one sample collected during spring (**March - June)** and one sample collected during fall **(September - December)**.

4. Groundwater samples must be collected by a qualified third party (e.g., consultant, technician, person conducting cooperative monitoring) using proper sampling methods, chain-of-custody, and quality assurance/quality control protocols. Groundwater samples must be collected at or near the well head before the pressure tank and prior to any well head treatment. In cases where this is not possible, the water sample must be collected from a sampling point as close to the pressure tank as possible, or from a cold-water spigot located before any filters or water treatment systems.

5. Laboratory analyses for groundwater samples must be conducted by a State certified laboratory according to U.S. EPA approved methods; unless otherwise noted, all monitoring, sample preservation, and analyses must be performed in accordance with the latest edition of *Test Methods for Evaluating Solid Waste*, SW-846, United States Environmental Protection Agency, and analyzed as specified herein by the above analytical methods and reporting limits indicated. Certified laboratories can be found at the web link below: http://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/docs/resources4growers/2016_04_11_labs.pdf

6. If a discharger determines that water in any domestic well exceeds 10 mg/L of nitrate as N, the discharger or third party must provide notice to the Central Coast Water Board within 24 hours of learning of the exceedance. For domestic wells on a Discharger's farm/ranch that exceed 10 mg/L nitrate as N, the Discharger must provide written notification to the users within 10 days of learning of the exceedance and provide written confirmation of the notification to the Central Coast Water Board.

   The drinking water notification must include the statement that the water poses a human health risk due to elevated nitrate concentration, and include a warning against the use of the water for drinking or cooking. In addition, Dischargers must also provide prompt written notification to any new well users (e.g. tenants and employees with access to the affected well), whenever there is a change in occupancy.

For all other domestic wells not on a Discharger's property, the Central Coast Water Board will notify the users promptly.

The drinking water notification and confirmation letters required by this Order are available to the public.

B. Groundwater Reporting

1. **Within 60 days of sample collection,** Dischargers must coordinate with the laboratory to submit the following groundwater monitoring results and information, electronically, using the Water Board's GeoTracker electronic deliverable format (EDF):
    a. GeoTracker Ranch Global Identification Number
    b. Field point name (Well Name)
    c. Field Point Class (Well Type)
    d. Latitude
    e. Longitude
    f. Sample collection date
    g. Analytical results
    h. Well construction information (e.g., total depth, screened intervals, depth to water), as available

2. Dischargers must submit groundwater well information required in the electronic Notice of Intent (eNOI) for each farm/ranch and update the eNOI to reflect changes in the farm/ranch information within 30 days of the change. Groundwater well information reported on the eNOI includes, but is not limited to:
    a. Number of groundwater wells present at each farm/ranch
    b. Identification of any groundwater wells abandoned or destroyed (including method destroyed) in compliance with the Order
    c. Use for fertigation or chemigation
    d. Presence of back flow prevention devices
    e. Number of groundwater wells used for agricultural purposes
    f. Number of groundwater wells used for or may be used for domestic use purposes (domestic wells)

C. Total Nitrogen Applied Reporting

1. By March 1, 2018, and by March 1 annually thereafter, Tier 3 Dischargers growing any crop with a high potential to discharge nitrogen to groundwater must record and report total nitrogen applied for each specific crop that was irrigated and grown for commercial purposes on that farm/ranch during the preceding calendar year (January through December).

    Crops with a high potential to discharge nitrogen to groundwater are: beet,

broccoli, cabbage, cauliflower, celery, Chinese cabbage (napa), collard, endive, kale, leek, lettuce (leaf and head), mustard, onion (dry and green), spinach, strawberry, pepper (fruiting), and parsley.

Total nitrogen applied must be reported on the Total Nitrogen Applied Report form as described in the Total Nitrogen Applied Report form instructions.

Total nitrogen applied includes any product containing any form or concentration of nitrogen including, but not limited to, organic and inorganic fertilizers, slow release products, compost, compost teas, manure, and extracts.

2. The Total Nitrogen Applied Report form includes the following information:
    a. General ranch information such as GeoTracker file numbers, name, location, acres.
    b. Nitrogen concentration of irrigation water
    c. Nitrogen applied in pounds per acre with irrigation water
    d. Nitrogen present in the soil
    e. Nitrogen applied with compost and amendments
    f. Specific crops grown
    g. Nitrogen applied in pounds per acre with fertilizers and other materials to each specific crop grown
    h. Crop acres of each specific crop grown
    i. Whether each specific crop was grown organically or conventionally
    j. Basis for the nitrogen applied
    k. Explanation and comments section
    l. Certification statement with penalty of perjury declaration
    m. Additional information regarding whether each specific crop was grown in a nursery, greenhouse, hydroponically, in containers, and similar variables.

PART 3. ANNUAL COMPLIANCE FORM

Tier 3 Dischargers must submit annual compliance information, electronically, on the Annual Compliance Form. The purpose of the electronic Annual Compliance Form is to provide information to the Central Coast Water Board to assist in the evaluation of threat to water quality from individual agricultural discharges of waste and measure progress towards water quality improvement and verify compliance with the Order and MRP. Time schedules are shown in Table 5.

A. Annual Compliance Form

1. **By March 1, 2018, and updated annually thereafter by March 1**, Tier 3 Dischargers must submit an Annual Compliance Form electronically, in a format specified by the Executive Officer. The electronic Annual Compliance Form includes, but is not limited to the following minimum requirements[1]:
    a. Question regarding consistency between the Annual Compliance Form and the electronic Notice of Intent (eNOI);
    b. Information regarding type and characteristics of discharge (e.g., number of discharge points, estimated flow/volume, number of tailwater days);
    c. Identification of any direct agricultural discharges to a stream, lake, estuary, bay, or ocean;
    d. Identification of specific farm water quality management practices completed, in progress, and planned to address water quality impacts caused by discharges of waste including irrigation management, pesticide management, nutrient management, salinity management, stormwater management, and sediment and erosion control to achieve compliance with this Order; and identification of specific methods used, and described in the Farm Plan consistent with Order Provision 44.g., for the purposes of assessing the effectiveness of management practices implemented and the outcomes of such assessments:
    e. Proprietary information question and justification;
    f. Authorization and certification statement and declaration of penalty of perjury.

PART 5. INDIVIDUAL SURFACE WATER DISCHARGE MONITORING AND REPORTING REQUIREMENTS

Monitoring and reporting requirements for individual surface water discharge identified in Part 5.A. and Part 5.B. apply to Tier 3 Dischargers with irrigation water or stormwater discharges to surface water from an outfall. Outfalls are locations where irrigation water and stormwater exit a farm/ranch, or otherwise leave the control of the discharger, after being conveyed by pipes, ditches, constructed swales, tile drains, containment structures, or other discrete structures or features that transport the water. Discharges that have commingled with discharges from another farm/ranch are considered to have left the control of the discharger. Key monitoring and reporting requirements for individual surface water discharge are shown in Tables 4A and 4B. Time schedules are shown in Table 5.

[1] Items reported in the Annual Compliance Form are due by March 1 2018, and annually thereafter, unless otherwise specified.

A. Individual Surface Water Discharge Monitoring

1. Tier 3 Dischargers must conduct individual surface water discharge monitoring to a) evaluate the quality of individual waste discharges, including concentration and load of waste (in kilograms per day) for appropriate parameters, b) evaluate effects of waste discharge on water quality and beneficial uses, and c) evaluate progress towards compliance with water quality improvement milestones in the Order.

Individual Sampling and Analysis Plan

2. **By March 1, 2018, or as directed by the Executive Officer**, Tier 3 Dischargers must submit an individual surface water discharge Sampling and Analysis Plan (SAAP) and QAPP to monitor individual discharges of irrigation water and stormwater that leaves their farm/ranch from an outfall. The Sampling and Analysis Plan and QAPP must be submitted to the Executive Officer; this requirement is satisfied if an approved SAAP and QAPP addressing all individual surface water discharge monitoring requirements described in this Order has been submitted pursuant to Order No.R3-2012-0011 and associated Monitoring and Reporting Programs.

3. The Sampling and Analysis Plan must include the following minimum required components to monitor irrigation water and stormwater discharges:
    a. Number and location of outfalls (identified with latitude and longitude or on a scaled map);
    b. Number and location of monitoring points;
    c. Description of typical irrigation runoff patterns;
    d. Map of discharge and monitoring points;
    e. Sample collection methods;
    f. Monitoring parameters;
    g. Monitoring schedule and frequency of monitoring events;

4. The QAPP must include appropriate methods for sampling, measurement and analysis, data collection or generation, data handling, quality control activities, and documentation.

5. The Sampling and Analysis Plan and QAPP, and any proposed revisions are subject to approval by the Executive Officer. The Executive Officer may require modifications to the Sampling and Analysis Plan or Tier 3 Dischargers may propose Sampling and Analysis Plan modifications for Executive Officer approval, when modifications are justified to accomplish the objectives of the MRP.

Individual Surface Water Discharge Monitoring Points

6. Tier 3 Dischargers must select monitoring points to characterize at least 80% of the estimated maximum irrigation run-off discharge volume from each farm/ranch based on that farm's/ranch's typical discharge patterns[1], including tailwater discharges and discharges from tile drains. Sample must be taken when irrigation activity is causing maximal run-off. Load estimates will be generated by multiplying flow volume of discharge by concentration of contaminants. Tier 3 Dischargers must include at least one monitoring point from each farm/ranch which drains areas where chlorpyrifos or diazinon are applied, and monitoring of runoff or tailwater must be conducted within one week of chemical application. If discharge is not routinely present, Discharger may characterize typical run-off patterns in the Annual Report. See Table 4A for additional details.

7. Tier 3 Dischargers must also monitor storage ponds and other terminal surface water containment structures that collect irrigation and stormwater runoff, unless the structure is (1) part of a tail-water return system where a major portion of the water in such structure is reapplied as irrigation water, or (2) the structure is primarily a sedimentation pond by design with a short hydraulic residence time (96 hours or less) and a discharge to surface water when functioning. If multiple ponds are present, sampling must cover at least those structures that would account for 80% of the maximum storage volume of the containment features. See Table 4B for additional details. Where water is reapplied as irrigation water. Dischargers shall document reuse in the Farm Plan.

Individual Surface Water Discharge Monitoring Parameters, Frequency, and Schedule

8. Tier 3 Dischargers must conduct monitoring for parameters, laboratory analytical methods, frequency and schedule described in Tables 4A and 4B. Dischargers may utilize in-field water testing instruments/equipment as a substitute for laboratory analytical methods if the method is approved by U.S. EPA, meets reporting limits (RL) and practical quantitation limits (PQL) specifications in the MRP, and appropriate sampling methodology and quality assurance checks can be applied to ensure that QAPP standards are met to ensure accuracy of the test.

[1] The requirement to select monitoring points to characterize at least 80% of the estimated maximum irrigation run-off based on typical discharge patterns is for the purposes of attempting to collect samples that represent a majority of the volume of irrigation run-off discharged; however the Board recognizes that predetermining these locations is not always possible and that sampling results may vary. The MRP does not specify the number or location of monitoring points to provide maximum flexibility for growers to determine how many sites necessary and exact locations are given the anticipated site-specific conditions.

9. Tier 3 Dischargers must initiate individual surface water discharge monitoring per an approved Sampling and Analysis Plan and QAPP, unless otherwise directed by the Executive Officer.

B. Individual Surface Water Discharge Reporting

Individual Surface Water Discharge Monitoring Data Submittal

By March 1, 2018, and annually thereafter by March 1, Tier 3 Dischargers must submit individual surface water discharge monitoring data and information to the Central Coast Water Board electronically, in a pdf format, containing at least the following items, or as otherwise approved by the Executive Officer:

a. Electronic laboratory data
- All reports of results must contain Ranch name and Global ID, site name(s), project contact, and date.
- Electronic laboratory data reports of chemical results shall include analytical results, as well as associated quality assurance data including method detection limits, reporting limits, matrix spikes, matrix spike duplicates, laboratory blanks, and other quality assurance results required by the analysis method.
- Electronic laboratory data reports of toxicity results shall include summary results comparable to those required in a CEDEN file delivery, including test and control results. For each test result, the mean, associated control performance, calculated percent of control, statistical test results and determination of toxicity, must be included. Test results must specify the control ID used to calculate statistical outcomes.
- Field data results, including temperature, pH, conductivity, turbidity and flow measurements, any field duplicates or blanks, and field observations.
- Calculations of un-ionized ammonia concentrations
- Calculations of total flow and pollutant loading (for nitrate, pesticides if sampled, total ammonia, and turbidity) (include formulas);

b. Narrative description of typical irrigation runoff patterns;
c. Location of sampling sites and map(s);
d. Sampling and analytical methods used;
e. Specify the method used to obtain flow at each monitoring site during each monitoring event;
f. Photos obtained from all monitoring sites, clearly labeled with location and date;
g. Sample chain-of-custody forms do not need to be submitted but must be made available to Central Coast Water Board staff, upon request.

PART 6. IRRIGATION AND NUTRIENT MANAGEMENT PLAN

Monitoring and reporting requirements related to the Irrigation and Nutrient Management Plan (INMP) identified in Part 6.A., and 6.B, apply to Tier 3 Dischargers identified by the Executive Officer that are newly enrolled in Order No. R3-2017-0002, and Tier 3 Dischargers that were subject to Irrigation and Nutrient Management Plan Requirements in Order R3-2012-0011 per MRP Order No. R3-2012-0011-03 Time schedules are shown in Table 5.

A. Irrigation and Nutrient Management Plan Monitoring

1. Tier 3 Dischargers required in Order No. R3-2012-0011 to develop and initiate implementation of an Irrigation and Nutrient Management Plan (INMP) certified by a Professional Soil Scientist, Professional Agronomist, or Crop Advisor certified by the American Society of Agronomy, or similarly qualified professional, are required to update (as necessary) and implement their INMP throughout the term of this Order.

2. The Executive Officer will assess whether an INMP is required for new Tier 3 Dischargers that enroll in Order No. R3-2017-0002 during the term of the Order. The Executive Officer will use the criteria established in Order No. R3-2012-0011 to make this assessment. If a Tier 3 Discharger is required to develop an INMP, the Tier 3 discharger must develop and initiate implementation of an Irrigation and Nutrient Management Plan (INMP) certified by a Professional Soil Scientist, Professional Agronomist, or Crop Advisor certified by the American Society of Agronomy, or similarly qualified professional, **within 18 months** of the Executive Officer's assessment of the INMP requirement.
3. The purpose of the INMP is to budget and manage the nutrients applied to each farm/ranch considering all sources of nutrients, crop requirements, soil types, climate, and local conditions in order to minimize nitrate loading to surface water and groundwater in compliance with this Order. The professional certification of the INMP must indicate that the relevant expert has reviewed all necessary documentation and testing results, evaluated total nitrogen applied relative to typical crop nitrogen uptake and nitrogen removed at harvest, with consideration to potential nitrate loading to groundwater, and conducted field verification to ensure accuracy of reporting.
4. Tier 3 Dischargers required to develop and initiate implementation an (INMP) must include the following elements in the INMP. The INMP is not submitted to the Central Coast Water Board, with the exception of the INMP Effectiveness Report:
    a. Proof of INMP certification;
    b. Map locating each farm/ranch;
    c. Identification of crop nitrogen uptake values for use in nutrient balance calculations;

d. Record keeping annually by either Method 1 or Method 2:

e. To meet the requirement to record total nitrogen in the soil,dischargers may take a nitrogen soil sample (e.g. laboratory analysis or nitrate quick test) or use an alternative method to evaluate nitrogen content in soil, prior to planting or seeding the field or prior to the time of pre-sidedressing, or at an alternative time when it is most effective to determine nitrogen present in the soil that is available for the next crop and to minimize nitrate leaching to groundwater. The amount of nitrogen remaining in the soil must be accounted for as a source of nitrogen when budgeting, and the soil sample or alternative method results must be maintained in the INMP.
f. Identification of irrigation and nutrient management practices in progress (identify start date), completed (identify completion date), and planned (identify anticipated start date) to reduce nitrate loading to groundwater to achieve compliance with this Order.
g. Description of methods Discharger will use to verify overall effectiveness of the INMP.

5. Tier 3 Dischargers must evaluate the effectiveness of the INMP. Irrigation and Nutrient Management Plan effectiveness monitoring must evaluate reduction in new nitrogen[1] loading potential based on minimized fertilizer use and improved irrigation and nutrient management practices in order to minimize new nitrogen loading to surface water and groundwater. Evaluation methods used may include, but are not limited to analysis of groundwater well monitoring data or soil sample data, or analysis of trends in new nitrogen application data.

B. Irrigation and Nutrient Management Plan Reporting

1. **By March 1, 2019**, Tier 3 Dischargers required to develop and initiate implementation of an INMP must submit an INMP Effectiveness Report to evaluate reductions in nitrate loading to surface water and groundwater based on the implementation of irrigation and nutrient management practices in a format specified by the Executive Officer. Dischargers in the same groundwater basin or subbasin may choose to comply with this requirement as a group by submitting a single report that evaluates the overall effectiveness of the broad scale implementation of irrigation and nutrient management practices identified in individual INMPs to protect groundwater. Group efforts must use data from each farm/ranch (e.g., data from individual groundwater wells, soil samples, or nitrogen application). The INMP

[1] New nitrogen is nitrogen from fertilizers, amendments, and other nitrogen sources applied other than nitrogen present in groundwater.

Effectiveness Report must include a description of the methodology used to evaluate and verify effectiveness of the INMP.

PART 7. WATER QUALITY BUFFER PLAN

Monitoring and reporting requirements related to the Water Quality Buffer Plan identified in Part 7.A. and Part 7.B. apply to Tier 3 Dischargers that have farms/ranches *that contain or are adjacent to waterbody identified on the List of Impaired Waterbodies as impaired for temperature, turbidity, or sediment).* Time schedules are shown in Table 5.

A. Water Quality Buffer Plan

1. **By 18 months following enrollment in Order No. R3-2017-0002 of a Tier 3 farm/ranch**, Tier 3 Dischargers adjacent to or containing a waterbody identified on the List of Impaired Waterbodies as impaired for temperature, turbidity or sediment must submit a Water Quality Buffer Plan (WQBP) to the Executive Officer that protects the listed waterbody and its associated perennial and intermittent tributaries. The purpose of the Water Quality Buffer Plan is to prevent waste discharge, comply with water quality standards (e.g., temperature, turbidity, sediment), and protect beneficial uses in compliance with this Order and the following Basin Plan requirement:

   Basin Plan (Chapter 5, p. V-13, Section V.G.4 – Erosion and Sedimentation, *"A filter strip of appropriate width, and consisting of undisturbed soil and riparian vegetation or its equivalent, must be maintained, wherever possible, between significant land disturbance activities and watercourses, lakes, bays, estuaries, marshes, and other water bodies. For construction activities, minimum width of the filter strip must be thirty feet, wherever possible…."*

2. The Water Quality Buffer Plan must include the following or the functional equivalent, to address discharges of waste and associated water quality impairments:

   a. A minimum 30 foot buffer (as measured horizontally from the top of bank on either side of the waterway, or from the high water mark of a lake and mean high tide of an estuary);
   b. Any necessary increases in buffer width to adequately prevent the discharge of waste that may cause or contribute to any excursion above or outside the acceptable range for any Regional, State, or Federal numeric or narrative water quality standard (e.g., temperature, turbidity);

c. Any buffer less than 30 feet must provide equivalent water quality protection and be justified based on an analysis of site-specific conditions and be approved by the Executive Officer;
d. Identification of any alternatives implemented to comply with this requirement, that are functionally equivalent to described buffer;
e. Schedule for implementation;
f. Maintenance provisions to ensure water quality protection;
g. Annual photo monitoring;

2. The WQPB must be submitted using the Water Quality Buffer Plan form, or, if an alternative to the WQBP is submitted, in a format approved by the Executive Officer.

3. **By March 1, 2019**, Tier 3 Dischargers that submitted a WQBP pursuant to Order No. R3-2012-0011 or Order No. R3-2017-0002, are required to update (as necessary) and implement their WQBP, and annually submit a WQBP Status Report of their WQBP implementation using the Water Quality Buffer Plan form, or, if an alternative to the WQBP was submitted, an Alternative to WQBP Status Report, electronically, in a format approved by the Executive Officer.

PART 8. GENERAL MONITORING AND REPORTING REQUIREMENTS

A. Submittal of Technical Reports

1. Dischargers must submit reports in a format specified by the Executive Officer (reports will be submitted electronically, unless otherwise specified by the Executive Officer). A transmittal letter must accompany each report, containing the following penalty of perjury statement signed by the Discharger or the Discharger's authorized agent:

   "In compliance with Water Code §13267, I certify under penalty of perjury that this document and all attachments were prepared by me, or under my direction or supervision following a system designed to assure that qualified personnel properly gather and evaluate the information submitted. To the best of my knowledge and belief, this document and all attachments are true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment".

2. If the Discharger asserts that all or a portion of a report submitted pursuant to this Order is subject to an exemption from public disclosure (e.g. trade secrets or secret processes), the Discharger must provide an explanation of how those portions of the reports are exempt from public disclosure. The

Discharger must clearly indicate on the cover of the report (typically an electronic submittal) that the Discharger asserts that all or a portion of the report is exempt from public disclosure, submit a complete report with those portions that are asserted to be exempt in redacted form, submit separately (in a separate electronic file) unredacted pages (to be maintained separately by staff). The Central Coast Water Board staff will determine whether any such report or portion of a report qualifies for an exemption from public disclosure. If the Central Coast Water Board staff disagrees with the asserted exemption from public disclosure, the Central Coast Water Board staff will notify the Discharger prior to making such report or portions of such report available for public inspection.

B. Central Coast Water Board Authority

1. Monitoring reports are required pursuant to section 13267 of the California Water Code. Pursuant to section 13268 of the Water Code, a violation of a request made pursuant to section 13267 may subject you to civil liability of up to $1000 per day.

2. The Water Board needs the required information to determine compliance with Order No.R3-2017-0002. The evidence supporting these requirements is included in the findings of Order No.R3-2017-0002.

_____

John M. Robertson
Executive Officer

_____

Date

Table 1. Major Waterbodies in Agricultural Areas[1]

Hydrologic SubArea	Waterbody Name	Hydrologic SubArea	Waterbody Name
30510	Pajaro River	30920	Quail Creek
30510	Salsipuedes Creek	30920	Salinas Reclamation Canal
30510	Watsonville Slough	31022	Chorro Creek
30510	Watsonville Creek[2]	31023	Los Osos Creek
30510	Beach Road Ditch[2]	31023	Warden Creek
30530	Carnadero Creek	31024	San Luis Obispo Creek
30530	Furlong Creek[2]	31024	Prefumo Creek
30530	Llagas Creek	31031	Arroyo Grande Creek
30530	Miller's Canal	31031	Los Berros Creek
30530	San Juan Creek	31210	Bradley Canyon Creek
30530	Tesquisquita Slough	31210	Bradley Channel
30600	Moro Cojo Slough	31210	Green Valley Creek
30910	Alisal Slough	31210	Main Street Canal
30910	Blanco Drain	31210	Orcutt Solomon Creek
30910	Old Salinas River	31210	Oso Flaco Creek
30910	Salinas River (below Gonzales Rd.)	31210	Little Oso Flaco Creek
30920	Salinas River (above Gonzales Rd. and below Nacimiento R.)	31210	Santa Maria River
30910	Santa Rita Creek[2]	31310	San Antonio Creek[2]
30910	Tembladero Slough	31410	Santa Ynez River
30920	Alisal Creek	31531	Bell Creek
30920	Chualar Creek	31531	Glenn Annie Creek
30920	Espinosa Slough	31531	Los Carneros Creek[2]
30920	Gabilan Creek	31534	Arroyo Paredon Creek
30920	Natividad Creek	31534	Franklin Creek

[1] At a minimum, monitoring sites must be included for these waterbodies in agricultural areas, unless otherwise approved by the Executive Officer. Monitoring sites may be proposed for addition or modification to better assess the impacts of waste discharges from irrigated lands to surface water. Dischargers choosing to comply with surface receiving water quality monitoring, individually (not part of a cooperative monitoring program) must only monitor sites for waterbodies receiving the discharge.

[2] These creeks are included because they are newly listed waterbodies on the 2010 303(d) list of Impaired Waters that are associated with areas of agricultural discharge.

Table 2. Surface Receiving Water Quality Monitoring Parameters

Parameters and Tests	RL[3]	Monitoring Frequency[1]
Photo Monitoring		
Upstream and downstream photographs at monitoring location		With every monitoring event
WATER COLUMN SAMPLING		
Physical Parameters and General Chemistry		
Flow (field measure) (CFS) following SWAMP field SOP[9]	.25	Monthly, including 2 stormwater events
pH (field measure)	0.1	”
Electrical Conductivity (field measure) (µS/cm)	2.5	”
Dissolved Oxygen (field measure) (mg/L)	0.1	”
Temperature (field measure) (^{o}C)	0.1	”
Turbidity (NTU)	0.5	”
Total Dissolved Solids (mg/L)	10	”
Total Suspended Solids (mg/L)	0.5	”
Nutrients		
Total Nitrogen (mg/L)	0.5	Monthly, including 2 stormwater events
Nitrate + Nitrite (as N) (mg/L)	0.1	”
Total Ammonia (mg/L)	0.1	”
Unionized Ammonia (calculated value, mg/L))		”
Total Phosphorus (as P) (mg/L)	0.02	
Soluble Orthophosphate (mg/L)	0.01	”
Water column chlorophyll a (µg/L)	1.0	“
Algae cover, Floating Mats, % coverage	-	“
Algae cover, Attached, % coverage	-	“
Water Column Toxicity Test		
Algae - *Selenastrum capricornutum (*96-hour chronic; Method1003.0 in EPA/821/R-02/013)	-	4 times each year, twice in dry season, twice in wet season
Water Flea – *Ceriodaphnia dubia* (7-day chronic; Method 1002.0 in EPA/821/R-02/013)	-	”
Midge - *Chironomus spp.* (96-hour acute; Alternate test species in EPA 821-R-02-012)	-	“

Parameters and Tests	RL[3]	Monitoring Frequency[1]
Toxicity Identification Evaluation (TIE)	-	As directed by Executive Officer
Pesticides[2] /Herbicides (µg/L)		
Organophosphate Pesticides		
Azinphos-methyl	0.02	2 times in both 2017 and 2018, once in dry season and once in wet season of each year, concurrent with water toxicity monitoring
Chlorpyrifos	0.005	"
Diazinon	0.005	"
Dichlorvos	0.01	"
Dimethoate	0.01	"
Dimeton-s	0.005	"
Disulfoton (Disyton)	0.005	"
Malathion	0.005	"
Methamidophos	0.02	"
Methidathion	0.02	"
Parathion-methyl	0.02	"
Phorate	0.01	"
Phosmet	0.02	"
Neonicotinoids		
Thiamethoxam	.002	"
Imidacloprid	.002	"
Thiacloprid	.002	"
Dinotefuran	.006	"
Acetamiprid	.01	"
Clothianidin	.02	
Herbicides		
Atrazine	0.05	"
Cyanazine	0.20	"
Diuron	0.05	"
Glyphosate	2.0	"
Linuron	0.1	"
Paraquat	0.20	"
Simazine	0.05	"
Trifluralin	0.05	"
Metals (µg/L)		
Arsenic (total) [5,7]	0.3	2 times in both 2017 and 2018, once in dry season and once in wet season of each year, concurrent with water toxicity monitoring
Boron (total) [6,7]	10	"
Cadmium (total & dissolved) [4.5,7]	0.01	"

Parameters and Tests	RL[3]	Monitoring Frequency[1]
Copper (total and dissolved) [4,7]	0.01	"
Lead (total and dissolved) [4,7]	0.01	"
Nickel (total and dissolved) [4,7]	0.02	"
Molybdenum (total) [7]	1	"
Selenium (total)[7]	0.30	"
Zinc (total and dissolved) [4.5,7]	0.10	"
Other (µg/L)		
Total Phenolic Compounds[8]	5	2 times in 2017, once in spring (April-May) and once in fall (August-September)
Hardness (mg/L as CaCO3)	1	"
Total Organic Carbon (ug/L)	0.6	"
SEDIMENT SAMPLING		
Sediment Toxicity - *Hyalella azteca* 10-day static renewal (EPA, 2000)		2 times each year, once in spring (April-May) and once in fall (August-September)
Pyrethroid Pesticides in Sediment (µg/kg)		
Gamma-cyhalothrin	2	2 times in both 2017 and 2018, once in spring (April-May) and once in fall (August-September) of each year, concurrent with sediment toxicity sampling
Lambda-cyhalothrin	2	"
Bifenthrin	2	"
Beta-cyfluthrin	2	"
Cyfluthrin	2	"
Esfenvalerate	2	"
Permethrin	2	"
Cypermethrin	2	"
Danitol	2	"
Fenvalerate	2	"
Fluvalinate	2	"
Other Monitoring in Sediment		
Chlorpyrifos (µg/kg)	2	"
Total Organic Carbon	0.01%	"
		"
Sediment Grain Size Analysis	1%	"

[1]Monitoring is ongoing through all five years of the Order, unless otherwise specified. Monitoring frequency may be used as a guide for developing alternative Sampling and Analysis Plan.
[2]Pesticide list may be modified based on specific pesticide use in Central Coast Region. Analytes on this list must be reported, at a minimum.
[3] Reporting Limit, taken from SWAMP where applicable.

[4] Holmgren, Meyer, Cheney and Daniels. 1993. Cadmium, Lead, Zinc, Copper and Nickel in Agricultural Soils of the United States. J. of Environ. Quality 22:335-348.
[5]Sax and Lewis, ed. 1987. Hawley's Condensed Chemical Dictionary. 11th ed. New York: Van Nostrand Reinhold Co., 1987. Zinc arsenate is an insecticide.
[6]Http://www.coastalagro.com/products/labels/9%25BORON.pdf; Boron is applied directly or as a component of fertilizers as a plant nutrient.
[7]Madramootoo, Johnston, Willardson, eds. 1997. Management of Agricultural Drainage Water Quality. International Commission on Irrigation and Drainage. U.N. FAO. SBN 92-6-104058.3.
[8]http://cat.inist.fr/?aModele=afficheN&cpsidt=14074525; Phenols are breakdown products of herbicides and pesticides. Phenols can be directly toxic and cause endocrine disruption.
[9]See SWAMP field measures SOP, p. 17
mg/L – milligrams per liter; ug/L – micrograms per liter; ug/kg – micrograms per kilogram;
NTU – Nephelometric Turbidity Units; CFS – cubic feet per second;

Table 3. Groundwater Monitoring Parameters

Parameter	RL	Analytical Method[3]	Units
pH	0.1	Field or Laboratory Measurement EPA General Methods	pH Units
Specific Conductance	2.5		µS/cm
Total Dissolved Solids	10		mg/L
Total Alkalinity as $CaCO_3$	1	EPA Method 310.1 or 310.2	
Calcium	0.05	General Cations[1] EPA 200.7, 200.8, 200.9	
Magnesium	0.02		
Sodium	0.1		
Potassium	0.1		
Sulfate (SO_4)	1.0	General Anions EPA Method 300 or EPA Method 353.2	
Chloride	0.1		
Nitrate + Nitrite (as N)[2] *or* Nitrate as N	0.1		

[1]General chemistry parameters (major cations and anions) represent geochemistry of water bearing zone and assist in evaluating quality assurance/quality control of groundwater monitoring and laboratory analysis.
[2]The MRP allows analysis of "nitrate plus nitrite" to represent nitrate concentrations (as N). The "nitrate plus nitrite" analysis allows for extended laboratory holding times and relieves the Discharger of meeting the short holding time required for nitrate.
[3]Dischargers may use alternative analytical methods approved by EPA.
RL – Reporting Limit; µS/cm – micro siemens per centimeter

Table 4A. Individual Discharge Monitoring for Tailwater, Tile drain, and Stormwater Discharges

Parameter	Analytical Method[1]	Maximum PQL	Units	Min Monitoring Frequency
Discharge Flow or Volume	Field Measure	---	CFS	(a) (d)
Approximate Duration of Flow	Calculation	---	hours/month	
Temperature (water)	Field Measure	0.1	°Celsius	
pH	Field Measure	0.1	pH units	

Electrical Conductivity	Field Measure	100	µS/cm	
Turbidity	SM 2130B, EPA 180.1	1	NTUs	
Nitrate + Nitrite (as N)	EPA 300.1, EPA 353.2	0.1	mg/L	
Ammonia	SM 4500 NH3, EPA 350.3	0.1	mg/L	
Chlorpyrifos[2]	EPA 8141A, EPA 614	0.02	ug/L	(b) (c) (d)
Diazinon[2]				
Ceriodaphnia Toxicity (96-hr acute)	EPA-821-R-02-012	NA	% Survival	
Hyalella Toxicity in Water (96-hr acute)	EPA-821-R-02-012	NA	% Survival	

[1] In-field water testing instruments/equipment as a substitute for laboratory analysis if the method is approved by EPA, meets RL/PQL specifications in the MRP, and appropriate sampling methodology and quality assurance checks can be applied to ensure that QAPP standards are met to ensure accuracy of the test.
[2]If chlorpyrifos or diazinon is used at the farm/ranch, otherwise does not apply. The Executive Officer may require monitoring of other pesticides based on results of downstream receiving water monitoring.
(a) Two times per year during primary irrigation season for farms/ranches less than or equal to 500 acres, and four times per year during primary irrigation season for farms/ranches greater than 500 acres. Executive Officer may reduce sampling frequency based on water quality improvements.
(b) Once per year during primary irrigation season for farms/ranches less than or equal to 500 acres, and two times per year during primary irrigation season for farms/ranches greater than 500 acres.
(c) Sample must be collected within one week of chemical application, if chemical is applied on farm/ranch;
(d) Once per year during wet season (October – March) for farms/ranches less than or equal to 500 acres, and two times per year during wet season for farms/ranches greater than 500 acres, within 18 hours of major storm events;
CFS – Cubic feet per second; NTU – Nephelometric turbidity unit; PQL – Practical Quantitation Limit;
NA – Not applicable

Table 4B. Individual Discharge Monitoring for Tailwater Ponds and other Surface Containment Features

Parameter	Analytical Method[1]	Maximum PQL	Units	Minimum Monitoring Frequency
Volume of Pond	Field Measure	1	Gallons	(a) (d)
Nitrate + Nitrite (as N)	EPA 300.1, EPA 353.2	50	mg/L	

[1] In-field water testing instruments/equipment as a substitute for laboratory analysis if the method is approved by EPA, meets RL/PQL specifications in the MRP, and appropriate sampling methodology and quality assurance checks can be applied to ensure that QAPP standards are met to ensure accuracy of the test.
(a) Four times per year during primary irrigation season; Executive Officer may reduce monitoring frequency based on water quality improvements.
(d) Two times per year during wet season (October – March, within 18 hours of major storm events)

Table 5. Tier 3 - Time Schedule for Key Monitoring and Reporting Requirements (MRPs)

REQUIREMENT	TIME SCHEDULE[1]
Submit Sampling And Analysis Plan and Quality Assurance Project Plan (SAAP/QAPP) for Surface Receiving Water Quality Monitoring (*individually or*	By March 1, 2018, or as directed by the Executive Officer; satisfied if an approved SAAP/QAPP has been submitted pursuant

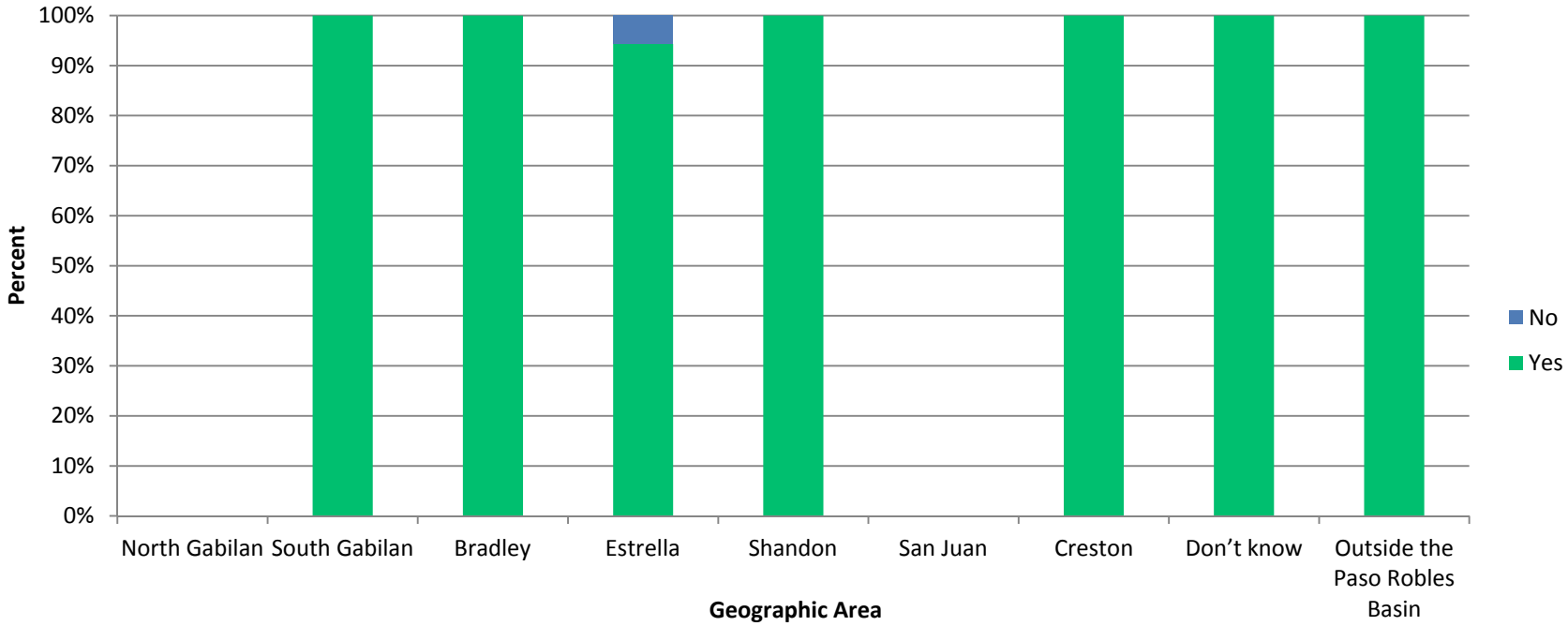
through cooperative monitoring program)	to Order No. R3-2012-0011 and associated MRPs
Initiate surface receiving water quality monitoring (*individually or through cooperative monitoring program*)	Per an approved SAAP and QAPP
Submit surface receiving water quality monitoring data (*individually or through cooperative monitoring program*)	Each January 1, April 1, July 1, and October 1
Submit surface receiving water quality Annual Monitoring Report (*individually or through cooperative monitoring program*)	By July 1 2017; annually thereafter by July 1
Initiate monitoring of groundwater wells	First sample from March-June 2017, second sample from September-December 2017
Submit individual surface water discharge SAAP and QAPP	By March 1, 2018 or as directed by the Executive Officer; waived if an approved SAAP and QAPP has been submitted and being implemented pursuant to Order No. R3-2012-0011.
Initiate individual surface water discharge monitoring	As described in an approved SAAP and QAPP
Submit individual surface water discharge monitoring data	March 1, 2018, and every March 1 annually thereafter
Submit electronic Annual Compliance Form	March 1, 2018 and every March 1 annually thereafter
Submit groundwater monitoring results	Within 60 days of the sample collection
Submit Water Quality Buffer Plan or alternative	Within 18 months of enrolling new Tier 3 farm/ranch in Order
Submit Status Report on Water Quality Buffer Plan or alternative	March 1, 2019
Tier 3 Dischargers with farms/ranches growing high risk crops:	
Report total nitrogen applied on the Total Nitrogen Applied form	March 1, 2018 and every March 1 annually thereafter
Submit INMP Effectiveness Report	March 1, 2019

[1] Dates are relative to adoption of this Order, unless otherwise specified.

Appendix G

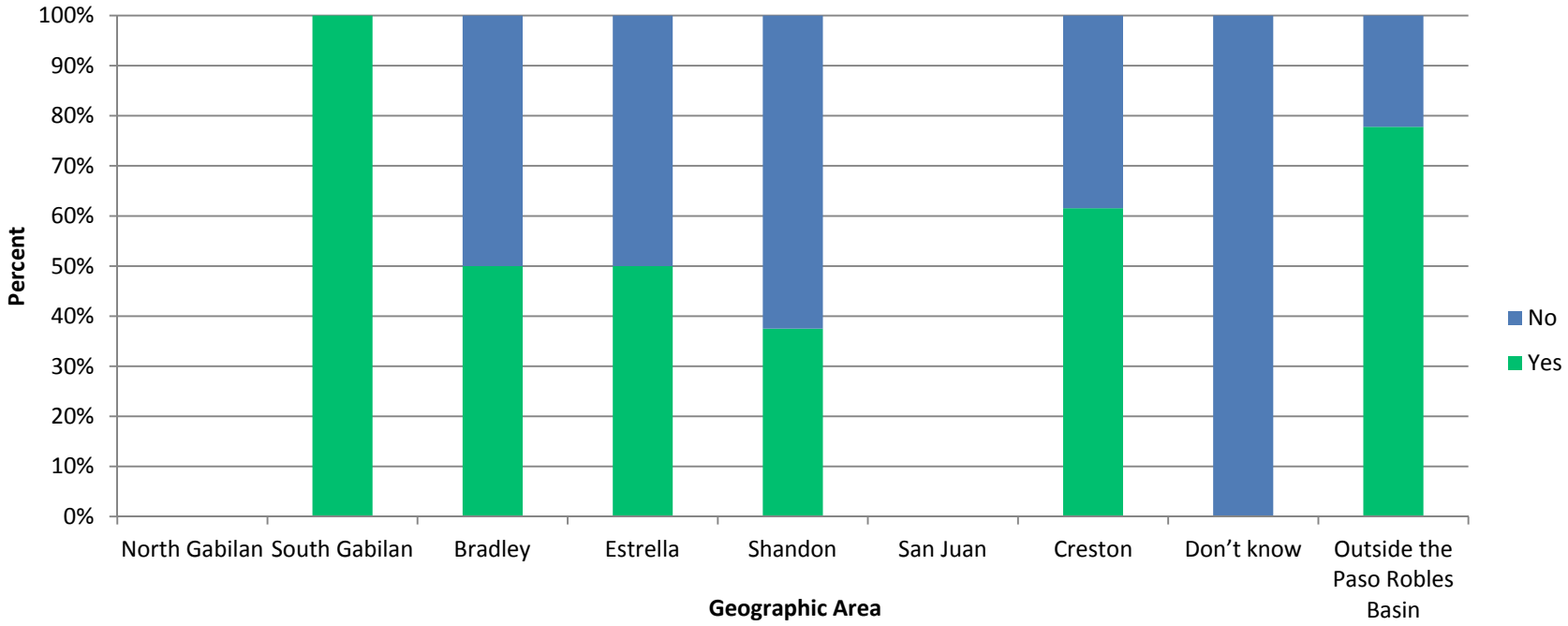
Sustainable Management Criteria Survey Results

Have you heard about the Sustainable Groundwater Management Act (SGMA) Groundwater Sustainability Plan (GSP) process?



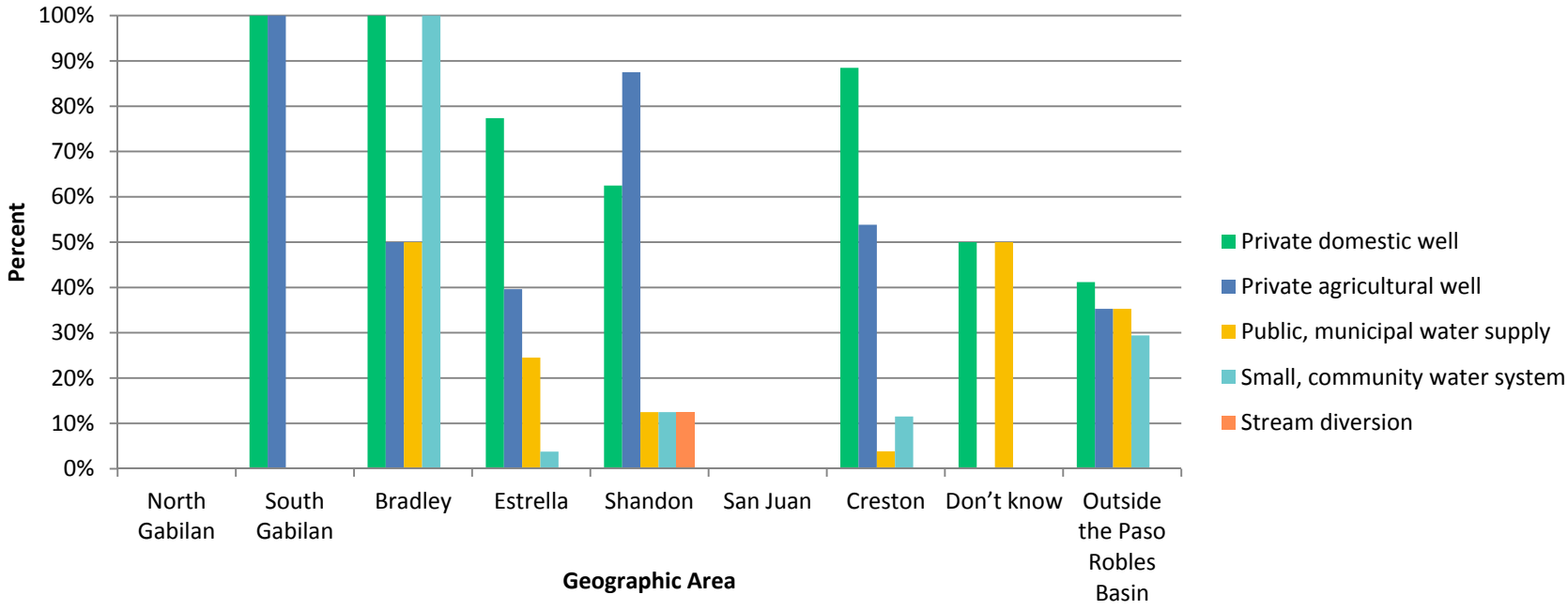
Geographic Area	Yes		No		Total	
	Percent	Count	Percent	Count	Percent	Count
North Gabilan	0%	0	0%	0	0%	0
South Gabilan	100%	1	0%	0	1%	1
Bradley	100%	2	0%	0	2%	2
Estrella	94%	50	6%	3	48%	53
Shandon	100%	8	0%	0	7%	8
San Juan	0%	0	0%	0	0%	0
Creston	100%	26	0%	0	23%	26
Don't know	100%	2	0%	0	2%	2
Outside the Paso Robles Basin	100%	19	0%	0	17%	19
Total	97%	108	3%	3	100%	111
					Answered	111
					Skipped	0

Have you been involved in other water supply public processes in the past?



Geographic Area	Yes		No		Total	
	Percent	Count	Percent	Count	Percent	Count
North Gabilan	0%	0	0%	0	0%	0
South Gabilan	100%	1	0%	0	1%	1
Bradley	50%	1	50%	1	2%	2
Estrella	50%	26	50%	26	48%	52
Shandon	38%	3	63%	5	7%	8
San Juan	0%	0	0%	0	0%	0
Creston	62%	16	38%	10	24%	26
Don't know	0%	0	100%	2	2%	2
Outside the Paso Robles Basin	78%	14	22%	4	17%	18
Total	56%	61	44%	48	100%	109
					Answered	109
					Skipped	2

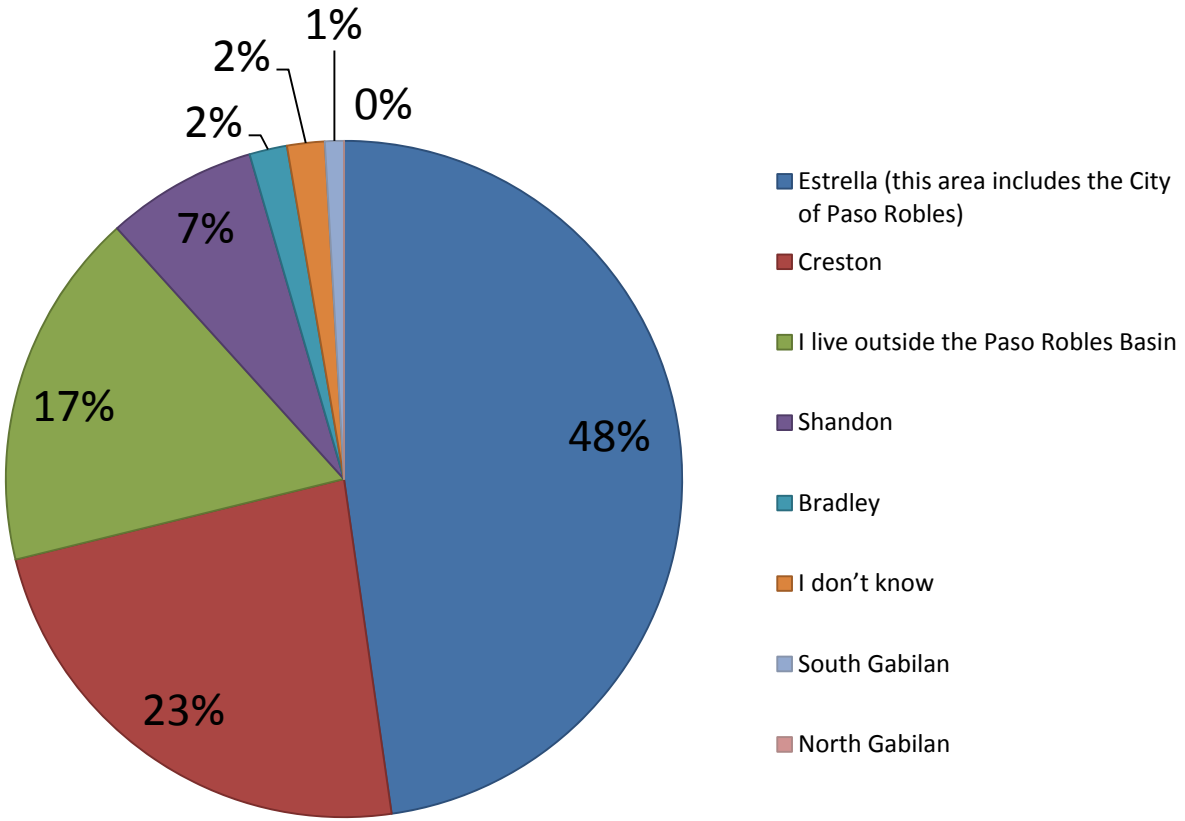
Which water sources do you use? (select all that apply)



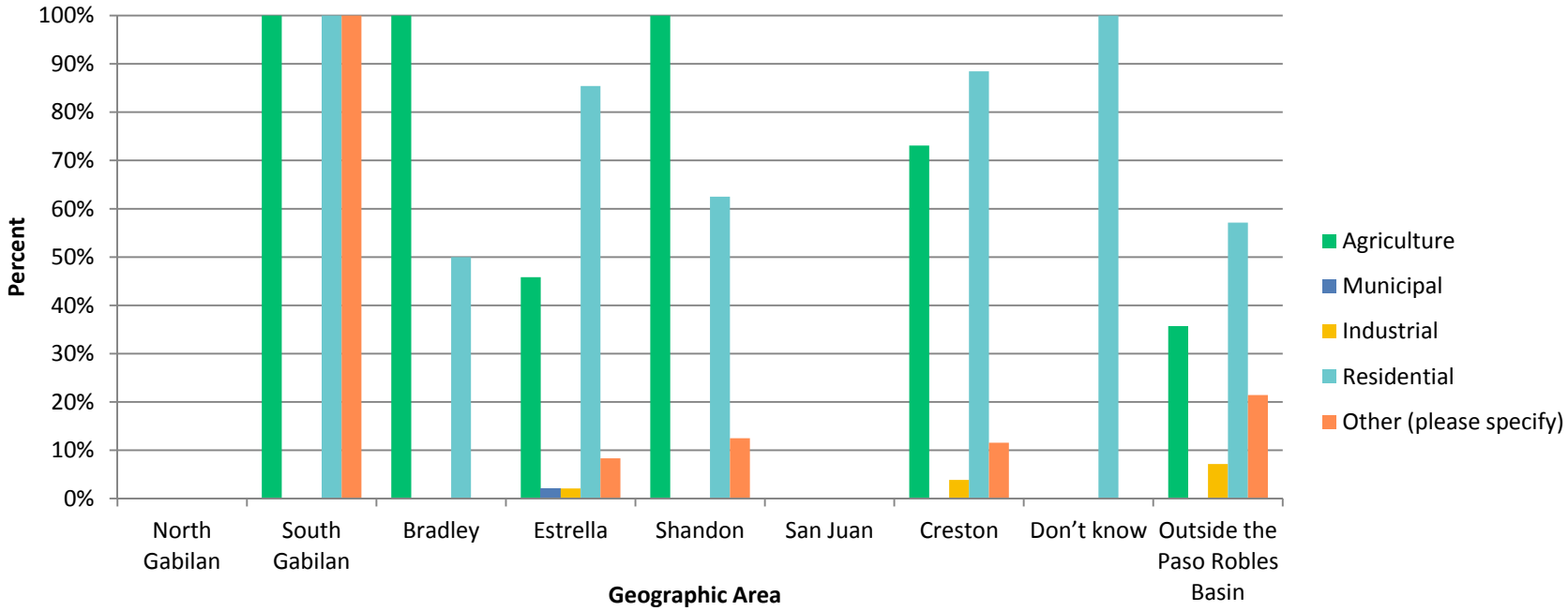
Geographic Area	Private domestic well		Private agricultural well		Public, municipal water supply		Small, community water system		Stream diversion		Total	
	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
South Gabilan	100%	1	100%	1	0%	0	0%	0	0%	0	1%	1
Bradley	100%	2	50%	1	50%	1	100%	2	0%	0	2%	2
Estrella	77%	41	40%	21	25%	13	4%	2	0%	0	49%	53
Shandon	63%	5	88%	7	13%	1	13%	1	13%	1	7%	8
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Creston	88%	23	54%	14	4%	1	12%	3	0%	0	24%	26
Don't know	50%	1	0%	0	50%	1	0%	0	0%	0	2%	2
Outside the Paso Robles Basin	41%	7	35%	6	35%	6	29%	5	0%	0	16%	17
Total	73%	80	46%	50	21%	23	12%	13	1%	1	100%	109
											Answered	109
											Skipped	2

Which geographic area do you live in?

Geographic Area	Percent	Count
North Gabilan	0%	0
South Gabilan	1%	1
Bradley	2%	2
Estrella (this area includes the City of Paso Robles)	48%	53
Shandon	7%	8
San Juan	0%	0
Creston	23%	26
I don't know	2%	2
I live outside the Paso Robles Basin	17%	19
Total	100%	111



If you pump groundwater, what do you use it for? (check all that apply)



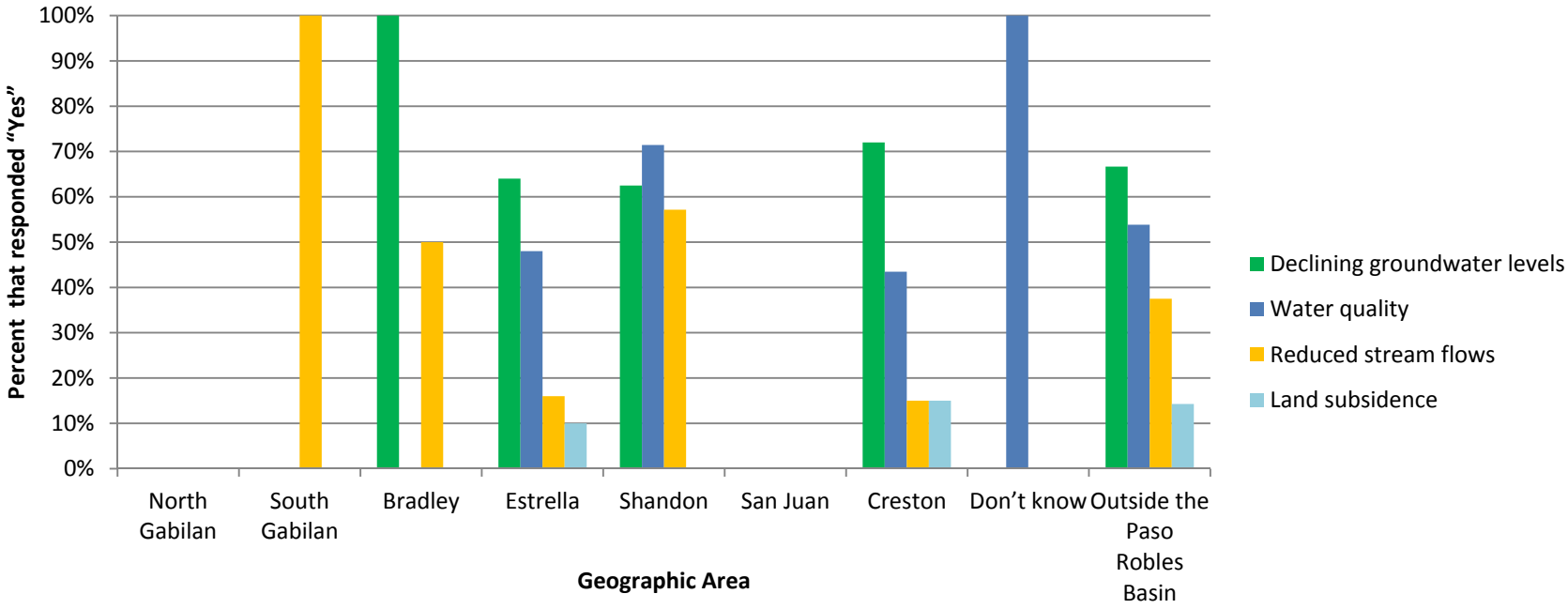
Geographic Area	Agriculture		Municipal		Industrial		Residential		Other (please specify)		Total	
	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
South Gabilan	100%	1	0%	0	0%	0	100%	1	100%	1	1%	1
Bradley	100%	2	0%	0	0%	0	50%	1	0%	0	2%	2
Estrella	46%	22	2%	1	2%	1	85%	41	8%	4	48%	48
Shandon	100%	8	0%	0	0%	0	63%	5	13%	1	8%	8
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Creston	73%	19	0%	0	4%	1	88%	23	12%	3	26%	26
Don't know	0%	0	0%	0	0%	0	100%	1	0%	0	1%	1
Outside the Paso Robles Basin	36%	5	0%	0	7%	1	57%	8	21%	3	14%	14
Total	57%	57	1%	1	3%	3	80%	80	12%	12	100%	100
											Answered	100
											Skipped	11

Please rank the following potential negative impacts to groundwater based on your level of concern, with 1 representing the impact of greatest concern.

Impact	Rank:	1		2		3		4		Total		Weighted Score
Declining groundwater levels	North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0.0
	South Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0.0
	Bradley	0%	0	100%	1	0%	0	0%	0	1%	1	2.0
	Estrella	76%	35	17%	8	7%	3	0%	0	42%	46	1.3
	Shandon	83%	5	0%	0	17%	1	0%	0	5%	6	1.3
	San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0.0
	Creston	83%	20	8%	2	4%	1	4%	1	22%	24	1.3
	Don’t know	100%	2	0%	0	0%	0	0%	0	2%	2	1.0
	Outside the Paso Robles Basin	79%	15	16%	3	5%	1	0%	0	17%	19	1.3
	Total	70%	77	13%	14	5%	6	1%	1	100%	110	1.2
Water Quality	North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0.0
	South Gabilan	0%	0	100%	1	0%	0	0%	0	1%	1	2.0
	Bradley	100%	1	0%	0	0%	0	0%	0	1%	1	1.0
	Estrella	17%	8	55%	26	26%	12	2%	1	43%	47	2.1
	Shandon	33%	2	50%	3	17%	1	0%	0	5%	6	1.8
	San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0.0
	Creston	9%	2	74%	17	17%	4	0%	0	21%	23	2.1
	Don’t know	0%	0	100%	1	0%	0	0%	0	1%	1	2.0
	Outside the Paso Robles Basin	6%	1	72%	13	22%	4	0%	0	16%	18	2.2
	Total	13%	14	55%	61	19%	21	1%	1	100%	110	1.8
Reduced stream flows	North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0.0
	South Gabilan	100%	1	0%	0	0%	0	0%	0	1%	1	1.0
	Bradley	50%	1	0%	0	50%	1	0%	0	2%	2	2.0
	Estrella	2%	1	11%	5	52%	24	35%	16	42%	46	3.2
	Shandon	20%	1	60%	3	0%	0	20%	1	5%	5	2.2
	San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0.0
	Creston	5%	1	0%	0	75%	15	20%	4	18%	20	3.1
	Don’t know	0%	0	50%	1	50%	1	0%	0	2%	2	2.5
	Outside the Paso Robles Basin	6%	1	6%	1	61%	11	28%	5	16%	18	3.1
	Total	5%	6	9%	10	47%	52	24%	26	100%	110	2.6
Land subsidence	North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0.0
	South Gabilan	0%	0	0%	0	0%	0	100%	1	1%	1	4.0
	Bradley	0%	0	0%	0	50%	1	50%	1	2%	2	3.5
	Estrella	15%	7	13%	6	19%	9	54%	26	44%	48	3.1
	Shandon	0%	0	0%	0	40%	2	60%	3	5%	5	3.6
	San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0.0
	Creston	0%	0	14%	3	10%	2	76%	16	19%	21	3.6
	Don’t know	0%	0	0%	0	0%	0	100%	1	1%	1	4.0
	Outside the Paso Robles Basin	11%	2	6%	1	11%	2	72%	13	16%	18	3.4
	Total	8%	9	9%	10	15%	16	55%	61	100%	110	2.9

Have you been negatively impacted by the following?

Figure and table below show results for those who responded "Yes"



	Declining groundwater levels		Water quality		Reduced stream flows		Land subsidence	
Geographic Area	Percent	Count	Percent	Count	Percent	Count	Percent	Count
North Gabilan	0%	0	0%	0	0%	0	0%	0
South Gabilan	0%	0	0%	0	100%	1	0%	0
Bradley	100%	2	0%	0	50%	1	0%	0
Estrella	64%	32	48%	24	16%	8	10%	5
Shandon	63%	5	71%	5	57%	4	0%	0
San Juan	0%	0	0%	0	0%	0	0%	0
Creston	72%	18	43%	10	15%	3	15%	3
Don't know	0%	0	100%	1	0%	0	0%	0
Outside the Paso Robles Basin	67%	10	54%	7	38%	6	14%	2
Total	62%	67	44%	47	21%	23	9%	10

Have you been negatively impacted by the following?

Responses from Creston				
Declining groundwater levels	Water quality	Reduced stream flows	Land subsidence-	Negative impacts:
No	No	No	No	
No	No	No		
Yes	Yes	No	No	
No	Yes	No	Yes	WATER LINES BREAKING
Yes	Yes	No	No	
Yes	No	No	No	
No	No	No	No	
No	No			
Yes	No			
Yes				Well ran dry.
Yes	No	No	Yes	
Yes				Had to stop watering my garden and. Lost apple and apricot trees. Could no longer have a food garden.
Yes	Yes	No	No	
Yes	Yes	Yes	No	
No	No	No	No	Not sure... How are individuals supposed to know the water quality characteristics?
Yes	No	No	No	Drill new deeper wells
Yes	Yes		No	We have given up our lawns and our vegetable garden and limited our baths/showers and wear clothes longer before washing.
No	No	No	No	
Yes	No	No	No	
Yes	No	No	No	Moderate decline in static water level. In close proximity to Windfall Farms who pumps constantly. Also in proximity to a newly planted very large vineyard with new pumping. The risk of adverse impact on our groundwater is very high.
				No ,none of the above
Yes	Yes	No	No	
Yes	Yes	No	No	Greatly reduced groundwater level and poor water quality in new well.
Yes	No	No	No	Dramatic decrease in aquifer level and need to drop pump in 2015
Yes	Yes	Yes	No	obvious increase in hardness of water; trees in creek dying; well levels not returning during average rain year.
Yes	Yes	Yes	Yes	

Have you been negatively impacted by the following?

Responses from Estrella				
Declining groundwater levels	Water quality	Reduced stream flows	Land subsidence-	Negative impacts:
Yes	Yes	Yes	No	
Yes	Yes	Yes	No	
Yes	Yes	No	No	2 dry wells
No	Yes	No	No	
No	No	No	No	
Yes	No	No	No	
No	Yes	No	No	Salt build-up in soil
Yes	Yes	No	No	
No	No	No	No	
Yes	Yes	Yes	Yes	well water level is very close to pump, have to have a new well drilled
Yes	Yes	No	No	
Yes	Yes	No	Yes	
No	No	No	No	
Yes	Yes	Yes	No	Each citizen within the basin is impacted by these whether aware or not. As these impacts increase the economic burden will increase, the communal burden will increase i.e. loss of natural beauty and shared public spaces, decisions of who gets water who does not. Increased public strife and division.
No	No	No	No	
Yes	No	No	No	
Yes	Yes	No	No	Had to lower the pumps Have to treat our water to combat water quality
Yes	Yes	No	Yes	Water quality has decreased with the concentration of salts in our wells.
No	No	No	No	
No	No	No	No	
No	No	No	No	
Yes	Yes	No	No	
No	Yes	No	No	Increased salinity
Yes	Yes	No	No	
No	Yes	No	No	
Yes	No	No	No	No measurements on water quality, but water table has dropped significantly since late 1990's

Have you been negatively impacted by the following?

Responses from Estrella Continued				
Declining groundwater levels	Water quality	Reduced stream flows	Land subsidence-	Negative impacts:
	No	No	No	Well static level has dropped 50’
No	Yes	No	No	increased salts, boron, etc.
No	Yes	No	No	
No	No	No	No	The city's attempt to take over right to my well water
Yes	Yes	No	No	Forced to install a second, larger holding tank and drop our well pump. When we purchased the home, the water tasted great and we had no problem with excess calcium build-up. Now it does not taste the same and we have excessive mineral build-up.
Yes	No	No	No	Cost per ac-ft increased due to declining levels.
Yes	No	No	No	
No	No	No	No	
Yes	No	No	Yes	
Yes	No	No	No	
No	No	No	No	
Yes	No	Yes	No	Quickly declining static water level in our well. Recharge rate reduced. Pumping volume reduced.
Yes	No	Yes	No	the water level in our well has dropped 50+ feet in the last four years
No	No	No	No	
Yes	Yes	Yes	No	The level of arsenic in our groundwater caused us to have to obtain a grant to correct the problem.
Yes	Yes		No	Higher energy costs, lowering in water quality and quantity
Yes	No	No	No	
Yes	Yes	No	No	My job and livelihood depends upon wine grape production and having a balanced and sustainable management of the groundwater basin for ALL should be achievable.
				Need more info.
Yes	Yes	No	No	
Yes	No	No	No	
Yes	No	No	Yes	Paid $35,000 for a new well 2 months ago!!!
Yes	No	Yes	No	I had to drill a much deeper well.
Yes	No	No	No	Static water level of our well has dropped 35' since 2011
No	No	No	No	
Yes	Yes			My 350 foot well went dry. Had to drill a new one

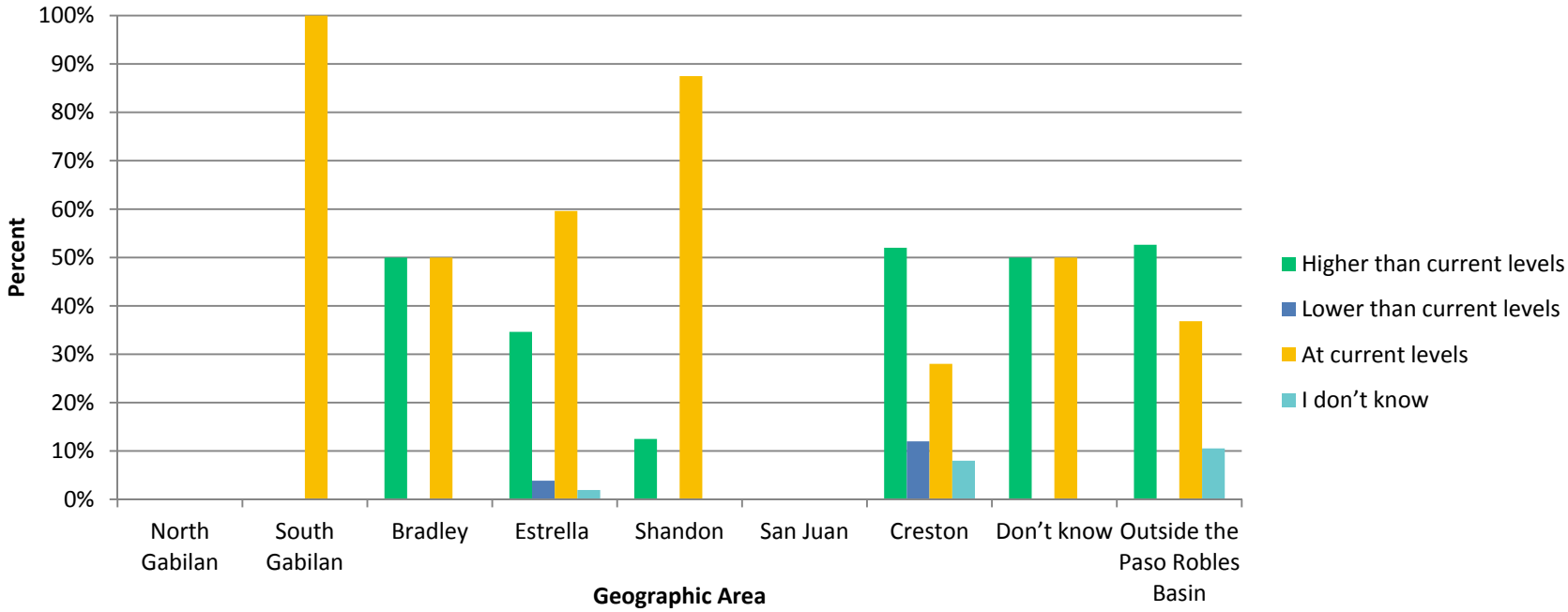
Have you been negatively impacted by the following?

Responses from Outside the Paso Robles Basin				
Declining groundwater levels	Water quality	Reduced stream flows	Land subsidence-	Negative impacts:
Yes		Yes	Yes	Fisheries, aquatic life,quality of life
Yes	Yes	Yes	No	Irrigation limitations.
Yes	No	Yes	No	
Yes	Yes	No	No	
No	No	No	No	
No	No	No	No	
Yes	No	No	No	
No	Yes	No	No	blowing dust in the wind
No	Yes	No	No	
		Yes		
		Yes		Reduced Steelhead spawning and rearing habitat. Riparian vegetation decline.
Yes				Wellntel's clients in the Paso basin are negatively impacted by declining groundwater levels.
Yes	No	No	No	
No	No	No	No	
Yes	Yes	Yes	Yes	
Yes	Yes	No	No	In Shandon over the last 90 years GW levels have declined and water quality has been reduced to a degree in some wells.
Yes	Yes	No	No	
Yes		Yes	Yes	Fisheries, aquatic life,quality of life
Yes	Yes	Yes	No	Irrigation limitations.
Yes	No	Yes	No	
Yes	Yes	No	No	
No	No	No	No	
No	No	No	No	
Yes	No	No	No	

Have you been negatively impacted by the following?

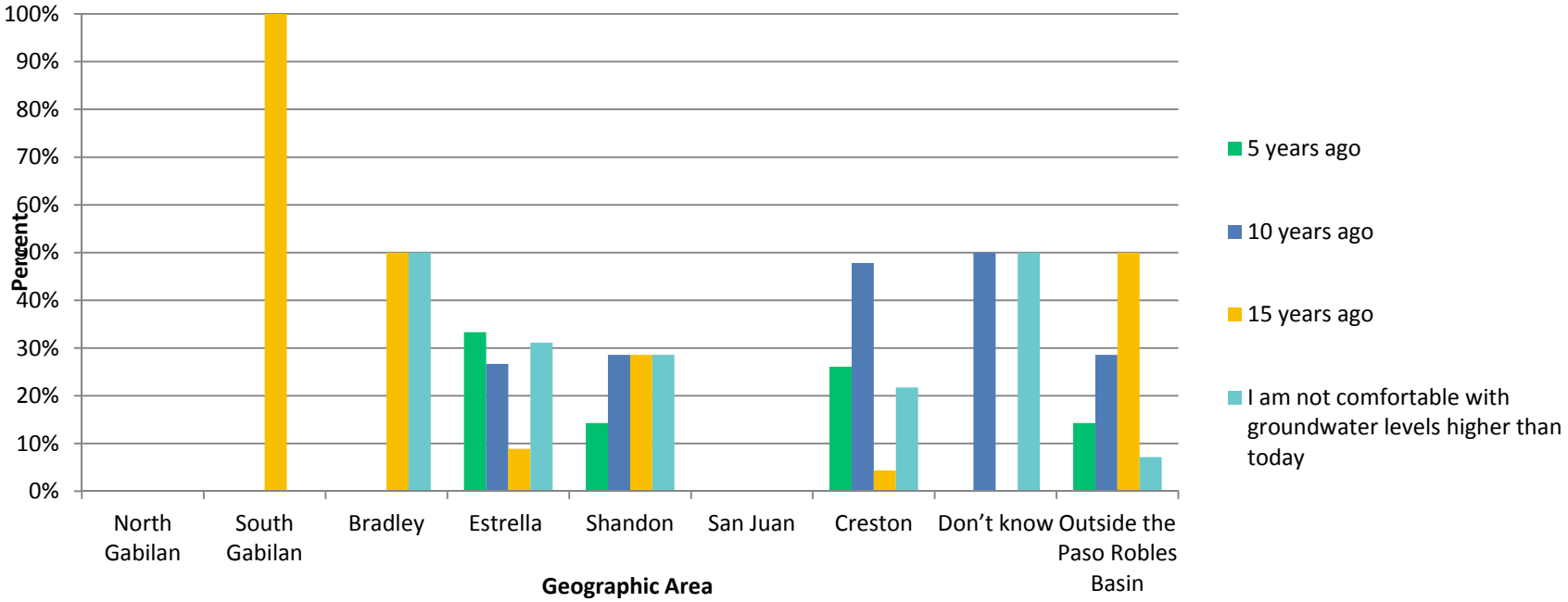
Declining groundwater levels	Water quality	Reduced stream flows	Land subsidence-	Negative impacts:
Responses from Bradley				
Yes	No	No	No	
Yes	No	Yes	No	Nacimiento recreation uses impaired by Monterey County dam releases. Limited water availability overall increases water usage in some agri-businesses. State water law creates contentiousness in water access.
Responses from Don't Know				
No	Yes	No	No	
				Not yet, many friends have lost their wells
Responses from South Gabilan				
No	No	Yes	No	Due to lack of rainfall, stream reduction results in less water penetrating the upper hardpan and replenishing the substrata and ground water.
Responses from Shandon				
No	Yes	No	No	
Yes	No	No	No	
Yes	Yes	No	No	Cost of water and lack of quality
Yes				Lost a well adjacent to vineyard property
Yes	Yes	Yes	No	Cost of pumping from groundwater levels and brackish water quality
No	Yes	Yes	No	
Yes	No	Yes	No	loss of grazing forage, loss of wildlife habitat, increased business expense/cost
No	Yes	Yes	No	

Raising groundwater levels requires developing new water supplies or reducing pumping; both of which have a financial cost. Lowering groundwater levels will allow increased pumping, but may dry out shallower (domestic) wells or streams. 20 years from now, would you be most satisfied with groundwater levels in your part of the basin that are stable at:



Geographic Area	Higher than current levels		Lower than current levels		At current levels		I don't know		Total	
	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0
South Gabilan	0%	0	0%	0	100%	1	0%	0	1%	1
Bradley	50%	1	0%	0	50%	1	0%	0	2%	2
Estrella	35%	18	4%	2	60%	31	2%	1	48%	52
Shandon	13%	1	0%	0	88%	7	0%	0	7%	8
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0
Creston	52%	13	12%	3	28%	7	8%	2	23%	25
Don't know	50%	1	0%	0	50%	1	0%	0	2%	2
Outside the Paso Robles Basin	53%	10	0%	0	37%	7	11%	2	17%	19
Total	40%	44	5%	5	50%	55	5%	5	100%	109
									Answered	109
									Skipped	2

If the basin is maintained higher than current levels, additional water must be imported or pumping must be reduced. Knowing that higher groundwater levels will result in higher costs, please complete the following statement. I am comfortable with groundwater levels that would stabilize at levels seen: (select one)

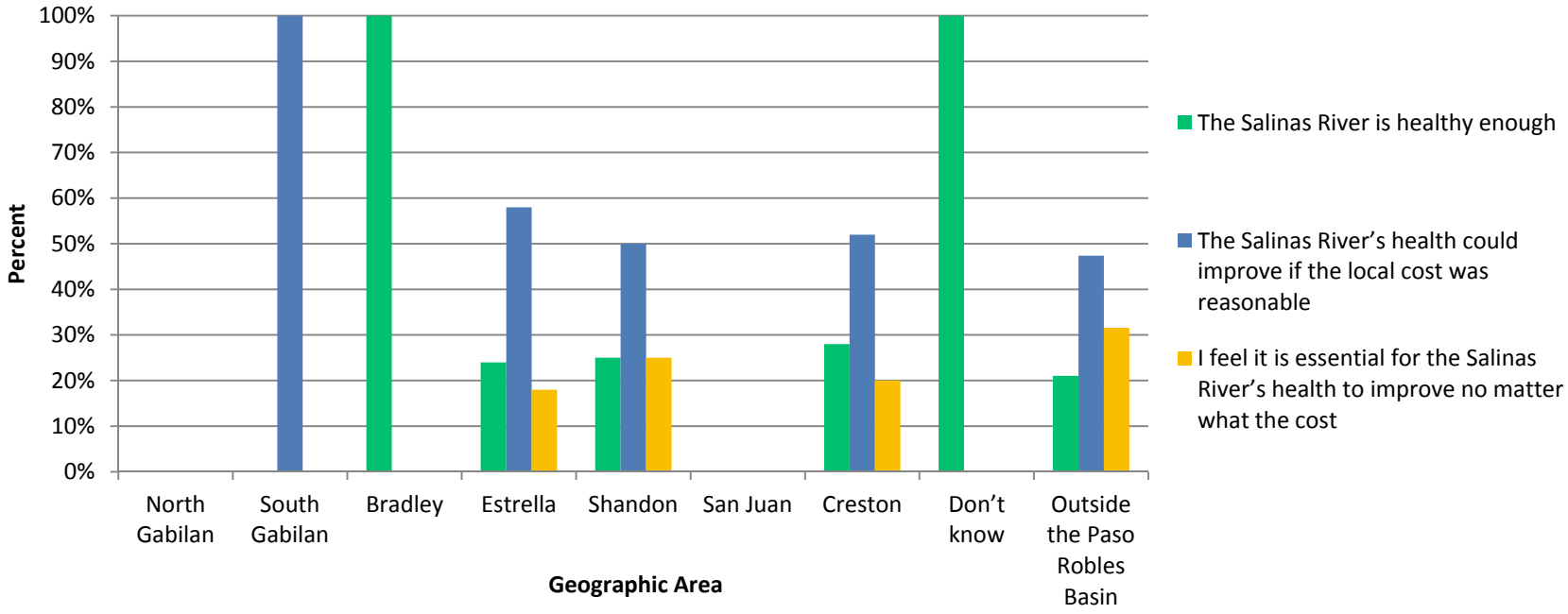


Geographic Area	5 years ago		10 years ago		15 years ago		I am not comfortable with groundwater levels higher than today		Total	
	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0
South Gabilan	0%	0	0%	0	100%	1	0%	0	1%	1
Bradley	0%	0	0%	0	50%	1	50%	1	2%	2
Estrella	33%	15	27%	12	9%	4	31%	14	48%	45
Shandon	14%	1	29%	2	29%	2	29%	2	7%	7
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0
Creston	26%	6	48%	11	4%	1	22%	5	24%	23
Don't know	0%	0	50%	1	0%	0	50%	1	2%	2
Outside the Paso Robles Basin	14%	2	29%	4	50%	7	7%	1	15%	14
Total	26%	24	32%	30	17%	16	26%	24	100%	94
Other (please specify)									20%	19
									Answered	94
									Skipped	17

If the basin is maintained at lower than current levels, domestic wells or local streams may dry out. How much lower, approximately, could groundwater levels drop before they are too low? If you do not believe levels should drop, leave the slider at zero.

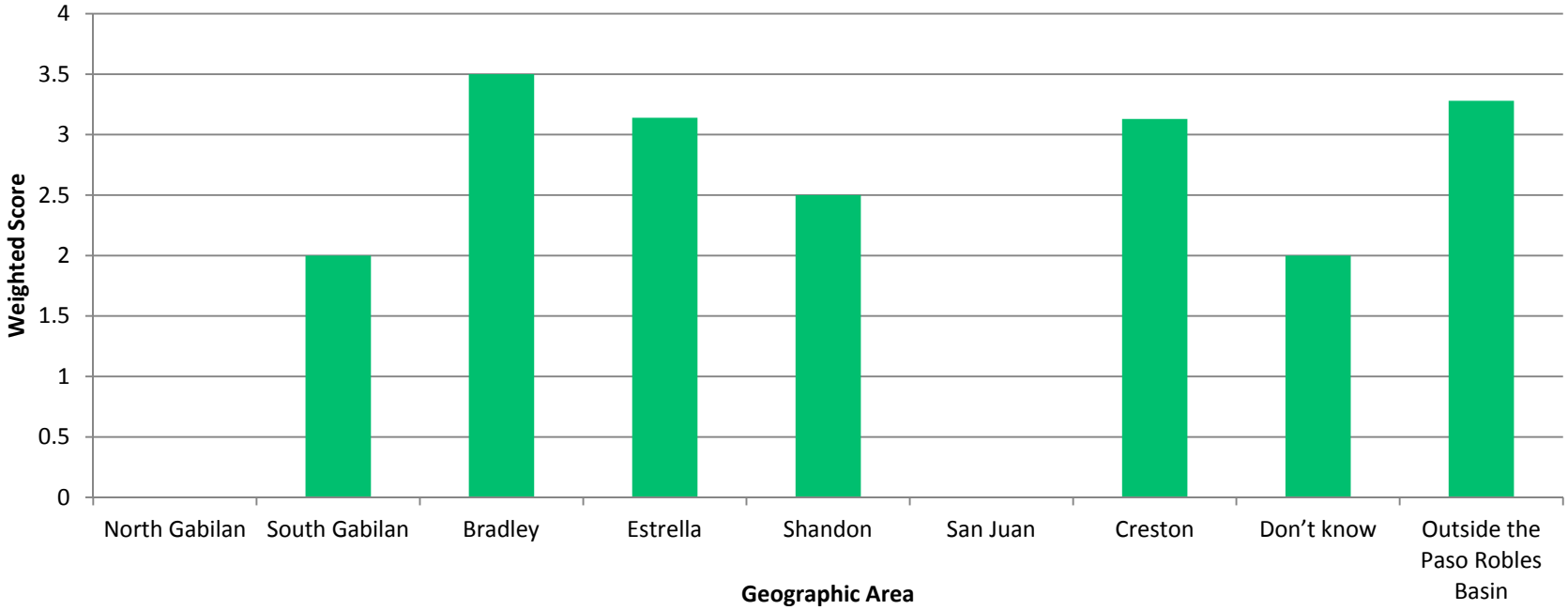
Responses from Creston	Responses from Estrella	Responses from Don't know	Responses from Outside the Paso Robles Basin	Responses from Shandon	Responses from South Gabilan
102	100	13	1	3	0
0	0		100	0	
200	100		150	0	
0	15		50	0	
75	0		0	110	
0	100		0		
45	0		0		
0	401		0		
114	50		0		
0	251		0		
0	0		2		
0	1		49		
0	0				
	0				
	1				
	250				
	208				
	0				
	301				
	0				
	0				
	400				
	40				
	500				
	23				
	275				
	0				
	0				
	0				
	0				
	34				
	201				

Which statement best describes your opinion of the health (in terms of stream flow and water quality) of the Salinas River in the Paso Robles Basin?



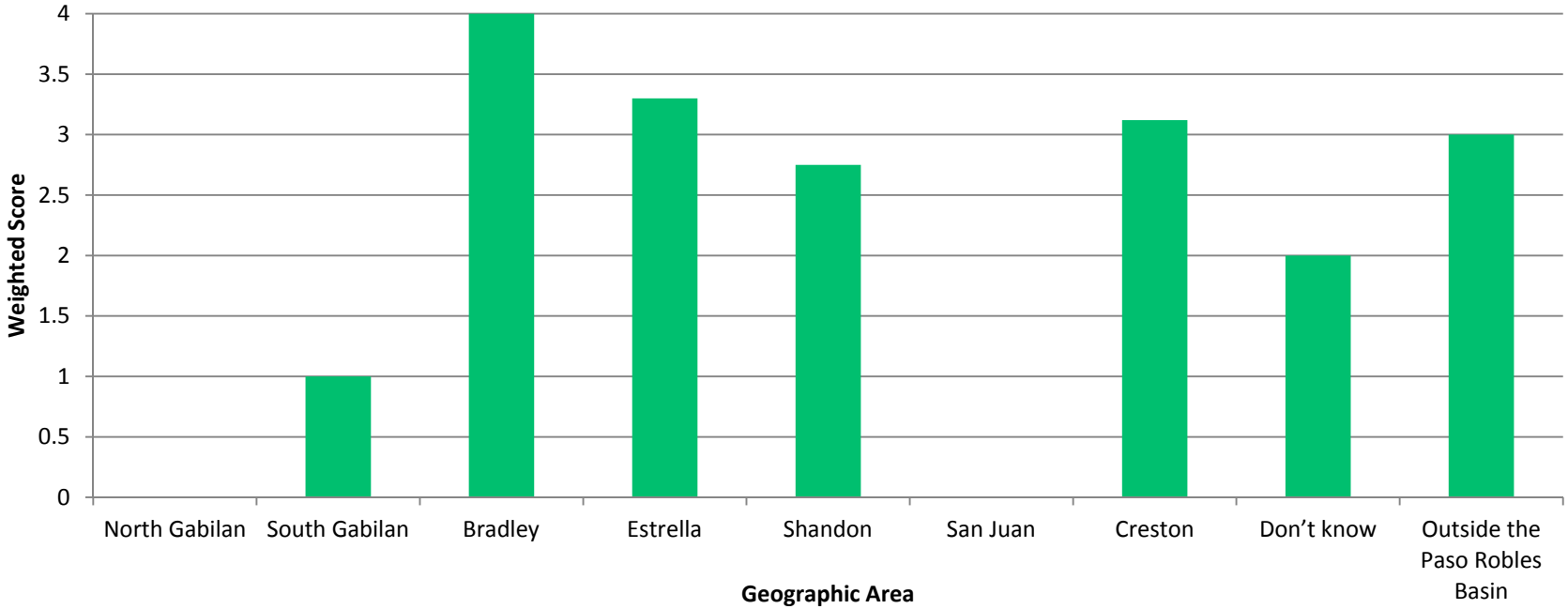
Geographic Area	The Salinas River is healthy enough		The Salinas River's health could improve if the local cost was reasonable		I feel it is essential for the Salinas River's health to improve no matter what the cost		Total	
	Percent	Count	Percent	Count	Percent	Count	Percent	Count
North Gabilan	0%	0	0%	0	0%	0	0%	0
South Gabilan	0%	0	100%	1	0%	0	1%	1
Bradley	100%	2	0%	0	0%	0	2%	2
Estrella	24%	12	58%	29	18%	9	47%	50
Shandon	25%	2	50%	4	25%	2	8%	8
San Juan	0%	0	0%	0	0%	0	0%	0
Creston	28%	7	52%	13	20%	5	24%	25
Don't know	100%	1	0%	0	0%	0	1%	1
Outside the Paso Robles Basin	21%	4	47%	9	32%	6	18%	19
Total	26%	28	53%	56	21%	22	100%	106
							Answered	106

Do you feel that the health of Salinas River in the Paso Robles Basin is negatively impacted by the following? Please indicate on a scale of 1 (least impact) to 5 (most impact): Limited releases from Santa Margarita Lake (Salinas Reservoir)



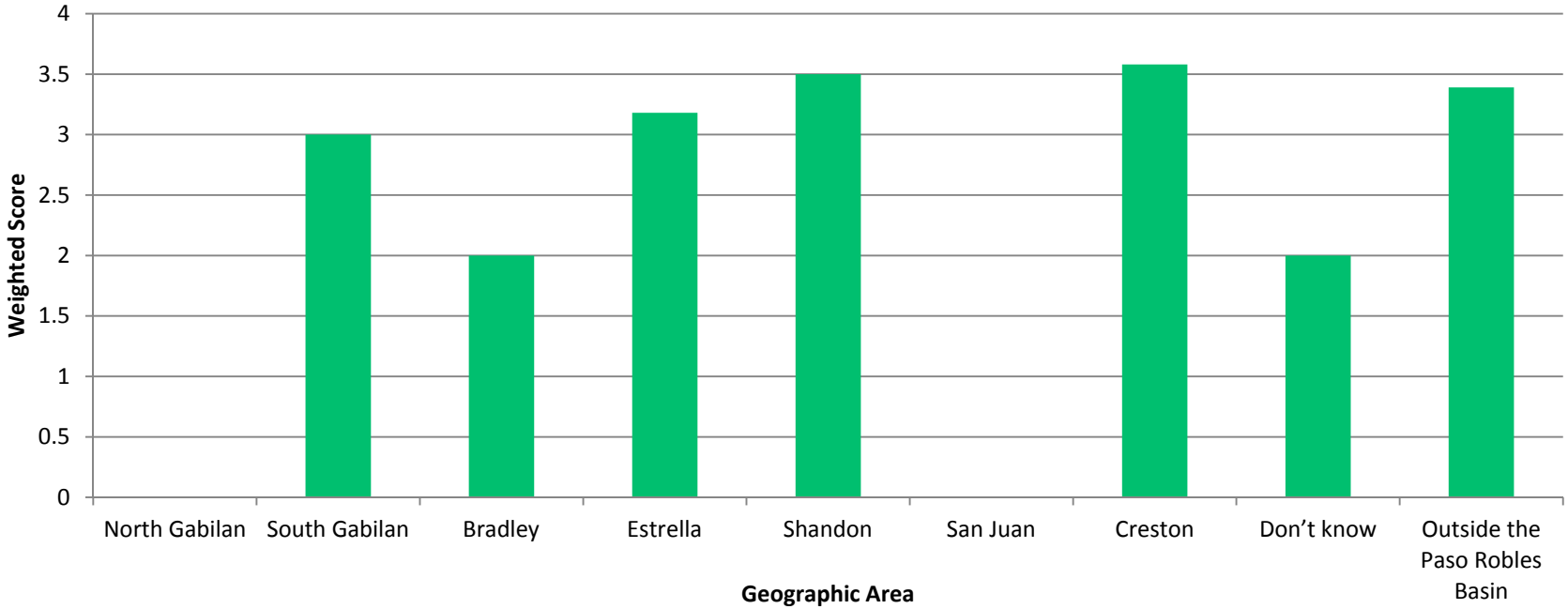
Geographic Area	Least impact 1		2		Moderate impact 3		4		Most impact 5		Total		Weighted Average
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
South Gabilan	0%	0	100%	1	0%	0	0%	0	0%	0	1%	1	2
Bradley	0%	0	0%	0	50%	1	50%	1	0%	0	2%	2	3.5
Estrella	14%	7	20%	10	22%	11	22%	11	20%	10	46%	49	3.14
Shandon	38%	3	13%	1	25%	2	13%	1	13%	1	8%	8	2.5
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
Creston	13%	3	17%	4	38%	9	13%	3	21%	5	23%	24	3.13
Don't know	0%	0	100%	1	0%	0	0%	0	0%	0	1%	1	2
Outside the Paso Robles Basin	22%	4	11%	2	11%	2	28%	5	28%	5	17%	18	3.28
Total	16%	17	18%	19	24%	25	20%	21	20%	21	100%	106	3.01
												Answered	106
												Skipped	5

Do you feel that the health of Salinas River in the Paso Robles Basin is negatively impacted by the following? Please indicate on a scale of 1 (least impact) to 5 (most impact):
People directly diverting water from the Salinas River in and upstream of the Paso Robles Basin



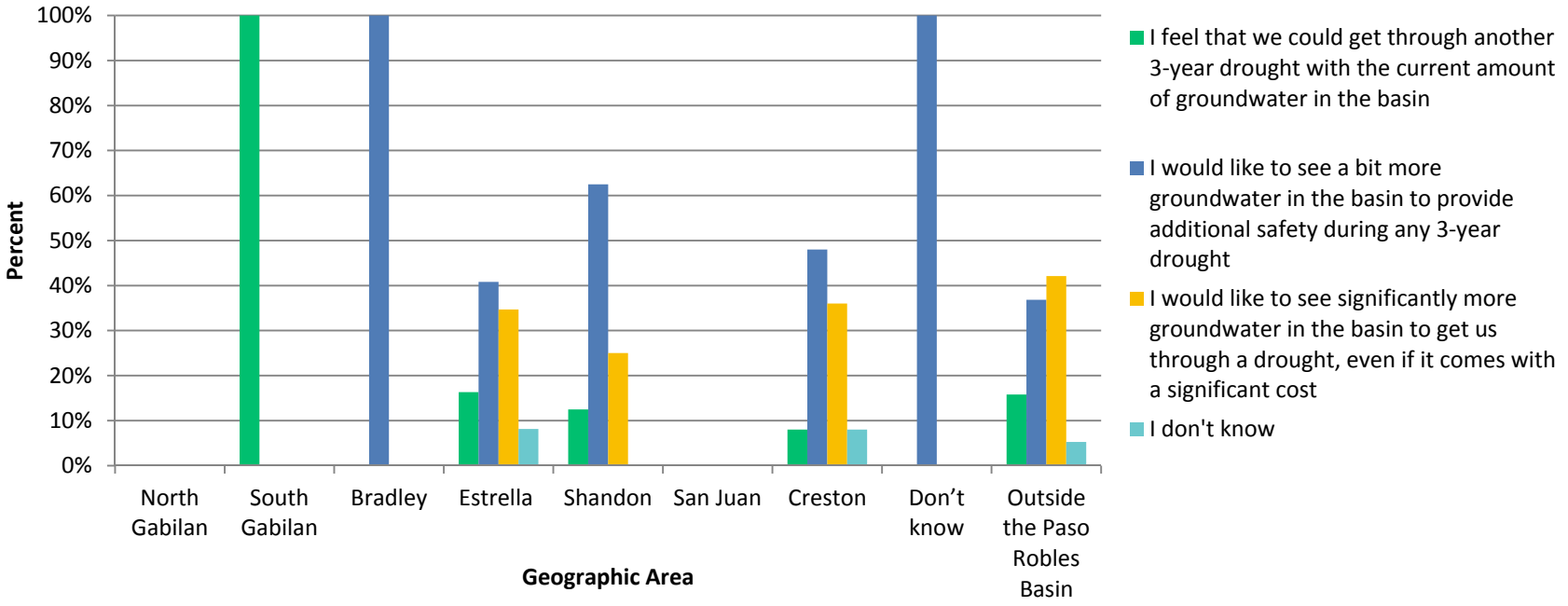
Geographic Area	Least impact 1		2		Moderate impact 3		4		Most impact 5		Total		Weighted Average
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
South Gabilan	100%	1	0%	0	0%	0	0%	0	0%	0	1%	1	1
Bradley	0%	0	0%	0	50%	1	0%	0	50%	1	2%	2	4
Estrella	10%	5	12%	6	34%	17	26%	13	18%	9	47%	50	3.3
Shandon	13%	1	38%	3	25%	2	13%	1	13%	1	8%	8	2.75
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
Creston	20%	5	12%	3	28%	7	16%	4	24%	6	24%	25	3.12
Don't know	0%	0	100%	1	0%	0	0%	0	0%	0	1%	1	2
Outside the Paso Robles Basin	28%	5	0%	0	33%	6	22%	4	17%	3	17%	18	3
Total	16%	17	12%	13	31%	33	21%	22	19%	20	100%	106	3.11
												Answered	106
												Skipped	5

Do you feel that the health of Salinas River in the Paso Robles Basin is negatively impacted by the following? Please indicate on a scale of 1 (least impact) to 5 (most impact): Groundwater wells pulling water from, or preventing water from getting to, the Salinas River



Geographic Area	Least impact 1		2		Moderate impact 3		4		Most impact 5		Total		Weighted Average
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
South Gabilan	0%	0	0%	0	100%	1	0%	0	0%	0	1%	1	3
Bradley	50%	1	0%	0	50%	1	0%	0	0%	0	2%	2	2
Estrella	18%	9	10%	5	30%	15	20%	10	22%	11	47%	50	3.18
Shandon	13%	1	13%	1	25%	2	13%	1	38%	3	8%	8	3.5
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
Creston	12%	3	12%	3	27%	7	8%	2	42%	11	25%	26	3.58
Don't know	0%	0	100%	1	0%	0	0%	0	0%	0	1%	1	2
Outside the Paso Robles Basin	17%	3	6%	1	28%	5	22%	4	28%	5	17%	18	3.39
Total	16%	17	10%	11	29%	31	16%	17	28%	30	100%	106	3.30
												Answered	106
												Skipped	5

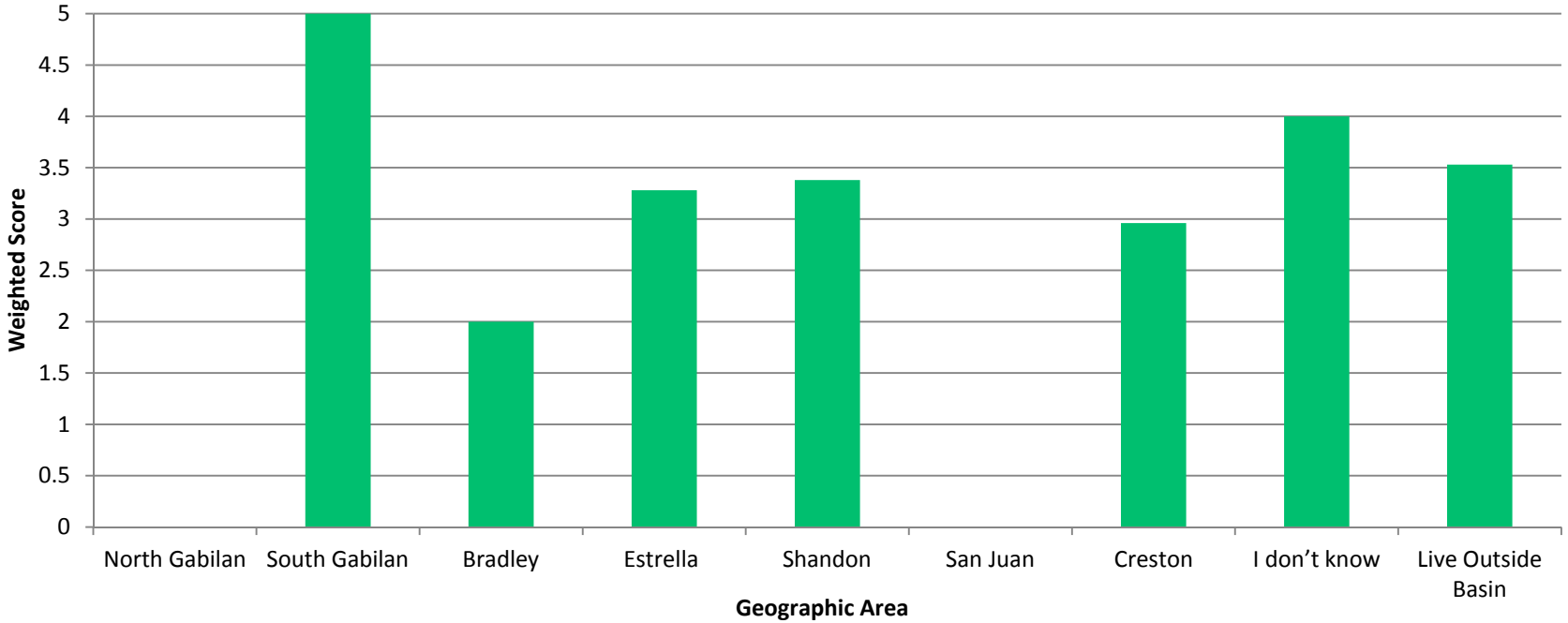
Which statement best describes your opinion about the amount of groundwater stored in the Paso Robles Basin?



Geographic Area	I feel that we could get through another 3-year drought with the current amount of groundwater in the basin		I would like to see a bit more groundwater in the basin to provide additional safety during any 3-year drought		I would like to see significantly more groundwater in the basin to get us through a drought, even if it comes with a significant cost		I don't know		Total	
	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0
South Gabilan	100%	1	0%	0	0%	0	0%	0	1%	1
Bradley	0%	0	100%	2	0%	0	0%	0	2%	2
Estrella	16%	8	41%	20	35%	17	8%	4	47%	49
Shandon	13%	1	63%	5	25%	2	0%	0	8%	8
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0
Creston	8%	2	48%	12	36%	9	8%	2	24%	25
Don't know	0%	0	100%	1	0%	0	0%	0	1%	1
Outside the Paso Robles Basin	16%	3	37%	7	42%	8	5%	1	18%	19
Total	14%	15	45%	47	34%	36	7%	7	100%	105
									Answered	105
									Skipped	6

Reaching sustainability will likely require some concessions. On a scale of 1 (most acceptable concession) to 5 (least acceptable concession), how would you rate the following concessions that may be necessary to reach sustainability?

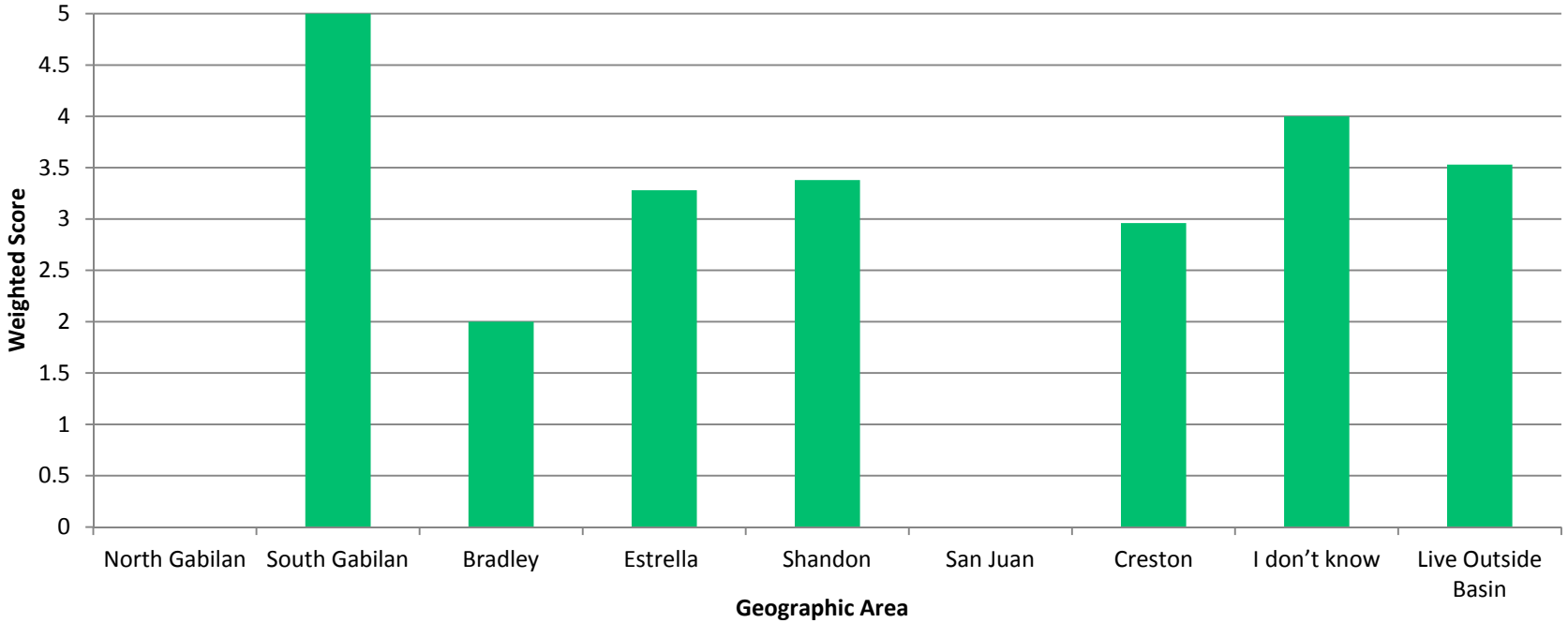
Lower groundwater levels in the future, even if they are stable



Geographic Area	most acceptable			moderately acceptable				least acceptable				
	1		2		3		4		5		Total		Weighted Score
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
South Gabilan	0%	0	0%	0	0%	0	0%	0	100%	1	1%	1	5
Bradley	50%	1	0%	0	50%	1	0%	0	0%	0	2%	2	2
Estrella	19%	9	11%	5	23%	11	17%	8	30%	14	47%	47	3.28
Shandon	0%	0	0%	0	75%	6	13%	1	13%	1	8%	8	3.38
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
Creston	17%	4	26%	6	22%	5	13%	3	22%	5	23%	23	2.96
I don't know	0%	0	0%	0	0%	0	100%	1	0%	0	1%	1	4
Live Outside Basin	11%	2	11%	2	37%	7	0%	0	42%	8	19%	19	3.53
Total	16%	16	13%	13	30%	30	13%	13	29%	29	100%	101	
												Answered	101
												Skipped	10

Reaching sustainability will likely require some concessions. On a scale of 1 (most acceptable concession) to 5 (least acceptable concession), how would you rate the following concessions that may be necessary to reach sustainability?

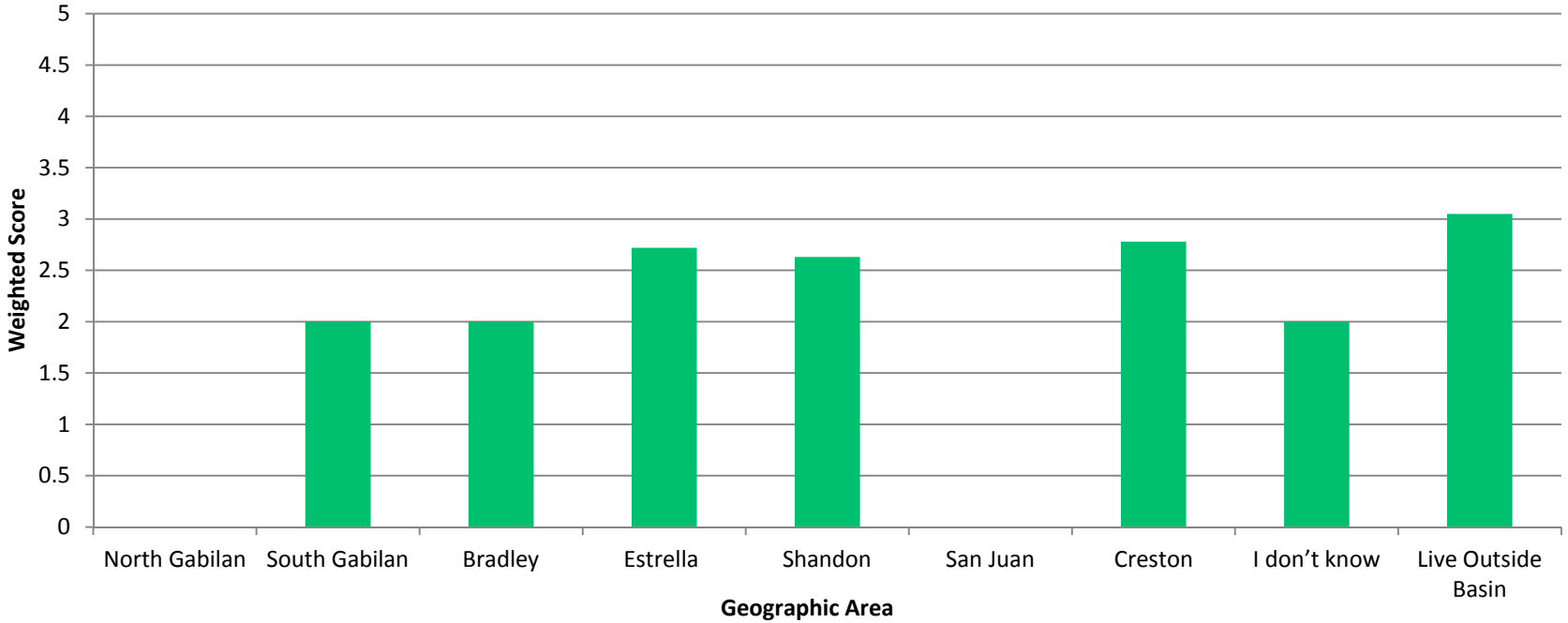
Restrictions on pumping in dry years when groundwater levels might be low



Geographic Area	most acceptable			moderately acceptable			least acceptable				
	1		2		3		4		5	Total		Weighted Score
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
South Gabilan	0%	0	0%	0	0%	0	0%	0	100%	1	1%	1	5
Bradley	50%	1	0%	0	50%	1	0%	0	0%	0	2%	2	2
Estrella	19%	9	11%	5	23%	11	17%	8	30%	14	47%	47	3.28
Shandon	0%	0	0%	0	75%	6	13%	1	13%	1	8%	8	3.38
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
Creston	17%	4	26%	6	22%	5	13%	3	22%	5	23%	23	2.96
I don't know	0%	0	0%	0	0%	0	100%	1	0%	0	1%	1	4
Live Outside Basin	11%	2	11%	2	37%	7	0%	0	42%	8	19%	19	3.53
Total	16%	16	13%	13	30%	30	13%	13	29%	29	100%	101	
											Answered	101
											Skipped	10

Reaching sustainability will likely require some concessions. On a scale of 1 (most acceptable concession) to 5 (least acceptable concession), how would you rate the following concessions that may be necessary to reach sustainability?

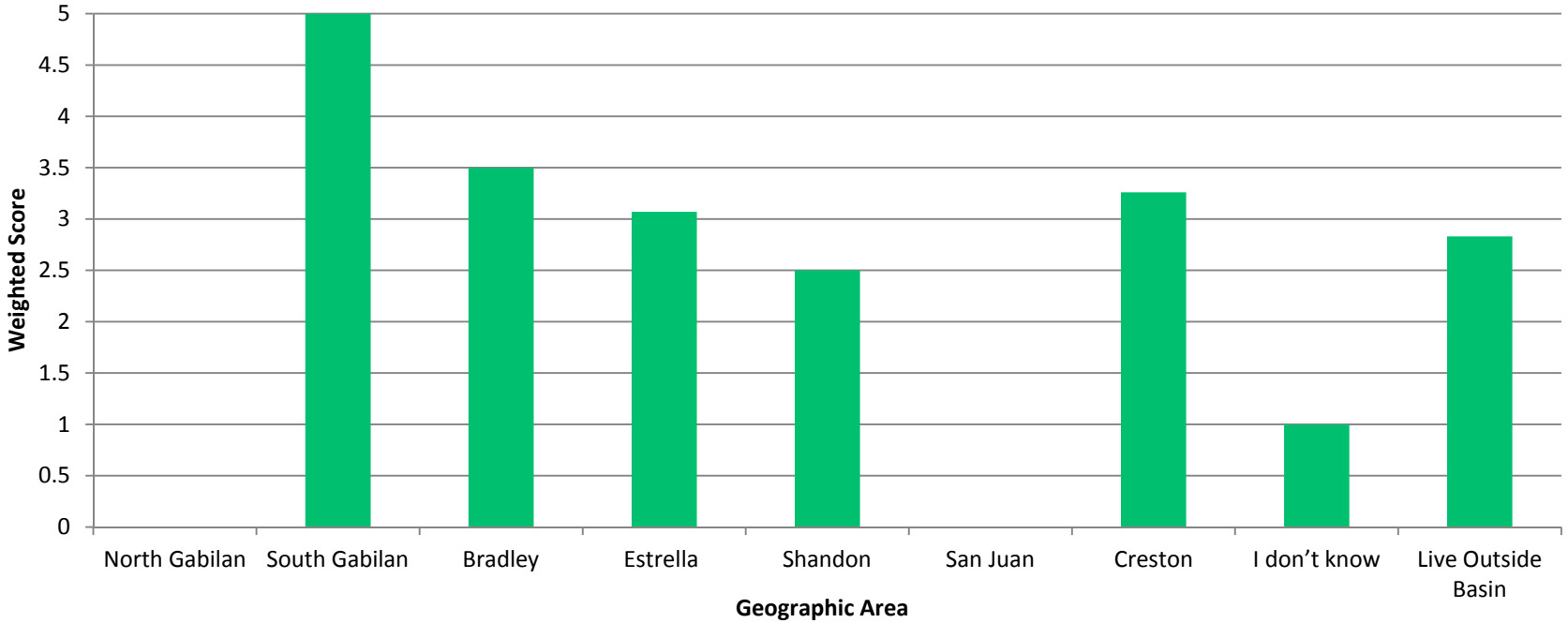
Less flow in the Salinas River



Geographic Area	most acceptable			moderately acceptable			least acceptable				
	1		2		3	4		5		Total		Weighted Score
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
South Gabilan	0%	0	100%	1	0%	0	0%	0	0%	0	1%	1	2
Bradley	50%	1	0%	0	50%	1	0%	0	0%	0	2%	2	2
Estrella	20%	9	22%	10	41%	19	2%	1	15%	7	46%	46	2.72
Shandon	25%	2	25%	2	25%	2	13%	1	13%	1	8%	8	2.63
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
Creston	22%	5	17%	4	35%	8	13%	3	13%	3	23%	23	2.78
I don't know	0%	0	100%	1	0%	0	0%	0	0%	0	1%	1	2
Live Outside Basin	21%	4	11%	2	26%	5	26%	5	16%	3	19%	19	3.05
Total	21%	21	20%	20	35%	35	10%	10	14%	14	100%	101	
											Answered		101
											Skipped		10

Reaching sustainability will likely require some concessions. On a scale of 1 (most acceptable concession) to 5 (least acceptable concession), how would you rate the following concessions that may be necessary to reach sustainability?

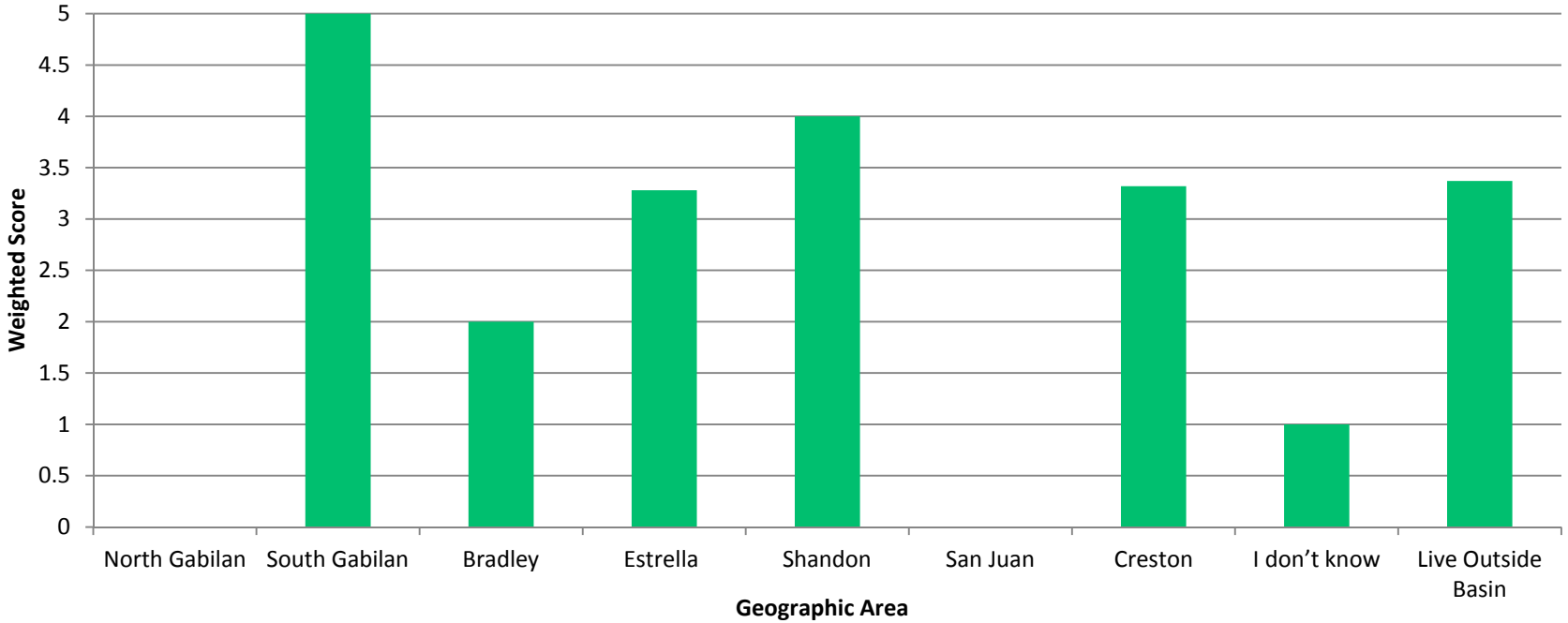
A requirement to reduce pumping to maintain creek flows



Geographic Area	most acceptable			moderately acceptable			least acceptable				
	1		2		3	4		5		Total		Weighted Score
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
South Gabilan	0%	0	0%	0	0%	0	0%	0	100%	1	1%	1	5
Bradley	0%	0	0%	0	50%	1	50%	1	0%	0	2%	2	3.5
Estrella	11%	5	22%	10	31%	14	20%	9	16%	7	45%	45	3.07
Shandon	38%	3	13%	1	25%	2	13%	1	13%	1	8%	8	2.5
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
Creston	17%	4	13%	3	26%	6	13%	3	30%	7	23%	23	3.26
I don't know	100%	1	0%	0	0%	0	0%	0	0%	0	1%	1	1
Live Outside Basin	28%	5	6%	1	28%	5	33%	6	6%	1	18%	18	2.83
Total	18%	18	15%	15	28%	28	20%	20	17%	17	100%	101	
											Answered		101
											Skipped		10

Reaching sustainability will likely require some concessions. On a scale of 1 (most acceptable concession) to 5 (least acceptable concession), how would you rate the following concessions that may be necessary to reach sustainability?

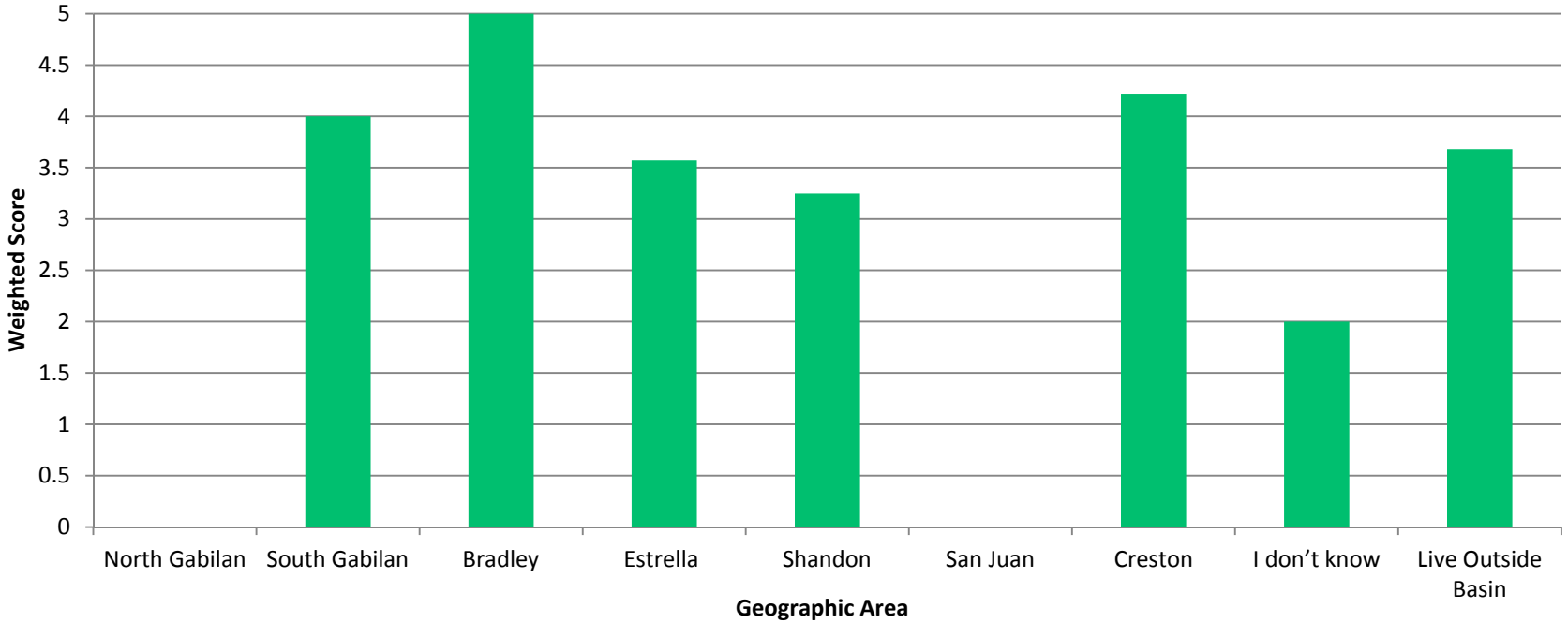
A requirement to reduce agricultural pumping in all years



Geographic Area	most acceptable			moderately acceptable			least acceptable				
	1		2		3		4		5		Total		Weighted Score
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
South Gabilan	0%	0	0%	0	0%	0	0%	0	100%	1	1%	1	5
Bradley	0%	0	100%	2	0%	0	0%	0	0%	0	2%	2	2
Estrella	19%	9	17%	8	17%	8	11%	5	36%	17	47%	47	3.28
Shandon	13%	1	0%	0	25%	2	0%	0	63%	5	8%	8	4
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
Creston	23%	5	14%	3	9%	2	18%	4	36%	8	22%	22	3.32
I don't know	100%	1	0%	0	0%	0	0%	0	0%	0	1%	1	1
Live Outside Basin	16%	3	11%	2	21%	4	26%	5	26%	5	19%	19	3.37
Total	19%	19	15%	15	16%	16	14%	14	36%	36	100%	101	
												Answered	101
												Skipped	10

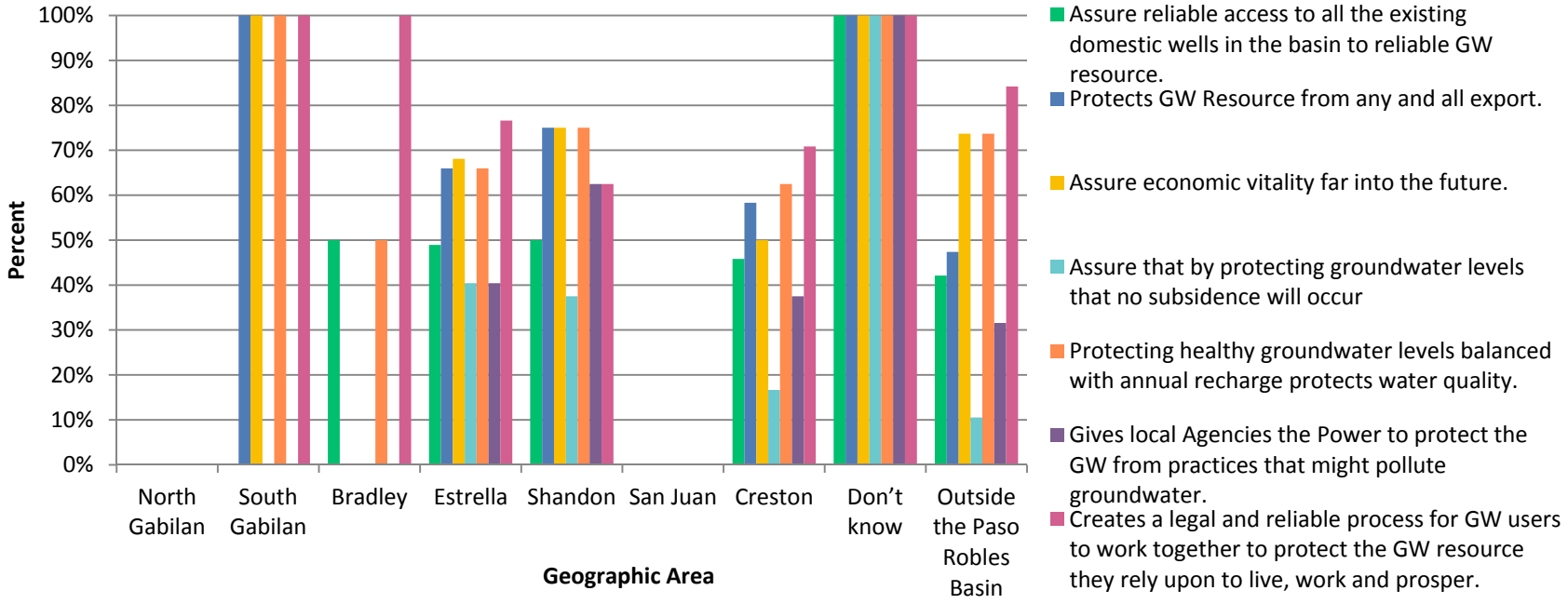
Reaching sustainability will likely require some concessions. On a scale of 1 (most acceptable concession) to 5 (least acceptable concession), how would you rate the following concessions that may be necessary to reach sustainability?

Shallow domestic wells going dry and needing to be deepened



Geographic Area	most acceptable			moderately acceptable			least acceptable				
	1		2		3	4		5		Total		Weighted Score
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
South Gabilan	0%	0	0%	0	0%	0	100%	1	0%	0	1%	1	4
Bradley	0%	0	0%	0	0%	0	0%	0	100%	2	2%	2	5
Estrella	15%	7	15%	7	13%	6	13%	6	45%	21	47%	47	3.57
Shandon	13%	1	0%	0	50%	4	25%	2	13%	1	8%	8	3.25
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
Creston	0%	0	4%	1	17%	4	30%	7	48%	11	23%	23	4.22
I don't know	0%	0	100%	1	0%	0	0%	0	0%	0	1%	1	2
Live Outside Basin	5%	1	16%	3	21%	4	21%	4	37%	7	19%	19	3.68
Total	9%	9	12%	12	18%	18	20%	20	42%	42	100%	101	
											Answered		101
											Skipped		10

From your perspective, check the boxes that apply to the biggest opportunities as a result of the SGMA process



Geographic Area	Assure reliable access to all the existing domestic wells in the basin to reliable GW resource.		Protects GW Resource from any and all export.		Assure economic vitality far into the future.		Assure that by protecting groundwater levels that no subsidence will occur		Protecting healthy groundwater levels balanced with annual recharge protects water quality.		Gives local Agencies the Power to protect the GW from practices that might pollute groundwater.		Creates a legal and reliable process for GW users to work together to protect the GW resource they rely upon to live, work and prosper.		Total	
	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
North Gabilan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
South Gabilan	0%	0	100%	1	100%	1	0%	0	100%	1	0%	0	100%	1	1%	1
Bradley	50%	1	0%	0	0%	0	0%	0	50%	1	0%	0	100%	2	2%	2
Estrella	49%	23	66%	31	68%	32	40%	19	66%	31	40%	19	77%	36	46%	47
Shandon	50%	4	75%	6	75%	6	38%	3	75%	6	63%	5	63%	5	8%	8
San Juan	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Creston	46%	11	58%	14	50%	12	17%	4	63%	15	38%	9	71%	17	24%	24
Don't know	100%	1	100%	1	100%	1	100%	1	100%	1	100%	1	100%	1	1%	1
Outside the Paso Robles Basin	42%	8	47%	9	74%	14	11%	2	74%	14	32%	6	84%	16	19%	19
Total	47%	48	61%	62	65%	66	28%	29	68%	69	39%	40	76%	78	100%	102
															Answered	102
															Skipped	9

What would be a successful outcome of the SGMA process from your perspective?

Responses from Estrella
Balancing the water usage in urban areas vs ag.
Sustainable groundwater levels
Protect groundwater supplies with an equitable approach for all users. Do not increase city use at the expense of agricultural use.
Maintain groundwater levels. Enforcement of over pumping. No selling groundwater.
Stability
Stable political situation which allows additional planting of irrigated crops
Maintain GW levels and quality at greater or at least current levels
Stop or reduce residential development including hotels which are major water users.
A successful outcome would be to further stabilize water levels and then come up with a plan to recharge the water basin.
We have too much government involved in our daily lives. Eliminate all of the SGMA governmental entities.
A better understanding of groundwater, its biggest users, biggest threats, and best practices that can help reduce use.
Respect for and preservation of private landowner water rights.
Raise current groundwater elevations
Completely measure the basin in all areas and develop accurate sustainable yields that are measurable
Creates a plan for stabilizing and perhaps improving future water availability and quality. Controls over pumping by some parties that are abusing groundwater pumping.
Slow growth in Paso Robles city limits.
All vested parties unite in reaching viable solutions for the betterment of all. Local control.
Develop and implement a plan that is acceptable to stakeholders while fulfilling the requirements of the SGMA process.
An allocation per acre, equal for all land owners that in total brings the usage down to a sustainable level. Owners that didn't plan to use their could lease, sell or contribute to raising the water table and help mitigate low rainfall
Land use regulations to monitor / regulate future growth of AG. Also need to monitor all development to ensure there is sufficient water resources. Water resources must be managed. Growth must be planned. Wells will need monitoring along with a reliable means of determining the water level of the basin.
Increased scientific research on the basin and the development of an integrated plan to reach sustainability using that research as a foundation.
The wake up call to City Council that we cannot keep adding 1000s of homes.

What would be a successful outcome of the SGMA process from your perspective?

Responses from Estrella Continued
Stabilize basin from decline without destroying agriculture.
The end of waiting for my well to run dry
A plan that stabilizes ground water sources which assures property values
Not to have to listen to that Graywall guy any more.
Stable well water levels
Collect data that clearly defines the status of the parts of the basin and then work to create a fair distribution of pumping capability so that NO WELL goes dry.
maintain ground water levels at current state in non impacted areas and increase the levels in severely impacted areas
Reaching SGMA's defined purpose: achieve sustained water supplies
enough groundwater to sustain growth in the area
{Better} educating our community so there is a clear, uniform understanding and coalition effort moving forward.
less residential & commercial development, mainly less residential density of development. The quality of life offered here is being squandered I feel by a hurry up attitude toward development. Paso Robles will only become more attractive in the future with a slower approach to development of high density projects. The land is the finite resource, once it's developed, nothing else can be done with it for long periods of time. Don't be in such a rush to sell the golden goose. Thank you for this survey opportunity.
A stable and reliable GW.
maintaining ground water levels about 100 feet higher than they are today.
One where limitations are placed on the amount of water that can be drawn from the aquifer and more specifically the larger agricultural operations. Also to implement practices of water consumption by the general public and practice water conservation at all times.
That those who have superior rights to groundwater maintain that entitlement, and the appropriators be the first to be required to conserve or find alternate sources of water, especially the city of Paso
No export and metered wells with allocations. Bring the basin back to health and sustainable levels for 100 years to come.

What would be a successful outcome of the SGMA process from your perspective?

Responses from Creston
Through additional data, prove that there is not a justification for rationing water.
Pumping reductions which are applied fairly (based on crop water duty factors vs. historic pumping) to ensure that groundwater levels return to and stay at January 1, 2015 levels on average (allowing for lower levels in dry years only if groundwater levels on average stay at Jan. 1, 2015 levels).
to keep large investors from selling our water.
Win Win deal for everyone. Increase storage supplies and keep the basin in balance.
We already conserve and use as little as we can get by with. Getting everyone to do the same would be most helpfuk
A fair, science based plan, with exponentially more monitoring, and rewards for the most efficient water management practices.
- addressing the elephant in the room of disproportionate water usage by grape growers - recognition of residential water users as de minimis users
Stabilize water level at or near present level without major heartache to residents.
One with facts to back up the actions and one that accounts for future growth.
-To most heavily scrutinize new development, whether housing or agriculture, rather than limit the current community. -To offer quality monitoring on a county-wide level to ensure the safety of private domestic well users. -
Stable water levels and plan for the future which could include more irrigated land if owners willing to pay imported water cost
Pumping limits on heavy ag users, and a means of monitoring their usage. Significant fines for violations - high enough to make it economically unfeasible to exceed the limits set.
Maintaining levels and quality of this precious resource for the years to come.
A county wide "slow growth" ordinance
For decades our area was dry farmed and the population was modest. We now have major irrigated farming and excessive development, residential, commercial, wineries, and breweries - all major uses of groundwater. We need to get realistic on how our groundwater is used.
Follow the law ,overlyers first all others get in line use their other water sources end of story
Restoration of the Basin to its condition before the recent (last 10 years) explosion of development and pumping.
Groundwater levels returned to January 2015 levels and maintained at those levels into the future. Each sub-area meets the levels for their area.
A stable, healthy aquifer, able to withstand drought years, all parties sharing in the burden.
maintaining water levels at the BMP levels set around the basin.
Balance and sensible approach

What would be a successful outcome of the SGMA process from your perspective?

Responses from Outside the Paso Robles Basin
Stop subdividing ag land by abolishing certificates of compliance. No more production of grapes. Encourage dry-land farming. Raise ground water levers to historic averages.
Maintain or improve existing pumping levels with no pumping restrictions.
It's very important that we have a reasoned and scientific assessment of the health of the Basin so that we can consider projects to will enhance the Basin's yield. Very little will be achieved if we try to fix the Basin by how people feel. Good science will have to drive this process. Opinions matter little. Only good science and data will allow for just and equitable solutions.
sustainability no adjudication
sustainability at current levels
SLO County (Paso Basin area especially) becomes a more resilient economy (more sustainable and profitable agriculture) and health of the Salinas is increased as much as possible in conjunction with the US-LTRCD and other stakeholders. To collaborate to make difficult decisions, but ensure that agricultural users are not harmed economically or can benefit in some way if these difficult decisions do affect them (e.g. investigate how agriculture can be a force of long-term ecological good through innovative conservation tools or incentives and skillful communication thereof).
Stabilize groundwater levels and create a workable plan for agriculture and domestic use
Protect ground water by limiting new growth in the Paso Robles area.
Restoration and protection of the irreplaceable natural resources of the Salinas River for present and future generations.
Ample monitoring programs(using Wellntel) that engage groundwater users in a shared understanding of groundwater dynamics - ensuring adequate water for everyone.
Sustainable yields to support agriculture at it's current level and with room to grow.
Appropriate and legally-defensible flows for fish.
A practical GSP that all the parties can successfully implement to protect the GW resource sustainably into the future.
Local management of the resource. Improved local understanding and collaboration of people to understand how this GW source we have CAN be shared and used without harm to one another.
No domestic wells be effected. stop the wine industry growth no marijuana growers

What would be a successful outcome of the SGMA process from your perspective?

Responses from Bradley
GW resource is not overdeveloped. GW policies recognize the standing of individuals, and does not cater
Responses from Don't Know
lower ag use of water (wine grapes) alfalfa
Responses from South Gabilan
Stay out of the separate water supply in the Ranchita Canyon area and to the North, which is Northerly
Responses from Shandon
Shandon becoming its own basin
Publicly monitor ground water levels. Publicly monitor all agricultural wells. Maintain or improve groundwater levels.
reliable water
Meeting the requirements of the law with least amount of capital spending
Sustainable water volume and quality.
Users paying a fair price for water and an end to the disharmony in the community
recognition of dry land farming and ranching groundwater needs, ability to receive credit for groundwater recharge practices
Groundwater levels that are stable within a few years at a level that allows continued domestic and agricultural uses. Levels may differ by location within the basin.

Please provide any other information, comments, or questions that you have regarding the SGMA process and development of Minimum Thresholds for the Paso Robles Basin.

Responses from Estrella
Their must be rules about a corp drilling a signifiant well right on your fence line and destroying your ag well.
Developers and others continue to blame vineyards for water use . Actually vineyards with effective drip irrigation use little water compared to hotels and residential expansion.
Get out of our lives!!!!!
I have been in the profession of civil engineering and water sustainability for over 25 years. I am currently a sustainable wine auditor in SLO County for CSWA. There are ways to reduce water consumption that actually saves money that should be mandated.
Need to agricultural pumpers providing technical details about current irrigation practices including scheduling, water saving technologies, cultural practices, etc.
Your all dancing around the issue, there is 2 to 3 times the sustainable usage, it has to come down! Farming techniques have to reduce evaporation or reduce acreage.
We need to be careful in examining the estimated water use as submitted by some engineering companies. One example was the engineer report for the EPC Water District. Way over estimated water use, methodology flawed. They simply averaged all AG uses at 3.5 AF for all planted acres. Since most irrigated acreage in the EPC District was vines, this over estimated. For vines they used 1.8 AF based on a 30 year irrigation use average. With the advances in irrigation, this number should be 1to 1.25AF.
My fear is that the Council will approve lowering the threshold just to make it easier to maintain while adding 1000s of new homes to the area.
I think serious thought needs to be given to some vehicle to discourage new major large vineyards from contributing to the decline of the ground water in the basin
Keep the process objective, based on good science with the least government control.
unsure

Please provide any other information, comments, or questions that you have regarding the SGMA process and development of Minimum Thresholds for the Paso Robles Basin.

Responses from Creston
How can the county be sure of water quality, and well productivity throughout the basin(s) and are there currently sufficiently trained individuals to carry out the potential increase of data gathering, sampling and related activities to serve the public?
Pumping data and groundwater levels for 2015 - not 2011 - must be used. Key wells must be chosen and used for verification. Pumping reductions must be calculated based on 2015 data. Any groundwater reductions in the short term must be addressed, instead of waiting until 5 year reviews.
Get the supervisors on board
again increase storage and balance the basin. Allow Huer Huero River to run and bring the basin back into balance.
With the city of Paso planning major housing developments and hotels. The cities usage is going up exponentially
More information on the great many variations of the PR Basin.
This there even a chance to hold the water level near current with recent spurt of ag growth and continued residential growth--without draconian measures? Is this whole process just an exercise?
Is the county currently staffed with the workforce of individuals with experience in well sampling, depth sounding, field assessment of wellhead sanitation, environmental/watershed and related activities that will be of increased importance to serve the local community? -If the county will not be measuring or monitoring these criteria, who will?
Acceptable drops likely will vary in the Basin, a single figure in feet is likely too simplistic
I appreciate the opportunity to participate in a survey like this. Thank you
Where are the results of the last survey from about a month ago?
The overdraft is a lie , the casgem # a lie tell the truth State provide the water you sold, build the dams we voted on
The first step is to require meters and reporting on all wells. The Basin will never be managed until we know accurately how much water is being extracted.
The El Pomar area should be addressed separately from the Creston sub-area. Data on key wells must be maintained to determine status of groundwater levels in relation to established minimum thresholds.
I am very disappointed by the lack of community spirit to solve this problem.
I have concerns that the GSPs will require too little, too late and the basin will be irreparably damaged. Plans will look good on paper but won't be effective. The larger ag interests will have taken maximum profit and move an.

Please provide any other information, comments, or questions that you have regarding the SGMA process and development of Minimum Thresholds for the Paso Robles Basin.

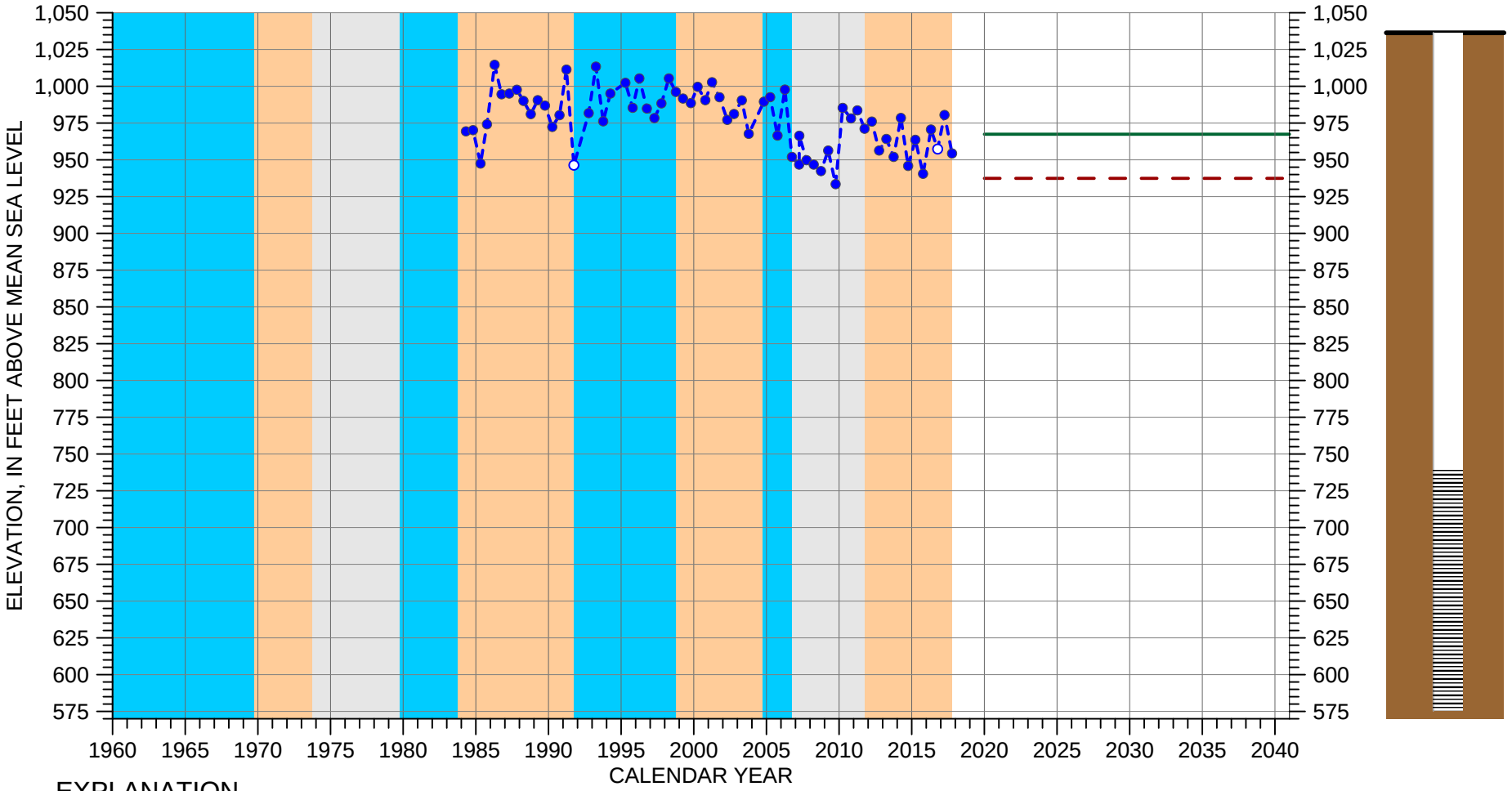
Responses from Outside the Paso Robles Basin
Minimum thresholds are the center piece of the GSP. This will require qualified hydrologists and hydrogeologists working together to analyze our basin and come up with alternatives and choices. Once the scientific data is analyzed and accepted by Basin users, then careful consideration must be made taking into account the social and economic impact of proposed changes to water usage in the Basin.
We are not sffected by basin levels so my answers may not be applicable.
Thank YOU! Appreciate the hard work you all are doing, and would love to see survey results or be informed about the tangible and intangible outcomes of it.
Minimum groudwater levels must be correlated with appropriate stream flow levels to protect all the Groundwater Dependent Ecosystems associated with the Salinas River, including the estuary.
The Paso GSA would benifit from using Wellntel based community groundwater monitoring networks. The network would fill data gaps, and engage stakeholders by providing them sustainability indicators for their own wells.
Nothing at this time and thank you for this survey!
Minimum thresholds in the Paso Basin need to be based on accurate rich publicly accessible GW data. Combining historical and new ongoing standing water level data sets with periodic quality testing.
I'm sure you are aware of this, but the Blue Ribbon Committee's work back in 2012 is a good source of information.
please do not bend to big money

Please provide any other information, comments, or questions that you have regarding the SGMA process and development of Minimum Thresholds for the Paso Robles Basin.

Responses from South Gabilan
For ranchers, farmers and others who wish to plant an irrigable agricultural product, give consideration towards them, even though they had not planted their lands before the explosive growth and heavy use of water for vineyards.
Responses from Don't Know
the County needs to have more regs re usage. How many acres of grapes have been planted since theCounty's last "regulation"
Responses from Shandon
Make everything easy for the public to know.
N/A
Please address the ability to deepen or drill new wells for domestic use in the Shandon area.
a successful outcome should include a market based system whereby credits/debits can be traded (monetized) for appropriate recharge/use of groundwater in the basin

Appendix H

Paso Robles Formation Aquifer RMS Hydrographs and Well Data

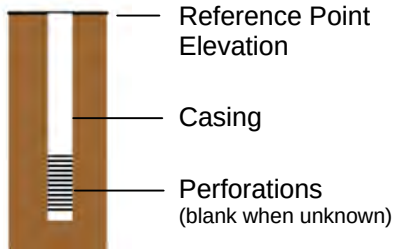


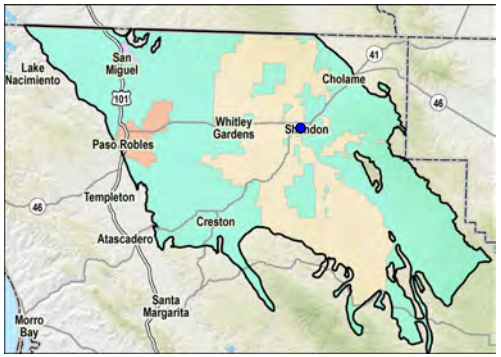
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



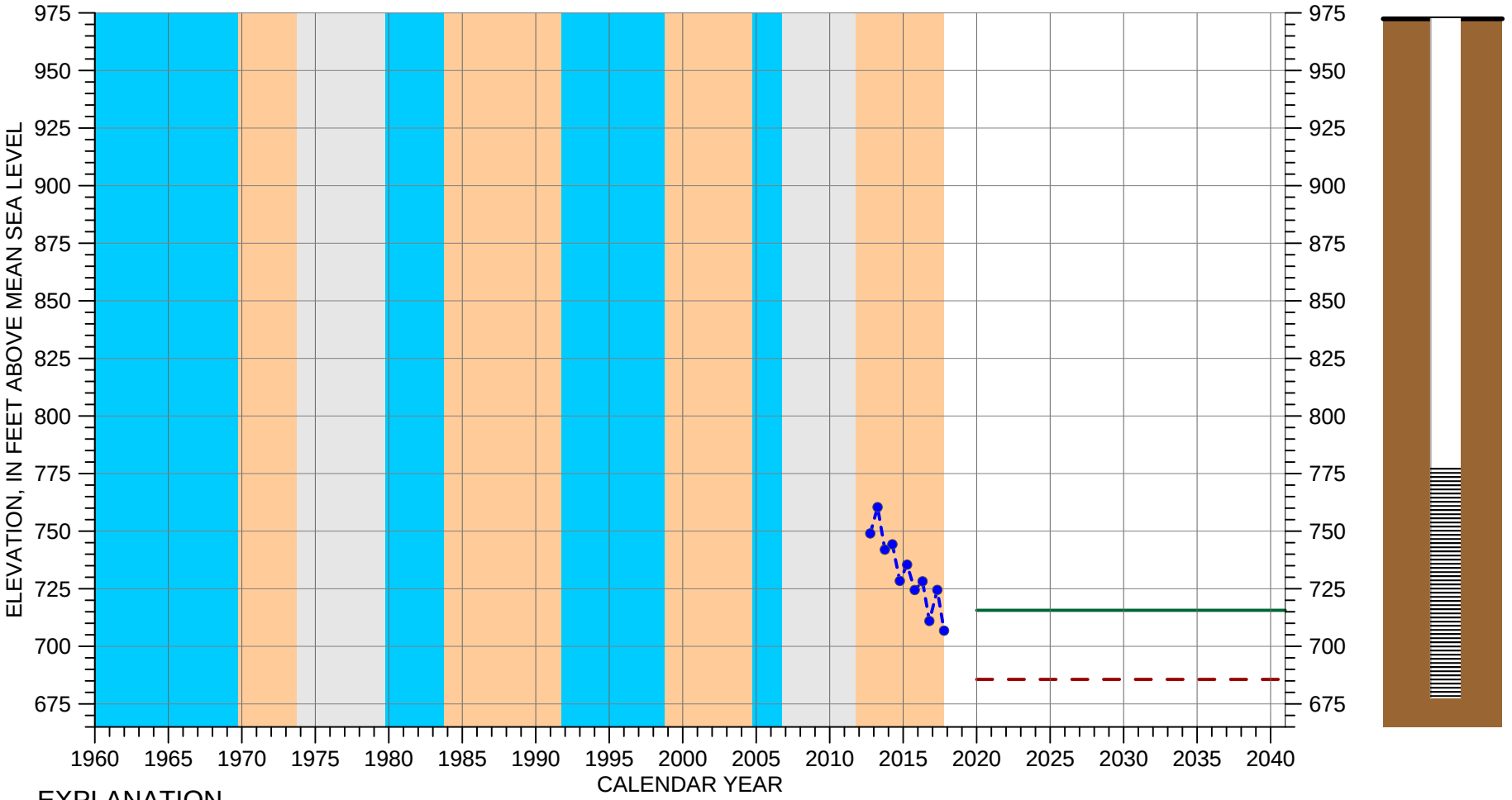


Well Depth: 461 feet
Screened Interval: 297-461 feet below ground surface
Reference Point Elevation: 1036.36 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 26S/15E-20B04

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only\Fig07_26S_15E-20B04.grf

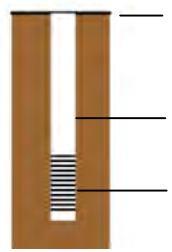


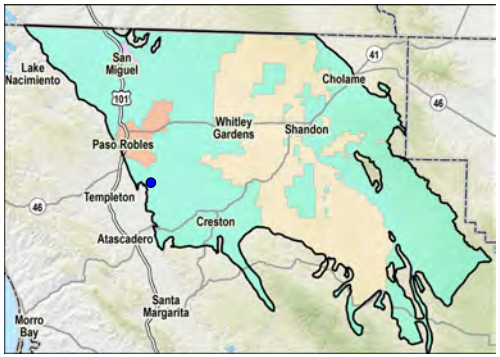
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



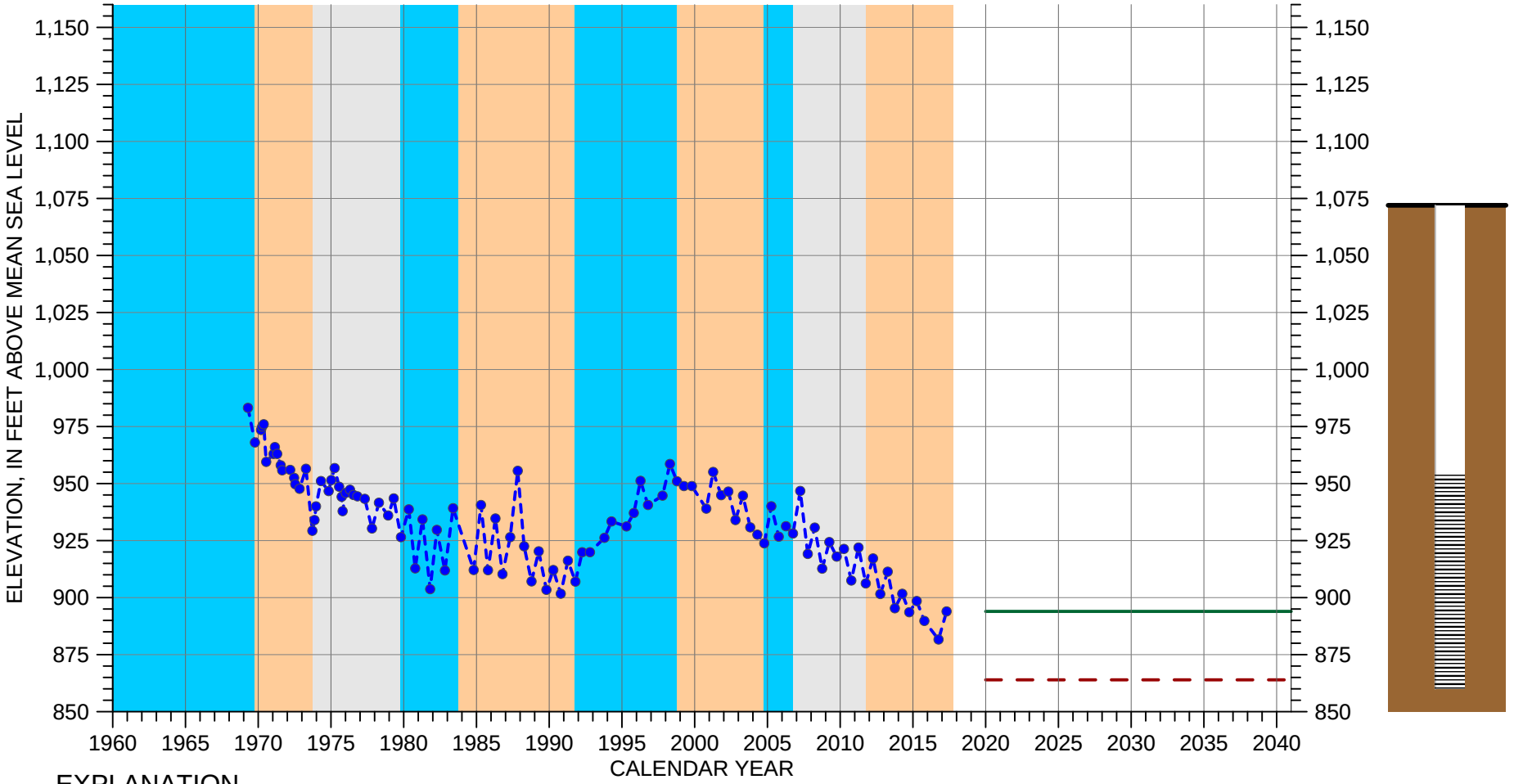


Well Depth: 295 feet
Screened Interval: 195-295 feet below ground surface
Reference Point Elevation: 972.4 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 27S/12E-13N01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only\Fig08_27S_12E-13N01.grf



EXPLANATION

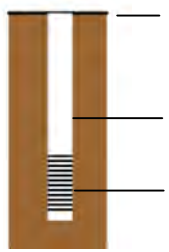
- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

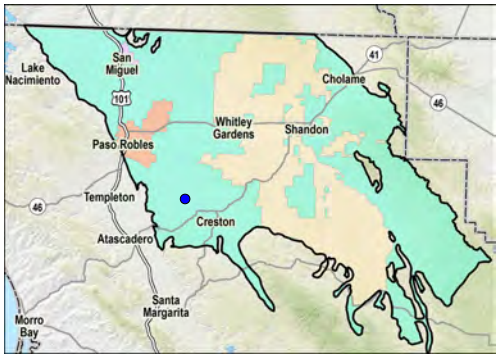
DRY | AVERAGE/ALTERNATING | WET

Well Depth: 212 feet
Screened Interval: 118-212 feet below ground surface
Reference Point Elevation: 1072 feet above mean sea level

* Measurement reported as not static



- Reference Point Elevation
- Casing
- Perforations (blank when unknown)



MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 27S/13E-28F01

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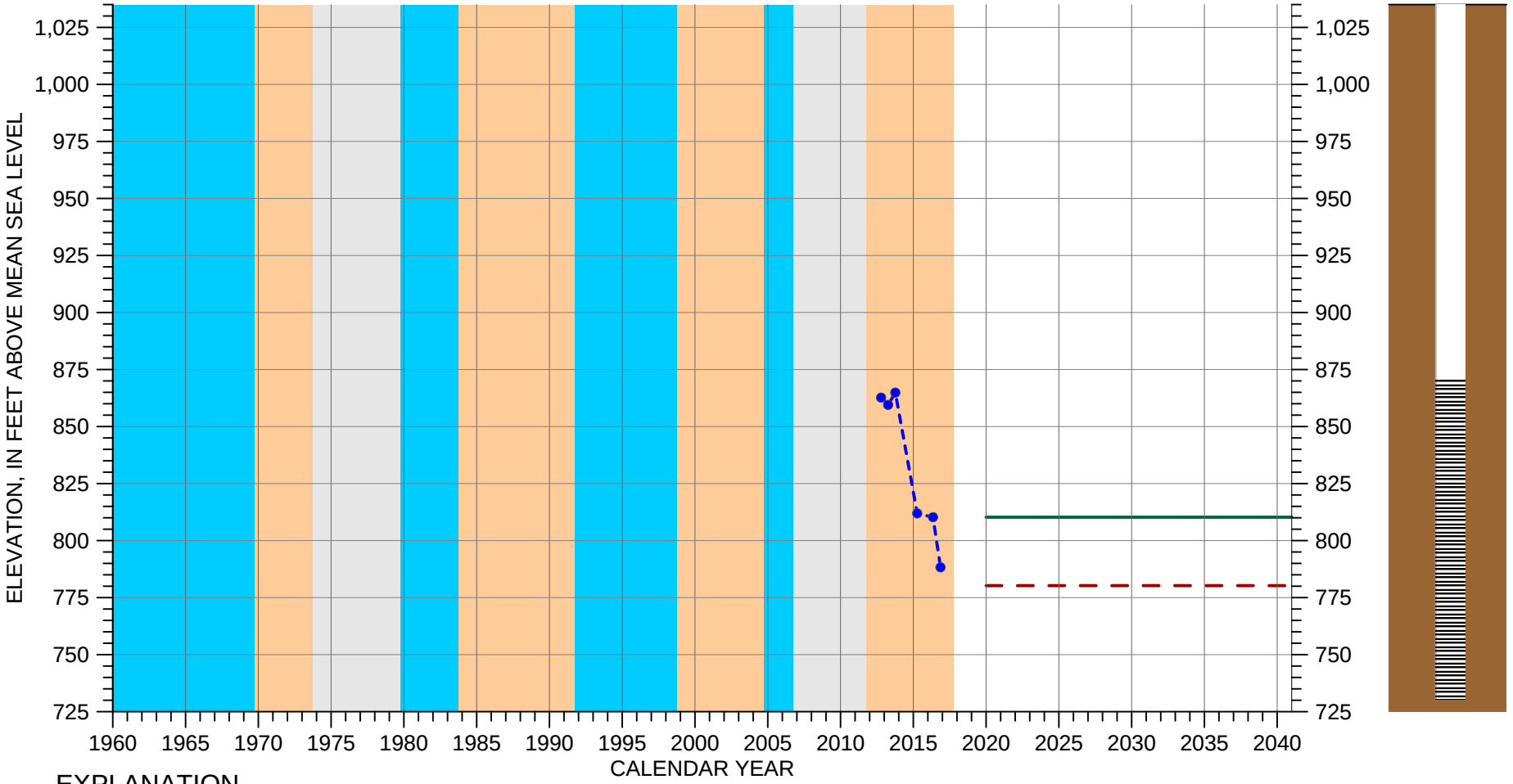
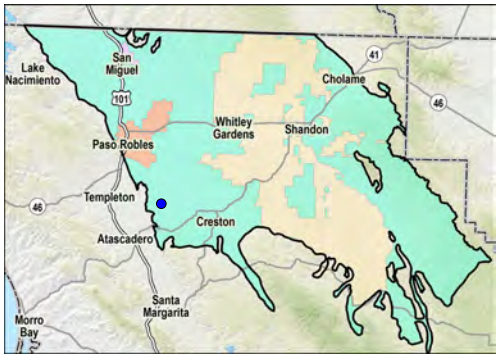


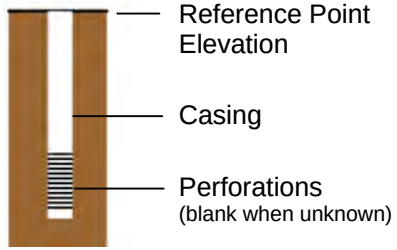
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*



CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET

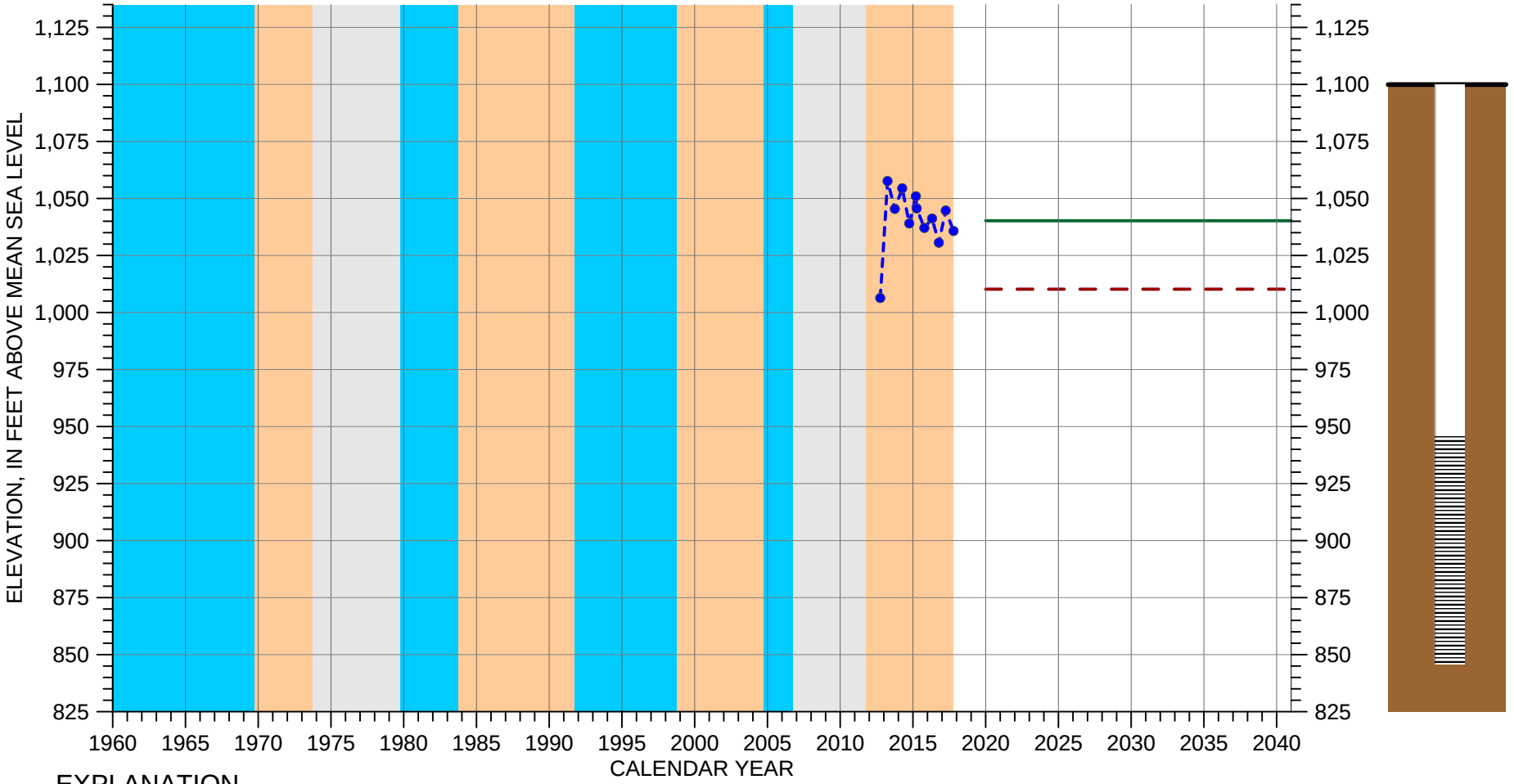


Well Depth: 355 feet
Screened Interval: 215-235, 275-355 feet below ground surface
Reference Point Elevation: 1086.7 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 27S/13E-30N01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only\Fig10_27S_13E-30N01.grf

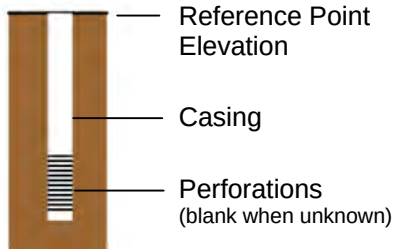


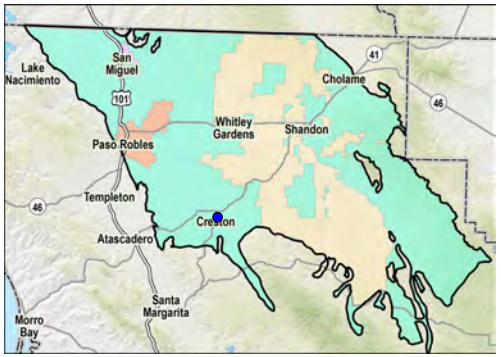
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



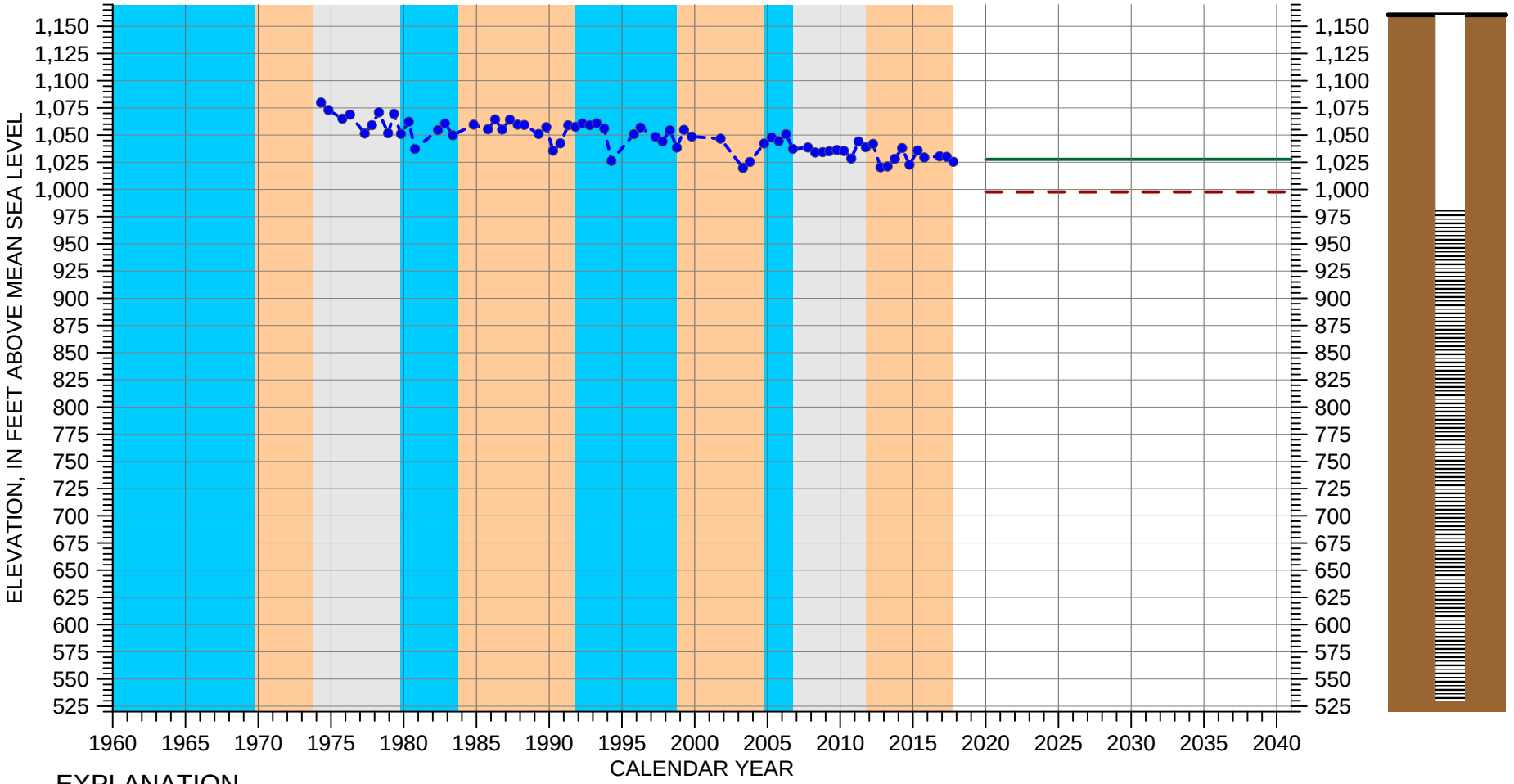


Well Depth: 254 feet
Screened Interval: 154-254 feet below ground surface
Reference Point Elevation: 1099.9 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 28S/13E-01B01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only\Fig11_28S_13E-01B01.grf

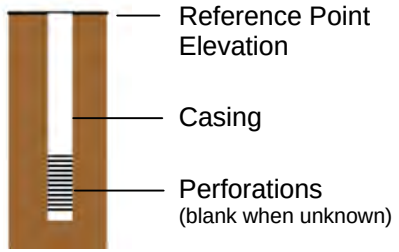


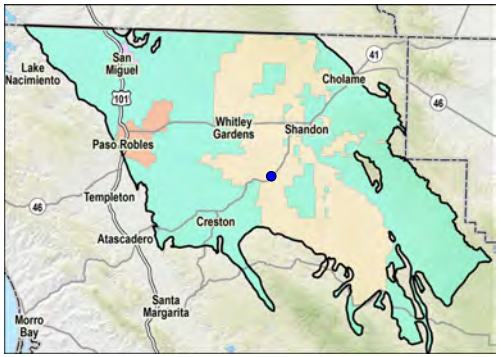
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



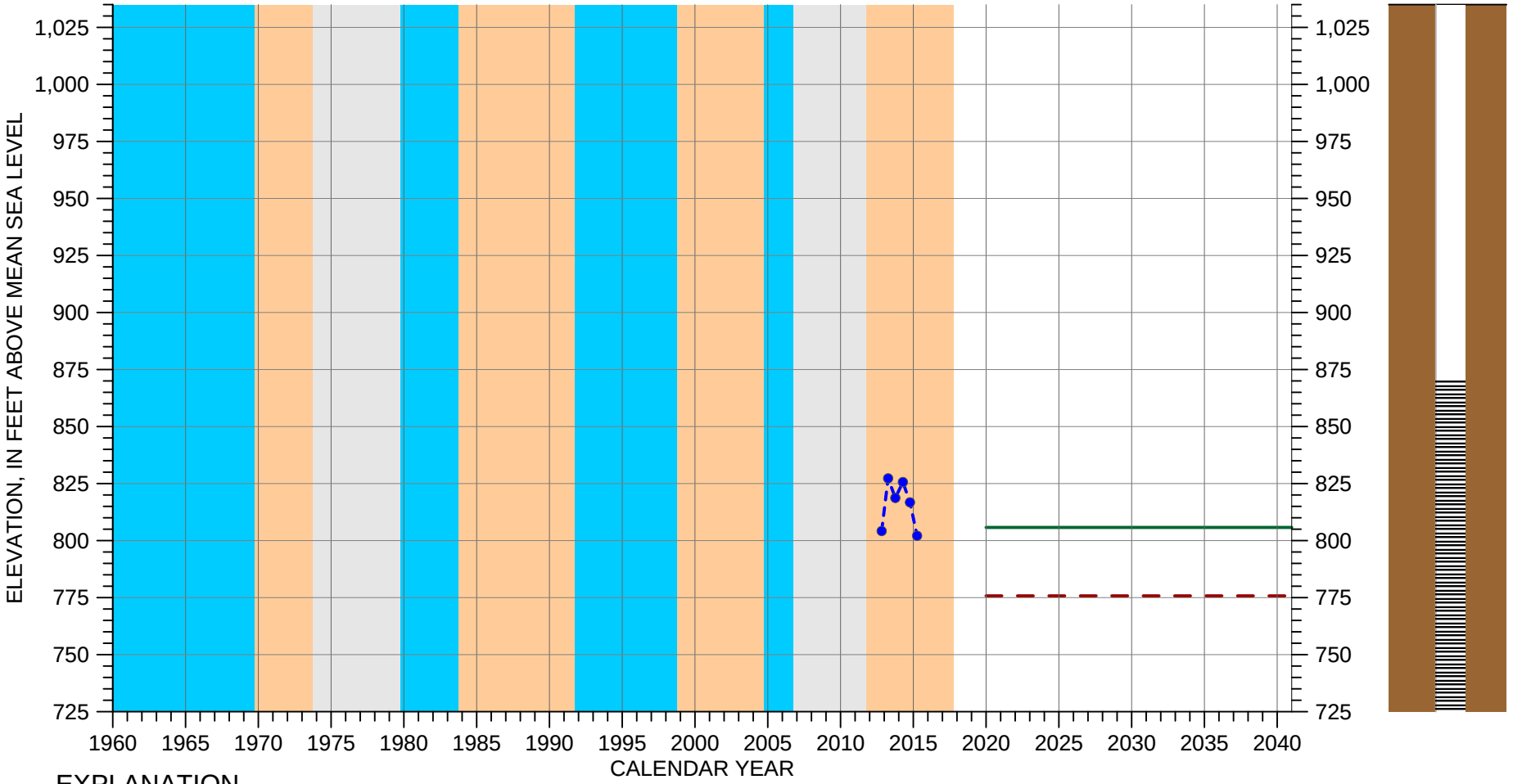


Well Depth: 630
Screened Interval: 180-630 feet below ground surface
Reference Point Elevation: 1160.5 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 27S/14E-11R01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only\Fig12_27S_14E-11R01.grf

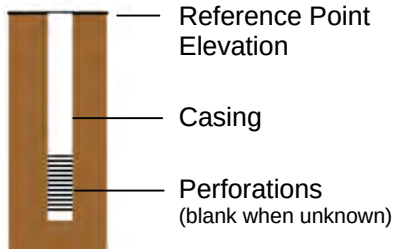


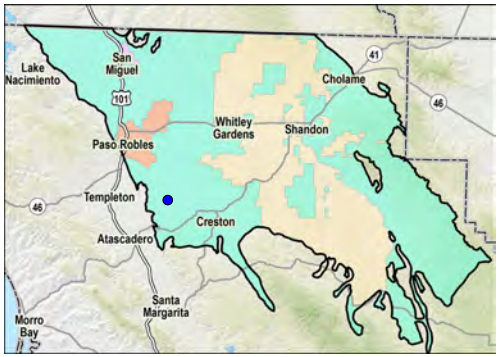
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



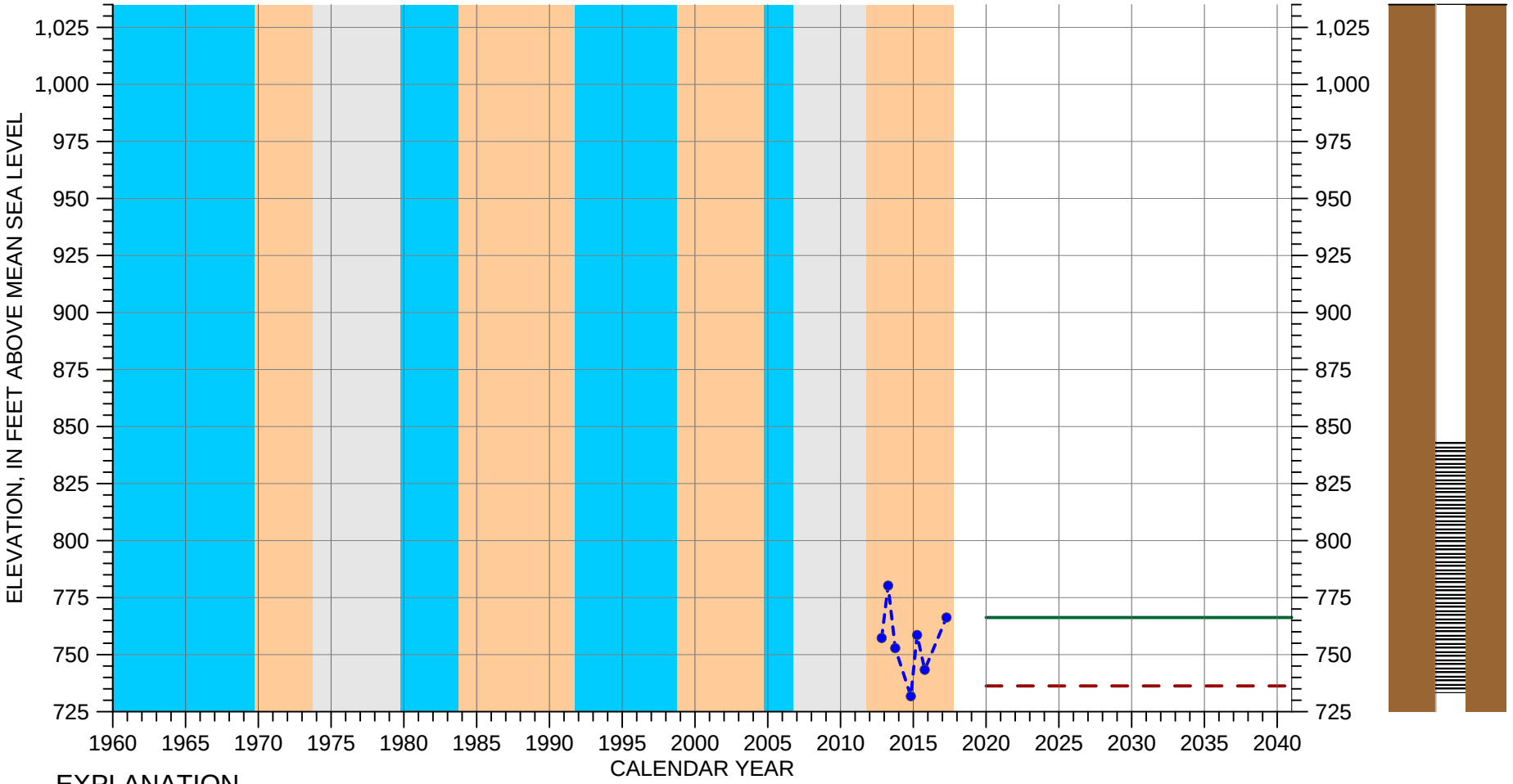


Well Depth: 685
Screened Interval: 225-685 feet below ground surface
Reference Point Elevation: 1095 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 27S/13E-30J01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only\Fig13_27S_13E-30J01.grf

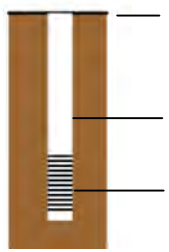


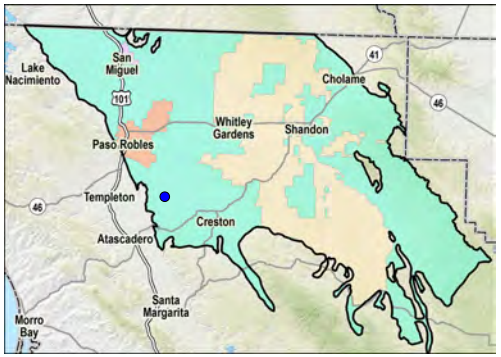
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



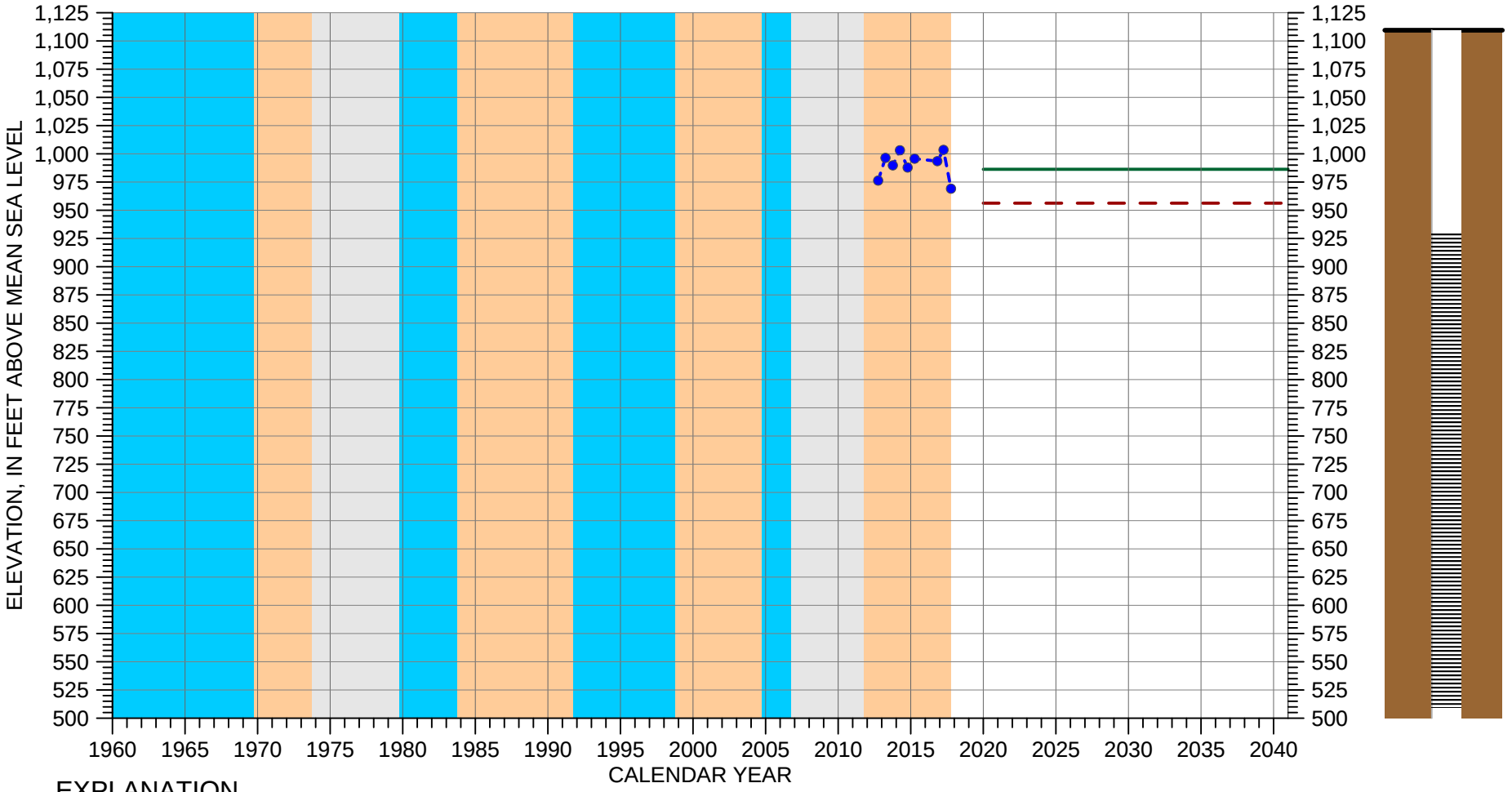


Well Depth: 310
Screened Interval: 200-310 feet below ground surface
Reference Point Elevation: 1043.2 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 27S/13E-30F01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only\Fig14_27S_13E-30F01.grf

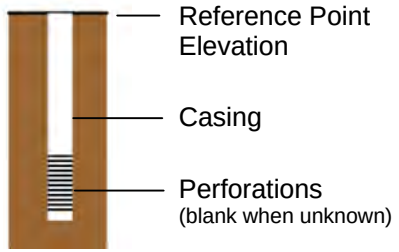


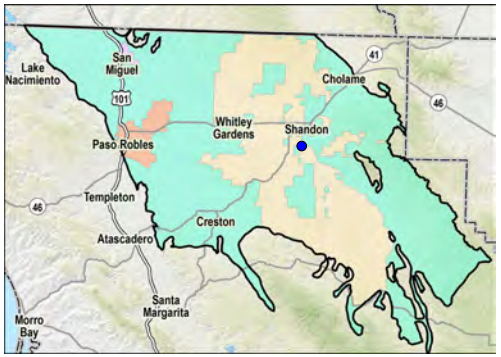
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



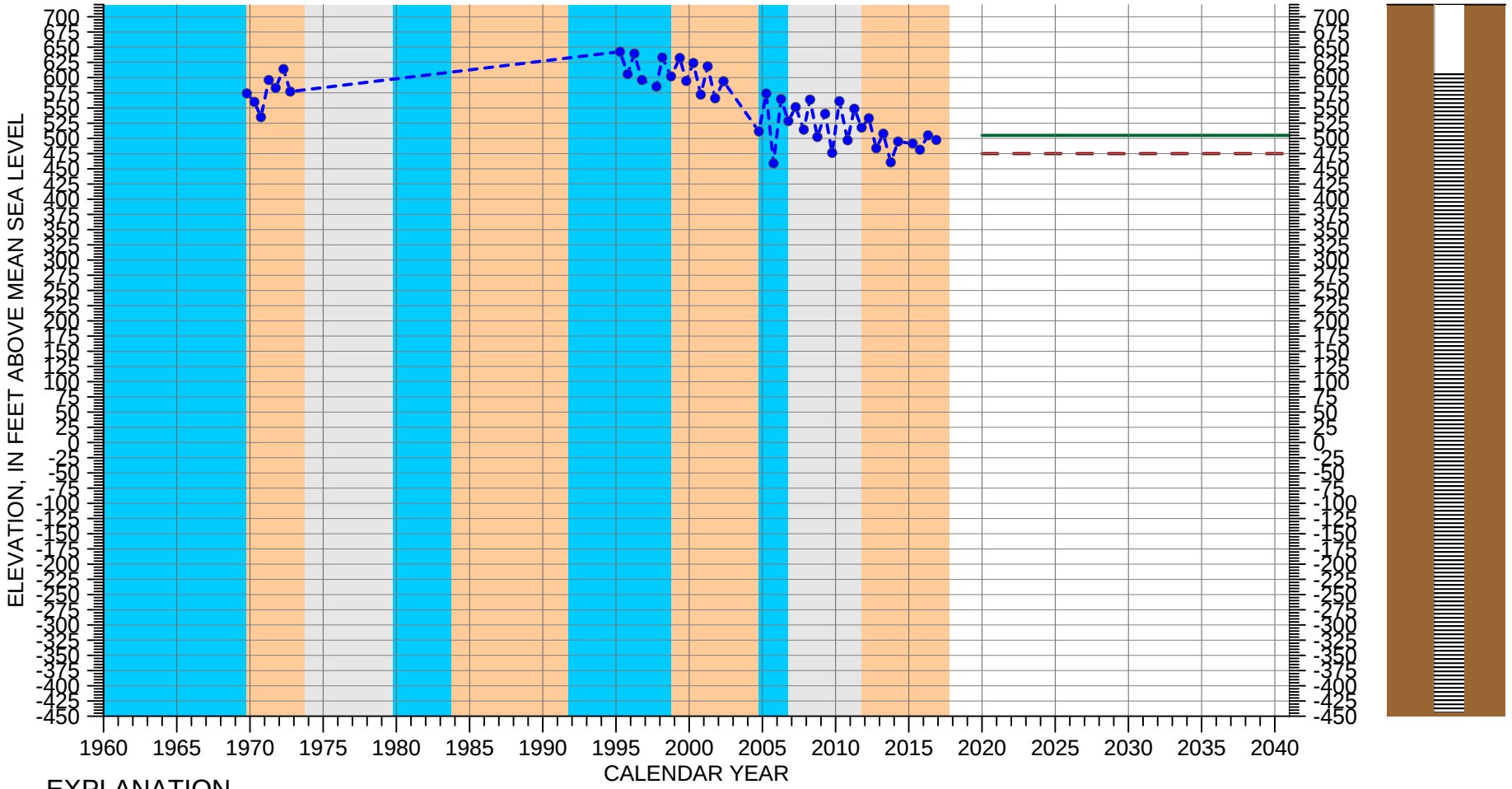


Well Depth: 600
Screened Interval: 180-600 feet below ground surface
Reference Point Elevation: 1109.5 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 26S/15E-29R01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only\Fig15_26S_15E-29R01.grf



EXPLANATION

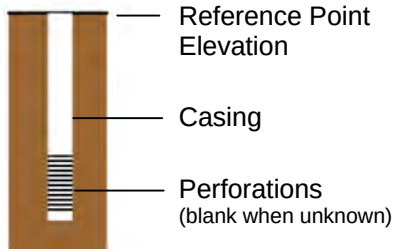
- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

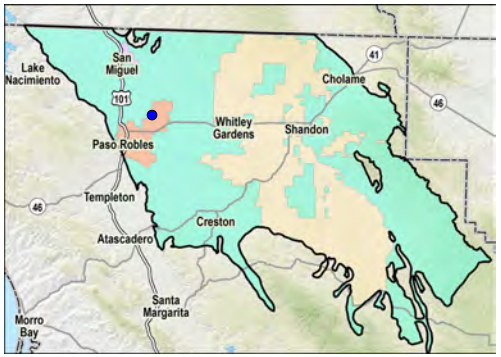
CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET

Well Depth: 1230
Screened Interval: 180-~1230 feet below ground surface
Reference Point Elevation: 790 feet above mean sea level

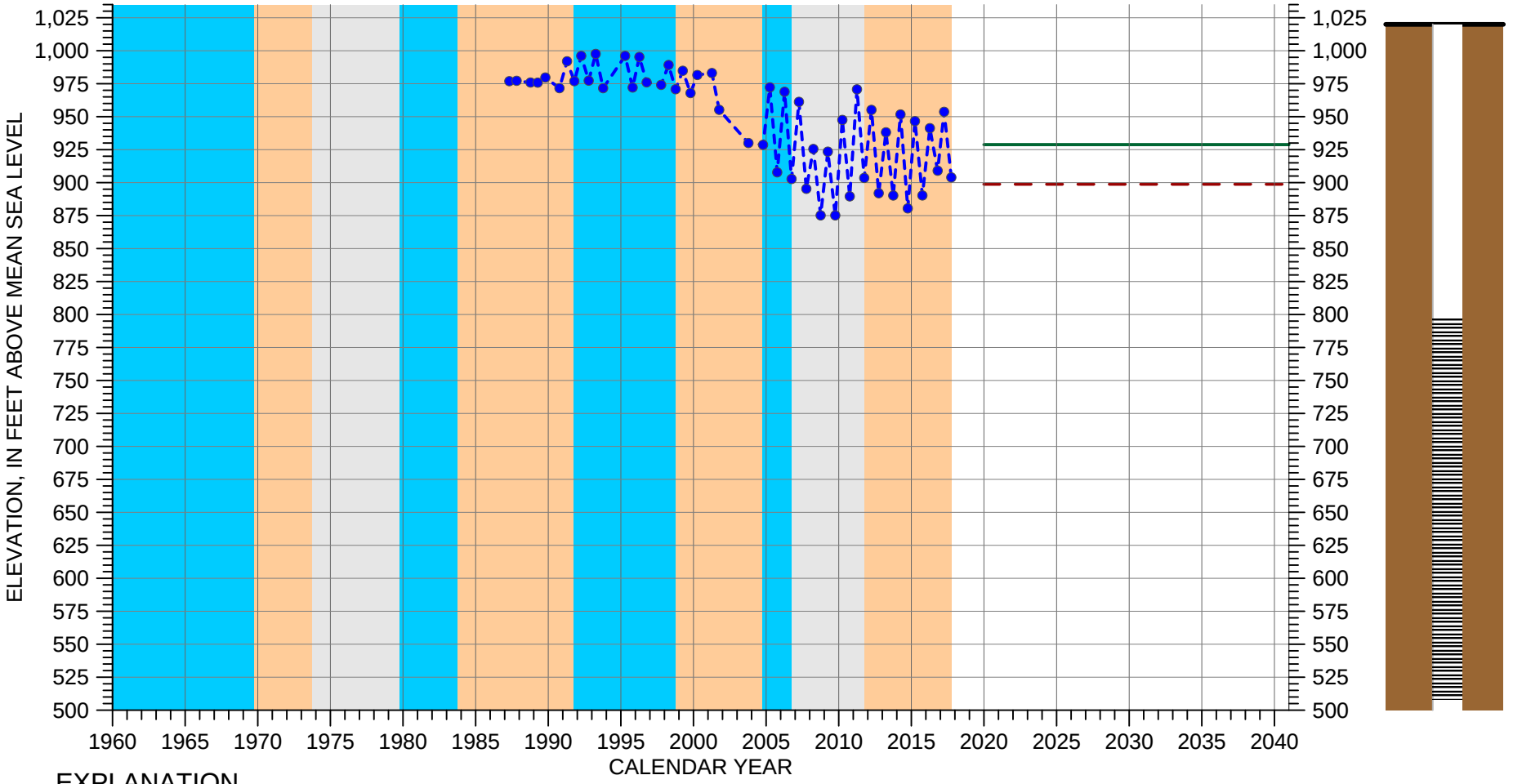
* Measurement reported as not static





MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 26S/12E-14H01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only\Fig16_26S_12E-14H01.grf

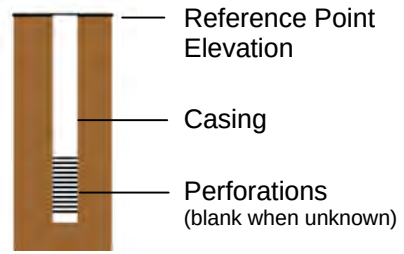


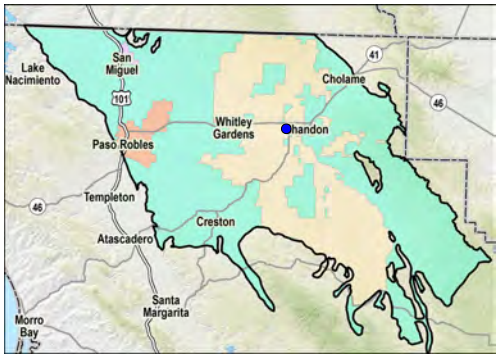
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



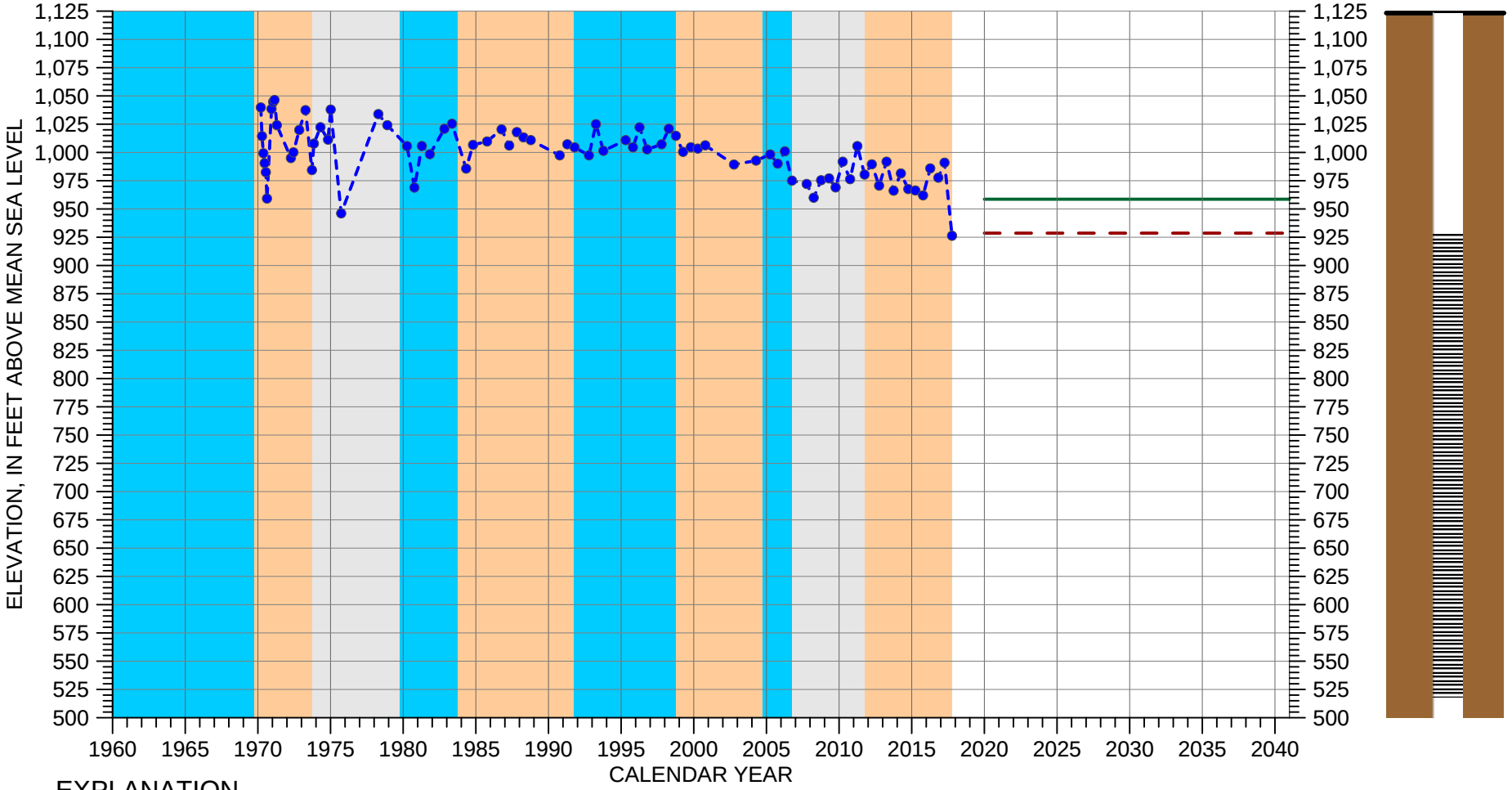


Well Depth: 512
Screened Interval: 223-512 feet below ground surface
Reference Point Elevation: 1020 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 26S/15E-19E01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\Observed_only\Fig17_26S_15E-19E01.grf



EXPLANATION

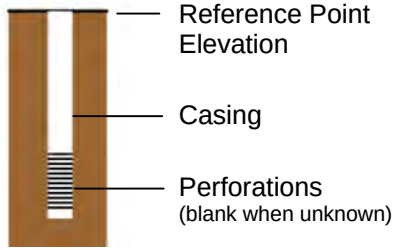
- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

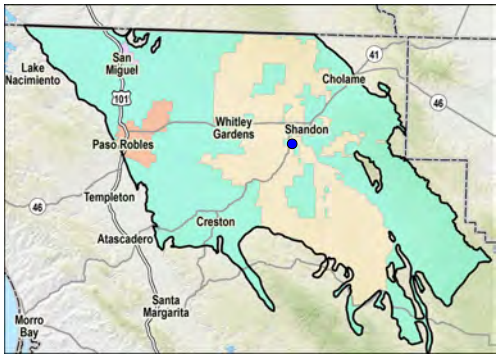
CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET

Well Depth: 605
Screened Interval: 195-605 feet below ground surface
Reference Point Elevation: 1123.3 feet above mean sea level

* Measurement reported as not static





MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 26S/15E-30J01

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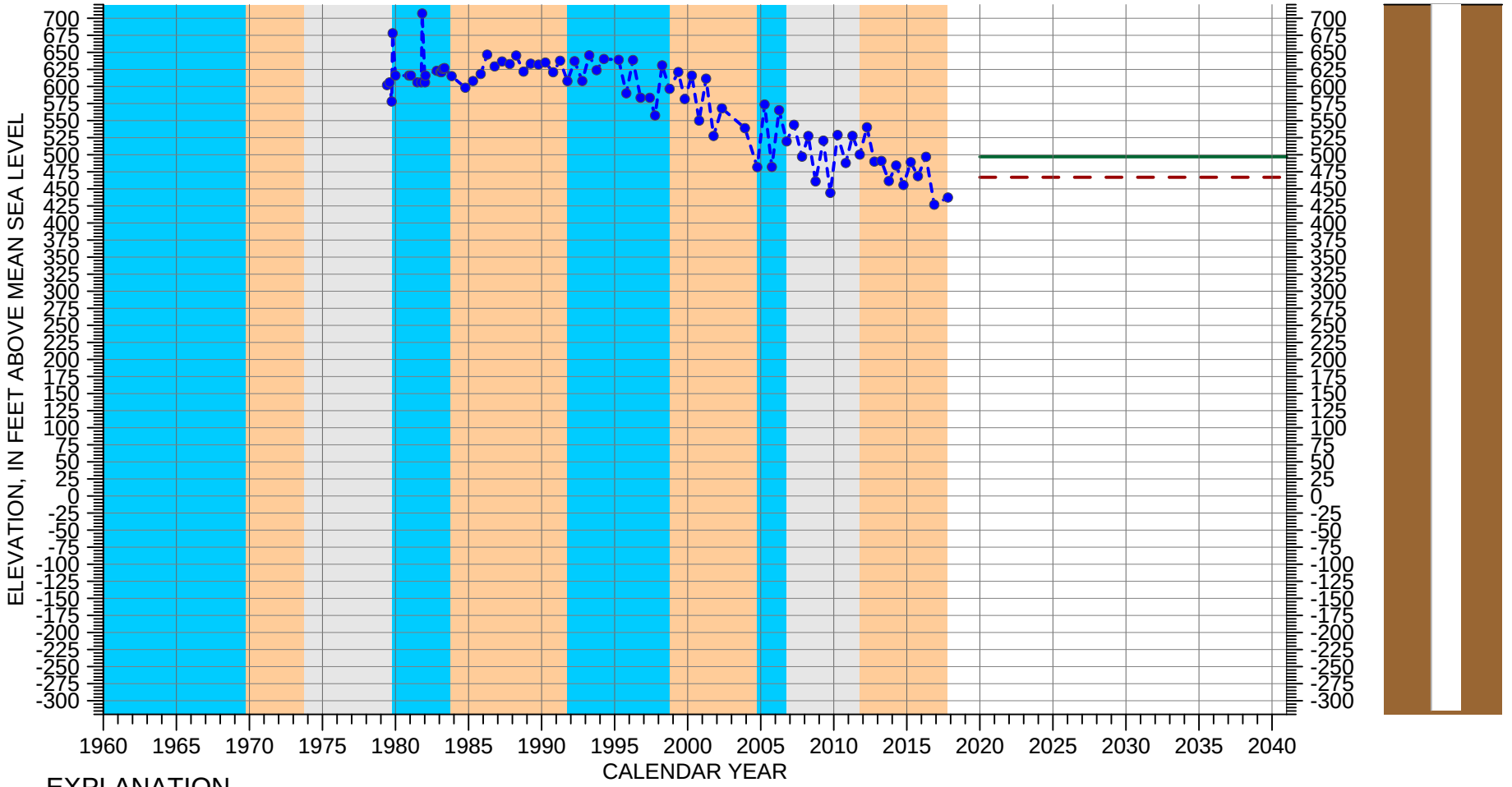


EXPLANATION

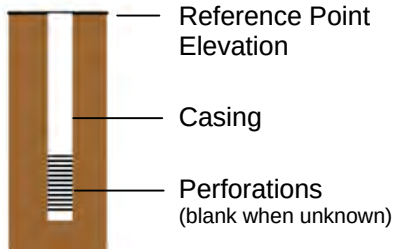
- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

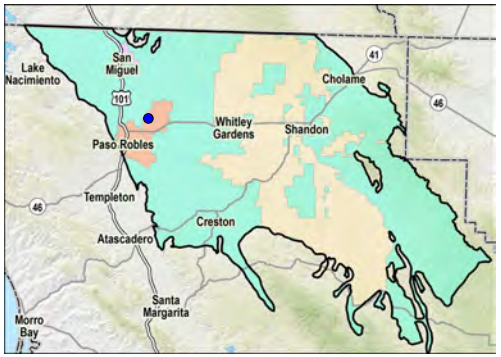
CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET

Well Depth: 1100
Screened Interval: unknown
Reference Point Elevation: 786 feet above mean sea level

* Measurement reported as not static





MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 26S/12E-14K01

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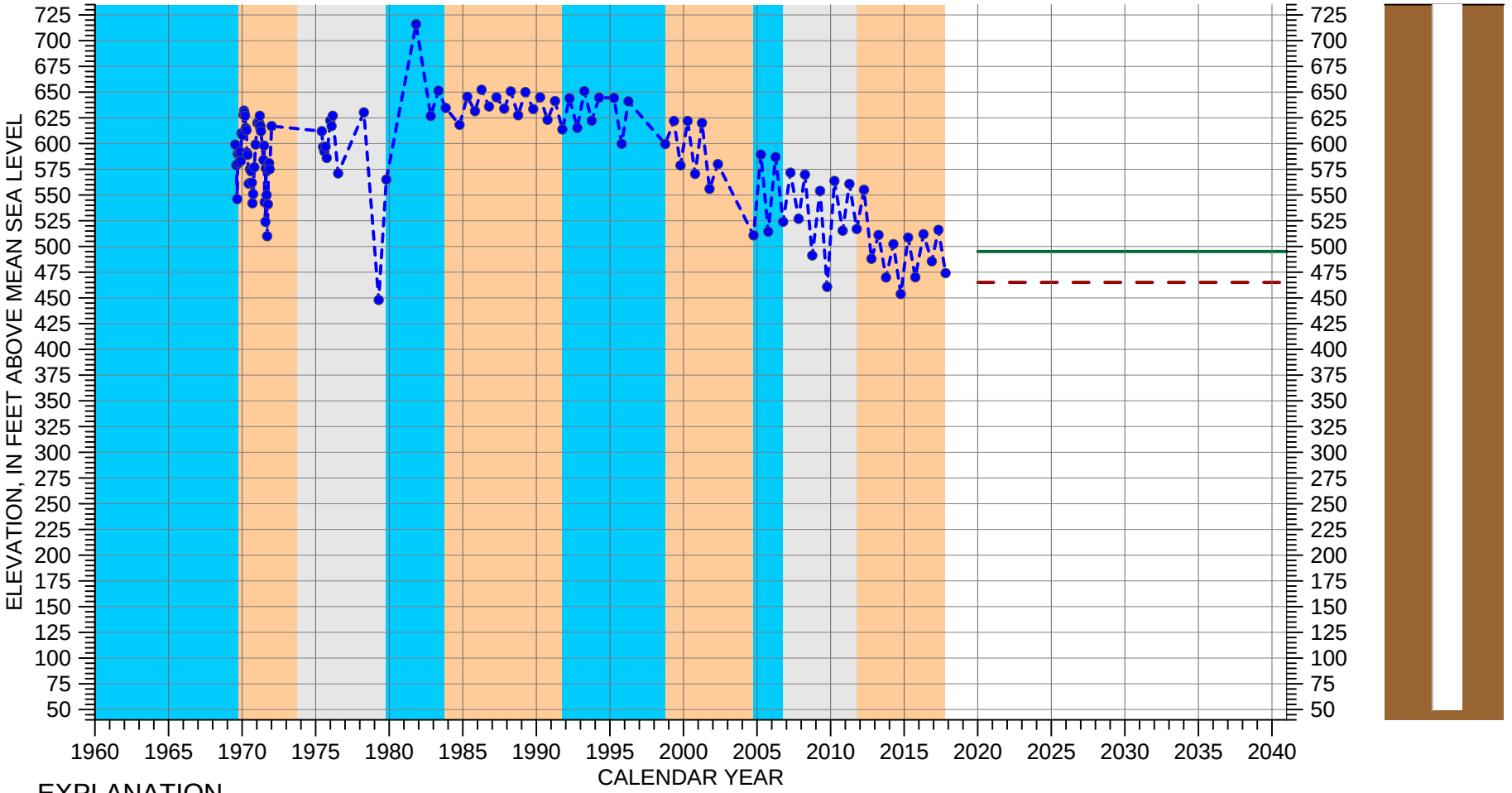


EXPLANATION

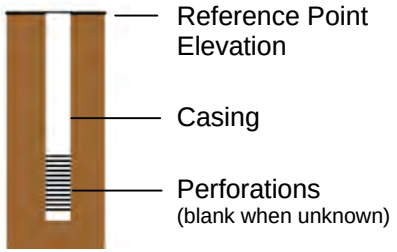
- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

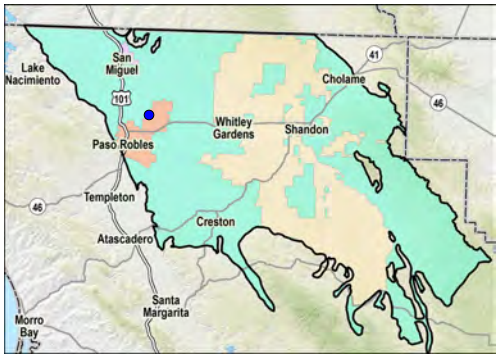
CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET

Well Depth: 740
Screened Interval: unknown
Reference Point Elevation: 789.3 feet above mean sea level

* Measurement reported as not static





MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 26S/12E-14G01

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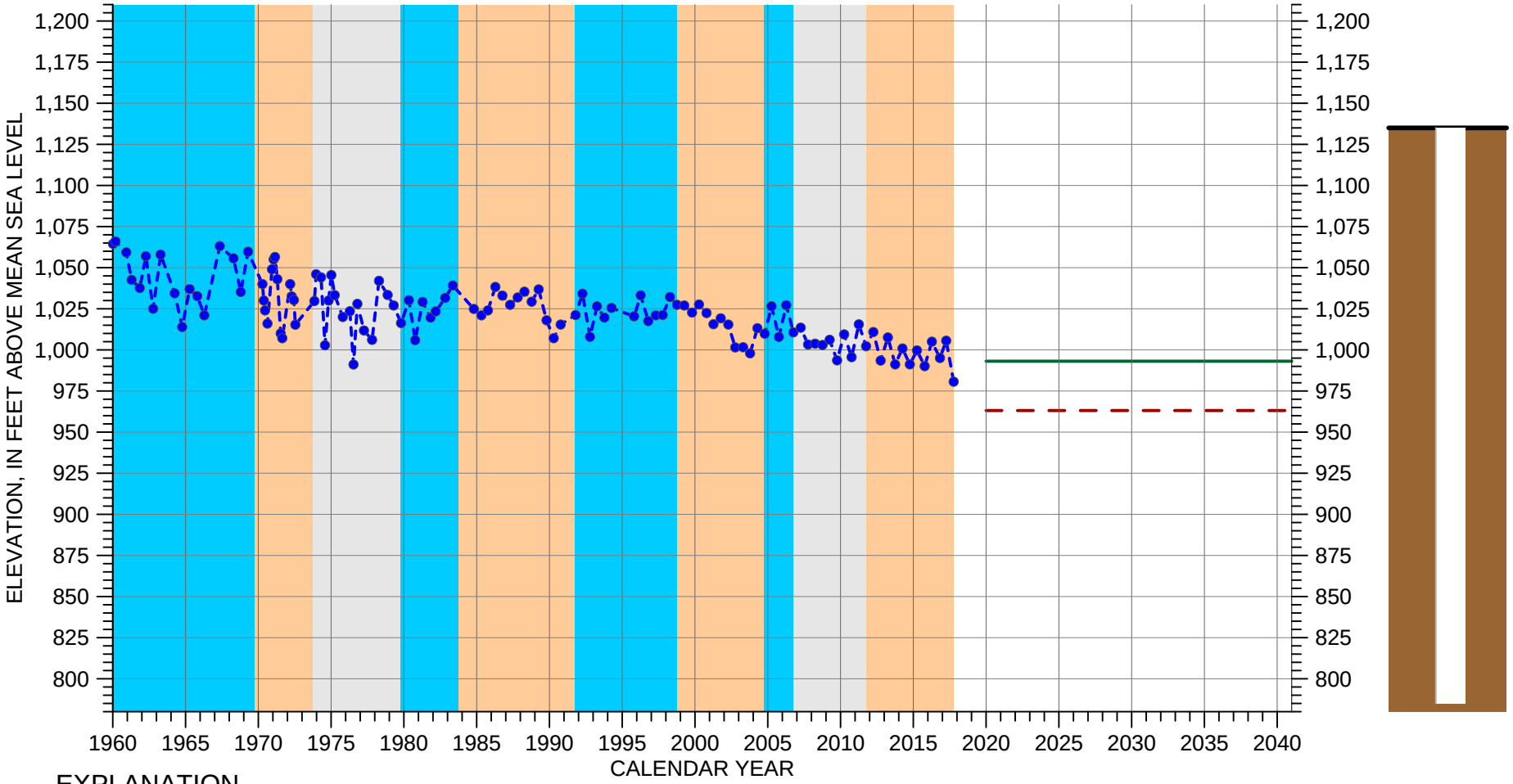


EXPLANATION

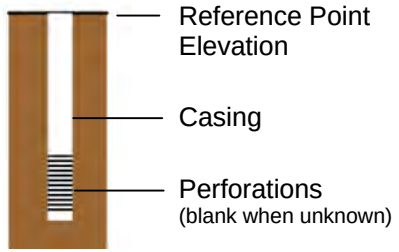
- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

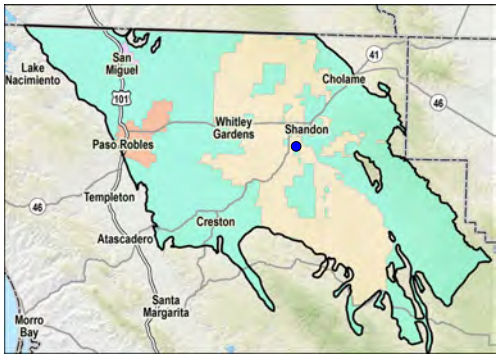
CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET

Well Depth: 350
Screened Interval: unknown
Reference Point Elevation: 1135 feet above mean sea level

* Measurement reported as not static





MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 26S/15E-29N01

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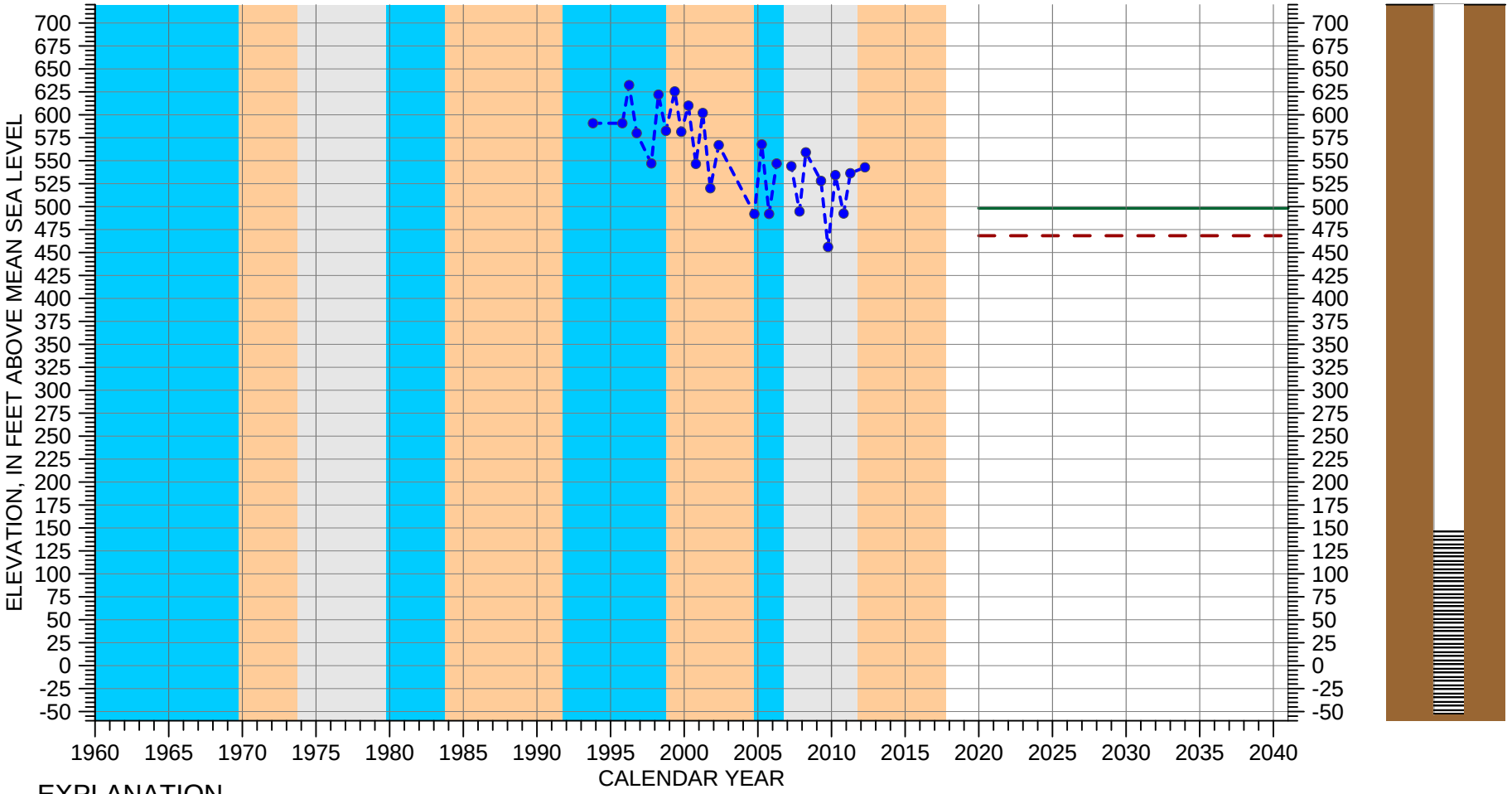
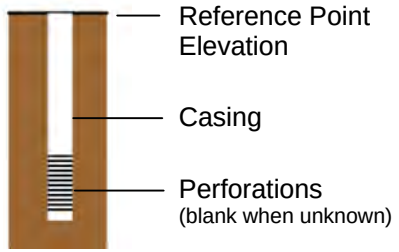


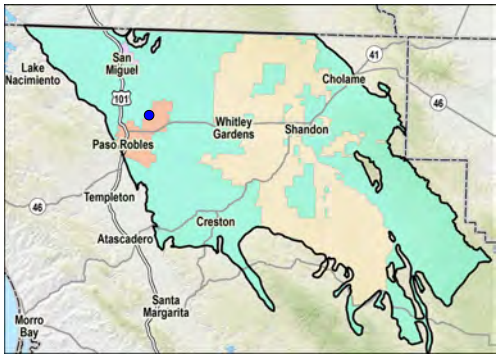
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET





Well Depth: 840
Screened Interval: 640- ~840 feet below ground surface
Reference Point Elevation: 787 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 26S/12E-14G02

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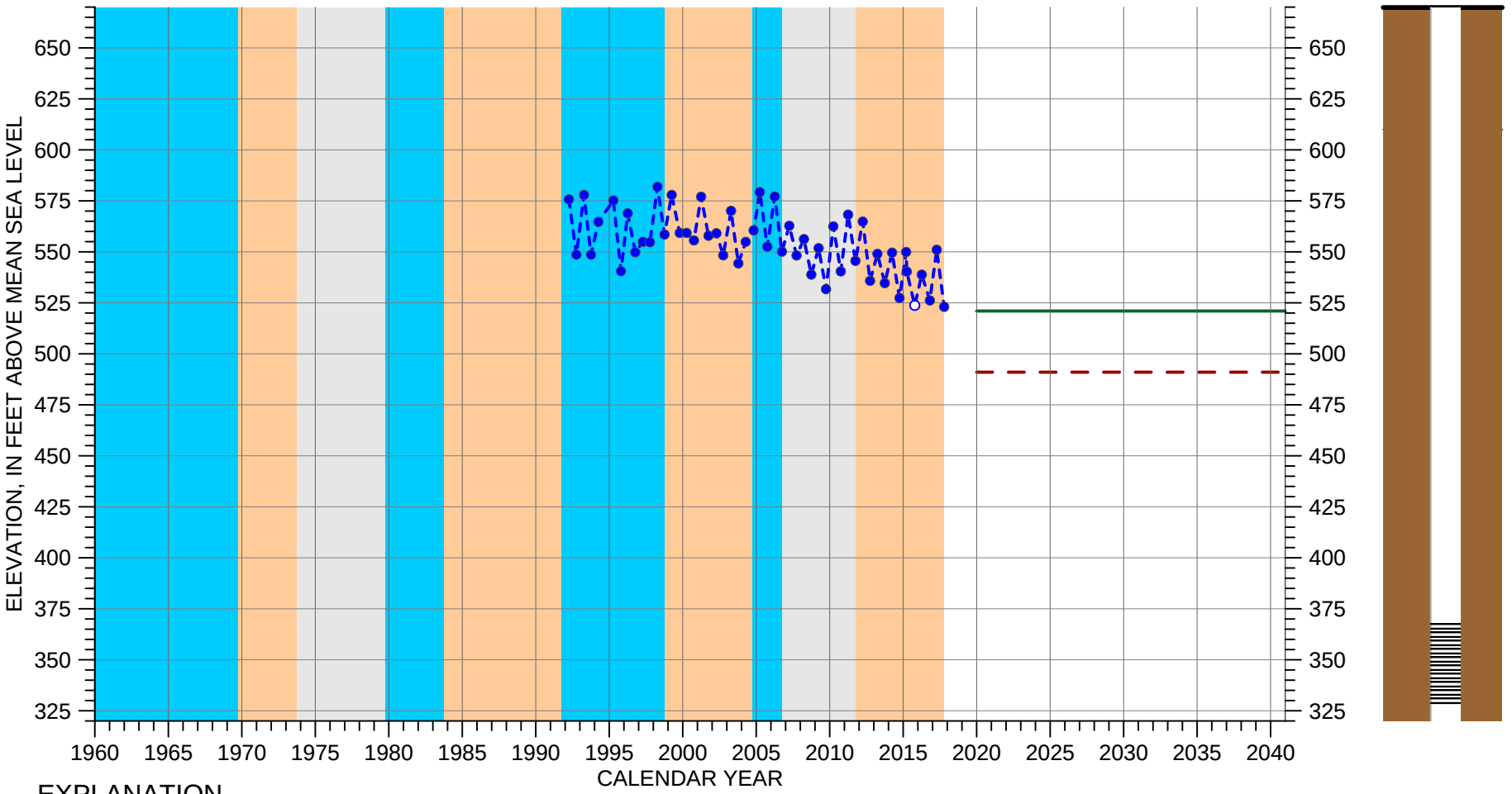
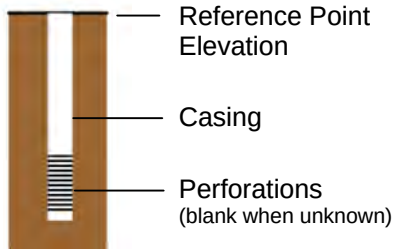


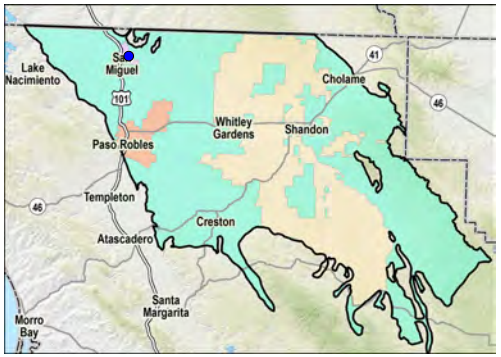
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET





Well Depth: 350 feet
Screened Interval: 300-310, 330-340 feet below ground surface
Reference Point Elevation: 669.8 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 25S/12E-16K05

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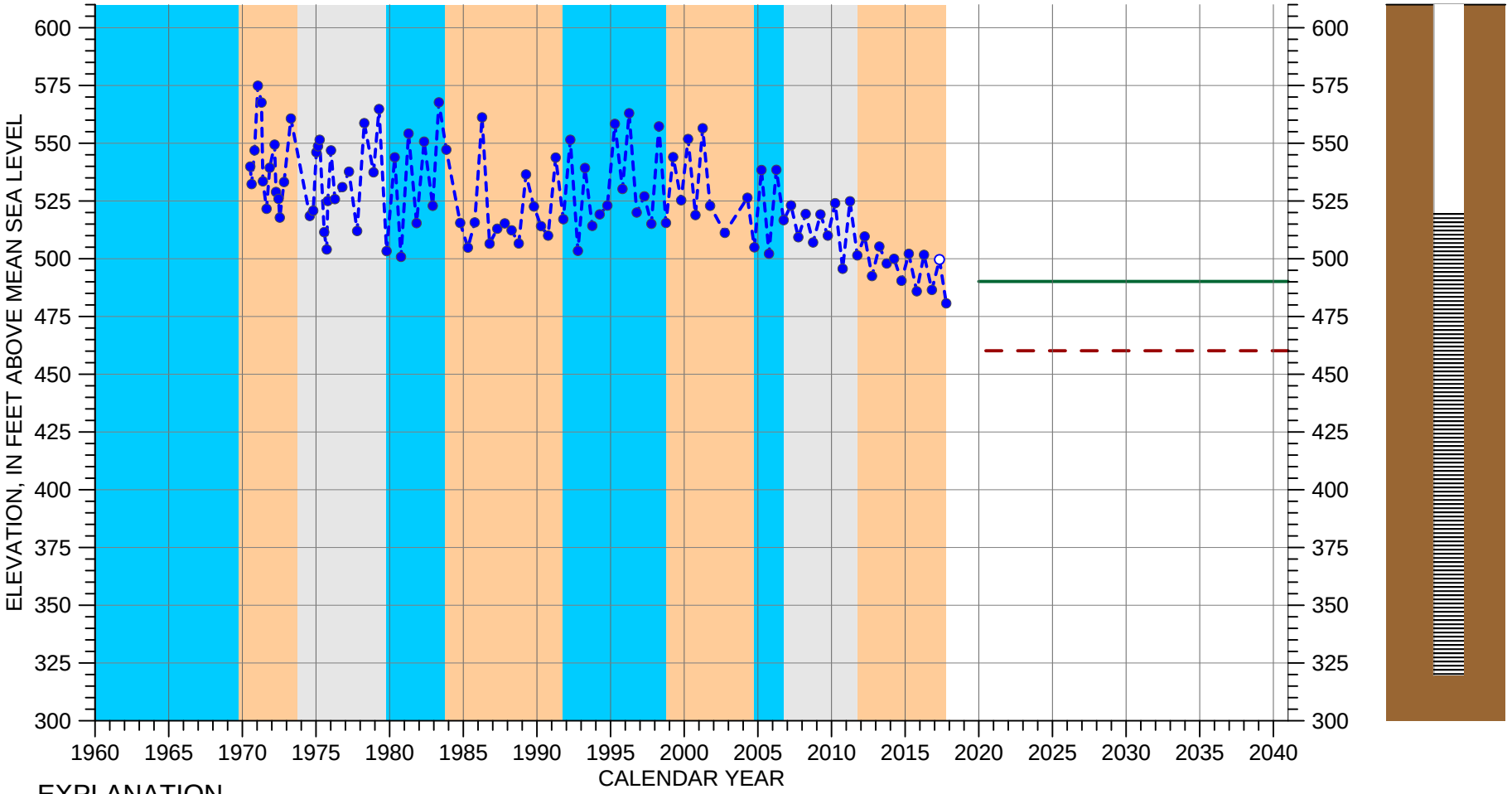
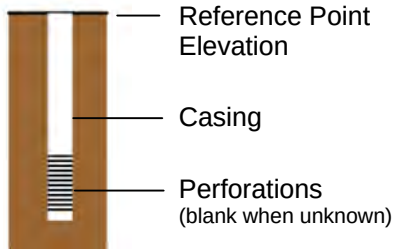


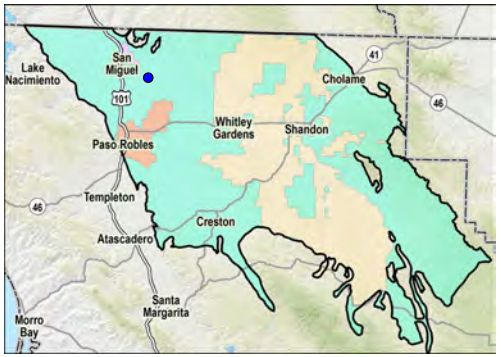
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET





Well Depth: 400 feet
Screened Interval: 200-400 feet below ground surface
Reference Point Elevation: 719.7 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 25S/12E-26L01

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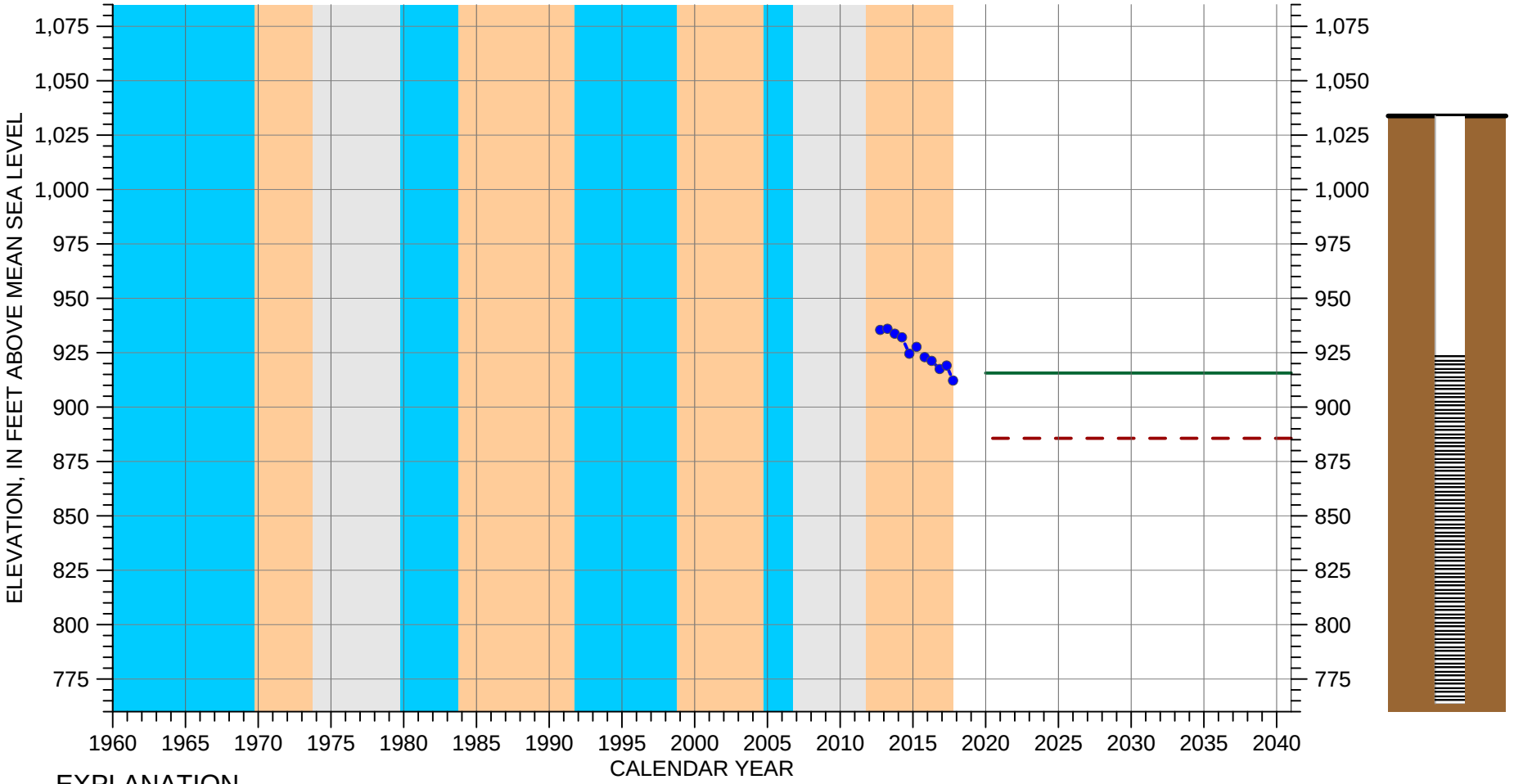


EXPLANATION

MEASURABLE OBJECTIVE

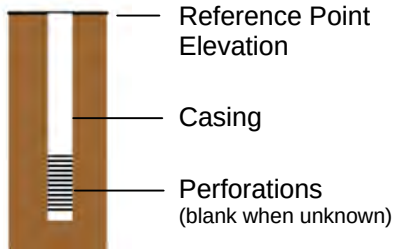
MINIMUM THRESHOLD

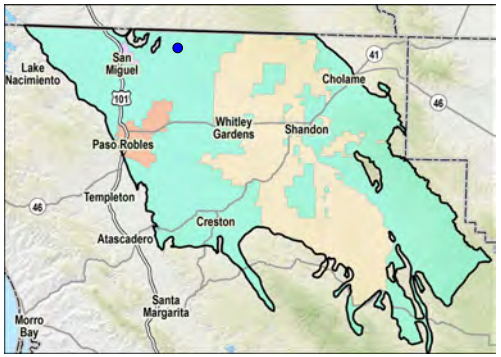
GROUNDWATER ELEVATION

MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY AVERAGE/ALTERNATING WET





Well Depth: 270 feet
Screened Interval: 110-270 feet below ground surface
Reference Point Elevation: 1033.8 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 25S/13E-08L02

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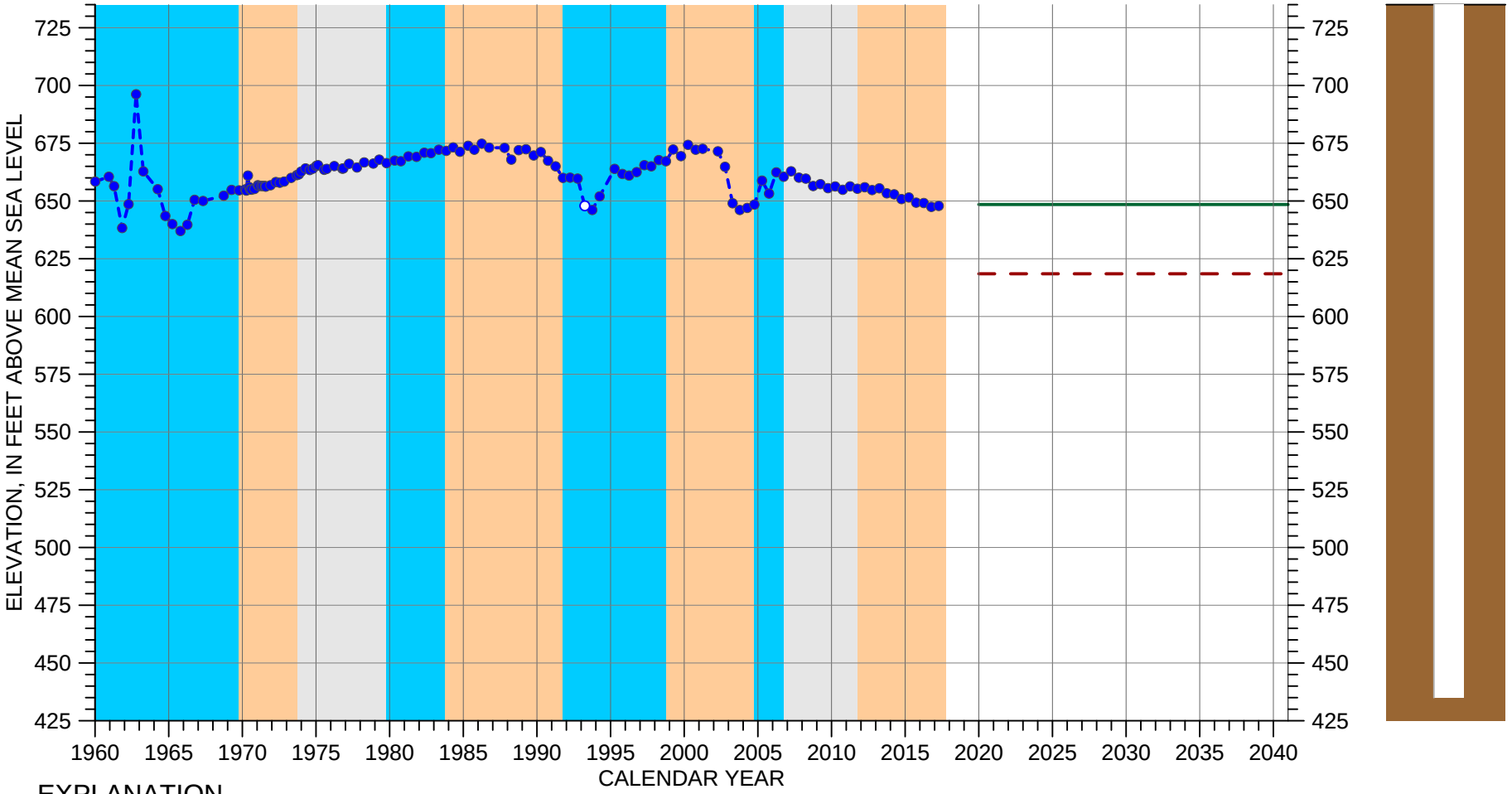


EXPLANATION

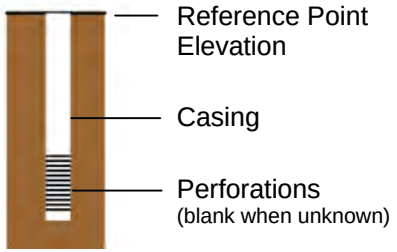
- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

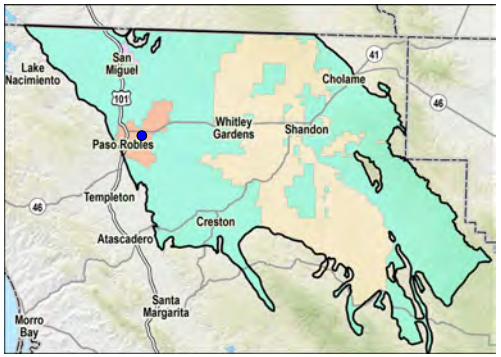
CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET

Well Depth: 400 feet
Screened Interval: unknown
Reference Point Elevation: 835 feet above mean sea level

* Measurement reported as not static





MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 26S/12E-26E07

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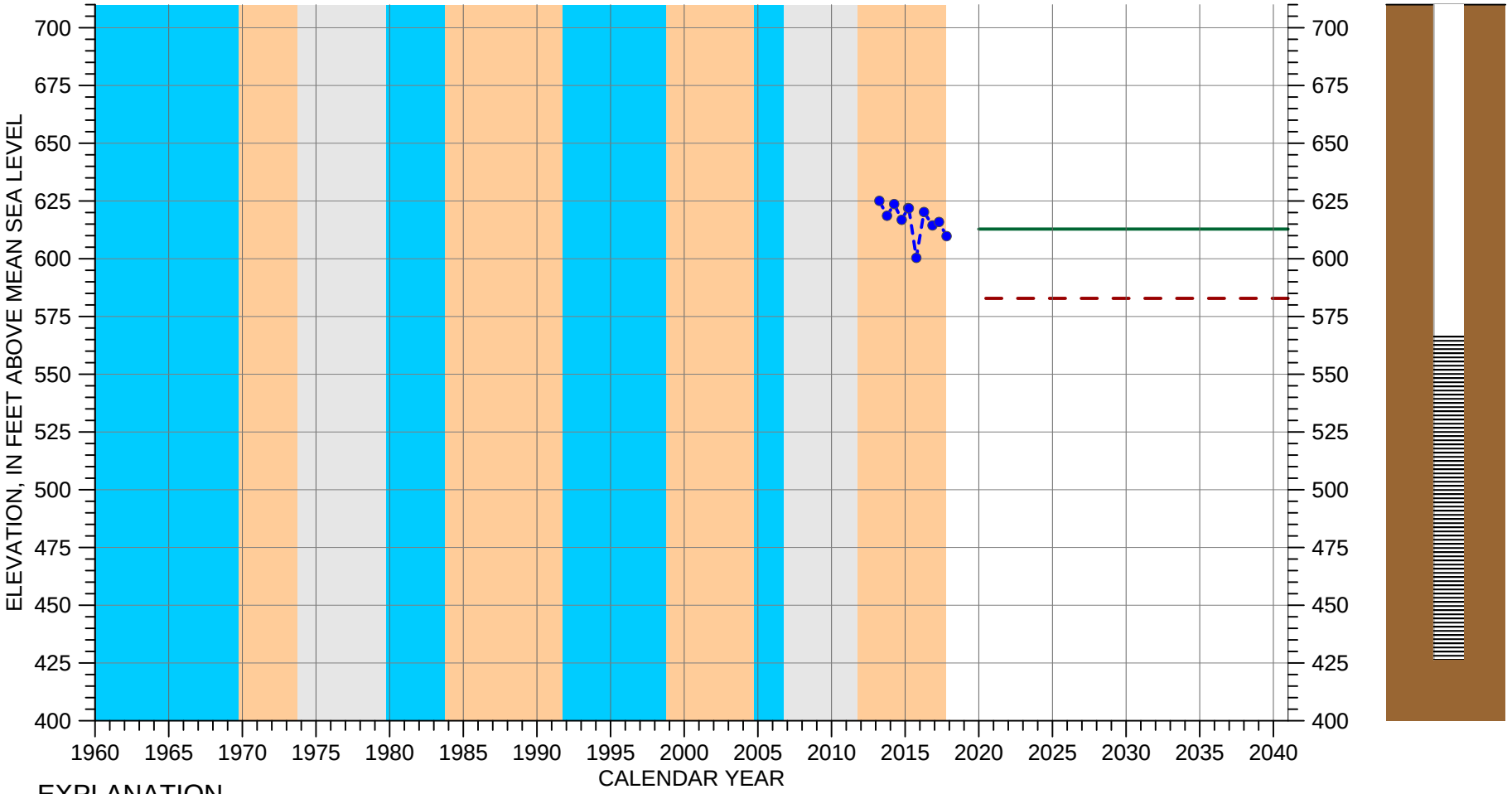
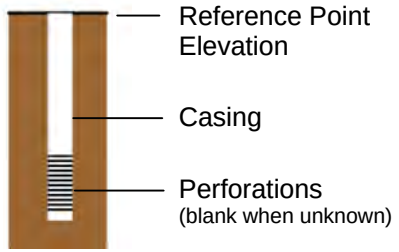


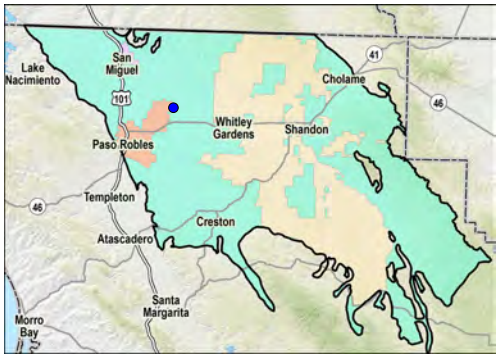
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET





Well Depth: 400 feet
Screened Interval: 260-400 feet below ground surface
Reference Point Elevation: 827.9 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 26S/13E-08M01

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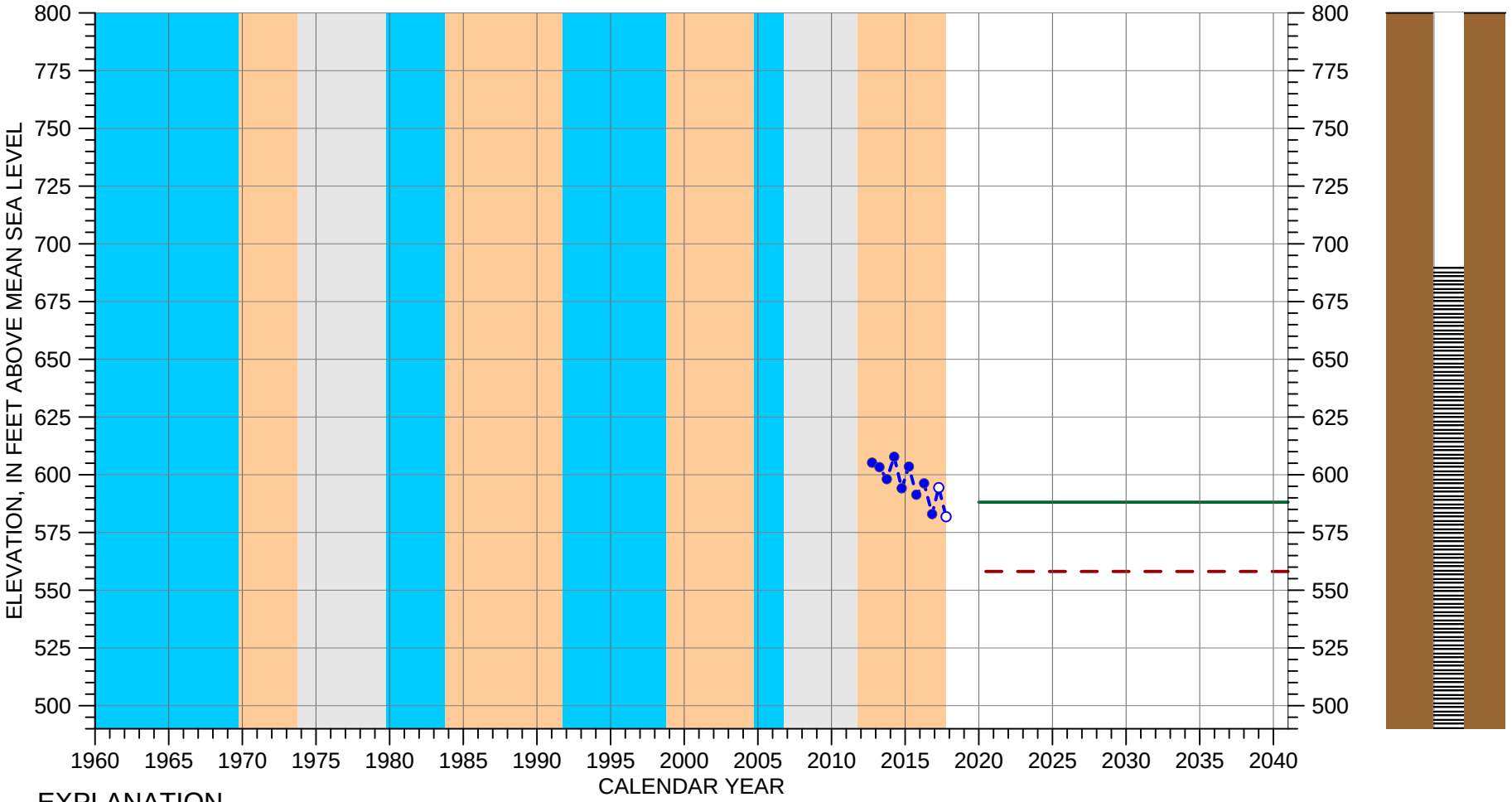
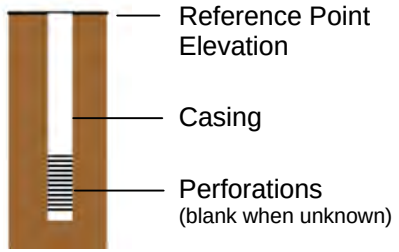


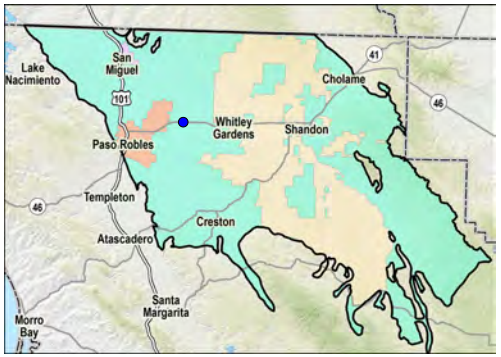
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET





Well Depth: 400 feet
Screened Interval: 200-400 feet below ground surface
Reference Point Elevation: 890.2 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES AND MINIMUM THRESHOLDS FOR 26S/13E-16N01

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Appendix I

Water Supplies

APPENDIX I – WATER SUPPLIES

1.1 Overview and Acquisition of Available Water Supplies

There are four types of surface waters available for use in the Paso Robles Subbasin for groundwater recharge or in-lieu use – State Water Project (SWP) water, Nacimiento Water Project (NWP) water, local recycled water, and flood flows from local rivers and streams. Below is a description of each supply, including a discussion of reliability and contracting issues.

1.1.1 State Water Project

The SWP is a water storage and delivery system of reservoirs, aqueducts, power plants, and pumping plants that extend from Northern to Southern California for over 600 miles. Its main purpose is to divert and store surplus water during wet periods and distribute it to 29 contractors in Northern California, the San Francisco Bay Area, the San Joaquin Valley, the Central Coast, and Southern California. The SWP is operated by the California Department of Water Resources (DWR).

The SWP's Coastal Branch passes through the southern portion of the Subbasin, through the Shandon and Creston regions. The Coastal Branch of this system extends from the California Aqueduct for 160 miles through the southern portion of Subbasin. Figure 1 shows the Coastal Branch and Polonio Pass Treatment Plant (PPWTP). Prior to treatment at PPWTP, water in the Coastal Branch is untreated. Water is treated at the PPWTP, and southeast of the PPWTP the water in the Coastal Branch pipeline is of potable water standards.

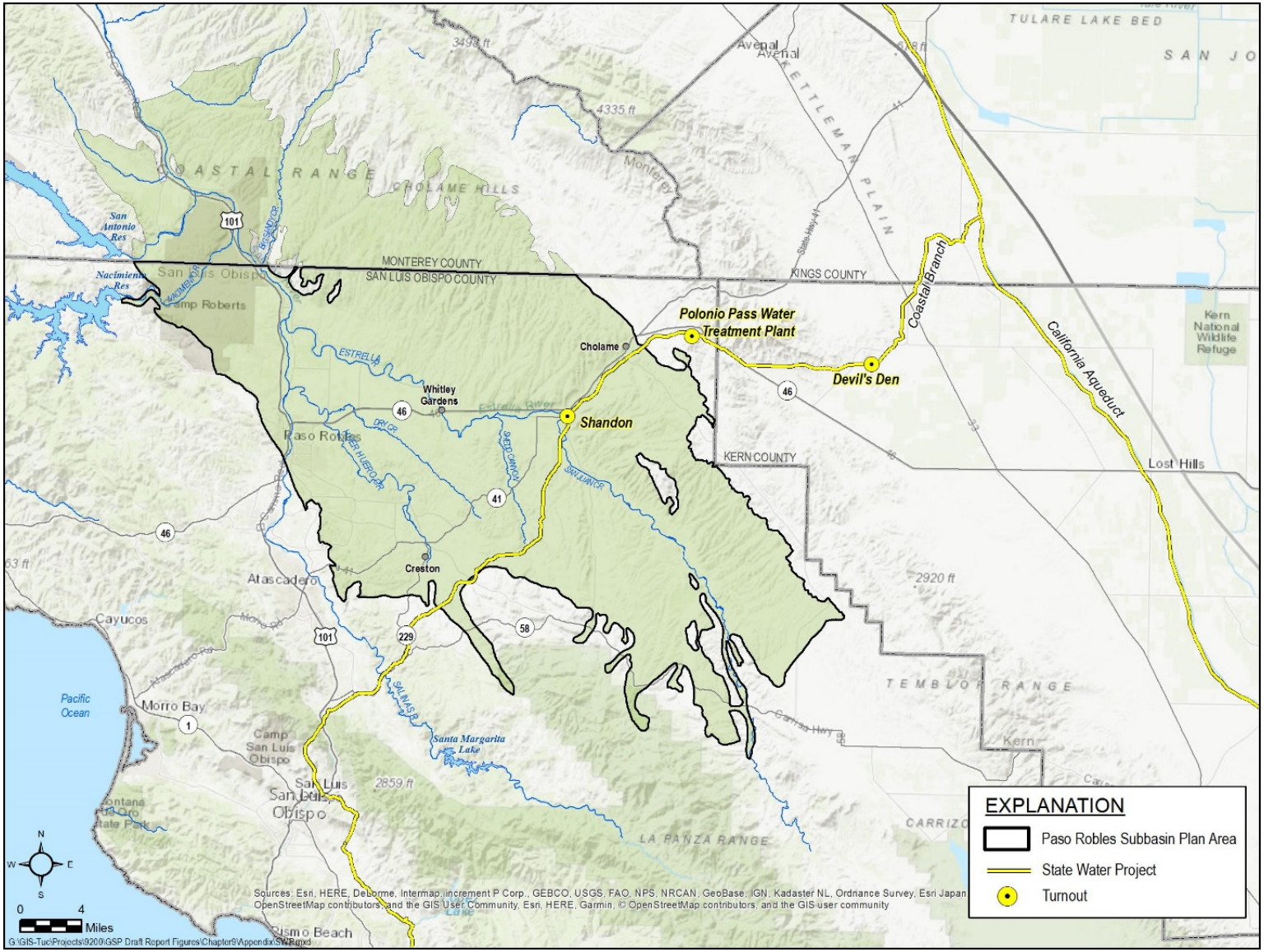

Figure 1: SWP Coastal Branch Infrastructure

The San Luis Obispo County Flood Control and Water Conservation District (SLOCFCWD) is one of DWR's 29 SWP contractors. DWR has contracts with both Santa Barbara County Flood Control and Water Conservation District (SBCFCWCD) and SLOCFCWD to deliver SWP water through the Coastal Branch. The Central Coast Water Authority (CCWA) owns, operates, and maintains the PPWTP and operates the portion of the Coastal Branch that is downstream of Polonio Pass.

SLOCFCWD currently has 25,000 AFY of Table A allocation contracted with DWR. Of this amount, 10,477 AFY is allocated to subcontractors through Water Supply Agreements. SLOCFCWD retains an excess allocation of 14,523 AFY; however, DWR estimates availability of SWP water to average around 58-62% of total allocations (DWR 2014, SWR 2015, DWR 2018). For SLOCFCWD's excess allocation of 14,523, 58-62% corresponds to between 8,400 and 9,000 AFY. For the purpose of the GSP, a value of 8,800 AFY has been assumed as the long-term average annual availability for SLOCFCWD's excess Table A allocation. The actual amount available for delivery by DWR would vary from year to year between zero and 14,523 AF.

1.1.1.1 Physical and Contractual Constraints

According to a study on the Coastal Branch (WSC 2011), enough hydraulic capacity exists to deliver water that exceeds SLOCFCWD's contracted capacity within the Coastal Branch pipeline; however, contractual capacity limits currently constrain the amount of excess allocation available to SLOCFCWD and would need to be renegotiated if SLOCFCWD were to take water at any location downstream of the PPWTP. In particular the Master Water Supply Agreement with DWR dictates:

- District's contractual capacity for Reach 1 is 7.17 cfs (5,191 AFY).
- District's contractual capacity for Reaches 2 through 4 is 7.17 cfs (5,191 AFY).

And the Master Water Treatment Agreement with CCWA dictates:

- District's contractual capacity in the PPWTP is 4,830 AFY

Additionally, existing District subcontractors can increase their SWP allocations. For example, the Oceano Community Services District recently contracted with SLOCFCWD for 750 AFY of additional drought buffer. These increases could limit the amount of excess allocation water available to the Subbasin.

Historical and anticipated future costs for existing subcontractors were analyzed in a supply options study by SLOCFCWD (Carollo, 2017). The analysis determined the range of costs for raw and treated water, shown in Table 1.

Table 1: SWP Estimated Costs Paid by Existing Subcontractors Based on Point of Delivery

Turnout Location	Water Quality	Estimated Unit Cost ($/AF)
SWP & Coastal Branch Intersection	Raw	$467
Devil's Den Pumping Station	Raw	$1,793
PPWTP	Treated	$2,292
Shandon Turnout	Treated	$2,503

The unit costs shown in 1 were estimated average values that were developed to account for a capacity buy-in that includes back payment of capacity allocation and anticipated payment for 20 years. The back payments and future payments were summed and divided over a 20-year payback period. These costs also factor in the SWP system's anticipated future reliability of an average annual delivery of 59% of the total allocation, meaning they are intended to represent costs for actual delivered water.

Raw water is available only east of the PPWTP. To secure the lower raw water cost, new infrastructure would need to be constructed to bring water from upstream of PPWTP to the Subbasin. A previous analysis showed that the annualized cost of the new infrastructure plus the cost of the raw water equated to a similar unit cost as that of treated water. The new infrastructure would also greatly increase the total capital cost of a project. The SWP projects analyzed for the purposes of the GSP assumed the use of treated water; however, the planning and predesign stages of a future SWP project could include an analysis of using treated vs. raw water.

SWP water can be procured by GSAs in two ways: negotiating with a current District or CCWA subcontractor, or negotiating with SLOCFCWD to receive an annual allocation as a new subcontractor.

Under the first method, the purchaser would hold a sub-agreement with an existing subcontractor (that has excess allocation) and not have a direct relationship with SLOCFCWD. The second method would come with an annual buy-in cost and a unit cost of water. It would also, however, increase the potential volume and certainty of supply. Given the amount of water being considered for projects in this GSP, it is likely that being a new subcontractor would be the only feasible route.

Contractual and legal information as it applies to the SWP is described in further detail in Attachment 1 to this appendix.

1.1.1.2 Nacimiento Water Project

The Nacimiento Water Project (NWP) consists of 45 miles of pipeline that conveys raw water from Lake Nacimiento in the northern portion of San Luis Obispo County to communities within San Luis Obispo County. Figure 2 shows an overview of the NWP.

Monterey County Water Resource Agency (MCWRA) manages and operates Lake Nacimiento. SLOCFCWD has an entitlement of 17,500 AFY through a Master Water Agreement with MCWRA negotiated in 1959. Of this amount, 1,750 AFY is permanently allocated to lakeside customers, and the rest is allocated to seven participants. Any surplus NWP water must be obtained through the existing participants. Table 2 shows the allocations of each of the seven participants. These allocations established in 2016 and fully allocated SLOVCWD's entitlement.

Table 2: Nacimiento Water Project Participants and Allocations

Agency	New Allocation
City of Paso Robles	6,488
Templeton Community Services District (CSD)	406
Atascadero Mutual Water Company (MWC)	3,244
City of San Luis Obispo	5,482
County Service Area 10A (CSA 10A)	40
Bella Vista Mobile Home Park	10
Santa Margarita Ranch Mutual Water Company	80
Total	15,750

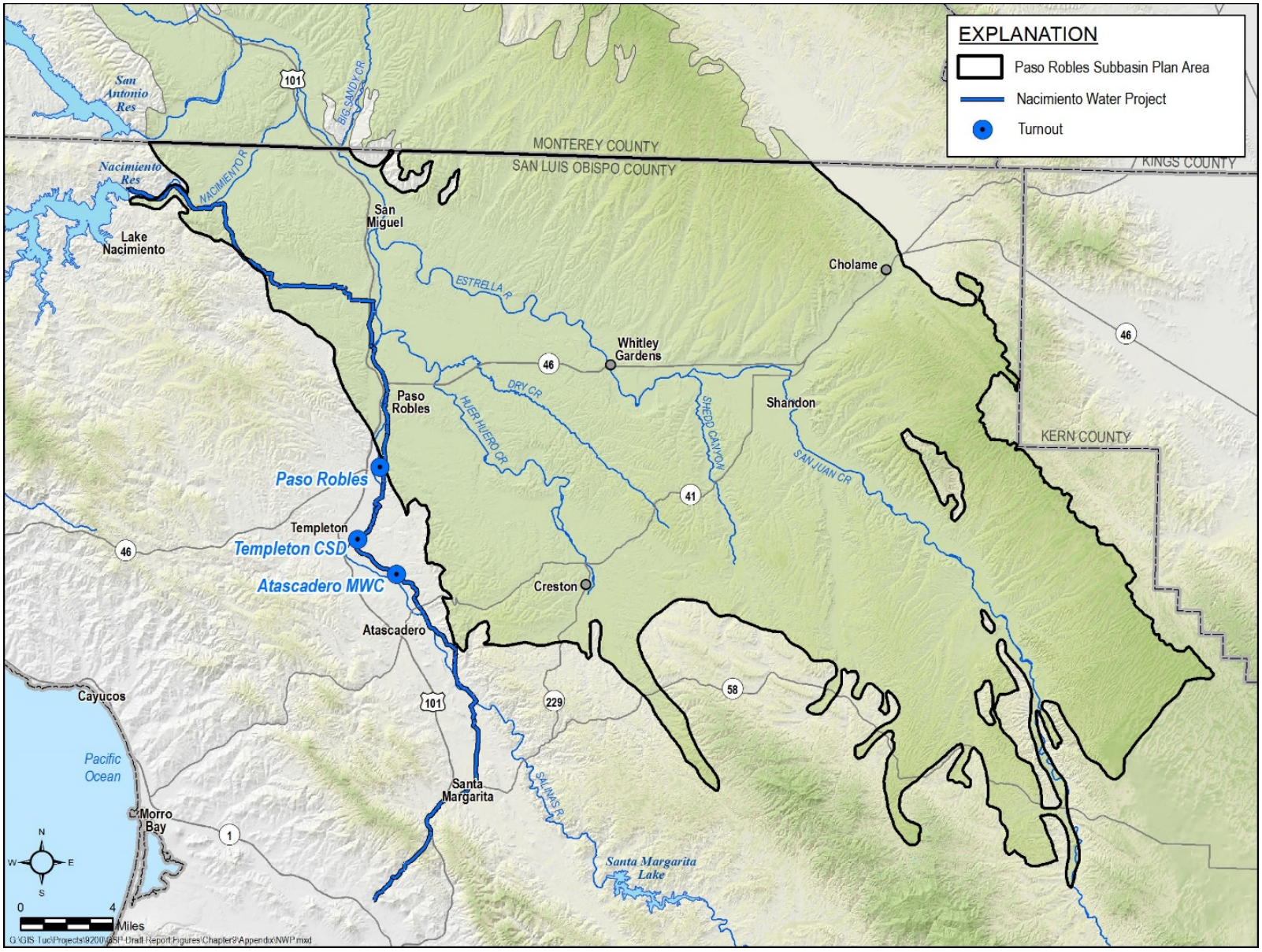

Figure 2: NWP Infrastructure

A previous study projected surplus NWP water based on participant's projected use (Carollo, 2017). The projected surplus is shown in Table 3. NWP is a very reliable supply, since SLOCFCWD's entitlement is for the lowest pool in the reservoir, and therefore is largely immune to level fluctuations. However, as seen in Table 3, NWP participants tend to use more during drought conditions, leaving less surplus water.

To determine how much NWP water might be available for purchase by the GSAs, the 2040 projected annual average surplus supply amounts were used. Dry years were assumed to occur one year out of every three years. A weighted average of the 2040 dry and wet year supplies was calculated as 5,800 AFY. While 5,800 AFY was assumed to be available to the Paso Robles GSAs, the actual amount would need to be negotiated with existing NWP project participants as there may be other entities interested in acquiring surplus NWP water.

Table 3: Nacimiento Water Project Projected Annual Surplus Supply

	Normal Year (AFY)	Dry Year (AFY)
2020	10,135	5,577
2030	8,473	4,045
2040	7,269	2,852

The NWP contract established the process for determining the cost per acre-foot of surplus water, which was applicable prior to full allocation of NWP water among the existing participants. According to the contract, the cost of surplus water to each NWP participant had two components:

1. Operations and maintenance costs per AF of surplus water for the prior year
2. Variable energy costs associated with delivering the surplus water.

For non-participants, a third component is added consisting of debt service costs for surplus water delivered for the current year. Table 4 shows the estimated costs for FY 2015/16, which was the last year when there was non-allocated NWP water available.

Table 4: Nacimiento Water Project Estimated Costs

Location	For Participants	For Non-Participants[2]
City of Paso Robles	$216/AF	$1,299/AF
Templeton CSD	$234/AF	$1,967/AF
Atascadero MWC	$235/AF	$1,554/AF

Under full allocation, the NWP contract requires selling surplus water at a cost the market can bear but not less than costs participants pay for the delivery of the same unit or units of water. At

the time of this report, no surplus water sales have occurred after full allocation approval in April 2016. Thus, a range of purchase costs is possible.

The minimum cost of $250/AF is based on FY 2015/16 costs for participants, representing the cost to convey the water to a turnout. The maximum cost of $2,000/AF is assumed based on FY 2015/16 costs for non-participants, including the debt service cost. However, the actual cost must be negotiated between the purchaser and the NWP participants.

A non-participant may purchase NWP water from an NWP participant every year. However, the non-participant will not have permanent rights to the water unless a participant is willing to sell a portion of its NWP allotment. Thus, a multi-year purchase agreement from a non-participant is likely required to support capital investment in conveyance facilities.

1.1.1.3 Recycled Water

The Paso Subbasin contains two wastewater treatment plants (WWTPs): Paso Robles WWTP and San Miguel WWTP. Recycled water meeting high quality standards established by the State of California is available from these plants year-round. Most demand or recycled water is non-potable demand, such as irrigation. This demand is seasonal, with much greater demand in the summer.

Water quality is a potential issue for irrigation projects using recycled water. Because the water is high in salinity, only a portion of the total amount of water used for irrigation can be recycled water without damaging the crops. To mitigate this issue, recycled water projects in the Subbasin would either be blended with groundwater supplies or occasional flushing would be performed to prevent buildup of salts in the root zone.

The City of Paso Robles is in the process of planning and constructing a recycled water project which could provide up to 2,900-5,000 AFY of in-lieu and direct recharge by providing recycled water for use on golf courses, City parks, nearby vineyards, and recharge through discharge into Huer Huero Creek.

According to the Recycled Water Distribution System Final Design (Carollo, 2018), 1,320 AFY of recycled water will be available during Phase 1 of the project. Some of this water will be used for park irrigation and industrial use, offsetting the City of Paso Robles' potable water demand. Some of this water will be used to offset agricultural pumping. Excess water supply will be discharged to Huer Huero Creek as a recharge project. Phase 1 of the project is modeled in the modified baseline simulation of this GSP, beginning in 2025.

Phase 2 of the project is less well defined. Phase 2 is based on the assumption that as the City grows, the available wastewater for recycled water use will increase. In Phase 2, an assumed additional 902 AFY of recycled water will be available for use for both in-City and out of city

demands. Excess tertiary treated water will be discharged to Huer Huero creek. Phase 2 of the project is modeled in the modified baseline simulation of this GSP beginning in 2040.

Phase 1 of the recycled water project planned by the City of Paso Robles is shown in Figure 3. Private pipelines that will use recycled water for agricultural purposes are not shown in Figure 3; however, the in-lieu recharge has been modeled as part of the modified baseline simulation.

The City of San Miguel is also planning to reuse some or all of its centrally-treated wastewater which could amount to up to 200+ AFY. This additional recycled water is also available for irrigation or other non-potable projects that could offset groundwater pumping.

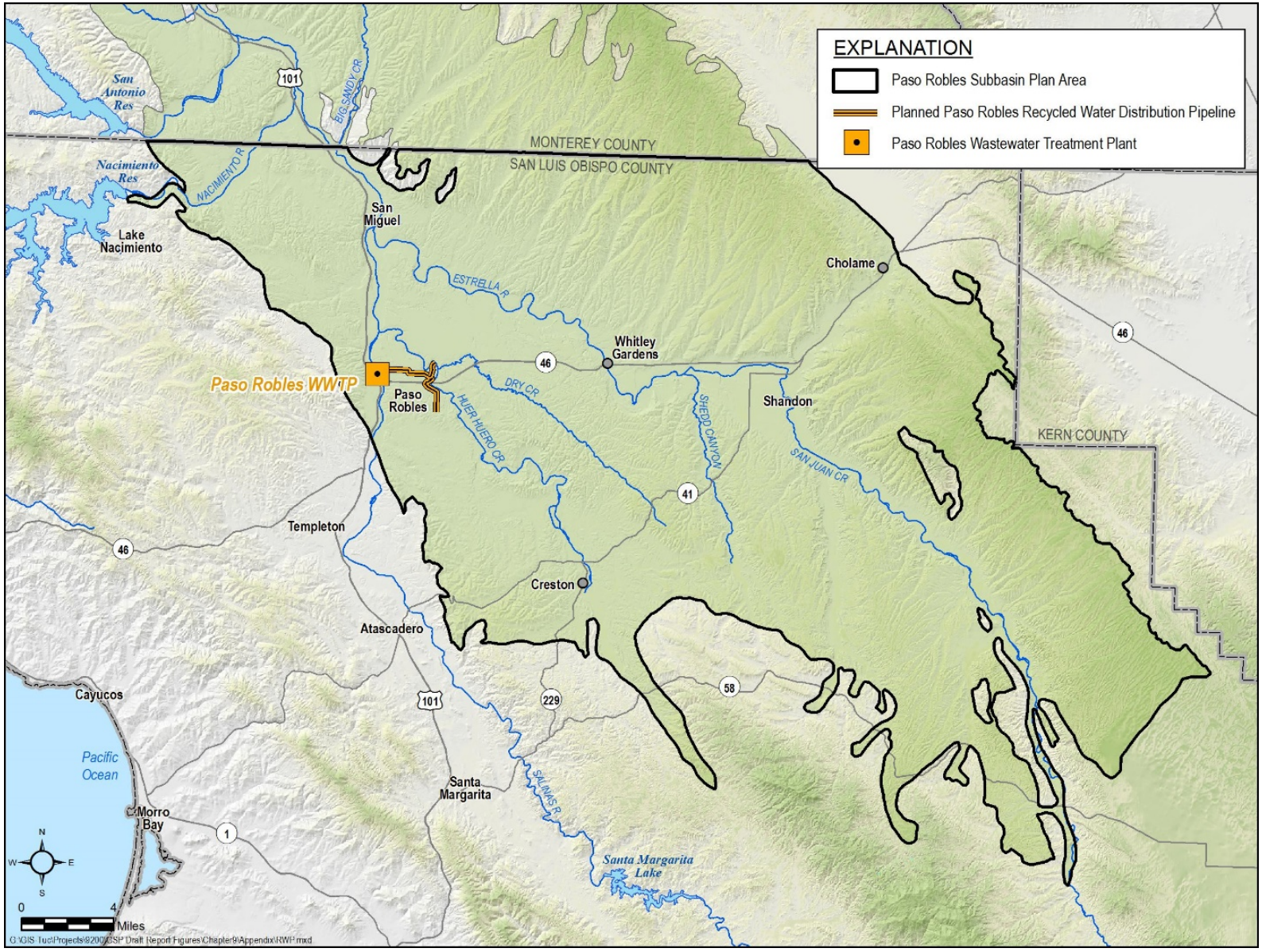

Figure 3: City of Paso Robles Planned Recycled Water Project

1.1.1.4 Surface Water

Three large perennial streams flow through the Paso Robles Basin – the Salinas River, the Estrella River, and Huer Huero Creek, as shown in Figure 4. There are two ways to acquire rights to use surface water from these streams – a standard surface water diversion permit or a temporary flood flow permit, both discussed below.

Acquiring a standard diversion permit is a lengthy and complicated process. A standard permit is likely to be very difficult to acquire, since any downstream user can protest a permit application. Furthermore, the Salinas River between Salinas Dam and the inlet of the Nacimiento is fully allocated throughout the year, except between January and May 1. The acquisition of a standard water diversion permit was not explored further.

DWR has circulated a proposed approach to streamline applicants that seek to divert water only during high flow events (SWRCB 2018). Under the proposed administrative approach, applicants could apply for a temporary permit to divert flows that exceed the 90th percentile daily flow up to 10 or 20% of the total flow between December 1 and March 31.

For example, the 90th percentile flood flow of the Salinas River for January 26th is 1,250 cfs; however, the 90th percentile flood flow for January 27th is 876 cfs. If the river were to flow at 1,000 cfs for both days, water could only be captured during January 27th but not during January 26th. What this means is that flood flows could only be captured infrequently and the large scale infrastucture required to capture these flows could sit idle many years at a time.

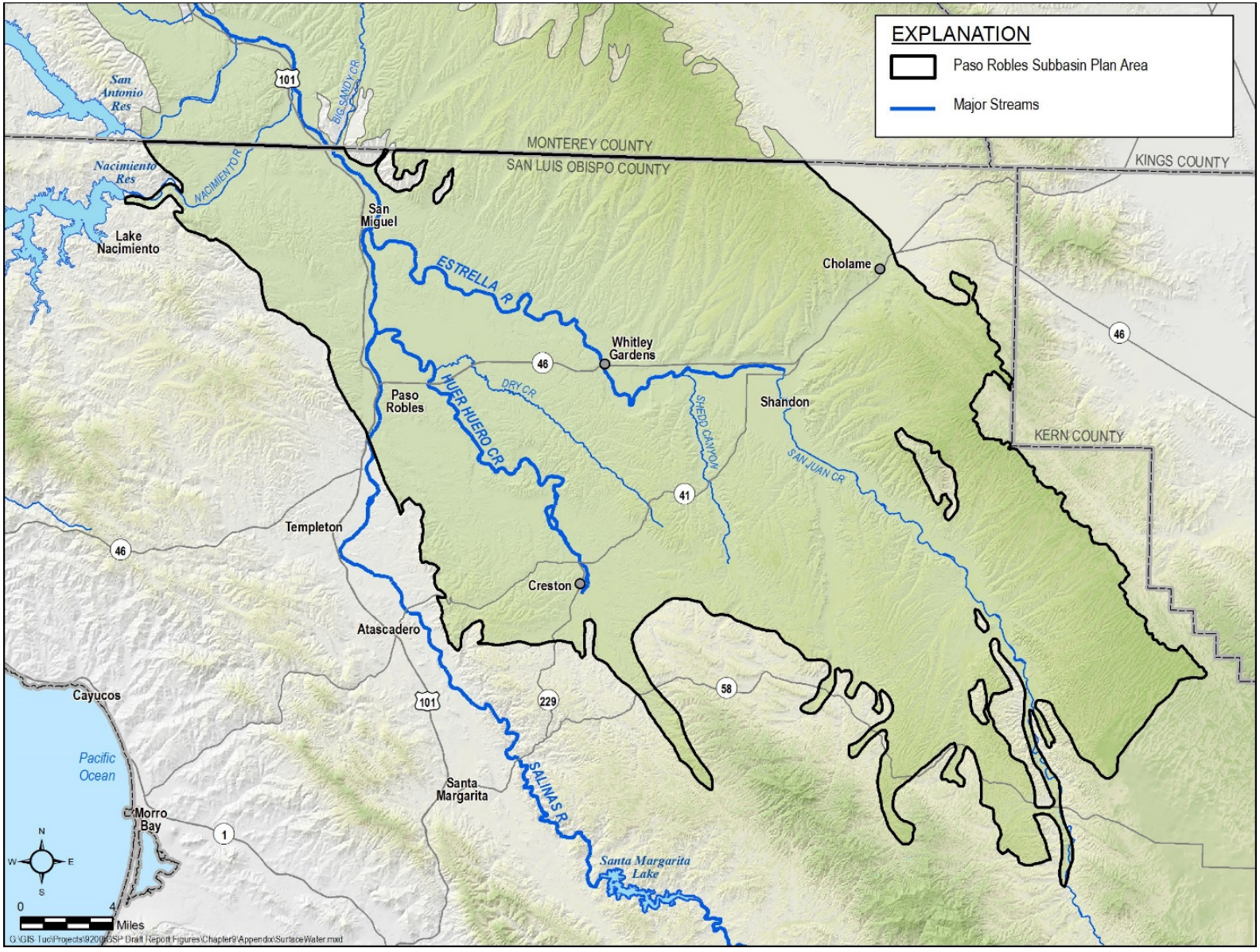

Figure 4: Major Streams in the Paso Robles Subbasin

REFERENCES

DWR 2014. The State Water Project Final Delivery Reliability Report 2013. December 2014.

DWR 2015. The State Water Project Final Delivery Capability Report 2015. July 2015.

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Carollo 2018. Recycled Water Distribution System Final Design. Technical Memorandum. Project confirmation. Final. December, 2018.

Carollo 2017. Paso Robles Groundwater Basin Supplemental Supply Options Feasibility Study. San Luis Obispo County Flood Control and Water Conservation District. January 2017.

SWRCB 2018. Streamlined Permitting Process for Diversions of High Flows to Underground Storage: Discussion Draft July 20, 2018. SWRCB Division of Water Rights. July 20, 2018.

WSC 2011. Capacity Assessment of the Coastal Branch, Chorro Valley & Lopez Pipelines. 2011.

WSC 2016. Paso Robles Groundwater Basin Supplemental Supply Options Study: Technical Memorandum No. 3. Potential Supply Options and Points of Delivery for State Water. San Luis Obispo County Flood Control and Water Conservation District. December 2016.

ATTACHMENT 1: MEMORANDUM REGARDING STATE WATER PROJECT EXCESS ALLOCATION

MEMORANDUM

To:	HydroMetrics – Paso Robles GSP
From:	OLP
Issue:	San Luis Obispo County Flood Control and Water Conservation District's State Water Project "Excess Allocation"
Date:	June 6, 2018
Client No.:	1902

San Luis Obispo County's State Water Project ("SWP") contract is between the San Luis Obispo Flood Control and Water Conservation District ("District") and the Department of Water Resources ("DWR"). (District SWP Water Supply Contract, at 1.) This Water Supply Contract gives the District the right to 25,000 acre-feet of SWP water each year. (District SWP Water Supply Contract, at 78.) The District then subcontracts its SWP allocation to ten subcontractors.

The SWP water is delivered to the District via the Coastal Branch of the California Aqueduct. Although the District is entitled to 25,000 acre-feet of SWP water each year, contractual provisions from agreements entered during the Coastal Branch's construction substantially limit the District's Coastal Branch conveyance capacity. Consequently, the District possesses an "Excess Allocation," which represents the difference between the District's annual allocation and the water reserved and delivered to its subcontractors. The following discussion begins with a primer on the District's involvement with the SWP. It then addresses the District's Excess Allocation and concludes by discussing factors influencing how much Excess Allocation water is currently available.

I. State Water Project: Coastal Branch – Background.

The SWP is a water storage and delivery system of reservoirs, aqueducts, power plants, and pumping plants extending for more than 600 miles from northern to southern California. ((SLO Technical Memorandum #3, at 3-6) ("Tech. Memo 3").) The California Aqueduct ("Aqueduct") is one of the key features of the SWP by conveying water from the Delta to central and southern California. (*Id*.) Of relevance here, the Coastal Branch of the SWP connects to the Aqueduct approximately 11 miles south of Kettleman City. (*Id*.) The Coastal Branch extends for approximately 160 miles through Kings, Kern, San Luis Obispo, and Santa Barbara Counties and terminates in Northern Santa Barbara County. (*Id*.)

DWR delivers SWP water through the Coastal Branch to two SWP contractors: (1) the District; and (2) the Santa Barbara County Flood Control and Water Conservation District ("SBCFCWCD"), via the Central Coast Water Authority ("CCWA"), a joint powers authority. Both the District and CCWA then subcontract out their SWP entitlements via "Water Supply Agreements" with individual subcontractors. (*Id*.)

The Coastal Branch was constructed in two phases – "Phase I" and "Phase II." (*Id*.) Phase I was completed in 1968 and includes 15 miles of aqueduct and two pumping stations (Las Perillas and Badger Hill). Although Phase I was completed in 1968, SWP water was not

delivered to SBFCWCD or the District until Phase II was completed, because the facilities did not reach the District or SBFCWCD end users. (Department of Water Resources Bulletin 132-98, at xxviii.)

Phase II consists of 101 miles of pipeline and extends from the terminus of Phase I to Tank 5, located in Northern Santa Barbara County. (Tech. Memo 3, at 3-9.) Included within Phase II are three pumping stations (Devils Den, Bluestone, and Polonio Pass) as well as the Polonio Pass Water Treatment Plant ("PPWTP"). (*Id*.) After Phase II was completed in August 1997, SWP water was finally delivered to the District and SBCFCWCD. (*Id*.)

The ownership and operation of the Phase II facilities is divided amongst/between DWR, CCWA, and the District. DWR was responsible for the design and construction of all Phase II facilities. (CCWA Urban Water Management Plan 2010, at 3.) Following construction, DWR has retained ownership of Phase II facilities. (*Id*.) In addition, DWR maintains and operates the "raw water portion" of Phase II, which is located "upstream" of the PPWTP. (San Luis Obispo Regional Integrated Water Management Proposal, Attachment 13, at 1-2.)

However, CCWA and the District financed the costs for Phase II's design and construction and continue to finance the operation of Phase II. (*Id*.) CCWA operates the "treated portion" of Phase II, which runs from the PPWTP and encompasses all conveyance facilities from the PPWTP to the end of Phase II in Santa Barbara. (Central Coast Water Authority, 2017-18 Fiscal Budget, at 298.)

The District's delivery of water through Phase II facilities is controlled by the Master Water Treatment Agreement between the District and CCWA. This Agreement provides that CCWA is responsible for treating the District's SWP water at the PPWTP and conveying the treated water through Phase II facilities to District subcontractors. (Tech. Memo 3, at 3-11.) The District only funded its portion of Phase II, which would support the delivery of 4,830 acre-feet per year. Because of the District's decision to fund the Phase II only up to its existing demand, the Water Treatment Agreement limits the delivery of District water to 4,830 acre feet of PPWTP treated water through the Phase II conveyance facilities per year. (*Id*.; Master Water Treatment Agreement 1992 and 1995.)

II. **Quantifying the District's Excess Allocation**

The District's Excess Allocation represents the difference between its SWP entitlement of 25,000 acre-feet per year and the amount of water reserved by its subcontractors. (Tech Memo 3, at 3-10.) As noted above, subcontractor demand is 4,830 acre-feet per year. (*Id*., at 3-10 to 3-11.) This leaves 20,170 acre feet of excess allocation.

However, the SWP often is not able to deliver 100 percent of contract water to the SWP contractors. Because the SWP allocations are often reduced to below 100 percent delivery, the District also provides its subcontractors the opportunity acquire "drought buffer" deliveries. The purpose of the drought buffer is to maintain full water deliveries to District subcontractors even when SWP allocations are reduced.

The District provides up to 5,747 acre feet of drought buffer allocation per year, as shown in the chart below. The drought buffer works as follows: Envision a subcontractor with a contract for 100 acre-feet of water per year (Water Service Amount) and 100 acre-feet "drought buffer." In a year where SWP allocation are reduced to 50 percent of the contract amount, this subcontractor would still get 100 acre-feet of water because they would get 50 percent of their water service amount (50 acre-feet) and 50 percent of their drought buffer (50 acre-feet).

Subcontractor	Water Service Amount	Drought Buffer	Total Reserved
Chorro Valley Turnout		*~$1,100 per AF*	
City of Morro Bay	1,313	2,290	3,603
CA Men's Colony	400	400	800
County OP Center	425	425	850
Cuesta College	200	200	400
Lopez Turnout		*~$1,000 per AF*	
City of Pismo Beach	1,240	1,240	2,480
Oceano CSD	750	750	1500
San Miguelito MWC	275	275	550
Avila Beach CSD	100	100	200
Avila Valley MWC	20	60	80
San Luis Coastal USD	7	7	14
Shandon	100	0	100
TOTAL	**4,830**	**5,747**	**10,577**

As displayed above, the District's current subcontractors have purchased various quantities of drought buffer rights. In years where SWP allocations are reduced to greater than 50 percent, the District will need to demand almost the entire 10,577 acre feet to serve its subcontractors. This reduces the excess allocation of the District to 14,423 acre-feet per year. ((San Luis Obispo County Water Resources, Division of Public Works: State Water Project, available at: https://www.slocountywater.org/site/Major%20Projects/State%20Water%20Project/) (Accessed May 14, 2018).)

III. How Much of The District's Excess Allocation is Actually Available?

On paper, the District has 14,423 acre-feet in Excess Allocation. However, there are several factors that may make it difficult to access and put the Excess Allocation to beneficial use. Those factors are summarized below.

1. SWP Rarely Delivers 100 Percent of Contractor Allocation

Although the District is entitled to 25,000 acre-feet per year, the actual amount of water delivered to SWP contractors can vary substantially each year. For example, in 2006, the District received 100 percent of its annual allocation. (Tech. Memo 3, at 3-17.) Conversely, in 2014, the District received only 5 percent of its annual allocation. (*Id*.) Carollo Engineers developed a Technical Memorandum on behalf of the District addressing supplemental supply options in the Paso Robles basin.

The Technical Memorandum estimated that future long-term average annual allocation would likely be around 58 percent. (Tech. Memo 3, at 3-30.) In other words, for planning purposes, future SWP deliveries to the District will likely average around 58 percent of the District's 25,000 SWP contract entitlement. (*Id*.) Applying this figure to the District's current Excess Allocation, this means (all other constraints aside) the District could expect to have access to approximately 8,365 acre-feet of excess allocation per year in an average year – rather than 14,432 acre-feet. (14,432 acre-feet x .58 = 8,365.34).

2. Capacity Constraints

As discussed above, the District's Master Water Treatment Agreement limits the District's Phase II capacity to 4,830 acre-feet per year. Thus, even if the District could obtain excess allocation from the SWP, the current Agreement with CCWA limits capacity to 4,830 acre feet per year.

The Technical Memorandum concluded that there is "significant unused capacity" within the SWP Coastal Branch facilities that could be used to deliver additional District SWP water. (Tech. Memo 3, at 3-3.) If there is physical capacity available, it is possible the District and CCWA could negotiate an amendment to the Master Water Treatment Agreement to allow the District to access additional capacity in Phase II facilities. The Master Water Treatment agreement has been amended before (in 1995 to reflect the District's current 4,830 acre-feet limitation). However, that amendment occurred before Phase II was completed in 1997. While the Master Water Treatment has an amendment provision, it does not appear that the agreement has been amended since Phase II came online in August of 1997.

Other than amendment of the Master Water Treatment Agreement between the District and CCWA, there are capacity limitations for the Coastal Branch facilities reaches 1-6 included in the DWR contract for SWP water with SBCFCWCD. (Table B of the SWP/SBCFCWCD Contract.) To the extent these limitations control CCWA, they may restrict CCWA from allocating the District additional capacity in Phase II facilities.

The Master Water Treatment Agreement between CCWA and the District limits the District's capacity on the "treated" portion of Phase II. However, the Master Water Treatment Agreement does not limit the District's capacity to convey water through the "untreated portion" of Phase II (Reach 1) which consists of approximately 16.2 miles of pipeline and three pumping plants (Devils Den, Bluestone, and Polonio Pass). (Tech. Memo 3, at A-3 (Need to review Exhibit E of the Master Water Treatment Agreement to confirm this finding.).) Similarly, the Master Water Service Agreement does not limit District delivery of water through Phase I

(completed in 1968). Therefore, if the conveyance capacity challenges above cannot be overcome, there may be an option to access the excess SWP allocation by building a new pipeline or other delivery conveyance structure that separately conveys the excess allocation prior to the "treated" portion of Phase II facilities.

3. Potential Rights of Existing Subcontractors

The District currently has 10 subcontractors. The subcontractors may have certain rights of first refusal on the District's Excess Allocation. Specifically, this right derives from the District's "Excess Entitlement Policy" and may be further included in each subcontractor's Local Water Supply Contract with the District.

In 2003, the District developed a series of Excess Entitlement policies. (Tech. Memo 3, at 3-10 to 3-11 (San Luis Obispo Board of Supervisors, *Policy on Excess State Water Supply*, January 2003).) In relevant part, these policies provide that prior to transferring the District's Excess Allocation for "any other use," subcontractors of the District's SWP water with capacity in Phase II must have the "first right" to utilize the Excess Allocation for "drought buffer" purposes. (San Luis Obispo Board of Supervisors, *Policy on Excess Water State Water Supply*, at 1.) The process by which subcontractors acquire excess allocation is unclear as are any potential limitations on acquisition of future drought buffer quantities from the District.

5. The District's Current Excess Allocation Activities

In recent years, the District has leveraged its Excess Allocation via DWR sanctioned water sales, stored the water for future use, and (potentially) engaged in an exchange program with CCWA. For example, in 2013 the District participated in a DWR sanctioned "Multiyear Water Pool" program whereby it sold 19,404 acre-feet of water to other SWP contractors. (DWR Bulletin 132-14, at 169.)

Additionally, the District has also stored portions of its Excess Allocation for use in the following year. An example of this is the SWP's "carryover water" program. This program permits SWP contractors to carryover a portion of its allocated water approved for delivery in the current year for delivery during the following year. (Tech. Memo 3, at 3-14.) In 2014, when the SWP delivered only 5 percent of contractors' entitlements, the District delivered 2,693 acre-feet of carryover water. (DWR Bulletin 132-15, at Table 9-8.)

In addition to water sales and carryover storage, in 2016, the District attempted to implement an "exchange program" with CCWA. In this program, the District proposed to exchange some of its "wet water" in storage for pipeline and treatment capacity above its current 4,830 acre-feet limitation. (SLO Department of Public Works, Report of J. Ogren, at 3 (December 13, 2016).) The proposed exchange was structured as a 2 for 1 program whereby for every two acre-feet of water the District provided to CCWA in excess of the District's annual 4,830 acre-feet limitation, CCWA would get to keep one acre-foot and CCWA would treat and then convey the other acre-foot to the District's subcontractors. (*Id*. (emphasis added).) It is

unclear if this proposed program was implemented. However, the fact that the District proposed this program suggests the District is making efforts to utilize its Excess Allocation.

4. Acquisition of the District's Excess Allocation.

All other limitations aside, the GSA should consider if there were Excess Allocation available, how it would acquire this water from the District. This consideration should include (1) the relationship between the District and the County and whether the District would allow the County to use the Excess Allocation; (2) whether the GSA could become a District subcontractor; (3) whether any other entity could become a District subcontractor; (4) negotiations of which entities would pay for the Excess Allocation and/or increased capacity

IV. **Outstanding Questions**.

The following are outstanding questions at this time:

1. What is the extent of the the subcontractor right of first refusal to Excess Allocation? Is it limited to drought buffer rights? Or do subcontractors have right to refuse all excess allocation?

2. Is it possible to negotiate increased capacity in Phase II facilities with CCWA?

3. What are the estimated costs for conveyance facilities to divert water above the PPWTP and deliver to the GSA service area?

V. **Conclusion and Next Steps**.

The major limiting factors in accessing Excess Allocation include: (1) SWP delivery shortages; (2) limited capacity in Phase II facilities; and (3) the (potentially) superior rights of existing subcontractors.

***

Appendix J

Project Assumptions

APPENDIX J – PROJECT ASSUMPTIONS

This document provides an overview of the assumptions used to develop projects and costs in Chapter 9 of the Paso Robles GSP. Assumptions need to be checked and tested during the pre-design phase of each project. Project designs, and therefore costs, could change considerably as more information is gathered.

1.1 Year-to-Year Variability in Water Supply Amount

All water supplies being considered to supplement the Paso Subbasin are rainfall dependent and therefore vary year to year in the amount available for supply. To make use of the available long-term average annual average water supply, projects and infrastructure such as pipes and pump stations must be sized for the highest flows that could occur. The highest available flows, as well as the long-term expected averages for SWP and NWP are presented in Table 1.

Table 1: Long-term Average and High Flow Available

Supply	Long-term Average (AFY)	Highest Flow (AFY)
SWP	8,860	14,770
NWP	5,800	7,270

1.2 Seasonal Variability in Demand

Injection and recharge basin projects were sized to deliver flow steadily throughout the year with no seasonal variation. Direct delivery projects were sized to deliver water according to seasonal fluctuations in demand.

1.3 Daily Variability in Demand

No daily variation in demand was assumed for any projects. For irrigation projects, water for each day would be delivered over a 24-hour period, even though irrigation might typically occur over a 12-hour or less window. This would require farmers to have onsite storage and pumps. All onsite improvements for direct users are assumed to be developed by individual land owners.

1.3.1 Recycled Water Projects

The two recycled water Projects described in the GSP are planned projects being implemented by the City of Paso Robles and San Miguel CSD. The Paso Robles project is currently underway, with design expected to be complete by 2019 and construction to be complete by 2021. Pipeline

alignments, costs, and delivery amounts were obtained from the project design 60% design information.

The San Miguel project is not as far along as that of Paso Robles. Some conceptual information is known; however, exact pipelines, customers, flows, and costs have not been determined yet. To obtain a cost for the purposes of the GSP, the project team came up with a potential design for a San Miguel RW project – one that sends half the flow to the eastern customers, and another half of the flow to western customers. The actual design is to be determined.

1.3.2 Recharge Basin Projects

All recharge basin projects were sized assuming an infiltration rate of 0.5' per day. Recharge basins were assumed to receive water consistently throughout the year, with no seasonal variation in water delivery.

The locations of all three recharge basin projects were selected to be close enough to the supply pipelines such that a pump station would not be required to deliver water to the recharge site. If land close to supply lines cannot be procured, these projects might require a pump station, which would increase project cost.

1.3.3 Direct Delivery Projects

The three NWP direct delivery projects were selected and sized to offset pumping throughout the eastern central region of the Subbasin and even out projected water levels.

Seasonal variation of demand (by month) was assumed in each region to follow patterns based on 2015 agricultural pumping demand curves modeled in the GSP model. Assumed peaking factors by month are shown in Table 2.

Table 2: Agricultural Demand Peaking Factors, by Month

Month	Peaking Factor
January	0.00
February	0.00
March	0.7
April	2
May	1.6
June	2.5
July	2
August	1.1
September	1.2
October	0.7

Pipelines were sized to deliver supply commensurate with the amount of NWP water that would be available during a wet year (Table 1). Table 3 shows the amount of peak and average demand met by each project in the project region.

Table 3: Peak and Average Demand and Deliveries for Direct Delivery Projects

	North	Central[1]	Eastern
Peak Monthly Demand (gpm)	15,920	2,640	5,500
Max Pipeline Delivery (gpm)	2,960	1,260	2,480
Average annual demand (AFY)	10,415	1,725	3,600
Annual water delivered, wet year (AFY)	3,510	1,250	2,510

Notes:
1. Demands for this area are those remaining demand after accounting for recycled water deliveries (from the modified baseline model run).

Pipelines were sized to deliver demand at all hours of the day regardless of the time period required for irrigation. This assumption was made to reduce the pipeline diameter and pump station requirements; however, this assumption requires that farmers have daily on-site storage to collect water from the pipeline during times when they're not irrigating. The cost of on-site storage and other on-site improvements was not included in the cost estimates.

Water from the NWP might have water quality that is problematic for irrigation systems; the NWP pipeline carries untreated reservoir water that can be high in metals and contain algae that that could clog or foul drip irrigation or sprinkler heads. No treatment was assumed in the project costs; however, water quality would need to be analyzed and a small pilot study conducted to determine if any water quality adjustment would be required. Alternatively, different irrigation techniques or operational changes may need to be utilized with NWP water deliveries. This could be determined in a pilot study.

1.3.4 Local Recharge Projects

The perennial rivers that flow through the Paso Robles Basin can be engorged with flood water for several weeks at a time while remaining dry for most of the year. Historical water levels on the Estrella River, Huer Huero Creek, and the Salinas River were analyzed to determine the frequency, length, and volume of flow imparted by these flood events.

Legal issues were also considered to determine how much water could feasibly be extracted for a local recharge project. A standard surface water diversion permit would theoretically allow for more water to be extracted from a river; however, the process for obtaining a standard surface water permit is extremely lengthy and complicated. The Salinas River between Salinas Dam and the Nacimiento confluence is fully allocated except between Jan 1 – May 15; and, permit

applications would be subject to protest from all existing upstream and downstream permit-holders.

DWR may introduce a streamlined surface water permit for GSAs to extract water during flood flows. The draft concept of the temporary permit is to allow the diversion of flood flows between December 1 and March 31. The diversions can only legally occur on days when the volume of flow in the river is greater than the 90th percentile flow for that particular day of the year. This concept is described in detail in Appendix I.

Though the volume of water available during floods is considerable, the infrastructure required to divert a large volume would also need to be sizeable. The volume of stormwater that could be captured from the Salinas River under the draft streamlined permit was computed for three different sized systems. Flood flows for the last 30 years (1989-2018) were used to simulate the diversions, which were set to occur only on days between January 1 and March 31 with flood flows higher than the 90th percentile flood flow. The results are shown in Table 4.

Table 4: Simulated Volume Diverted from the Salinas River under the Draft Streamlined Permit over a 30-Year Period for Different System Sizes

System Size (cfs)	Recharge basin size (acres)	Volume captured over the 30 year period (AF)	Average annual captured (AFY)
10	40	4,900	165
40	160	20,400	645
80	315	38,000	1,260

It is worth noting that, over the 30-year simulated period, the stormwater diversion infrastructure would have been activated for a total of 250 days (an average of 8 days per year). Costs are provided for the 10 cfs system. Water would be extracted via radial Ranney wells, which are built to draw water from the alluvium and do not require in-river infrastructure.

1.3.5 Salinas Dam Expansion

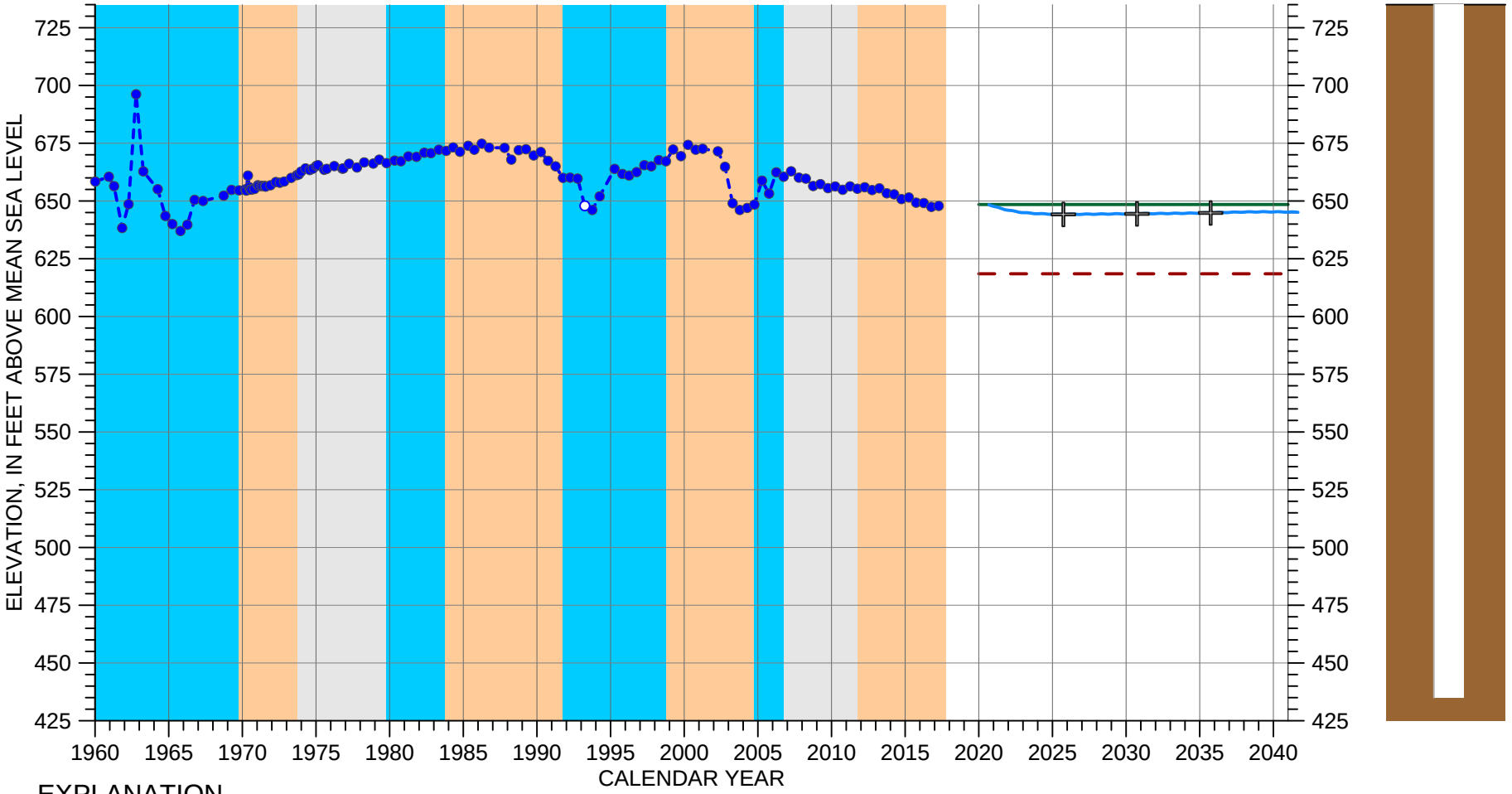
Information regarding the Salinas Dam expansion was obtained from SLOCFCWCD.

REFERENCES

SLOCFCWCD 2008. Paso Robles Groundwater Subbasin Water Banking Feasibility Study. Final Report. San Luis Obispo County Flood Control and Water Conservation District. April 2008.

Appendix K

Model Results that Demonstrate Sustainability

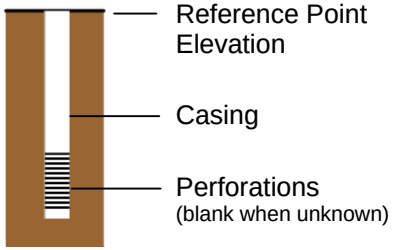


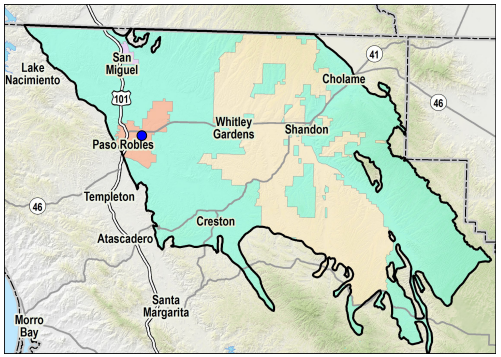
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



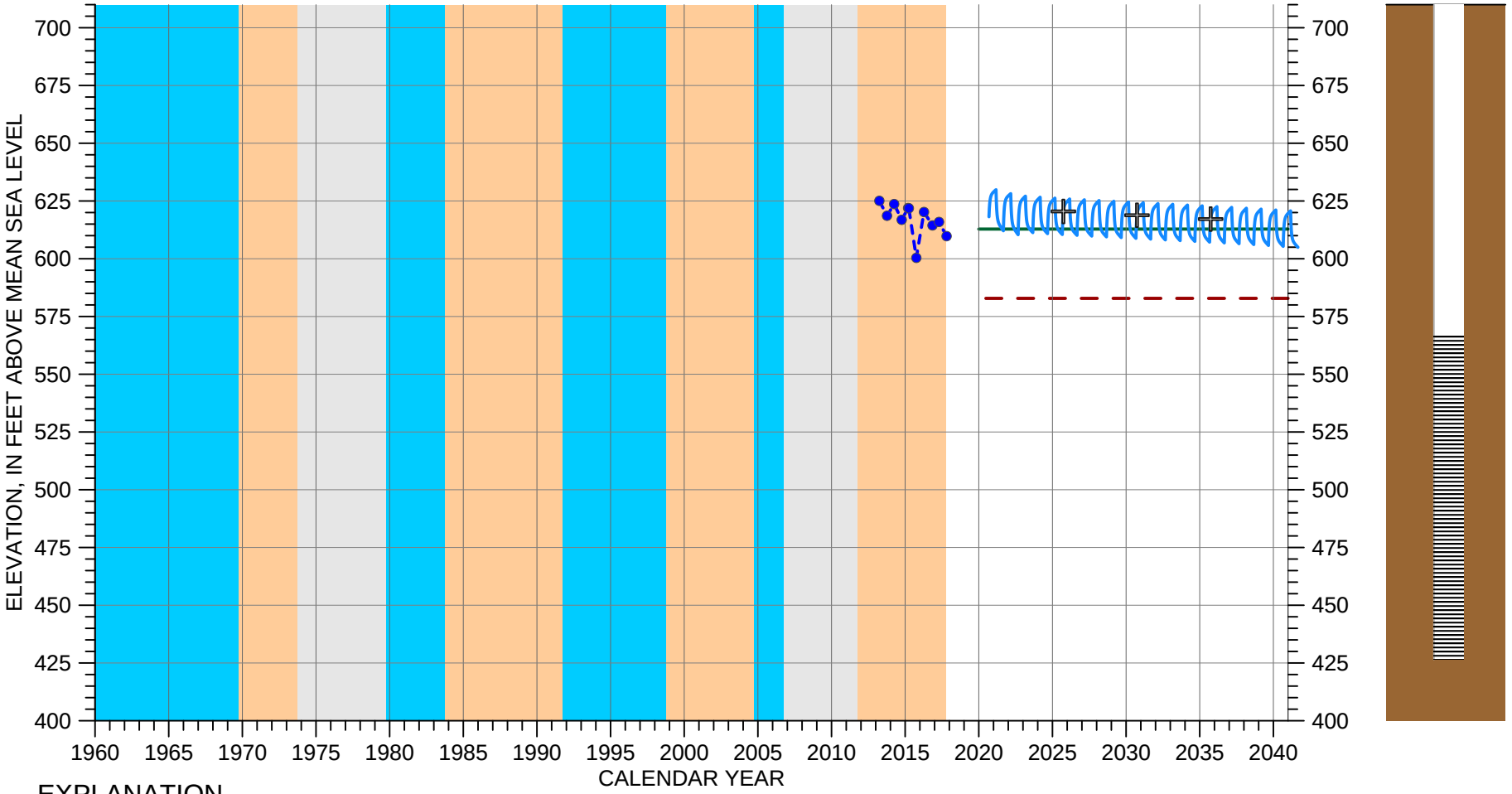


Well Depth: 400 feet
Screened Interval: unknown
Reference Point Elevation: 835 feet above mean sea level

* Measurement reported as not static

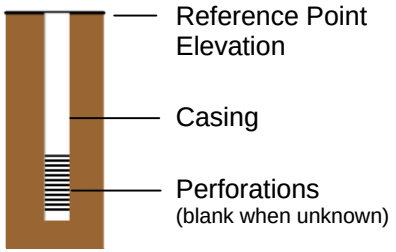
MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 26S/12E-26E07

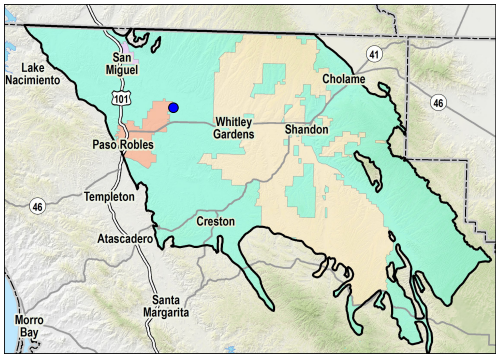
S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig04_26S_12E-26E07.grf



EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE





CLIMATE PERIOD CLASSIFICATION

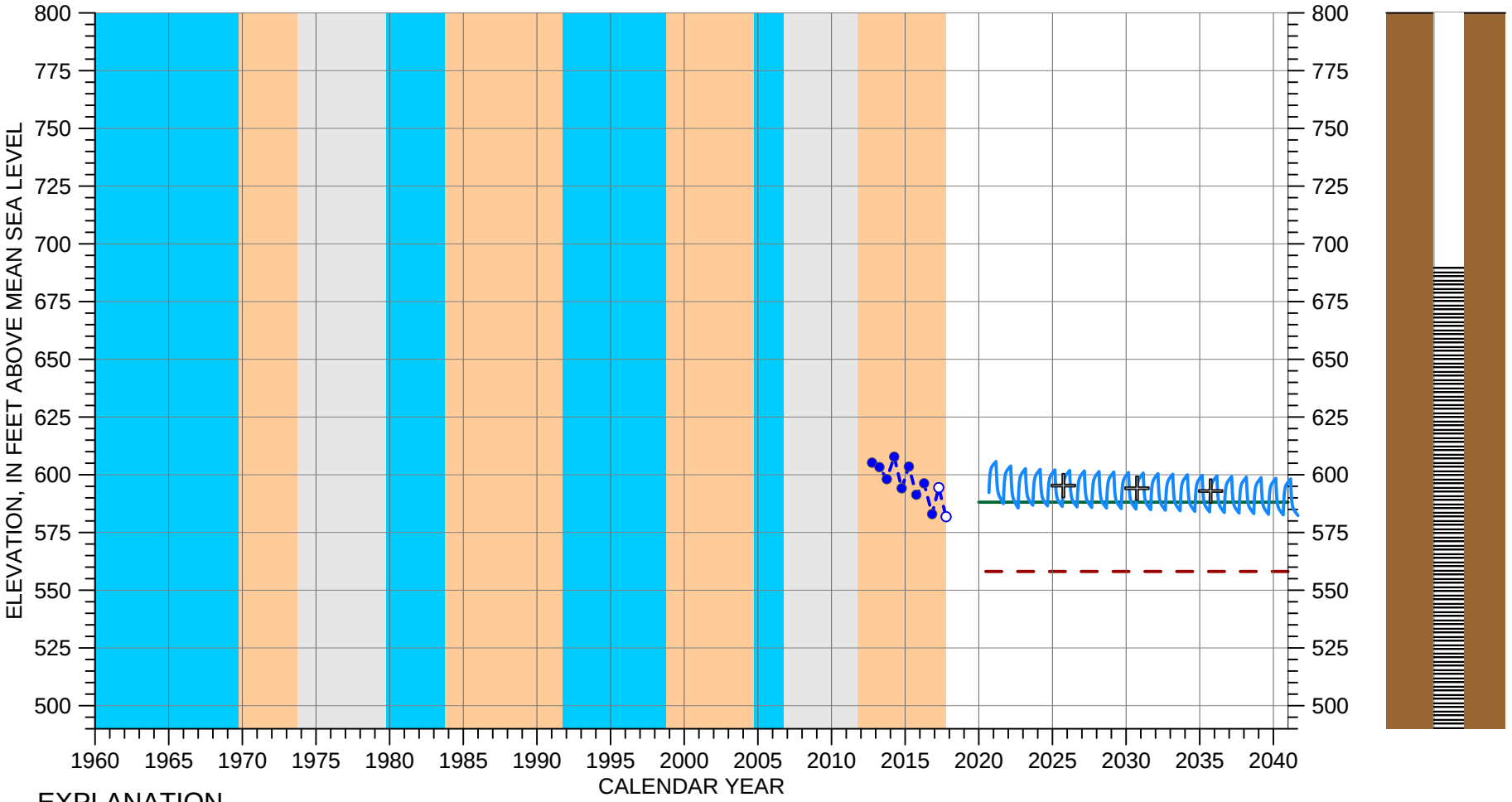
DRY | AVERAGE/ALTERNATING | WET

Well Depth: 400 feet
Screened Interval: 260-400 feet below ground surface
Reference Point Elevation: 827.9 feet above mean sea level

* Measurement reported as not static

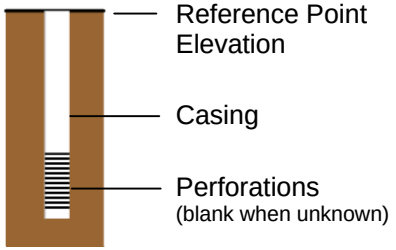
MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 26S/13E-08M01

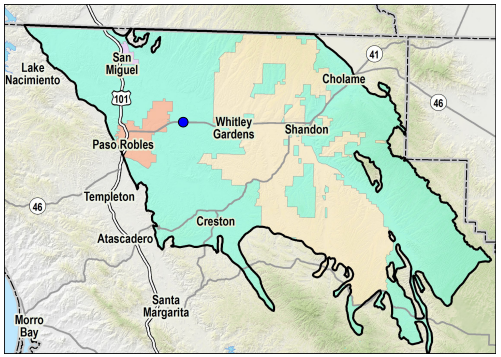
S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig05_26S_13E-08M01.grf



EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE





CLIMATE PERIOD CLASSIFICATION

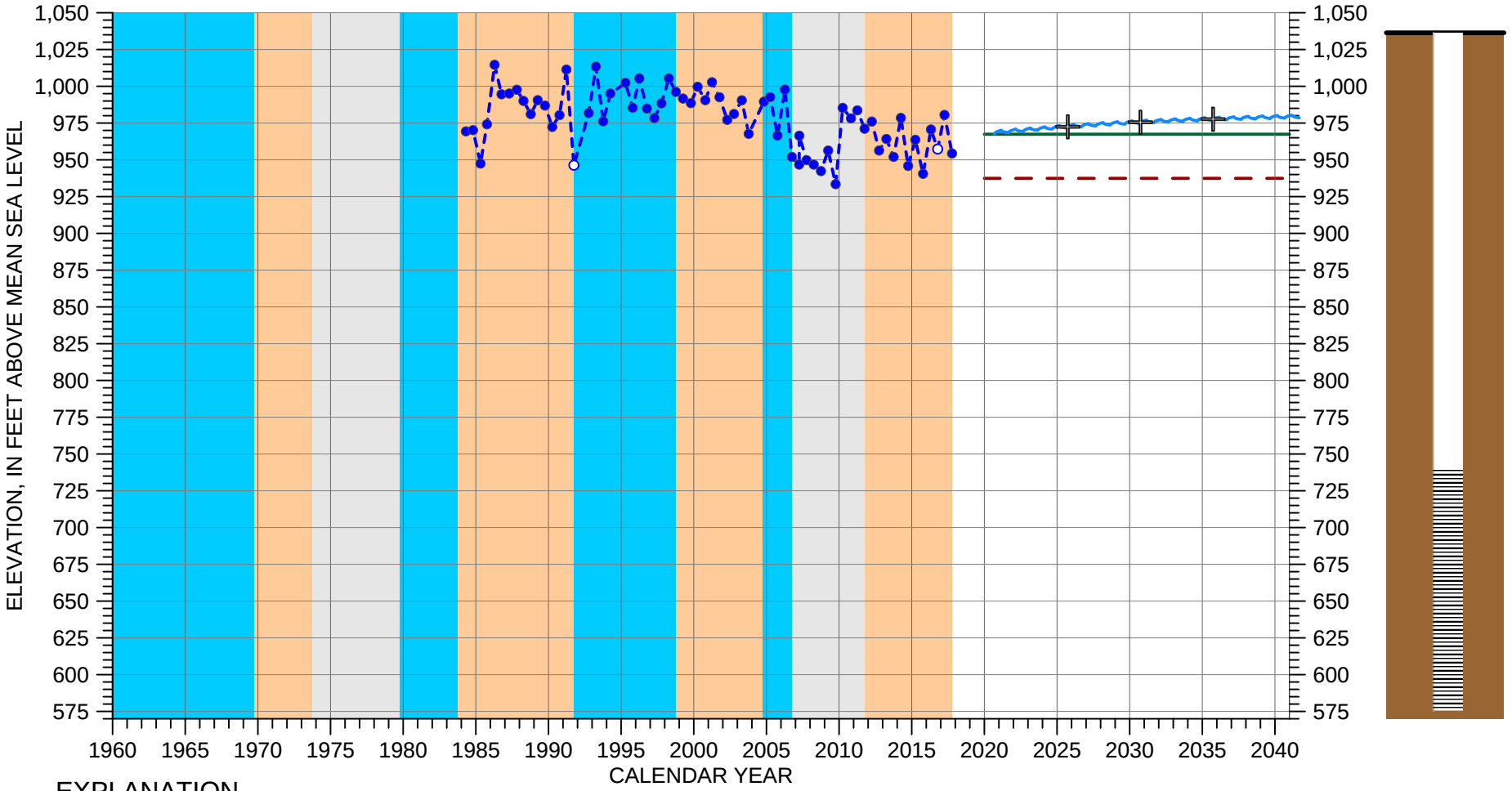
DRY | AVERAGE/ALTERNATING | WET

Well Depth: 400 feet
Screened Interval: 200-400 feet below ground surface
Reference Point Elevation: 890.2 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 26S/13E-16N01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig06_26S_13E-16N01.grf

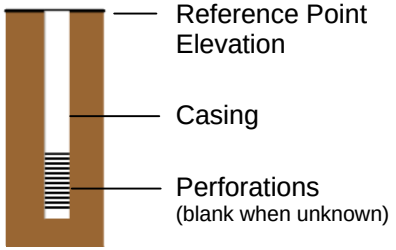


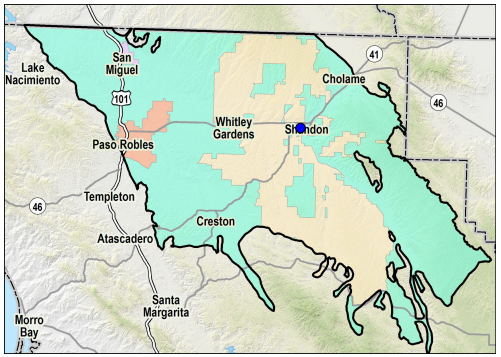
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



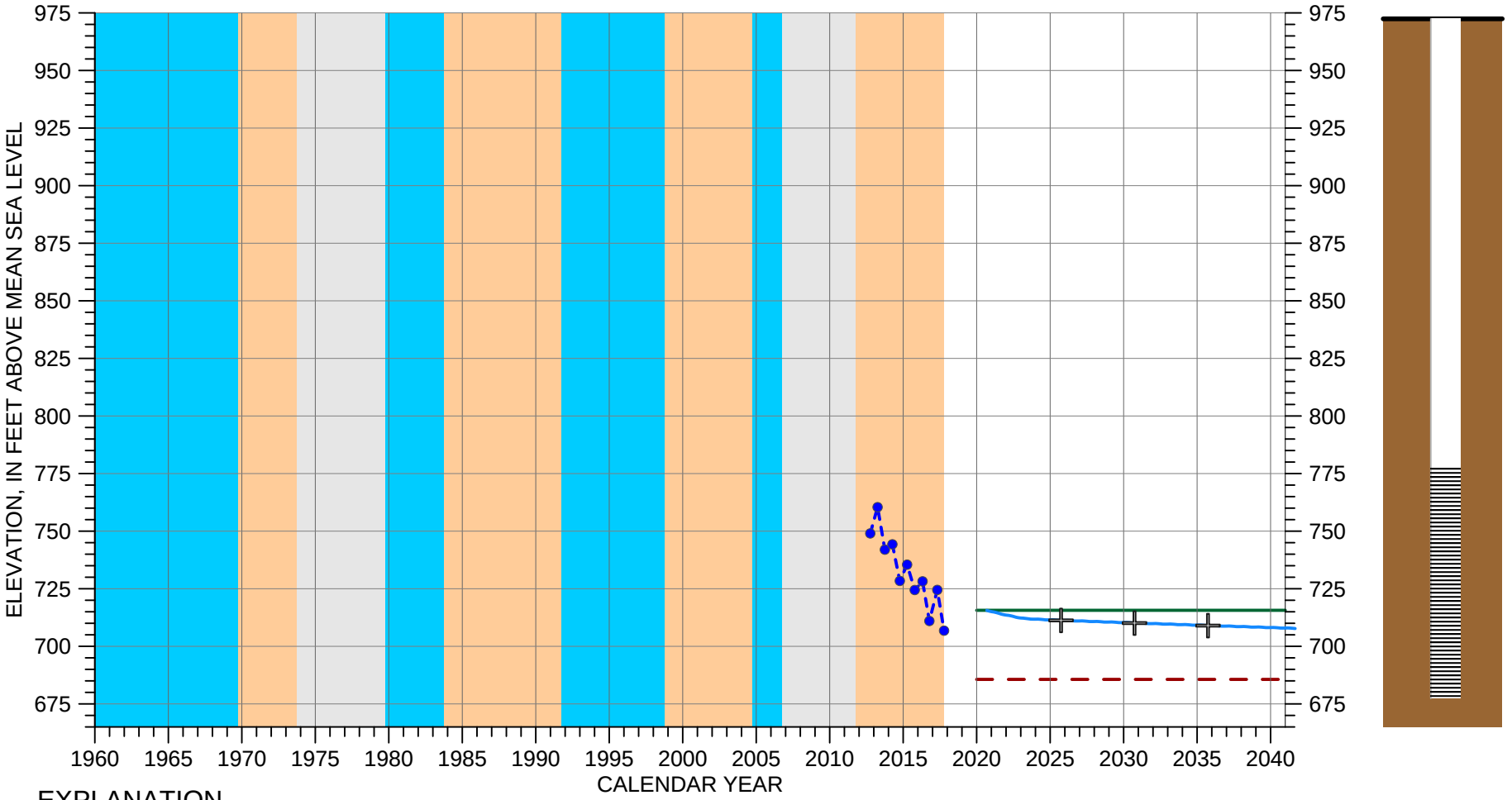


Well Depth: 461 feet
Screened Interval: 297-461 feet below ground surface
Reference Point Elevation: 1036.36 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 26S/15E-20B04

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig07_26S_15E-20B04.grf

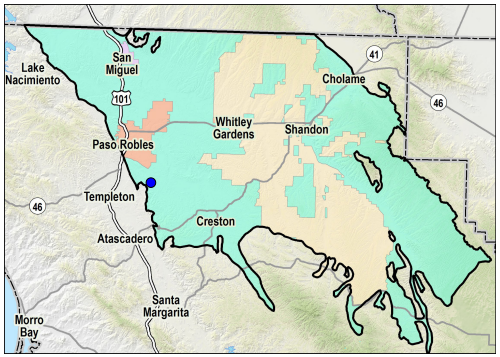


EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET

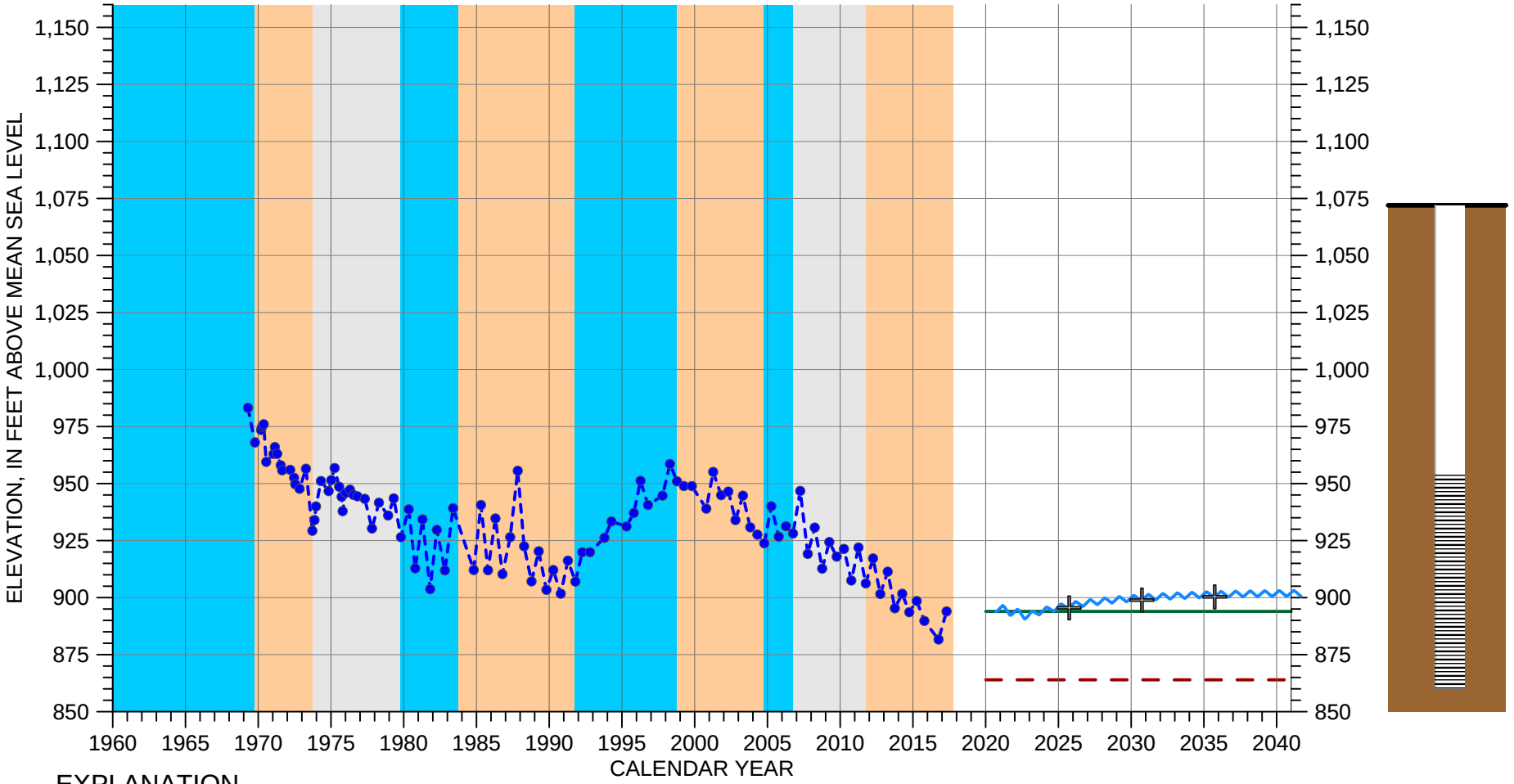


Well Depth: 295 feet
Screened Interval: 195-295 feet below ground surface
Reference Point Elevation: 972.4 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 27S/12E-13N01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig08_27S_12E-13N01.grf

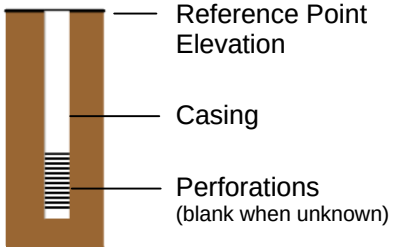


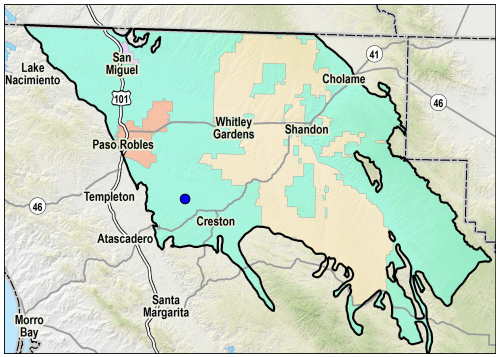
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



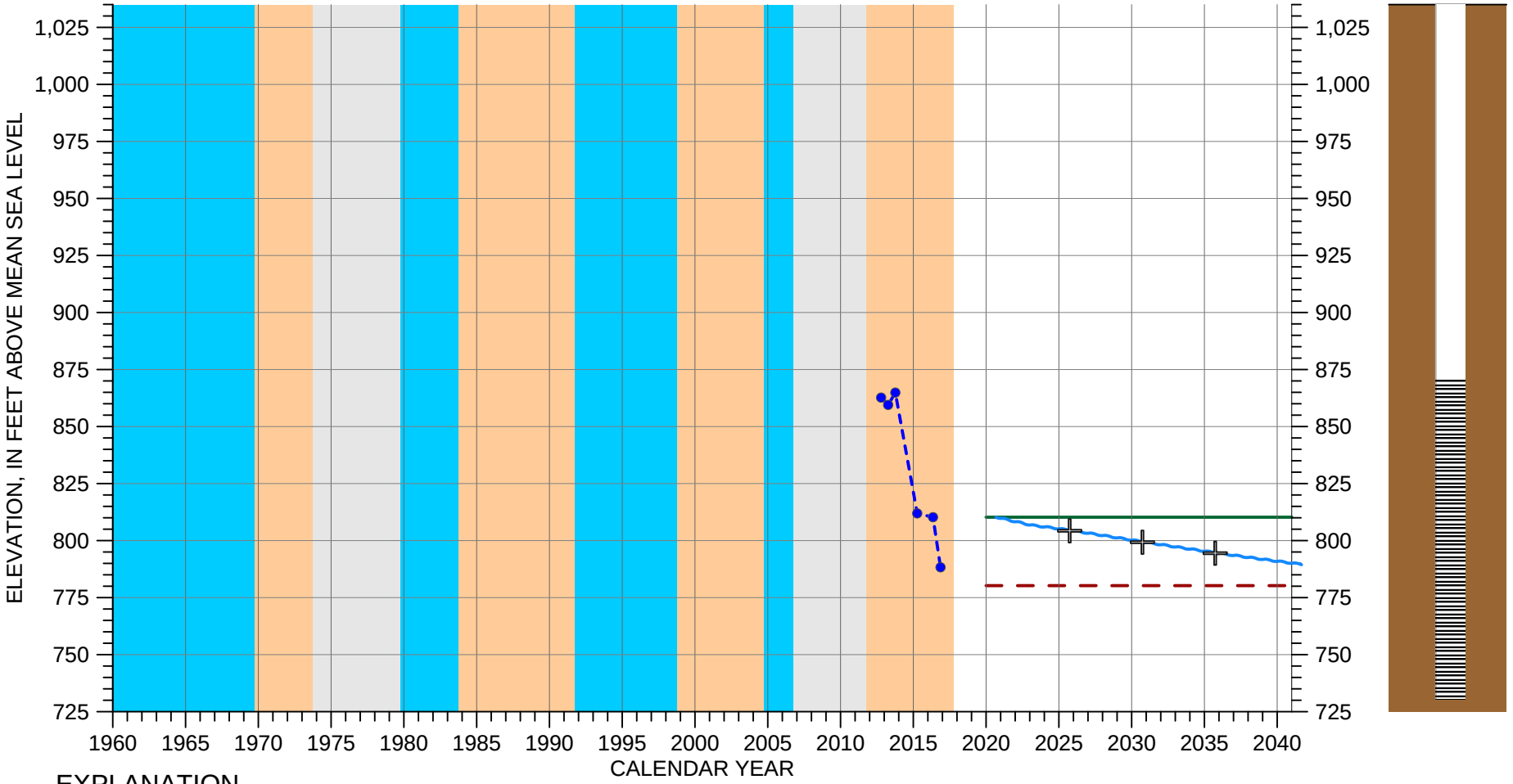


Well Depth: 212 feet
Screened Interval: 118-212 feet below ground surface
Reference Point Elevation: 1072 feet above mean sea level

* Measurement reported as not static

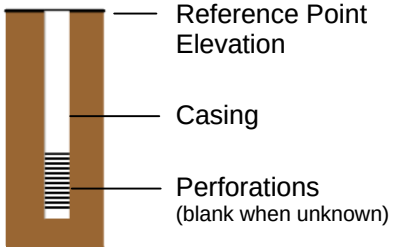
MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 27S/13E-28F01

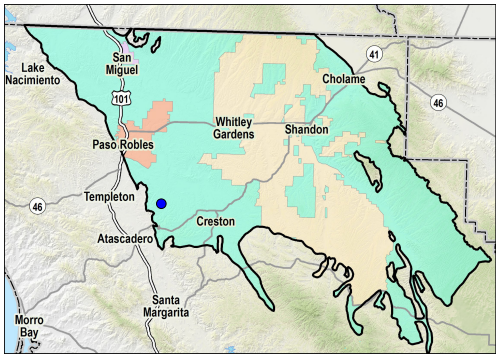
S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig09_27S_13E-28F01.grf



EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE





CLIMATE PERIOD CLASSIFICATION

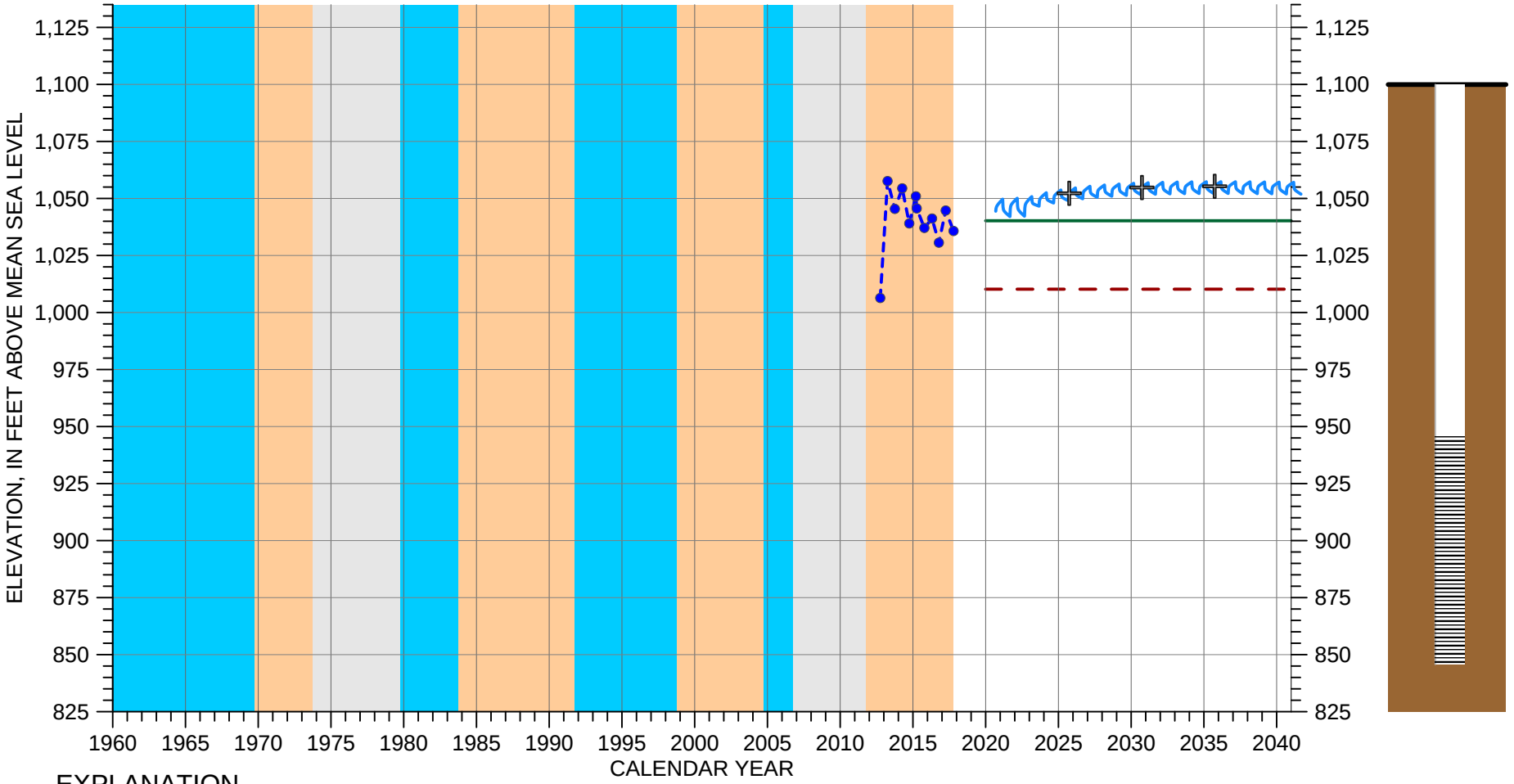
DRY | AVERAGE/ALTERNATING | WET

Well Depth: 355 feet
Screened Interval: 215-235, 275-355 feet below ground surface
Reference Point Elevation: 1086.7 feet above mean sea level

* Measurement reported as not static

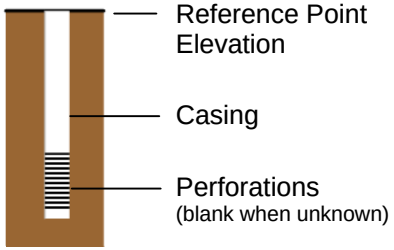
MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 27S/13E-30N01

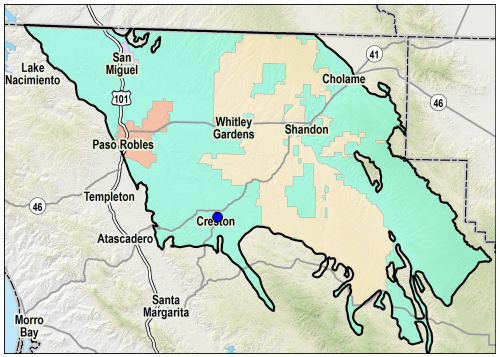
S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig10_27S_13E-30N01.grf



EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE





CLIMATE PERIOD CLASSIFICATION

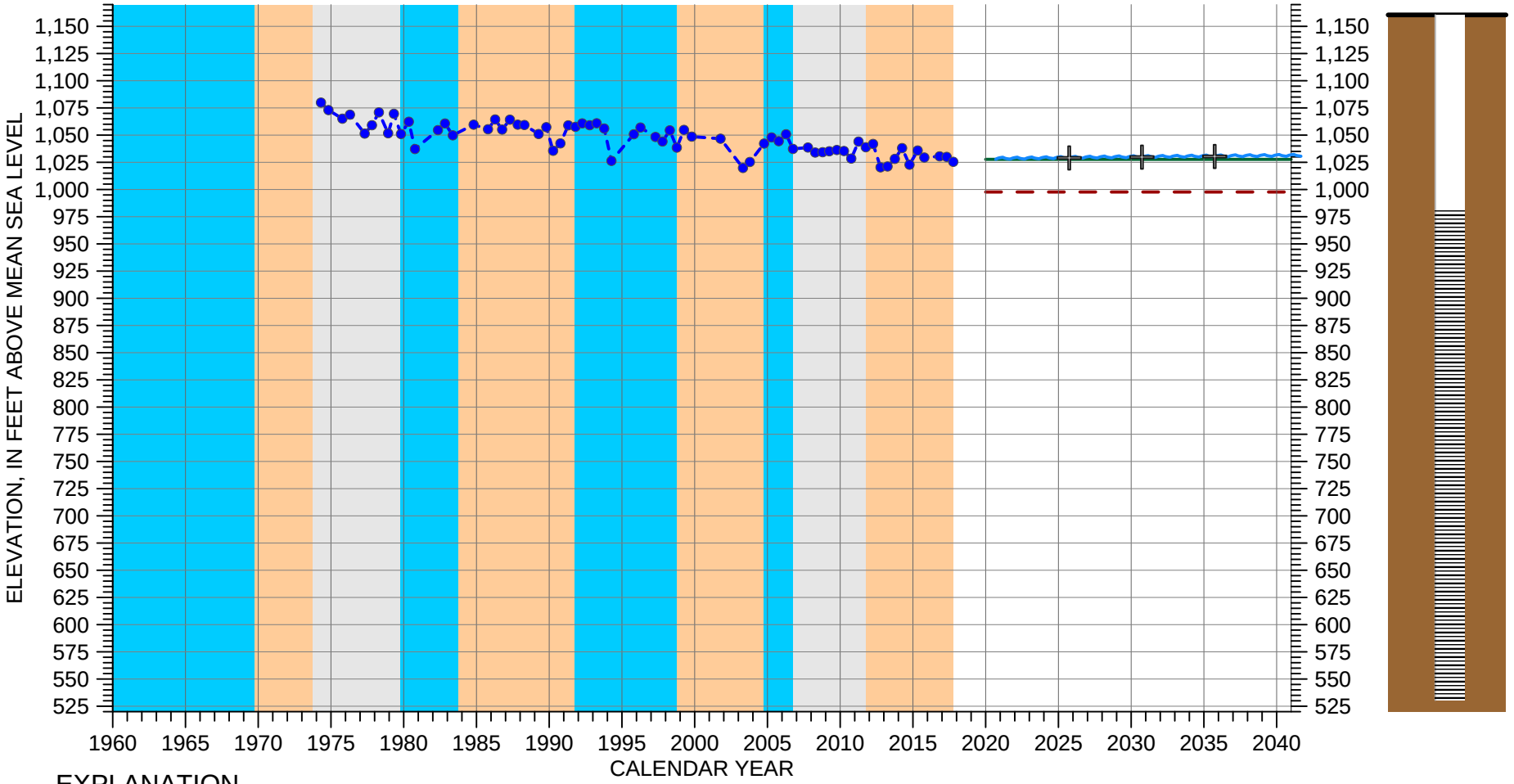
DRY | AVERAGE/ALTERNATING | WET

Well Depth: 254 feet
Screened Interval: 154-254 feet below ground surface
Reference Point Elevation: 1099.9 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 28S/13E-01B01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig11_28S_13E-01B01.grf

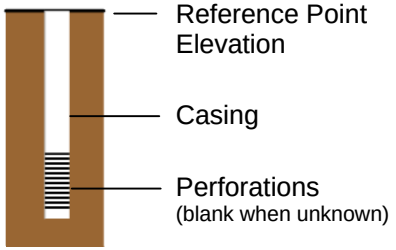


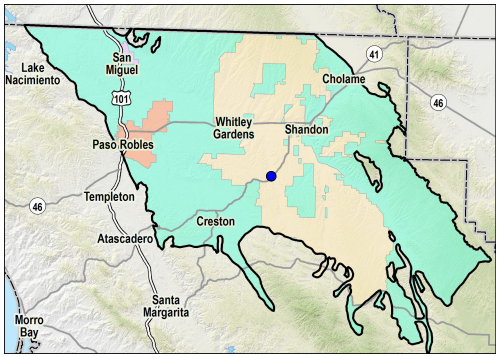
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



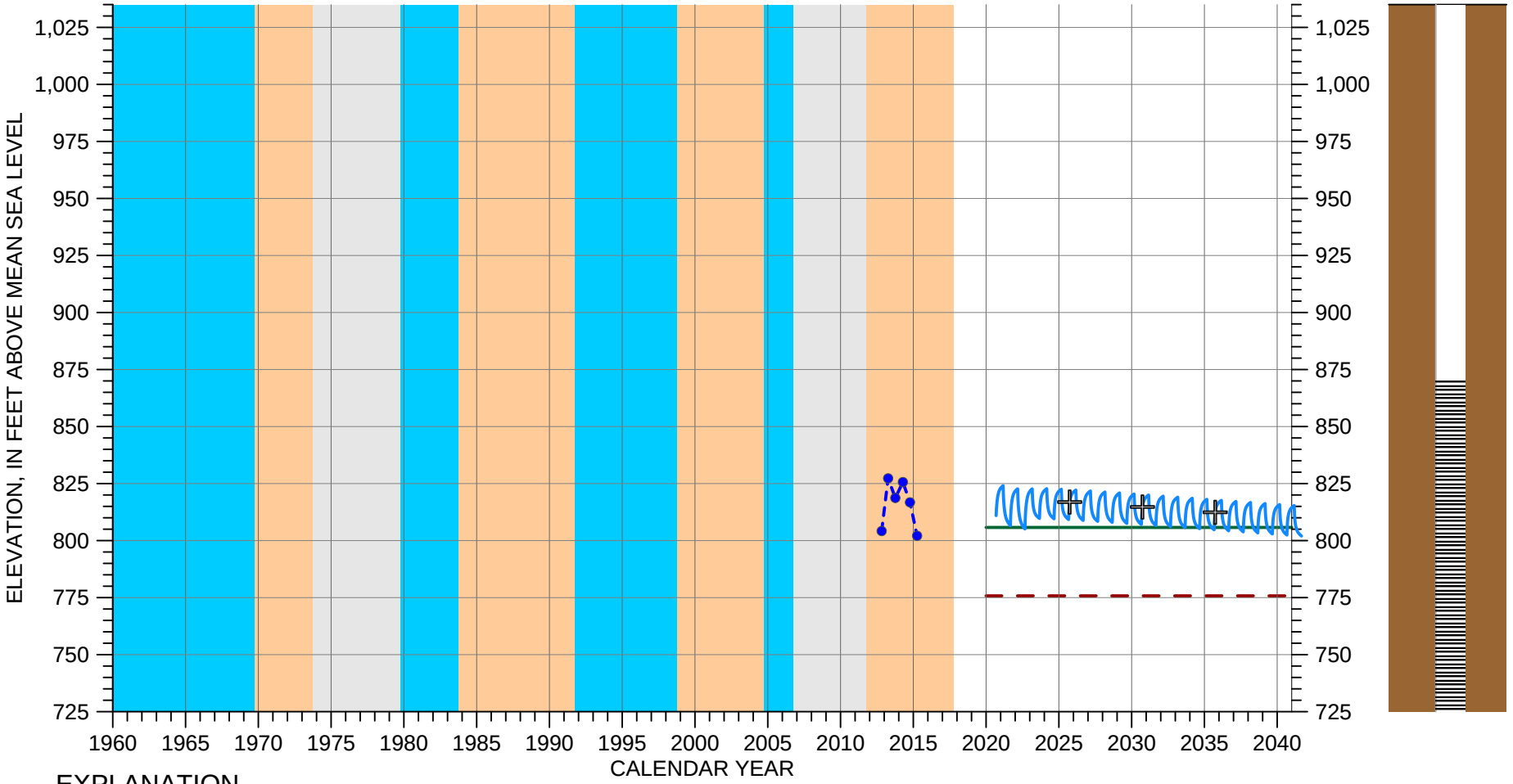


Well Depth: 630
Screened Interval: 180-630 feet below ground surface
Reference Point Elevation: 1160.5 feet above mean sea level

* Measurement reported as not static

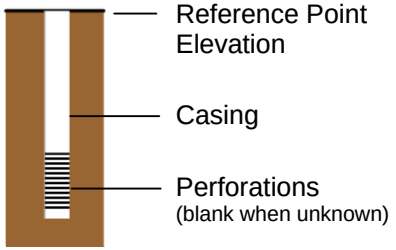
MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 27S/14E-11R01

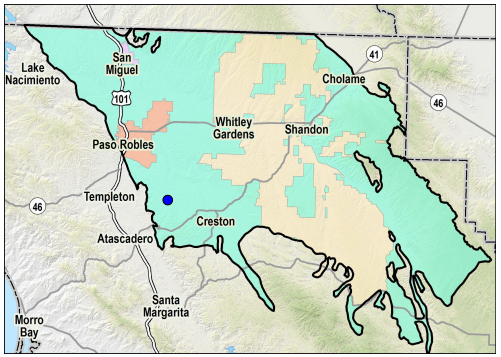
S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig12_27S_14E-11R01.grf



EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE





CLIMATE PERIOD CLASSIFICATION

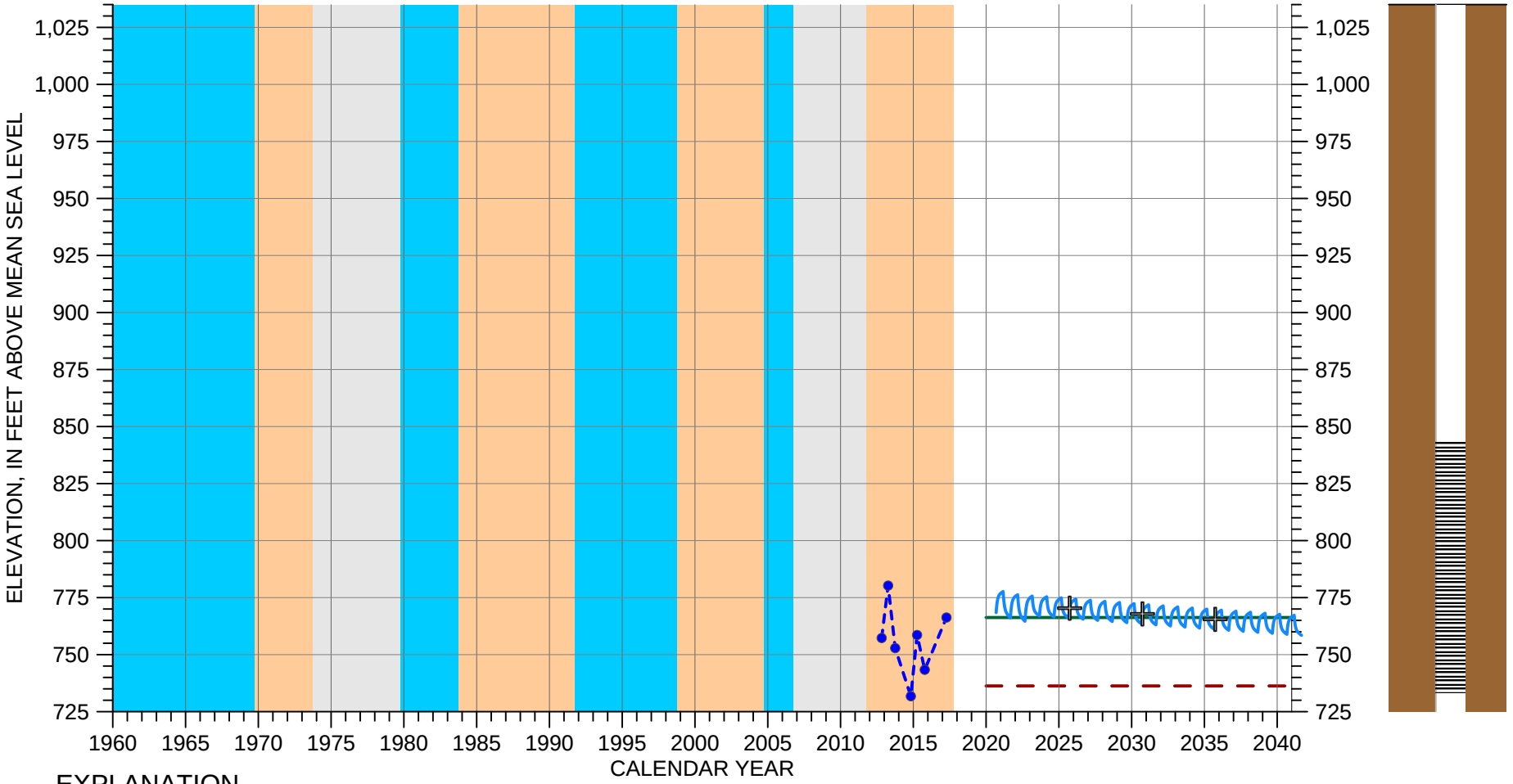
DRY | AVERAGE/ALTERNATING | WET

Well Depth: 685
Screened Interval: 225-685 feet below ground surface
Reference Point Elevation: 1095 feet above mean sea level

* Measurement reported as not static

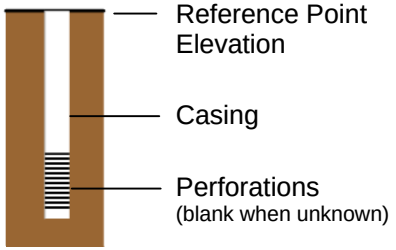
MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 27S/13E-30J01

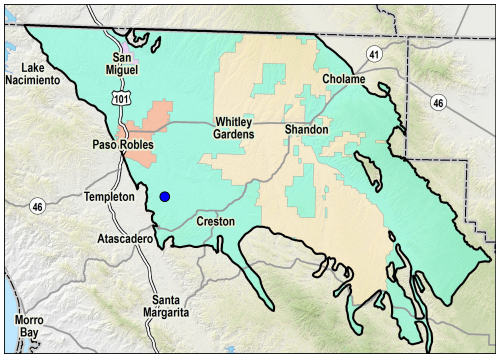
S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig13_27S_13E-30J01.grf



EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE





CLIMATE PERIOD CLASSIFICATION

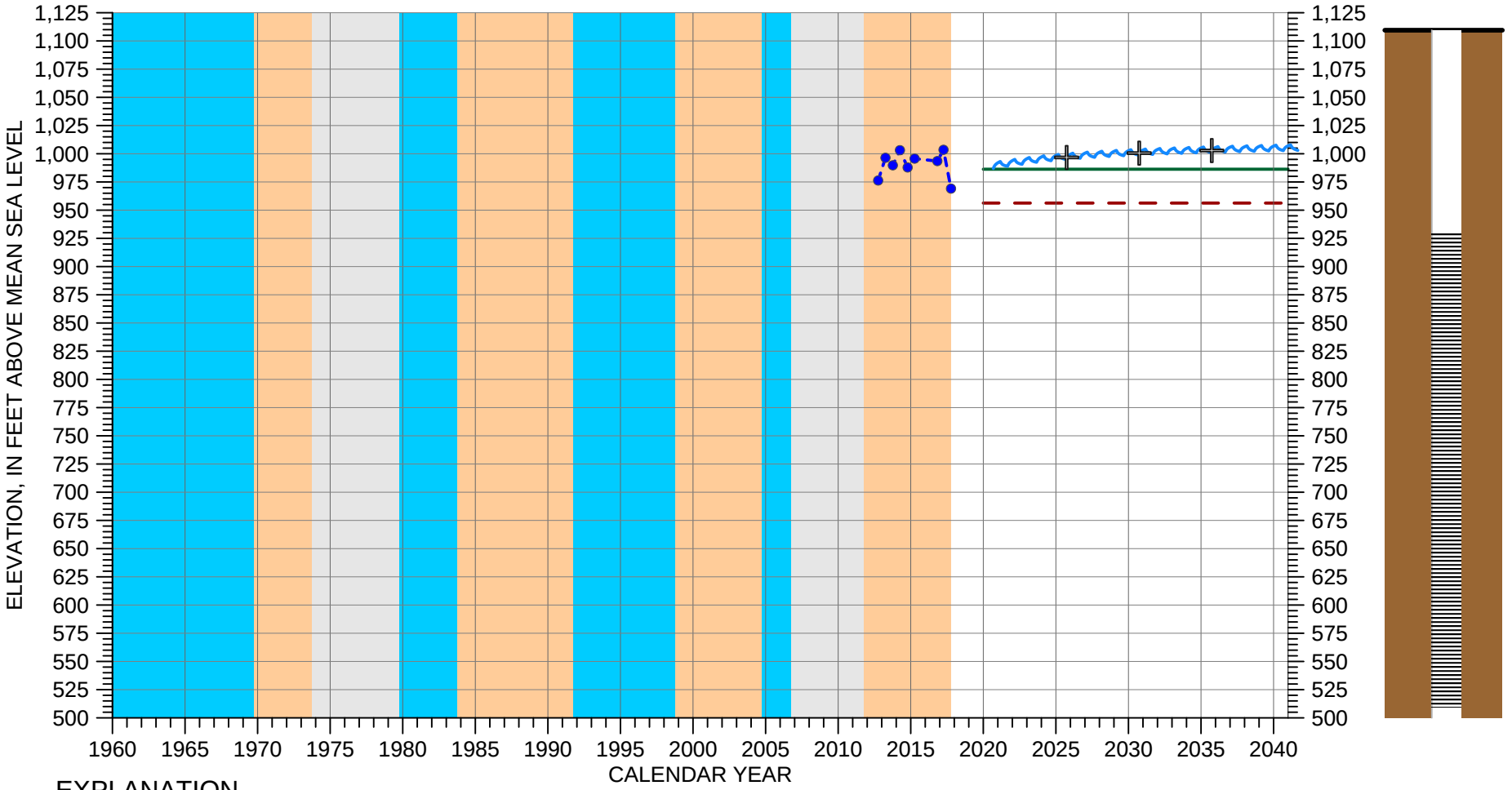
DRY | AVERAGE/ALTERNATING | WET

Well Depth: 310
Screened Interval: 200-310 feet below ground surface
Reference Point Elevation: 1043.2 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 27S/13E-30F01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig14_27S_13E-30F01.grf

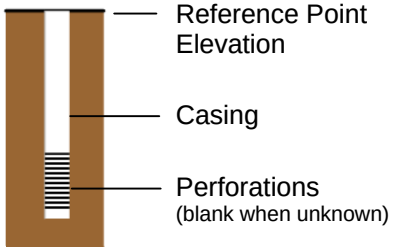


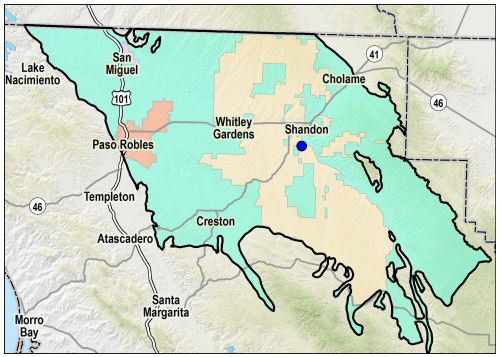
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



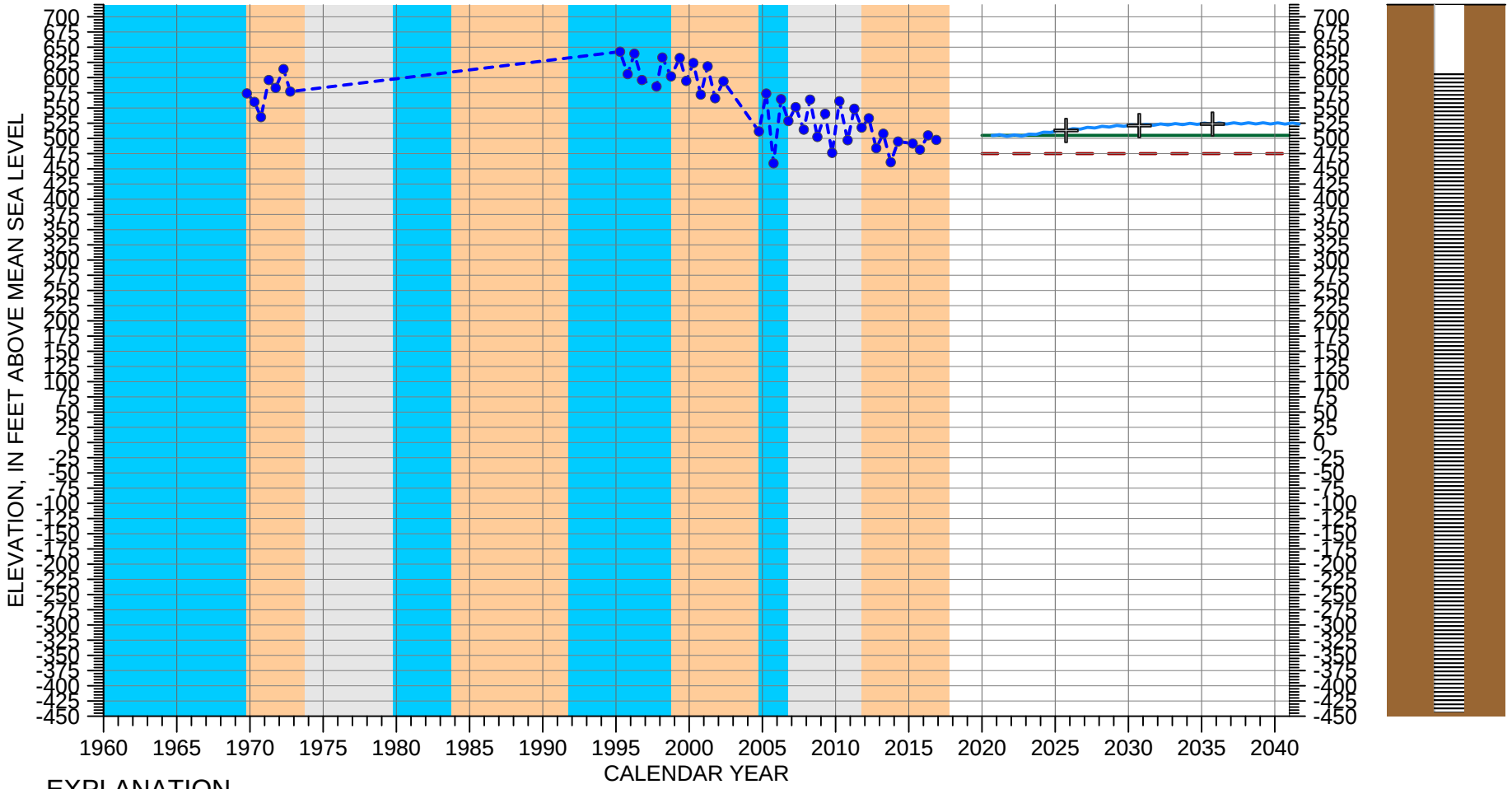


Well Depth: 600
Screened Interval: 180-600 feet below ground surface
Reference Point Elevation: 1109.5 feet above mean sea level

* Measurement reported as not static

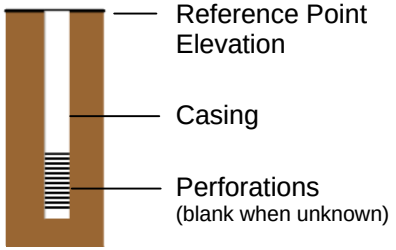
MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 26S/15E-29R01

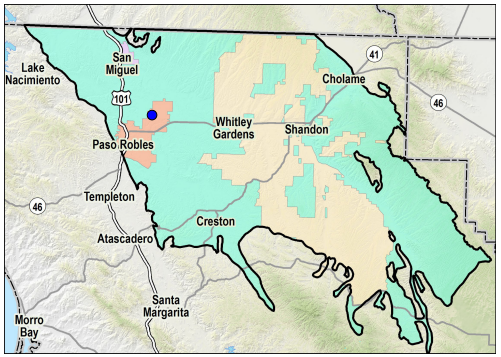
S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig15_26S_15E-29R01.grf



EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE





CLIMATE PERIOD CLASSIFICATION

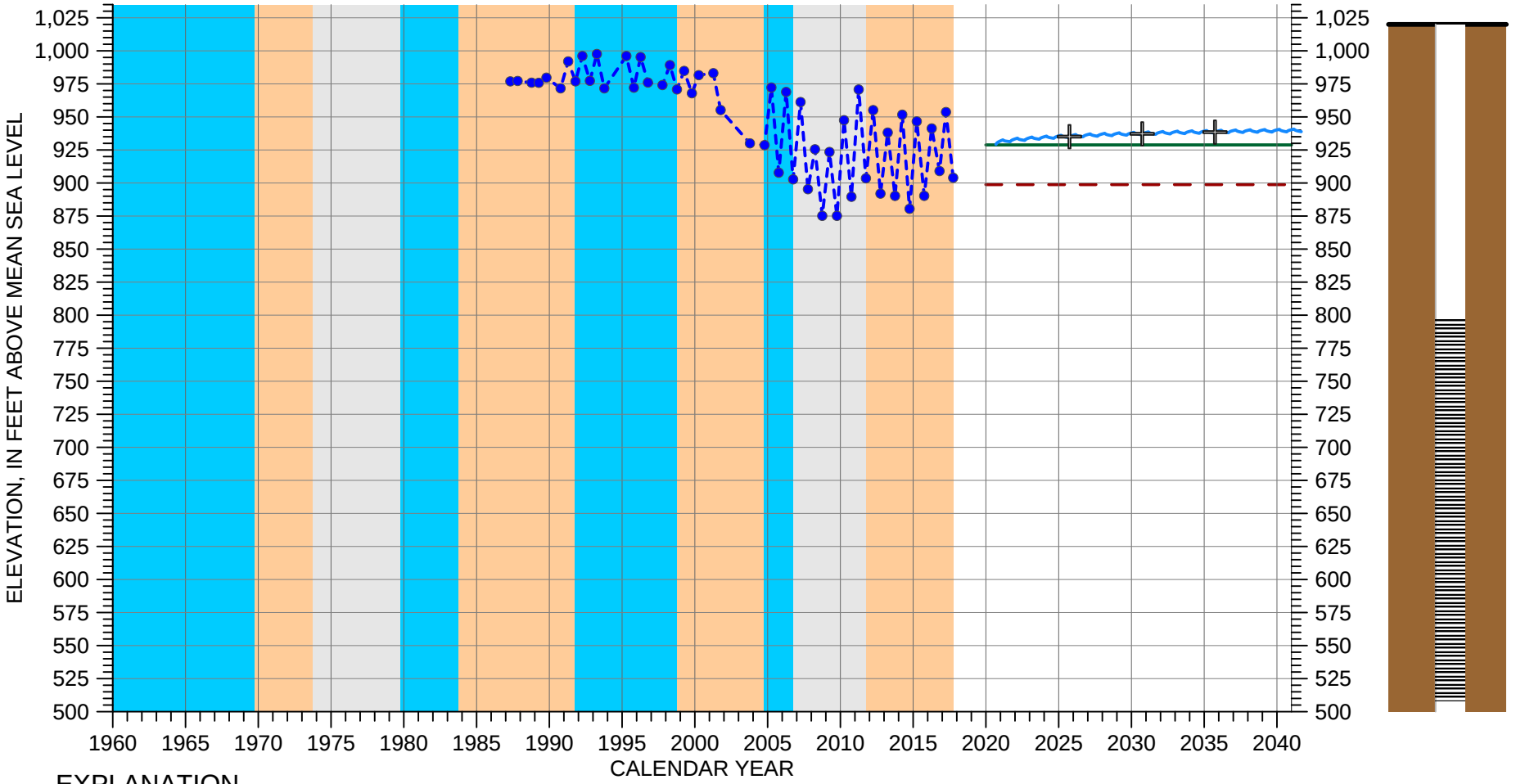
DRY | AVERAGE/ALTERNATING | WET

Well Depth: 1230
Screened Interval: 180-~1230 feet below ground surface
Reference Point Elevation: 790 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 26S/12E-14H01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig16_26S_12E-14H01.grf

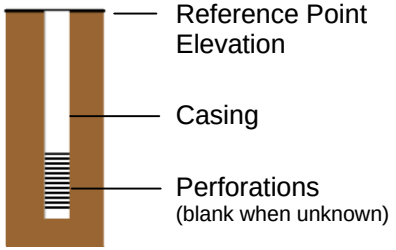


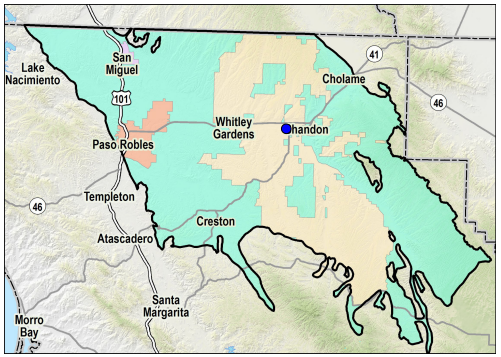
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



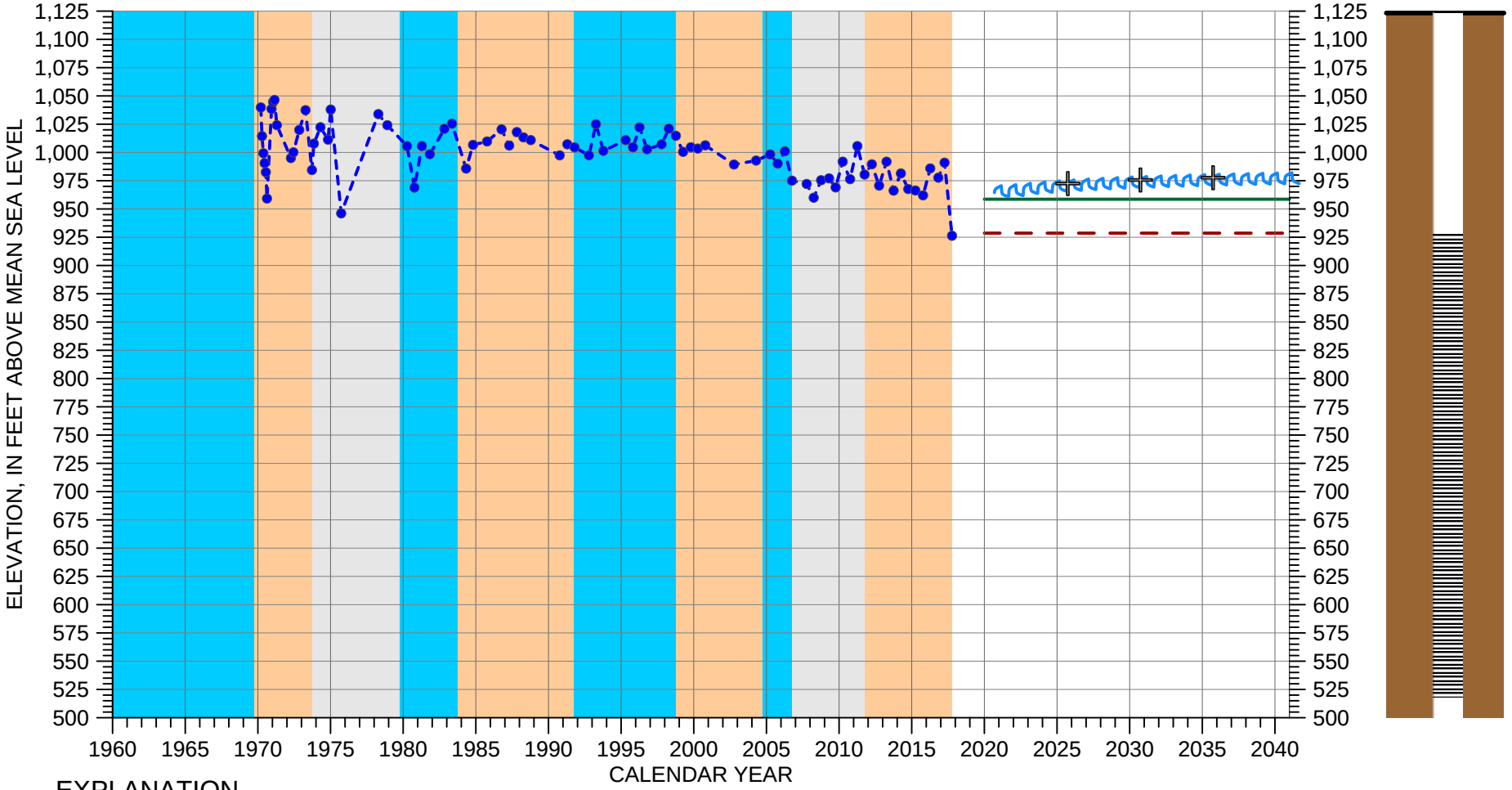


Well Depth: 512
Screened Interval: 223-512 feet below ground surface
Reference Point Elevation: 1020 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 26S/15E-19E01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig17_26S_15E-19E01.grf

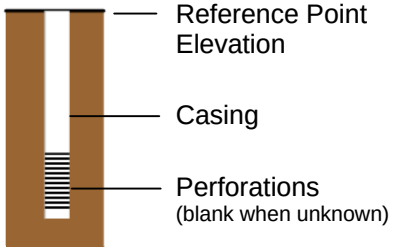


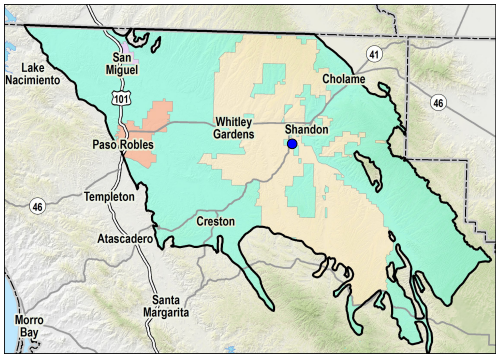
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET





Well Depth: 605
Screened Interval: 195-605 feet below ground surface
Reference Point Elevation: 1123.3 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 26S/15E-30J01

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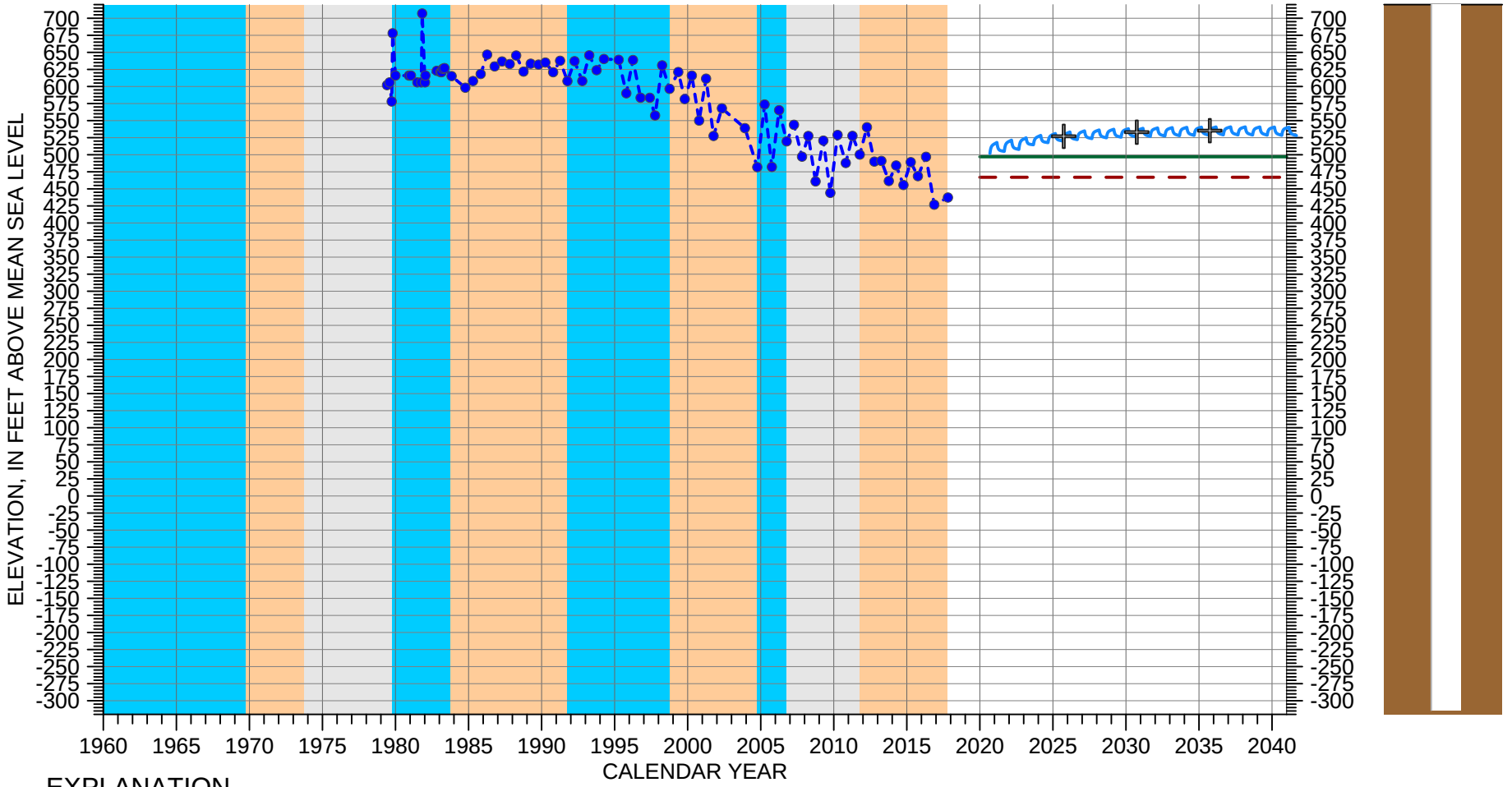
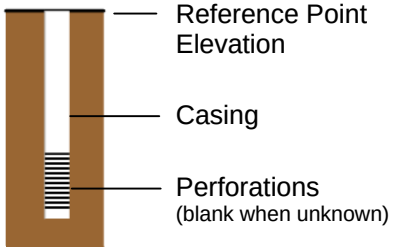


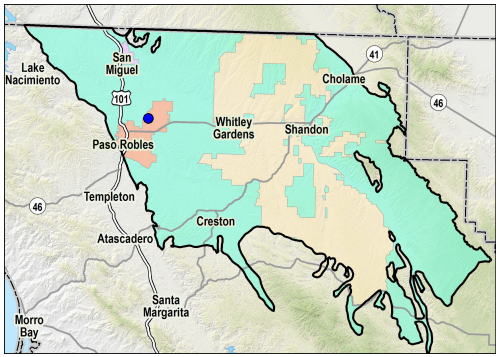
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET





Well Depth: 1100
Screened Interval: unknown
Reference Point Elevation: 786 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 26S/12E-14K01

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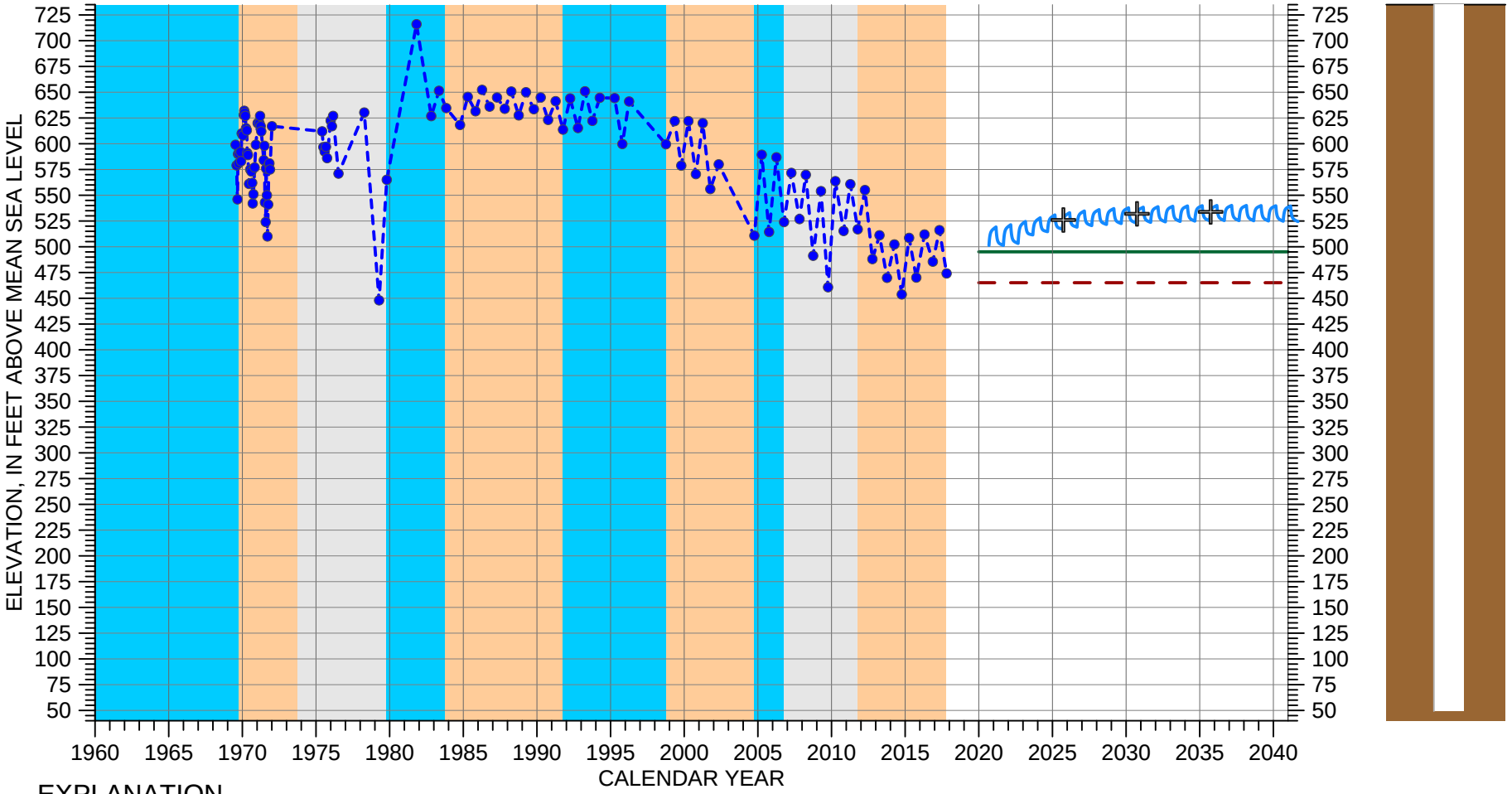
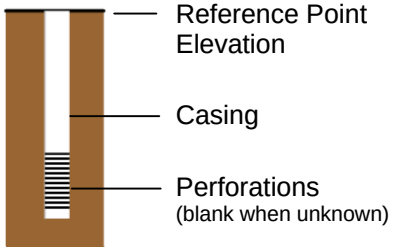


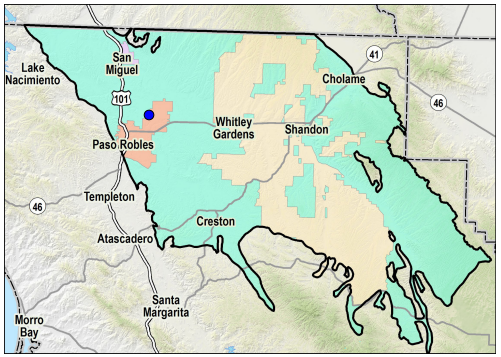
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



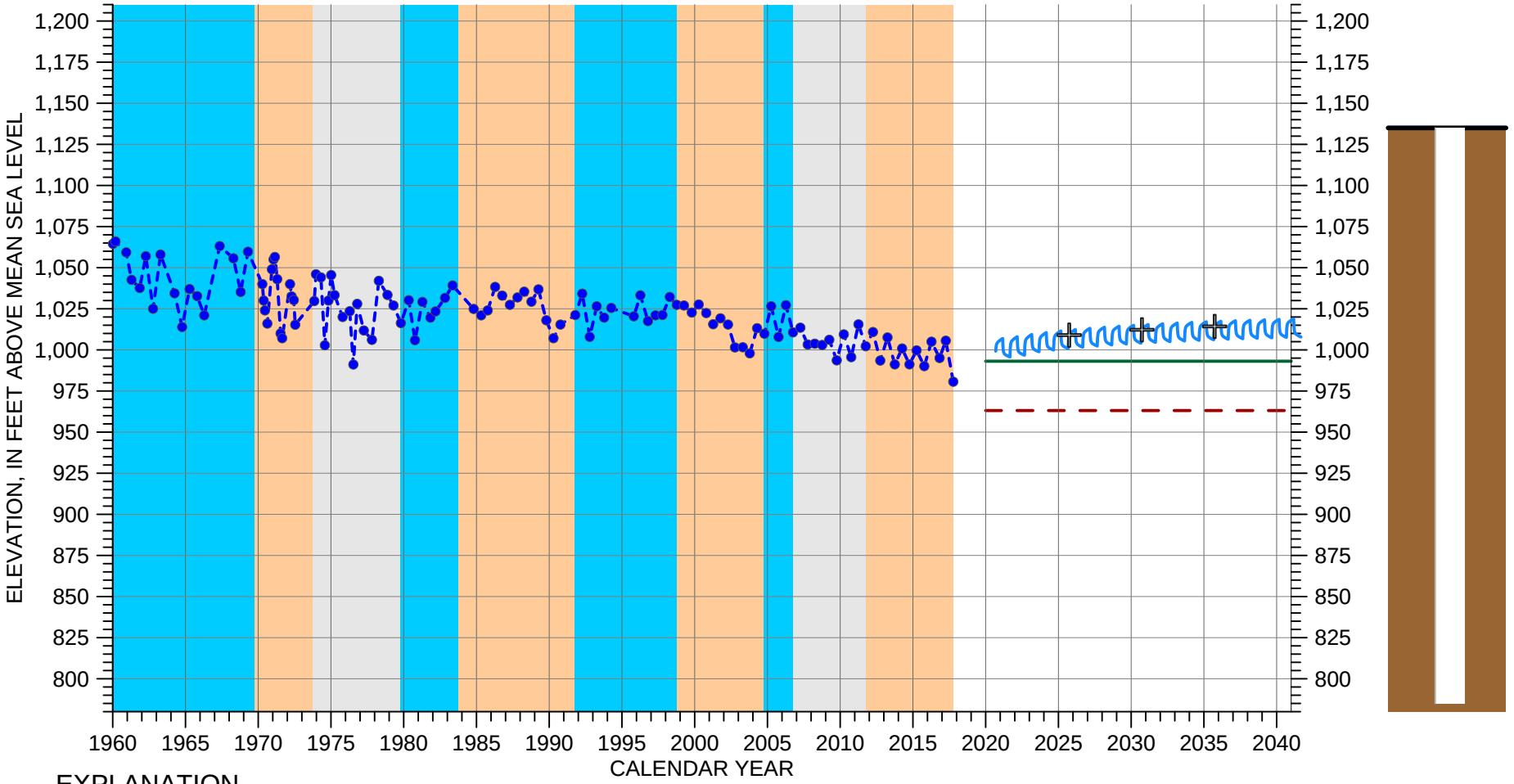


Well Depth: 740
Screened Interval: unknown
Reference Point Elevation: 789.3 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 26S/12E-14G01

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig20_26S_12E-14G01.grf

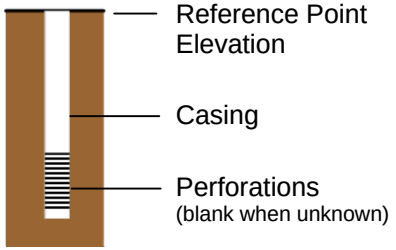


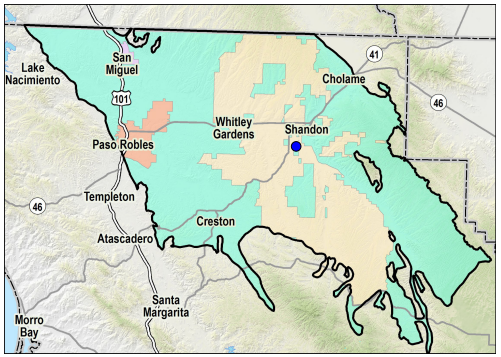
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



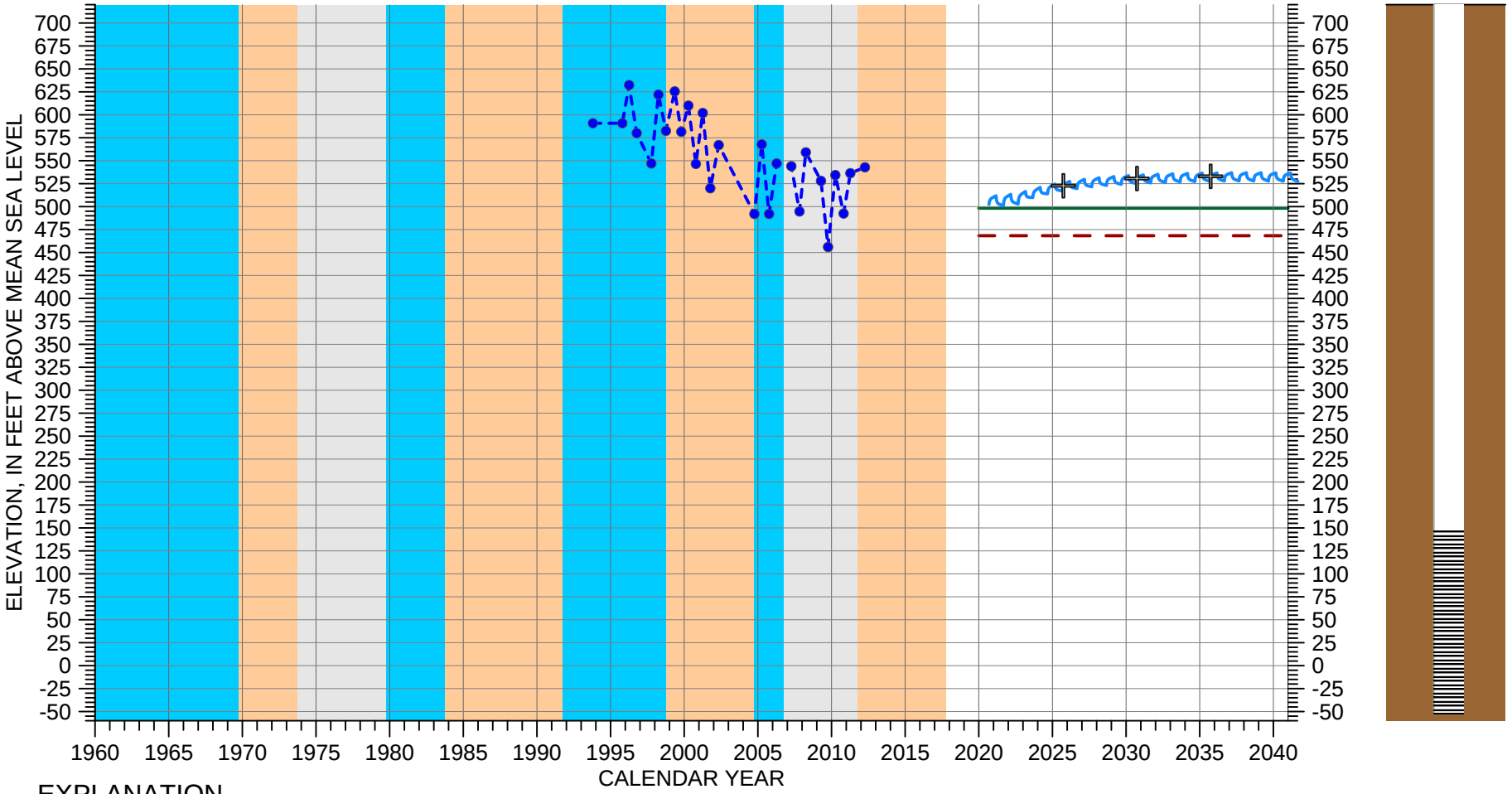


Well Depth: 350
Screened Interval: unknown
Reference Point Elevation: 1135 feet above mean sea level

* Measurement reported as not static

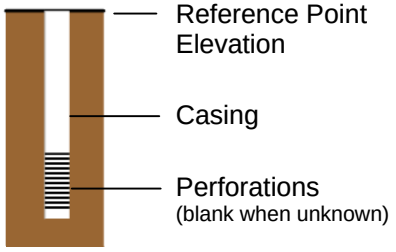
MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 26S/15E-29N01

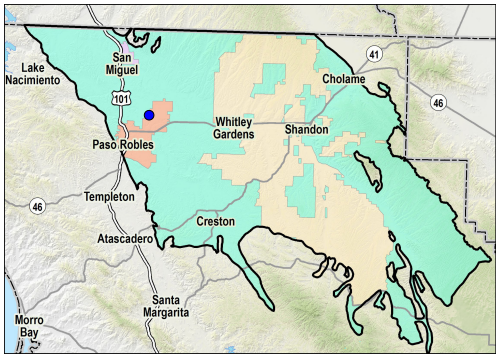
S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig21_26S_15E-29N01.grf



EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE





CLIMATE PERIOD CLASSIFICATION

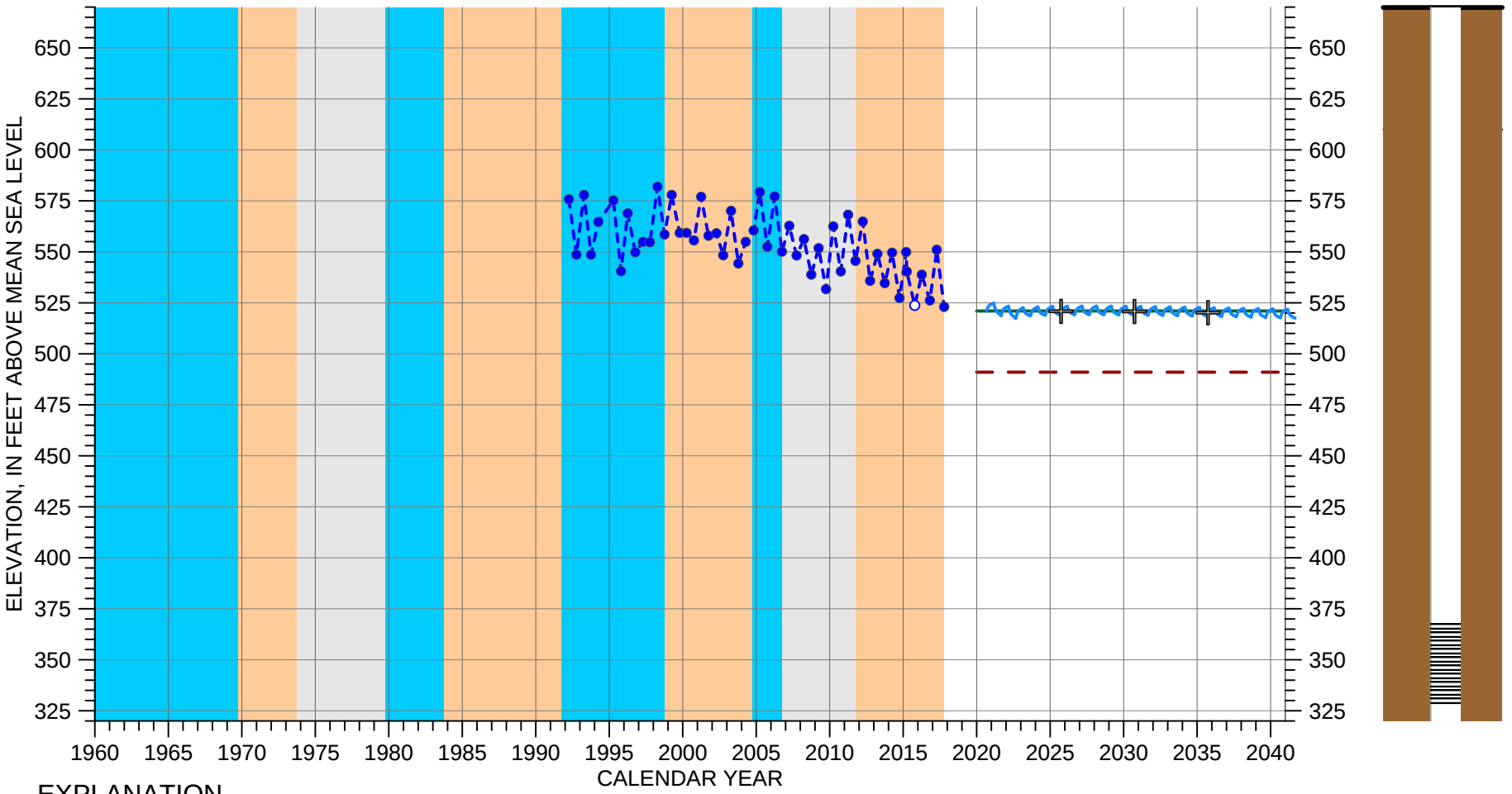
DRY | AVERAGE/ALTERNATING | WET

Well Depth: 840
Screened Interval: 640- ~840 feet below ground surface
Reference Point Elevation: 787 feet above mean sea level

* Measurement reported as not static

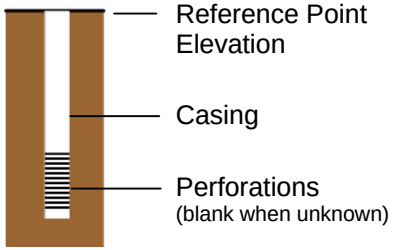
MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 26S/12E-14G02

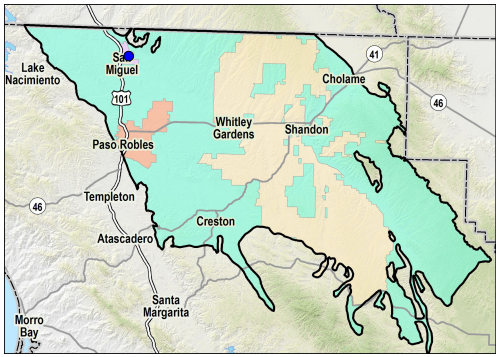
S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig22_26S_12E-14G02.grf



EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE





CLIMATE PERIOD CLASSIFICATION

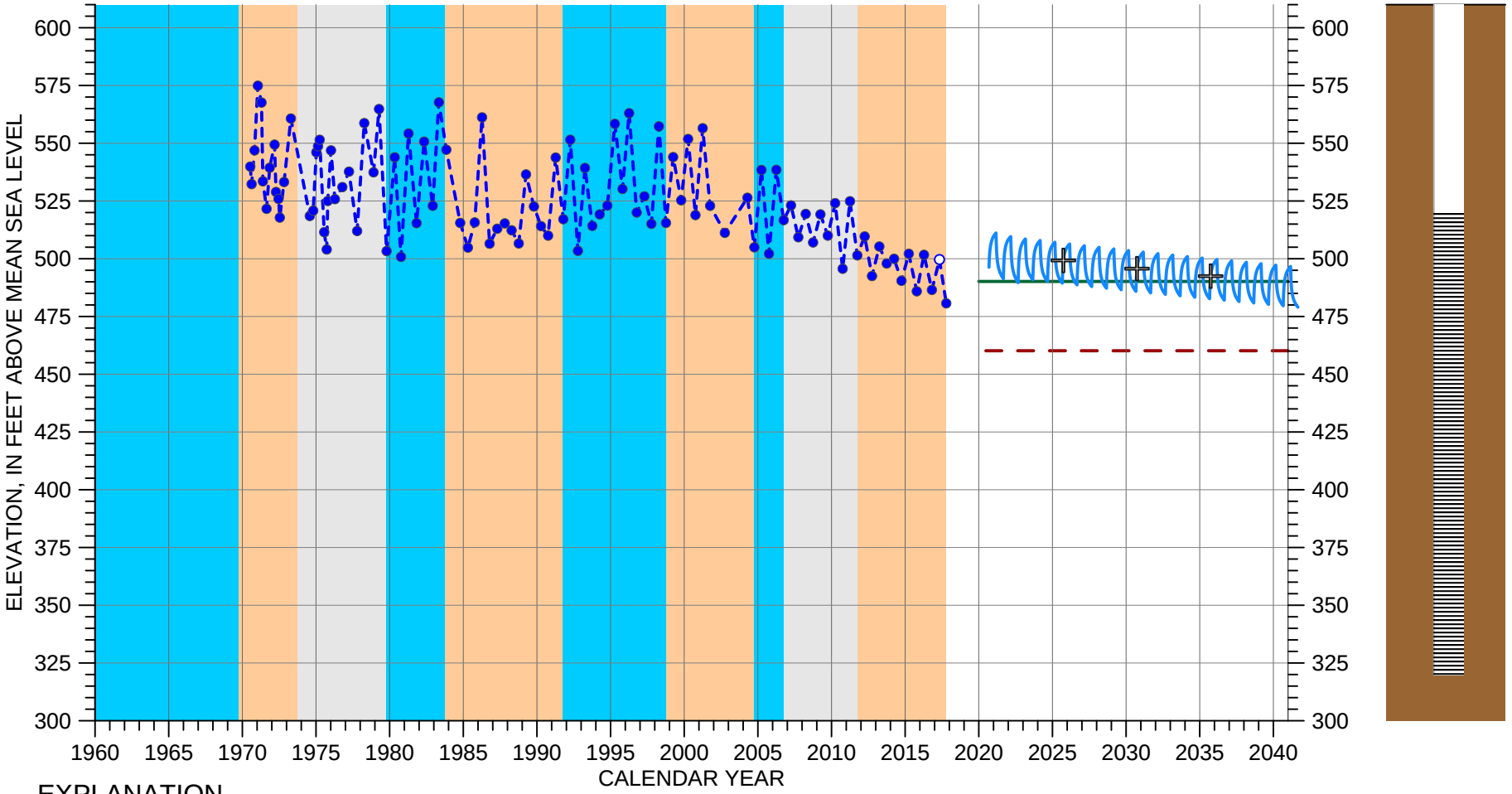
DRY | AVERAGE/ALTERNATING | WET

Well Depth: 350 feet
Screened Interval: 300-310, 330-340 feet below ground surface
Reference Point Elevation: 669.8 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 25S/12E-16K05

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig01_25S_12E-16K05.grf

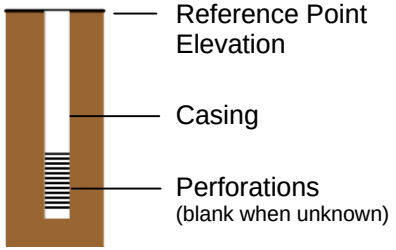


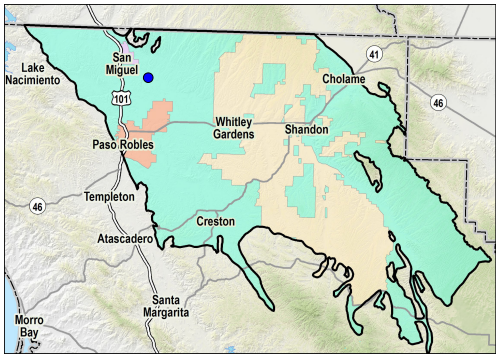
EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE

CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET



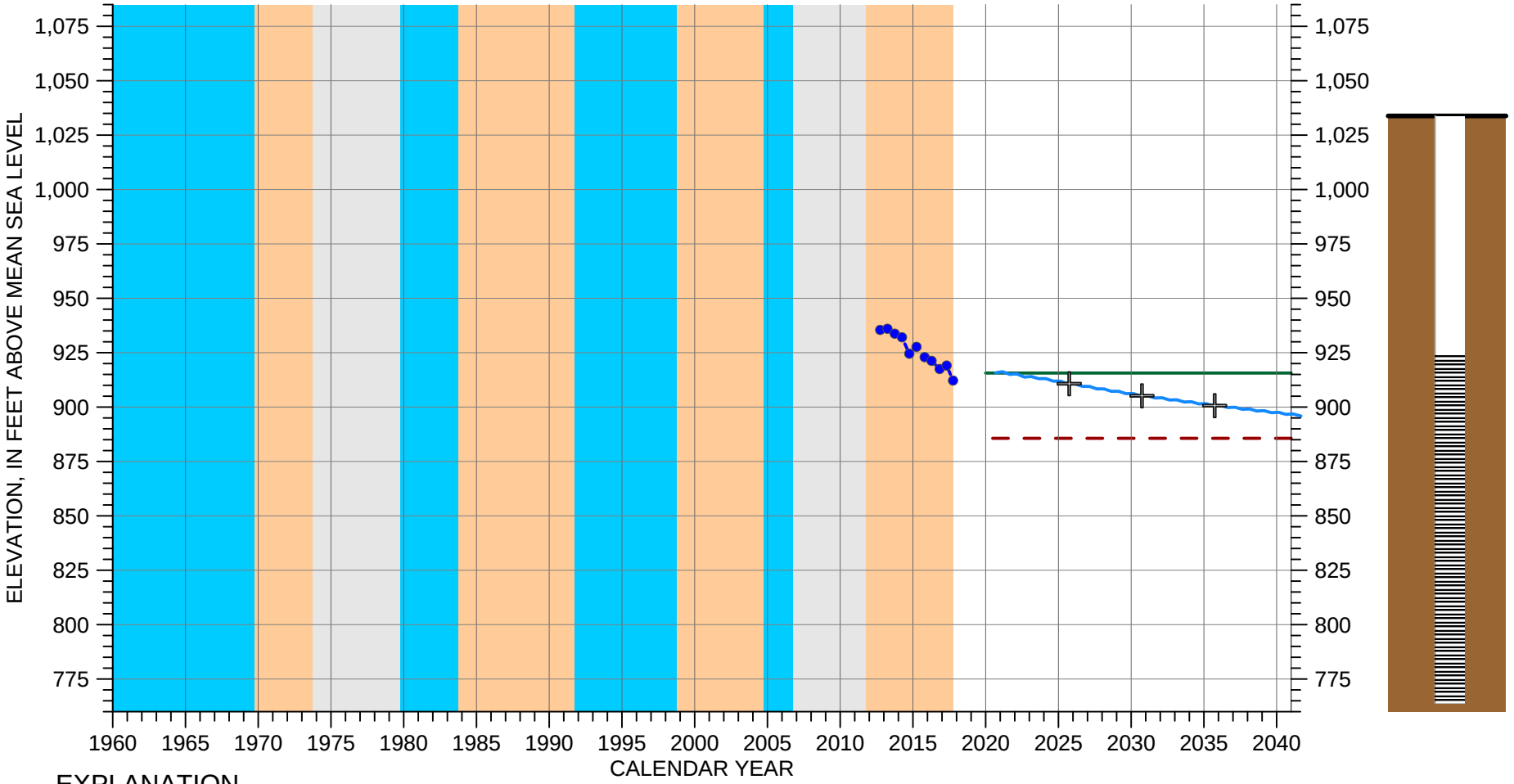


Well Depth: 400 feet
Screened Interval: 200-400 feet below ground surface
Reference Point Elevation: 719.7 feet above mean sea level

* Measurement reported as not static

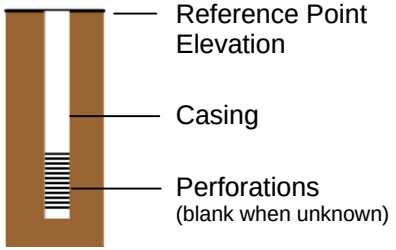
MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 25S/12E-26L01

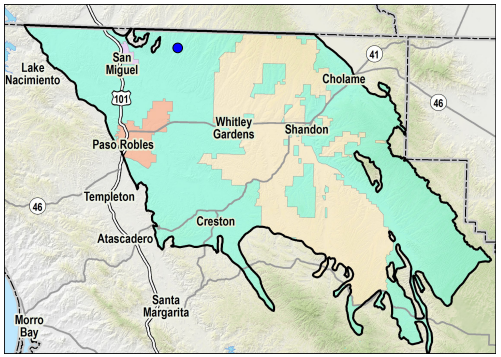
S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig02_25S_12E-26L01.grf



EXPLANATION

- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD
- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- PROJECTED WATER LEVEL
- INTERIM MILESTONE





CLIMATE PERIOD CLASSIFICATION

DRY | AVERAGE/ALTERNATING | WET

Well Depth: 270 feet
Screened Interval: 110-270 feet below ground surface
Reference Point Elevation: 1033.8 feet above mean sea level

* Measurement reported as not static

MEASUREABLE OBJECTIVES, MINIMUM THRESHOLDS, AND INTERIM MILESTONES FOR 25S/13E-08L02

S:\projects\9200_Paso Robles GSP\GSP\Ch 9-10 Coordination Effort\Ch 9\Appendices\AppendixJ_SimulatedHydrographs\grf\ProjectedWL_2017MO_withIM\Fig03_25S_13E-08L02.grf

APPENDIX L. OTHER MANAGEMENT ACTION PROGRAM CONCEPTS, DATA GAP PLAN, AND OTHER PROJECT CONCEPTS

Programs that affected pumpers could fund to achieve necessary reductions and/or avoid undesirable results are described below.

L1.1 Well Interference Mitigation Program

GSAs have explicit authority to impose spacing requirements on new groundwater well construction to minimize well interference and impose reasonable operating regulations on existing groundwater wells to minimize well interference, including requiring extractors to operate on a rotation basis (Water Code 10726.4).

The net effect of implementing a program to mitigate well interference could be a reduction in groundwater pumping.

L1.1.1 Relevant Measurable Objectives

An interference mitigation program would benefit the groundwater elevation, groundwater storage, and land subsidence measurable objectives.

L1.1.2 Expected Benefits and Evaluation of Benefits

The primary benefit from the well interference program could be less pumping in the Subbasin. A connected secondary benefit will be mitigating the decline, or raising, groundwater elevations from reduced pumping. An ancillary benefit from stable or rising groundwater elevations may include avoiding pumping induced subsidence. Because the amount of pumping reduction from an interference mitigation program is unknown at this time, it is difficult to quantify the expected benefits.

Reductions in groundwater pumping would be measured directly through the metering and reporting program and recorded in the DMS. Changes in groundwater elevation would be measured with the groundwater level monitoring program. Subsidence would be measured with the CGPS station network. Changes in groundwater storage would be estimated using the groundwater level proxy. Information about the monitoring programs is provided in Chapter 7. Isolating the effect of the interference mitigation program on groundwater levels will be challenging because it will be only one of several management actions that may be implemented concurrently in the Subbasin.

L1.1.3 Circumstances for Implementation

The interference mitigation program would be initiated only after a GSA decides whether it will be implemented.

L1.1.4 Public Noticing

Public meetings would be held to inform the public that interference mitigation program is being considered and/or developed. The interference mitigation program would be developed in an open and transparent process. The public and interested stakeholders would have the opportunity at these meetings to provide input and comments on the process and the program elements.

L1.1.5 Permitting and Regulatory Process

The interference mitigation program may be subject to CEQA. Pumping rotation schedules and well spacing requirements may need to be implemented by establishing new ordinances.

L1.1.6 Implementation Schedule

The interference mitigation program would be developed and implemented when a GSA decides to initiate the process.

L1.1.7 Legal Authority

California Water Code §10726.4 provides GSAs the authorities to establish well spacing requirements and establish pumping rotation schedules.

L1.1.8 Estimated Cost

The cost to develop and implement the interference mitigation program is estimated to be up to $750,000 depending on the final components included. The estimated cost of the CEQA permitting process and the annual cost of data collection, data management, and program compliance are unknown at this time.

L1.2 Groundwater Conservation Program

A groundwater conservation program could be implemented to achieve the necessary limitations in groundwater pumping. This program could include elements that would facilitate compensating landowners for fallowing or retiring agricultural land, incentivize water use efficiency through a tiered pumping fee structure, and/or facilitate the development of projects. The program would need adequate monitoring and oversight to ensure there are no unintended consequences from implementing the program elements and projects. The GSA would likely conduct substantial public outreach and hold meetings to educate and solicit input on the groundwater conservation program and any proposed elements. This outreach program would be designed to ensure that the conservation program is equitable to all beneficial groundwater users and uses, and that it is consistent with groundwater laws and water rights.

Substantial negotiation among Subbasin groundwater users and public input would be needed to develop an equitable fee structure and the details of a groundwater conservation program. The groundwater conservation program would be developed with the intent of providing groundwater pumpers flexibility in how they manage water. Some groundwater pumpers may choose to reduce pumping, others may choose

to coordinate through the groundwater conservation program with neighbors retiring land or paying for projects.

L1.2.1 Relevant Measurable Objectives

The groundwater management program would benefit the groundwater elevation, groundwater storage, and land subsidence measurable objectives.

L1.2.2 Expected Benefits and Evaluation of Benefits

The primary benefit from implementing a groundwater conservation program is reduced Subbasin pumping. A connected benefit of reduced pumping is mitigating the decline, or raising, groundwater elevations. An ancillary benefit from stable or increasing groundwater elevations may include avoiding pumping induced subsidence. The program is designed to ramp down pumping to the sustainable yield; therefore, the quantifiable benefit is to maintain pumping within the sustainable yield.

Reductions in groundwater pumping would be measured directly through the metering and reporting program and recorded in the DMS. Changes in groundwater elevation are an important metric for the groundwater conservation program and would be measured with the groundwater level monitoring program. Subsidence would be measured with the CGPS station network. Changes in groundwater storage would be estimated using the groundwater level proxy. Information about the monitoring programs is provided in Chapter 7. Isolating the effect of the groundwater conservation program on sustainability metrics will be challenging because it would be only one of several management actions that may be implemented concurrently in the Subbasin. However, as the program is initiated, the correlation between reduced pumping and higher groundwater levels may become more apparent.

L1.2.3 Circumstances for Implementation

The groundwater conservation program would be developed and implemented when a GSA decides to initiate the process.

L1.2.4 Public Noticing

Public meetings will be held to inform groundwater pumpers and other stakeholders that the groundwater conservation program is being developed. The groundwater conservation program would be developed in an open and transparent process. Groundwater pumpers and other stakeholders would have the opportunity at these meetings to provide input and comments on the process and the program elements.

L1.2.5 Permitting and Regulatory Process

A groundwater conservation program is subject to CEQA. A groundwater conservation program would be developed in accordance with all applicable groundwater laws and respect all groundwater rights. Depending on the funding approach agreed to for developing this management action, the fee structure and its justification developed as part of the groundwater conservation program would need to meet all California Constitutional requirements related to government funding mechanisms.

L1.2.6 Implementation Schedule

Developing and implementing a groundwater conservation program would likely take approximately two years, which includes time for conducting the required funding procedures.

L1.2.7 Legal Authority

California Water Code §10730 and §10730.2 provide GSAs the authorities to impose fees, including fees on groundwater pumping.

L1.2.8 Estimated Cost

The cost to develop and implement a groundwater conservation program is estimated to be $750,000. This does not include the cost of the CEQA permitting or any ongoing program oversight.

L2 DATA GAP PLAN

L2.1 Groundwater Level Monitoring Network and Supplemental Hydrogeologic Investigation

Monitoring groundwater levels in the Subbasin will be the most important monitoring activity during GSP implementation. Changes in groundwater levels will be the primary metric to document progress toward measurable objectives or avoiding undesirable results. Additional monitoring wells and more groundwater level data are needed to adequately characterize groundwater levels throughout the Subbasin for GSP implementation and meet State standards. Additionally, a better understanding of geologic conditions, and the impact of these conditions on groundwater flow in the Subbasin, is needed. These are key data gaps that will be addressed early during implementation. To address these data gaps, supplemental hydrogeologic investigations will be conducted by the GSAs during the first years of implementation after funding is available.

The overarching goal of the supplemental hydrogeologic investigations will be to sufficiently improve understanding of the hydrogeologic conceptual model of the Subbasin to support an equitable decision making process and adaptive management of the programs designed to achieve sustainability. The supplemental hydrogeologic investigations will be conducted in tandem with improving the groundwater level monitoring network. The investigation will rely on existing information first and conduct additional investigation to address targeted data gaps. To achieve the broad investigation goal, the following activities may be conducted as part of the supplemental hydrogeologic investigation.

- Compilation and evaluation of a broader dataset of existing groundwater levels
- Deployment of automated groundwater level monitoring devices in some monitoring wells
- Video logging of existing wells
- Initiation of monitoring in additional existing wells
- Drilling new dedicated monitoring wells
- Geophysical surveys to improve understanding of geologic conditions and structures
- Characterizing groundwater movement between Subbasin watersheds
- Pumping tests to estimate aquifer properties and characterize groundwater flow conditions in specific areas of the Subbasin

- Refinement and recalibration of the existing groundwater model or use of a new model when sufficient data become available
- Targeted groundwater quality sampling and incorporating groundwater data already collected under other regulatory programs

An additional data gap related to surface water and groundwater interconnectivity was also identified. A specific study to address this data gap is proposed in Section 9.3.1.5.6.

Results of the supplemental hydrogeologic investigation will be summarized in a report. Investigation results will support many important decisions made collectively by the GSAs or individually during implementation, including for example

- Developing a framework to evaluate and project groundwater level trends relative to minimum thresholds and undesirable results, and to establish triggers for initiation of public outreach and hearings on the need for and equitable implementation of sustainability programs and/or projects
- Adjusting sustainable yield
- Defining areas of the Subbasin in need of specific action and where management actions and or projects would be appropriate and beneficial.

New data gaps may be identified during the supplemental hydrogeologic study that would be addressed, if needed, in future investigations.

L2.2 Improve Monitoring Network

Specific data gaps were identified in Chapter 7, Monitoring Networks, related to the groundwater level monitoring network, including insufficient coverage of wells in the Paso Robles Formation Aquifer, and a lack of wells in the Alluvial Aquifer. The general plan for adding monitoring wells and Representative Monitoring Sites (RMSs) to the monitoring network will be to first incorporate existing wells. If an existing well 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 will be drilled. A system for registering monitoring wells for the GSP monitoring network will be developed. Additional information on the process for addressing data gaps and implementing groundwater level monitoring is provided below.

L2.2.1 Verify Current Network

The proposed RMS sites will be verified for inclusion in the monitoring network and data gaps will be confirmed. Before monitoring starts under the GSP, the GSAs will contact owners of all

wells identified as RMS in the current network to negotiate a new access agreement that will allow routine monitoring and reporting of data from the well, and possibly provisions for compensating well owners for use of their well. RMS wells will be inspected to verify total depth and screened interval (video logging may be required) and ensure the static groundwater level can be measured in accordance with monitoring protocols. The aquifer designation will be verified or designated.

L2.2.2 Expand Network

Additional monitoring wells and RMSs are needed for the groundwater level monitoring network in order to meet State standards. Existing wells not currently in the network may be added or new wells may be drilled.

Existing Wells. Existing wells in data gap areas will be identified for possible incorporation into the monitoring network. There are approximately 90 confidential wells in the Subbasin that have been monitored by the SLOFCWCD since 2012 that could be used to fill data gaps if a new access agreement can be secured with the well owners to allow use of groundwater level data from the well. Additionally, the County of SLO is developing a database of wells that will be used for identifying additional monitoring wells. During GSP development, some well owners offered access to their wells for monitoring purposes; these wells will also be considered. All of these potential sources for adding existing wells to the network will be used. In addition, the GSAs will conduct routine public outreach to identify other willing well owners to participate in the monitoring network. All candidate existing wells for incorporation into the monitoring network will be inspected to ensure they are adequate for monitoring and to determine depth, perforated intervals, and aquifer designation. Access agreements will be secured with well owners to ensure that data can be reported from the wells.

New Wells. New wells will be drilled in data gap areas where existing wells do not exist or areas where access to existing wells could not be secured. The GSAs will obtain required permits and access agreements before drilling new wells. The GSAs will retain the services of licensed geologists or engineers and qualified drilling companies for drilling new wells. The GSAs will evaluate the availability of grant funds through DWR for new wells. Once drilled, the new wells will be tested as necessary and equipped for monitoring. All well construction information, including the aquifer that is being monitored, will be registered with the well.

L2.2.3 Begin Monitoring Program

Groundwater level monitoring under the GSP will begin in 2020. Monitoring will adhere to protocols outlined in Chapter 7, Monitoring Networks, or new protocols developed under the GSP. Annually, monitoring data will be analyzed and presented in the following ways:

- Check and verify data then upload data to the Data Management System

- Prepare seasonal water level contour maps of both aquifers and evaluate changes
- Compare data to sustainable management criteria at RMS
- Analyze impacts of projects and actions.

Data will be included in the annual report to DWR.

L2.2.4 Evaluate Monitoring Network

As part of annual reporting, the monitoring network and current RMSs will be evaluated to ensure that they are sufficient to meet monitoring objectives and track Subbasin groundwater levels relative to Sustainable Management Criteria. Results of this evaluation could lead to further expansion of the monitoring network or omission of monitoring wells deemed unnecessary for monitoring objectives.

Groundwater Storage Monitoring Network

The GSAs will monitor groundwater levels as a proxy for assessing change in groundwater storage. Therefore, the groundwater level monitoring network will also be used for monitoring the reduction in groundwater storage sustainability indicator. Data gaps in the groundwater storage monitoring network are similar to the data gaps identified for the groundwater level monitoring network. However, most of the change in groundwater storage occurs near the water table, so sufficient water table monitoring wells are needed, including in the Paso Robles Formation Aquifer where most of the groundwater pumping occurs.

The need for additional water table wells will assessed by evaluating existing wells that are screened at or near the existing water table in the Paso Robles Formation Aquifer. If additional wells are needed, the steps described in Section 10.3.1 for expanding the current network will be followed.

Water Quality Monitoring Network

Under the GSP, water quality monitoring will be conducted in existing public water supply wells and agricultural supply wells. Initially, the current RMSs identified in Chapter 7 will be verified for inclusion in the monitoring network. The current network of RMSs for water quality has adequate spatial coverage to assess impacts to beneficial uses and users from actions taken in response to implementing the GSP. The primary data gap for water quality monitoring is the lack of well construction information for many of the supply wells in the monitoring network. Additional wells may be necessary to monitor impacts of projects and actions on water quality.

2.2.4.1 Verify Current Network

Before monitoring begins, the owner, operational status, construction details, and aquifer designation of all supply wells incorporated into the current network will be verified or determined. New information on supply wells will be added to the Data Management System. Supply wells used for water quality monitoring will be registered under the GSP well registration program. During the verification process, if other public or agricultural supply wells are identified that are deemed to improve the network, they may be added to the network.

2.2.4.2 Begin Monitoring Program

Water quality monitoring under the GSP will begin in 2020. Monitoring will adhere to protocols outlined in Chapter 7, Monitoring Networks, or new protocols developed under the GSP. For the most part, water quality monitoring and data reporting are already conducted by individual well owners as part of other regulatory programs for both public water supply wells and agricultural irrigation wells, as described in Chapter 7. These reported monitoring data will be used for the GSP.

Annually, monitoring data will be compiled, analyzed, managed, and presented in the following ways:

- Downloaded from public databases
- Check and verify data then upload data to the Data Management System
- Prepare data summary tables and figures
- Compare data to Sustainable Management Criteria at RMS
- Analyze impacts of projects and actions

Monitoring results will be included in the annual report to DWR.

2.2.4.3 Evaluate Monitoring Network

As part of annual reporting, the monitoring network and current RMSs will be evaluated to ensure that they are sufficient to meet monitoring objectives and track Subbasin groundwater quality relative to Sustainable Management Criteria. Results of this evaluation could lead to further expansion of the monitoring network or omission of monitoring wells deemed unnecessary for monitoring objectives.

Land Subsidence Monitoring Network

Land subsidence monitoring will be conducted using existing CGPS sites as described in Chapter 7, Monitoring Networks. Data from the CGPS are managed by UNAVCO. Data obtained from

UNAVCO will be evaluated to verify they are adequate for determining whether subsidence is occurring and for inclusion in the monitoring network. Data gaps related to the land subsidence monitoring network were not identified in Chapter 7. If the existing CGPS sites are determined to be inadequate for use under the GSP, then new land surface elevation monitoring devices will be deployed and/or alternate monitoring methods will be considered.

2.2.4.4 Conduct Monitoring

Land subsidence monitoring under the GSP will begin in 2020. As a first step, protocols for obtaining, evaluating, and using land surface elevation data from the CGPS sites will be developed. Annually, land surface elevation data will be analyzed and presented in the following ways:

- Download data from public database(s), including the USGS California Water Science Center and DWR
- Check and verify data then upload data to the Data Management System.
- Prepare summary tables and figures
- Compare data to sustainable management criteria at RMS

Results will be included in the annual report to DWR.

2.2.4.5 Evaluate Monitoring Network

As part of annual reporting, the monitoring network and current RMSs will be evaluated to ensure that they are sufficient to meet monitoring objectives and track Subbasin land surface elevations relative to Sustainable Management Criteria. Results of this evaluation could lead to further expansion of the monitoring network or omission of monitoring sites deemed unnecessary or inadequate for monitoring objectives. For land subsidence, an effort to identify other relevant subsidence data or studies will be conducted biannually.

Evaluating Interconnected Surface Water

As discussed in Chapter 5, the consensus among local groundwater experts is that there is no interconnection between surface water and groundwater in the Subbasin. Therefore, sustainable management criteria and an associated monitoring network for interconnected surface water and groundwater were not developed for the GSP. However, the GSAs value riparian and all native vegetation and communities and recognize that if new data from streamflow, stream geometry and groundwater level data near streams show a surface water and groundwater interconnection that the GSP will be updated to include them. To that end, the GSAs will conduct periodic investigation of areas of potential interconnected surface water and groundwater in the Subbasin.

The GSAs will develop and conduct a hydrogeologic investigation to establish whether or not interconnected surface waters exist in the Subbasin. The overall goal of this investigation is to obtain sufficient stream flow, stream geometry and groundwater level data in areas of potential interconnection to quantitatively determine if and when surface and groundwater water are interconnected. More specifically, the investigation could include gathering the following data as resources allow.

Shallow Groundwater Levels. The first step will be to identify existing wells that monitor shallow groundwater levels adjacent to streams. These wells will most likely be screened in the Alluvial Aquifer. If existing wells are identified and deemed adequate based on an inspection, an agreement will be secured with the well owner to incorporate the well into the investigation and report data from the well. If existing wells cannot be identified or accessed, then GSA(s) may consider drilling new monitoring wells.

Streamflow Monitoring. Streamflow conditions will also be evaluated. Data gathering may include walking or drone surveys, historical photos, local observations, and automated camera and stream gages in key reaches. USGS stream gaging data will also be evaluated. It may be necessary to verify the accuracy of existing stream gages and install new or additional stream gaging equipment.

It is expected that streamflow and shallow groundwater monitoring will continue until sufficient data are obtained to improve understanding of the relationship between surface water and shallow groundwater. If stream flow surveys or data suggests interconnected surface water and groundwater exists in the Subbasin, the GSP will be updated include this information, including related Sustainable Management Criteria and an appropriate monitoring program.

Groundwater Model Updates

After sufficient new data from monitoring programs, the supplemental hydrogeologic investigation, and other sources have been evaluated, the GSAs will consider the value of refining, updating, and recalibrating the GSP model or replacing it with a new open source model. New data and refinements to the hydrogeologic conceptual model, and possibly the updated numerical model, would be used for the following analyses:

- Refining the aquifer parameters and model input values
- Updating the estimated sustainable yield of the Subbasin
- Evaluating benefits of alternative sustainability programs or projects

The USGS is developing a regional groundwater model for the entire Salinas Valley, including the Paso Robles Subbasin. The GSAs will work with the USGS to coordinate modeling efforts and leverage modeling efficiencies where available.

L3 OTHER PROJECT CONCEPTS

Four other conceptual projects are summarized in the table below for future consideration to help stabilize groundwater levels and avoid undesirable results.

Other Project Concept

Project Name	Water Supply	Amount (AFY)
Delivery to Southwestern Subbasin Area	SWP	2,200
Delivery to Eastern Subbasin Area	SWP	930
Delivery to North of City of Paso Robles	NWP	1,500
Flood Flow Capture and Delivery North of City of Paso Robles	Salinas River	164

Appendix M

Communication and Engagement Plan

COMMUNICATION & ENGAGEMENT PLAN

FOR THE PASO ROBLES SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

JULY 2018

Paso Robles Subbasin Groundwater Sustainability Agencies

- *County of San Luis Obispo*
- *City of Paso Robles*
- *San Miguel Community Services District*
- *Heritage Ranch Community Services District*
- *Shandon San Juan Water District*

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1.0 INTRODUCTION

In 2015, the California state legislature approved a new groundwater management law known as the Sustainable Groundwater Management Act (SGMA). SGMA requires local agencies in medium- and high-priority groundwater basins, as designated by the California Department of Water Resources (DWR), to form Groundwater Sustainability Agencies (GSAs) and prepare Groundwater Sustainability Plans (GSPs). Because the Paso Robles Subbasin[1] (DWR Bulletin 118 Basin No. 3-4.06) has been designated as a high-priority basin subject to critical conditions of overdraft, the Paso Robles Subbasin GSP is due by January 31, 2020. Whereas, other medium- and high- priority basins not subject to critical conditions of overdraft are due January 31, 2022. During the GSP preparation process, GSP Regulations require public outreach and engagement with basin users, the public, and other stakeholders (collectively referred to in this document as Interested Parties).

The purpose of this Communication and Engagement Plan (C&E Plan) is to outline the process for Interested Parties' involvement in the development of a GSP for the Paso Robles Subbasin.

About Paso Robles Subbasin

The Paso Robles Subbasin lies in northern San Luis Obispo County and extends into southern Monterey County. The Subbasin is bounded by the Santa Lucia Range on the west, the La Panza Range on the south, and the Temblor and Diablo Ranges on the east. The **Figure 1** shows the Paso Robles Subbasin and the GSAs formed therein.

Basin Boundary Modifications

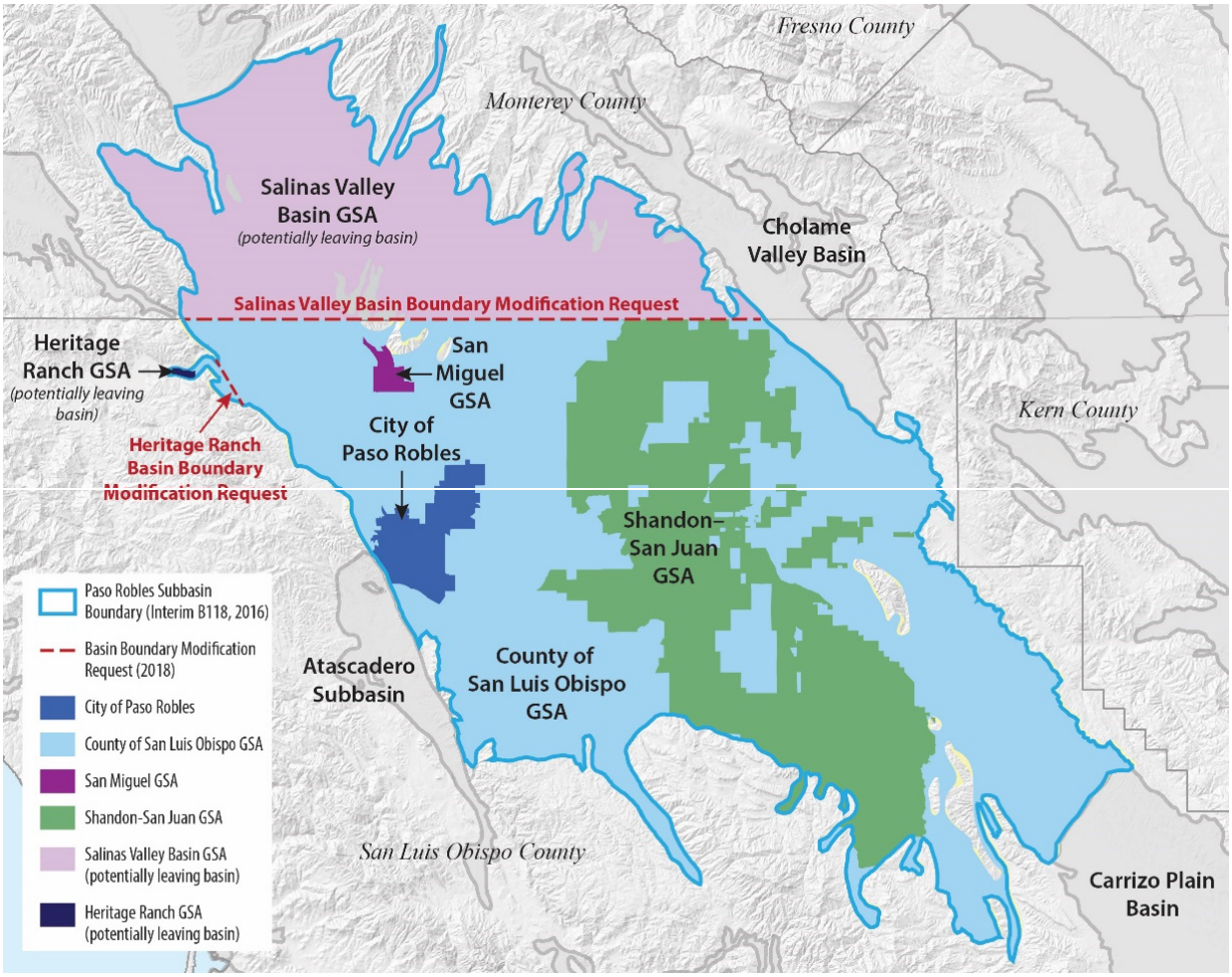
Two GSAs currently included in the Paso Robles Subbasin have filed initial notifications to DWR for a basin boundary modification which would cause them to leave the Paso Robles Subbasin.

- **Salinas Valley Basin GSA** (SVBGSA) submitted an initial notification on May 1, 2018 and a basin boundary modification request on July 5, 2018 to DWR regarding a jurisdictional internal boundary modification at the County line. If SVBGSA is granted the basin boundary modification, they will modify the border between the Upper Valley Aquifer and Paso Robles Subbasin to coincide with the Monterey/San Luis Obispo County line resulting in the Paso Subbasin lying wholly in San Luis Obispo County. The Paso Robles Subbasin GSAs support this request.
- **Heritage Ranch CSD GSA** submitted an initial notification on April 23, 2018 and a basin boundary modification request on June 27, 2018 to DWR regarding a scientific external boundary modification. If the request is granted, the Heritage Ranch CSD GSA area will be excluded from the Paso Robles Subbasin.

If either of these GSAs are granted a basin boundary modification, the Paso Robles Subbasin GSAs will continue to engage and coordinate with them as needed to achieve sustainable groundwater management.

[1] Formally, the Paso Robles Area Subbasin of the Salinas Valley Groundwater Subbasin

Figure 1. ***Paso Robles Subbasin and GSA Boundaries***



Formation of a Single GSP Memorandum of Agreement

In September 2017, through a Memorandum of Agreement (MOA), five GSAs that were formed under the DWR GSA process collectively agreed to develop one GSP for the portion of the Paso Robles Subbasin in San Luis Obispo County. As part of the MOA (Section 4.4(D)) they also decided to collectively develop a stakeholder participation plan that includes public outreach and involves Interested Parties in developing the GSP. These GSAs include:

- Paso Basin – County of San Luis Obispo GSA
- City of Paso Robles GSA
- San Miguel Community Services District GSA
- Shandon–San Juan GSA
- Heritage Ranch Community Services District GSA *(currently seeking basin boundary modification)*

The GSAs above will work together to develop the Paso Subbasin GSP. To streamline GSP development, each GSA provides a representative to serve on the Paso Subbasin Cooperative Committee ("Cooperative Committee"). Details about the Cooperative Committee are discussed in Section 4.0 GSAs' DECISION-MAKING PROCESS.

Our Promise

The Cooperative Committee, comprised of representatives of the five GSAs, *commit to developing a recommended GSP that will safeguard our local groundwater resources through sustainable management and to preserve this invaluable water supply source for future generations. We commit to work with Interested Parties to ensure that their concerns and inputs are considered in GSP development.*

C&E Plan as a Roadmap

This C&E Plan serves as a roadmap to meet the statutory requirements of SGMA and the GSP Regulations as outlined in **Appendix A** and, more importantly, serves to create common understanding and transparency among GSAs and Interested Parties throughout the GSP development process. The GSAs will follow this C&E Plan to engage with and gather input from various Interested Parties to support GSP development. GSP information, meeting schedules, and useful links can be found at the Paso Robles Groundwater Communication Portal (Paso GCP) at: www.pasogcp.com. Anyone may register as an Interested Party to be notified of upcoming events and activities regarding GSP development. For more information on the Paso GCP, refer to **Appendix B**.

2.0 GOALS AND OBJECTIVES

The goal of Paso Robles Subbasin communication and engagement efforts is to involve broad and diverse Interested Parties, including stakeholders, the public, and beneficial users, throughout the GSP development process to ensure Interested Parties' concerns, issues, and aspirations are consistently understood and considered in the GSAs' decision-making process.

Under the umbrella of meeting the statutory requirements of SGMA and the GSP Regulations, the objectives of the GSAs' engagement efforts are as follows:

- Educate Interested Parties about the importance of a GSP, what is and is not feasible, what must be accomplished, and how success will be measured
- Ensure Interested Parties and beneficial users of groundwater are given the opportunity to contribute meaningful input, which is then considered in the decision-making process
- Involve a diverse group of Interested Parties in the GSP process
- Make public participation easy and accessible

Interested Parties discuss potential options for groundwater management in the Paso Robles Subbasin at a public workshop held on May 14, 2018.

3.0 BENEFICIAL USES AND STAKEHOLDER GROUPS

Among the beneficial groundwater uses supported by the Paso Robles Subbasin are various irrigated and non-irrigated agricultural activities (including but not limited to grazing, vineyards, and orchards); rural domestic/residential wells; municipal and industrial supply; and aquatic ecosystems associated with rivers and streams, some of which provide habitat for threatened or endangered species.

Given its location, the Paso Robles Subbasin has diverse land uses including the following:

- Urban (i.e. City of el Paso de Robles)
- Community Services Districts (2)
- Urban Reserve area (e.g. Shandon)
- Village Reserve area (e.g. Creston)
- Rural Residential areas
- Agriculture
- Industrial areas
- Commercial areas
- Natural landscape

The Paso Robles Subbasin also covers a wide range of Interested Parties, including, but not limited to, the following:

- Land use authorities
- Private well users
- Urban users
- Native American Tribal interests
- Business interests
- Agriculture interests
- Public agencies
- Public water systems/ community water systems
- Environmental interests
- Disadvantaged Communities (DACs) – as identified in **Appendix C**
- General public

California Water Code (CWC) §10723.4 requires GSAs to establish and maintain a list of persons interested in receiving notices regarding plan preparation, meeting announcements, and availability of draft plans, maps, and other relevant documents. Any person may request, in writing, to be placed on the list of interested persons. Additionally, the GSAs developed the Paso Robles Groundwater Communication Portal (Paso GCP) where any person may sign up to be added to the list of Interested Parties. The Paso GCP is available at www.pasogcp.com. **Appendix D** includes an initial list of Interested Parties identified at the time of GSA formation. The updated Interested Parties list, with individual registrants, is stored in the Paso GCP, and will be available to DWR at the time of GSP submittal.

Diverse Outreach Practices

The Paso Robles Subbasin GSAs are committed to encouraging the active involvement of diverse social, cultural, and economic interests of the population within the groundwater basin. As such, outreach practices will be diverse as well, as outlined in Section 7.0.

4.0 GSAs' DECISION-MAKING PROCESS

The MOA, as introduced in Section 1.0, lays the framework for governance and decision-making. The MOA established the Cooperative Committee made up of representatives of the five GSAs to develop a single GSP that will be considered for adoption by each individual GSA. It is important to note that the MOA automatically terminates upon the State's approval of the GSP.

To provide for consistent and effective communication among the GSAs, each GSA agreed to designate one Cooperative Committee Member to conduct activities related to GSP development and SGMA implementation. **Table 1** lists the Primary and Alternate Members of the Cooperative Committee, as well as a point of contact for each GSA's staff. Each Cooperative Committee Member represents their respective GSA in the development of a recommended GSP that will be considered for adoption by each individual GSA and subsequently submitted to DWR for approval. GSA Staff works with the GSA Consultant on administrative matters to move the GSP process forward. A copy of the MOA and detailed Cooperative Committee responsibilities in the development of the GSP is available at https://slocountywater.org/site/Water%20Resources/SGMA/paso/pdf/FinalMOA_FullyExecuted.pdf

Table 1. Cooperative Committee Members and Weighted Vote for Decision-Making

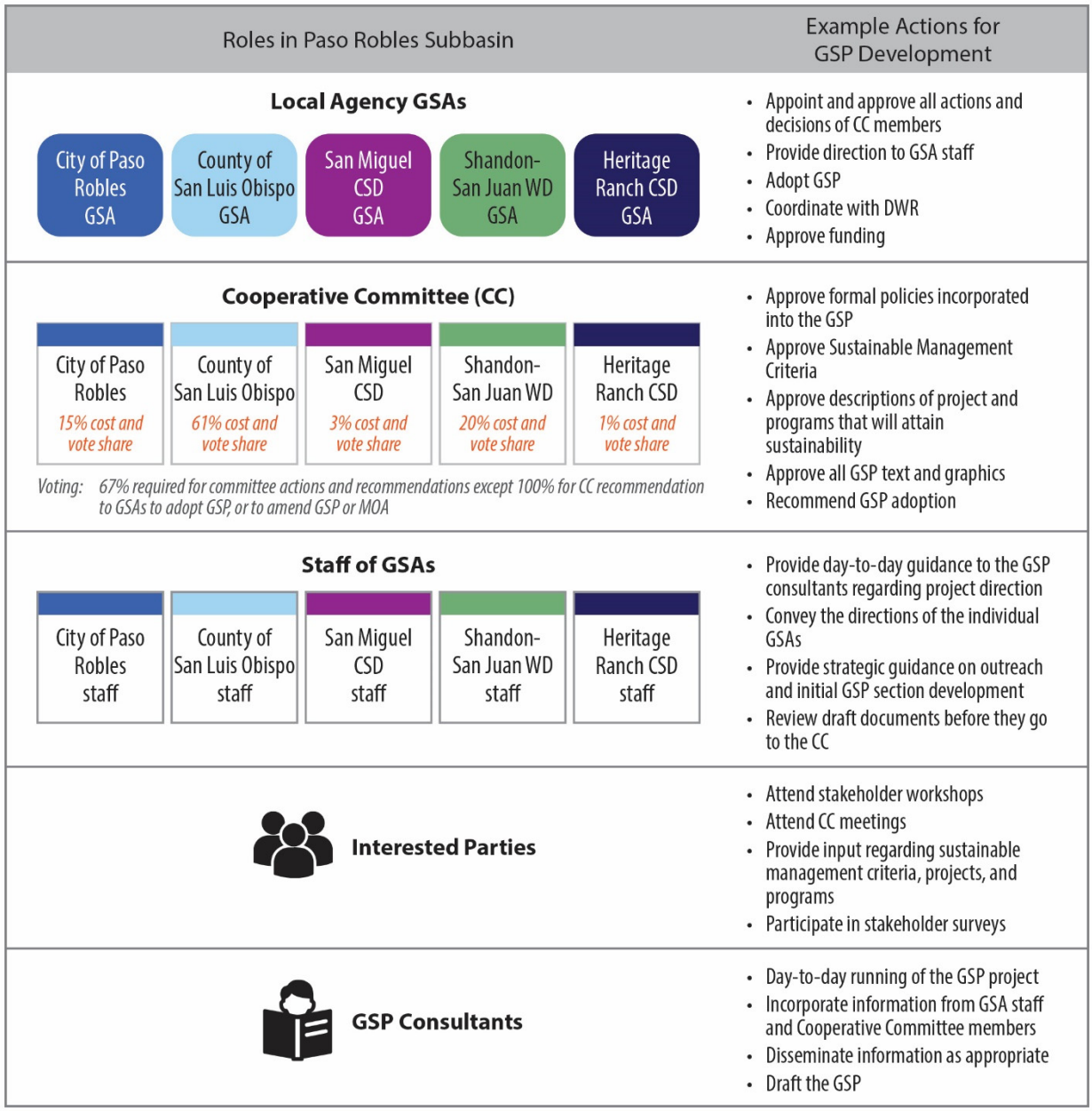
GSA (% Weighted Vote)	Cooperative Committee Member	Cooperative Committee Alternate	GSA's Staff Point of Contact
County of San Luis Obispo (61%)	John Peschong	Debbie Arnold	Angela Ruberto
City of Paso Robles (15%)	John Hamon	Steve Martin	Dick McKinley
Shandon-San Juan Water District (20%)	Willy Cunha	Matt Turrentine	Randy Diffenbaugh
San Miguel CSD (3%)	Joe Parent	Kelly Dodds	Blaine Reely
Heritage Ranch CSD (1%)	Reginald Coussineau	Scott Duffield	Scott Duffield

The Cooperative Committee will consider all beneficial uses and users of groundwater in the Subbasin as well as public input during the decision-making process. Each of the GSAs have weighted voting (see **Table 1**) on decision-making, with the exception of MOA amendments or termination and recommendation that the GSAs adopt the final GSP or any amendments thereto which require a unanimous vote. Portions of the MOA addressing voting are provided below.

> *MOA Section 4.8: Any action or recommendation considered by the Cooperative Committee shall require the affirmative vote of 67 percent based on the percentages set forth in Section 4.6 or 4.7 above (of the MOA), as applicable. Notwithstanding the foregoing,* ***the following shall require the affirmative vote of 100 percent*** *based on the percentages set forth in Section 4.6 or 4.7 above (of the MOA), as applicable: (A) a recommendation that each of the Parties adopt the GSP or adopt any amendment thereto prepared in response to comments from DWR and (B) a recommendation that the Parties amend this MOA.*
>
> *MOA Section 9.2: This MOA may be terminated upon unanimous written consent of all current Parties.*

A summary of the Paso Robles Subbasin roles and actions for GSP development is depicted in **Figure 2**.

Figure 2. ***Paso Robles Subbasin Roles and Example Actions for GSP Development***



The following are descriptions of how each GSA makes their individual GSA decisions and which forums are used to devise their decision-making. Once their decisions are made they report to the Cooperative Committee for discussion.

County of San Luis Obispo GSA

Governing body	**County of San Luis Obispo Board of Supervisors**
Meeting information	**Bi-Monthly, on average; San Luis Obispo County Government Center.** See the complete schedule online. If matters relating to GSP development will be discussed during a Board meeting, the topic will be shown on the meeting's agenda.

The Paso Basin – County of San Luis Obispo GSA's governing body is the **County of San Luis Obispo Board of Supervisors**. The County's SGMA Strategy supports 1) fair and equitable representation in GSAs decision-making processes that include participation by the County and/or an alternative, stakeholder-driven eligible entity, and 2) adequate consultation between any GSA efforts and related County authorities and/or planning/management efforts. The County supports participating in a GSA in a basin to represent one or more of the following key roles and/or authorities:

- Interest 1: Representation of County Service Area(s)
- Interest 2: Representation of otherwise unrepresented beneficial uses/users of groundwater (e.g., rural domestic, agricultural, environmental, etc. as defined by SGMA)
- Interest 3: Land use authority
- Interest 4: Well construction permitting authority
- Interest 5: Integration and alignment of the County's discrete management actions (e.g., groundwater export ordinance) to the GSA's basin-wide, comprehensive management actions

City of Paso Robles GSA

Governing body	**Paso Robles City Council**
Meeting information	**First and third Tuesday of each month, Paso Robles City Hall.** If matters relating to GSP development will be discussed during a City Council meeting, the topic will be shown on the meeting's agenda.

The City of Paso Robles' GSA covers properties in the City limits except that portion of the City that is west of the Rinconada fault and thus in the Atascadero Basin. The GSA's governing body is the **Paso Robles City Council**, acting as the Board of the GSA. The City Council meets on the first and third Tuesday of each month in the Council Chamber in City Hall, but only meets as the GSA Board when there is a specific action item for the GSA.

Shandon-San Juan Water District GSA

Governing body	**Shandon-San Juan Water District Board of Directors**
Meeting information	**Third Tuesday of each month, Shandon High School Library.** If matters relating to GSP development will be discussed during a Board meeting, the topic will be shown on the meeting's agenda.

The Shandon San Juan GSA is formed and governed by an "opt-in" California Water District lying in the northeastern portion of San Luis Obispo County. The GSA's governing body is the **Board of Directors of the Shandon-San Juan Water District** (SSJWD), acting as the Board of the GSA. SSJWD meets on the third Tuesday of each month at the Shandon High School Library.

San Miguel CSD GSA

Governing body	**San Miguel Community Services District Board of Directors**
Meeting information	**Fourth Thursday of each month, San Miguel CSD District Office.** If matters relating to GSP development will be discussed during a Board meeting, the topic will be shown on the meeting's agenda.

The San Miguel Community Services District GSA covers the properties within its District boundaries. The GSA's governing body is the **San Miguel Community Services District Board of Directors**, acting as the Board of the GSA. The District Board of Directors meets on the fourth Thursday of each month at the District office which is located at 1150 Mission St. in San Miguel, CA 93451. The Board of Directors only meets as the GSA Board when there is a specific action item for the GSA on the agenda.

While an initial list of Interested parties was identified for the Paso Robles Subbasin at the time of GSA formation**,** additional Interested Parties specific to San Miguel CSD include the following:

- Disadvantaged communities, including but not limited to, those served by private domestic wells or small community water systems or ratepayers and domestic well owners – the Community of San Miguel, which lies within the District's GSA, is designated as a Disadvantaged Community (DAC)
- Entities listed in Section 10927 that are monitoring and reporting groundwater elevations in all or part of a groundwater basin managed by the GSA – the San Miguel Community Services District files, contributes, and/or maintain California Statewide Groundwater Elevation Monitoring (CASGEM) monitoring data with the DWR through San Luis Obispo County.

Heritage Ranch CSD GSA

Governing body	**Heritage Ranch Community Services District Board of Directors**
Meeting information	**Third Thursday of each month, Heritage Ranch CSD District Office.** If matters relating to GSP development will be discussed during a Board meeting, the topic will be shown on the meeting's agenda.

The Heritage Ranch Community Services District's governing body is a **Board of Directors** of five members. Director terms are four years, with staggered elections of three seats and two seats. They meet at 4:00 p.m. on the third Thursday of every month, in the Board Room located at 4870 Heritage Road, Paso Robles CA, 93446.

The Heritage Ranch Board also has five Committees. The Committees may include two Board members and members of the public. The manager is the staff person assigned to all Committees. The Board President appoints membership to committees at the first regular meeting in December in even number years. Heritage Ranch Committee membership is for two years. The Board President may also appoint ad-hoc committees. In response to SGMA, an ad-hoc SGMA Committee was appointed. The current SGMA Committee is Director Cousineau and Director Barker.

Heritage Ranch Committee motions and recommendations shall be advisory to the Board and shall not commit the District [HRCSD] to any policy, act, or expenditure unless expressly delegated by Board action. Nor may any committee direct staff to perform specific duties unless duly authorized by the Board. The committee chair is authorized to schedule committee meetings as deemed necessary and all such meetings shall be in compliance with Open Meeting Law of California (Brown Act).

Additional Contributors to GSP Development

Interested Parties

Interested Parties can participate in public meetings and hearings, which are posted on the Paso GCP, and communicate with Cooperative Committee members to provide input, obtain information, and review and comment on GSP documents. An initial list of Interested Parties identified for the Paso Robles Subbasin at the time of GSA formation is provided in **Appendix D**. Anyone may register as an Interested Party via the Paso GCP at www.pasogcp.com. Once registered, Interested Parties will receive invitations to meetings and workshops related Paso Robles Subbasin GSP development. The Interested Party list is stored and maintained in the Paso GCP database.

GSP Consultants

A team of consultants will conduct technical studies and investigations, including groundwater modeling, and draft the GSP documents.

Consultant work will be overseen by the GSA staff, who will provide guidance and oversight regarding GSP development, prior to reviewing draft documents with the Cooperative Committee. The consulting firms assisting with GSP development for the Paso Robles Subbasin are listed below.

- Hydrometrics Water Resources, Inc. (lead consultant)
- Montgomery and Associates
- Carollo Engineers
- GEI Consultants, Inc.
- O'Laughlin & Paris, LLP
- Strategy Driver, Inc.
- WestWater Research, LLC

Staff of the GSAs

Staff of the GSAs provide day-to-day guidance to the GSP consultant regarding project direction. Staff of the GSAs review GSP documents before they are passed to the Cooperative Committee. Staff members make interim decisions on the approach and messaging involved in GSP development. Fundamental to this decision-making approach is that staff of each GSA regularly communicate with GSA Boards or Councils and respective Cooperative Committee Members.

Decision-Making Steps

The Paso Robles Subbasin GSP must be developed under a compressed schedule, as the final adopted GSP is due to DWR by January 31, 2020. To ensure the GSP is delivered on time, decision-making during chapter development as well as for final approval must follow a streamlined process. These processes are outlined in **Figure 3** and **Figure 4**, respectively.

Figure 3. ***GSP Chapter Development Process***

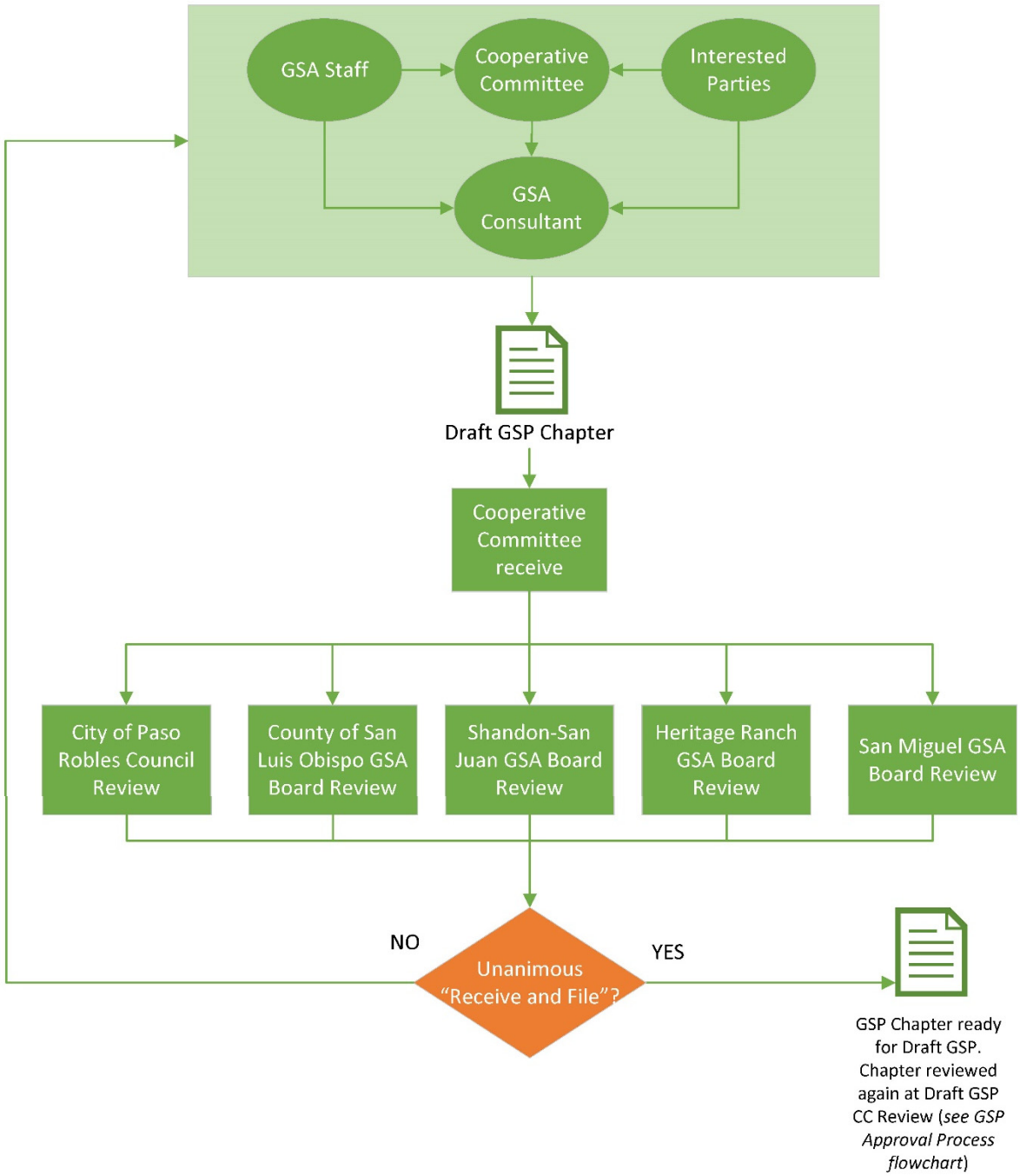
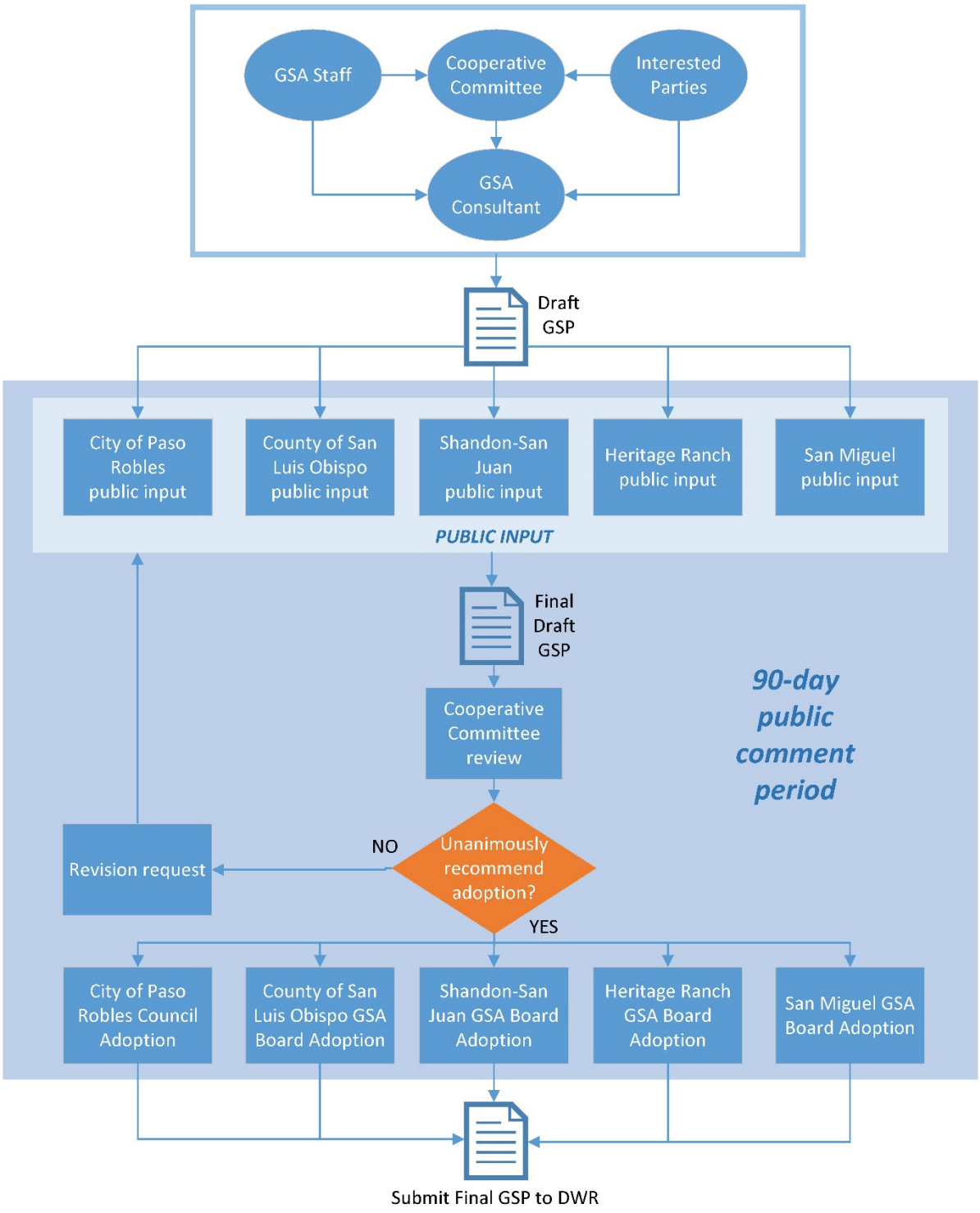


Figure 4. ***GSP Approval Process***



5.0 HOW CAN INTERESTED PARTIES AND PUBLIC GET INVOLVED?

The GSP process for the Paso Robles Subbasin includes both the development and implementation of a GSP. Interested Party participation is vital to the success of the GSP. A first step for Interested Parties to get involved is to sign up through the Paso GCP at www.pasogcp.com and review the content on the following websites:

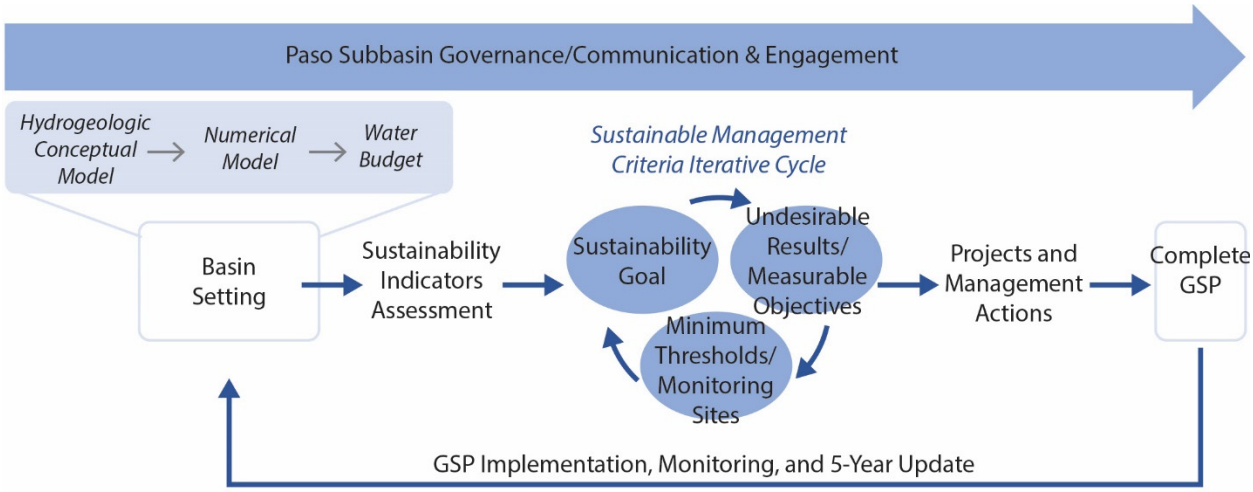
- Paso Robles Subbasin Groundwater Communication Portal (Paso GCP) – www.pasogcp.com
- GSA websites
    - County of San Luis Obispo – www.slocountywater.org
    - Shandon-San Juan Water District – www.ssjwd.org
    - Heritage Ranch CSD – www.heritageranchcsd.com
    - San Miguel CSD – www.sanmiguelcsd.org
    - City of Paso Robles – www.prcity.com
- DWR's SGMA Portal – https://sgma.water.ca.gov/portal/

Meetings of the Paso Subbasin Cooperative Committee are scheduled on a regular basis to provide information to the public and Interested Parties and provide opportunities to ask questions and make suggestions. These meetings are posted on the Paso GCP and announced via email. See **Section 7.0** to learn more ways the GSAs are engaging Interested Parties and inviting participation.

GSP Development Process

The GSP development process for the Paso Robles Subbasin shown in **Figure 5** outlines key tasks and their relationship to one another in developing the GSP. These main tasks roughly follow what will ultimately be the GSP's chapters. GSP development will also include: listing data gaps and how they will be filled during GSP implementation, conducting technical studies, defining the Subbasin's characteristics, accounting for current and planned groundwater uses, considering groundwater dependent ecosystems (GDEs), incorporating land use planning, and developing sustainable management criteria.

Figure 5. ***GSP Development Process***



Appendix E includes a preliminary schedule showing milestones and Interested Party engagement activities. As shown on the schedule, Cooperative Committee meetings will be held at regular intervals. Cooperative Committee meetings are open to the public. Focused workshops will be held as needed. In addition, technical staff will be available throughout the process to communicate and engage with Interested Parties. Interested Parties can be involved in GSP development by providing input throughout the process of completing these tasks. Periodic updates and materials will be posted on the Paso GCP and presented at Cooperative Committee meetings for Interested Parties review and comment.

Above, Interested Parties participate in an interactive workshop (May 14, 2018) about projects and actions.

6.0 DESIRED OUTCOMES

DWR's Stakeholder Communication and Engagement Guidance Document suggests answering a series of questions when setting desired outcomes for GSP Interested Party outreach. The questions and responses for the Paso Robles Subbasin are listed below.

What are we trying to accomplish?

We aim to make opportunities available for Interested Parties to provide input during development of the Paso Robles Subbasin GSP, and ensure the GSP considers input from Interested Parties.

How will we know if we are successful?

We will be successful when various Interested Parties have opportunities to provide their input, ask questions, receive up-to-date information, and comment on GSP development and draft documents.

What are the challenges or barriers?

One of the challenges is making a complete list of Interested Parties and being able to effectively communicate with them. We will make efforts to reach a broad set of Interested Parties and expand the list. We will use several forms of communication outreach such as: meetings, calendar updates with notification automatically sent to Interested Parties, radio and newspaper advertising, and email blasts. For a list of media contacted regarding Paso Subbasin GSP events, see **Appendix F**.

What are the opportunities for communication and engagement?

Available communication and engagement opportunities for Interested Parties include public workshops and hearings, communication through individual GSA webpages, registration as an Interested Party or contact through the Paso GCP, correspondence, phone calls, emails, and Cooperative Committee meetings.

What is the timeframe?

GSP development began in spring 2018 and will progress to adoption before January 31, 2020. During that period, Interested Party communication and engagement will be a continuous process, including the public review period for GSP approval. The Draft Paso Subbasin GSP will be available for 90 days of review during Fall 2019.

When will public input be relevant?

During GSP development, public input will be most relevant when the GSAs are framing the scope of studies, setting sustainable management criteria, developing management actions, identifying groundwater-dependent ecosystems (GDE), collecting existing and planned groundwater use information, and during public review of the draft GSP prior to DWR approval. Workshops and/or surveys will be held or conducted during GSP development for public input when it is most relevant.

How will public input be used?

GSP Regulations (Section 355.4) require that GSAs consider the interests of the beneficial uses and users of groundwater in the Subbasin. In addition, the GSAs as part of the GSP, will consider land use and property interests. Public input is essential in understanding and considering these interests and effects. During the GSP review and approval process, DWR will take public comments into account when determining whether interests within the Subbasin have been considered in the development and implementation of the GSP (Section 353.8).

7.0 COMMUNICATION + ENGAGEMENT TOOLS AND VENUES

Communication and engagement with Interested Parties may include Subbasin-wide outreach as well as engagement specifically within the individual GSA areas. Each GSA area may include a set of Interested Parties with specific interests. Each GSA will decide required levels of communication for its own GSA area and engage with Interested Parties in its GSA area as appropriate.

For Subbasin-wide interests and issues, the Cooperative Committee will communicate with Interested Parties. The Paso Robles Subbasin GSAs are committed to encouraging the active involvement of diverse social, cultural, and economic elements of the population within the groundwater basin. Therefore, outreach will be conducted through multiple and varied venues. Descriptions of these venues are presented below.

Paso GCP

Interested Parties are invited to register using the Paso GCP at www.pasogcp.com. Registrants will automatically be invited by email to activities regarding GSP development. Interested Parties may also view a calendar of events, register for upcoming events, and view materials from past events.

GSA Web Pages

Dedicated SGMA webpages for each GSA are listed below and also accessible at www.pasogcp.com. The webpages are designed to provide background information, maps, documents, status updates, useful links, contact information, and a means of communicating between the GSAs and the public.

- City of Paso Robles – www.prcity.com
- County of San Luis Obispo – www.slocountywater.org
- Heritage Ranch CSD – www.heritageranchcsd.com
- San Miguel CSD – www.sanmiguelcsd.org
- Shandon-San Juan Water District – www.ssjwd.org

Cooperative Committee Special Meetings

The Paso Robles Subbasin Cooperative Committee will host Special Meetings as-needed to cover time-sensitive GSP topics. For example, Special Meetings were hosted by the Cooperative Committee in Spring 2018 to launch the GSP process on the following topics:

- GSP Timeline, GSP requirements, and an introduction to Sustainable Management Criteria (April 23, 2018)
- Groundwater law and its connection to SGMA, State of the Subbasin (April 30, 2018)
- Projects and programs for groundwater management (May 14, 2018)
- Further information on the state of the Subbasin, and follow-up to the first three meetings (May 21, 2018)

Unless noticed as a Special Meeting, GSP-related discussions will take place during the regular meetings of the Cooperative Committee.

Cooperative Committee Regular Meetings

The Cooperative Committee meets regularly to carry out GSP activities. Regular Cooperative Committee meetings locations vary, but are typically held in the Paso Robles City Council Chambers. Meeting information, agendas, and other relevant documents are posted on the Paso GCP. The Cooperative Committee prepares and maintains minutes of its meetings, and all meetings of the Cooperative Committee are conducted in accordance with the Ralph M. Brown Act (Government Code §§ 54950 et seq.).

Public Surveys

Public surveys will be conducted when GSP development requires specific input from Interested Parties. Two public surveys were identified as of May 2018. The first was a C&E Survey, the results of which are discussed in **Appendix A** and many suggestions have been incorporated into this C&E Plan. The second survey centered around Sustainable Management Criteria/Minimum Thresholds and was conducted in Summer 2018.

Meeting feedback forms are available at public workshops to encourage Interested Party feedback on how the workshops are conducted. These feedback forms have been useful in helping the Cooperative Committee, GSA staff, and GSP consultants adapt to meet needs of Interested Parties along the way. For example, one meeting feedback form indicated that signage was needed at the meeting location to help find the correct building. Reusable directional signs were produced and displayed at the next meeting and will be available for future meetings. An example of the meeting feedback form is provided in **Appendix H**.

GSAs' Board of Directors/Supervisors/Council Meeting

Table 2 lists meetings of the governing bodies of the GSAs where interim updates regarding GSP development may be discussed as needed. See the linked websites below for the meeting agendas which may list SGMA as a topic. Stakeholders and members of the public may choose to comment at those meetings.

Table 2. GSA Regularly Scheduled Meetings

GSA / WEBSITE	DATE/TIME	LOCATION
County of San Luis Obispo www.slocounty.ca.gov/Departments/Board-of-Supervisors/Board-Meetings,-Agendas-and-Minutes.aspx	On average, twice per month	County Government Center Board of Supervisors Chambers 1055 Monterey Street San Luis Obispo, CA 93408
City of Paso Robles www.prcity.com	As-needed on the agenda of the City Council Meetings, held the first and third Tuesday of each month	Paso Robles City Hall Council Chambers 1000 Spring Street Paso Robles, CA 93446
Shandon-San Juan Water District www.ssjwd.org	As-needed on the agenda of the District Board Meetings, held on the third Tuesday of each month	Shandon High School 151 S. 1st Street Shandon, CA 93461

GSA / WEBSITE	DATE/TIME	LOCATION
Heritage Ranch CSD www.heritageranchcsd.com	As-needed on the agenda of the District Board Meetings, held on the third Thursday of each month	Heritage Ranch CSD District Office 4870 Heritage Road Paso Robles, CA 93446
San Miguel CSD www.sanmiguelcsd.org	As-needed on the agenda of the District Board Meetings, held on the fourth Thursday of each month	San Miguel CSD District Office 1150 Mission Street (Fire Station) San Miguel, CA 93451

eMail

Email blasts (emails to the entire list of Interested Parties) will be sent when there is significant information to communicate regarding GSP development. For example, email blasts are sent when Special Meetings of the Cooperative Committee are scheduled.

Individual emails will also be sent to invite known Interested Party groups to participate. For example, a letter was sent via email to local Native American Tribal governments inviting participation in the GSP process. A copy of the letter is included as **Appendix I**.

Postal Mail

Postal mail will be utilized to reach areas of the groundwater basin that may not otherwise be informed of GSP activities. For example, a postcard was mailed to Interested Parties in the San Miguel CSD GSA service area to announce the Special Meetings and launch of the Paso GCP, because the existing contact list for the San Miguel GSA included postal addresses, but not email addresses. The postcard invited these known Interested Parties in the San Miguel GSA to attend the Cooperative Committee Special Meetings and register their email address online with the Paso GCP. This postcard was also available at the Shandon-San Juan Water District Office for Interested Parties to pick up when they stopped by and was distributed to the rural communities of Jardine, Ground Squirrel Hollow, and Geneseo. The postcard is included with **Appendix J**.

Spanish Language Materials

The Cooperative Committee identified that there are potential Interested Parties who may be primarily Spanish-speaking. Because of this input, additional materials for communication about GSP development will be created in Spanish. Items identified initially for Spanish-language communications include the following:

- Postcard in Spanish to advertise Paso GCP (see **Appendix J**)
- Web page on Paso GCP written in Spanish
- Link on Paso GCP Spanish-language web page to request materials in Spanish

Adjacent Basin Meetings

Members of adjacent basins are welcome to participate in regularly scheduled Cooperative Committee meetings as well as special meetings. In addition, coordination between adjacent basins and individual GSAs will occur as needed. The names and GSP deadlines for basins adjacent are shown in **Table 3**.

Table 3. Basins Adjacent to the Paso Robles Subbasin

Basin	Basin Prioritization	GSP Due Date
Atascadero Subbasin	Draft 2018 DWR basin prioritization as Very Low (subject to change)	Pending final DWR basin prioritization
Lockwood Valley Basin	Very Low	N/A
Salinas Basin - Upper Valley Aquifer	Medium	January 31, 2022
Cholame Valley Basin	Very Low	N/A
Carrizo Plain Basin	Very Low	N/A

Public Hearings

Notices of public hearings are published in a variety of media, including radio and local newspapers, informing the public on meeting information, subject, and how to provide comments prior to decision making. Public hearings will also be noticed through the Paso GCP. At a minimum, a Public Hearing will be held when adopting or amending the GSP, or imposing or increasing a fee.

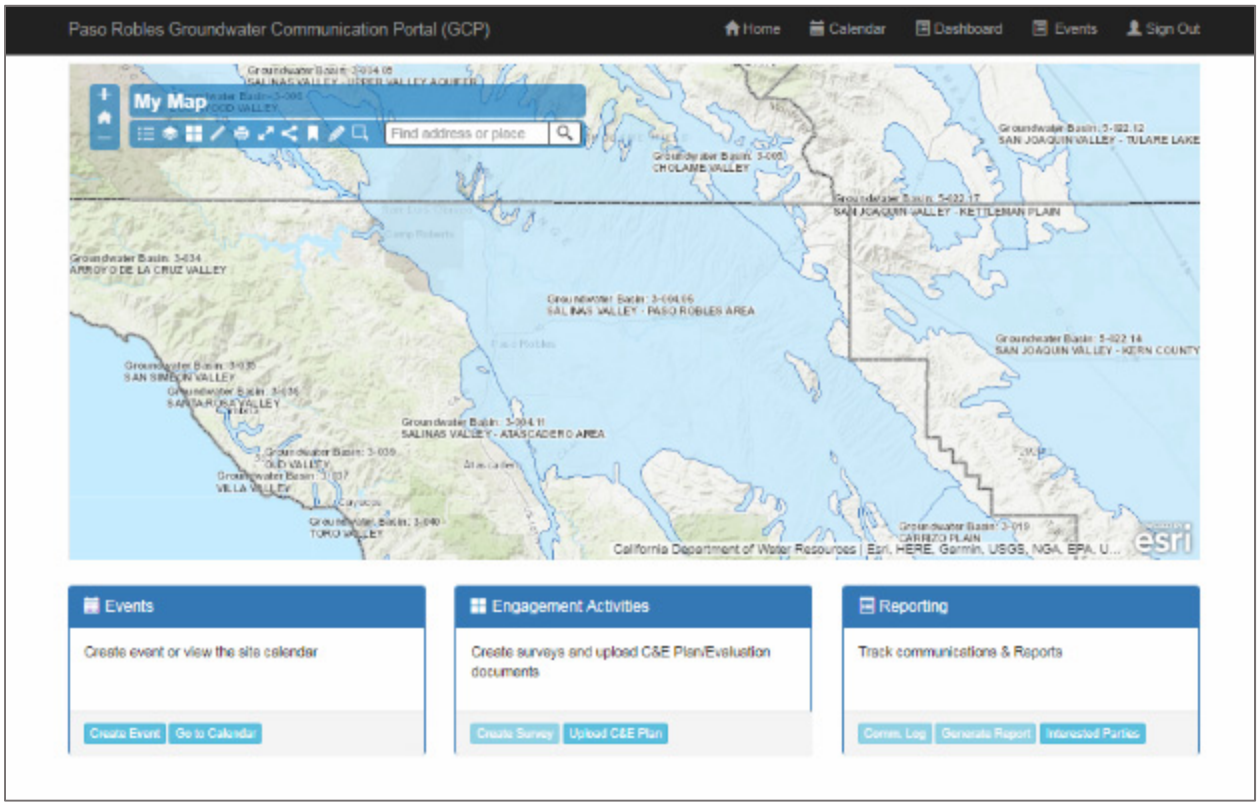
8.0 TRACK AND EVALUATE COMMUNICATIONS AND ENGAGEMENT

The Paso GCP (see **Appendix B**) tracks communications and engagement efforts for the Paso Robles Subbasin GSAs.

The Paso GCP serves as a repository for information about public meetings and interested parties. It tracks outreach efforts by the GSAs in its database; storing meeting attendance information, logging targeted outreach, and hosting the Interested Parties list.

Tool administrators can generate reports about meetings related to GSP planning. The reports include items such as attendance sheets, RSVPs, agendas, minutes, handouts, and presentations. Reports such as these will be included with the final Paso Robles Subbasin GSP as submitted to DWR.

GSAs continually evaluate communications and engagement efforts as they are executed following this C&E Plan. This evaluation is conducted through the Cooperative Committee, GSA Staff, and GSP Consultant observations, as well as through feedback from Interested Parties via online surveys and meeting feedback forms. The Cooperative Committee, GSA Staff, and GSP Consultants will assess needs and update this C&E Plan as necessary.



The Paso GCP is the primary tool for tracking communication and engagement in the Paso Robles Subbasin. Above is a view of the Administrator's dashboard, where site administrators can post events, upload documents, and generate reports regarding communication and engagement.

9.0 SUMMARY

Interested Parties' communication and outreach activities are essential in GSP development. Only through effective communication and outreach can Interested Parties' concerns, issues, and aspirations be consistently understood and considered in the GSAs' decision-making process. Moreover, the C&E Plan process will be ongoing, starting with GSP development and continuing through implementation of the approved GSP for the Paso Robles Subbasin. As in GSP development, periodic reviews and adjustments of the C&E Plan process may be necessary. The goal is to develop and implement a robust Interested Parties C&E Plan process so we may achieve sustainability and manage our valuable shared groundwater resource for future generations.

Interested Parties, GSA Staff Member Dick McKinley of City of Paso Robles GSA, and consultants Matthew Payne and Lydia Holmes at a public workshop in May 2018.

APPENDICES

Appendix A. Statutory Table

Legislative/Regulatory Requirement	Legislative/Regulatory Section Reference	C&E Plan Section
Publish public notices and conduct public meetings when establishing a GSA, adopting or amending a GSP, or imposing or increasing a fee.	SGMA Sections 10723(b), 10728.4, and 10730(b)(1).	7.0
Maintain a list of, and communicate directly with, interested parties.	SGMA Sections 10723.4, 10730(b)(2), and 10723.8(a)	4.0
Consider the interests of all beneficial uses and users of groundwater.	SGMA Section 10723.2	4.0
Provide a written statement describing how interested parties may participate in plan [GSP] development and implementation, as well as a list of interested parties, at the time of GSA formation.	SGMA Sections 10723.8(a) and 10727.8(a)	4.0
Encourage active involvement of diverse social, cultural, and economic elements of the population within the groundwater basin.	SGMA Section 10727.8(a)	7.0
Understand that any federally recognized Indian Tribe may voluntarily agree to participate in the planning, financing, and management of groundwater basins – refer to DWR's Engagement with Tribal Governments Guidance Document for Tribal recommended communication procedures.	SGMA 10720.3(c)	7.0
Description of beneficial uses and users of groundwater in the basin	GSP Regulations §354.10	3.0
List of public meetings at which the Plan [GSP] was discussed or considered	GSP Regulations §354.10	Appendix E
Comments regarding the Plan [GSP] received by the Agency and a summary of responses	GSP Regulations §354.10	N/A at time of publication
A communication section that includes the following (GSP Regulations §354.10):		
Explanation of the Agency's decision-making process	GSP Regulations §354.10	4.0
Identification of opportunities for public engagement and discussion of how public input and response will be used	GSP Regulations §354.10	7.0
Description of how the Agency encourages active involvement of diverse social, cultural, and economic elements of the population within the basin	GSP Regulations §354.10	7.0
The method the Agency will follow to inform the public about progress implementing the Plan [GSP], including the status of projects and actions	GSP Regulations §354.10	7.0

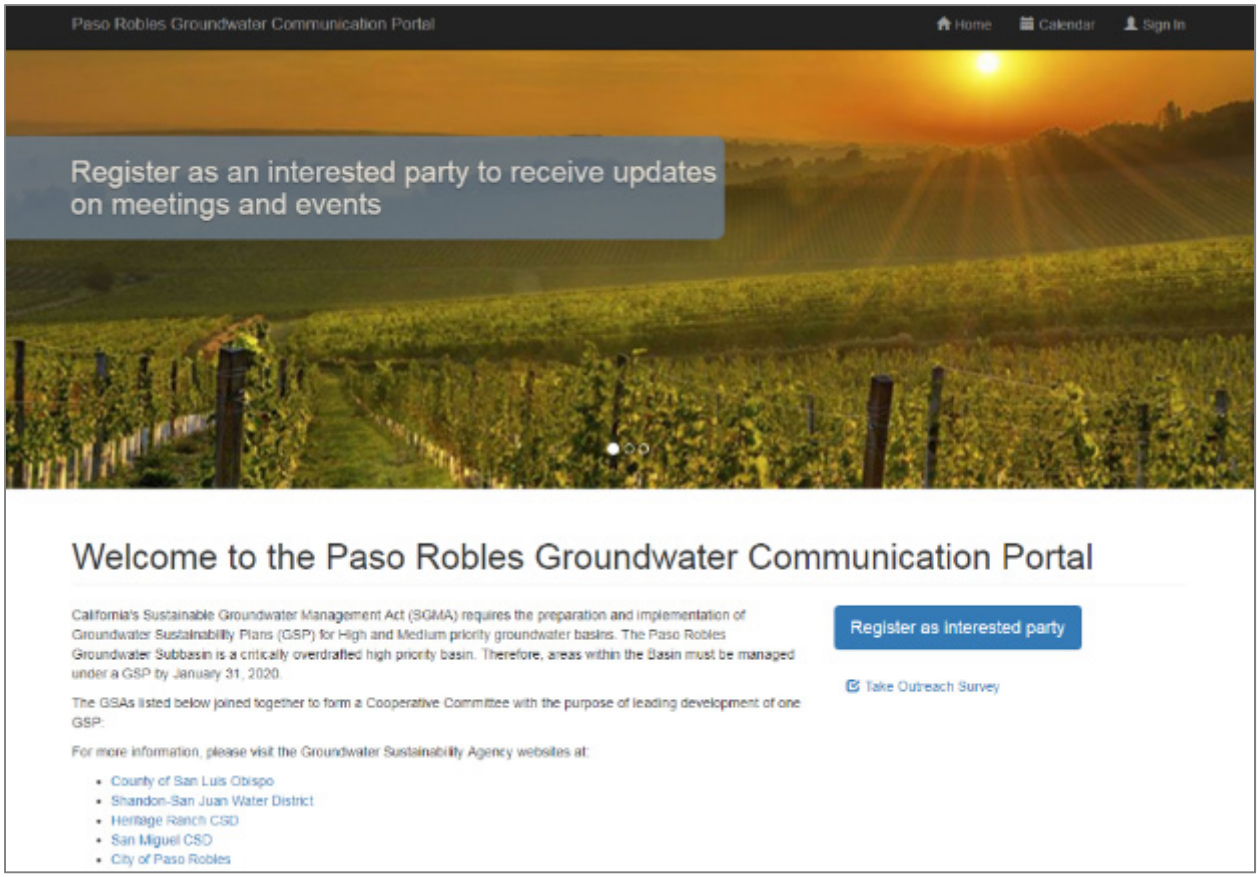
Appendix B. Paso Robles Subbasin Groundwater Communication Portal

The Paso Robles Subbasin Groundwater Communication Portal (Paso GCP) is a web-based outreach tool for Paso Subbasin GSAs to post events and automatically inform Interested Parties about GSP development. Interested Parties can visit the website and register their email address to stay informed about upcoming activities.

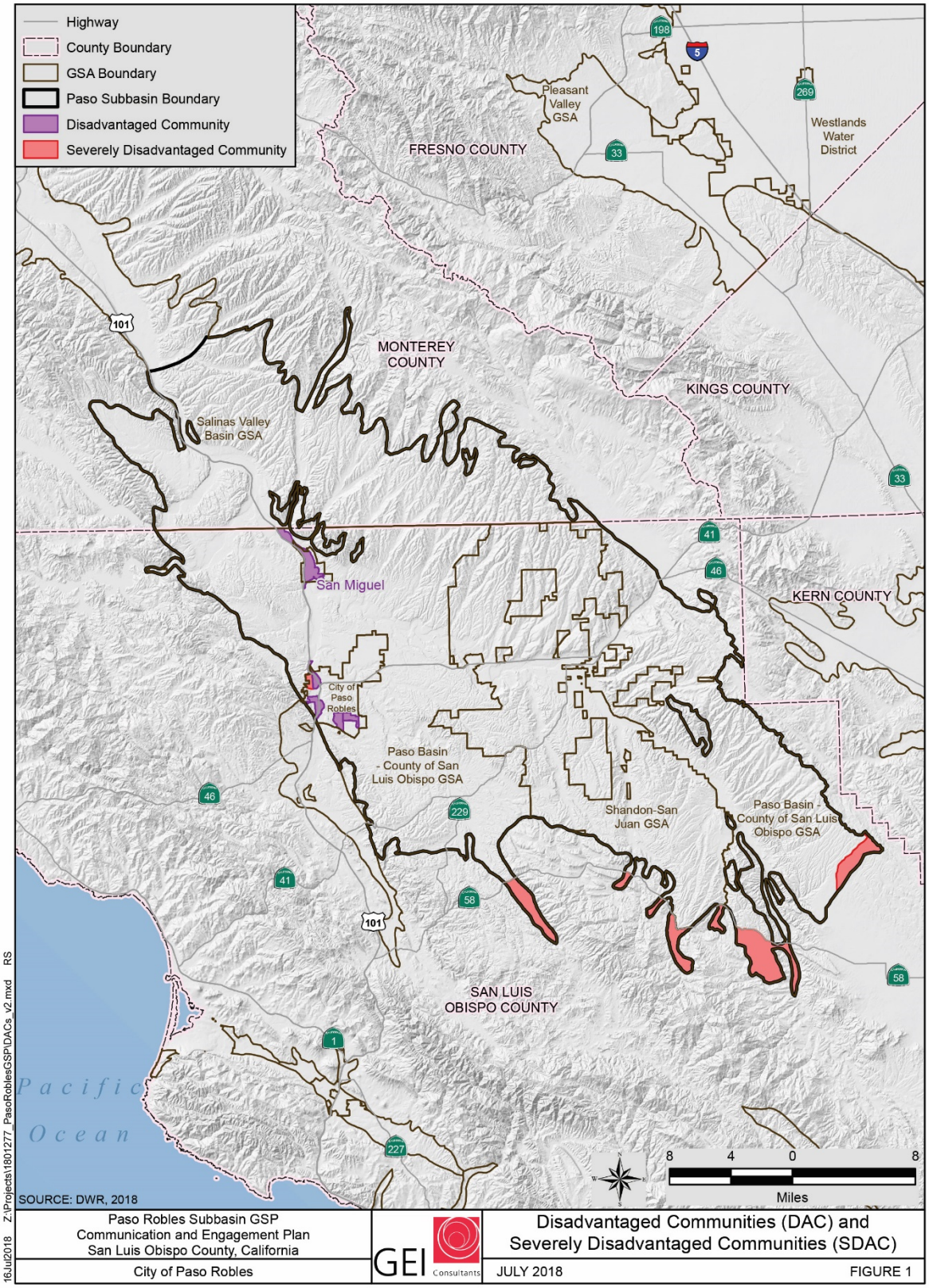
The Paso GCP serves as a repository for GSA information about Paso Robles Subbasin meetings, communications, and Interested Parties. It tracks outreach efforts by the GSAs; storing meeting attendance information, logging targeted outreach, and hosting the interested parties list.

Tool administrators can generate reports about GSP outreach activities. The reports include items such as attendance sheets, RSVPs, agendas, minutes, handouts, and presentations.

Paso GCP Home Page



Appendix C.Disadvantaged Communities in the Paso Robles Subbasin



Appendix D. Initial Interested Parties List

Pursuant to the California Water Code Section 10723.2, the Paso Robles Subbasin GSAs will consider the interest of all beneficial uses and users of groundwater when developing and implementing the Paso Robles Subbasin GSP.

The five Paso Robles Subbasin GSAs[2], party to the MOA, developed lists of Interested Parties and submitted those lists to DWR at the time of GSA formation. A compiled list of those submissions is provided below. This initial list, plus individuals who expressed interest in receiving updates about GSP development via the San Luis Obispo County website, were imported into the Paso GCP (presented in **Appendix B**) in May 2018. The Paso GCP automatically notifies the Interested Parties list via email when GSP-related events are scheduled in the Paso Robles Subbasin. The list continues to grow as additional Interested Parties self-register or are otherwise identified.

Agency

- Atascadero Basin GSA
- City of Paso Robles
- County of Monterey
- County of San Luis Obispo
- Creston School District
- Estrella-El Pomar-Creston Water District
- Heritage Ranch CSD
- Monterey County Parks Department
- Monterey County Water Resources Agency
- Paso Robles Unified School District
- Salinas Valley GSA
- San Luis Obispo County Flood Control & Water Conservation District
- San Miguel CSD
- San Miguel Joint Union School District
- Shandon San Juan Water District
- Shandon Unified School District
- Templeton CSD
- U.S. Department of Commerce – National Oceanic and Atmospheric Administration

Water Corporations Regulated by PUC or a Mutual Water Company

- Atascadero Mutual Water Company
- Green River Mutual Water Company
- Mustang Springs Mutual Water Company
- Rancho Salinas Mutual Benefit Water Company
- Santa Ysabel Ranch Mutual Water Company
- Spanish Lakes Mutual Water Company
- Walnut Hills Mutual Water Company

[2] City of Paso Robles GSA, County of San Luis Obispo GSA, Shandon-San Juan GSA, San Miguel GSA, and Heritage Ranch GSA

Agricultural users

- Agricultural landowners (individuals)_
- Agricultural Liaison Advisory Board (ALAB)
- Central Coast Vineyard Team
- Central Coast Wine Grape Growers Association
- Farm Bureau
- Grower-Shipper Association
- Independent Grape Growers of Paso Robles
- Local Chapter California Certified Organic Farms
- North County Farmers Market Association
- Paso Robles Vintners and Growers Association
- Paso Robles Wine Country Alliance
- SLO County Cattlemen
- SLO County Cattlewomen
- SLO County Farm Supply
- UC Cooperative Extension
- Upper Salinas-Las Tablas Resource Conservation District
- USDA Conservation Service
- USDA Farm Service Agency
- 4-H Clubs

Domestic well owners

- Individual rural residential/suburban landowners

Municipal well operators

- Covered in other categories

Public water systems (per EHS records)

- Almira Water Association
- Arciero Winery
- Cal Trans Shandon Rest Stop
- Camp Roberts
- Creston Country Store
- Creston Elementary School
- El Paso De Robles Youth Correction Facility
- Huerhuero Ranch
- Hunter Ranch Golf Course
- Jack Ranch Cafe
- Links at Lista Del Hombre
- Loading Chute
- Longbranch Saloon
- Los Robles Mobile Estates
- Meridian Vineyard
- North River Road
- Paso Robles RV Ranch
- Paso Robles Truck Plaza (San Paso)

- Pete Johnston GM
- Pleasant Valley Elementary
- SATCOM
- Shandon CSA

Local land use planning agencies

- City of Atascadero
- City of Paso Robles
- County of San Luis Obispo
- San Luis Obispo Council of Government (SLO COG)

Environmental users of groundwater

- Various agencies on this list address environmental concerns related to groundwater and the Paso Robles Subbasin GSAs will work with them to consider and protect such interests.

Surface water users (if hydrologic connection)

- Atascadero Community Services District (CSD)
- City of Paso Robles
- City of San Luis Obispo
- Heritage Ranch CSD
- Templeton CSD

Federal government

- Camp Roberts
- National Marine Fisheries Service
- U.S. Fish & Wildlife

California Native American tribes

- Chumash
- Salinan

Disadvantaged communities

- There are disadvantaged communities in the Paso Robles Subbasin, particularly in the southern portion of the Subbasin, where there are severely disadvantaged communities.

Entities monitoring and reporting groundwater in the Subbasin

- Various of the agencies and water companies listed above collect and report groundwater data including at the County and State level (CASGEM).

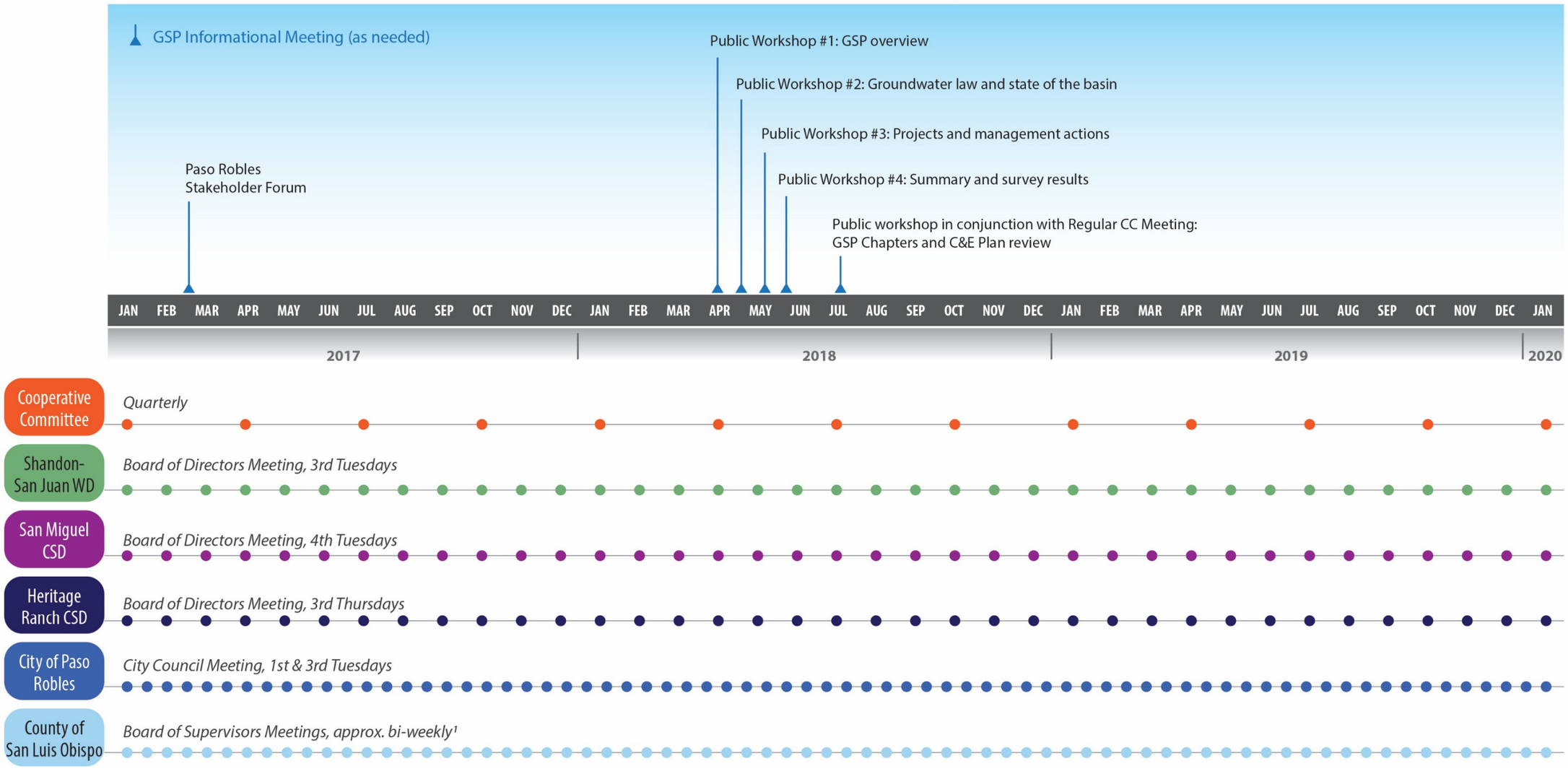
Appendix E. Preliminary Engagement Schedule

NOTES

1. See San Luis Obispo County Board of Supervisors meeting schedule online at http://www.slocounty.ca.gov/Departments/Administrative-Office/Board-of-Supervisors-Agenda.aspx
2. Schedule is representative. Dates subject to change.
3. Visit the Paso Robles Groundwater Communication Portal (Paso GCP) at www.pasogcp.com to see up-to-date information on Interested Party engagement opportunities.

Paso Robles Subbasin GSP Development

Preliminary Stakeholder Engagement Schedule



Appendix F. Media Contacts List

Press releases regarding GSP development public workshops are sent to the following contacts.

- Atascadero Mutual Water Company
- Atascadero News
- City of Atascadero
- City of Paso Robles
- County Administrator
- County Blade
- Cuestonian - Cuesta College
- KCBX
- KCOY-TV (NPG of California)
- KCPR
- KEYT KCOY KKFX
- KGUR
- KIDI FM/ KTAP
- KKJG/ KZOZ/ KKAL/KSTT/KVEC
- KPRL
- KPYG/ KWWV/ KXDZ/ KXTZ/ KYNS
- KSBW
- KSBY-TV
- KSMA/ KVEC/KJUG
- KTAS-TV, Telemundo
- KUHL-AM
- Los Osos Bay News; SLO City News; Coast News
- Monterey County Water Resources Agency
- Monterey Herald
- Mustang Daily
- New Times
- Paso Robles Chamber of Commerce
- Paso Robles Daily News
- Paso Robles Press
- Paso Robles Unified School District
- Pleasant Valley Joint Union School Dist.
- San Luis Obispo County Admin Analyst
- San Luis Obispo County Public Works
- San Miguel Community Services District
- San Miguel Joint School District
- SGMA/Calif Department of Water Resources & RWQCB
- Shandon Unified School District
- SLO County Board of Supervisors Secretary
- Soaring Eagle Press
- Templeton Chamber of Commerce
- Templeton Community Services District
- Templeton Unified School District
- The Tribune / County Digest

Appendix G. C&E Survey Results

From May 4 to May 18, 2018 a public survey was conducted to evaluate best methods for communication and engagement in the Paso Robles Subbasin. An invitation was sent to over 500 Interested Party contacts in the Paso GCP database. Over 100 Interested Parties responded and completed the survey. The results of the survey guided the formation of this C&E Plan and were presented at the May 21, 2018 Special Meeting of the Cooperative Committee. The presentation slides from that meeting are presented on the following pages.

How the Survey Results Were Used

The C&E Survey identified many methods in which the Interested Parties could receive information and provide input into the GSP process. As a result of the Survey, certain communication methods are emphasized in the C&E Plan, such as the development of the Paso Groundwater Communication Portal (Paso GCP) where Interested Parties can receive information in one consolidated location rather than seek information from all five individual GSA websites. Information posted to the Paso GCP includes meeting announcements, notes and materials provided at the meetings, FACT Sheets, frequently asked questions (FAQ), and important documents related to the SGMA GSP development process. In addition, the Paso GCP will provide input opportunities for Interested Parties to comment on the GSP process.

Many of the Interested Parties requests were accommodated through a meeting feedback form (see **Appendix H**) that was available at the four Informational Meetings held in Spring 2018. Subsequent actions as a result of the meeting feedback forms included:

- Providing clear signage to the meeting location
- Incorporating topics of interest expressed by Interested Parties to be discussed at the meetings
- Adding station-facilitated exercises where the Interested Parties could participate in smaller groups with the Cooperative Committee, GSA Staff, and Consultants on-hand for open dialog and interactive discussion for input.
- Developing specific outreach postcards for communities identified by Interested Parties, including both Disadvantaged Communities and Rural communities which may not have received electronic information.

We are appreciative of all those Interested Parties that participated in the online C&E Survey and the meeting feedback forms to improve the Paso GSP outreach process to be most effective.

COMMUNICATION AND ENGAGEMENT SURVEY RESULTS

Paso Robles Basin GSAs
City of Paso Robles
County of San Luis Obispo
Heritage Ranch CSD
San Miguel CSD
Shandon-San Juan Water District

May 21, 2018

Paso Robles Basin

COMMUNICATION AND ENGAGEMENT SURVEY

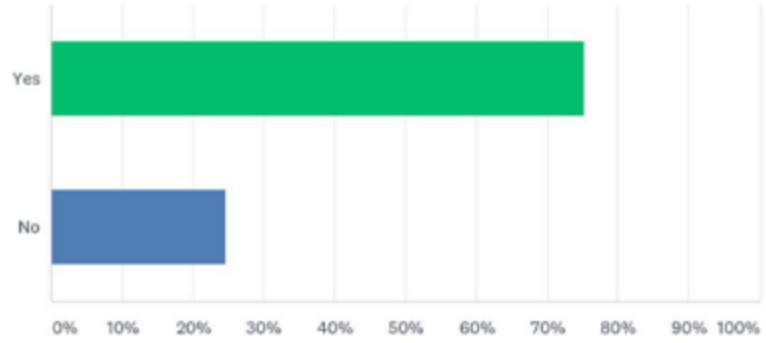
103

Total Responses

- Date Opened: Friday, May 04, 2018
- Date Closed: Friday, May 18, 2018
- Complete Responses: 103

Q1: Have you participated in a public process before?

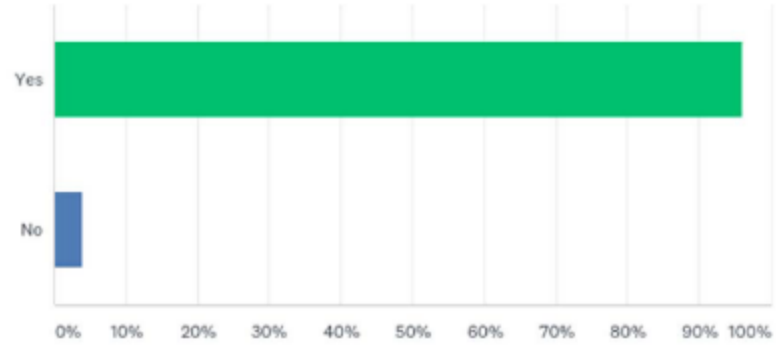
ANSWER CHOICES	RESPONSES	
Yes	75.25%	76
No	24.75%	25
TOTAL		101



Answered: 101
Skipped: 2

Q2: Have you heard about the SGMA GSP process?

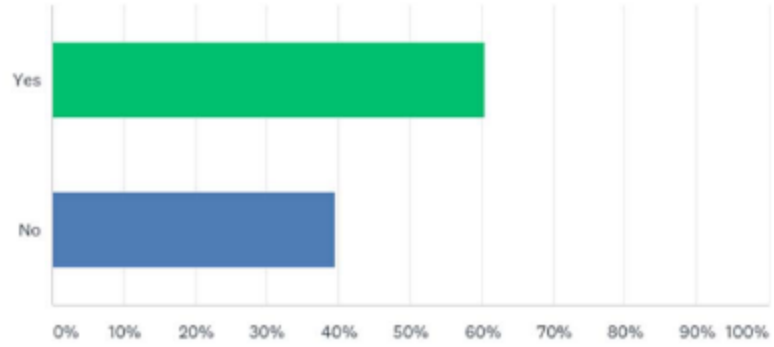
ANSWER CHOICES	RESPONSES	
Yes	96.08%	98
No	3.92%	4
TOTAL		102



Answered: 102
Skipped: 1

Q3: Have you been involved in other water supply public processes in the past?

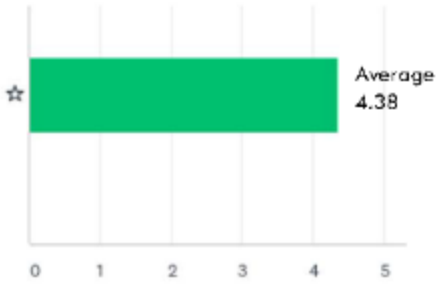
ANSWER CHOICES	RESPONSES	
Yes	60.40%	61
No	39.60%	40
TOTAL		101



Answered: 101
Skipped: 2

Q4: What is your level of interest in providing input on the planning and implementation of the SGMA GSP process?

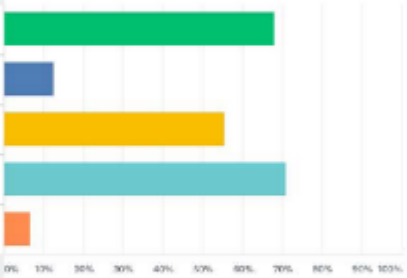
	LEAST INTEREST ☆	☆☆	☆☆☆	☆☆☆☆	MOST INTEREST ☆☆☆☆☆	TOTAL	WEIGHTED AVERAGE
☆	1.96% 2	1.96% 2	13.73% 14	23.53% 24	58.82% 60	102	4.35



Answered: 102
Skipped: 1

Q5: How would you like to provide input on the SGMA GSP process? Choose all that apply.

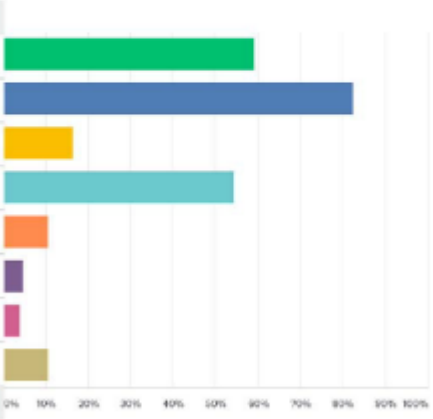
ANSWER CHOICES	RESPONSES	
Through a comment portal online	67.96%	70
Using social media	12.62%	13
During in-person meetings	55.34%	57
By reviewing draft project documents	70.87%	73
Other (please specify)	6.80%	7
Total Respondents: 103		



Answered: 103 Skipped: 0

Q6: How would you like to receive information about the GSP process? Choose all that apply.

ANSWER CHOICES	RESPONSES	
Website updates	59.22%	61
E-blasts/newsletters	82.52%	85
Flyers/community postings	16.50%	17
Meetings	54.37%	56
Social media: Facebook	10.68%	11
Social media: Nextdoor	4.85%	5
Social media: Twitter	3.88%	4
Other (please specify)	10.68%	11
Total Respondents: 103		

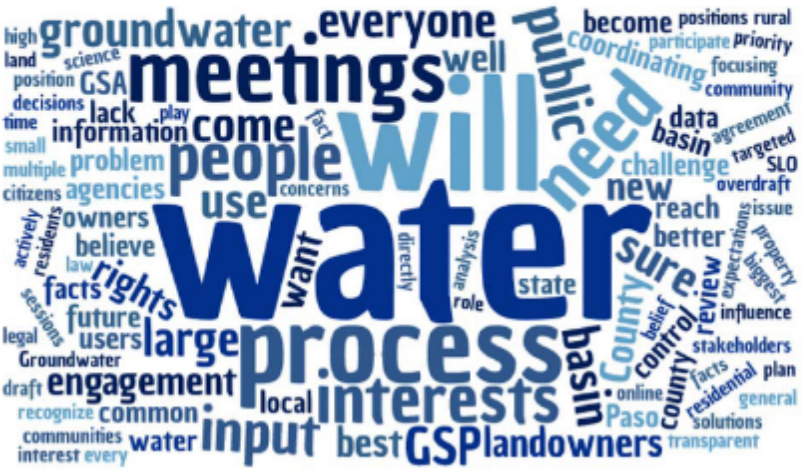


Answered: 103 Skipped: 0

Q7: What SGMA topics and information are of interest to you?

Answered: 96
Skipped: 7

Q8: What potential challenges do you anticipate regarding engagement? How can they be addressed?



Answered: 91
Skipped: 12

Q9: What would be a successful outcome for the GSP from your perspective?

Answered: 97
Skipped: 6

Q10. Who else do you think needs to be involved in the planning and implementation of the SGMA GSP?

Answered: 81
Skipped: 22

Q11. Do you have any other suggestions for the GSAs on communication and engagement methods for the SGMA GSP process?

Answered: 73
Skipped: 30

Appendix H. Meeting Feedback Form

Paso Robles Basin Meeting Survey

Name: _____

Contact: _____

Date: _____

Please provide feedback to improve out communication and engagement process.

Survey Questions		Agree	Disagree
1	Information provided was useful and understandable?		
2	Meeting noticing was timely, informative about location and meeting topic(s)?		
3	Opportunity was provided to comment/ask questions?		
4	Can we contact you regarding your survey to follow up?		
5	Other SGMA topics and information of interest to you include: a. _____ b. _____ c. _____ d. _____		
6	Other suggestions on communication and engagement that would be helpful for the SGMA process: _____ _____ _____ _____		

Example Meeting Feedback Form

Appendix I. Letter Distributed to Native American Tribal Governments

[Variable greeting]

We are writing to notify you that a Groundwater Sustainability Plan (GSP) for the Paso Robles Groundwater Basin is under development and we are inviting you to participate in the GSP process.

In 2015, the State legislature approved a new groundwater management law known as the Sustainable Groundwater Management Act (SGMA). SGMA required local agencies to form Groundwater Sustainability Agencies (GSAs) by June 30, 2017 and prepare a GSP. SGMA allows any federally recognized Indian tribe to voluntarily participate in the preparation or administration of a GSP. A federally recognized tribe's actions during participation will be based on the tribe's independent sovereign authority and not the authorities that SGMA provides to local agencies[1]. Regardless of whether a tribe opts to coordinate their groundwater management with SGMA implementation, SGMA requires GSAs to consider the interests of all beneficial uses and users of groundwater, including tribes[2]. For more information on Tribal Government Engagement with GSAs, please see the Discussion Questions[3] paper prepared by the California Department of Water Resources Sustainable Groundwater Management Program Tribal Advisory Group.

We invite you to participate in the Paso Robles Groundwater Basin GSP. If you wish to be included on the list of Interested Parties to receive further information on ways to meaningfully participate in processes related to GSP development in the Paso Robles Basin, please register at the following web address: www.pasogcp.com and feel free to contact our Public Outreach Facilitator, Ellen Cross, with any questions or comments by email at crosse@strategydriver.com or by phone at (510) 316-9657.

Thank you.

The Paso Robles Groundwater Basin Cooperative Committee

- *City of Paso Robles GSA*
- *County of San Luis Obispo GSA*
- *Shandon-San Juan GSA*
- *Heritage Ranch GSA*
- *San Miguel GSA*

[1] Water Code §10720.3(c)
[2] Water Code §10723.2
[3] http://www.water.ca.gov/-/media/DWR-Website/Web-Pages/About/Tribal/Files/Publications/Tribal-Engagement-with-GSA-Discussion-Questions.pdf

[1] Water Code §10720.3(c)
[2] Water Code §10723.2
[3] http://www.water.ca.gov/-/media/DWR-Website/Web-Pages/About/Tribal/Files/Publications/Tribal-Engagement-with-GSA-Discussion-Questions.pdf

Appendix J. Postcard Mailers

Postcard sent to announce the Paso GCP

JOIN THE DISCUSSION

Sustainable Groundwater Management in the
Paso Robles Groundwater Subbasin

JOIN THE DISCUSSION

In accordance with the Sustainable Groundwater Management Act (SGMA), the Paso Robles Groundwater Basin is in the process of preparing a Groundwater Sustainability Plan (GSP).

Interested Parties are encouraged to attend the following workshops to learn more:

Projects and Programs for Groundwater Management Workshop
Monday, May 14, 2018 at 5:30 PM

Summary of the Paso Basin GSP Process Workshop
Monday, May 21, 2018 at 5:30 PM

The workshops above will be held at:
Kermit King Elementary
700 Schoolhouse Cir, Paso Robles, CA 93446

For more information, contact the San Miguel CSD offices at (805) 467-3388 or visit **www.sanmiguelcsd.org**

After May 15, for all *future* GSP information, register as an Interested Party at **www.pasogcp.com**.

SAN MIGUEL C.S.D.
1150 MISSION ST.
SAN MIGUEL, CA 93451

Postcard sent to invite Interested Parties to attend public workshops

PARTICIPE EN LA DISCUSIÓN

www.pasogcp.com

PARTICIPE EN LA DISCUSIÓN

De acuerdo con la ley de Gestión Sustentable del Agua Subterránea (SGMA), se está desarrollando un Plan de Sustentabilidad de Agua Subterránea para la Cuenca de Paso de Robles (GSP).

El Comité Cooperativo de la Cuenca de Paso de Robles lo invita a registrase como una Parte Interesada para recibir notificaciones sobre eventos acerca de la preparación del GSP y para proporcionar sus ideas.

Para más información y para registrarse como una Parte Interesada, visite el sitio web a continuación.

www.pasogcp.com

¡REGÍSTRESE AHORA!

Enviado en nombre de las Agencias de Sustentabilidad de Agua Subterránea de la Cuenca de Paso de Robles:

GSA del Condado de San Luis Obispo
GSA de la Ciudad de Paso de Robles
GSA del Distrito de Servicios Comunitarios de San Miguel
GSA del Distrito de Servicios Comunitarios de Heritage Ranch
GSA del Distrito de Agua de Shandon-San Juan

HYDROMETRICS
PASO BASIN TEAM
1232 PARK STREET, SUITE 2B
PASO ROBLES, CA 93446

Spanish language postcard for Interested Parties

Appendix N

Public Comments

Public Comments received through 8/15/2019
to be considered while compiling the Draft GSP for the Paso Basin

Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Sheila Lyons	**Ch. 1 Introduction to Paso Robles Subbasin Groundwater Sustainability Plan** 1.2 Description of Paso Robles Subbasin	Please read on as this comment does apply to Chapter 1. Chapter 3, Figure 3-14 Indicates current Land Use Planning subareas. There needs to be an additional Figure indicating the PR Groundwater Basin Subareas such the one from Fugro, 2002 Basin Boundary showing subareas of the Basin. This can be found on the front page of the June 10, 2015 report "Achieving Sustainability in the PR Groundwater Basin. If not in this section, the Basin subarea map from Fugro needs to be included in the GSP somewhere....Chapter #1? This is important....land use planning areas are significantly different from basin planning areas. They have different characteristics and land use planning areas would be inappropriate for basin management. Creston participated early on in meetings for setting voluntary Basin Management Objectives and we are clear that the Creston Sub-Area has different management objectives from other parts of the basin due to our location (leading head of much of the recharge water going into the aquifer). We were much more aggressive and conservative about what course of action we think needs to be implemented to obtain basin sustainability. We believe the Creston Sub-area must be considered separate from the El Pomar-Estrella Land Use Planning Area because they are very different from one another and have very different management requirements.	County of San Luis Obispo GSA	pasogcp.com	9/22/2018 2:40:00 PM	
Laurie Gage, District Administrator	**Ch. 1 Introduction to Paso Robles Subbasin Groundwater Sustainability Plan**	The Board of Directors of the Estrella-El Pomar-Creston Water District has reviewed Chapter 1 and concluded that it has no comments on this chapter at this time. Individual Board directors may choose to personally comment on this chapter separately and independently from the Board as a whole.	City of Paso Robles GSA	pasogcp.com	10/11/2018 8:59:00 PM	
Verna Jigour	**Ch. 1 Introduction to Paso Robles Subbasin Groundwater Sustainability Plan** 1.2 Description of Paso Robles Subbasin	I advise expanding the text and figure 1.1 to include the watersheds/catchments feeding the pertinent subbasins. I realize that SGMA does not require planning outside the basins of concern but, especially in the case of the Paso Robles Subbasin, opportunities to augment groundwater recharge and storage will be left out of the equation if planning is confined solely to the basins. GSA stakeholders correctly identified potential watershed approaches at the third GSP informational meeting May 14, 2018, according to the documented results of the Projects and Management Actions Rotating Group Stations. Following are pertinent excerpts: Despite that Station 1 was titled In-Basin Supply Projects some of the documented suggestions do, in fact, consider the broader watershed context, as follows: "Ideas from the small groups related to in-Basin water supply projects: Slow down flows in Salinas River Optimize Salinas River recharge Incentive-based recharge Improve local stream recharge Recharge on floodplains (with environmental benefit) Forest management Recharge above the basin/higher up in basin Station 2 Out of Basin Supply Projects Ideas from the small groups related to out-of-Basin water supply projects: Watershed restoration projects “Management “Restore after fires/reseed with native vegetation Study Salinas Watershed at headwaters for potentialStation 4 Conservation Measures Ideas from the small groups related to conservation measures: Watershed management Forest management Promote healthy soils (pastures, root crops), carbon farming While this especially pertains to CHAPTER 9. Projects and Management Actions, Chapter 1 sets the stage for all subsequent chapters, does it not? If Chapter 1 considers solely the basins, projects and management actions relevant to the watersheds/ catchments will be left out. I consider it a mistaken artifact of reductionism that SGMA dictates apply solely to the (alluvial) groundwater basins [sinks], considering that those basins are actually fed by their respective watersheds/ catchments [source]. Alas, this reductionistic paradigm, one of several documented in the Alternate Paradigms section of my website, has dominated water resources thinking for most of the past century but that was not always the case. Excerpts from the Proceedings of a Conference of Governors in the White House, Washington, D.C., convened by President Theodore Roosevelt in 1908, shared in my third blog post, How Watersheds Relate to Groundwater, demonstrate that livestock managers of that era correctly recognized that the forests and vegetation serve the same purpose as artificial reservoirs, made by dams or otherwise. They were similarly attuned to the minimum flow a.k.a. baseflow as a measure of watershed health. I offer additional details and links in the file attachments to my comments, but suffice it to state here that the approach proposed on my Rainfall to Groundwater website, based on my doctoral dissertation, Watershed Restoration for Baseflow Augmentation [Jigour 2008 (2011)], abstract attached, is literally tailor-made for the Paso Robles Subbasin GSP Chapter 11. Projects and Management. The Paso Robles Subbasin is the poster child for the Rainfall to Groundwater Approach. I only hope the GSAs will avail themselves of this nearly singular opportunity to restore watershed/catchment functions for groundwater sustainability, including restoration of steelhead habitats among other ecological benefits.		pasogcp.com	10/15/2018 9:58:00 PM	Link: 20181015_Jigour
Laurie Gage, District Administrator	**Ch. 2 Agencies' Information**	The Board of Directors of the Estrella-El Pomar-Creston Water District has reviewed Chapter 2 and concluded that it has no comments on this chapter at this time. Individual Board directors may choose to personally comment on this chapter separately and independently from the Board as a whole.	City of Paso Robles GSA	pasogcp.com	10/11/2018 8:59:00 PM	
Verna Jigour	**Ch. 2 Agencies' Information** 2.1 Agencies' Names and Mailing Addresses	Change to include watersheds/ catchments feeding the subbasins as noted for Chapter 1.		pasogcp.com	10/15/2018 9:58:00 PM	Link: 20181015_Jigour
Sheila Lyons	**Ch. 3 Description of Plan Area** 3.4 Land Use	Section 3.4.2 and Figure 3-6, of the same name "Water Use Sectors" show the distribution of sectors but there is no table or text with the actual numbers by acres for each of these sectors, nor is there any estimate of their usage. Perhaps the second part (usage) of this will come in later chapters but the first (acreage) should be shown here.	County of San Luis Obispo GSA	pasogcp.com	9/22/2018 3:40:00 PM	
Sheila Lyons	**Ch. 3 Description of Plan Area** 3.4 Land Use	Table 3-1 Land Use Summary - data from DWR 2014 is obviously out of date. Much has changed since. The SLO Department of Agriculture surely has more recent data (see there annual reports). An update of current info should be done. We believe there are closer to 40,000 or more acres in vineyards today.	County of San Luis Obispo GSA	pasogcp.com	9/22/2018 2:40:00 PM	
Sheila Lyons	**Ch. 3 Description of Plan Area** 3.5 Existing Well Types, Numbers, and Density	Table 3-2 Types of Wells - data appears to be entirely too low. CAB members believe this number should be revisited with numbers acquired from our Public Works department rather than DWR data.. 99 productions wells is way too low. We know there are 200 wineries in North County, admittedly all are not over the PR Basin, but many are. Windfall Farms which is here is Creston has around 6 wells alone that are production wells.	County of San Luis Obispo GSA	pasogcp.com	9/22/2018 2:40:00 PM	
Sheila Lyons	**Ch. 3 Description of Plan Area** 3.6 Existing Monitoring Programs	Section 3.6.4 Climate MonitoringTable 3-4 Average Month Climate Summary Avg of 2010-2017 If this data is to be used for any calculations going forward the more important number would be the slope of the line for the average increase in monthly temperatures over time. Fixed numbers are not really useful for predicting future events. Or, at a minimum if this is a "for information only" section, the rate of temperature increases should be calculated and included as part of this section.	County of San Luis Obispo GSA	pasogcp.com	9/22/2018 2:40:00 PM	
Sheila Lyons	**Ch. 3 Description of Plan Area** 3.10 Land Use Plans	Figure 3-14 Indicates current Land Use Planning subareas. There needs to be an additional Figure indicating the PR Groundwater Basin Subareas such the one from Fugro, 2002 Basin Boundary showing subareas of the Basin. This can be found on the front page of the June 10, 2015 report "Achieving Sustainability in the PR Groundwater Basin. If not in this section, the Basin subarea map from Fugro needs to be included in the GSP somewhere....Chapter #1? This is important....land use planning areas are significantly different from basin planning areas. They have different characteristics and land use planning areas would be inappropriate for basin management. Creston participated early on in meetings for setting voluntary Basin Management Objectives and we are clear that the Creston Sub-Area has different management objectives from other parts of the basin due to our location (leading head of much of the recharge water going into the aquifer).We were much more aggressive and conservative about what course of action we think needs to be implemented to obtain basin sustainability. We believe the Creston Sub-area must be considered separate from the El Pomar-Estrella Land Use Planning Area because they are very different from one another and have very different management requirements.	County of San Luis Obispo GSA	pasogcp.com	9/22/2018 2:40:00 PM	

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to be considered while compiling the Draft GSP for the Paso Basin

Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Sheila Lyons	**Ch. 3 Description of Plan Area** 3.5 Existing Well Types, Numbers, and Density	CAB recently submitted a comment regarding Table 3-2 Wells over the Basin stating that we didn't believe the numbers shown in this table. We have since located an Excel file provided to CAB from the SLO PW Dept in recent months showing that there are 3945 production wells over the PR Basin. This indicates that there are many many more wells than the Table 3-2 of the Chapter 3 draft of the GSP would suggest. See attached file.	County of San Luis Obispo GSA	pasogcp.com	9/30/2018 8:51:00 AM	Link: 20180930_Lyons
Dennis Loucks	**Ch. 3 Description of Plan Area** 3.4 Land Use	See attachment regarding Chapter 3.4 Land Use -- specifically Table 3-1, Land Use Summary.Notes:Comment uploaded by consultant via scanned hard copy. Because physical address is required to submit form, address for Dennis Loucks was found online posted in the SAN LUIS OBISPO LOCAL AGENCY FORMATION COMMISSION MEETING MINUTES FOR THURSDAY September 17, 2015. Therefore, address may be dated or incorrect. Because comment was uploaded by consultant, and the interested party's email address was not known to the consultant, the email address provided with this form belongs to uploading party.	County of San Luis Obispo GSA	pasogcp.com	9/30/2018 4:30:00 PM	Link: 20180725_Loucks
Laurie Gage, District Administrator	**Ch. 3 Description of Plan Area**	The Board of Directors of the Estrella-El Pomar-Creston Water District has reviewed Chapter 3 and concluded that it has no comments on this chapter at this time. Individual Board directors may choose to personally comment on this chapter separately and independently from the Board as a whole.	City of Paso Robles GSA	pasogcp.com	10/11/2018 8:59:00 PM	
Verna Jigour	**Ch. 3 Description of Plan Area** 3.1 Paso Robles Subbasin Introduction	This GSP covers the entire Paso Robles Subbasin.This GSP covers the entire watershed/ catchment area feeding the Paso Robles Subbasin.Figure 3-1: Area Covered by GSP:Change to include watershed/ catchment area.		pasogcp.com	10/15/2018 9:58:00 PM	Link: 20181015_Jigour
Verna Jigour	**Ch. 3 Description of Plan Area** 3.4 Land Use	3.4.2 WATER USE SECTORS Please correct the following patently incorrect statement: Native vegetation. This is the largest water use sector in the Subbasin by land area.This sector includes rural residential areas. Again, this largest water use sector is dominated by nonnative annual grasslands., as stated above. Figure 3-6: Water Use SectorsPlease correct the erroneous label stating Native Vegetation		pasogcp.com	10/15/2018 9:58:00 PM	Link: 20181015_Jigour
Verna Jigour	**Ch. 3 Description of Plan Area** 3.4 Land Use	The following statement is flat-out incorrect: The balance of the approximately 438,000 acres in the GSP Plan Area is largely native vegetation and could include dry farmed land. Surely the County of San Luis Obispo has its own Geographic Information System (GIS) it can use to test the veracity of the above claim. The GSP should not rely on erroneous information, even if it comes from DWR. My own past GIS work with landcover layers derived from the California Gap Analysis (explained in greater detail in my accompanying file attachment) showed me that a vast proportion of what I then referred to as upper Salinas River watershed is clothed with nonnative annual grasslands. While DWR may have referred to these lands as native vegetation they certainly not known for their discernment of vegetation types.The Land Use section should include at least a summary of historical and prehistorical (Native American) land use to fully establish the environmental setting of human cause changes in vegetative land cover. For example, the charcoal industry is known to have thrived later in SLO County than in many other regions of California. Historical removal of native oaks used in the charcoal should ideally be mapped to correlate historical changes to watershed land cover. The spatial locations of other documented impacts on native vegetation (and its watershed/ catchment functions), such as those mid- 20th Century state-sanctioned projects aimed at removing woody vegetation for rangeland improvement summarized in my blog post, Ball and Chain & Other Links, should be mapped. Historical impacts for which spatial documentation may not be forthcoming should at least be considered as part of the planning process.		pasogcp.com	10/15/2018 9:58:00 PM	Link: 20181015_Jigour
Sheila Lyons	**Ch. 3 Description of Plan Area** 3.1 Paso Robles Subbasin Introduction	CAB voted at our Oct 17th meeting to echo the sentiments of the public present at the Oct. 8, 2018 Workshop held in Creston, that Creston is unique and should not be lumped in with El Pomar, Estrella, or any other part of the PR Basin, but should be considered a sub-area unto itself. Our hydrology is different and our view on basin management is more conservative than other areas of the basin.	County of San Luis Obispo GSA	pasogcp.com	10/20/2018 9:27:00 AM	
Dick McKinley	**Ch. 4 Hydrogeologic Conceptual Model** 4.3 Regional Geology	Explain transmissivity. Is 400ft fast or slow?	City of Paso Robles GSA	pasogcp.com	10/5/2018 1:06:00 PM	
Dick McKinley	**Ch. 4 Hydrogeologic Conceptual Model** 4.7 Groundwater Recharge and Discharge Areas	We may need to date this page at a later date because it is an amended page.	City of Paso Robles GSA	pasogcp.com	10/5/2018 1:06:00 PM	
Dana Merrill	**Ch. 4 Hydrogeologic Conceptual Model** 4.9 Data Gaps in the Hydrogeologic Conceptual Model	In my opinion options for cutbacks that won't cause major reverse economic impacts across our presently robust local economy are very limited, I am most interested In Supply and Recharge options. The upper range of the PR (below the Alluvial) has experience the most decline. It is where the majority of domestic and smaller capacity agricultural wells are located, mostly drilled 20+ years ago. A major effort to recharge that zone would accomplish a great deal and should be an area of major focus immediately. What's needed to focus on this aspect? Vertical zone basin studies for one. There are a good many wells in this range and some could be converted to recharge wells since they don't pump water anymore. Figure a way to comply with regulations on recharge. If the upper range could be restored and regularly recharged it helps rural landowners, agriculture and really everyone.Let's get to meaningful work ASAP. Background efforts I realize are required in the process but the challenges are pretty obvious after decades of study and recent history of wells going dry.	County of San Luis Obispo GSA	pasogcp.com	11/12/2018 7:15:00 AM	
John Thompson	**Ch. 4 Hydrogeologic Conceptual Model** 4.9 Data Gaps in the Hydrogeologic Conceptual Model	Since well logs are readily available, it would seem a model could be made (realizing that someone has to gather the data and create the map and probably would not do it for free). I have noticed that well drillers do not always describe formations the same. But if you took a driller of 40 years who has drilled all over the basin and mapped using his/her logs you could have a GOOD map. You could go onsite with said driller and see what they call cemented gravel and everyone could be on the same page.		pasogcp.com	12/6/2018 1:00:00 PM	
John Thompson	**Ch. 4 Hydrogeologic Conceptual Model** 4.1 Subbasin Topography and Boundaries	Bottom of Page 4. "...very little well data in this portion of the subbasin." Is the lack of data something that is looking to be corrected? It would seem that a local well drilling company could be a huge source of data and information. I do not know the legalities of such things, just an idea.		pasogcp.com	12/6/2018 1:00:00 PM	
Patricia Wilmore	**Ch. 4 Hydrogeologic Conceptual Model** 4.5 Primary Users of Groundwater	Municipal use, when addressed in future chapters, should indicate, outline and encourage opportunities where in the City of Paso Robles can utilize other sources besides groundwater. This should be one of the highest priority means of balancing the basin.	City of Paso Robles GSA	pasogcp.com	12/9/2018 3:16:00 PM	
Patricia Wilmore	**Ch. 4 Hydrogeologic Conceptual Model** 4.7 Groundwater Recharge and Discharge Areas	Figure 4-16 provides an excellent basis for bringing additional water into the basin via recharge.	City of Paso Robles GSA	pasogcp.com	12/9/2018 3:16:00 PM	
Verna Jigour	**Ch. 4 Hydrogeologic Conceptual Model** 4.7 Groundwater Recharge and Discharge Areas	Re: the last sentence of 4.7.1: "this map provides good guidance on where natural recharge likely occurs" it actually offers only a partial picture considering solely recharge occurring from strictly vertical infiltration/percolation from surfaces directly above the identified recharge areas. It fails to consider *interflow* from natural infiltration/percolation on uplands draining to those apparently optimal areas. See the catchment model on my web page, Stream Networks vs Watersheds/ Catchments: https://rainfalltogroundwater.net/stream-networks-vs-catchments/		pasogcp.com	12/10/2018 5:48:00 PM	
Verna Jigour	**Ch. 4 Hydrogeologic Conceptual Model** 4.9 Data Gaps in the Hydrogeologic Conceptual Model	Another method for ascertaining aquifer continuity and/or fault influence on groundwater flow is isotope analysis, e.g., see the following: Zdon, A., M. L. Davisson, and A. H. Love. 2018. Understanding the source of water for selected springs within Mojave Trails National Monument, California. Environmental Forensics 19:99-111 https://doi.org/10.1080/15275922.2018.1448909		pasogcp.com	12/10/2018 5:48:00 PM	

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Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Verna Jigour	**Ch. 4 Hydrogeologic Conceptual Model** 4.2 Soils Infiltration Potential	The first sentence, Saturated hydraulic conductivity of surficial soils is a good indicator of the soils infiltration potential may have been assumed true by many in the early 20th century, but by mid-century empirical observations began to show that woody plant roots and their decay products strongly influence both infiltration and percolation. Furthermore, soil structure mediated by especially woody plant roots, along with their soil ecosystems, also influences infiltration and percolation rates. Ecohydrology emerged around the turn of this current century/ millennium and it's past time to be integrating it into such public planning processes as this. Remember, infiltration and percolation begin in the unsaturated a.k.a vadose zone (not the saturated zone) and the properties of the vadose zone are highly influenced by the vegetation there. While inferences based on the purely physical property of saturated hydraulic conductivity offer some insight, they tell far from the whole story. Infiltration and percolation may be greatly enhanced by restoring native woody plants to historically degraded watersheds the case for most in this subbasin, as per my comments on earlier chapters. If this GSP overlooks that it will be overlooking important opportunities to enhance sustainability. For some pertinent insights, please see the following pages on my website: Plants in an Ecohydrology Context: https://rainfalltogroundwater.net/plants-in-an-ecohydrology-context/ and Surface-Groundwater Systems in a Holistic Water Cycle: https://rainfalltogroundwater.net/surface-groundwater-systems/		pasogcp.com	12/10/2018 5:48:00 PM	
Dennis Loucks, Fred Hoey & Greg Grewal	**Ch. 5 Groundwater Conditions** 5.4 Subsidence	(See attachments)		Other	10/17/2018	Link: 20181017_LouGreHoe Link: 20181017_USGS
Todd Beights	**Ch. 5 Groundwater Conditions** 5.2 Change in Groundwater Storage	A neighbor nearby has recently installed 30,000 gallons of water storage tanks with another 10,000 gallons of storage about to be installed. Our water wells are only a few hundred feet apart and they have to run their well around the clock to continually fill these storage tanks that are used for agricultural benefits. I am nervous that over drafting is occurring and potentially jeopardizing the future of our domestic well use. Is unlimited storage and well pumping a sound practice that you endorse or do you view it some other way that might warrant addressing the issue?		pasogcp.com	11/26/2018 3:00:00 PM	
Todd Beights	**Ch. 5 Groundwater Conditions** 5.2 Change in Groundwater Storage	A neighbor nearby has recently installed 30,000 gallons of water storage tanks with another 10,000 gallons of storage about to be installed. Our water wells are only a few hundred feet apart and they have to run their well around the clock to continually fill these storage tanks that are used for agricultural benefits. I am nervous that over drafting is occurring and potentially jeopardizing the future of our domestic well use. Is unlimited storage and well pumping a sound practice that you endorse or do you view it some other way that might warrant addressing the issue?		pasogcp.com	11/26/2018 3:00:00 PM	
Kevin Peck	**Ch. 5 Groundwater Conditions** 5.1 Groundwater Elevations	Paragraph 1 of 5.1.2.2 explains that there is a lack of publicly available ground water data. Has there been an effort during this GSP process, to contact basin landowners to access their wells for acquiring additional water levels data?	Shandon San Juan GSA	pasogcp.com	11/26/2018 3:59:00 PM	
Molly Scott	**Ch. 5 Groundwater Conditions** 5.2 Change in Groundwater Storage	Good morning, With mutual respect for the effort that has been put into writing these chapters, it would be my recommendation to ensure there is a glossary defining critical terms such as: Alluvial Aquifer, Groundwater Storage, Groundwater pumping, etc. Having a specific outlined definition for terms such as these would be beneficial for all parties and allow for greater consistency when discussing and ready future chapters. Thank you, Molly Scott, Grower Relations Manager JUSTIN Vineyards & Winery	County of San Luis Obispo GSA	pasogcp.com	12/6/2018 11:44:00 AM	
John Thompson	**Ch. 5 Groundwater Conditions** 5.2 Change in Groundwater Storage	From page 5-23, "This suggests that the loss in groundwater storage is not due to increased pumping, but is more likely a result of lock of recharge during low precipitation years." Figures 5-14 and 5-15 are supposed to visually describe this, but I think they do not help with comprehending the above statement. It seems obvious in figure 5-14 but is unclear in 5-15. I think the visual of the chart/graph can be better represented or the statement should be modified.		pasogcp.com	12/6/2018 1:28:00 PM	
John Thompson	**Ch. 5 Groundwater Conditions** 5.2 Change in Groundwater Storage	Is there such a thing as groundwater storage potential? Does this change? Is this where subsidence comes into play?		pasogcp.com	12/6/2018 1:28:00 PM	
John Thompson	**Ch. 5 Groundwater Conditions** 5.1 Groundwater Elevations	Some items that could use another paragraph to put more in layman's terms: Standardized precipitation Index Vertical Groundwater Gradients		pasogcp.com	12/6/2018 1:28:00 PM	
John Thompson	**Ch. 5 Groundwater Conditions** 5.1 Groundwater Elevations	The map of monitoring wells seem to be lacking some of the most critical areas such as Jardine, Ground Squirrel Hollow, and Independence Ranch. IDEA: Waive water offset fee/tax for continued monitoring allowance.		pasogcp.com	12/6/2018 1:00:00 PM	
John Thompson	**Ch. 5 Groundwater Conditions** 5.1 Groundwater Elevations	Is there a better map available to see where the monitoring wells are or does that violate certain rights?		pasogcp.com	12/6/2018 1:00:00 PM	
John Thompson	**Ch. 5 Groundwater Conditions** 5.1 Groundwater Elevations	Overlay figures 5-7 & 5-1 to really see where data is lacking and where it is really needed.		pasogcp.com	12/6/2018 1:00:00 PM	
John Thompson	**Ch. 5 Groundwater Conditions** 5.1 Groundwater Elevations	Regarding Hydrographs, I have noticed that everyone wants to think of water levels in terms of feet below ground surface instead of feet above sea level. I think both could be represented on the graph so all could see the correlation. For instance, feet above sea level could stay on the left hand vertical axis and the right hand vertical axis could be stated in feet below ground surface.		pasogcp.com	12/6/2018 1:00:00 PM	
John Thompson	**Ch. 5 Groundwater Conditions** 5.3 Seawater Intrusion	Regarding subsidence. On the surface it seems a trite item if we can stabilize groundwater levels. However, if it persists, are we harming how much water our aquifer can potentially hold? If so, maybe our minimal threshold should be geared more towards this type of data. Is there any plans to measure this? Is there a way to differentiate between natural and pumping causes?		pasogcp.com	12/6/2018 1:28:00 PM	
John Thompson	**Ch. 5 Groundwater Conditions** 5.6 Groundwater Quality Distribution and Trends	Last paragraph. Is there any examples of this happening? Is this a legitimate concern?		pasogcp.com	12/6/2018 1:28:00 PM	
John Thompson	**Ch. 5 Groundwater Conditions** 5.6 Groundwater Quality Distribution and Trends	Of your groundwater constituents, it is not clear why each of them is being considered as a constituent. For example, "elevated chloride concentrations in groundwater can damage crops and affect plant growth," is strait forward and I could see why you would measure it. However, TDS, sulfate, and gross alpha radiation are not adequately explained as to their usefulness as groundwater quality constituents. And gross alpha radiation is not adequately defined so that I would even know what it is.		pasogcp.com	12/6/2018 1:28:00 PM	
Patricia Wilmore	**Ch. 5 Groundwater Conditions** 5.2 Change in Groundwater Storage	5.21. Alluvial Aquifer Notes that Figure 5-14 "suggests that the loss in groundwater during low precipitation years is not due to increased pumping but is more likely a result of lack of recharge during low precipitation years" is a key point for future planning.	City of Paso Robles GSA	pasogcp.com	12/9/2018 3:16:00 PM	
Patricia Wilmore	**Ch. 5 Groundwater Conditions** 5.1 Groundwater Elevations	Significant data gaps are indicated due to lack of publicly available groundwater level data. How can this be remedied? Since confidentiality appears to be important, pursue getting additional agreements.	City of Paso Robles GSA	pasogcp.com	12/9/2018 3:16:00 PM	

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Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
John Onderdonk	**Ch. 5 Groundwater Conditions** 5.1 Groundwater Elevations	The last sentence of the first paragraph of Section 5.1.2.2 states: The lack of publicly available groundwater level data for the Paso Robles Formation Aquifer is a significant data gap. This data gap combined with uncertainty with regard to aquifer continuity within the Subbasin (Section 4.9) and continuity with neighboring Subbasins, particularly given the Northern boundary of the Subbasinis defined by the county line not by a physical barrier to groundwater flow (Section 4.1), highlights the limited understanding of aquifer attributes and current conditions. The GSP must establish a clear protocol for how this uncertaintywill be addressed. According to Section 5.1.2.1, the lack of data will be partially addressed through a recommended expansion of the Subbasin monitoring network which will be detailed in Chapter 8. It would be beneficial if the GSP explicitly states a timeline for this monitoring expansion and provided specific guidance on whether or not the additional monitoring and data collection will be done before or after the adoption of the GSP and how new monitoring data will be incorporated during GSP implementation. Specific procedures for how the GSP can be refined, modified and challenged as new data is presented should be clearly defined in advance. While the collection of additional data will improve the development and implementation of the GSP, uncertainly will still remain. Given that fact, the GSP should clearly define where the burden of proof for compliance/non-compliance lies (with the landowneror GSA). Additionally, clear procedures for demonstrating compliance in light of limited data and uncertainty should be defined.	County of San Luis Obispo GSA	pasogcp.com	12/10/2018 8:59:00 AM	
Timothy Cleath	**Ch. 5 Groundwater Conditions** 5.1 Groundwater Elevations	Fig 5-2: as shown should not be included in the alluvial aquifer map as these areas are typically on elevated terraces and are not saturated. Paso Robles Formation aquifer infers that there is only one aquifer. In fact, within the Paso Robles Formation there are many aquifers. Modify the title to say Aquifers. Fig 5-3, -4, -5 and -6 contours extend considerably beyond where well water level information occurs (Fig. 5-1) northeast of Whitley Gardens and east of the San Juan River. Either show the basis for these contours (on Figure 5-1) or remove or dash the contours in these areas on Fig 5-3. Showing the "inferred groundwater flow direction" can be misleading (the gradient of the interpreted contours may be due to various factors and is not always the direction of flow) and should be removed. Fig 5-6 and 5-7 similarly include areas where the contours have extended beyond the water level information. The depression west of Creston is based on one data point and may not be representative of other wells in this area (the basin is shallower in this area and may show significant variability in water levels from one well to another). This should be noted in the text. The water level rise along the western edge of the basin near Paso Robles is acknowledged to be a result of limited data and it is best to not try to guess why in the text (delete last sentence on para. 1 of page 5-13). 5.1.2.2 Identify where the 18 monitored wells are located. In light of the potential need for "key wells" as a basis for groundwater management, further discussions should be included regarding available publicly reviewable groundwater level hydrographs. With respect to the hydrographs, Fig 5-11 shows the water level at nearly the bottom of the well. This well, in the Creston area, would not be good for a future water level monitoring well. The well water level for the Shandon area shows stability during the recent dry period, while the other two hydrographs (Creston and Estrella subareas) show a 40- to 50-foot decline. Please consider including some comment on this in the text. 5.1.3 Historically an upward vertical gradient in the Estrella River valley near Shandon has been indicated by flowing wells in this area. As groundwater levels decline in the lower aquifers, the vertical gradient will change. Similarly, wells in the Creston area have flowed during wet periods.		pasogcp.com	12/10/2018 11:29:00 AM	
Verna Jigour	**Ch. 5 Groundwater Conditions** 5.2 Change in Groundwater Storage	5.2.1 ALLUVIAL AQUIFER, 3rd paragraph: Some text seems to be missing here: As indicated on _____ presumably Figure 5-14?		pasogcp.com	12/10/2018 5:48:00 PM	
Jerry Reaugh	**Ch. 5 Groundwater Conditions** 5.2 Change in Groundwater Storage	Comments Pertaining to Chapter 5 of the Paso Robles Subbasin Groundwater Sustainability Plan	County of San Luis Obispo GSA	pasogcp.com	12/10/2018 12:49:00 PM	
Jerry Reaugh	**Ch. 5 Groundwater Conditions** 5.2 Change in Groundwater Storage	This comment should be referred to the SLO County Paso Basin GSA. The EPC WD is in the County GSA but the way you do the addresses prevents this comment from being assigned to the proper GSA. Jerry Reaugh	County of San Luis Obispo GSA	pasogcp.com	12/10/2018 12:31:00 PM	
Herb Rowland	**Ch. 5 Groundwater Conditions** 5.2 Change in Groundwater Storage	In regards to Figures 5-14 and 5-15, how is the annual groundwater pumping determined? How was this measured historically and how will it be estimated going forward? If wells are not metered, and even the ones that are metered aren't being reported, how is that number established? It is a very crucial number to determine the water budget for the basin and will affect a large number of people and businesses if it is incorrect. There needs to be a high level of confidence and consensus in this number, throughout the basin, if the overall plan is to succeed. This number is too important to just make generalizations and the assumptions that whatever model you use takes, must be vetted under a very high level of scrutiny.	County of San Luis Obispo GSA	pasogcp.com	12/10/2018 11:50:00 AM	
Timothy Cleath	**Ch. 5 Groundwater Conditions** 5.2 Change in Groundwater Storage	For comparison purposes, use the same scales for the alluvial aquifer and Paso Robles Formation plots. The net change in storage in the alluvial aquifer is highly dependent on inflows from rainfall runoff, releases from reservoirs and wastewater discharges. This should be noted. The lack of alluvial aquifer water level data in the various stream valleys limits the verification of the modeled change in storage. This should be noted. fourth para p. 5-23: "As indicated on" ?? what? Total groundwater in alluvial aquifer storage should be stated to understand the impact of the "cumulative change in storage". This would also be appropriate for the Paso Robles Formation aquifers. page 5-25 first sentence: Fig 5-15 shows climate periods not precipitation data.		pasogcp.com	12/10/2018 11:29:00 AM	
Timothy Cleath	**Ch. 5 Groundwater Conditions** 5.4 Subsidence	Comment on whether subsidence is significant for groundwater management of this basin. What is the level at which it is significant? Has there been any impacts to date?		pasogcp.com	12/10/2018 11:29:00 AM	
Timothy Cleath	**Ch. 5 Groundwater Conditions** 5.5 Interconnected Surface Water	Why wouldn't groundwater elevations in the alluvial wells at or above the stream channel at any time suggest interconnectivity between the surface water and the groundwater? Paso Robles Formation wells would not necessarily indicate interconnectivity based on water levels. Water levels for model simulation time step durations are not be the best indicator of connectivity. Are the surface water areas and the alluvial aquifers not interconnected if they are not shown in red on Fig. 5-17? The depletion of interconnected surface water across the basin is much more complex than is depicted in this section. A discussion of the factors and their significance in different areas of the basin would be a good start toward a more thorough analysis of this interconnectivity.		pasogcp.com	12/10/2018 11:29:00 AM	
Verna Jigour	**Ch. 5 Groundwater Conditions** 5.6 Groundwater Quality Distribution and Trends	5.6.1 GROUNDWATER QUALITY SUITABILITY FOR DRINKING WATER, last sentence: Please explain the likely source for exceedance of mercury in 1990 and whether/why it may no longer be an issue (?)		pasogcp.com	12/10/2018 5:48:00 PM	

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Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Timothy Cleath	**Ch. 5 Groundwater Conditions** 5.6 Groundwater Quality Distribution and Trends	Since the 2002 report, changes to MCLs and additional water quality data has occurred. Arsenic has been found at levels above the MCL. More information about boron is available in the western portion of the basin between San Miguel and Paso Robles. These should be discussed and possible recommendations made to further delineate areas/aquifers where these occur. The quality of wastewater discharges has changed but current discharges can be a significant source of salt to the groundwater recharge. This should be discussed and potential management measures to evaluate and reduce this source of salt contribution to the basin. TDS and Chloride concentrations are shown to be high on Figs 5-20 and -21 in the area near Paso Robles. Groundwater recharge is also high in this area. Sustainability projects and management actions could result in improvements to this condition. Average Boron Concentration as noted in table 5-6 is probably not correct for most of the Estrella subarea (high boron does occur in the underlying formations beneath the Paso Robles Formation and in the area west of Highway 101).		pasogcp.com	12/10/2018 11:29:00 AM	
Patricia Wilmore	**Ch. 6 Water Budgets** 6.5 Future Water Budget	General Comment: Future Water Budgets should use well data, gathered from more wells than 12 (as noted in Chapter 7) rather than a GSP model. The monitoring network, to produce valid information on which to base actions, should be at least 50 wells. 6.5.1. States that "a portion of the City's future groundwater demand will be offset by Nacimiento water." The beneficial use of Naci water is a key point of this entire GSP. There needs to be a more serious effort/plan to either have the City use more of the 6,500 AFY entitlement, either via a greater treatment capacity than it has now and/ or additional supplies into the Salinas to be recovered by recovery well(s) and/or a viable plan to deliver and sell the water to agriculture. In other words, the difference between what the city is entitled to and what it currently uses needs to be accounted and planned for in the GSP. The GSP should and the County should actively support and promote the Basin's access to Nacimiento water.	City of Paso Robles GSA	pasogcp.com	4/15/2019 10:42:00 AM	
TImothy Cleath	**Ch. 6 Water Budgets** 6.3 Historical Water Budget	Table 6-3 and ensuing tables: Wastewater pond "leakage" should be better referred to as "percolation". Leakage sounds like it is unintentional. Table 6-3 (and ensuing tables): Rather than not having the numbers add up and saying some difference relates to water year/calendar year values, it would be better to make some adjustments to the numbers and not have this discrepancy. 6.3.2.2Table 6-4: Shouldn't riparian ET have some variation (max/min), even if it is not much? Some of the hydrologic budget components have appreciable increases over the historic period. Therefore, a discussion of the trends would be useful in determining if the "average" values should be used to compare historic and recent uses. 6.3.2.3 Figure 6-4: 1986 does not have a value- I'd assume that is because it is "0" but perhaps some way of showing that on the graph would be good. 6.3.2.4 The report should identify a "balanced" hydrologic period during which sustainable yield should be determined in addition to using the full base period. This is important since the time interval for appreciable recharge (10-12 years) is longer than in many other basins.		pasogcp.com	4/15/2019 12:21:00 PM	
TImothy Cleath	**Ch. 6 Water Budgets** 6.4 Current Water Budget	6.4.1.1 Imported Nacimiento water should be aggregated into the surface water budget in light of the fact that this source will be increasingly used to the benefit of the basin. 6.4.1.2 Are the Salinas River releases based on flow at the Niblick bridge or are they releases from the dam? In light of the extractions between the dam and the down flow stream gage, value may be appreciably different. Tables 6-6 and 6-7 Groundwater discharge to the river is more than the percolation of surface water to groundwater during this drought period. It would seem to me that the opposite should be true. 6.4.1.4 Figure 6-5 should have the same vertical scale as Figure 6-4 6.4.2.3 Comparing historic average to current average would be better if it considered the trends of water use over the historic time period (particularly for rural domestic). Figure 6-7 could be better presented as a bar graph considering the limited number of datapoints and the fact that they represent the entire year.		pasogcp.com	4/15/2019 12:21:00 PM	
Sandi Matsumoto	**Ch. 6 Water Budgets** 6.4 Current Water Budget	Please clarify what assumptions and data were used to calculate Riparian Evapotranspiration. Why was evapotranspiration only calculated for riparian vegetation? In Chapter 3.4.2 ofthe Draft GSP, native vegetation was identified as the largest water use sectorin the subbasin by land area. Please estimate evapotranspiration for allnative vegetation in the subbasin for the water budget.		pasogcp.com	4/15/2019 1:20:00 PM	Link: 20190415_Matsumoto
Stephen Sinton	**Ch. 6 Water Budgets** 6.5 Future Water Budget	A groundwater basin which is at or beyond its safe yield is allocated according to water rights with the priority given to domestic and agricultural uses overlying the basin. Projections for the City's future groundwater demand must be limited to any prescriptive rights determined to be held by it, but may not be expanded. Therefore, under current water law, the City and SMCSD's future water demands are limited in the basin and will need to be satisfied by other sources. Because we don't know what a judge might do with regard to the City's and SMCSD's rights, this section should be removed.	Shandon San Juan GSA	pasogcp.com	4/15/2019 12:00:00 AM	
Verna Jigour	**Ch. 6 Water Budgets** 6.1 Overview of Water Budget Development	1st paragraph: This chapter includes one appendix Please state specifically which appendix here (presumably D?). Figure 6-1. Hydrologic Cycle:The labels for Infiltration are incorrect. The associated arrows in the diagram depict *Interflow*, rather than infiltration. *Infiltration* should be shown at watershed surfaces. *Percolation* follows infiltration through the vadose and saturated zones.		pasogcp.com	4/15/2019 9:48:00 PM	
Verna Jigour	**Ch. 6 Water Budgets** 6.3 Historical Water Budget	The largest groundwater inflow component is streamflow percolation, which accounts for approximately 38% of the total average inflow. Especially since surface-groundwater interflows operate in both directions, how were the figures for Streamflow Percolation derived? Perhaps this is revealed in one of the earlier models but it is not apparent in Chapter 6 nor in Appendix D. Does that high percentage of inflows attributed to streamflow percolation apply primarily on certain streams or is it consistent throughout the watershed? Given that the combined substrate area of all streams comprises a fraction of the area of watershed uplands, this predominance of Streamflow Percolation over Deep Percolation of Direct Precipitation and Subsurface Inflow contributions seems to suggest a fairly high rate of runoff. That supports the historical degradation of the watersheds Iv'e pointed to in previous comments.That is, the detention (infiltration and percolation) storage capacity of regional watersheds has become degraded through historical human impacts on land cover (vegetation) such that runoff became enhanced. This comment is intended to connect with my previous and current input that watershed restoration could serve some of the purpose intended by flood water capture.		pasogcp.com	4/15/2019 9:48:00 PM	
National Marine Fisheries Service - Rick Rogers	**Ch. 6 Water Budgets**	Section 6.2.1 (Model Assumptions and Uncertainty) stated: “Results of the previous calibration process demonstrated that the model-simulated groundwater and surface water flow conditions were similar to observed conditions. After updating for the GSP, the calibration of the GSP model was reviewed. Results of the review indicated that the GSP model was sufficiently calibrated for use in the GSP.” Since the evaluation of interconnected surface water are based on the results of simulated streamflow and groundwater levels from the GSP model, we would like to obtain a detailed information about the results of the calibration process and the differences between observed and simulated streamflow and groundwater levels. In this way, we will have a better understanding of the uncertainty in the interconnected surface water results associated with the GSP model results.		email		

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Patricia Wilmore	**Ch. 7 Monitoring Networks** 7.2 Groundwater Level Monitoring Network	12 wells in the monitoring network is woefully insufficient data on which to base decisions. Significant and dedicated outreach needs to be done to get this number up to about 50. The GSP should have a section detailing how this will be achieved. As for the percentage of monitoring wells that will trigger action, the current draft uses 15%; we recommend 25%.	City of Paso Robles GSA	pasogcp.com	4/15/2019 10:42:00 AM	
TImothy Cleath	**Ch. 7 Monitoring Networks** 7.2 Groundwater Level Monitoring Network	7.2 Available alluvial aquifer groundwater level monitoring data should be obtained for the wastewater discharge monitoring sites. This provides good information on alluvial aquifer groundwater levels- particularly for City of Paso Robles, San Miguel CSD and Camp Roberts. This information is publicly released and can be used without a confidentiality agreement. This information can also be used in evaluating surface water/groundwater flow conditions. The bmp criteria for monitoring well networks and the data gaps in Table 7-2 might be better connected with Figure 7-3 if specific data gap locations are related to specific bmp criteria (e.g., well data density for storage calculations, wells located to address alluvial aquifer/surface water interconnectivity, wells used to monitor groundwater recharge activities, wells to monitor conditions along the borders with other subbasins).The Camp Roberts wells tapping the Paso Robles Formation can serve to address some of the data gap issues on the northern boundary of the basin as discussed in the data gaps on Table 7-2. This information was used in defining the basin structure in the 2002 basin study. City of Paso Robles has formed a GSA and will need to provide groundwater level data for their GSP. This data should be considered as available. The City has wells in the alluvial deposits and the Paso Robles Formation that are monitored. Table 7-2 states that in the future "only publicly available data will be used to develop contour maps". This will severely limit the accuracy of the contour maps. Other basin management agencies have used data in-house to develop contour maps without releasing the specific well water level data. This section refers to "confidential" wells. It is important to use appropriate terminology. The wells themselves are not confidential.Â The water level data collected is considered "confidential" where no release has been given to share the data to the public. It may also be good to define the term "confidential".Table 7-2 The last item says that the "network will be expanded". Say the "network will need to be expanded"7.4 If not reviewed already, the 2015 CCGWC Groundwater Quality Characterization report should be reviewed to identify areas of known high nitrate concentrations and verify that groundwater quality monitoring is sufficient to address the impact of the sources of nitrate on the basin groundwater. Recent water quality investigations have noted arsenic concentrations exceeding the current MCL at quite a few wells in the basin. These were not identified in the 2002 basin study because there was a higher MCL at the time. Groundwater quality monitoring in the future should better define the extent of this natural constituent.7.5 While no documented subsidence has been found, the existing monitoring network for subsidence is insufficient to evaluate subsidence due to groundwater pumping in the basin. Three sites are along the northern border of the subbasin where little pumping is occurring and there are only two others in the remainder of the basin area: one south of Whitley Gardens and the other in Camatta Canyon. Only the Whitley Gardens site is in the main area of pumping. The long term monitoring of these locations should be verified as some subsidence monitoring is tied to research activities that do not have long term funding.7.6 As a professional hydrogeologist working in this area for 35 years, I am not part of the consensus that there is "no interconnection between surface water and groundwater in the Subbasin". Since the GSP is saying that further evaluation of interconnectivity will need to be performed, the monitoring program should be developed if further evaluation establishes interconnectivity. As I mentioned earlier on data collection, there are existing monitoring wells in the "datagap" areas that have been monitored for many years and whose data is publicly available.Streamflow data is typically less abundant but some may be available from the City of Paso Robles near the wastewater treatment plant. Inquiry with the City should be done to see if they have this information.		pasogcp.com	4/15/2019 12:21:00 PM	
Sandi Matsumoto	**Ch. 7 Monitoring Networks** 7.2 Groundwater Level Monitoring Network	Data must be able to characterize conditions and monitor adverse impacts to beneficial uses andusers identified within the basin. Aside from GDEs mapped in the basin (Figure 4-18), environmental surfacewater users have not been identified in the GSP thus far. SGMA requires that potential effects on GDEs andenvironmental surface water users be described when defining undesirableresults. In addition to identifying GDEs inthe basin, The Nature Conservancy recommends identifying beneficial users ofsurface water, which include environmental users. This is a critical step, asit is impossible to define significant and unreasonable adverse impacts without knowing what is being impacted, nor is possible to monitor ISWs in a way that can identify adverse impacts on beneficial uses ofsurface water[23 CCR, §354.34(c)(6)(D)]. For your convenience, we've provided a list of freshwater species within the boundary of the Paso Robles basin in Attachment C of our letter. Our hope is that this information will help your GSA better evaluate and monitor the impacts of groundwater management on environmental beneficial users ofsurface water. We recommend that after identifying whichfreshwater species exist in your basin, especially federal and state listed species, that you contact staff at the Department of Fish and Wildlife (DFW), United States Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Services (NMFS) to obtain their input on thegroundwater and surface water needs of the organisms on the freshwater specieslist, and how best to monitor them. Because effects to plants and animalsare difficult and sometimes impossible to reverse, we recommend erring on theside of caution to preserve sufficient groundwater conditions to sustain GDEs and ISWs. Please identify appropriate biological indicators that can be used to monitor potential impacts to environmental beneficial users as a current data gap, and make plans to reconcile these in Chapter 10 (Plan Implementation).		pasogcp.com	4/15/2019 1:20:00 PM	Link: 20190415_Matsumoto
Sandi Matsumoto	**Ch. 7 Monitoring Networks** 7.6 Interconnected Surface Water Monitoring Network	The first sentence in this section is contradictory to the ISW mapping conducted in Chapter 5 do exist in the Paso Robles Subbasin (Figure 5-17). Depletions of surface water were also estimatedin Section 5.5.1, and the statement that there is no need for a monitoring network that quantifies surface water depletion from is false and goes against SGMA requirements. SGMA requires tha twhen monitoring depletions of interconnected surface water that spatial and temporal exchanges between surface water and groundwater are necessary to calculate depletions of surface water caused by groundwater extraction [23CCR §354.34(c)(6)] and that the monitoring network shall be designed to ensure adequate coverage of sustainability indicators [23CCR,§ 354.34(d)]. Where minimum thresholds for ISWs are to be quantified by the location, quantity, and timing of depletions of interconnected surface water [23 CCR, §354.28(c)(6)(A)]. Thus, there is a need for a monitoring network that quantifies surface water depletion from interconnected surface waters. In addition to the need for additional shallow monitoring wells in the Alluvial aquifer to map ISWs, there is also a need to enhancing monitoring of stream flow and vertical groundwater gradients by installing more stream gauges and clustered/nested wells near streams, rivers or wetlands. Ideally, co-locating stream gauges with clustered wells that can monitor groundwater levels in both the Alluvial and Paso Robles Formation aquifers would enhance understanding about where ISWs exist in the basin and whether pumping is causing depletions of surface water or impacts on beneficial users of surfacewater and groundwater.There is a need to integrate biological indicators that can monitor adverse impacts to beneficial uses of surface water and groundwater within ISWs.		pasogcp.com	4/15/2019 1:20:00 PM	Link: 20190415_Matsumoto

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National Marine Fisheries Service - Rick Rogers	**Ch. 7 Monitoring Networks**	Section 7.6 (Interconnected Surface Water Monitoring Network) stated: “As discussed in Chapter 5, the consensus among local groundwater experts is that there is no interconnection between surface water and groundwater in the Subbasin. Therefore, there is no need for a monitoring network that quantifies surface water depletion from interconnected surface waters. However, there is a need to verify whether or not there are interconnected surface waters in the Subbasin. The assessment of whether or not there are interconnected surface waters will be evaluated by monitoring surface water and groundwater in areas where interconnected surface water conditions may exist.” We have reviewed Chapter 5 and have not found any statement or references regarding the consensus among local groundwater experts (which are not identified) indicated in the previous paragraph. Chapter 5 stated: “Limited and ephemeral surface water flows in the Subbasin over the last 40 years make it difficult to study the interconnectivity of surface water and groundwater and to quantify the degree to which surface water depletion has occurred. The spatial extent of interconnected surface water was evaluated based on results from the basin-wide groundwater flow model of the Paso Robles Subbasin.” Also, Chapter 6 (Section 6.2.1) stated: “During early implementation of the GSP, additional data will be collected to refine Subbasin understanding and recalibrate the GSP model. New hydrologic data and the recalibrated model will be used to adaptively implement sustainability management actions and projects to ensure that progress toward sustainability goals is being achieved.” Therefore, the first statement in Section 7.6 (regarding non-interconnected surface waters) is not properly justified and should not be mentioned at this time. More definitive conclusions should be provided after the GSP model is refined and recalibrate.				
Andrew Christie	**Ch. 8 Sustainable Management Criteria** 8.9 Depletion of Interconnected Surface Water SMC	As set forth below, Chapter 8 claims that that the proposed minimum thresholds would not impact interconnected surface waters because, Chapter 8 claims, there are no interconnected surface waters. Depletion of interconnected surface waters. The assessment of local groundwater experts is that there are not interconnected surface waters in the Subbasin. Therefore, there are no current minimum thresholds or undesirable results that could be affected by the groundwater elevation minimum thresholds. Changes in groundwater elevations, however, could reconnect surface waters. If this occurs, minimum thresholds will be established for depletion of interconnected surface waters and the relationship between those new minimum thresholds and all other sustainability indicators will be reassessed. Chapter 5, however, shows that the basin does include areas of surface water connection. See Figure 5-17, at 5-29. Accordingly, Chapter 8 must analyze the relationship between the proposed minimum thresholds and surface water connections. Chapter 8 claims, Groundwater elevation minimum thresholds effectively protect the groundwater resource including those existing ecological habitats that rely upon it. As noted above, groundwater level minimum thresholds may limit both agricultural and rural residential growth. Ecological land uses and users may benefit by this reduction in agricultural and rural residential growth. The claim that the thresholds effectively protect ecological habitats, however, is not supported by any analysis of data. As such, Chapter 8 must be revised to include analysis of the relationship between the groundwater levels and ecological habitats and discuss whether and the extent to which the proposed minimum thresholds affect ecological habitats.		pasogcp.com	4/1/2019 3:46:00 PM	
Patricia Wilmore	**Ch. 8 Sustainable Management Criteria** 8.4 Chronic Lowering of Groundwater Levels Sustainable Management Criteria	8.3 relies on a survey (also referred to in other parts of the document) that represents a small sample and asks for opinions on matters for which there was no accompanying data on which to base an opinion. Therefore, its analysis and conclusions should not be used to set standards which by their nature require study and expertise, including knowledge of the consequences of each decision. 8.4.2. Minimum Thresholds. These need to be reset at a reasonable level that doesn't put us behind at the outset. They should protect the resource while also giving the GSA's time to collect and analyze data, allow for public input on specific actions under consideration and create specific funding mechanisms. 8.4.2.7. Effects on Beneficial Users and Land Uses. As noted, "many parts of the local economy rely on a vibrant agricultural industry and they too will be hurt proportional to the losses imparted to agricultural businesses." Indeed! The entire GSP needs a more thorough economic analysis of its proposals. Our most recent study, done by the UC Davis Agricultural Issues Center, indicated in 2016 a total of $1.65 Billion economic impact for the Paso AVA. Of that, in 2015 the year on which the study was based, property tax assessments to vineyards and wineries represented 28% of the total in SLO County and the sales tax revenue collected from those same entities was 10% of the SLO County total. It would be well worth it to factor in the proportional benefits to increasing supply with realistic projects based on clear defensible data. There are challenges ahead and concerned citizens, landowners and interested parties need to be part of the process to make it successful.	City of Paso Robles GSA	pasogcp.com	4/15/2019 10:42:00 AM	
Patricia Noel	**Ch. 8 Sustainable Management Criteria** 8.3 General Process for Establishing Sustainable Management Criteria	Please allow the enforcing agencies to have adequate time (at least five years) to start implementation and observe the results before more drastic measures are commenced.Water levels should be given adequate time to stabilize after the historic drought.Any undesirable results should be addressed locally, not throughout the basin. Bottom line: I support the Shandon-San Juan Water District's comments on the Basin Plan as posted on its website.	Shandon San Juan GSA	pasogcp.com	4/15/2019 12:53:00 PM	
Sandi Matsumoto	**Ch. 8 Sustainable Management Criteria** 8.3 General Process for Establishing Sustainable Management Criteria	Stakeholder involvement is crucial whenestablishing sustainable management criteria. The role of the GSA is to represent and balance the needs of all groundwater beneficial uses and users in the basin, which has been expressed in the Sustainability goal in Section 8.2. According to p.6, only rural residents, farmers, and local cities were surveyed to gather input on sustainable management criteria. Please specify what information or efforts have been used/made to protect the interests of environmental users and disadvantaged community members. SGMA requires that sustainable management criteria are consistent with other state, federal or local regulatory standards [23 CCR, §354.28(b)(5)]. Please describe what process was used to identify other regulatory standards that need consideration when establishing minimum thresholds for sustainability criteria.		pasogcp.com	4/15/2019 1:20:00 PM	Link: 20190415_Matsumoto

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Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Sandi Matsumoto	**Ch. 8 Sustainable Management Criteria** 8.4 Chronic Lowering of Groundwater Levels Sustainable Management Criteria	[8.4.1] The definition of significant and unreasonable is a qualitative statement that is used to describe when undesirable results would occur in the basin, such that a minimum threshold can be quantified. Potential effects on all beneficial users of groundwater in the basin need to be taken into consideration. According to the California Constitution Article X, water resources in California must be put to beneficial use to the fullest extent of which they are capable. Please modify the local definition for significant and unreasonable (provided on p. 6), so that it also specifies potential effects on environmental beneficial users of groundwater in the basin, and addresses how water rights amongst beneficial users will be prioritized when establishing thresholds. [8.4.2.1] The use of 2017 groundwater elevations to establish minimum thresholds for the Paso Robles Formation Aquifer is inadequate, since the SGMA benchmark date is January 1, 2015. Also, no scientific rationale was explained for using 2007 groundwater elevation data to establish initial minimum thresholds for the Alluvial Aquifer. SGMA is based on the use of best available science, and selecting minimum thresholds solely on public opinion from a select group of stakeholders (e.g., domestic well users, irrigators, municipalities) in the basin, is not a scientifically-based approach nor does it consider potential effects on environmental beneficial users of groundwater. A better approach is to use 10-year baseline period of groundwater elevation data (2005-2015) to establish how groundwater conditions during that time period affect different water users across the basin. Please document the consideration of the following when establishing minimum thresholds for chronic lowering of groundwater levels:- Are groundwater elevations between 2005-2015 above the max screen depth for domestic, agriculture, municipal wells?- Are the proposed minimum thresholds preserving water rights? [Water Code ,§10720.5(b)]- Are the proposed minimum thresholds consistent with other state, federal or local regulatory standards? [23 CCR, §354.28(b)(5)]- Are there environmental beneficial groundwater users that need consideration, particularly those that are legally protected under the United States Endangered Species Act or California Endangered Species Act? (See Attachment C in the attached letter for a list of freshwater species located in the Paso Robles Subbasin).- Is the equity being applied across different beneficial user groups (e.g., domestic, agriculture, municipal, environmental) when establishing minimum thresholds? [8.4.2.1] Please provide a description for how the initial minimum threshold groundwater elevations for the Alluvial Aquifer (Figure 8-3) may impact environmental beneficial users of groundwater (e.g., GDEs) in the basin. When converting groundwater elevations to depth to groundwater contours, please use the USGS digital elevation model (see Attachment D in the letter). [8.4.2.1] Please make a back-up plan in the Monitoring network chapter on how the GSA will install shallow monitoring wells in the Alluvial Aquifer if confidentially agreements still prevent existing wells from being used as representative monitoring wells for the Chronic Lowering of Groundwater sustainability indicator. [8.4.2.5] Depletions of interconnected surface waters do exist in the Paso Robles Subbasin (Figure 5-17). Depletions of surface water were also estimated in Section 5.5.1, and the statement that there are no current minimum thresholds or undesirable results for interconnected surface water is inadequate and goes against SGMA requirements. Thus, there is a need to establish sustainable management criteria for interconnected surface waters in the basin. (See further comments in attached letter regarding Interconnected Surface Waters)..		pasogcp.com	4/15/2019 1:20:00 PM	Link: 20190415_Matsumoto
		[8.4.2.7] The description of how the groundwater elevation minimum thresholds affect ecological land uses and users (Section 8.4.2.7 p.17) is inadequate for the following reasons:- The draft GSP has failed to describe current and historical groundwater conditions with GDE areas. Thus, it is impossible to assess how the proposed minimum thresholds relate to historical groundwater conditions in the GDE and whether potential adverse effects could occur to the GDEs as a result of groundwater conditions. - Legally protected species located with GDEs have not been identified. Thus, it is impossible to evaluate whether federal, state, or local standards exist for groundwater elevations needed to protect these listed species (see Section 8.4.2.8). [8.4.3.1] Under SGMA, Measurable Objectives are to be established to achieve the sustainability goal of the basin within 20 years of Plan implementation [23 CCR ,§ 354.30 (a)]. Please modify the methodology for setting measurable objectives for groundwater levels (p.18-19) so that it helps attain the sustainability goal defined on p. 4 (Section 8.2): sustainably manage the groundwater resources of the Paso Robles Subbasin for long-term community, financial, and environmental benefit of residents and business in the Subbasin. This GSP outlines the approach to achieve a sustainable groundwater resource free of undesirable results within 20 years, while maintaining the unique cultural, community, and business aspects of the Subbasin. In adopting this GSP, it is the express goal of the GSAs to balance the needs of all groundwater users in the Subbasin, within the sustainable limits of the Subbasins resources. [8.4.4.1] Please elaborate how the 15% exceedance criteria balances the interests of environmental beneficial users in comparison with other groundwater users in the basin				
Sandi Matsumoto	**Ch. 8 Sustainable Management Criteria** 8.9 Depletion of Interconnected Surface Water SMC	According to Chapter 5, interconnected surface waters exist in the Paso Robles Subbasin (Figure 5-17). Depletions of surface water were also estimated in Section 5.5.1. While there is certainly data gaps and a need for additional shallow monitoring wells inthe Alluvial aquifer to map ISWs, there is also a need to enhancing monitoring of stream flow and vertical groundwater gradients by installing morestream. SGMA is based on best available science and adaptive management, thusthere should be an attempt to identify some minimum thresholds for ISWs, which are to be quantified by The location, quantity, and timing of depletions of interconnected surface water [23 CCR, §354.28(c)(6)(A)]. [8.9.2] There is a need to evaluate potential effects on beneficial uses of surface and groundwater. Please refer to Attachment C (in the attached letter) for a list of freshwater species in Paso Robles Subbasin that may be existwithin ISWs. We recommend that after identifying which freshwater species exist in your basin, especially federal and state listed species, that you contact staff at the Department of Fish and Wildlife (DFW), United States Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Services (NMFS) to obtain their input on the groundwater and surface water needs of the organisms on the freshwater species list. Because effects to plants and animals are difficult and sometimes impossible to reverse, we recommend erring on the side of caution to preserve sufficient groundwater conditions to sustain GDEs and ISWs.		pasogcp.com	4/15/2019 1:20:00 PM	Link: 20190415_Matsumoto
Martha Noel	**Ch. 8 Sustainable Management Criteria** 8.3 General Process for Establishing Sustainable Management Criteria	I want the Basin Plan to provide for the following: 1. That the agencies that have to enforce the plan have adequate time (at least five years) to start implementation and observe the results before more drastic measures are commenced. 2. That water levels be given adequate time to stabilize after the historic drought. 3. That "undesirable results" not include shallow wells going dry. 4. That any undesirable results be addressed locally, not throughout the basin. I am in support the Shandon-San Juan Water District's comments on the Basin Plan as posted on its website.	Shandon San Juan GSA	pasogcp.com	4/15/2019 1:49:00 PM	
William Noel	**Ch. 8 Sustainable Management Criteria** 8.1 Definitions	Here are my requests about definitions. Thank you. Will 1. That water levels be given adequate time to stabilize after the historic drought. 3. That "undesirable results" not include shallow wells going dry. 4. That any undesirable results be addressed locally, not throughout the basin. I support the Shandon-San Juan Water District's comments on the Basin Plan as posted on its website. All my best. Will	Shandon “San Juan GSA	pasogcp.com	4/15/2019 2:12:00 PM	

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Julie Pruniski	**Ch. 8 Sustainable Management Criteria** 8.3 General Process for Establishing Sustainable Management Criteria	Overall, I support the Shandon-San Juan Water District's comments on the Basin Plan as posted on its website. Specifically, the Basin Plan should 1) provide the agencies that have to enforce the plan with adequate time (at least five years) to start implementation and observe the results before more drastic measures are commenced; 2) that water levels be given adequate time to stabilize after the historic drought; 3) that "undesirable results" not include shallow wells going dry, and 4) that any undesirable results be addressed locally, not throughout the basin.	Shandon San Juan GSA	pasogcp.com	4/15/2019 2:18:00 PM	
Laurie Gage	**Ch. 8 Sustainable Management Criteria** 8.1 Definitions	Multiple sections addressed in attached document	County of San Luis Obispo GSA	pasogcp.com	4/15/2019 4:51:00 PM	Link: 20190415_Gage
Timothy Cleath	**Ch. 8 Sustainable Management Criteria** 8.7 Degraded Water Quality Sustainable Management Criteria	8.7.2 Water Quality: Arsenic is a naturally occurring constituent that should be monitored. 8.7.2 Previous statement that there are no mapped plumes is repeated here. The treated wastewater effluent discharges introduce higher NO3 water to the groundwater. There is also a nitrate high concentration near Creston. These have been documented in the 2015 CCGWC report prepared for the irrigated lands program monitoring.		pasogcp.com	4/15/2019 4:53:00 PM	
Timothy Cleath	**Ch. 8 Sustainable Management Criteria** 8.9 Depletion of Interconnected Surface Water SMC	8.9.1 I believe there is some interconnectivity.8.9.4 Impacts can occur based on interconnectivity.		pasogcp.com	4/15/2019 4:53:00 PM	
Timothy Cleath	**Ch. 8 Sustainable Management Criteria** 8.10 Management Areas	Groundwater management for specific management areas within the Subbasin is highly recommended to address impacts more appropriately.		pasogcp.com	4/15/2019 4:53:00 PM	
Timothy Cleath	**Ch. 8 Sustainable Management Criteria** 8.4 Chronic Lowering of Groundwater Levels Sustainable Management Criteria	8.4.2.1 Water level in the alluvium is very sensitive to time of year. State specific time of year when water level data is to be used for threshold. The water level should be specific to the monitored well-simulated information is not accurate enough. 8.4.2.4 I question the accuracy of the water levels in OSWCR wells with the minimum thresholds because often these wells do not have accurate ground surface elevations. 8.4.2.5 Water Quality Degradation: It is possible (and likely) that some upflow may already be occurring from the poor quality water at depth in some locations due to low water levels. 8.4.2.5 Subsidence: It is not reasonable to establish a zero subsidence threshold because some subsidence is possible without causing an unacceptable impact. Subsidence is very site specific, so if subsidence is to be a criteria for management, the location of monitoring sites is critical and the amount of subsidence causing an unacceptable impact should be applied to that location based on impact to local structures.		pasogcp.com	4/15/2019 4:53:00 PM	
Stephen Sinton	**Ch. 8 Sustainable Management Criteria** 8.1 Definitions	Minimum thresholds as used are a problem because they put us in violation the moment they are adopted. GSA's need time to implement measures to arrest groundwater level declines and even after 5 years, may need additional leeway in setting minimum thresholds to allow time for the design, permitting and construction of water supply enhancement projects. Appropriate Minimum thresholds are at best a guess at this point. The historic excess pumping (as calculated by the Model) are very small amounts compared to the total amount of water in storage in the basin. I don't think that point is well described, but should be in order for interested and concerned citizens to understand the situation. I suspect that hydrographs that don't show the depth to the bottom of the groundwater formation give a false sense of urgency. We definitely need to stop the downward trend, but the real question is how much time do we have before we risk undesirable results.	Shandon San Juan GSA	pasogcp.com	4/15/2019 5:38:00 PM	
Stephen Sinton	**Ch. 8 Sustainable Management Criteria** 8.2 Sustainability Goal	Public surveys in the absence of facts about costs and other impacts have limited value and shouldn't be relied upon as the primary basis for setting standards. The outreach for this GSP was valuable, but reached a relatively small sample of the total basin groundwater users. The comments received are valuable, but scientific information should be the real basis for decisions made. I think the projects and management actions should be stated as options, not requirements. I think the Figure 8-2 map is wrong and troublesome and should be deleted. We might want to show measureable objectives, but I'm not even sure about the value of doing that.	Shandon San Juan GSA	pasogcp.com	4/15/2019 5:38:00 PM	
Stephen Sinton	**Ch. 8 Sustainable Management Criteria** 8.1 Definitions	It would help if the acronyms used were defined, either in the definitions sectionÂ or when they first appear in the text. I would think this would be a good practice at the beginning of each chapter.	Shandon San Juan GSA	pasogcp.com	4/15/2019 5:38:00 PM	
Stephen Sinton	**Ch. 8 Sustainable Management Criteria** 8.4 Chronic Lowering of Groundwater Levels Sustainable Management Criteria	8.4.2.6 Third paragraph refers to "two" GSAs, but there are four of us and one more in Monterey County. The language about minimum thresholds should be replaced with measureable objectives.Going back to minimum thresholds, I think they are essential for preventing undesirable results, but since we don't know where orÂ at what water levels that is going to occur, I think it's essential that the GSP be clear that minimum thresholds are an estimate and shouldn't be considered as fixed or absolute.	Shandon San Juan GSA	pasogcp.com	4/15/2019 5:38:00 PM	
Stephen Sinton	**Ch. 8 Sustainable Management Criteria** 8.5 Reduction in Groundwater Storage Sustainable Management Criteria	There are two itemized points under 8.5.1 and #2 says that pumping should be reduced in dry years is a highly ranked concession. The fact is that pumping should be reduced in wet years, when less "added" water from irrigation is required. In dry years farmers have to use more water to make up for the lack of rain. 8.5.2.4 I couldn't understand the opening sentence. Same with 8.5.4.3.	Shandon San Juan GSA	pasogcp.com	4/15/2019 5:38:00 PM	
Stephen Sinton	**Ch. 8 Sustainable Management Criteria** 8.7 Degraded Water Quality Sustainable Management Criteria	8.7.2.1 & .2 If a new monitoring well is added to the system and it has water quality that exceeds the established limits, does that constitute an exceedance?	Shandon San Juan GSA	pasogcp.com	4/15/2019 5:38:00 PM	
John Onderdonk	**Ch. 8 Sustainable Management Criteria** 8.4 Chronic Lowering of Groundwater Levels Sustainable Management Criteria	This theme is reiterated in Chapters 7 and 8. Given that uncertainty, it seems reasonable to expect that management thresholds be set conservatively. The proposed decision to base individual well minimum thresholdson single points in time (2007 or 2017) based on survey responses doesn't seem to reflect appropriately conservative decision making in the face ofuncertainty. A more prudent approach would be to set minimum thresholds more conservatively (lower elevation) than suggested in the GSP and adjust those minimum thresholds, to become more stringent (higher elevation) as additional data dictates. Perhaps an appropriate methodology for this would be to add trend lines to the hydrographs in Appendix G, extend that trend out five years and set theminimum threshold at that point. Another concern is the reliance on 12 wells to be representative of the entire Subbasin. Here again, choosing 15% (two wells) as the limit on minimum threshold exceedance in the chronic lowering of groundwater level is overly aggressive and presumptuous. A more reasoned decision would acknowledge the small sample size and increase the percentage appropriately. It seems a 33% (four wells) threshold would be significantly more representative of the entire Subbasin. Alternatively, the threshold could be set at a lower percentage, say 25% (three wells), if management action were triggered only in the event those wells were each in a geographically distinct area of the Subasin. Of course these numbers may not be nor are they based on rigorous mathematics, but they do allow for the early adoption of management criteria, collection of additional data to further inform decision making and time for regulated entities to participate and adapt to the GSP management actions. Importantly, this processof continued refinement and data informed regulation is consistent with the intention of SGMA and US environmental case law.	County of San Luis Obispo GSA	pasogcp.com	4/15/2019 8:50:00 PM	

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National Marine Fisheries Service - Rick Rogers	**Ch. 8 Sustainable Management Criteria**	Page 48 states “As described in Chapter 4, Hydrogeologic Conceptual Model and Chapter 5, Groundwater Conditions, the prevailing belief of local residents and experts in the Subbasin based on observation and some hydrologic data, is that interconnected surface water and groundwater does not currently exist in the Subbasin.” This conclusion is not supported by Chapter 5, which clearly shows interconnected surface water in Figure 5-17. In fact, the process used in Chapter 5 to identify groundwater/surface water interconnection likely underestimates the extent and distribution of this connection – “If model simulated groundwater elevations in any aquifer were above the bottom of the stream or river for at least half of the time between 2010 and 2016, then the surface water was considered interconnected with the groundwater.” First, no explanation is given as to why modeled groundwater elevations must be above the streambed elevation for “at least half of the time” for streamflow depletion to be realized. Without further explanation, this assumption is not scientifically appropriate or justified. Also, why was the time period of 2010-2016 (a historic drought) chosen as the period of analysis? Given the likely depressed groundwater elevation expected during a drought and the resultant underestimation of groundwater/surface water connectivity, using this time period is inappropriate. In Chapter 6 the draft GSP acknowledges as much, stating that using the period 2012-2016 for the current water budget “represents a more extreme condition in the basin and is not appropriate for sustainability planning in the Subbasin.” Thus, the Paso GSP should begin developing a threshold and measureable objective for streamflow depletion at this time, in addition to planning for further data analysis in the future that will help refine those values.		pasogcp.com	4/15/2019 12:00:00 AM	
Daniel Sinton	**Ch. 8 Sustainable Management Criteria** 8.3 General Process for Establishing Sustainable Management Criteria	1. That the agencies that have to enforce the plan haveadequate time (at least five years) to start implementation and observe the results before more drastic measures are commenced.2. That water levels be given adequate time to stabilizeafter the historic drought. 3. That "undesirable results" not include shallow wells going dry. 4. That any undesirable results be addressed locally, notthroughout the basin. I support the Shandon-San Juan Water District's comments on the Basin Plan as posted on its website.	Shandon San Juan GSA	pasogcp.com	4/16/2019 7:18:00 AM	
Laurie Gage	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.4 Level 2 Management Actions	Section 9.4.2.3 references "Re-locating pumping allowances provides pumpers with flexibility and maintains consistency with San Luis Obispo County's current Agriculture Offset Program." I fully agree that there needs to be a program that allows transition from the current offset ordinance to something that provides equal or better protection in terms of total water use. But the fly in the ointment is that the ordinance must have an extension in order to remain in effect, or there will be a gap between the sunset date of the ordinance (upon adoption of the GSP by the last GSA), and the time that any GSP-defined replacement could take place. We have seen a rush to plant in the past when a gap opportunity presented itself and at that time, it was on the order of months, and not a few years. BUT MORE IMPORTANTLY, allowing the ordinance to sunset presents another more immediately critical issue: the deed restrictions in place on properties which provided the offset credit fall away as of the sunset date. Which means that if the current sunset date is not extended, then EVERY FALLOWED ACRE COULD IMMEDIATE COME BACK ON LINE FOR IRRIGATION. The total number of acre-feet used for agricultural irrigation offset credits (according to County GSA staff) is approximately 12,000 acre-feet. That is the amount that could feasibly come back on line into irrigation the day after the GSP is adopted. With a projected annual deficit of 13,000 acre-feet, we are looking at DOUBLING the deficit if those acre-feet are reclaimed for use upon the sunset date of the offset ordinance. As an even nastier side effect of not extending the ordinance and having fallowed acreage come back online, that acreage could be used AGAIN for a future offset credit under the relocation and transfer or pumping allowances program outlined in this section. At the very minimum, GSP staff should be aware of the potential 12,000 acre-feet that could come back online after the sunset date without extension of the offset ordinance, and to utilize that figure in all projections of annual use in calculations for the GSP. Please consider the extreme degree to which the choice not to extend the sunset date of the offset ordinance could potentially impact the annual deficit.	County of San Luis Obispo GSA	pasogcp.com	5/26/2019 1:24:00 PM	
Stephen Sinton	**Ch.9 Projects and Management Actions** (Revised May 2019) 9.4 Level 2 Management Actions	In 9.4.2, carryover pumping credits, recharge credits and transfer allowances must always be limited in location to the area within the basin that is impacted. One approach might be to have a general rule that transfers can only be used within a stated distance from a well, but allow a pumper to appeal that rule if the facts support allowing a more distant transfer. 9.4.2.1: I don't support stating that a GSA "will" or "would" do something. That isn't appropriate to the plan in my opinion. The plan should say "may" or "could". That shows up in the first sentence of 9.4.2.1 and the first & third sentences of the third paragraph. 9.4.2.3 I want to reiterate that moving pumping allowances must be limited first to the basin and second, to a location close to the sending source. 9.4.3: I have a HUGE problem with this section. While the proposal may be good for water conservation, it is a disaster for the land, our communities, open space, wildlife, water and air quality, sedimentation, percolation and a whole range of social and environmental issues. This is a policy matter that is regularly before the County and our cities, but converting agriculture to rural residential use - rural sprawl - damages everything noted above as well as our food supply. In addition, if we suppress agriculture, but foster residential growth, we will see our water use grow and our sustainability decline. This is a terrible idea.	Shandon San Juan GSA	pasogcp.com	6/19/2019 4:15:00 PM	
Stephen Sinton	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.2 Implementation Approach and Criteria for Management Actions and Projects	These comments are my own, as I have not had an opportunity to discuss them with the Board of the Shandon-San Juan Water District. One of the mechanisms that may help not only with the implementation of best management practices, but also with funding for projects is to look for ways to both incentivize pumpers and penalize them for failure to measure water use. If the basic fee for pumping an acre foot is X, then those who don't measure could be charged the assumed consumption rate for the crops grown plus 50% (or some other %). On the other hand, GSAs could seek grants to help pumpers pay for and install meters, provide training and even maintenance. 9.2 talks about GSAs implementing management practices as soon as possible, which is fine to a point, but my view is that we will need time to improve monitoring and reporting (and while that is going on, refine our evaluation of projects) before we know clearly what it is that must be done. So I don't support the the statement that management actions will be implemented before projects. Some projects may get started (planning, CEQA, engineering, budgeting) very quickly. Also, the above referenced statement doesn't make clear whether you project Level 1 or Level 2 management to precede project work. I have a similar reaction to the statement that Level 2 management will begin soon after GSP adoption. We need time to refine our assessment of the magnitude of the problem and vastly improve our monitoring so we can more accurately measure our progress, or even our lack of progress. We also need to understand where Level 2 actions will be effective and where they will not. To me, Level 2 addresses the situation after we know more.	Shandon San Juan GSA	pasogcp.com	6/19/2019 4:15:00 PM	

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Stephen Sinton	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.5 Projects	I think the list of projects is very good, but I strongly disagree (and I believe the Shandon-San Juan Water District will too) that capturing flood flows is a "lower priority". In fact, I believe it may be the lowest hanging fruit and with willing landowners and some cooperation from regulatory authorities, could be implemented relatively soon. So whatever bias there is against capturing and percolating flood flows, it should not be in the GSP. This entire section, showing the expected costs of every new acre foot of water, shows that there really isn't any such thing as de minimis use. 9.5.1.2: Speaking with some confidence that I am not alone in this, the current assumption is that any project using direct recharge will NOT be initiated and or owned by the County GSA. The County has never supported agriculture in this way and the primary reason for the existence of two new water districts in the County is not to become GSAs, but to do projects because we farmers and ranchers have been repeatedly ignored when it comes to water projects. Those projects go to urban voters, not we who provide the food and jobs. 9.5.2.2: In the same line of thought, I believe the projects will not be led by the Cooperative Committee. The cities probably won't need these projects, so it won't be the Cooperative Committee that leads it. The Water Districts are more likely to assume leadership with projects, since that is what they were created to do. 9.5.3.5 There are several references to Figures that seem to be the wrong ones. 9.5.4: The name "Substitute Projects" implies less valuable concepts. Substitute for what? All projects are valuable when we need water - and should be preferred only based on price, water availability and feasibility. 9.5.4.2: Why does this project assume the use of treated water from the SWP? That makes no sense to me. One possible recharge project would be to divert the water just before the treatment facility, pipe it to the nearest available recharge point on Cholame Creek or the Estrella River and discharge for percolation. Treated water is more expensive and without apparent added value.	Shandon San Juan GSA	pasogcp.com	6/19/2019 4:15:00 PM	
Stephen Sinton	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.3 Level 1 Management Actions	In encouraging BMPs, we need to engage with entities that aren't currently part of this process, such as NRCS, RCDs and the UC Cooperative Extension. In 9.3.2 Well Interference Mitigation, I wish it were so, but doubt that alternating pumping days will save water. It may avoid well interference, but I expect that farmers would end up using the same amount of water during the growing season. 9.3.4: I support the voluntary fallowing program, but have always felt that we might have to pay for some fallowing. In fact, paying someone to fallow ground that is growing a high water use crop may be by the far the least expensive way to reach sustainability. GSAs will need to plan for buying irrigation rights. Having said that, it is critical that any purchase of irrigation rights not be transferable. They need to be retired. The same applies to the Conservation Program in 9.4.2.	Shandon San Juan GSA	pasogcp.com	6/19/2019 4:15:00 PM	
Lee Nesbit	**Ch. 9 Projects and Management Actions** (Revised May 2019)	(See attachment)	County of San Luis Obispo GSA	pasogcp.com	6/20/2019 4:04:00 PM	Link: 20190621_Nesbitt
James Anderson	**Ch. 9 Projects and Management Actions** (Revised May 2019)	Chapter 9 of the draft GSP provides that land is not under irrigation when the GSP is adopted may not be provided an initial pumping allowance if a Groundwater Conservation Program is established because the GSP assumes that there will be no increase in demand on the Subbasin. Chapter 9 goes on to provide that, if owners of such non-irrigated land wish to begin pumping in the future consistent with their overlying rights, they must either (i) acquire pumping allowance from willing sellers subject to GSA approval, (ii) but into a project that delivers surface water to the same area of the Subbasin, and/or (iii) pay surcharges associated with pumping above their pumping allowance. William & Doris Land & Energy Co., LLC is the owner of approximately 2,440 acres of open land in San Luis Obispo County identified as Assessor's Parcel Nos. 037-321-016 and 037-331-014. That land is flat and farmable, and we intend to farm it in the immediate future. Indeed, we have engaged a hydrologist to locate the best locations for new wells. However, while the property has been irrigated with groundwater in the past, there has been no recent irrigation of the property. It could therefore be considered "non-irrigated" for purposes of Chapter 9 of the Draft GSP. That would result in an inequitable and illegal impact on our land. As drafted, Chapter 9 fails to recognize our overlying groundwater rights or our right to pump groundwater in the future and instead imposes a penalty on us simply because we have not yet commenced our planned extractions. Effectively precluding the exercise of our overlying rights simply because they have not recently been exercised would amount to an unconstitutional taking of those rights that could result in an enormous reduction in our land value. Should that occur, we would have no alternative but to bring an action for inverse condemnation and other claims to recover that lost value. We want to avoid that outcome. We therefore urge you to recognize the rights of our property and similarly situated lands to pump groundwater regardless of whether those rights have been recently exercised, and to not adopt and GSP that interferes with those rights or discriminates between currently irrigated land and land that has not recently been irrigated.		pasogcp.com	6/26/2019 12:52:00 PM	
Estrella Dosrios	**Ch. 9 Projects and Management Actions** (Revised May 2019)	(See attachment)		email / pasogcp.com	6/27/2019 0:00	Link: 20190427_Dosrios
Patricia Wilmore	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.3 Level 1 Management Actions	9.3.2 in the first version of Chapter 9 was called Groundwater Management Program. This has now changed to Interference Mitigation Program which is not as clear as the original. This is an example of what we perceive to be unnecessary changes from the original draft, which the consultant and his team say it took 3 months to write, to a revised version prepared in just a few weeks. This change in process has made stakeholders uneasy and has left our constituents questioning the transparency of the process. We continue to support a reasonable plan which allows for a collaborative approach to prevent negative effects on the Basin in a way that benefits all users.	City of Paso Robles GSA	pasogcp.com	6/28/2019 8:36:00 AM	
Patricia Wilmore	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.2 Implementation Approach and Criteria for Management Actions and Projects	9.3.2.4. Public noticing. It is stated here that the Interference Mitigation Program (please change back to Groundwater Management Program) "will be developed in an open and transparent process...to include interested stakeholders." We have many members who farm over the Basin and they would like to have a session with the consultant and our County GSA representative. So far, meetings with specific outreach to agriculturists have not occurred and this is the most effected group of stakeholders. Is this up to us to arrange or could County staff do so?	City of Paso Robles GSA	pasogcp.com	6/28/2019 8:36:00 AM	

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Patricia Wilmore	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.4 Level 2 Management Actions	It is critical that during the Level 1 phase, which we understand to be five years, we also explore projects to bring water to the Basin. Without this effort, the potential reductions outlined in Level 2 may be onerous to the point of destroying a very viable and significant part of our economy. Again, agriculturists need to be involved in getting a clear understanding of the effects of mandatory pumping reductions. A portion of the Groundwater pumping fees from Level 1 should be earmarked for working on new supplies and not just a time to figure out how the pumping reductions would work.	City of Paso Robles GSA	pasogcp.com	6/28/2019 8:36:00 AM	
Patricia Wilmore	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.5 Projects	9.5.3 changes the term "Priority Projects" to "Conceptual Projects." This change of terminology dilutes the very real need to be serious about bringing new supplies to the Basin. There seems to be a lack of understanding that most of our grower members are not "big guys." During the first five years of the plan, we need to expend time and money looking at the opportunities for additional water and prioritize the most doable.	City of Paso Robles GSA	pasogcp.com	6/28/2019 8:36:00 AM	
Patricia Wilmore	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.6 Other Groundwater Management Activities	9.6.1. When new supplies are identified and prioritized, rural residents should share in the cost since they will also share in the benefits.	City of Paso Robles GSA	pasogcp.com	6/28/2019 8:36:00 AM	
Patricia Wilmore	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.7 Demonstrated Ability to Attain Sustainability	Bottom line, for us, is that the plan is feasible and meets State requirements. Since we are a High Priority Basin, our plan will certainly be scrutinized. It is essential that the consultant and his team, hired as the experts, have a say in every step of the process. It is also important that specific groups of stakeholders are able to have input in a focused stakeholder meeting. Additionally, a more thorough study of the economic effects of the GSP needs to be done.	City of Paso Robles GSA	pasogcp.com	6/28/2019 8:36:00 AM	
Patricia Wilmore	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.8 Management of Groundwater Extractions and Recharge and Mitigation of Overdraft	Please note that although the PRWCA offices are in the City of Paso Robles, our constituents are primarily in the County.	City of Paso Robles GSA	pasogcp.com	6/28/2019 8:36:00 AM	
Jerry Lohr	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.5 Projects	I would like to submit the attached PDF file as my comments on Chapter 9. Regards, Jerry Lohr	County of San Luis Obispo GSA	pasogcp.com	6/28/2019 2:07:00 PM	Link: 20190628_Lohr
Craig Finster	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.1 Introduction	Please see attached comment.		pasogcp.com	6/29/2019 10:02:00 AM	Link: 20190629_Finster
Jerry Reaugh	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.2 Implementation Approach and Criteria for Management Actions and Projects	Thank you for this opportunity to submit these comments. Regards, Jerry Reaugh	County of San Luis Obispo GSA	pasogcp.com	6/30/2019 4:16:00 PM	Link: 20190630_Reaugh
Sandi Matsumoto	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.3 Level 1 Management Actions	This attachment summarizes our comments on Chapters 9-11 of the Paso Robles Subbasin Draft GSP. In this section, we refer to our previous comments, dated 15 April 2019, on Chapters 4-8 and Appendix B of the Draft GSP. Chapter 9 Management Actions and Projects [Checklist Items #50-51]: Since these conceptual projects are location-specific, please highlight the benefits of these conceptual projects on specific mapped GDEs and ISWs. For more case studies on how to incorporate environmental benefits into groundwater projects, please visit our website: https://groundwaterresourcehub.org/case-studies/recharge-case-studies/		pasogcp.com	7/1/2019 12:21:00 PM	Link: 20190701_Matsumoto
Sandi Matsumoto	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.4 Level 2 Management Actions	This attachment summarizes our comments on Chapters 9-11 of the Paso Robles Subbasin Draft GSP. In this section, we refer to our previous comments, dated 15 April 2019, on Chapters 4-8 and Appendix B of the Draft GSP. Chapter 9 Management Actions and Projects [ChecklistItems #50-51]: Since these conceptual projects are location-specific, please highlight the benefits of these conceptual projects on specific mapped GDEs and ISWs. For more case studies on how to incorporate environmental benefits into groundwater projects, please visit our website: https://groundwaterresourcehub.org/case-studies/recharge-case-studies/		pasogcp.com	7/1/2019 12:38:00 PM	Link: 20190701_Matsumoto
Sandi Matsumoto	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.5 Projects	This attachment summarizes our comments on Chapters 9-11 of the Paso Robles Subbasin Draft GSP. In this section, we refer to our previous comments, dated 15 April 2019, on Chapters 4-8 and Appendix B of the Draft GSP. Chapter 9 Management Actions and Projects [ChecklistItems #50-51]: Since these conceptual projects are location-specific, please highlight the benefits of these conceptual projects on specific mapped GDEs and ISWs. For more case studies on how to incorporate environmental benefits into groundwater projects, please visit our website: https://groundwaterresourcehub.org/case-studies/recharge-case-studies/		pasogcp.com	7/1/2019 12:40:00 PM	Link: 20190701_Matsumoto
Sandi Matsumoto	(Submitted with comments on Chapter 9-12)	Lands that are protected as open space reserves, habitat reserves, wildlife refuges, etc. or other lands protected inperpetuity and supported by groundwater or ISWs should be identified and acknowledged.		pasogcp.com	7/1/2019 12:43:00 PM	Link: 20190701_Matsumoto
Molly Saso	**Ch. 2009 Projects and Management Actions** (Revised May 2019) 9.4 Level 2 Management Actions	HFS supports the development of carryover pumping allowances to provide flexibility in meeting hydrologic conditions. Â Maximum flexibility in the management and transfer of pumping allowances, subject to the avoidance of undesirable results as defined by SGMA, will provide opportunity to manage and address needs within the Basin.		pasogcp.com	7/1/2019 1:56:00 PM	
Molly Saso	**Ch. 2009 Projects and Management Actions** (Revised May 2019) 9.4 Level 2 Management Actions	Implementation of pumping rampdown should be initiated only upon assessment of groundwater level trend and pumping data, and then limited to specific areas where the contribution of pumping reductions to Basin sustainability objectives can be quantified through modeling and other analysis.		pasogcp.com	7/1/2019 1:56:00 PM	
Molly Saso	**Ch. 2009 Projects and Management Actions** (Revised May 2019) 9.4 Level 2 Management Actions	Fees developed within the proposed Tiered Pumping Fee structure must be developed based on legal principles of equity, economic impacts, cost of replenishment water, demand reduction and other quantifiable components.		pasogcp.com	7/1/2019 1:56:00 PM	

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Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Molly Saso	**Ch. 2009 Projects and Management Actions** (Revised May 2019) 9.4 Level 2 Management Actions	HFS supports continuation of the current Agriculture Offset Program. This Program is understood and provides a solid mechanism for establishing pumping allowances under the GSP, as well as conditions for use and transfer of those allowances.		pasogcp.com	7/1/2019 1:56:00 PM	
Molly Saso	**Ch.9 Projects and Management Actions** (Revised May 2019) 9.3 Level 1 Management Actions	The proposed implementation of Level 1 and Level 2 Management Actions is reasonable given the limited amount of data and understanding of Basin Conditions as discussed in the Chapter 6 draft. Additional monitoring data must be developed and is required to support Level 2 Actions. The GSP should consider financial and other incentives to promote and maximize the sustainability benefits of Level 1 Management Actions.		pasogcp.com	7/1/2019 1:56:00 PM	
Molly Saso	**Ch. 2009 Projects and Management Actions** (Revised May 2019) 9.1 Introduction	The impact of de minimis groundwater users is defined as significant, yet the draft GSP proposes that they should not be regulated. SGMA defines a de minimis extractor as once who extracts, for domestic purposes, two acre-feet or less per year. [WC 10721(e)]. De minimis extractors are not exempt from the full provisions of SGMA, rather they are provided limited protections relative to metering and reporting and the imposition of regulatory fees. Careful consideration and evaluation should be given to the impact of de minimis extractors on the Paso Basin sustainability objectives and various financial and demand reduction alternatives that are available to mitigate those impacts.		pasogcp.com	7/1/2019 1:56:00 PM	
Molly Saso	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.7 Demonstrated Ability to Attain Sustainability	The ability to attain sustainability has been modeled using all of the conceptual projects and management actions set forth in Chapter 9 and pumping reductions to meet measurable objectives by 2040. Further analysis on the economic benefit and viability of these projects is needed to support inclusion in that modeling. It is highly probable that some projects will not meet basic economic targets, thus impacting the timing and amounts of future pumping reductions. The GSP should include a discussion of various alternatives and project/pumping mixes to show a range of possibilities that would result in sustainable groundwater management.		pasogcp.com	7/1/2019 1:56:00 PM	
Molly Saso	**Ch. 2009 Projects and Management Actions** (Revised May 2019) 9.5 Projects	HFS appreciates the analysis of Project alternatives in Section 9.5. HFS supports strategic investment at the GSA and individual level to expand the Water Budget for the Basin by constructing economically viable projects.		pasogcp.com	7/1/2019 1:56:00 PM	
John Onderdonk	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.4 Level 2 Management Actions	While Chapter 9 does not mandate specific management actions and projects nor does it define all aspects of those management actions or projects, it will form the basis for future implementation. Because of that fact, Section 9.4 Level 2 Management Actions should either explicitly state that the order management actions are listed does not imply a prioritization of those actions or Section 9.4 should be reorganized to more accurately reflect implementation priority. It seems reasonable to assume that mandatory pumping reductions would be the last management action to be implemented after all other actions have failed to achieve desired results. A reasonable reorganization of Section 9.4 would be groundwater conservation program (9.4.2) followed by agricultural land and pumping allowance retirement (9.4.3) followed by mandatory pumping reductions (9.4.1).The discussion in Section 9.4.2.4 of how non-irrigated land will be treated should a Groundwater Conservation Program be implemented is concerning in that it suggests initial pumping allowance will be denied thereby unfairly penalizing non-irrigated landowners by curtailing their future rights to pump groundwater. This could create a perverse incentive for non-irrigated landowners to immediately installirrigation to maintain their future rights. The three options listed for ways non-irrigated landowners can acquire pumpingallowances are in effect the same: purchase those allowances at marke tvalue. These again could potentially create perverse incentives where by early actors are reward with lower market prices. Because section 9.4.2.4 will establish a basis for how non-irrigated landowners are treated under a Groundwater Conservation Plan, the section should explicitly state there may be other reasonable ways to fairly allocate initial pumping allowances and the list provided is meant to be illustrative not complete. For example, consideration should be given to an opt-in option for non-irrigated landowners to voluntarily opt-in to the groundwater conservation program to attain and secure initial pumping allowances. Alternatively, non-irrigated landowners could be given credit for positive contributions to the health of the groundwater basin (groundwater recharge, monitoring well installation, watershed and riparian protection/management, etc.) any of which could be used to satisfy future pumping allowance. The main point is that all the details of specific management actions should be thoroughly discussed at a point in time when those actions are warranted, and action planning is required. Chapter 9 must not curtail or preemptively define the scope or parameters of the future development of those actions.	County of San Luis Obispo GSA	pasogcp.com	7/1/2019 4:06:00 PM	
John Onderdonk	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.3 Level 1 Management Actions	Section 9.3.3 highlights the importance of on-farm recharge of local water as a beneficial action landowners could take to meet the goals of the GSP. A primary means for achieving groundwater recharge is through the construction and use of stock ponds and other surface impoundments. However,given SB 88 and portions of the California Water Code, there seems to be significant confusion among landowners with regards to their rights to construct and use stock ponds and surface impoundments. It would be beneficial if this section provided more guidance on stormwater capture best practices (surface impoundment and other methods) to help landowners balance local GSP goals with State regulations.	County of San Luis Obispo GSA	pasogcp.com	7/1/2019 4:06:00 PM	
Sheila Lyons	**Ch. 9 Projects and Management Actions** (Revised May 2019) 9.3 Level 1 Management Actions	There needs to be more emphasis on water conservation and living within our means. Suggesting that historical usage be a justification for future allowances is nonsensical. Here in Creston, we have seen many properties significantly over pumping (sprinklers when it is raining, overflow onto the roads, major pipe leaks, continuing to plant more and more lush landscaping around wineries, etc.) to establish their usage numbers. Whereas other folks, particularly those with shallow wells or wells slow to recharge have made significant efforts to conserve...allowing landscaping to die, etc. Those who have conserved in an attempt to protect us all are not all de minimus users. Many folks chose not to plant knowing full well where we were headed. They should not be penalized. The proposal set forth rewards those who have over-pumped by allocating to them larger claims to water up front. Any mandatory cut backs will not begin to have any immediate impact to them because they have built in a cushion. Meanwhile their over-pumping continues to harm their immediate neighbors. Also, they have set up high usage numbers which they can then decide to "sell off, move to other properties, or trade". There should be no selling off or trading. Crop duty factors must enter into the equation to restrict the folks who have been over-pumping throughout our rising crisis of a declining basin. Whereas, folks who have been conserving all along will feel the immediate effect IF mandatory cut backs are implemented. Additionally, no one with a parcel of land should be water starved. The obstacles for building a family home on a blank parcel are already tremendous. Property owners should not have to "buy" water for a de minimus use. Having to do so has a significant impact on property values. All existing legal parcels should have access to de minimus levels of water usage. For many people their blank parcel was an investment for their futures, either an eventual family home or a retirement property. They should not bear the financial burden of those who have continuously over-pumped the Basin.	County of San Luis Obispo GSA	pasogcp.com	7/2/2019 15:43	

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Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Sandi Matsumoto	**Ch. 10 Plan Implementation** 10.2 Monitoring Networks	Section 10.2.5 Evaluating Interconnected Surface Water (p. 14-15) [Checklist Item #48]: sustainable management criteria and an associated monitoring network for interconnected surface water and groundwater do need to be developed in the GSP, as stated in our comments on Chapter 9 above, and depletion of ISWs should be monitored. The Draft GSP states that an initial hydrogeologic investigation will be conducted. Please provide sufficient detail for the investigation and monitoring program including stream gauges, screened intervals and aquifers of the shallow wells and frequency of monitoring, in order to describe monitoring of both the extent of ISWs and the quantity of surface water depletions from ISWs. As stated in TNCs previous comments in our previous letter on Chapter 7, the Nature Conservancy recommends identifying beneficial users of surface water, which include environmental users. This is a critical step, as it is impossible to define significant and unreasonable adverse impacts without knowing what is being impacted, nor is possible to monitor ISWs in a way that can identify adverse impacts on beneficial uses of surface water. For your convenience, we've provided a list of freshwater species within the boundary of the Paso Robles basin in Attachment C. Please identify appropriate biological indicators that can be used to monitor potential impacts to environmental beneficial users as a current data gap and explain how this data gap will be filled.		pasogcp.com	7/1/2019 12:41:00 PM	Link: 20190701_Matsumoto
Laurie Gage, District Administrator	**Ch. 11 Notice and Communications**	The Board of Directors of the Estrella-El Pomar-Creston Water District has reviewed Chapter 11 and concluded that it has no comments on this chapter at this time. Individual Board directors may choose to personally comment on this chapter separately and independently from the Board as a whole.	City of Paso Robles GSA	pasogcp.com	10/11/2018 8:59:00 PM	
Dan Penkauskas	**Ch. 11 Notice and Communications** 11.1 Communications and Engagement Plan	Hi All. We're in the Creston area and have a single domestic well for our drinking water. We vote for maintaining levels as they are today. Also, please sign us up to monitor our well. Thank you, Dan	County of San Luis Obispo GSA	pasogcp.com	10/12/2018 6:41:00 AM	
Sheila Lyons	**Ch. 11 Notice and Communications** 11.1 Communications and Engagement Plan	Anywhere in the GSP where there is a reference to interested parties, including the Appendix D of Chapter 11, all Citizen Advisory Groups over the Paso Basin should be listed. CAB is writing to ask specifically that we be added throughout, including Appendix D of this chapter.	County of San Luis Obispo GSA	pasogcp.com	10/20/2018 9:26:00 AM	
Mackenna Buchholz	Additional Comments	(See attachment)		Other	5/3/2018	Link: 20180503_Buchholz
Greg Grewal	Additional Comments	(See attachment)		Other	5/14/2018	Link: 20180514_Grewal
Donald Morris	Additional Comments	(See attachment)		Other	5/21/2018	Link: 20180521_Morris
Sheila Lyons	Additional Comments	Please find enclosed below a letter and an attachment with input from the Creston Advisory Body representing the Creston Community and Rural Residents across the Basin. The vote of endorsement for the contents of this letter by the CAB member at last night's CAB meeting was unanimous. We hope you will find this information helpful when making decisions on Basin management. Thank you for your attention to our input. Sheila Lyons CAB Chairperson		Other	7/19/2018	Link: 20180719_Lyons
William Enholm	Additional Comments	(See attachment)		Other	7/25/2018	Link: 20180725_Elholm
Tommy & Kathy Carter	Additional Comments	(See attachment)		Other	7/26/2018	Link: 20180727_Carter
Dianne Jackson	Additional Comments	Supervisors Peschong & Arnold, and Chairperson Hamon, I am in complete agreement and support the comments CAB submitted to the Paso Basin Cooperative Committee. CAB has been working on this topic for over a decade and has tried to include the many comments that they have received from the public, over the years. The new groundwater sustainability plans require each basin to reverse groundwater overdraft. There is only one way to get that accomplished, stop over pumping. Hoping you will take into serious consideration every point that was addressed. Grace and Peace, Dianne Jackson		Other	7/26/2018	
Carol & Harold Rowland	Additional Comments	(See attachment)		Other	7/26/2018	Link: 20180726_Rowland
Sheila Lyons	Additional Comments	In reading the notes from various PR Basin Cooperative Committee meetings we don't see anywhere that the local Citizen's Advisory Councils are included for receiving notices or communications. Additionally in those lists we have seen all entities listed have specific addresses by which the organizations or agencies may be noticed, however, Rural Residents are simply called out as Rural Residents. It seems greatly amiss to us that Rural Residents who are the great majority of the people living over the Paso Basin and who will be impacted the very most are not being communicated with directly. At the very least all Citizen Advisory Councils over the Basin should be noticed. Please add the Creston Advisory Body (CAB) to your contact lists. All notices may be sent directly to our chairperson, Sheila Lyons, (removed)	County of San Luis Obispo GSA	pasogcp.com	9/22/2018 2:47:00 PM	
Leslie Jordan	Additional Comments	(See attachment)		Other	9/25/2018	Link: 20180925_Jordan

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Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Melenie Ristow	Additional Comments	Hello, I'm on vacation & won't be able to attend the water meeting in Creston. I wanted you to know I'm extremely worried about what will happen to my residential water well for my home & 20 acres. I've lived on Huer Huero rd for 38+ yrs with a mix of drought, normal & wet years & so far never run out of water, but I'm a lucky one. We've always known water is life out here & we have chosen a variety of ways to be responsible & conserve our water to be able to live here. I too worry about my investment in my property & realize my investment will be compromised if my well runs dry. Not being a big or corporate water user I have very few alternatives or be financially able to truck water to my home. And thus count on my representatives to protect my water interests. I implore you to do just that. Please protect mine & the thousands of residential water user wells in our Creston area. Thank You, Melenie Ristow		Other	10/1/2018	
Sheila Lyons	Additional Comments	Hello Supervisor Arnold, I submitted the following Excel file, that CAB received from the Public Works Dept back in the spring, to the Paso Basin Groundwater Sustainability Cooperative Committee through the GCP Portal. You may recall that CAB questioned the table in Chapter 3 of the GSP (Table 3-2, page 22) because it didn't appear to be up to date. In fact Table 3-2 of Chapter 3 showed only about 1/3 of the total wells that the SLO PW Dept indicated as being in production over the PR Basin, as given to CAB earlier this year. Sheila Lyons CAB Chairperson (See attachment)		Other	10/2/2018	Link: 20181002_Lyons
Dick McKinley	Additional Comments	Figures 4.6-4.10 have print that is too small to read.	City of Paso Robles GSA	pasogcp.com	10/5/2018 1:06:00 PM	
Frederick Hoey	Additional Comments	These comments relate to Figure 3-14: North County Planning Subareas: I object to the El Pomar-Estrella-Sub Area as defined. Interestingly, this Sub Area is startlingly similar to the boundaries of the "area of influence" of the Estrella-El Pomar-Creston Water District as defined by SLO-LAFCO. I expect this harmony is deliberate. The Creston area is distinctly different from both the El Pomar and Estrella area; accordingly, actions that are appropriate and necessary for the El Pomar and Estrella areas will not be appropriate for Creston. For instance within the Estrella areas a significant "cone of depression" has been created by the egregious groundwater pumping by the City of Paso Robles, which has been compounded by the local concentrations of large vineyard operations. Many Creston landowners have long been concerned that Creston groundwater would ultimately be utilized to remedy the damage that has been done to the Estrella groundwater levels. By combining three geographic areas, each with their own unique issues, into a Planning Sub Area, the authors of Chapter 3 wrongly assumed that the citizens of Creston would not rise up in strong opposition to such blatant, potential piracy of our water resources to cover the sins of the City of Paso Robles through the exploitation of the Estrella area. I strongly urge that the Creston area be identified as a separate Planning Sub Area, a view shared by all of my Creston friends and connections.	County of San Luis Obispo GSA	pasogcp.com	10/6/2018 4:03:00 PM	
James Green	Additional Comments	Good afternoon, Micki: Please distribute the attached letter regarding County Groundwater Sustainability Agency (GSA) Meetings to the Supervisors, all districts. Thank you. Warm Regards, James Green Government Affairs Specialist		Other	10/8/2018	Link: 20181008_Green
Dennis Loucks	Additional Comments	Dear Mr Peschong, Attached are my comments pertaining to the GSP plan to date. Please refer them to your Cooperative Committee. (See attachment)		Other	10/8/2018	Link: 20181008_Loucks
Frederick Hoey	Additional Comments	(See attachment)		Other	10/12/2018	Link: 20181012_Hoey
Dennis Loucks	Additional Comments	(See attachment)		Other	10/15/2018	Link: 20181017_USGS
Stephen Sinton	Additional Comments	Figure 4-12 makes zones look simple and continuous when they are probably more complicated and multi-layered with impervious and semi-impervious layers scattered both vertically and horizontally. I believe our newest well on Shell Creek was 592' with almost continuous sandfrom surface to the bottom of the formation. It test pumped more like 1500 gpm, although we don't use it at thatlevel. The transmissivity information could be very significant. Is there a source for where this came from? Artesian wells existed within the boundaries of Shandon itself. Overall Much of the information available for this GSP is uncertain, but we will know a lot more as we begin implementation. The risk, therefore, is that facts will become immovable and immutable if we don't repeatedly state our uncertainties and the need forrefinement. The Plan needs to be clear that our understanding of the basin is likely to change over time, numbers will have to be changed, basin limits will undoubtedly be revised and many other aspects will be altered by new information. So we need to be unambiguous that each "fact" may potentially require updating and decisions and actions based on those facts may need to bealtered.	County of San Luis Obispo GSA	pasogcp.com	10/15/2018 8:01:00 AM	

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Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Verna Jigour	Additional Comments	This is just to note my apologies if you received two copies of my comment addendum file. My comment on this web input function is that I could not tell how many files I had attached the screen only shows the most recent attachment. I intended/ attempted to attach two files 1. my comments addendum and 2. my doctoral dissertation abstract. If you did not receive both files, please advise me and I will provide them again. Thanks for the opportunity to comment! Verna Jigour, PhD Rainfall to Groundwater		pasogcp.com	10/15/2018 9:58:00 PM	Link: 20181015_Jigour
Dana Merrill	Additional Comments	RE Survey While the comments are interesting to read and seem to suggest in general experience with falling water levels and concern for more to follow, they have several shortcomings in my opinion. 1. Done in a vacuum as no mention of cost or who would pay renders them useless without follow up 2. Sample size is likely too small and cannot be verified as to authenticity 3. Time and cost hopefully was minimal as time is passing while the drought continues and meaningful measures and strategies are urgently needed for individuals and businesses to plan and budget for the future. 4. More critical work is needed, asking whether Utopia is desired is of minimal interest without quoting a cost Sorry but that's my feeling on the Survey. Maybe a well intentioned legislative mandate that it be included but we need to get on to the real issues and strategies. Every stakeholder, landowner, and even cities will feel the impact of severe pumping cutbacks in the Paso Basin as economic multipliers in reverse mean higher taxes, less jobs, tourism and lower property values. The Urgency Ordinace is an example of how land values plummet if water is restricted. Let's get going on solutions and figure out whether we can find a way to pay for them!	County of San Luis Obispo GSA	pasogcp.com	11/12/2018 7:56:00 AM	
John Thompson	Additional Comments	This probably seems tedious, but when reviewing the draft, the dark "DRAFT" across the page is distracting. Possibly lighten the text across the page or put "DRAFT" as a header.		pasogcp.com	12/6/2018 1:00:00 PM	
John Thompson	Additional Comments	In general, when a source is referred to in the text, it would be nice if it were properly cited. I do not know that we need a literature cited at the end of each section, but one online literature sited page would suffice. For instance, on page 5-38 the map is cited as RMC, 2015, but that resource is hard to find without a proper literature cited appendix or reference. Better yet, a website that could digitally link you to all cited works.		pasogcp.com	12/6/2018 1:00:00 PM	
Steve Sinton	Additional Comments	Can the chapter draw any conclusions as to what would happen to groundwater levels if we had a period of above normal rainfall years? 2. Can you further clarify the different aquifers? Most readers are familiar with the deep sulfur water and the aquifer above it, but Chapter 5 seems to further divide the upper aquifer in a way that isn't perfectly clear. 3. Figure 5-8 does not reflect the groundwater elevation conditions I experience on Shell Creek. Perhaps the extrapolation used in the figure covers too wide an area. 4. In 5.1.3 there is discussion of upward vertical groundwater flow. What is this based on and what does it mean to the management of the basin? 5. It may just be me, but I find Figures 5-15 and 5-16 very confusing. 5-15 makes it look like water use (the black lines coming down) is declining, but the text says the opposite. 6. Section 5.5 talks about gaining streams, but other than a few places where underflow is forced to the surface, I don't know of anything that is a gaining stream. The same applies to 5.5.1 where the chapter talks about groundwater discharge to surface water. I don't know of any place where it exists. The conclusion that the mean annual surface water depletion was about 8500 af/year seems impossible. If that statement (and Figure 5-18) is based solely on the model, that only makes the model seem less valid.	Shandon San Juan GSA	pasogcp.com	12/9/2018 9:55:00 PM	
Timothy Cleath	Additional Comments	Specific Edits: P. 7 Para 4: Delete sentences 5 and 6 (King City fault?). Fig 4-6: Geologic Map does not agree with portions of this cross section. P. 17 Delete last sentence of first paragraph: not necessary and not significant. P. 17 para 2: Identify arsenic as a constituent of concern. P. 19 para 1: Poor quality water in the Pancho Rico is not necessarily associated with the tar sands. We don't see tar sands in the Pancho Rico underlying the basin. P. 19 para : The Santa Margarita Formation varies inpermeability but is typically much lower than the Paso Robles Formation. That is the basis for not including it in the basin sediments. Where the geothermal water is present, groundwater quality is more brackish. P. 19 para 4: Vaqueros Formation groundwater is typically brackish. Fig 4-12 to 4-15: Reference map showing locations of cross sections. Aquifers shown in blue stop abruptly in some areas. Please explain why. P. 25 para 2: sentence 4: Not shown on Figure 14-4. Last sentence: Not clear what is meant by the "shallow aquifer.... may be an isolated aquifer area". Please explain. Table 4-1: Define Q/s. Note that the hydraulic conductivity is an average based on the full perforated interval and is not a specific aquifer hydraulic conductivity. P. 26 Para 2: Is the reference to the Paso Robles Formation and the shallow aquifer zone correct? This seems to be conflicting. P. 27 The specific yield for the Paso Robles Formation gravels is appropriate in light of the flatness and compaction of these gravel beds. P. 27 last para: Folds and faults do affect groundwater flow in the Subbasin. Consider particularly the Red Hills/San Juan faults and the folds near the Rinconada fault. P. 28 para 1: Municipal demands are significantly met by Nacimiento and State Water Project waters (Paso and Shandon) Fig 4-16: This map is incomplete and also not a good representation of where groundwater recharge can occur to the Paso Robles Formation. The alluvial areas are obvious. It may be best to exclude this figure and provide more discussions related to factors for recharge such as is discussed in the Huer Huero and Paso banking studies. P. 31 The areas identified as "discharge areas" just happen to be near where wastewater discharges occur and may not be areas of groundwater discharge. The areas of mapped springs and seeps are likely to be due to stratigraphic and structural conditions and not shallow and perched aquifer units. P. 34 Include the Nacimiento River and Shell Creek in the surface water features. Surface Water Bodies would seem to refer to lakes and ponds and not so much streams. It would be better to take out "bodies" from the title. P. 36 Recommendations should be for a geostatistical analysis of well completion reports and for general geophysics, not just aerial geophysics. Also, note that there is one nested well as is discussed in Chapter 5.		pasogcp.com	12/10/2018 9:36:00 AM	

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Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Timothy Cleath	Additional Comments	General comments: Paso Robles Aquifer suggests there is only one aquifer-change to Aquifers. In light of the need to adjust the basin boundaries, there should be a discussion and illustration showing the 2002 basin boundary and the San Juan/Red Hills faults should be shown. The Base of the Permeable Sediments map from the 2002 Paso study is in need of a revision based on more recent information. The deep basin area near San Miguel is much shallower than was shown in that map. Soils infiltration rates in the table are not quantitative and the clay content and sand and gravel content do not add up. Explain why. Figure 14 has extensive areas where no soil infiltration information is available. Explain why.		pasogcp.com	12/10/2018 9:36:00 AM	
Green River Mutual Water Company	Additional Comments	(See attachment)		Other	1/2019	Link: 20190101_GRM
Dana Merrill	Additional Comments	My comments in brief are: 1. Better detailed data is needed before selecting specific projects by area. Shandon and Creston (depending on where Creston extends) seem to have stable water levels vs the Red Zone. So recharge or supplemental water needs to be likely worth the cost to areas in better shape. Or prove taking there does help the Red Zone. 2. Many small users is Jardine, Squirrel Hollow, etc may need regional systems which could be a few deep Wells or supplemental water. Domestic and AG May have different solutions. Antiquated subdivisions have special challenges that require solutions different than commercial Agriculture. Those are a failure of good Planning which didn't exist when the lots created. Government should now help resolve but wells and septic systems on 1 acre parcels not sound planning. Same as Los Osos faced only worse. 3. More spending on dedicated monitoring has been promised for years but never built. Do that first to be sure the solutions will work. 4. Prioritize getting the County Naci share, where the County Paso Basin was left out, into the Basin. Get the city Paso Robles to take its full allotment which would lessen the salt level of its effluent. More purple pipe water could then go to vineyards . Basin landowners could subsidize the lake water treatment plant expansion cost for the city. 5.there should be an alternative to take State water before treatment at Polonio Pass. Maybe pipe to Estrella River then pump out by Whitley Gardens. Save pipeline costs perhaps. More water at lower cost is available although more pipeline is needed. 6. Get representative monitoring well system going and build projects as results of monitoring dictates. Figure out where our projects should be concentrated. 7. Get Irrigated Land Ordinance renewed for 5 years for stability. Expiring is not going to be good in 2020. County has a system and while it's not perfect it's a start we have experience with. 8. An Economic Study needs to be included to know whether Ramp Down or Supplemental water is best. A Ramp Down is not possible as we have few annual irrigated crops, the economic multiplier factor in reverse will devastate the local economy based on the wine and tourist industry. Winegrapes use so little water we have no lower use crop alternatives. 9. Get the Paso Basin on a priority list for State Water, otherwise urban uses will grab it and its gone. Buy a base amount the add annual purchases on high rainfall years at lower prices for recharge. Continue to rely on wells but support groundwater levels with supplemental water. 10. Adopt a Monterey County mandatory reporting system based on meters for Ag Wells 5 inch or larger. Exempt true non commercial de minimous users. They should contribute a minimal fixed admin fee to the system. Commercial Ag pay based on usage to incentivize efficiency. Group by zones as Monterey does. 11. Get more sophisticated data. Water levels have dropped most in the Red Zone but the Basin is deepest there. So many Wells still produce well. If we were to simply concentrate on the Red Zone and have the whole basin pay, would that be logical or fair? Do we know? If not, find out before proposing projects that likely can't pass a 218 election for funding anyway. 12. Our first 5 years post GSP submission need a vast improvement in data. Measure changes is water levels across the basin so we all have confidence in the data. And know the Economic impacts on us all, farmers, retired folks, city residents. That should help with buy in. Other than the Purple Pipe city of Paso project and getting on the State Water reservation list we are not ready for projects or drastic Ramping Down. Those two projects might be all we need. I may have further comments but wanted to get these in. Thanks for the opportunity. Dana Merrill Paso Robles, CA	County of San Luis Obispo GSA	Other	2/25/2019	
Dana Merrill	Additional Comments	(See attachment)	County of San Luis Obispo GSA	Other	2/26/2019	Link: 20190225_DMerril1_Ch9

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Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Bill Stansbury	Additional Comments	It is good to see a concrete plan taking place. I am a deminimis user. It appears I will not be financially impacted by the GSP. I do fear a large political backlash by land owners, particularly in the Creston area. They always seem to have their alternate version of the facts and refuse to believe there is an overdraft problem. I am 70 years old, survive on a pension and live alone. When my wife was alive, we had to drill a new well in 2006 after moving in in 1992. Our well was 250 feet. The water table was at 135 feet when we moved here in 1992. Our new well is 500 feet deep and the water is now at 320 feet. I cannot afford to drill to 1,000 feet and what guarantee is there that there is potable water at this depth in our area? As you can see the "little guy" is in a tough spot here. I wish you the best and I hope I live to see this plan come to fruition. Thanks, Bill Stansbury		Other	2/27/2019	
George Tracy	Additional Comments	Thanks for sending this. There are a few typos in some of the draft documents but I found them very interesting. The minimal users appear to be exempt from the GSA as the law allows. I hope this will be true in the future too. I assume the county is to be the overriding GSA for the purposes of implementation. I am curious on how the other water purveyors will react to that. Since there is not a written agreement for the implementation of the Paso Basin GSA how are you planning to get it implemented by all the GSA agencies. I have heard there will be an agreement but I have not seen one. As a county resident I have watched my well levels fall year after year. I measure the well every year since 2013 when I had to replace my pump at the level it had been installed in 1997. That level was 252 feet. The initial water level when installed was 150 feet.It has fallen every year. Last year it was at 307 below the ground some 200 feet above the replaced well pump. The plan does not mention what the county ordinance that limits planting will be once the plan has been implemented. Will a new ordinance be put in place to limit installation of new plantings again? Not all crops are listed in the SLO county ordinance. Specifically Hemp and Marijuana are missing, there may be others as well. Brewers are also not listed but several use groundwater for their source of water. Do you have a list of facilities that will be implicated as pumpers? I hope to attend the March 6 meeting but the notice does not indicate time or place. could you send that to me?		Other	2/27/2019	
Laurie Gage	Additional Comments	To the Paso Basin Cooperative Committee: I am writing in support of the letter to be considered by the Paso Basin Cooperative Committee as Item #8 in its March 6, 2019 meeting. As the holder of an onsite offset clearance, I have carefully reviewed the language of the termination clause in the deed restriction that was required of me by the clearance, and it would appear that without modification of the sunset date of the ordinance, it might be possible for me to begin irrigating the acreage that I fallowed in order to create the credit. I have no intention of pursuing reirrigating fallowed land, but it begs the question whether any owner of property fallowed to create an offset credit needed on that property or transferred/sold elsewhere, would feel the same reluctance to begin irrigating again. If the ordinance sunset date is not modified, I believe it might lead to having the clearance-fallowed land be irrigated again, completely negating any benefit of the one-to-one offset put in place to protect the basin. Add that to the increased water demand by having a gap between the sunset date and some future and, as of yet, unknown and undetermined program in the GSP, and the consequences could be long-lasting and very, very negative. Look to history and the 6-week gap in the ordinance process and what kind of advantage was taken back then. Thank you for your consideration and again, I urge your support of the letter in Item 8 of your March 6 agenda. Laurie Gage Full Sail Farm		Other	3/3/2019	
Sue Luft	Additional Comments	Paso Basin Cooperative Committee, I have reviewed the letter on page 59 of the agenda package for your March 6, 2019 meeting. I ask that your Committee approve this request that the SLO County Board of Supervisors modify the sunset date of the County's Water Conservation Ordinance related to the Paso Basin to when conservation provisions in the adopted Groundwater Sustainability Plan are implemented. Without modifying the sunset date of the County's Water Conservation Ordinance, there will be a gap which may result in increased water demand in the Paso Basin. This increased demand would increase the projected deficit in the basin and would impact the ability to comply with the Sustainable Groundwater Management Act. Thank you. Sue Luft Landowner, El Pomar area of Paso Basin		Other	3/3/2019	
Greg Grewal	Additional Comments	(See attachment)		Other	3/6/2019	Link: 20190306_Grewal

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Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Douglas Brown	Project and Management Actions - Concepts	Appreciate your taking the time to speak with me yesterday. Here are the comments I last submitted on the website on Chapter 9 of the GSP which you indicate have not come through to you and others: I would request that the following alternatives be included as potential projects/management actions for study and implementation: 1.Reducing or eliminating exports of Salinas river water outside of the basin, particularly exports from Santa Margarita to the City of San Luis Obispo. These exports have negative environmental effects on the river as well as the groundwater basin and reduce recharge to the groundwater basin. The County, through the SLOCFCWCD, has significant obligations and control over these exports; 2.Require Shandon to participate in the SWP, as was envisioned in the early 1990's when a contract was executed for that purpose, prior to requiring other water users to participate in the SWP or other supplemental water projects. The County, through the SLOCFCWCD, was a significant, if not the lead, actor involved in such contract; 3.Require the urban agencies to use Nacimiento water for current water users rather than for new development prior to requiring other water users to participate in Nacimiento, SWP or other supplemental water projects. The County, through the SLOCFCWCD, has significant obligations and controls over the Nacimiento project and contracts with the urban agencies. While I understand that these proposals may not be popular options for various of the urban agencies, I do believe that failure to consider them would be inconsistent with the obligations that the GSAs have under state statutes. On the call you indicated that there had been no discussion of the environmental process for the GSP or projects or actions proposed to be undertaken. If true, I believe this is unfair to land owners and water users overlying the Paso Robles groundwater basin who deserve a clear explanation of this process and when they have a right to object. I reiterate my request to speak with the attorney in the county counsel office advising the County on environmental compliance with respect to the GSP. Douglas S. Brown		pasogcp.com	3/21/2019 5:12:00 PM	
Douglas Brown	Project and Management Actions - Concepts	Courtney, Thank you for your response. The public trust doctrine in California can operate to require additional releases above and beyond the permit conditions if necessary for instream or groundwater basin protection. I would respectfully request that the County (and the other GMAs) analyze this issue as an alternative. I have been told (but do not know) that Shandon does not take its full allocation of SWP water. I would respectfully suggest that the County and the other GMA's study of any SWP water alternative not include any project paid for by rural or agricultural users until Shandon takes its full allocation of SWP. I would respectfully suggest that the GMAs study urban use of Nacimiento water for existing users rather than new development. While I appreciate that other studies may have considered certain of these options, I would respectfully suggest that the GMAs need to re-review these options as part of their statutory duties under the groundwater management act. How much (or little) they can depend on the prior work will presumably depend of whether that prior work meets the standards applicable to the groundwater management act. Douglas S. Brown		pasogcp.com	3/21/2019 5:20:00 PM	
Sheila Lyons	Project and Management Actions - Concepts	Comments from both public and members at CAB Meetings - Administration, Accounting and Management - Ag pumping data collection states that one way would be for the Ag pumpers to report metered pumping to their GSA. How will this be verified? Management Actions - Although land use restrictions are mentioned there is no reference to working with the Planning and Building Dept. at the County to align new ordinances and policies to protect water resources. CAB has recently reviewed proposed ordinance changes for growing cannibis (not considered an ag crop) and for agricultural worker housing. Offsets are stated to be the source of water in one case...offsets do not make water and there aren't enough replacement toilets for the program to do any good. Ag operators agree that giving off-sets is not the answer for cannabis projects. No mention of water source in proposed Ag worker housing ordinance at all and the allowance for this type of housing is being expanded hugelyokay on lots down to 5 acres in size, 1 worker per 1 acre of grapes, expanded zoning allowance, etc. ALL new or modified County ordinances need to have conditions for where the water will come from in new plantings or development. Existing rural residents, most of which will be de minimis users with shallow wells, are still going to be impacted by allowing additional planting and development and no amount of money is going to compensate them for these infractions. Available Water Supplies - State Water Project - Although there is 14,500 AFY currently unused that number will drop in drought years when we would most need it due to increased demand from the subscriber. We would still have to pay for 14,500 AFY, not 8900 AFY to insure that we still get 8900 AFY. Or else, if we only contract for 8900 AFY we will get only 5160 AFY (58% of 8900). Who currently owns the Salinas Dam? What about down stream properties that were dependent on this run off water in the past - legal commitments? Options to Deliver New Water Supplies - Is there consideration that any new recharge basins be covered to prevent excess evaporation? Development of Project Alternatives for GSP - General Assumptions - For direct delivery projects, pipeline alignments were selected to deliver water to the largest users closest to the water source. Do these users pay the most for this benefit? They should. Direct Injection of		pasogcp.com	3/25/2019 5:03:00 PM	
Sheila Lyons	Project and Management Actions - Concepts	CAB felt that the discussion questions are rather vague and non-specific so hard to comment upon in some cases. Here are the comments we were able to obtain.		pasogcp.com	3/25/2019 5:03:00 PM	
Sheila Lyons	Project and Management Actions - Concepts	Introduction - Second point, #4 - and throughout...there appears to be a focus on Growers and how they are impacted. What will be the fall out for Rural Residents who have animals, orchards, etc. and use more than de minimis users?		pasogcp.com	3/25/2019 5:03:00 PM	
Andrew Rainey	Ch. 1003 Summary of Model Update and Modification 1003.5 Comparison of Groundwater Budgets	I do not see how a change in the lines on a map will defy gravity & the change in elevation from a higher point to lower point.if you say that a fault line will act to separate the water basins some how, maybe like a geological dam eventually the water will either come over the dam or fine a way to seep through the dam if the elevation goes from higher to lower.common logic would say that the water shed above the PR water basin has to effect the inflow into the PR water basin area.I do not see how you can not include the Atascadero water area into the PR water basin. they must be linked as the watershed is headed down hill.seems very strange to me to come to any other conclusion.	City of Paso Robles GSA	pasogcp.com	3/29/2019 9:32:00 AM	

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Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Dana Merrill	Project and Management Actions - Concepts	My comments to this Chapter are: Page 4, paragraph 1. Exempting de minimous from water charges is fine but not necessarily from "assessments" as they are users who have a stake in the Basin health. Cumulatively they are a significant use of water. Page 6, Management Action, second paragraph "adversely affecting the local economy" is a significant point. The wine industry and resulting tourism boom has benefitted beyond the ag water users. Cutback will negatively impact the economy and a measurement of that impact should be carried out to help decide what cost of supplemental water or idling of irrigated farming really costs our community. Same paragraph: Water charging framework should prioritize water efficiency and higher water use crops should not be subsidized or favored because of historic use. Page 7: Paragraph 1, last sentence dealing with idled and to save water, should have added "...beneficial uses of the acquired land given its water use limitation." Page 8, Paragraph 2, Naci Water Project: The Naci Water Partners potentially could consider selling to a new partner: the Paso Robles Basin, whether the County entity or other. Perhaps there are willing sellers to carve out a base entitlement which could be augmented by shorter term purchases from other partners' shares. Page 9 "Important Considerations", line 2, what are "Potential water quality issues" associated with Naci lake water that would be limiting as a source?Page 10: General Assumptions: "Local groundwater deficits" require more precise determinations of boundaries, perhaps related to the same issue with "Zones" Page 10 SWP Assumptions: Need to determine definitively whether heavier pumping beyond the Red Zone impacts the Red Zone. And whether adding Supplemental Water to non Red Zone can improve Red Zone water levels. Same paragraph: Buying untreated SWP water farther east pre treatment would be cheaper and allow for more quantity to be acquired potentially. Cost of additional pipeline would have to be evaluated as part of viability review	County of San Luis Obispo GSA	pasogcp.com	3/29/2019 11:53:00 AM	
Dana Merrill	Project and Management Actions - Concepts	Topics of Discussion section 1. Equity bullet point page 1; define "heavy pumper"; is that volume based upon acreage or by crop (alfalfa vs winegrapes etc)? Projects should be paid via a combination of Capital Project funding and operational charges for recurring operating expenses. 2. Equity bullet #2: monitoring wells, negotiating water charges framework, video logging wells (determining Zone Boundaries), extraction system monitoring etc. could be funded at last initially by a per acre charge, probably on irrigated lands. 3. Bullets page 2: deminimus pumpers: Yes and No to complete exemption. Lower base fee of their own is logical. 4. Pumping allowances: Set a base fixed amount, likely between 1 ac ft/acre/year and 1.25 ac ft/acre/year regardless of irrigated crop grown. Use economics as a tool to encourage water to move to most efficient use within Ag uses. 5. Standarized uses should be Paso Basin oriented. Battany study a good source for one at least. 6. Ramp downs: 10 years to complete, start in 5 at soonest. Need to see what Supplemental water is required. A given hopefully is current County Ordinance regarding new irrigated land is renewed for 5 years or GSAs choose a new approach (don't let it expire and start land development and well drilling rush to put us farther behind). 7. Ramp downs need to be equal until Zone boundaries are established with research. 8. Don't cap carryover or users will make sure to pump to avoid losing 9. County fine to be State Water Contractor IF they will take action to get it going. If not, get different entity motivated to get this going asap to know if it is a viable option supported by those who will pay for it. County record so far is too little, too late on Supplemental sources to Basin in general. 10. State Water contractor could be paid with usage charges and property tax in combination. Many examples statewide to select from	County of San Luis Obispo GSA	pasogcp.com	3/29/2019 12:10:00 PM	
Dana Merrill	Project and Management Actions - Concepts	Re: changes in Pumping Allowance from Ag to M and I: most non Ag uses including Manufacturing and Industrial (M and I) which was mentioned and conversion to urban housing or ranchettes can attract a higher financial return on pumped water than Agriculture, Even tree crops, wine grapes and vegetables cannot compete with non Ag buyers of water whether groundwater or supplemental sources. Agriculture needs to be appreciated when it comes to pricing water. Ag is a key economic contributor today helping to drive the strong local economy. It is possible go the way of southern CA and other regions that can converted to non Ag uses. That could happen is Paso Robles if the combination of cutbacks and high price supplemental water makes it an obvious choice to convert to non Ag uses. Plus pressure from the state to build more housing. Those with high priced water to sell will profit in the near term but the agricultural character will change dramatically from the present. The allure of Paso Robles is not only the town but its setting, led by it becoming a world class wine destination. So be careful about moving Ag water to M and I or other uses, as mentioned as an possible strategy, as our very unique character could be lost.	County of San Luis Obispo GSA	pasogcp.com	3/30/2019 6:12:00 PM	
Dan Penkauskas	Additional Comments	I really like the job you've done - good research and analysis of the current state and several proposed solutions with their costs worked out. I particularly like the proposed cost of water for growers - a nominal cost for the first 12", but sharply (10x?) higher for drafts over that. Some growers have very deep pockets indeed, and only draconian rates after the first 12" will encourage them to comply.Thank you.	County of San Luis Obispo GSA	pasogcp.com	4/5/2019 12:29:00 PM	

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Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
Allen Duckworth	Ch. 9 Projects and Management Actions Fact Sheet and Discussion Points 9.2 Discussion Points	It appears that the priorities of the Draft Projects Summaries are in reverse order. Even in a bad year, the Paso Robles Basin and surrounding water shed, receives more than enough good clean rain water to meet our needs so it makes no sense to let that water run down the Salinas River to the Pacific Ocean then purchase water from the unreliable State Water Project that could potentially contaminate our pristine basin. Water from the State Water Project should never be at the top of the list as they have already allocated way more water than they will ever have so we could never count on that water being available when most needed. The pipeline projects are very expensive,should require an Environmental Impact Report and would best serve a limited group of property owners. Such projects would not meet the stated goal of providing equity between who benefits from projects and who pays for projects therefore should only be considered by the individual water districts whose members would be the primary benefactors ratherthan being part of the GSP. Taking advantage of natural recharge methods such as installing check dams in natural percolation areas to redirect more runoff water into the basin would be much more cost effective and benefit a larger portion of the basin. One project that should be at or near the top of the list is enlarging the Salinas Dam because that could restore the Salinas River to the required, year around surface flow which would greatly increase the basin recharge. This project would be financially advantageous because it would be eligible for Proposition 1 grants as well as Federal funds from the RAIL act which will be redirecting money from the failed highspeed rail project to California water storage projects. Let's get our priorities straight and concentrate on providing a sustainable water supply for all the residents rather than a water banking opportunity for a selectgroup of investors. This DRAFT plan looks just like the Assembly Bill 2453 that nearly 80% of the area voters have already rejected. Please listen to the will of the people!	County of San Luis Obispo GSA	pasogcp.com	4/13/2019 1:03:00 PM	
Sheila Lyons	Ch. 9 Projects and Management Actions Fact Sheet and Discussion Points 9.1 Fact Sheet	Has consideration been given to charging cannabis projects for their ability to irrigate from the PR Basin? The state is apparently already doing this. With all the cannabis projects coming into North County this should be considered. See link to state charges: https://www.waterboards.ca.gov/resources/fees/water_rights/docs/fy1819_finalfeeschedulesummary.pdf	County of San Luis Obispo GSA	pasogcp.com	4/11/2019 3:47:00 PM	
Verna Jigour	Ch. 9 Projects and Management Actions Fact Sheet and Discussion Points 9.1 Fact Sheet	"Local Rivers/Streams" Localized recharge of rainfall runoff before it enters a stream or river is also possible. Restoring detention storage functions on *vast areas of rangelands in the watershed* could capture excess stormwater flows more efficiently than engineered structures. Restored native woody and perennial plants, their root systems and associated soil ecosystems, would capture and route more precipitation directly to groundwater right where it falls circumventing the need to capture and divert flood flows to human-maintained basins. [See RainfalltoGroundwater for elaboration.] This is not a small source, as suggested in the second paragraph under Local Rivers/Streams. Applied to the entire watershed/catchment, this is an enormous potential source, as I've strived to point out in my comments on your process.		pasogcp.com	4/15/2019 9:48:00 PM	
Jerry Reaugh	Combined comments on Chapters 6, 7 & 8	The attached are my comments on Chapters 6,7,& 8. Regards, Jerry Reaugh	County of San Luis Obispo GSA	pasogcp.com	4/15/2019 11:52:00 AM	Link: 20190415_Reaugh
Sandi Matsumoto	Ch. 1001 Methodology for Identifying Potential Groundwater Dependent Ecosystem 1001.1000 N/A	Please specify what field verification methods (e.g., isotope analysis, enhanced shallow groundwater monitoring) will be used to definitively determine whether potential GDEs are true GDEs. It is highly advised that multiple depth to groundwater measurements are used to verify whether an iGDE (or NC dataset polygon) is connected to groundwater, so that fluctuations in the groundwater regime can be adequately represented. The analysis described on p.7 to create Figure B-3 only relies on Spring 2017 depth data, which is also after the Jan 1, 2015 SGMA benchmark date. Also, according to the shallow monitoring well data gaps described in Chapter 5 and 7, there is insufficient data to confidently remove data for NC polygons that are >5km away from a shallow well. See Attachment D of this letter for six best practices when using groundwater data to verify the NC dataset.The NC dataset needs to be ground truthed with aerial photography to screen for changes in land use that many not be reflected in the NC dataset (e.g., recent development, cultivated agricultural land, obvious human-made features). Grouping multiple GDE polygons into larger units by location (proximity to each other) and principal aquifer will simplify the process ofevaluating potential effects on GDE due to groundwater conditions under GSP Chapter 7: Sustainable Management Criteria. Groundwater conditions within GDEs should be briefly described within the portion of the Basin Setting Section where GDEs are being identified. Not all GDEs are created equal. Some GDEs may contain legally protected species or ecologically rich communities, whereas other GDEs may be highly degraded with little conservation value. Including a description of the types of species (protected status, native versus non-native), habitat, and environmental beneficial uses (Refer to Attachment C for a list of freshwater species found in the Paso Robles Subbasin and refer to Worksheet 2, p.74 of GDE Guidance Document) can be helpful in assigning an ecological value to the GDEs. Identifying an ecological value of each GDE can help prioritize limited resources when considering GDEs as well as prioritizing legally protected species or habitat that may need special consideration when setting sustainable management criteria. Decisions to remove, keep, or add polygons from the NC dataset into a basin GDE map should be based on best availablescience in a manner that promotes transparency and accountability with stakeholders. Any polygons that are removed, added, or kept should be inventoried in the submitted shapefile to DWR, and mapped in the plan. We recommend revising Figure 4-11, Appendix B, and including it in Chapter 5 to reflect this change.		pasogcp.com	4/15/2019 1:20:00 PM	
Gail Schoettler	Additional Comments	Steve Sinton has been critical to the development of the local groundwater plan for the Paso Robles Basin, which desperately needs such a plan. I have watched the groundwater level fall for decades and now, with all the vineyards in the area, the time is more important than ever to ensure that the Basin can sustain all the agricultural and domestic uses. Agencies involved need time to implement the plan and evaluate how it is working so they can make adjustments as necessary. Given the long drought in California, the plan should also ensure that water levels be given time to stabilize. It is imperative that existing wells not go dry, so please take this into account as well. If results are not good, localities need to be given the opportunity to fix the problems before the Basin takes charge.	Shandon San Juan GSA	pasogcp.com	4/15/2019 3:20:00 PM	
Greg Grewal	Additional Comments	(See attachment)		PBCC Meeting	4/24/2019	Link: 20190425_Grewal
Dick McKinley	City of Paso Robles GSA public hearing: Chapters 5-8	These are public comments from the City of Paso Robles GSA public hearing regarding Chapters 5-8. 1. Dale Gustin “Asked about the relationship of this draft GSP to the Steinbeck litigation. Noted that there has been a lot of rain in 2019, and if the GSP took that into account. The answer was given that the GSP was based on data prior to 2019 per DWR guidelines. 2. Gerry Stover “Asked about wastewater and was informed about the Recycled Water project currently underway, and the recent completion of the Tertiary Treatment portion of the Wastewater Treatment Plant.	City of Paso Robles GSA	Public Meeting; submitted via pasogcp.com	5/2/2019 9:07:00 AM	

Public Comments received through 8/15/2019
to be considered while compiling the Draft GSP for the Paso Basin

Name	Chapter & Section	Comment	GSA	Comment Source	Date/Time	Attachment(s)
William & Doris Land & Energy Co LLC	Additional Comments	Re: Sustainable Groundwater Management Act Ladies and Gentlemen: William & Doris Land & Energy Co., LLC is the owner of approximately 2,440 acres of open land in San Luis Obispo County identified as Assessor's Parcel Nos. 037-321-016 and 037-331-014. While that property has been irrigated with groundwater in the past, there has been no recent irrigation of the property. We have just become aware that the groundwater sustainability plan (the "GSP") being developed for the subbasin underlying our property under Sustainable Groundwater Management Act may deny our property the right to pump groundwater in the future because groundwater has not been applied to the property for a number of years. We write to express our strenuous opposition to any GSP that fails to recognize our overlying groundwater rights or our right to pump groundwater in the future. Precluding the exercise of our overlying rights simply because they have not recently been exercised would amount to an unconstitutional taking of those rights that could result in an enormous reduction in our land value. Should that occur, we would have no alternative but to bring an action for inverse condemnation and other claims to recover that lost value. We want to avoid that outcome. We therefore urge you to recognize the rights of our property and similarly situated lands to pump groundwater regardless of whether those rights have been recently exercised, and to not adopt any GSP that interferes with those rights or discriminates between currently irrigated land and land that has not recently been irrigated. Very Truly Yours, (signed) Manager		Letter to the County Board of Supervisors Office	5/8/2019	
Various Stakeholders	Additional Comments	Supervisor Peschong provides a summary of comments received from various stakeholders and community members.	County of San Luis Obispo GSA	PBCC Meeting	5/22/2019	Link: 20190522_Summary_of_Comments
Submitted by Dick McKinley; comments by Dale Gustin, Gary Dunnican, Cody Furguson, and Patty Smith	City of Paso Robles GSA public hearing - comments on Chapters 9-12	Public comments on Chapters 9-12 from the 6/18/2019 Paso Robles City Council/GSA Meeting (See attachment). To view the agenda for this meeting, please click **here**.	City of Paso Robles GSA	City Council/GSA Meeting, submitted via pasogcp.com	6/19/2019 2:18:00 PM	Link: 20190620_PRCityCouncil