ATASCADERO BASIN
Groundwater
Sustainability Agency

Executive Committee Meeting Agenda

Meeting Date: Thursday, February 4, 2021

Meeting Time: 4:30 p.m.

Meeting Location: Virtual Meeting
Connect via web to attend:
https://zoom.us/j/97678936447?pwd=anZld2IrN1hiTGRKbGRkT1RMNkpuQT09
Meeting ID: 976 7893 6447
Passcode: 213619
or
Dial by your location
+1 669 900 9128 US (San Jose)
+1 346 248 7799 US (Houston)
+1 253 215 8782 US (Tacoma)
+1 646 558 8656 US (New York)
+1 301 715 8592 US (Washington DC)
+1 312 626 6799 US (Chicago)
Meeting ID: 976 7893 6447
Passcode: 213619

1. Call to Order

2. Roll Call

3. Pledge of Allegiance

4. Order of Business
Executive Committee members may request to change the order of business.

5. Introductions

6. General Public Comments
The Executive Committee invites members of the public to address the committee on any subject that is within the purview of the committee and that is not on today's agenda. Comments shall be limited to three minutes.

7. Consent Agenda

The following items are considered routine and non-controversial by staff and may be approved by one motion if no member of the Executive Committee wishes an item removed. If discussion is desired, the item may be removed from the Consent Agenda by an Executive Committee member and will be considered separately. Questions or clarification may be made by the Executive Committee members without removal from the Consent Agenda. Individual items on the Consent Agenda are approved by the same vote that approves the Consent Agenda, unless an item is pulled for separate consideration. Members of the public may comment on the Consent Agenda items.

a. Minutes – October 7, 2020
b. Notice – AMWC Urban Water Master Plan update

8. Old Business:

9. New Business:
   a. GSP Section 8, Sustainable Management Criteria
   b. Request for Future Items
   c. Next Meeting: April 7, 2021, 4:30 p.m.

10. Informational Items
    a. DWR Prop 1 Grant Progress Report

11. Adjournment

ATASCADERO BASIN
Groundwater
Sustainability Agency

TO: Executive Committee

FROM: GSA Staff/ John Neil, Atascadero Mutual Water Company

DATE: February 4, 2021

SUBJECT: Agenda Item 7.a, Minutes from October 7, 2020 Meeting

The Executive Committee (Committee) of the Atascadero Basin Groundwater Sustainability Agency (GSA) held a meeting on Wednesday, October 7, 2020, at 4:30 p.m. via streaming video conference call due to the Covid-19 pandemic.

Roll Call: Chairperson Grigger Jones called the meeting to order at 4:30 p.m. Present at the Committee meeting were Voting Members Jones, Navid Fardanesh, Roberta Fonzi, and Debbi Arnold. A quorum (minimum of 4 voting representatives) of the Committee was established. Voting Members John Hamon and Rob Rossi and Non-voting Member Tom Mora were absent.

Participating Staff and Consultants:

Atascadero Mutual Water Company – John Neil
City of Paso Robles – Christopher Alakel
County of San Luis Obispo – Angela Ford
Templeton Community Services District – Jeff Briltz
GEI Consultants – Mike Cornelius and Lydia Holland
GSI Water Solutions – Paul Sorensen and Nate Page
Others in attendances: John Hollenbeck

Order of Business: The Committee Members reviewed the order of the meeting's agenda and confirmed to conduct the meeting as presented in the agenda.

General Public Comments: Chairperson Jones opened public comment and, seeing none, closed public comment.

Consent Agenda:

Agenda 7.a: July 1, 2020, Meeting Minutes – The Committee reviewed the minutes from the July 1, 2020, meeting. No changes were noted. Member Fardanesh motioned to approve the minutes with a second by Member Fonzi.
Voice vote of Voting Members: Ayes – All. Nays – none. Motion carried.

Old Business Agenda:

Agenda 8.a: GSP Section 6, Water Budget – John Neil introduced the item and summarized the assumptions proposed for the development of the Water Budget. He then introduced Paul Sorensen with GSI Water Solutions, who stepped the Committee through the details of the Water Budget.

Member Fardanesh asked about the assumed 1-percent annual increase in water use from agricultural and municipal users, and Sorensen answered that through hours of discussions with the Working Group, along with review of the municipal Urban Water Management Plans (UWMP) which date back about 5-years. The assumption is judged by the engineers and hydrogeologists to be conservatively high, and over time as the GSP is reviewed and updated, the water usage by these groups will be adjusted based on the updates to UWMP and changes observed in the agricultural land use. The Working Group though the use of the 1-percent annual increase is a good starting point because it matches the County's 2012 Master Water Report assumption.

Member Fonzi asked if the assumption accounts for the potential raising of the maximum storage volume behind Salinas Dam, and Sorensen said it has not because that the likelihood of that project moving forward is uncertain at this time, but certainly would be considered in the future if the dam is modified to store more water. Neil reminded the Committee of the live stream agreement and that it is expected to continue as an operation policy of the dam whether it is modified or not. Member Fonzi asked if the dam is raised, would reduced flow releases from the dam impact water recharge within the Atascadero Basin because of less scouring of sediments, and Neil responded by unlikely due to the granular nature of the alluvial deposits.

Member Fonzi noted on page 27 that municipal use changes are biggest, and Neil responded that the San Luis Obispo Council of Governments (SLOCOG) population growth predictions attribute to this. Member Fonzi identified that SLOCOG has typically been conservatively high on their population predictions and thus our predicted municipal water use is also likely to be conservatively high.

Member Fonzi made a motion for the recommended action presented in the staff report, and the motion was seconded by Member Fardanesh. There was no public comment, and no further discussion by the Committee. Voice vote of Voting Members: Ayes – All. Nays – none. Motion carried.

New Business Agenda:

Agenda 9.a: GSP Section 8, Sustainable Management Criteria Questionnaire – Neil and Mike Cornelius with GEI Consultants presented the agenda item. The questionnaire assists the Working Group and Committee with stakeholder input for the establishment of sustainable management criteria. Member Fardanesh made a motion for the recommended action presented din the staff report, and the motion was second by Member Arnold. There was no public comment, and no further discussion by the Committee. Voice vote of Voting Members: Ayes – All. Nays – none. Motion carried.

Agenda 9.b: Request for Future Items – The Committee did not offer any suggestions for future agenda items.

Agenda 9.c: Next Meeting: January 6, 2021, at 4:30 p.m. – The Committee did not offer any comments regarding the next scheduled meeting.

Informational Items:

Agenda 10.a: DWR Prop 1 Grant Progress Report – Neil advised the Committee that the progress report is presented in their meeting package for their information. The Committee did not offer any comments.

Adjournment:

There being no further business to discuss, Chairperson Jones adjourned the meeting at 5:18 p.m.

Submitted by: _____
Committee Member Rossi, Secretary

ATASCADERO BASIN
Groundwater
Sustainability Agency

TO: Executive Committee

FROM: GSA Staff/ John Neil, Atascadero Mutual Water Company

DATE: February 4, 2021

SUBJECT: Agenda Item 7.b, Atascadero Mutual Water Company Urban Water Master Plan Update Notice

RECOMMENDED ACTION:

Receive notice.

DISCUSSION:

The Department of Water Resources (DWR) requires that water suppliers update their Urban Water Master Plans (UWMP) every five years. The DWR requires that the water suppliers notify local agencies, the public, and other interested parties in their service areas so that they may participate in the UWMP update process.

Notices were sent to the City of Atascadero, County of San Luis Obispo, and the Local Agency Formation.

ATTACHMENTS:

A. AMWC Urban Water Master Plan Update Notice

ATTACHMENT A

5005 EL CAMINO REAL • P.O. BOX 6075 • ATASCADERO, CA 93423 • (805) 466-2428

Atascadero Mutual Water Company

ESTABLISHED 1913

October 6, 2020

Mr. John Neil
General Manager
Atascadero Basin Groundwater Sustainability Agency
5005 El Camino Real
Atascadero, CA, 93422

Subject: Atascadero Mutual Water Company 2020 Urban Water Master Plan Update

Dear Mr. Neil:

Atascadero Mutual Water Company (AMWC) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2020 cycle. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within AMWC's service area over a 20-year planning horizon.

AMWC encourages local agencies, the public, and other interested parties in its service area to participate in the update process. If necessary, a stakeholder workshop may be scheduled in January 2021 to review the administrative draft. The public draft of the UWMP is anticipated to be available for review in March 2021. The plan will be available for review on AMWC's website, www.amwc.us, or at its administrative office, 5005 El Camino Real, Atascadero, Monday through Friday, 8 a.m.-4 p.m.

Please send comments to:

Rob Lepore, GISP
MKN & Associates, Inc.
PO Box 1604
Arroyo Grande, CA 93421
(805) 904-6530
rlepore@mknassociates.us

AMWC will review and possibly take action on the updated UWMP at its June 2021 Board Meeting. Additional notice regarding the date and time of the June meeting will be published before the meeting.

Sincerely,

John Neil, PE
General Manager

ATASCADERO BASIN
Groundwater
Sustainability Agency

TO: Executive Committee

FROM: GSA Staff/ John Neil, Atascadero Mutual Water Company

DATE: February 4, 2021

SUBJECT: Agenda Item 9.a, GSP Section 8, Sustainable Management Criteria

RECOMMENDED ACTION:

Authorize staff to post Section 8, Sustainable Management Criteria, of the Atascadero Basin Groundwater Sustainability Plan on the Communications Portal for a 45-day public comment period.

DISCUSSION:

The Sustainable Groundwater Management Act (SGMA) regulations require that groundwater sustainability plans (GSP) include a section that defines the conditions that constitute sustainable groundwater management in a basin. This sustainable management criteria (SMC) defines the future sustainable conditions in the basin and guides the GSA to actions that will achieve these future conditions.

SGMA outlines a process by which undesirable results in a basin are characterized and measured using the six sustainability indicators listed below, five of which are applicable to the Atascadero Basin.

1. Chronic lowering of groundwater elevations levels
2. Reduction in groundwater storage
3. Degraded water quality
4. Land subsidence
5. Depletion of interconnected surface water
6. Sea water intrusion *(not applicable)*

SGMA requires the establishment of minimum thresholds and measurable objectives for each of these sustainability indicators.

Minimum thresholds refer to numeric values for each sustainability indicator used to define undesirable results. They are established at representative monitoring sites and are indicators of where an unreasonable condition might occur. For example, a groundwater elevation might be a minimum threshold if lower groundwater elevations would result in a significant and unreasonable reduction in groundwater storage.

Measurable objectives refer to specific, quantifiable goals for the maintenance or improvement of specified groundwater conditions that have been included in an adopted GSP to achieve the sustainability goal for the basin.

Minimum thresholds for groundwater elevation and storage were established at the historic lows identified in Section 6, Water Budget, of the GSP. Minimum thresholds for other sustainability indicators were established with the development Section 8 of the GSP.

FISCAL IMPACT:

Fifty percent of the cost to develop the GSP, including preparation of the sustainable management criteria, will be funded through a Proposition 1 grant awarded to the GSA by the Department or Water Resources, with the remaining costs being a local match.

ATTACHMENTS:

A. Draft GSP Section 8, Sustainable Management Criteria

Atascadero Basin Groundwater Sustainability Plan

Draft Section for Public Comment

Section 8

Sustainable Management Criteria

Released for Comment February 1st, 2021

Comments for this draft document are being collected via an electronic form available online at www.atascaderobasin.com. If you require a paper form to submit via US mail, please contact Atascadero Mutual Water Company at 5005 El Camino Real, Atascadero, CA 93422.

Thank you for your interest in sustainable groundwater management.

ATASCADERO BASIN
Groundwater
Sustainability Agency

GEI Consultants

Consulting Engineers and Scientists

ATASCADERO BASIN Groundwater Sustainability Agency

GSI Water Solutions, Inc.

Draft Atascadero Groundwater Sustainability Plan

Atascadero Groundwater Subbasin Section 8

DRAFT

February 2021

Prepared for: Atascadero Subbasin Groundwater Sustainability Agency

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8. Sustainable Management Criteria (§ 354.22-30)

This section defines the conditions that constitute sustainable groundwater management, discusses the process by which the Atascadero Basin (Basin) will characterize undesirable results, and establishes minimum thresholds and measurable objectives for each sustainability indicator.

This is the fundamental section that defines sustainability in the Basin, and it addresses significant regulatory requirements. The measurable objectives, minimum thresholds, and undesirable results presented in this section define the future sustainable conditions in the Basin and guide the GSAs to actions that will achieve these future conditions.

This section presents the data and methods used to develop Sustainable Management Criteria (SMC) and demonstrate how they influence beneficial uses and users. The SMC presented in this section are based on currently available data and application of the best available science. As noted in this Groundwater Sustainability Plan (GSP), data gaps exist in the hydrogeologic conceptual model. Uncertainty caused by these data gaps was considered when developing the SMC. Due to uncertainty in the hydrogeologic conceptual model, these SMC are considered initial criteria and will be reevaluated and potentially modified in the future as new data become available.

The SMC are grouped by sustainability indicators. The following five sustainability indicators are applicable in the Basin:

1. Chronic lowering of groundwater elevations levels
2. Reduction in groundwater storage
3. Degraded water quality
4. Land subsidence
5. Depletion of interconnected surface water

The sixth SMC, sea water intrusion, is not applicable in the Basin.

To retain an organized approach, this section follows the same structure for each sustainability indicator. The description of each Sustainable Management Criterion contains all the information required by Section 354.22 *et. seq* of the Sustainable Groundwater Management Act (SGMA) regulations and outlined in the SMC BMP (DWR, 2017), including:

- How locally defined significant and unreasonable conditions were developed
- How minimum thresholds were developed, including:

    - The information and methodology used to develop minimum thresholds (§354.28(b)(1))
    - The relationship between minimum thresholds and the relationship of these minimum thresholds to other sustainability indicators (§354.28 (b)(2))
    - The effect of minimum thresholds on neighboring basins (§354.28 (b)(3))
    - The effect of minimum thresholds on beneficial uses and users (§354.28 (b)(4))
    - How minimum thresholds relate to relevant federal, state, or local standards (§354.28 (b)(5))
    - The method for quantitatively measuring minimum thresholds (§354.28 (b)(6))
- How measurable objectives were developed, including:
    - The methodology for setting measurable objectives (§354.30)
    - Interim milestones (354.30 (a), §354.30 €, §354.34 (g)(3))
- How undesirable results were developed, including:
    - The criteria defining when and where the effects of the groundwater conditions because undesirable results based on a quantitative description of the combination of minimum threshold exceedances (§354.26 (b)(2))
    - The potential causes of undesirable results (§354.26 (b)(1))
    - The effects of these undesirable results on the beneficial users and uses (§354.26 (b)(3))

8.1 Definitions

SGMA regulations and legislation contain several new terms relevant to the SMC. These terms are defined below using the definitions included in SGMA regulations (§351, Article 2). Where appropriate, additional explanatory text is added in italics. This explanatory text is not part of the official definitions of these terms. To the extent possible, plain language, including limited use of overly technical terms and acronyms, was used so that a broad audience will understand the development process and implications of the SMC.

- **Interconnected surface water** refers to surface water that is hydraulically connected at any point by a continuous saturated zone to the underlying aquifer and the overlying surface water.
    - Interconnected surface waters are parts of streams, lakes, or wetlands where the groundwater table is at or near the ground surface and there is water in the lakes, streams, or wetlands.
- **Interim milestone** refers to a target value representing measurable groundwater conditions, in increments of 5 years, set by an Agency as part of a GSP

- Interim milestones are targets such as groundwater elevations that will be achieved every 5 years to demonstrate progress towards sustainability.

- **Management area** refers to an area within a basin for which the GSP may identify different minimum thresholds, measurable objectives, monitoring, or projects/management actions based on differences in water use sector, water source type, geology, aquifer characteristics, or other factors.
- **Measurable objectives** refer to specific, quantifiable goals for the maintenance or improvement of specified groundwater conditions that have been included in an adopted Plan to achieve the sustainability goal for the Basin.
  - Measurable objectives are goals that the GSP is designed to achieve.
- **Minimum thresholds** refer to numeric values for each sustainability indicator used to define undesirable results.
  - Minimum thresholds are established at representative monitoring sites (RMS). Minimum thresholds are indicators of where an unreasonable condition might occur. For example, a groundwater elevation might be a minimum threshold if lower groundwater elevations would result in a significant and unreasonable reduction in groundwater storage.
- **Representative monitoring** refers to a monitoring site within a broader network of sites that typifies one or more conditions within the Basin or an area of the Basin.
- **Sustainability indicator** refers to any of the effects caused by groundwater conditions occurring throughout the Basin that, when significant and unreasonable, cause undesirable results, as described in Water Code Section 10721(x).
- The five sustainability indicators relevant to the Basin are listed on page 1.
- **Uncertainty** refers to a lack of understanding of the Basin setting that significantly affects an Agency's ability to develop SMC and appropriate projects/management actions in a Plan, or to evaluate the efficacy of Plan implementation, and therefore may limit the ability to assess whether a basin is being sustainably managed.
- **Undesirable Result** Section 10721 of SGMA states that undesirable result means one or more of the following effects caused by groundwater conditions occurring throughout the Basin:

  1. *Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon. Overdraft during a period of drought is not sufficient to establish a chronic lowering of groundwater levels if extractions and groundwater recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by increases in groundwater levels or storage during other periods.*
  2. *Significant and unreasonable reduction of groundwater storage.*
  3. *Significant and unreasonable seawater intrusion.*

4. *Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.*
5. *Significant and unreasonable land subsidence that substantially interferes with surface land uses.*
6. *Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.*

Section § 354.26 of the SGMA regulations states, "The criteria used to define when and where the effects of the groundwater conditions cause undesirable results …shall be based on a quantitative description of the combination of minimum threshold exceedances that cause significant and unreasonable effects in the Basin."

8.2 Current Atascadero Basin SGMA Prioritization

Prior to the 2016 Basin Boundary Modification Process, the Atascadero Basin was considered part of the Paso Robles Basin, and had a high priority designation and subject to a condition of critical overdraft. As a result of being part of the Paso Robles Basin, the Atascadero subarea was subject to SGMA. Through the Basin Boundary Modification (BBM) process, DWR formally identified the Atascadero Basin as a separate basin from the Paso Robles Basin.

The Atascadero Basin currently has a very low priority based on the 2019 DWR Basin Prioritization. The SGMA 2019 Basin Prioritization process was conducted to reassess the priority of the groundwater basins following the 2016 Basin boundary modification, as required by the Water Code. For the SGMA 2019 Basin Prioritization, DWR followed the process and methodology developed for the CASGEM 2014 Basin Prioritization, adjusted as required by SGMA and related legislation. The following components are used to determine the basin prioritization:

1. The population overlying the basin or subbasin
2. The rate of current and projected growth of the population overlying the basin or subbasin
3. The number of public supply wells that draw from the basin or subbasin
4. The total number of wells that draw from the basin or subbasin
5. The irrigated acreage overlying the basin or subbasin
6. The degree to which persons overlying the basin or subbasin rely on groundwater as their primary source of water
7. Any documented impacts on the groundwater within the basin or subbasin, including overdraft, subsidence, saline intrusion, and other water quality degradation
8. Any other information determined to be relevant by the department, including adverse impacts on local habitat and local streamflows

The 2019 Basin prioritization identifies the Atascadero Basin as very low priority and that it is being managed in a sustainable manner. The Sustainability Goal for the Basin is to continue managing the Basin in a sustainable manner using historic management strategies and actions to develop minimum thresholds for each sustainability indicator applicable in the Basin.

8.3 Sustainability Goal

§ 354.24 Sustainability Goal

Each Agency shall establish in its Plan a sustainability goal for the basin that culminates in the absence of undesirable results within 20 years of the applicable statutory deadline. The Plan shall include a description of the sustainability goal, including information from the basin setting used to establish the sustainability goal, a discussion of the measures that will be implemented to ensure that the basin will be operated within its sustainable yield, and an explanation of how the sustainability goal is likely to be achieved within 20 years of Plan implementation and is likely to be maintained through the planning and implementation horizon.

As described in Section 8.2 – Current Atascadero Basin SGMA Prioritization, the Atascadero Basin is a low-priority basin because groundwater has been and continues to be sustainably managed. Although not required by SGMA regulations, the Basin's water managers determined that this was a good time to continue their proactive management of the Atascadero Basin and to prepare a GSP. Consistent with DWR's determination that the Basin is in a sustainable condition, the water managers' goal is to continue to manage the Basin sustainably. The sustainability goal is provided below:

> *The goal of the Atascadero Basin GSP is to sustainably manage groundwater resources over the long term for the benefit of Basin stakeholders. This GSP outlines the approach using information developed for this GSP to achieve a sustainable groundwater resource and continue to avoid undesirable results throughout the 20-year SGMA implementation horizon and beyond, while meeting the water supply needs of Basin stakeholders. In adopting this GSP, it is the express goal of the GSA to balance the needs of all groundwater uses and users in the Basin. We have been and will continue to integrate projects and management actions with the natural system in the Basin to operate the Basin sustainably.*

A number of management actions and conceptual projects are included in this GSP. Some combination of these management actions and conceptual projects will be implemented, when appropriate, to ensure the Basin is operated to maintain its sustainable yield and sustainability.

These management actions and conceptual projects may include (note – projects/management actions will be developed in future chapters):

- Monitoring, reporting, and outreach
- Promoting Best Water Use Practices
- Promoting stormwater capture
- Promoting voluntary fallowing of agricultural land
- Mandatory pumping limitations in specific areas
- Conceptual projects
- Nacimiento Water Project (NWP) Delivery to northern portion of the Basin
- Expansion of Salinas Dam

The management actions and conceptual projects are designed to maintain sustainability for 20 years by one or more of the following means:

- Educating stakeholders and prompting changes in behavior to improve chances of maintaining sustainability
- Increasing awareness of groundwater pumping impacts to promote voluntary reductions in groundwater use through improved water use practices or fallowing crop land
- Increasing Basin recharge by capturing excess stormwater under approved permits
- Developing new renewable water supplies for use in the Basin to offset groundwater pumping

8.4 Process for Establishing Sustainable Management Criteria and Undesirable Results

8.4.1 *Sustainable Management Criteria*

SMC for the Basin were developed using information from public input, received in public surveys, public meetings, comment forms; hydrogeologic analysis of Basin conditions; and meetings with GSA staff and Executive Committee members. The process built on the Atascadero Basin GSA participants long history of involving interested parties – including rural residents, farmers, local cities, and the county – in public meetings focused on groundwater resource planning.

The general process for establishing SMC and conditions constituting undesirable results in the Basin included:

- Holding a series of public outreach meetings that outlined the GSP development process and introduced stakeholders to SMC.

- Surveying the public and gathering input on minimum thresholds and measurable objectives. The survey questions were designed to get public input on all five sustainability indicators applicable to the Basin. A summary of the survey results is included in Appendix 8A.
- Analyzing survey results to assess preferences and trends relevant to SMC. Survey results and public comments from outreach meetings were analyzed to assess if different areas in the Basin had different preferences for what constitutes and undesirable result in the Basin and how minimum thresholds and measurable objectives are established.
- Combining survey results, outreach efforts, and hydrogeologic data to describe undesirable results and set initial conceptual minimum thresholds and measurable objectives.
- Conducting public meetings to present initial conceptual minimum thresholds and measurable objectives and receive additional public input. Three meetings on SMC were held in the Basin.
- Reviewing public input on preliminary SMC with GSAs.

8.5 Chronic Lowering of Groundwater Levels Sustainability Indicator

This section presents and describes the SMC for chronic lowering of groundwater levels by first describing the significant and unreasonable conditions in the Basin that would constitutes an undesirable result. Then minimum thresholds and measurable objectives are summarized for each well in the groundwater level representative monitoring network that will protect the Basin against the undesirable result condition. These criteria are described for each element required by SGMA regulations included as subsections below.

8.5.1 *Undesirable Results*

8.5.1.1 Criteria for Defining Undesirable Results

The chronic lowering of groundwater elevation undesirable result is a quantitative combination of groundwater elevation minimum threshold exceedances. For chronic lowering of groundwater elevations, an exceedance is defined by the annual average (e.g., spring and fall) water level below the well's defined minimum threshold. For the Atascadero Basin, the groundwater elevation undesirable result is:

> *Over the course of two years, no more than two exceedances for the groundwater elevation minimum thresholds within a defined area of the Basin for any single principal aquifer. A single monitoring well in exceedance for two consecutive years also represents an undesirable result for the area of the Basin represented by the monitoring well. Geographically isolated exceedances will require investigation to determine if local or Basin wide actions are required in response.*

Undesirable results provide flexibility in defining sustainability. Increasing the number of allowed minimum threshold exceedances provides more flexibility but may lead to significant and unreasonable conditions for a number of beneficial users. Reducing the number of allowed minimum threshold exceedances ensures strict adherence to minimum thresholds but reduces flexibility due to unanticipated hydrogeologic conditions.

8.5.1.2 Potential Causes of Undesirable Results

Conditions that may lead to an undesirable result include the following:

- Localized pumping clusters. Even if regional pumping is maintained within the sustainable yield, clusters of high-capacity wells may cause excessive localized drawdowns that lead to undesirable results in specific areas.
- Expansion of de minimis pumping. Individual de minimis pumpers do not have a significant impact on Basin-wide groundwater elevations. However, many de minimis pumpers are often clustered in specific residential areas. Pumping by these de minimis users is not currently regulated under this GSP. Adding additional domestic de minimis pumpers in specific areas of the Basin may result in excessive localized drawdowns and undesirable results. Additionally, increased pumping outside and west of the Basin may reduce subsurface inflow to the Basin which could lead to undesirable results in the Basin.
- Extensive drought. Minimum thresholds were established based on historical groundwater elevations and reasonable estimates of future groundwater elevations. Extensive droughts may lead to excessively low groundwater elevations and undesirable results.

8.5.1.3 Effects on Beneficial Users and Land Uses

The primary detrimental effect on beneficial users from allowing multiple exceedances occurs if more than one exceedance occurs in a small geographic area. Allowing 15 percent exceedances is reasonable if the exceedances are spread out across the Basin. If the exceedances are clustered in a small area, it will indicate that significant and unreasonable effects are being born by a localized group of landowners.

8.5.2 *Locally Defined Undesirable Results*

Significant and unreasonable groundwater levels in the Basin are those that:

1. Impact ability of existing domestic wells of average depth to produce adequate water for domestic purposes
2. Causes significant financial burden to those who rely on the groundwater Basin
3. Interfere with other SGMA sustainability indicators

8.5.3 *Information and Methodology Used to Establish Measurable Objectives and Minimum Thresholds*

> **Chronic Lowering of Groundwater Levels.** The minimum threshold for chronic lowering of groundwater levels shall be the groundwater elevation indicating a depletion of supply at a given location that may lead to undesirable results. Minimum thresholds for chronic lowering of groundwater levels shall be supported by the following:
>
> (A) The rate of groundwater elevation decline based on historical trends, water year type, and projected water use in the basin.
>
> (B) Potential effects on other sustainability indicators.
>
> *– § 354.28 Minimum Thresholds (c)(1)*

The information used for establishing the chronic lowering of groundwater levels measurable objective and minimum thresholds includes:

- Information on the public definition of significant and unreasonable conditions and preferred current and future groundwater elevations, gathered from the SMC survey and public outreach meetings
- Historical groundwater elevation data from wells monitored by the county of San Luis Obispo
- Depths and locations of existing wells
- Maps of current and historical groundwater elevation data

The specific methodology used in establishing minimum thresholds recognizes that the Basin is currently being sustainably managed and provides a quantitative measure at each groundwater level representative monitoring well to ensure that groundwater levels continue to be sustainably managed throughout the plan implementation period. For each well, the following procedure was applied:

1. Identify historic high and historic low groundwater levels.
2. The minimum thresholds represent historic low groundwater measured in each well.
3. This mid-point between historic high and historic low was established as the measurable objective for each well.
4. Using data for the past 20 years (2000-2019) a trend line was established and projected to 2042.

5. If the 2042 projection for each well falls below measurable objective, this is an indicator that projects/management actions may be required in this area of the Basin to reverse the trend and achieve the measurable objective by 2042. If this is the case, interim milestones were set at 5-year targets between 2022 and 2042.
6. If the trend line projection instead falls above the measurable objective, then interim milestones were not established, and area specific projects/management actions will likely not be required in these areas of the Basin.

This methodology for setting Minimum Thresholds and Measurable Objectives is illustrated in Figure 8-1. The methodology for setting interim milestones is shown on Figure 8-2.

8.5.4 *Measurable Objective*

8.5.4.1 Methodology for setting Measurable Objectives

Methodology for setting measurable objectives is described in Section 8.5.3 – Information and Methodology Used to Establish Measurable Objectives and Minimum Thresholds, above.

8.5.4.2 Alluvial Aquifer Measurable Objectives

Measurable Objectives for Alluvial Aquifer wells are listed in Table 8-1. Maps showing the location of each of the Representative Monitoring Sites representing the Alluvial Aquifer are included in Appendix 8B. Appendix 8B also includes the well hydrograph for each will with the draft minimum threshold, measurable objective, and if needed, interim milestones.

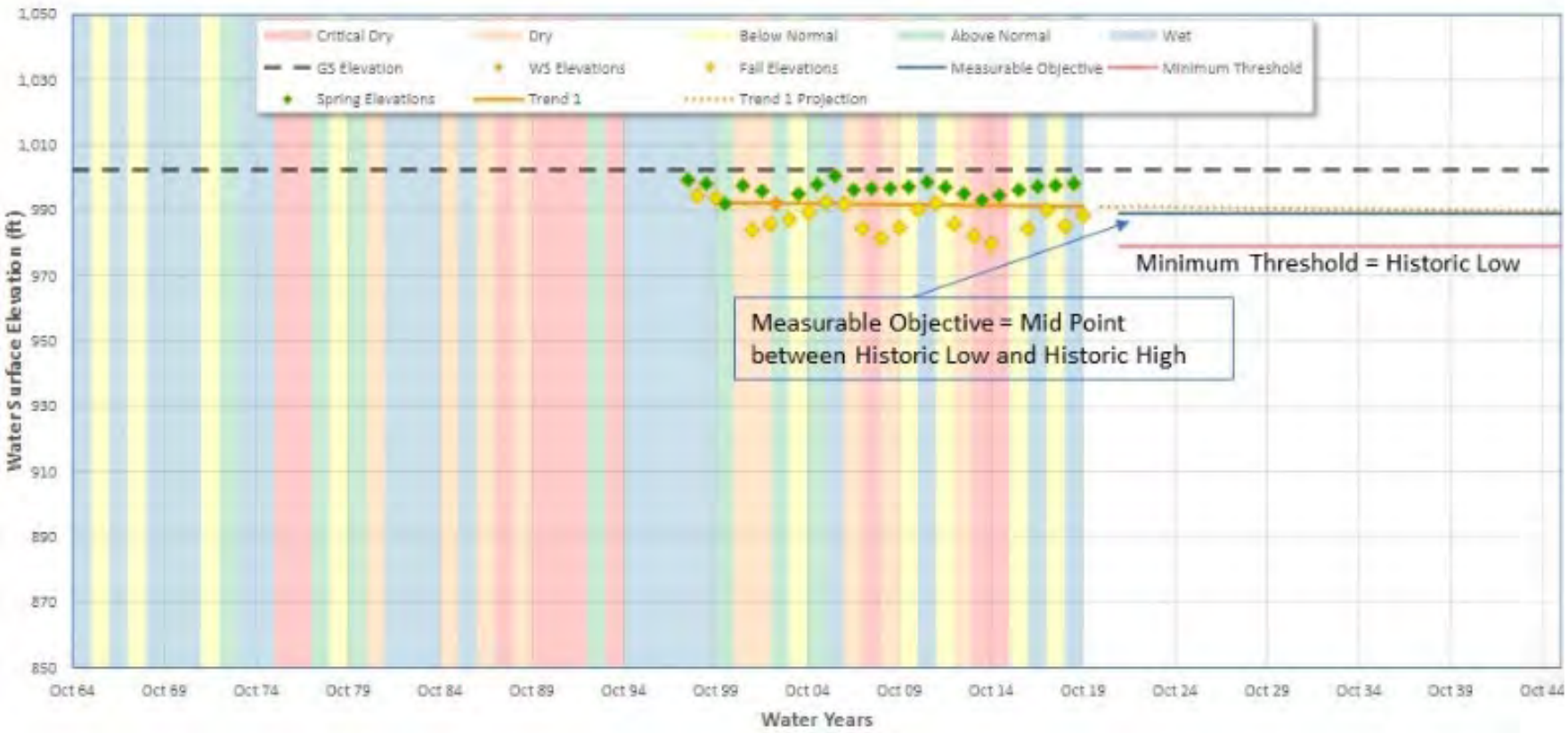

Figure 8-1. Groundwater Level Minimum Thresholds and Measurable Objectives

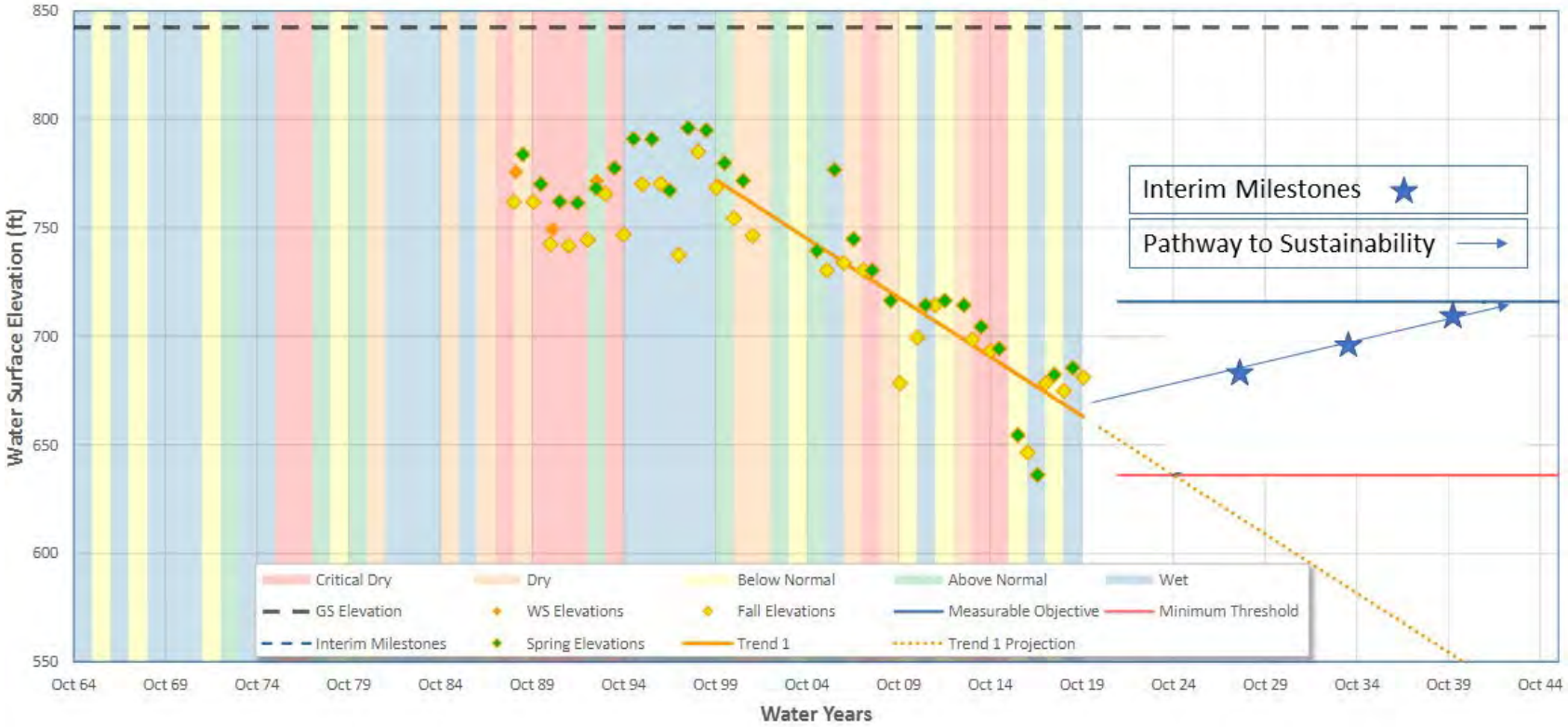

Figure 8-2. Groundwater Level Interim Milestones

Table 8-1. Groundwater Levels Sustainable Management Criteria

	Well ID	Well Name	State Well Number	Well Depth (ft)	Ground Surface Elevation (ft)	Reference Point Elevation (ft)	Screen Interval Range (ft btoc)	Water Surface Elevation Range (ft. msl)	2000-2020 Trend Results (ft/year)	Proposed MT (ft)	Proposed MO (ft)	Interim Milestones 2027	2032	2037	2042	Comments
Alluvial Aquifer (Qa)	001946-PASO-0182	PASO-0182	27S12E09N002M	85	721	721	44-85	658.0 - 696.8	0.127	658	677	NA	NA	NA	NA	
	002125-27S/12E-21XX6	27S/12E-21XX6		61	754.18	754.18	31-51	725.4 - 738.2	2.919	725	731	NA	NA	NA	NA	Data only from 2017 to present, not shown on map
	002134-27S/12E-29H03	27S/12E-29H03	27S12E29H003M	65		753	35-55	709.6 - 739.3	0.119	709	724	NA	NA	NA	NA	
	002014-28S/12E-04J04	28S/12E-04J04	28S12E04J004M	70	802.37	802.4	30-70	729.3 - 793.8	0.65	729	761	NA	NA	NA	NA	
	002023-28S/12E-05AX2	28S/12E-05AX2		60	796.21	796.2	25-55	774.9 - 783.1	0.253	774	778	NA	NA	NA	NA	Data only from 2017 to present, not shown on map
	001996-28S/12E-04J02	28S/12E-04J02	28S12E04J002M	86	801.99	795.8	21-86	742.0 - 785.7	0.675	742	764	754	756	758	764	
	001995-28S/12E-10R04	28S/12E-10R04	28S12E10R004M	75	825.02	820	46-75	770.9 - 804.5	0.344	770	787	785	783	785	787	
	001993-28S/12E-14K04	28S/12E-14K04	28S12E14K004M	105	838.78	835	50-100	785.8 - 817.0	0.091	785	801	NA	NA	NA	NA	
	002033-28S/12E-25B03	28S/12E-25B03	28S12E25B003M	120	866.78	867.8	100-120	832.8 - 857.1	0.106	832	844	NA	NA	NA	NA	
	002053-SL0607989492	SL0607989492	E11W-26B	35	1002.97	1003	Oct-35	977.5 - 990.0	0.032	977	980	NA	NA	NA	NA	
	001710-PASO-0263	PASO-0263	29S13E19H004M	57	1002.5	1005	29-49	979.8 - 1000.7	0.054	979	989	NA	NA	NA	NA	
Paso Robles Formation Aquifer (Qtp)		TCSD Selby Well		50		764.5	25-50 200-360									No water level data to display
	002126-27S/12E-17B02	27S/12E-17B02	27S12E17B002M	400	828.31	828.3	380-400	570.3 - 782.3	0.409	570	676	NA	NA	NA	NA	
	001707-PASO-0328	PASO-0328	27S12E17E001M	310	842.4	842.4	190-300	636.1 - 796.1	5.448	636	716	620	652	684	716	
	002132-27S/12E-20A02	27S/12E-20A02	27S12E20A002M	205	779.35	776	105-195	698.0 - 755.0	1.242	698	726	702	700	713	726	
	001926-PASO-0283	PASO-0283	27S12E20R001M	230	771	771	110-230	673 - 747	0.787	673	710	NA	NA	702	710	
	002078-27S/12E-22M01	27S/12E-22M01	27S12E22M001M	550	854.15	850.5	pump @ 300'	679.0 - 810.7	1.846	679	745	731	736	741	745	Low of water surface range driven by historical data. MT selected from more current data
	002083-27S/12E-33G01	27S/12E-33G01	27S12E33G001M	460	901.46	892	200-460	678.3 - 783.2	0.898	678	730	NA	NA	NA	NA	
	001708-PASO-0317	PASO-0317	28S12E04J006M	153	800.51	800.5	93-153	709.2 - 791.3	0.83	709	750	NA	744	746	750	
	002001-28S/12E-10A03	28S/12E-10A03	28S12E10A003M	500	810.95	808.3	157-500	631.1 - 793.0	1.331	631	712	NA	NA	NA	NA	
	001927-PASO-0399	PASO-0399	28S12E11K002M	603	820	882	300-600	180 - 766	0.328	707	736	NA	NA	NA	NA	Water surface range driven by data prior to 1981, possibly inaccurate
	002002-28S/13E-31F02	28S/13E-31F02	28S13E31F002M	310	878.54	884.3	55-300	785.7 - 873.2	0.851	786	829	NA	NA	823	829	
	002124-27S/12E-21XX5	27S/12E-21XX5		360	752.46	752.5	110-140 180-250 300-360	661.1 - 737.5	10.874	661	699	NA	NA	NA	NA	Lack of fall data likely contributes to extreme trend, not shown on map
	002082-27S/12E-33F01	27S/12E-33F01	27S12E33F001M	340	882.13	880	140-340	689.8 - 790	0.916	689	739	NA	NA	NA	NA	Not shown on map
		27S/12E-XXXX1		650		723.2	260-420 440-640									No water level data to display
	002016-28S/12E-04J05	28S/12E-04J05	28S12E04J005M	360	803.13	803.1	145-190 210-360	696.8 - 795.0	1.132	697	746	NA	NA	737	746	Not shown on map

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8.5.4.3 Paso Robles Formation Aquifer Measurable Objective

Measurable Objectives for Paso Robles Formation wells are listed in Table 8-1. Maps showing the location of each of the Representative Monitoring Sites representing the Paso Robles Formation Aquifer are included in Appendix 8C. Appendix 8C also includes the well hydrograph for each will with the draft minimum threshold, measurable objective, and if needed, interim milestones.

8.5.5 *Minimum Thresholds*

Methodology for setting minimum thresholds is described in Section 8.5.3 – Information and Methodology Used to Establish Measurable Objectives and Minimum Thresholds, above.

8.5.5.1 Alluvial Formation

Minimum Thresholds for Alluvial Aquifer wells are listed in Table 8-1 and SMC hydrographs for each Alluvial Formation well is provided in Appendix 8B.

8.5.5.2 Paso Robles Formation

Minimum Thresholds for Paso Robles Formation wells are listed in Table 8-1 and SMC hydrographs for each Paso Robles Formation well is provided in Appendix 8C.

8.5.5.3 Minimum Threshold Impacts on Domestic Wells

Impacts to domestic wells by fluctuating groundwater levels have not been reported in the Basin. Given that minimum thresholds have been set at the lowest groundwater levels historically measured in each representative monitoring well, we do not expect these levels to have a negative impact on domestic wells in the future. A reliable database of existing domestic wells including number, location and depth of wells was not available for direct comparison against minimum threshold values established in the representative monitoring network for this initial GSP. This data gap will be filled during the implementation period through implementation of a private well survey and registration program. More information on this program is provided in Section 8.5.2.

8.5.5.4 Relation to Other Sustainability Indicators

Since minimum thresholds were derived by reviewing historic water level data for each well and represent the historic low levels experienced in the past at each of these well locations, it is unlikely that conflicts between wells or between other sustainability indicators will occur since conflicts have not been observed in the past based on our understanding of groundwater Basin conditions described in the early sections of this GSP.

Groundwater Storage: Thresholds set to maintain consistent levels over time that are at or below the sustainable yield so should not adversely affect storage.

Seawater Intrusion: Due to the location of the Atascadero Basin, seawater intrusion is not applicable.

Degraded Water Quality: Since groundwater levels will be maintained, there will be no degradation of water quality through upwelling of poor-quality water. Changes in gradients could cause poor quality water flowing towards supply wells This is dependent on changes in groundwater gradients and not levels themselves.

Subsidence: A significant and unreasonable condition for subsidence is permanent pumping induced subsidence that substantially interferes with surface land use. Subsidence is caused by dewatering and compaction of clay-rich sediments in response to lowering groundwater levels. Land surface subsidence occurs when groundwater levels drop below historic low levels in an area of the Basin and if compressible clays are also present at depth in the same areas experience groundwater level declines. Because groundwater levels minimum thresholds at representative monitoring wells are being set at, but not below historic groundwater level lows in the Basin, land surface subsidence will not be triggered in the Atascadero Basin even if vulnerable clay material is present at depth.

Depletion of Interconnected Surface Water: Section 5 – Groundwater Conditions and Section 6 – Water Budgets, describe and quantify surface water inflow and outflow to the Basin as well as steam flow gain and depletion that has occurred historically. Groundwater levels measured at representative monitoring wells will serve as a proxy for depletion of interconnected surface water, and in addition, where available stream flow gages will continue to measure surface water inflow and outflow allowing for direct measurement of surface water gains and losses to the groundwater systems based on future hydrologic and pumping conditions in the Basin.

8.5.5.5 Effects on Neighboring Basins

The Atascadero Basin is hydrologically separated from Paso Robles Basin by the Rinconada fault. Groundwater levels in the Atascadero Basin are not expected to impact the Paso Robles Basin, but the two basins will work together to ensure no adverse effects.

8.5.5.6 Effects on Beneficial Users and Land Users

Ag Users: Minimum Thresholds could limit pumping in the basins and therefore limit crop production and economic growth.

Urban Land Uses and Users: Limits groundwater production in the Basin and may limit urban growth.

Domestic Land Uses and Users: Threshold protects most domestic wells and therefore should have positive benefit. However, some of the shallowest wells may necessitate owners drill deeper wells. May limit non-de minimis groundwater uses.

Ecological Land Uses and Users: Threshold protects ecological habitats as they are set to avoid long term declines and impacts.

8.5.5.7 Relevant Federal, State, or Local Standards

There are no relevant standards to lowering of groundwater levels.

8.5.5.8 Method for Quantitative Measurement of Minimum Threshold

Groundwater levels will be directly measured from existing or new monitoring wells included in the Representative Monitoring Network. Monitoring will meet the requirements outlined in the technical and reporting standards under SGMA regulations.

8.5.5.9 Interim Milestones

Interim milestones will be directly measured from existing or new monitoring wells included in the Representative Monitoring Network. Monitoring will meet the requirements outlined in the technical and reporting standards under SGMA regulations.

8.6 Reduction in Groundwater Storage – SMC

This section presents SMC for management of groundwater storage in the Basin. By way of context, the water budget analysis completed in Section 6 – Water Budgets quantified the groundwater budget and calculated cumulative change in Basin storage for the historical water budget period 1981 to 2011, the current budget period 2012 to 2016 and the future/projected water budget period of through 2042. In summary, cumulative change in groundwater storage for the historical period increased by 43,200 AF, decreased by 12,600 AF during the current budget period which included the most recent drought and then is projected to increase by 18,000 AF through the projected future water budget in 2042. The Basin has and is projected to continue to be very healthy from the groundwater storage perspective and the SMC presented in this section provide the criteria by which successful sustainable groundwater management will be determined.

8.6.1 *Undesirable Results*

8.6.1.1 Criteria for Establishing Undesirable Results

The reduction in groundwater storage undesirable result is a quantitative combination of reduction in groundwater storage minimum threshold exceedances. There is only one reduction in groundwater storage minimum threshold because groundwater storage is a basin-wide determination. Therefore, no minimum threshold exceedances are allowed and the "reduction in groundwater storage undesirable" result is:

> *During average hydrologic conditions, and as a long-term average over all hydrologic conditions, there shall be no reduction in groundwater storage below the historical low in cumulative*

groundwater storage that occurred during the historical water budget period in the early 1990's.

8.6.1.2 Potential Causes of Undesirable Results

Conditions that may lead to an undesirable result for the reduction in groundwater storage sustainability indicator include the following:

- Expansion of non-de minimis pumping. Additional non-de minimis pumping may result in continued decline in groundwater elevations and exceedance of the groundwater level SMC that is used as proxy for reduction in groundwater storage minimum threshold.
- Expansion of de minimis pumping. Pumping by de minimis users is not regulated under this GSP. Adding domestic de minimis pumpers in the Basin may result in lower groundwater elevations, and an exceedance of the proxy minimum threshold.
- Extensive, unanticipated drought. Minimum thresholds are established based on reasonable anticipated future climatic conditions. Extensive, unanticipated droughts may lead to excessively low groundwater recharge and unanticipated high pumping rates that could cause lower groundwater elevations and an exceedance of the proxy minimum threshold.

8.6.1.3 Effects on Beneficial Users and Land Use

The practical effect of this GSP for protecting against the "reduction in groundwater storage undesirable" result is that it encourages no net change in groundwater elevations and storage during average hydrologic conditions and over the long-term. Therefore, during average hydrologic conditions and over the long-term, beneficial uses and users will have access to the same amount of groundwater in storage that currently exists, and the beneficial users and uses of groundwater are protected from undesirable results. Pumping at the long-term sustainable yield during dry years would likely temporarily lower groundwater elevations and reduce the amount of groundwater in storage. Such short-term impacts, due to drought, are anticipated in SGMA and management actions should contain sufficient flexibility to accommodate reductions in groundwater in storage by ensuring periods of declines in groundwater levels or storage are offset by increases in groundwater levels or storage during normal or wet periods. Prolonged reductions in the amount of groundwater in storage could lead to undesirable results affecting beneficial users and uses of groundwater. During dry periods, groundwater pumpers may be temporarily impacted by temporary reductions in the amount of groundwater in storage drops and lower water levels in their wells.

8.6.2 *Locally defined Significant and Unreasonable Conditions*

As stated in Section 8.4.1 – Sustainable Management Criteria, the locally defined undesirable result for groundwater storage conditions is:

During average hydrogeologic conditions, and as a long-term average over all hydrogeologic conditions, there shall be no

reduction in groundwater storage below the historical low in cumulative groundwater storage that occurred during the historical water budget period in the early 1990's.

Groundwater storage conditions that are considered significant and unreasonable would include any instance in which cumulative groundwater storage drops below the lowest level in the historic record, -36,000 AF (*see* Figure 8-3).

8.6.3 *Minimum Thresholds*

> **Reduction of Groundwater Storage.** The minimum threshold for reduction of groundwater storage shall be a total volume of groundwater that can be withdrawn from the basin without causing conditions that may lead to undesirable results. Minimum thresholds for reduction of groundwater storage shall be supported by the sustainable yield of the basin, calculated based on historical trends, water year type, and projected water use in the basin.
>
> – *§ 354.28 Minimum Thresholds (c)(2)*

Figure 8-3 shows that the minimum threshold is the historical low in cumulative groundwater storage that occurred in the early 1990's at -36,000 AF. At this time in the Basin alfalfa (a high-water using crop) was one of the predominate crops grown. Over time beginning in the 1990's the alfalfa was converted to vineyards that have a much lower water requirement.

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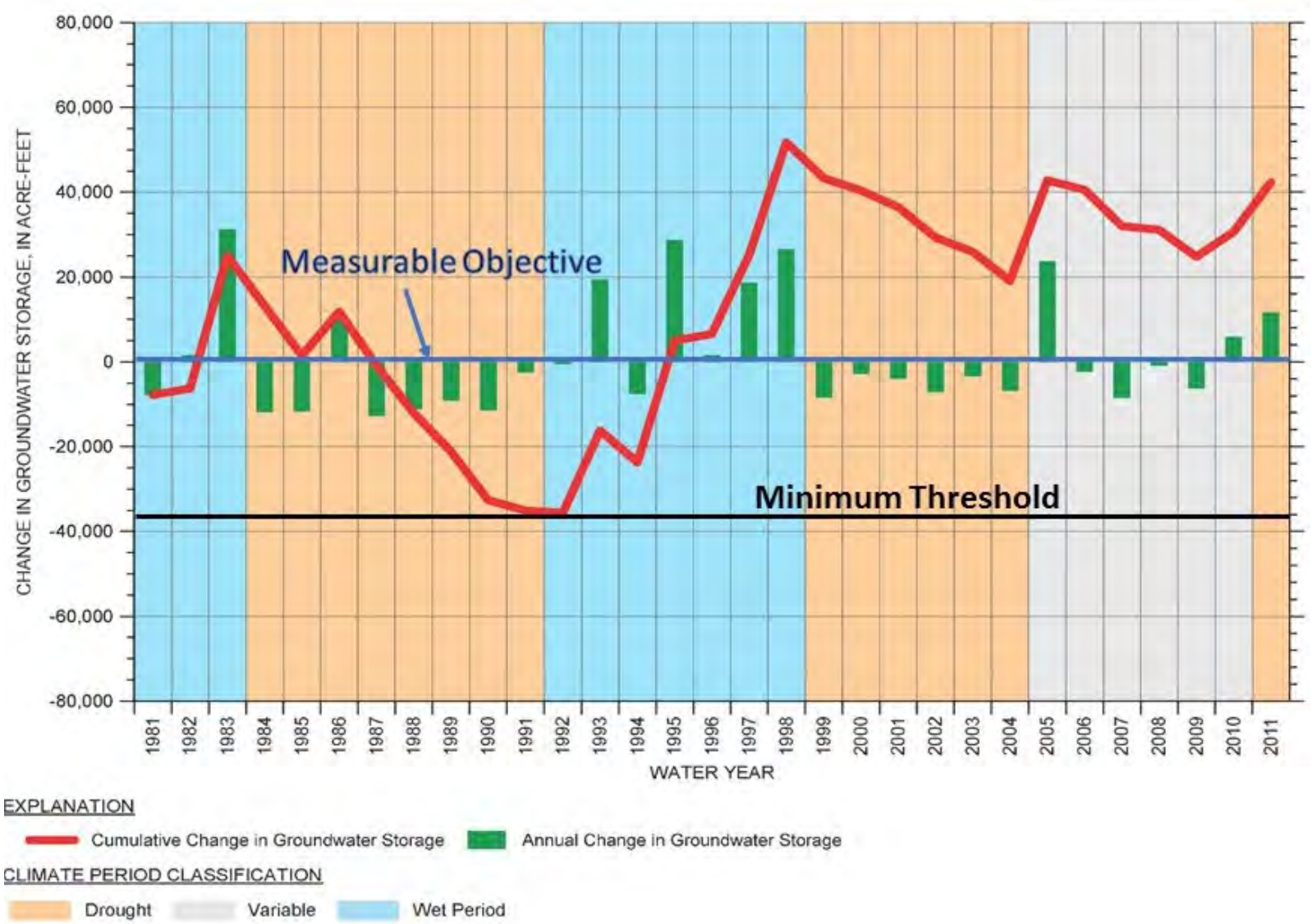

Figure 8-3. Minimum Threshold and Measurable Objective for Atascadero Basin

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8.6.3.1 Information Used and Methodology for Establishing Reduction in Storage Minimum Thresholds

Information used in establishing the minimum threshold includes the following information presented and described in Section 6 – Water Budgets:

- Cumulative change in Basin storage through the historical water budget period
- Cumulative change in Basin storage through the current budget period
- Cumulative change in Basin storage projected through the projected future water budget
- SMC developed for groundwater levels described in Section 8.3 – Sustainability Goal
- Safe yield estimates of the Basin presented in Section 6 – Water Budgets
- Results of public/stakeholder survey in the Basin (Appendix 8A)

Tracking changes in cumulative groundwater storage will be performed by the GSA each year and reported in annual reports. This will be accomplished by following this methodology:

1. For first annual report, update Figure 8-3 – Sustainability Goal, to show cumulative storage change through 2022
2. Continue to update cumulative change in storage each year by calculating change in the Basin each year by comparing the average spring and fall groundwater levels measures from each of the wells within the representative monitoring well with the average values from the previous year.
3. Calculate the volumetric storage difference between the contoured groundwater elevations for both years and multiplying by the best available estimate of specific yield values for the Basin material.
4. Report cumulative Basin storage in relation to minimum threshold in each annual report.

8.6.3.2 Relationship Between Individual Minimum Thresholds and Relationship to Other Sustainability Indicators

Chronic Lowering of Groundwater Levels: Both groundwater level minimum thresholds and groundwater storage minimum thresholds are based on the consistent methodology of using historical lows encountered in the Basin (*refer to* Figure 8-3). The key data for computations of groundwater storage changes each year are the well levels measured at each of the groundwater levels representative monitoring wells.

Seawater Intrusion: Due to the location of the Atascadero Basin, seawater intrusion is not applicable.

Degraded Water Quality: Because groundwater storage will be managed within the historical range, it is not expected that the minimum threshold value chosen will have a negative impact on groundwater quality within the Basin.

Subsidence: Because both groundwater levels and groundwater storage will be managed above the historic low levels encountered in the Basin, the GSA is protecting against any future land surface subsidence. However, the GSA has established thresholds and will continue to monitor for subsidence within the Basin.

Depletion of Interconnected Surface Water: Both groundwater level minimum thresholds and groundwater storage minimum thresholds are based on the consistent methodology of using historical lows encountered in the Basin. Measurables objectives for both are set as midway points between historic low and historic high values. For this reason, negative impacts to surface water flow and the habitat it supports is not anticipated under this GSP.

8.6.3.3 Effect of Minimum Threshold on Neighboring Basin

Thresholds for groundwater level and groundwater storage between Atascadero's only neighboring subbasin, Paso Robles Basin, are not in conflict. In addition, the two subbasins are largely hydrogeological separated preventing subsurface inflows and outflow as detailed in Section 4 – Basin Setting and Section 5 – Groundwater Conditions.

8.6.3.4 Effect on Beneficial Uses and Users

Thresholds and objectives are set to protect and ensure adequate water supply for public water supply and agriculture and habitat protection.

8.6.3.5 Relation to State, Federal, and Local Standards

To our knowledge, there are no state, federal, or local standards relevant to the management of groundwater storage above the defined minimum threshold in the Atascadero Basin.

8.6.3.6 Methods for Quantitative Measurement of Minimum Threshold

Refer to Section 8.6.3.1 – Information Used and Methodology for Establishing Reduction in Storage Minimum Thresholds.

8.6.4 *Measurable Objective*

The Measurable Objective for the Atascadero Basin is set at a net zero change in cumulative groundwater storage (*refer to* Figure 8-3).

8.6.4.1 Method for Setting Measurable Objective

Information used in establishing the measurable objective includes the following information presented and described in Section 6 – Water Budgets:

- Cumulative change in Basin storage through the historical water budget period
- Cumulative change in Basin storage through the current budget period
- Cumulative change in Basin storage projected through the projected future water budget

- SMC developed for groundwater levels described in Section 8.3 – Sustainability Goal
- Safe yield estimates of the Basin were presented in Section 6 – Water Budgets
- Results of public/stakeholder survey in the Basin. (Appendix 8A)

Recognizing the Basin has been managed sustainably based on review of past and projected future trends in groundwater levels and Basin storage, it was agreed that setting the measurable objective at zero net change in cumulative groundwater storage for the period beginning in 1981 and extending through 2042 is acceptable because this period includes a wide range of hydrologic year types covering the range that could likely be encounter in the future and also takes into account anticipated impacts on the water budget caused by climate change in the Basin.

8.6.4.2 Interim Milestones

Interim milestones have not been established for this initial GSP because cumulative groundwater storage is currently above the measurable objective value and is projected to stay above based on the future projected water budget presented in Chapter 6 – Water Budgets. If, during the implementation period, cumulative groundwater storage drops below the measurable objective and is approaching the minimum thresholds, then interim milestones will be established along with projects/management actions to achieve the measurable objective by 2042.

8.7 Seawater Intrusion SMC

Due to the location of the Atascadero Basin, the seawater intrusion SMC is not applicable.

8.8 Degraded Water Quality Sustainable Management Criteria

Under SGMA, the purpose of the degraded water quality SMC is to prevent any degradation in groundwater quality as a result of groundwater management under the GSP. SGMA is not intended to serve as impetus to improve water quality within the Basin. The Atascadero Basin is considered sustainable by the DWR and current water quality is not considered degraded. For these reasons, the SMC in this section are set to maintain current conditions in the Basin from potential degradation as a result of groundwater management under this GSP.

In setting SMCs, water quality constituents were identified to be addressed in annual reporting under the GSP. Constituents were identified based on 1) exceedances of regulatory drinking water standards 2) exceedances of thresholds set by Basin-wide water quality programs, and 3) frequency and extend of threshold exceedances. For a constituent to be addressed as a part of this GSP, it must have had multiple historical exceedances of thresholds governing water quality in the Basin, have the potential to affect beneficial use/uses, and/or being of regional concern in

the Basin. Constituents with one threshold exceedance or few intermittent exceedances, along with constituents only found at isolated sites, were not addressed in this GSP. Identified constituents were based on information from:

- Title 22 Regulations
- Water Quality Control Plan for the Central Coast Basin (WQCP) (RWQCB, 2019)
- Geotracker GAMA database
- Irrigated Lands Regulatory Program (ILRP)

The WQCP (RWQCB, 2019), along with this GSP, identify the primary beneficial uses/users of water in the Basin being drinking water supply (public and private) and agriculture. Groundwater use for drinking water purposes is protected under the Title 22 regulations. Agricultural use of groundwater is protected under the WQCP and the ILRP. Within the ILRP, groundwater quality as a result of agricultural use is monitored through the Central Coast Agriculture Coalition (CCAC). The CCAC, under the purview of the ILRP, samples all domestic and irrigation wells within the Basin for impacts due to agricultural use. Additional uses of groundwater are protected under the WQCP. These programs are in place to protect groundwater quality in the Basin and monitoring and reporting under said programs will be used in development of annual reports and monitoring as part of the GSP implementation.

Constituents to be addressed as part of GSP implementation and reporting were selected from the aforementioned Basin-wide water quality programs and are identified below.

Title 22 Drinking Water Regulations

- Arsenic
- Gross Alpha
- Nitrate (as N)
- Selenium
- Selenium
- *Chloride (Secondary MCL)*
- *Sulfate (Secondary MCL)*
- *Iron (Secondary MCL)*
- *Manganese (Secondary MCL)*
- *Total Dissolved Solids (TDS)*

WQCP Water Quality Objectives

- Boron
- Chloride
- Nitrate (as N)
- Sulfate
- Sodium
- TDS

Some constituents are monitored under both the Title 22 and the WQCP. When addressing SMCs, monitoring sites will be assessed only for the constituents associated with the regulatory program associated with each well. For instance, public supply and domestic wells will be assessed based on the Title 22 drinking water MCLs. Irrigation wells shall be assessed based on the Water Quality Objectives (WQOs) of the WQCP.

The Geotracker GAMA database was queried in review of historical water quality concerns for the region. Regulatory exceedances were identified for other constituents within the Basin, but these were minor or at isolated sites. These constituents will only be monitored through their applicable regulatory program, but the GSA is aware of their presence. If increased degradation of water quality is observed, constituents monitored under this GSP will be re-assessed.

As discussed in Section 5 – Groundwater Conditions, there are no known contaminant plumes within the Basin. Active Geotracker sites will be monitored through the Geotracker program. If contaminant plumes are discovered in the future, the GSA will assess the effects of GSP implementation, including projects/management actions, on Geotracker sites.

8.8.1 *Undesirable Results*

Based on SGMA regulations, an undesirable result for degraded water quality is based on a quantitative combination of groundwater quality minimum threshold exceedances. Undesirable results occur when minimum threshold exceedances result in significant or unreasonable conditions in the Basin. Undesirable results were identified to protect groundwater for the two main beneficial uses of groundwater in the Basin, agriculture and water supply. For the Atascadero Basin, the undesirable result is:

> *On average for any year, an increase in groundwater quality minimum threshold exceedances at 10 percent of the representative monitoring sites, in relation to 2015 Basin conditions, as a result of projects and management actions implemented as part of the GSP.*

8.8.1.1 Locally Defined Significant and Unreasonable Conditions

The defined degraded water quality undesirable result was based on the locally defined significant and unreasonable conditions for the Basin. These were determined based on state and federal drinking water and groundwater regulations, public input and surveys, and discussions with the GSA. Significant and unreasonable conditions as a result of GSP implementation were identified as:

> *An increase in constituent concentrations that may result in:*
>
> *1) reduced public water supply capacity or significant increase in costs for public or private water supply*
> *2) reduced crop production.*

8.8.1.2 Potential Causes of Undesirable Results

Changes to Groundwater Pumping within the Basin: Changes to the location and rate of groundwater pumping within the Basin as a result of GSP implementation may cause changes in groundwater elevations and flow. Changes in flow may cause Constituents of

Concern (COCs) of higher concentrations to migrate toward water supply wells. Increased pumping may also cause increased concentrations of COCs such as TDS.

Groundwater Recharge: Increased groundwater recharge through GSP implementation may increase local groundwater elevation and effect groundwater flow patterns. This could potentially cause migration of COCs towards supply wells. Furthermore, recharged water may contain COC levels that adversely affect groundwater and could potentially interact with native groundwater or the aquifer matrix to mobilize contaminants, such as arsenic, not previously found in groundwater.

Adverse effects to water quality as a result of GSP implementation of projects/management actions shall be monitored by the individual projects/management actions as described in Section 9 –Projects and Management Actions.

8.8.1.3 Effects on Beneficial Users or Land Use

As determined by this GSP, undesirable results were established to reduce or eliminate degradation of water quality within the Basin prior to implementation of management actions. This limits the impact of undesirable results on beneficial groundwater users within the Basin. However, potential effects of undesirable results include:

- Increased water treatment costs for public and domestic supply wells to offset increased constituent levels
- Reduced crop production or irrigation costs

Due to the conservative nature of the undesirable result as defined in the GSP, project/ management actions would be implemented to address any degradation in water quality likely before any of the above effects are realized.

8.8.2 *Minimum Thresholds*

> **Degraded Water Quality.** The minimum threshold for degraded water quality shall be the degradation of water quality, including the migration of contaminant plumes that impair water supplies or other indicator of water quality as determined by the Agency that may lead to undesirable results. The minimum threshold shall be based on the number of supply wells, a volume of water, or a location of an isocontour that exceeds concentrations of constituents determined by the Agency to be of concern for the basin. In setting minimum thresholds for degraded water quality, the Agency shall consider local, state, and federal water quality standards applicable to the basin.
>
> *– § 354.28 Minimum Thresholds (c)(4)*

Minimum thresholds were established for each RMS for both the Alluvial Aquifer and the Paso Robles Formation Aquifer. Minimum thresholds were established for the constituents discussed above and are listed, along with applicable regulatory standards, Table 8-2.

Table 8-2. Minimum Thresholds for Identified Constituents

Constituent	Units	MCLs	WQO
TDS	mg/L	*1,000**	550
Chloride	mg/L	*250*	70
Nitrate (as N)	mg/L	10	2.3
Sulfate	mg/L	*250*	85
Boron	mg/L	NA	0.3
Sodium	mg/L	NA	65
Arsenic	mg/L	0.01	
Iron	mg/L	*0.3*	
Gross Alpha	pCi/L	15	
Manganese	mg/L	*0.05*	
Selenium	mg/L	0.05	

Notes: NA - Not Applicable
* recommended level of 500 upper limit of 1,000
Secondary MCL

Minimum thresholds were established for each RMS well based the on regulatory programs protecting beneficial uses of groundwater in the Basin: Title 22 drinking water MCLs and WQOs from the WQCP. Minimum thresholds were assigned based on well type and the regulatory program responsible for monitoring at the well site. For all public supply wells, monitoring is conducted through the Title 22 drinking water program and thresholds were set at drinking water MCLs. For monitoring wells, domestic wells, and irrigation wells, monitoring is conducted under the ILRP CCAC guidelines. For irrigation and monitoring wells, the minimum threshold was set at the WQOs. Since domestic wells are used for water supply purposes, minimum thresholds were set at drinking water MCLs even though monitoring is under the ILRP.

Monitoring of the RMS locations shall be conducted by the associated monitoring programs as frequencies dictated by said programs. The GSA will review results and reports generated by these programs as it pertains to the degraded water quality SMCs and sustainable management under this GSP. Results will be summarized in the annual reports. Should minimum threshold exceedances be observed and result in an undesirable result, the GSA shall further investigate whether the minimum threshold exceedances were a result of GSP implementation and if further action by the GSA is required.

8.8.2.1 Paso Robles Formation Aquifer

Minimum threshold groups and monitoring entities for degraded water quality at the RMS locations for the Paso Robles Formation Aquifer are presented in Table 8-3. Minimum threshold groups denote the constituents and MCLs assessed for this GSP, as discussed in Section 8.8.2 – Minimum Thresholds. A total of 27 public supply wells, 41 irrigation wells, and 13 domestic wells were identified as RMS sites for the Paso Robles Formation Aquifer, as discussed in Section 5 – Groundwater Conditions.

Table 8-3. Minimum Threshold and RMS Wells for the Paso Robles Formation Aquifer

Well ID	Type of Well	Minimum Threshold Group	Monitoring Entity
AMWC-6A	PWS	Title 22	DDW
AMWC-7	PWS	Title 22	DDW
AMWC-8A	PWS	Title 22	DDW
AMWC-9A	PWS	Title 22	DDW
AMWC-10	PWS	Title 22	DDW
AMWC-12	PWS	Title 22	DDW
AMWC-25	PWS	Title 22	DDW
AMWC-26	PWS	Title 22	DDW
TCSD-Bonita Well 01	PWS	Title 22	DDW
TCSD-Claussen Well 01	PWS	Title 22	DDW
TCSD-Cow Meadows	PWS	Title 22	DDW
TCSD-Creekside Deep Well	PWS	Title 22	DDW
TCSD-Davis Well	PWS	Title 22	DDW
TCSD-Fortini Well	PWS	Title 22	DDW
TCSD-Platz Well 04	PWS	Title 22	DDW
TCSD-Saunders Well	PWS	Title 22	DDW
TCSD-Silva Well 01	PWS	Title 22	DDW
LOS ROBLES MOBILE HOME ESTATES - WELL 01	PWS	Title 22	DDW
LOS ROBLES MOBILE HOME ESTATES - WELL 02	PWS	Title 22	DDW
LOS ROBLES MOBILE HOME ESTATES - WELL 03	PWS	Title 22	DDW
SANTA YSABEL RANCH MWC - WELL 01, RESERVIOR WELL	PWS	Title 22	DDW
SANTA YSABEL RANCH MWC - WELL 02, RANCH HOUSE WELL	PWS	Title 22	DDW
WALNUT HILLS MUTUAL WATER CO - WELL 01	PWS	Title 22	DDW
ALMIRA WATER ASSOCIATION - WELL 02	PWS	Title 22	DDW
PASO ROBLES CHEVROLET CADILLAC - WELL 01	PWS	Title 22	DDW
WALNUT HILLS MUTUAL WATER CO - WELL 04	PWS	Title 22	DDW

Well ID	Type of Well	Minimum Threshold Group	Monitoring Entity
WALNUT HILLS MUTUAL WATER CO - WELL 07	PWS	Title 22	DDW
AGL020003068-AW	Irrigation	WQO	ILRP
AGL020005225-DW AW	Domestic	Title 22	ILRP
AGL020000484-ROOS-HOMESTEAD	Irrigation	WQO	ILRP
AGL020000508-AW	Irrigation	WQO	ILRP
AGL020001000-LAGO FOSSIL	Irrigation	WQO	ILRP
AGL020001138-PRIMARY AW	Irrigation	WQO	ILRP
AGL020001433-WHALE ROCK #1	Irrigation	WQO	ILRP
AGL020001744-BARN WELL	Irrigation	WQO	ILRP
AGL020001744-POND WELL	Irrigation	WQO	ILRP
AGL020002364-AG WELL	Irrigation	WQO	ILRP
AGL020002753-OLEA WELL	Irrigation	WQO	ILRP
AGL020002801-PROPERTY WELL	Irrigation	WQO	ILRP
AGL020002926-AW DW	Irrigation	WQO	ILRP
AGL020003146-BARN	Irrigation	WQO	ILRP
AGL020003461-AG WELL	Irrigation	WQO	ILRP
AGL020004031-POMAR RIDGE	Irrigation	WQO	ILRP
AGL020004709-IRR1	Irrigation	WQO	ILRP
AGL020004789-IRRIGATION	Irrigation	WQO	ILRP
AGL020007196-DWS NEW	Irrigation	WQO	ILRP
AGL020007294-AW	Irrigation	WQO	ILRP
AGL020007507-ONLY WELL	Irrigation	WQO	ILRP
AGL020007659-YRLY WTR SAMPLE	Irrigation	WQO	ILRP
AGL020007709-AG WELL	Irrigation	WQO	ILRP
AGL020012109-WELL #1	Irrigation	WQO	ILRP
AGL020012322-WELL 1	Irrigation	WQO	ILRP
AGL020012322-WELL 2	Irrigation	WQO	ILRP
AGL020012842-AG WELL	Irrigation	WQO	ILRP
AGL020013302-WELL 1	Irrigation	WQO	ILRP
AGL020015262-AVR IRR	Irrigation	WQO	ILRP
AGL020017182-AG WELL	Irrigation	WQO	ILRP
AGL020017862-ANDERSON	Irrigation	WQO	ILRP
AGL020018782-BELLETTO	Irrigation	WQO	ILRP
AGL020022602-WELL	Irrigation	WQO	ILRP
AGL020025242-PRIMARY AG	Irrigation	WQO	ILRP
AGL020027472-JAVADI - CAT 1	Irrigation	WQO	ILRP

Well ID	Type of Well	Minimum Threshold Group	Monitoring Entity
AGL020027483-VAQUERO IW	Irrigation	WQO	ILRP
AGL020027660-AG WELL	Irrigation	WQO	ILRP
AGL020027743-PRIMARY AG	Irrigation	WQO	ILRP
AGL020027968-J DUSI WELL 1	Irrigation	WQO	ILRP
AGL020028424-WELL	Irrigation	WQO	ILRP
AGL020028474-KCV PRIMARY AG	Irrigation	WQO	ILRP
AGL020035655-ARBORMAIN_IRR	Irrigation	WQO	ILRP
AGL020000508-DW	Domestic	Title 22	ILRP
AGL020001003-HOME DOMESTIC	Domestic	Title 22	ILRP
AGL020001087-PRIMARY AW DW	Domestic	Title 22	ILRP
AGL020005112-DW	Domestic	Title 22	ILRP
AGL020007294-DW	Domestic	Title 22	ILRP
AGL020015262-AVR DW	Domestic	Title 22	ILRP
AGL020027467-BLACKSETH DW	Domestic	Title 22	ILRP
AGL020027660-DOM WELL	Domestic	Title 22	ILRP
AGL020028468-AOK DOM	Domestic	Title 22	ILRP
AGL020028474-KCV DOM 1	Domestic	Title 22	ILRP
AGL020028474-KCV DOM 2	Domestic	Title 22	ILRP
AGL020028474-KCV DOM 3	Domestic	Title 22	ILRP
AGL020035786-MAINCOPIA_DOM	Domestic	Title 22	ILRP

Notes: PWS – Public Water Supply
DDW – Division of Drinking Water

8.8.2.2 Alluvial Aquifer

Minimum threshold groups and monitoring entities for degraded water quality at the RMS locations for the Alluvial Aquifer are presented in Table 8-4. Minimum threshold groups denote the constituents and MCLs assessed for this GSP, as discussed in Section 8.8.2 – Minimum Thresholds. A total of 26 public supply wells, 12 monitoring wells, two irrigation wells, and one domestic well were identified as RMS sites for the Alluvial Aquifer, as discussed in Section 5 – Groundwater Conditions.

Table 8-4. Minimum Threshold and RMS Wells for the Alluvial Aquifer

Well ID	Type of Well	Minimum Threshold Group	Monitoring Entity
AMWC-1B	PWS	Title 22	DDW
AMWC-2A	PWS	Title 22	DDW
AMWC-4	PWS	Title 22	DDW
AMWC-5	PWS	Title 22	DDW
AMWC-5A	PWS	Title 22	DDW
AMWC-13A	PWS	Title 22	DDW
AMWC-16	PWS	Title 22	DDW
AMWC-19	PWS	Title 22	DDW
Atascadero State Hosp - WELL 02 (1968) -	PWS	Title 22	DDW
CSA23 Well-3	PWS	Title 22	DDW
CSA23 Well-4	PWS	Title 22	DDW
Garden Farms 1	PWS	Title 22	DDW
Garden Farms 3	PWS	Title 22	DDW
Paso Robles-Thunderbird 10	PWS	Title 22	DDW
Paso Robles-Thunderbird 13	PWS	Title 22	DDW
Paso Robles-Thunderbird 17	PWS	Title 22	DDW
Paso Robles-Thunderbird 23	PWS	Title 22	DDW
TCSD-Creekside River Well	PWS	Title 22	DDW
TCSD-Platz Well 02	PWS	Title 22	DDW
TCSD-Smith River Well	PWS	Title 22	DDW
Atascadero State Hosp - WELL 03 (1969)	PWS	Title 22	DDW
Garden Farms 2	PWS	Title 22	DDW
Atascadero State Hosp - WELL 01 (1953)	PWS	Title 22	DDW
Atascadero State Hosp - WELL 04	PWS	Title 22	DDW
SANTA LUCIA SCHOOL - WELL 01	PWS	Title 22	DDW
T0607900001-MW-10	MW	WQO	ILRP
T0607900001-MW-12	MW	WQO	ILRP
T0607900001-MW-14	MW	WQO	ILRP
T0607900001-MW-2	MW	WQO	ILRP
T0607900001-MW-5	MW	WQO	ILRP
T10000009038-MW1	MW	WQO	ILRP
T10000009038-MW2	MW	WQO	ILRP
T10000009038-MW3	MW	WQO	ILRP
SL0607989492-E11W-26B	MW	WQO	ILRP
SL0607989492-E3W-22	MW	WQO	ILRP
SL0607989492-S11-B9	MW	WQO	ILRP
SL0607989492-S11-B18	MW	WQO	ILRP
AGL020003146-RIVER	Irrigation	WQO	ILRP
AGL020027481-RIVER WELL	Irrigation	WQO	ILRP
AGL020027483-VAQUERO DW	Domestic	Title 22	ILRP

Notes: PWS – Public Water Supply; DDW – Division of Drinking Water

8.8.2.3 Information Used and Methodology for Establishing Water Quality Minimum Thresholds

Information used for establishing the degraded groundwater quality thresholds include:

- Historical Groundwater Quality: Water quality data analyzed from public water supply, domestic water supply, irrigation, and monitoring wells within the Basin via the GAMA database and DDW.
- Federal and state drinking water standards (Title 22)
- Water Quality Control Plan (RWQCB, 2019)
- Irrigated Lands Reporting Program (ILRP)
- Feedback form GSA staff and public

8.8.2.4 Relationship Between Individual Minimum Thresholds and Relationship to Other Sustainability Indicators

Minimum thresholds for each COC were set based on the regulatory standards for drinking water quality and for:

- **Groundwater Levels:** Water quality minimum thresholds may impact groundwater levels in the Basin by affecting groundwater pumping and recharge activities. Exceedances of water quality minimum thresholds may reduce pumping in some areas of the Basin, leading to stabilization of water levels regionally. Minimum thresholds will also limit the water types acceptable for recharge, as they must meet the minimum thresholds identified in this section. Overall, water quality minimum thresholds should not have a negative impact on water levels as they do not promote increased pumping.
- **Groundwater Storage:** Groundwater quality minimum thresholds will not impact groundwater storage within the Basin as they do not promote increased pumping within the Basin. Water quality minimum thresholds will not impact pumping in relation to the sustainable yield of the Basin.
- **Seawater Intrusion:** This sustainability indicator is not applicable to this Basin.
- **Subsidence:** Water quality minimum thresholds will not promote activities that could lead to subsidence within the Basin and will therefore not result in an exceedance of the subsidence minimum thresholds or significant and unreasonable conditions.
- **Depletion of Interconnected Surface Water:** Water quality minimum thresholds will not impact interconnected surface waters as they will not promote increased pumping within the Basin. Therefore, water quality minimum thresholds will not cause significant and unreasonable conditions with relation to interconnected surface water.

8.8.2.5 Effect of Minimum Thresholds on Neighboring Basins

A hydrologic barrier to flow exists between the Atascadero Basin and the Paso Robles Basin. This barrier would restrict groundwater from flowing into the neighboring basin. Furthermore, minimum thresholds are established to maintain water quality in the Basin above regulatory standards for drinking water and water quality objectives (WQOs) for the region. No other groundwater basins neighbor the Atascadero Basin.

8.8.2.6 Effect on Beneficial Uses and Users

Agricultural Uses and Users: Minimum thresholds for water quality were established based on the WQOs outlined in the Water Quality Control Plan (RWQCB, 2019) for the region. These WQOs set limits for constituents that may adversely affect crop production. Since the minimum thresholds will hold water quality in the Basin above these WQOs, they will not adversely affect agricultural use.

Urban/Public Water Supply Use and Users: Minimum thresholds for water quality were set as the state and federal drinking water standards. The number of minimum thresholds required for an undesirable result to occur in the Basin limits the number of wells that can exceed federal and state standards. This will maintain a level of water quality in the Basin that will benefit urban use and public water supply.

Domestic Water Supply Use and Users: Minimum thresholds for water quality were set as the state and federal drinking water standards. The number of minimum thresholds required for an undesirable result to occur in the Basin limits the number of wells that can exceed federal and state standards. This will maintain a level of water quality in the Basin that will benefit domestic use and users.

8.8.2.7 Relation to State, Federal, or Local Standers

Minimum thresholds were established based on the state and federal drinking water standards. Local standards for water quality, as identified in the Water Quality Control Plan (RWQCB, 2019) were incorporated as well.

8.8.2.8 Method for Quantitative Measurement of Minimum Thresholds

Minimum thresholds will be assessed at all sites identified as a RMS. Water quality sampling shall be conducted by the regulatory program associated with the RMS well (Title 22, ILRP) and reviewed by the GSA when published for annual reporting requirements.

8.8.3 *Measurable Objectives*

Measurable objectives were set at levels above the minimum thresholds established for each RMS location, as described in Section 8.8.2.1 – Paso Robles Formation Aquifer and Section 8.8.2.2 – Alluvial Aquifer, for both the Paso Roble Formation and Alluvial Aquifer.

As these levels are above either regulatory standards, this will maintain conditions in the Basin and will not adversely impact beneficial uses and users of groundwater in the Basin.

8.8.3.1 Methods for Setting Measurable Objectives

Measurable objectives were set above state and federal drinking water standards as well as WQOs as defined in the Water Quality Control Plan (RWQCB, 2019) or current (2015) conditions. Measurable objectives will maintain water quality within the Basin to support beneficial use.

8.8.3.2 Interim Milestones

Interim milestones are set as milestones as a GSA moves toward sustainable management of the groundwater Basin. The Atascadero Basin is currently considered sustainable by the DWR. As the minimum thresholds and measurable objectives for degraded water quality are set to maintain current conditions and support beneficial use of groundwater, interim milestones are not required. If through implementation of the GSP, degraded water quality is observed and projects/management actions are required, interim milestones will be re-assessed to provide a path to reach sustainability. This re-assessment of Basin conditions and modifications to this plan would occur during the 5-year update.

8.9 Land Subsidence SMC

Section 5 – Groundwater Conditions explains that there is no evidence that land subsidence caused by groundwater extraction exists within the Basin. Because the following conditions exist within the Atascadero Basin:

- Groundwater level minimum thresholds are set at historical low groundwater level
- Measurable objectives for groundwater levels are set significantly above historic low levels
- Basin storage is projected to increase during the implementation period

Land subsidence caused by groundwater extractions is not projected and therefore, SMC are not established in this initial GSP. The GSA will continue to review INSAR data and monitoring groundwater levels within the groundwater levels RMS. If groundwater levels drop unexpectedly or INSAR indicates that subsidence is being detected in the Basin, then land subsidence SMCs will be established in a future update to this GSP.

- **Land Subsidence:** Gradual settling of land surface caused by compaction of subsurface materials due to lowering of groundwater elevations form pumping.
- **Land Surface Fluctuation:** Periodic or annual measurement of the ground surface. Lowering levels may not indicate long term subsidence.

8.9.1 *Undesirable Results*

Based on SGMA regulations, undesirable results for land subsidence is a result of a quantitative combination of land subsidence minimum threshold exceedances. While historical land surface fluctuations are observed, there is no historical evidence of land subsidence within the Basin. Based on the lack of historical subsidence and the locally defined significant and unreasonable conditions, the undesirable result for land subsidence in the Atascadero Basin was established as:

> *Observed subsidence within the Basin, as a result groundwater management under this GSP, that interferes with critical infrastructure or surface land use.*

In order for land subsidence to be considered an undesirable result, it must impact critical infrastructure and it must be as a result of groundwater management under the GSP. To determine if subsidence minimum threshold exceedances have triggered an undesirable result, they must be observed with water level minimum threshold exceedances below historic levels and impacts to infrastructure. If undesirable results for land subsidence are observed, the GSA shall assess what projects/management actions are required.

8.9.2 *Locally Defined Significant and Unreasonable Conditions*

The locally defined significant and unreasonable conditions for land subsidence was determined based on historic subsidence data, SGMA regulations, public input and surveys, and discussion with the GSA. Locally defined significant and unreasonable conditions are:

> *Permanent land subsidence, as a result of groundwater management under the GSP, that adversely effects critical infrastructure or land use.*

8.9.2.1 Potential Causes of Undesirable Results

Land subsidence undesirable results, as described in this GSP, as a result of groundwater management under SGMA would be likely caused by changes in groundwater pumping in the Basin. Increased pumping or shifts in the location of pumping, that cause groundwater levels to decline past historic lows could cause land subsidence that impacts critical infrastructure. This is considered unlikely, however, as management under this GSP shall keep groundwater levels above historic lows.

8.9.2.2 Effects on Beneficial Users and Land Use

Potential effects on beneficial users and land due to observed undesirable results would be damaging critical infrastructure that would limit use and adversely affecting surface land uses. However, groundwater management under this GSP aims to protect against undesirable results. Maintaining groundwater levels above historic lows, and a lack of historical subsidence in the Basin, make it unlikely that beneficial uses or users will be affected.

8.9.3 *Minimum Thresholds*

> **Land Subsidence.** The minimum threshold for land subsidence shall be the rate and extent of subsidence that substantially interferes with surface land uses and may lead to undesirable results. Minimum thresholds for land subsidence shall be supported by the following:
>
> (A) Identification of land uses and property interests that have been affected or are likely to be affected by land subsidence in the basin, including an explanation of how the Agency has determined and considered those uses and interests, and the Agency's rationale for establishing minimum thresholds in light of those effects.
>
> (B) Maps and graphs showing the extent and rate of land subsidence in the basin that defines the minimum threshold and measurable objectives.
>
> *– § 354.28 Minimum Thresholds (c)(5)*

As the Basin has not historically seen subsidence, the minimum threshold for land subsidence shall be any observed subsidence as a result of groundwater management. Land subsidence shall be monitored using InSAR data provided by the DWR. The minimum threshold for land subsidence under this GSP is:

> *Measured subsidence, using InSAR data, between June of one year and June of the subsequent year shall be no more than 0.1 foot in any 1-year and a cumulative 0.5 foot in any 5-year period, as a result of groundwater management under the GSP, and shall not result in long-term permanent subsidence.*

8.9.3.1 Information Used a Methodology for Establishing Subsidence Minimum Thresholds

Minimum thresholds were established based on historical subsidence in the Basin, accuracy and availability of subsidence data, and the locally defined significant and unreasonable conditions that may affect beneficial uses. As there is no historical evidence of subsidence in the Basin, the minimum threshold was set as any observed long-term subsidence as a result of groundwater management under the GSP.

Monitoring for land subsidence shall be done using the InSAR data provided by DWR. InSAR, or interferometric synthetic aperture radar, is land surface elevation data collected via satellite and provides regional changes in land surface elevation. As defined by DWR, the error associated with InSAR data collected between June 2015 and June 2018 are (GSP, Paso Robles Basin, 2020):

1. 0.052 feet with a 95% confidence level between InSAR and continuous GPS data

2. 0.048 feet with 95% confidence interval for measurement accuracy when converting raw InSAR data to the maps provided by DWR

For the purpose of this GSP, the errors for InSAR data is considered the sum of errors 1 and 2 for a total error of 0.1 feet. Therefore, observed changes in land surface of 0.1 feet or greater will be considered potential subsidence. As described previously, land surface elevations may fluctuate naturally. For this reason, subsidence shall be monitored at the same location and same date year to year, to reduce the influence of general fluctuations in land surface elevations.

If any subsidence is observed, there must be a correlation to lowering groundwater levels for a minimum threshold to be exceeded. Since there is no historical evidence of subsidence within the Basin, groundwater levels would need to drop below historic lows for pumping for subsidence to occur. Minimum thresholds for subsidence shall be evaluated by lowering land surface elevations by 0.1 feet and a decline in water levels below historic lows (or a groundwater levels minimum threshold exceedance).

8.9.3.2 Relationship Between Individual Minimum Thresholds and Relationship to Other Sustainability Indicators

Minimum thresholds for subsidence will have the following impacts on other minimum thresholds and sustainability indicators:

- **Groundwater Levels:** Subsidence minimum thresholds will not directly impact the groundwater levels SMC. However, a groundwater levels minimum threshold exceedance may result in a subsidence minimum threshold exceedance, as lowering of groundwater levels could result in subsidence.
- **Groundwater Storage:** Subsidence minimum thresholds will not impact groundwater storage SMC. If subsidence due to lowering groundwater levels is observed, any changes to pumping in the Basin would likely serve to improve groundwater storage as well.
- **Seawater Intrusion:** This sustainability indicator is not applicable to this Basin.
- **Degraded Water Quality:** Subsidence minimum thresholds will not impact the degraded water quality SMC.
- **Depletion of Interconnected Surface Water:** Subsidence minimum thresholds will not impact the interconnected surface water SMC. Pumping will not increase as a result of the subsidence sustainability indicator and should not affect or cause depletion of interconnected surface water.

8.9.3.3 Effect on Neighboring Basins

As the subsidence minimum thresholds are set to avoid long-term subsidence that may damage infrastructure, there is not anticipated to be any effect on the neighboring Paso Robles Basin.

8.9.3.4 Effects on Beneficial Users and Uses

There are no anticipated effects on beneficial users and uses of groundwater as a result of the subsidence minimum thresholds. In the event that minimum threshold exceedances result in undesirable results, there could be damage to infrastructure associated with beneficial use of groundwater.

8.9.3.5 Relation to State, Federal, or Local Standards:

There are no federal, state, or local regulations related to subsidence.

8.9.3.6 Method for Quantitative Measurement of Minimum Threshold

Minimum thresholds will be assessed using InSAR data, provided by DWR, to determine the measured change in elevation data from year to year. If a change of elevation greater than 0.1 feet is observed, groundwater levels for that year will be assessed to determine if levels dropped below historic lows and if subsidence may be caused by groundwater management.

8.9.4 *Measurable Objectives*

The measurable objective for subsidence within the Basin is maintaining historical rates as a result of groundwater management. Since there has not been historical subsidence in the Basin, the measurable objective is managing subsidence at a rate of 0 feet/year as a result of groundwater management.

8.9.4.1 Method for Setting MO

Measurable objectives were set based on historical records showing no history of subsidence in the Basin. Measurable objectives shall be monitored using the DWR InSAR data.

8.9.4.2 Interim Milestones

Since the measurable objective is to maintain current subsidence rates, and there is no historical evidence of subsidence in the Basin, interim milestones are not necessary to reach sustainability. Should a minimum threshold exceedance occur, interim milestones shall be addressed in the next GSP update to identify a path to reach the measurable objective.

8.10 Depletion of Interconnected Surface Water SMC

Natural hydraulic connections can exist between shallow groundwater systems and some surface water bodies. These surface water bodies can be gaining (receiving water from groundwater) or losing (contributing water to groundwater). These interflow relationships can change in magnitude and direction across wet and dry cycles and in response to changes in surface water operations or groundwater management practices.

The Salinas River is significant to the management of groundwater in the Basin. The Salinas River is ephemeral, and during most of the year loses water to the shallow alluvial aquifer. A complete description and quantification of the stream/aquifer interaction is included in Sections 5 – Groundwater Conditions, Section 6 – Water Budget, and Section 7 Monitoring Networks. The water budget shows that stream depletion is highly variable depending on rainfall events and the hydrologic year type. In wetter years, when flows in the Salinas River are high there is greater amounts of recharge from the river to the groundwater system. In drier years, when flows in the Salinas River are low, there is less stream recharge to the groundwater system. In both cases the amount of recharge to the groundwater system is small compared to the volume of surface water flowing down the river and out the northern boundary of the Basin.

As described in Section 3.6.3.1 of this GSP, the Salinas River is also under the 'Live Stream Requirement' by the SWRCB regarding the operation of Salinas Reservoir to protect vested downstream rights. The decision presumed that downstream rights would be met if a visible surface flow (i.e., a "live" stream) existed in the Salinas River between the Salinas Reservoir and the confluence with the Nacimiento River. If there was no live stream, then total daily inflow to the Salinas Reservoir was to be released from the Salinas Dam.

These two factors including highly variable hydrology and Salinas Dam operations to meet the Live Stream Reequipment control the flows in the Salinas River. This has been the case for past conditions and is expected to continue in the future. The highly variable hydrologic conditions and the Live Stream Requirement dictating reservoir releases to the river culminate in streambed infiltration resulting in higher groundwater levels in the Alluvial Aquifer.

Because of the relationship between groundwater levels in the Alluvial Aquifer and Depletions of Interconnected Surface Water, the Chronic Lower of Groundwater Levels will be used as a proxy for Depletions of Interconnected Surface Water.

8.10.1 *Undesirable Results*

The undesirable result for depletions of interconnected surface water is a result that causes significant and unreasonable adverse effects on beneficial uses of interconnected surface

water within the Atascadero Basin over the planning and implementation horizon of this GSP.

8.10.1.1 Criteria for Defining Undesirable Results

The information used for establishing the of the criteria for defining undesirable results for the chronic lowering of groundwater levels (proxy for Depletion of Interconnected Surface Water) is described in Section 8.5.1.1 – Criteria for Defining Undesirable Results.

8.10.1.2 Potential Causes of Undesirable Results

The information used for establishing the of the criteria for defining potential causes of undesirable results for the chronic lowering of groundwater levels (proxy for Depletion of Interconnected Surface Water) is described in Section 8.5.1.2 – Potential Causes of Undesirable Results.

8.10.1.3 Effects on Beneficial Users and Land Use

If depletions of interconnected surface water were to reach undesirable results, the adverse effects could potentially include reduced ability of surface water flows to meet in-stream flow requirements. Fisheries, riparian habitat, and recreational opportunities within the Atascadero could also be impacted if groundwater pumping significantly reduces stream flows below the minimum thresholds.

8.10.2 *Locally Defined Significant and Unreasonable Conditions*

Significant and unreasonable groundwater level depletions in the Basin are those that significantly reduces stream flows below the minimum thresholds or interfere with SGMA sustainability indicators.

8.10.3 *Information Used a Methodology for Establishing Depletion of Interconnected Surface Water Measurable Objectives and Minimum Thresholds*

The information used for establishing the chronic lowering of groundwater levels measurable objective and minimum thresholds (our proxy for Depletion of Interconnected Surface Water) is described in Section 8.5.3 – Information and Methodology Used to Establish Measurable Objectives and Minimum Thresholds.

8.10.4 *Measurable Objectives*

The Measurable Objective for the chronic lowering of groundwater levels measurable objective and minimum thresholds (our proxy for Depletion of Interconnected Surface Water) is described in Section 8.5.4 – Measurable Objectives.

8.10.4.1 Method for Setting Measurable Objective

The method for setting the Measurable Objective for the chronic lowering of groundwater levels measurable objective in the Alluvial Aquifer (our proxy for Depletion of Interconnected Surface Water) is described in Section 8.5.4.2 – Alluvial Aquifer Measurable Objectives.

8.10.5 *Minimum Thresholds*

The information used for establishing the minimum thresholds for the chronic lowering of groundwater levels for the Alluvial Aquifer (proxy for Depletion of Interconnected Surface Water) is described in Section 8.5.5.1 – Alluvial Formation.

> **Depletions of Interconnected Surface Water.** The minimum threshold for depletions of interconnected surface water shall be the rate or volume of surface water depletions caused by groundwater use that has adverse impacts on beneficial uses of the surface water and may lead to undesirable results. The minimum threshold established for depletions of interconnected surface water shall be supported by the following:
>
> (C) The location, quantity, and timing of depletions of interconnected surface water.
>
> (D) A description of the groundwater and surface water model used to quantify surface water depletion. If a numerical groundwater and surface water model is not used to quantify surface water depletion, the Plan shall identify and describe an equally effective method, tool, or analytical model to accomplish the requirements of this Paragraph.
>
> *– § 354.28 Minimum Thresholds (c)(6)*

8.10.5.1 Information Used for Establishing Depletion of Interconnected Surface Water Minimum Thresholds

Information used to establish the minimum threshold includes the following:

- Historic groundwater levels in the Alluvial Aquifer
- Historic stream flow records
- Analysis of riparian habitat including estimation of rooting depth
- Distribution of monitoring wells screened in the Alluvial Aquifer

8.10.5.2 Relationship Between Individual Minimum Thresholds and Relationship to Other Sustainability Indicators

The information used for establishing the relationship of minimum thresholds to other sustainability indicators of groundwater levels (proxy for Depletion of Interconnected Surface Water) is described in Section 8.5.5.4 – Relation to Other Sustainability Indicators.

8.10.5.3 Effect on Neighboring Basins

The Salinas River flows through the Atascadero Basin to the Paso Robles Basin. The Live Stream Requirement includes the Salinas River downstream of the Atascadero Basin. We do not expect any changes in depletion of interconnected surface waters in the future conditions relative to historic conditions, and do not expected to impact the Paso Robles Basin, but the two basins will coordinate to ensure no adverse effects.

8.10.5.4 Relation to State, Federal, or Local Standards:

The SWRCB enforces the Live Stream Requirement on the Salinas River as described in Section 3.6.3.1 this GSP.

8.10.5.5 Method for Quantitative Measurement of Minimum Threshold

The information used for establishing the method for quantitative measurement of minimum threshold for groundwater levels (proxy for Depletion of Interconnected Surface Water) is described in Section 8.5.5.8 – Method for Quantitative Measurement of Minimum Threshold.

8.10.5.6 Interim Milestones

The information used for establishing interim milestones groundwater levels (proxy for Depletion of Interconnected Surface Water) is described in Section 8.5.5.9 – Interim Milestones.

8.11 Management Areas

No Management Areas have been established in the Basin. For planning purposes, concepts for future management areas provided.

8.11.1 *Future Management Area Concept*

The Atascadero Basin is considered sustainable by DWR. There is not current need to have management areas. Future designation of management areas may be developed based on the existence of a geologic and geographic divides in the subbasin that result in different conditions or management actions to achieve sustainability.

8.11.1.1 Minimum Thresholds and Measurable Objectives

Established to ensure groundwater levels remain above historic water levels in each management are to maintain historical groundwater conditions. Groundwater quality will not be degraded due to poor quality water moving into productive aquifers.

8.11.1.2 Monitoring

A more expansive monitoring network might reveal the need for management areas, but at this time no management areas are planned.

8.11.2 *How Management areas will avoid undesirable results*

The Atascadero Basin is considered sustainable by DWR. There is not current need to have management areas.

8.11.3 *Management*

The Atascadero Basin is considered sustainable by DWR. There is not current need to have management areas.

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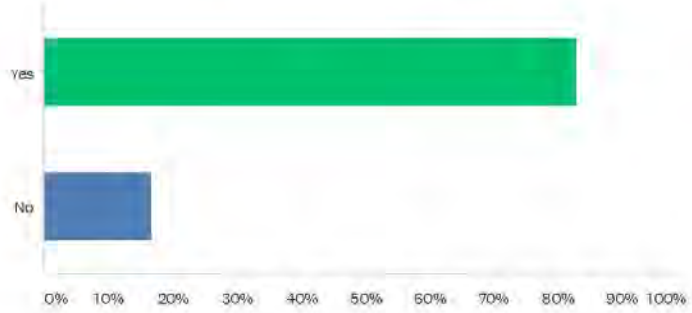
Appendix 8A – Results of SMC Public Survey

Q1 Have you heard about the Sustainable Groundwater Management Act (SGMA) Groundwater Sustainability Plan (GSP) process?

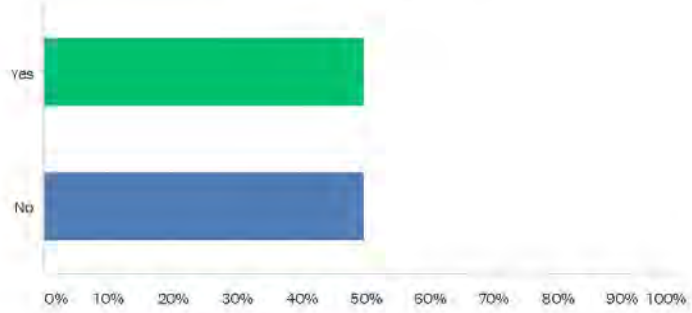
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	83.33%	15
No	16.67%	3
TOTAL		18

Q2 Have you been involved in other water supply public processes in the past?

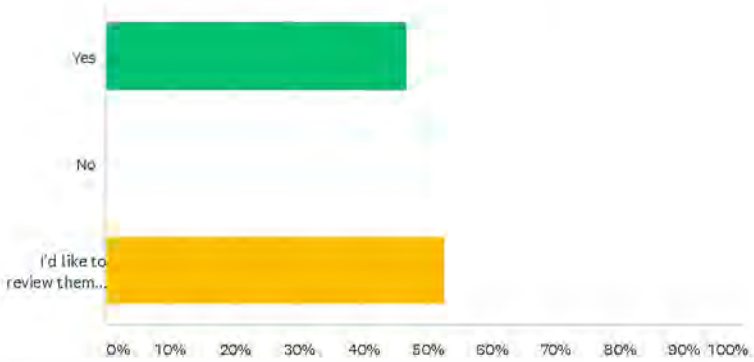
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	50.00%	9
No	50.00%	9
TOTAL		18

Q3 Would you like to provide input for the development of a sustainability goal, objectives, and thresholds for managing groundwater in the Atascadero Basin?

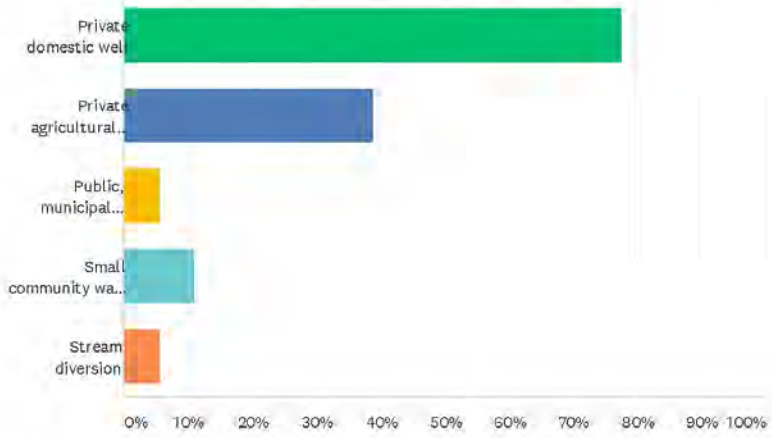
Answered: 17 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	47.06%	8
No	0.00%	0
I'd like to review them once developed	52.94%	9
TOTAL		17

Q4 Which water sources do you use? (select all that apply)

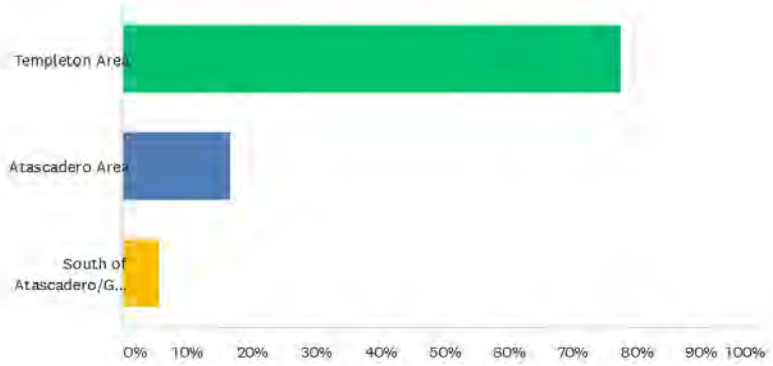
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Private domestic well	77.78%	14
Private agricultural well	38.89%	7
Public, municipal supply	5.56%	1
Small community water system	11.11%	2
Stream diversion	5.56%	1
Total Respondents: 18		

Q5 Which geographic area do you live in or are most interested in from a water-use perspective?

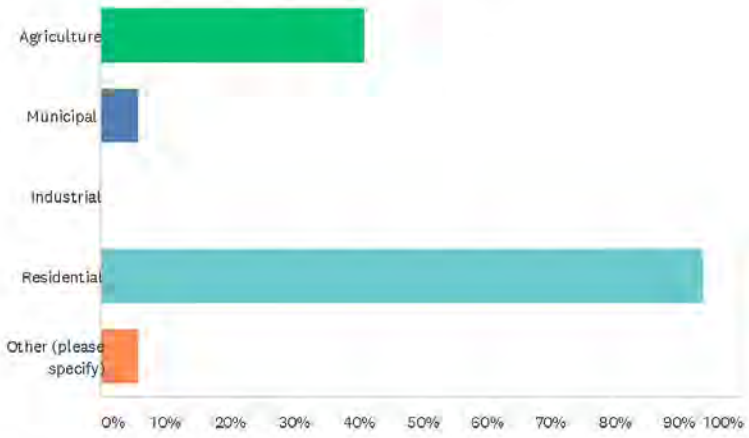
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Templeton Area	77.78%	14
Atascadero Area	16.67%	3
South of Atascadero/Garden Farms/Santa Margarita	5.56%	1
TOTAL		18

Q6 If you pump groundwater, what do you use it for? (check all that apply)

Answered: 17 Skipped: 1

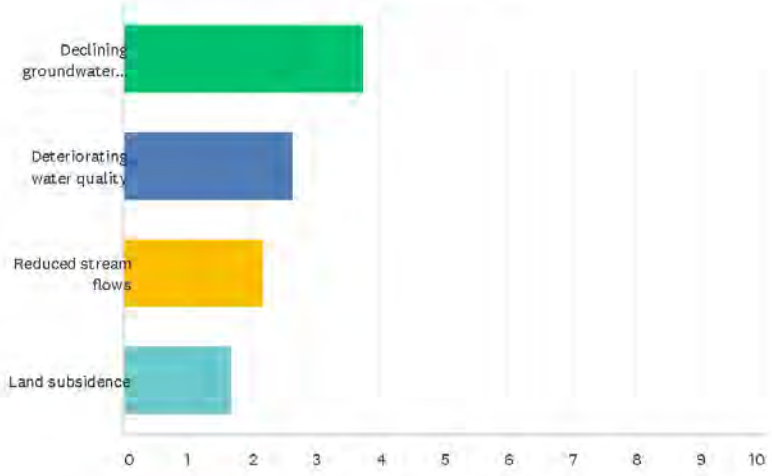


ANSWER CHOICES	RESPONSES	
Agriculture	41.18%	7
Municipal	5.88%	1
Industrial	0.00%	0
Residential	94.12%	16
Other (please specify)	5.88%	1
Total Respondents: 17		

#	OTHER (PLEASE SPECIFY)	DATE
1	Bed and Breakfast	11/10/2020 12:38 PM

Q7 Please rank the following potential impacts to groundwater based on your level of concern, with your impact of greatest concern at the top.

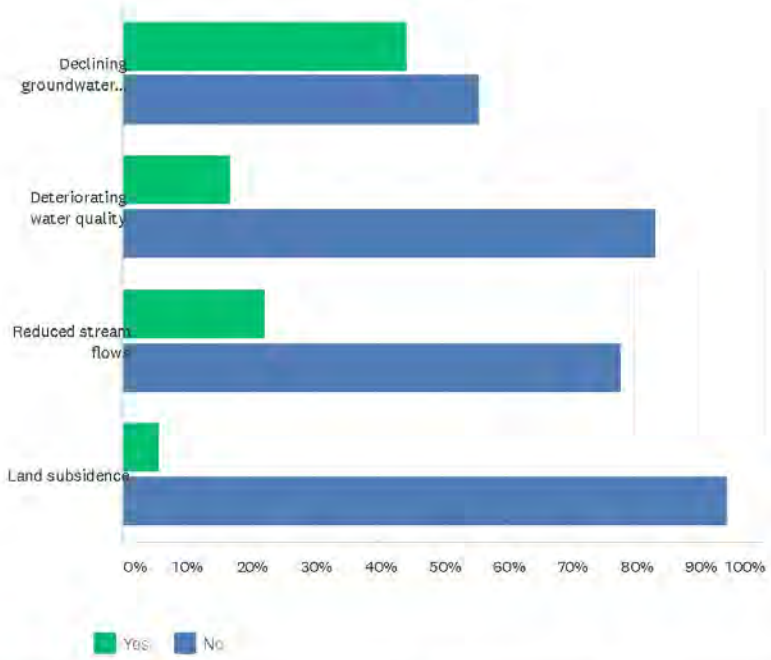
Answered: 18 Skipped: 0



	1	2	3	4	TOTAL	SCORE
Declining groundwater levels	81.25% 13	12.50% 2	6.25% 1	0.00% 0	16	3.75
Deteriorating water quality	12.50% 2	43.75% 7	37.50% 6	6.25% 1	16	2.63
Reduced stream flows	0.00% 0	35.29% 6	47.06% 8	17.65% 3	17	2.18
Land subsidence	16.67% 3	5.56% 1	5.56% 1	72.22% 13	18	1.67

Q8 Have you been impacted by the following?

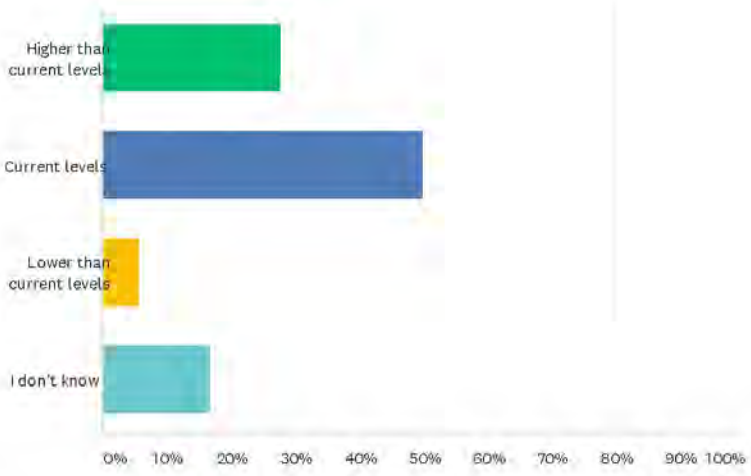
Answered: 18 Skipped: 0



	YES	NO	TOTAL
Declining groundwater levels	44.44% 8	55.56% 10	18
Deteriorating water quality	16.67% 3	83.33% 15	18
Reduced stream flows	22.22% 4	77.78% 14	18
Land subsidence	5.56% 1	94.44% 17	18

Q9 Typically, to increase groundwater levels either pumping needs to be reduced or new water supplies from outside the basin need to be developed, both of which have a cost. Knowing this, what do you feel are reasonable groundwater levels twenty years from now?

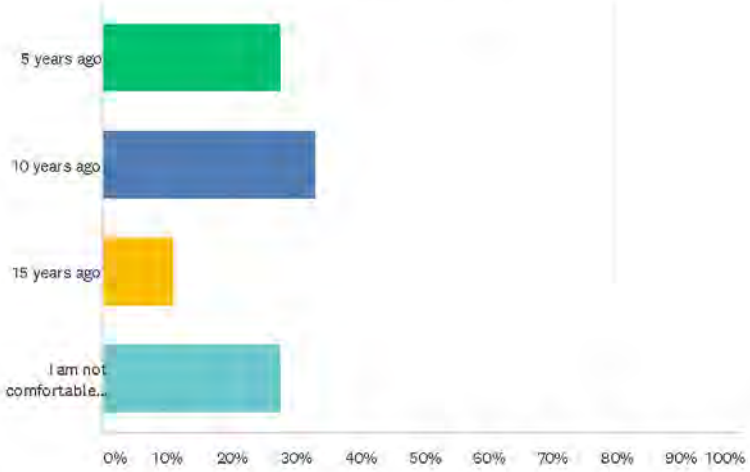
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Higher than current levels	27.78%	5
Current levels	50.00%	9
Lower than current levels	5.56%	1
I don't know	16.67%	3
TOTAL		18

Q10 If the basin is maintained at higher than current levels, additional water must be imported, or pumping must be reduced. Assuming that higher groundwater levels will likely result in higher costs, please complete the following statement. I am comfortable with groundwater levels that would stabilize at levels seen: (select one)

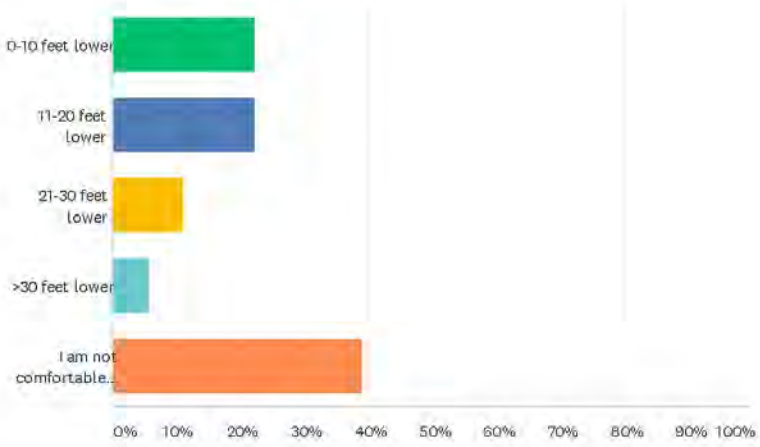
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
5 years ago	27.78%	5
10 years ago	33.33%	6
15 years ago	11.11%	2
I am not comfortable with groundwater levels higher than today	27.78%	5
TOTAL		18

Q11 If the basin is maintained at lower than current levels, domestic wells or local streams may be impacted. In your opinion, how much lower could groundwater levels drop before they are too low and become significant and unreasonable?

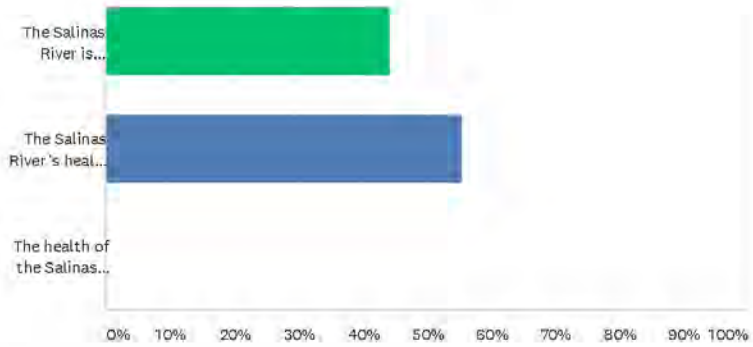
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
0-10 feet lower	22.22%	4
11-20 feet lower	22.22%	4
21-30 feet lower	11.11%	2
>30 feet lower	5.56%	1
I am not comfortable with groundwater levels lower than today	38.89%	7
TOTAL		18

Q12 Which statement best describes your opinion of the health (in terms of stream flow and water quality) of the Salinas River in the Atascadero Basin?

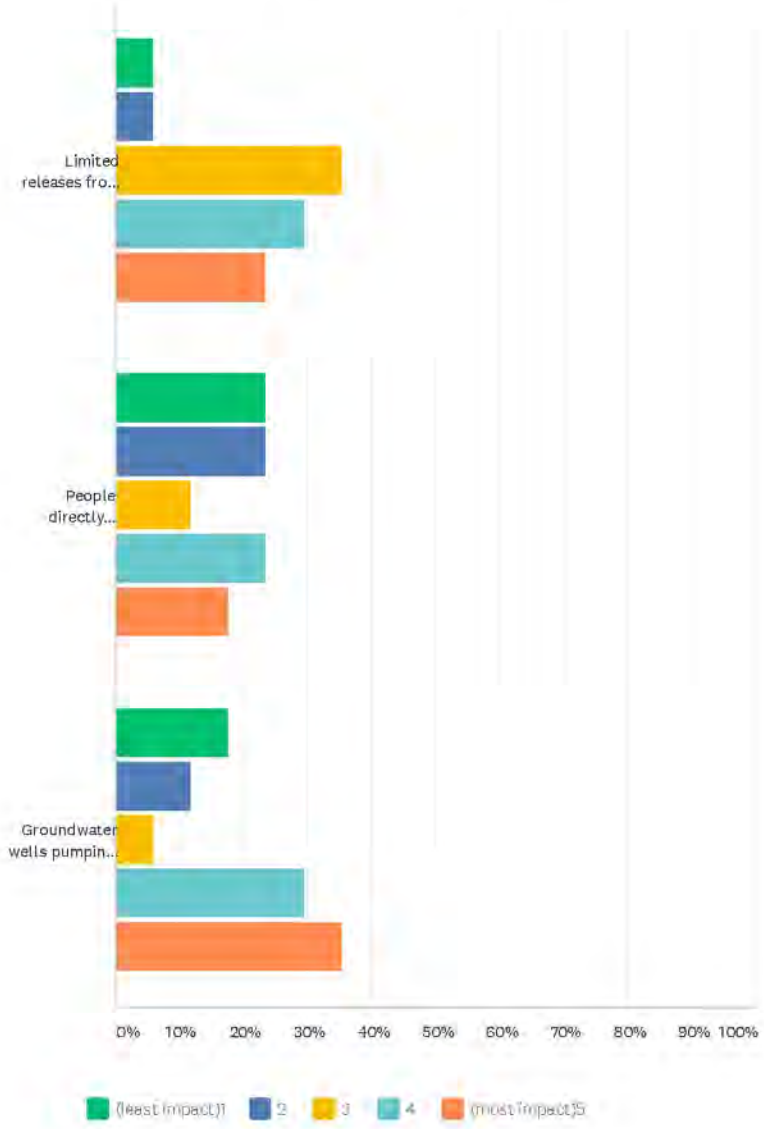
Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
The Salinas River is relatively healthy	44.44%	8
The Salinas River's health could be improved if the cost was reasonable	55.56%	10
The health of the Salinas Rivers should be improved no matter what the cost	0.00%	0
TOTAL		18

Q13 Do you feel that the health of Salinas River in the Atascadero Basin is impacted by the following? Please indicate on a scale of 1 (least impact) to 5 (most impact):

Answered: 17 Skipped: 1

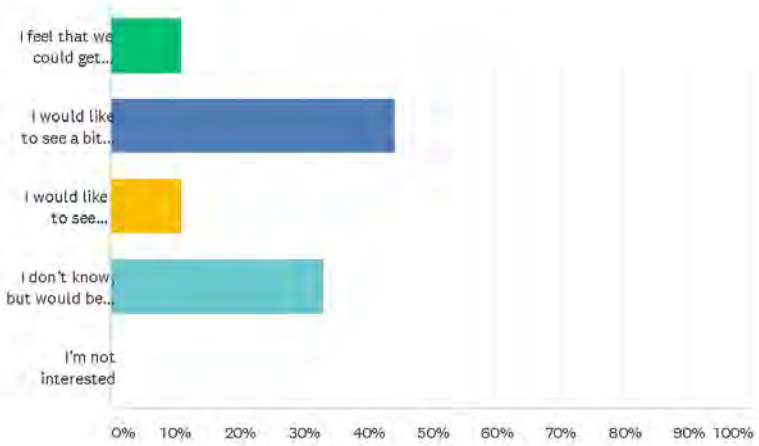


Atascadero Basin - SGMA Minimum Thresholds Survey

	(LEAST IMPACT)1	2	3	4	(MOST IMPACT)5	TOTAL	WEIGHTED AVERAGE
Limited releases from Santa Margarita Lake (Salinas Reservoir)	5.88% 1	5.88% 1	35.29% 6	29.41% 5	23.53% 4	17	3.59
People directly diverting water from the Salinas River in and upstream of the Atascadero Basin	23.53% 4	23.53% 4	11.76% 2	23.53% 4	17.65% 3	17	2.88
Groundwater wells pumping water from, or preventing water from getting to, the Salinas River or reducing surface water flows once in the river.	17.65% 3	11.76% 2	5.88% 1	29.41% 5	35.29% 6	17	3.53

Q14 Which statement best describes your opinion about the amount of groundwater stored in the Atascadero Basin?

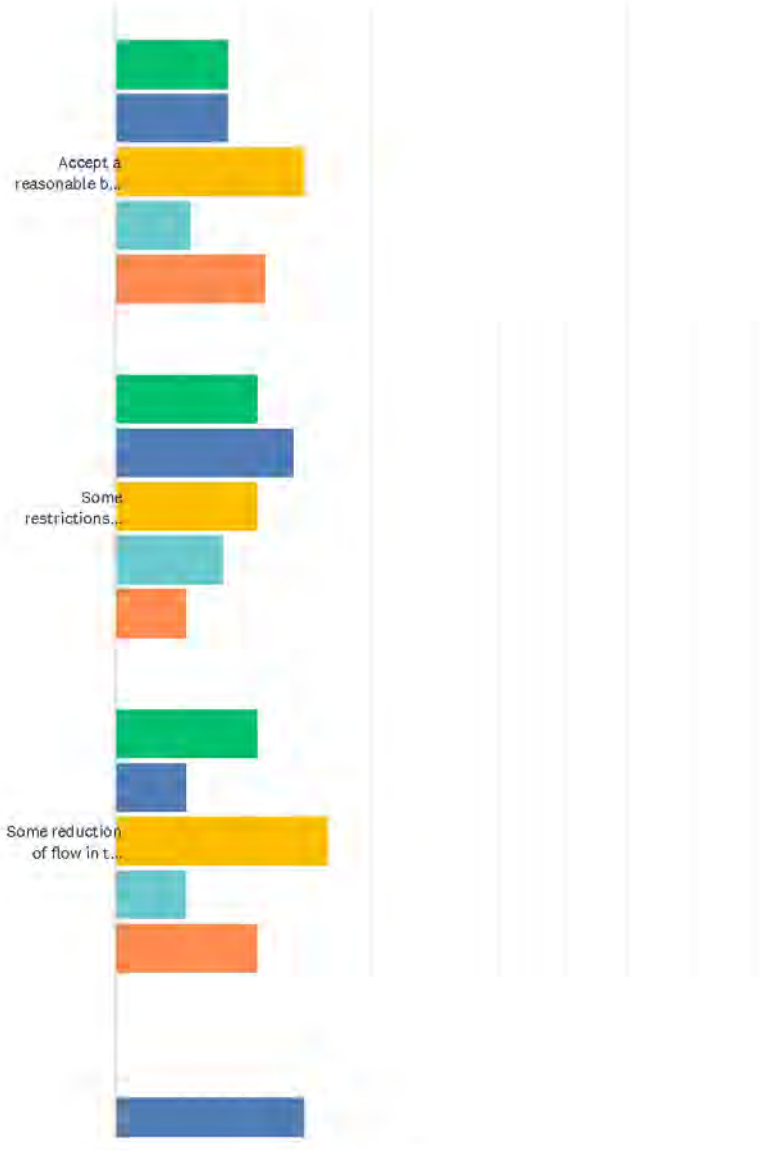
Answered: 18 Skipped: 0

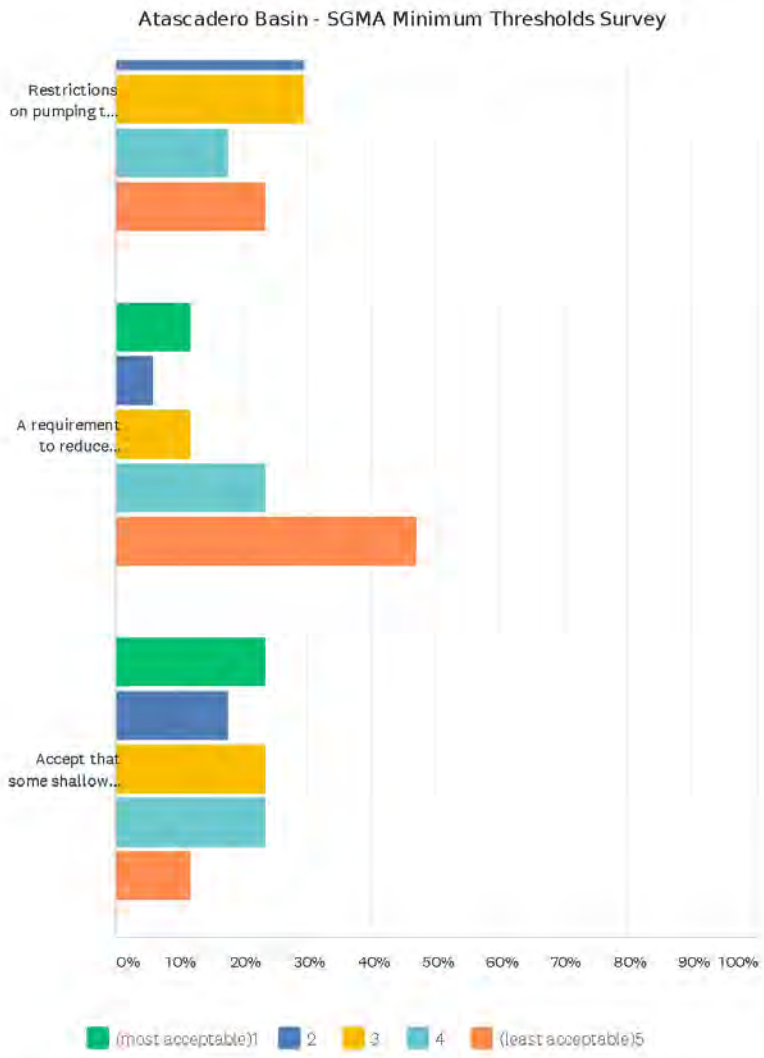


ANSWER CHOICES	RESPONSES	
I feel that we could get through another 3-year drought with the current amount of groundwater in the Basin	11.11%	2
I would like to see a bit more groundwater in the basin to provide additional safety during any 3-year drought	44.44%	8
I would like to see significantly more groundwater in the basin to get us through a drought even if it comes at significant costs	11.11%	2
I don't know, but would be interested in learning more about the health of our basin from a groundwater-storage perspective	33.33%	6
I'm not interested	0.00%	0
TOTAL		18

Q15 Maintaining sustainability in the Atascadero Basin may require some concessions in the future. 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 maintain sustainability?

Answered: 18 Skipped: 0



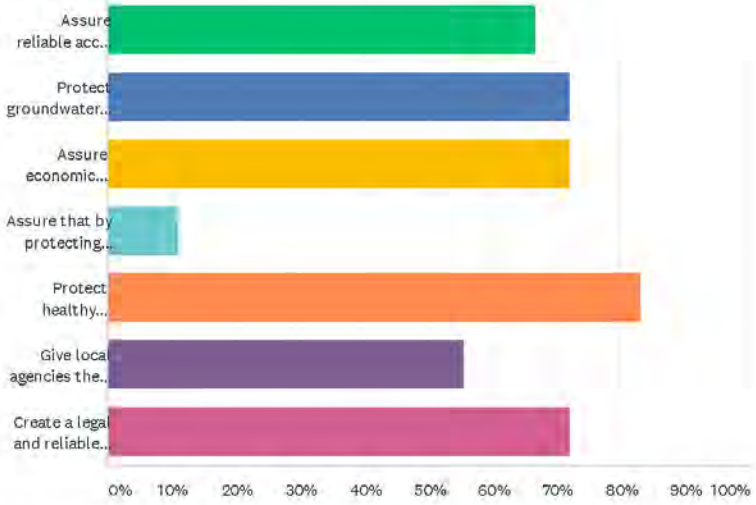

Atascadero Basin - SGMA Minimum Thresholds Survey
Restrictions on pumping t...
A requirement to reduce...
Accept that some shallow...
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
(most acceptable)1
2
3
4
(least acceptable)5

Atascadero Basin - SGMA Minimum Thresholds Survey

	(MOST ACCEPTABLE)1	2	3	4	(LEAST ACCEPTABLE)5	TOTAL	WEIGHTED AVERAGE
Accept a reasonable but stable lowering of future groundwater levels	17.65% 3	17.65% 3	29.41% 5	11.76% 2	23.53% 4	17	3.06
Some restrictions on pumping in dry years when groundwater levels might be low	22.22% 4	27.78% 5	22.22% 4	16.67% 3	11.11% 2	18	2.67
Some reduction of flow in the Salinas River	22.22% 4	11.11% 2	33.33% 6	11.11% 2	22.22% 4	18	3.00
Restrictions on pumping to maintain creek flows	0.00% 0	29.41% 5	29.41% 5	17.65% 3	23.53% 4	17	3.35
A requirement to reduce agricultural pumping in all years	11.76% 2	5.88% 1	11.76% 2	23.53% 4	47.06% 8	17	3.88
Accept that some shallow domestic wells may go dry and need to be deepened	23.53% 4	17.65% 3	23.53% 4	23.53% 4	11.76% 2	17	2.82

Q16 From your perspective, what are the biggest opportunities as a result of the SGMA process? Check all that apply.

Answered: 18 Skipped: 0



ANSWER CHOICES	RESPONSES	
Assure reliable access of all the existing domestic wells in the basin to reliable groundwater resource	66.67%	12
Protect groundwater resources from all exports	72.22%	13
Assure economic vitality far into the future	72.22%	13
Assure that by protecting groundwater levels that no subsidence will occur	11.11%	2
Protect healthy groundwater levels balanced with annual recharge to protect water quality	83.33%	15
Give local agencies the power to protect groundwater from practices that might pollute groundwater	55.56%	10
Create a legal and reliable process for groundwater users to work together to protect the groundwater resources they rely upon to live, work, and prosper	72.22%	13
Total Respondents: 18		

Q17 What would be a successful outcome of the SGMA process from your perspective?

Answered: 10 Skipped: 8

#	RESPONSES	DATE
1	overlyers maintain current pumping capacity without restrictions.	11/24/2020 3:30 PM
2	Maintaining relatively stable ground water levels with minimal intervention	11/20/2020 5:15 PM
3	Manage consumption with flexible mandates	11/11/2020 4:52 PM
4	the above	11/10/2020 5:10 PM
5	More than adequate water resources for all businesses into the future.	11/10/2020 12:38 PM
6	The usage rate and recharge rate need to be balanced. The recharge rate should be calculated on a moving average so a single years impact doesn't affect policy.The ground water level needs to be calculated at various points throughout the basin.	11/2/2020 4:20 PM
7	A group would exist to solve problems as they occur	10/29/2020 10:55 AM
8	Stabilization at current levels ASAP and begin work on options that will begin increasing ground water levels.	10/29/2020 7:58 AM
9	Water for everyone equally.	10/28/2020 9:01 PM
10	protect the groundwater resource at sustainable levels while protecting existing uses and the environment	10/15/2020 10:52 AM

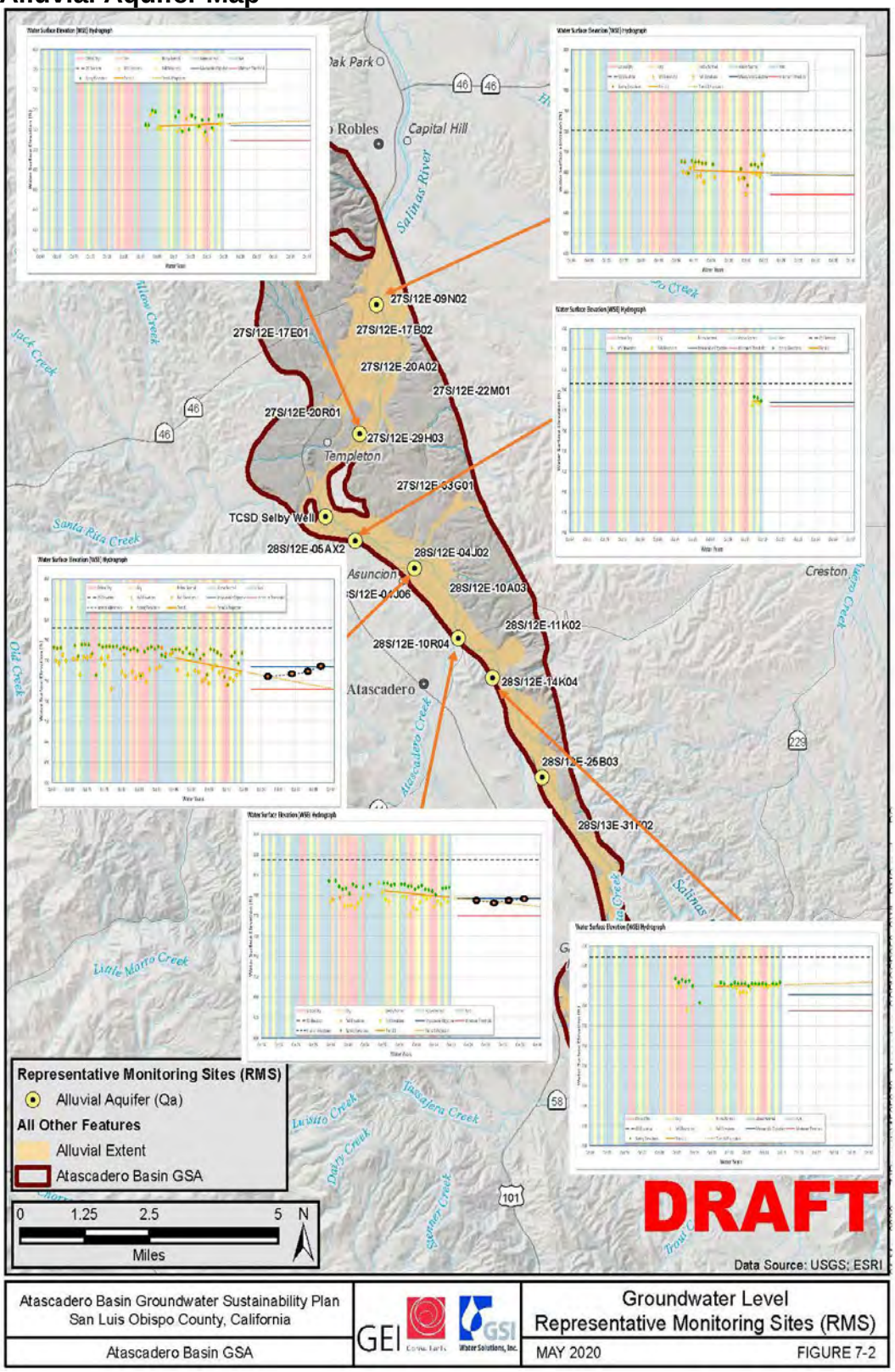
Q18 Please provide any other information, comments, or questions that you have regarding the SGMA process and development of Minimum Thresholds for the Atascadero Basin.

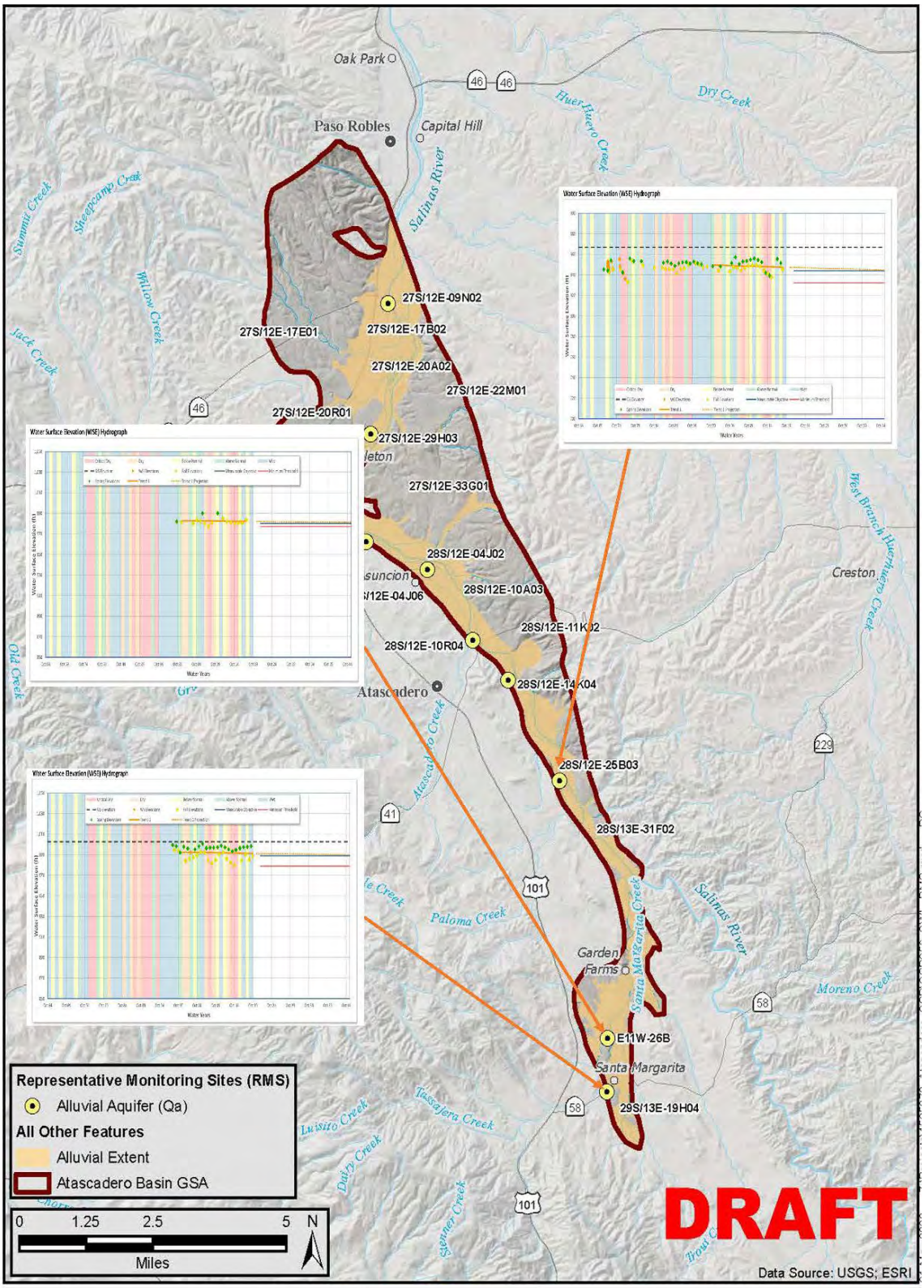
Answered: 5 Skipped: 13

#	RESPONSES	DATE
1	Thank you for the efforts to address this problem; now and into the future.	11/10/2020 12:38 PM
2	Being fair in a complex situation like this is difficult. As an example forcing someone to lower pumping from previous levels when that person has already spent major effort (and expense) to reduce usage below average consumption is not fair. So blanket requirements to cut pumping 20% penalizes those who have done well in the past. It's easy for someone who is terribly wasteful to cut 20%	11/8/2020 10:08 AM
3	I am getting info from the Paso water basin also. I would like to see a map that you can enlarge to see which basin I am in. Also with a little more explanation on the different colors. I live on Rocky Canyon Rd. and it seems that there is confusion on the boundaries between the two basins	10/28/2020 9:01 PM
4	This is another run at taking water rights from the people. 1816 water rights should not be taken.	10/15/2020 11:29 AM
5	This survey is flawed. Educate the public first and then ask their opinions. CCWQCB protects water quality very rigorously. The Salinas doesn't flow accept for the spring releases from the dam and the treatment plants. The alluvial aquifer does flow slowly. The tributary streams do flow and they have been reduced by climate change and human use. They are beyond the purview of SGMA and this GSP. After Paso Basin's experience with it's survey I thought you guys would do better. Alas.	10/15/2020 10:52 AM

Appendix 8B – Alluvial Aquifer Hydrographs

Alluvial Aquifer Map





Atascadero Basin Groundwater Sustainability Plan San Luis Obispo County, California	GEI Consultants, Inc. / GSI Water Solutions, Inc.	Groundwater Level Representative Monitoring Sites (RMS)
Atascadero Basin GSA		MAY 2020 FIGURE 7-2

Alluvial Aquifer Hydrographs

Groundwater Level Report

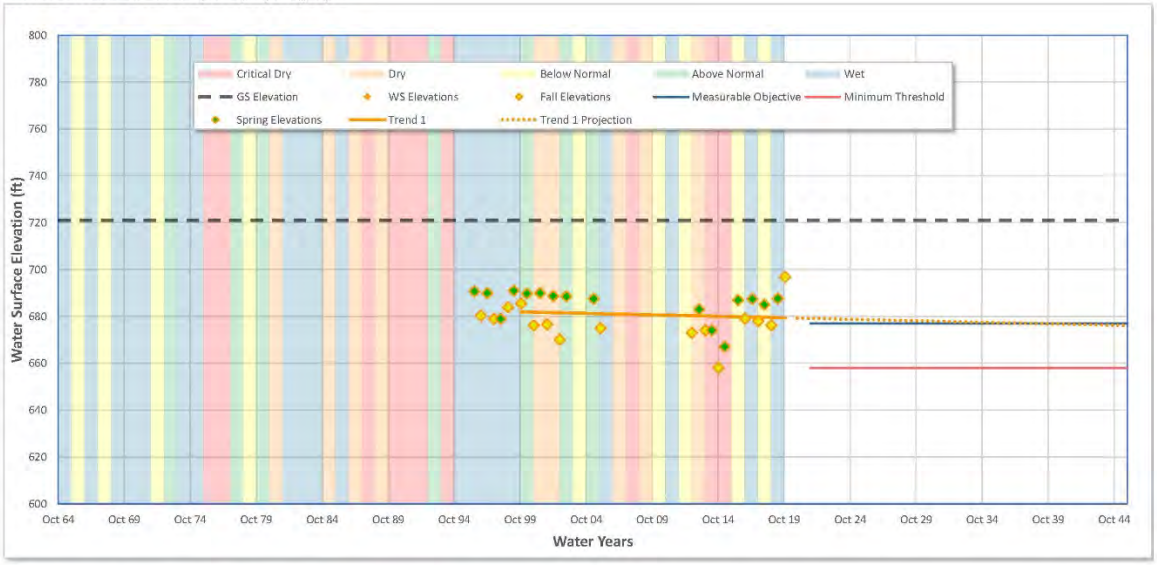
Date: 1/15/2021

Well Information	
Well ID	001946-PASO-0182
Alternate Name	PASO-0182
State Number	27S12E09N002M
CASGEM ID	355878N1206914W001
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5878
	Long:	-120.6914
Well Depth		92.00 ft
Ground Surface Elevation		721.00 ft
Ref. Point Elevation		721.00 ft
Screen Depth Range		-
Screen Elevation Range		-
Principal Aquifer		Quaternary Allivium
Well Period of Record		
Period-of-Record		1996..2020
WS Elev-Range	Min:	658.0 ft
	Max	696.8 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(0.127 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	658.0 ft
	Max	696.8 ft
2015 WS Elevations	Spring:	667.0 ft
	Fall:	-
Current WS Elevations	Spring:	687.5 ft
	Fall:	696.8 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	678.6 ft	-
2030	678.0 ft	-
2035	677.3 ft	-
2040	676.7 ft	-
2040	676.7 ft	-
2042	676.5 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	658.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	677.0 ft	Average of high and low wse

Groundwater Level Report

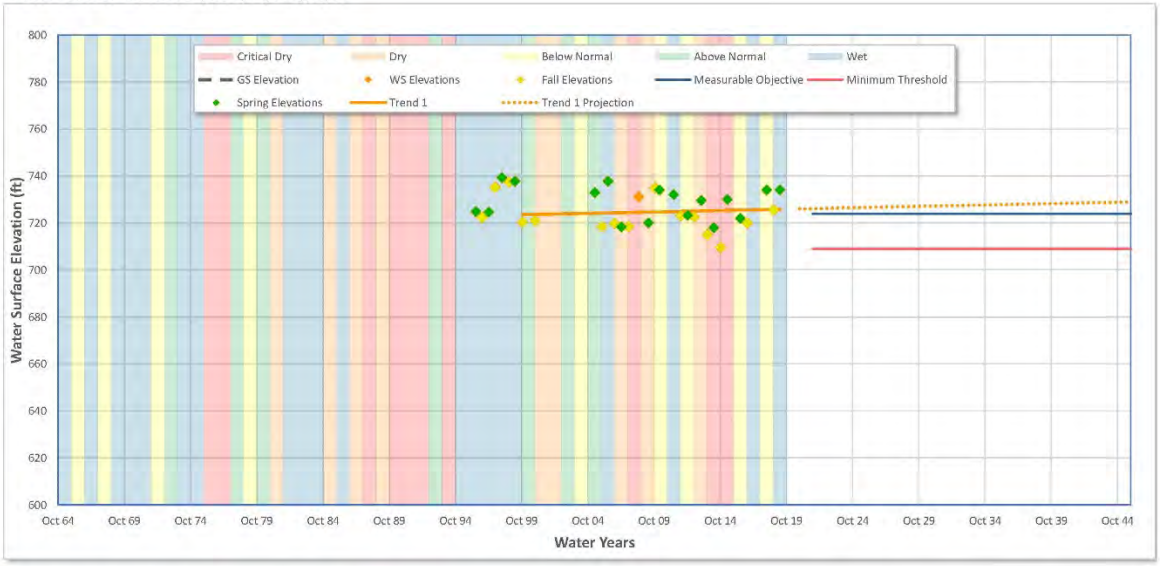
Date: 1/15/2021

Well Information	
Well ID	002134-27S/12E-29H03
Alternate Name	27S/12E-29H03
State Number	27S12E29H003M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5544
	Long:	-120.6961
Well Depth		65.00 ft
Ground Surface Elevation		-
Ref. Point Elevation		753.01 ft
Screen Depth Range		35 to 55 ft
Screen Elevation Range		718 to 698 ft
Principal Aquifer		Quaternary Allivium
Well Period of Record		
Period-of-Record		1996..2019
WS Elev-Range	Min:	709.6 ft
	Max	739.3 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	0.119 ft/yr
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	709.6 ft
	Max	739.3 ft
2015 WS Elevations	Spring:	730.0 ft
	Fall:	-
Current WS Elevations	Spring:	734.0 ft
	Fall:	725.5 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	726.6 ft	-
2030	727.2 ft	-
2035	727.8 ft	-
2040	728.4 ft	-
2040	728.4 ft	-
2042	728.6 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	709.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	724.0 ft	Mean of high and low WSE

Groundwater Level Report

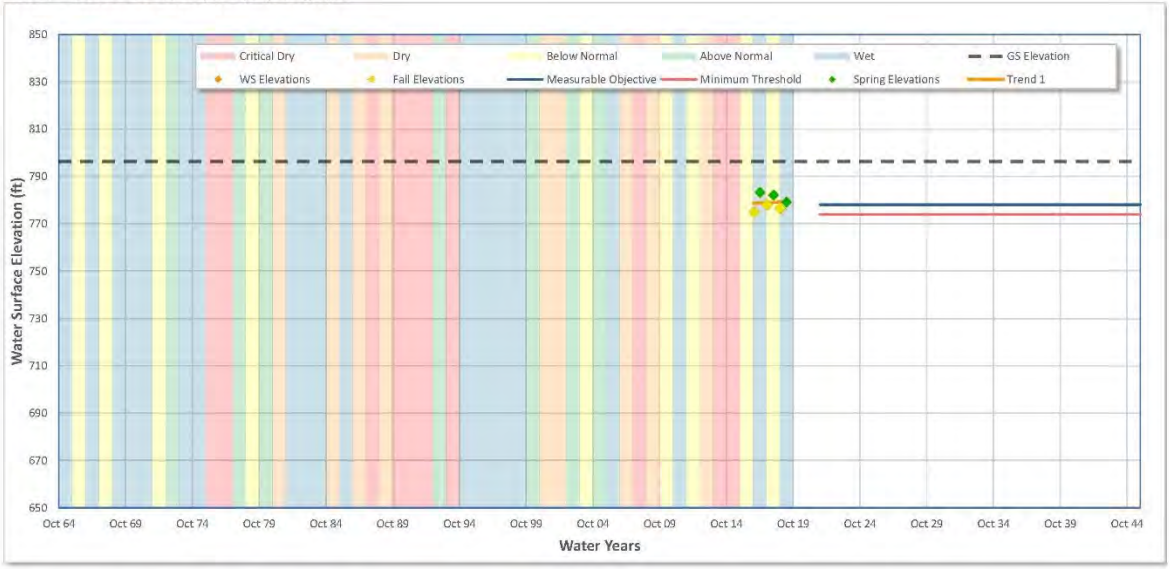
Date: 1/15/2021

Well Information	
Well ID	002023-28S/12E-05AX2
Alternate Name	28S/12E-05AX2
State Number	-
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Monitoring
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5269
	Long:	-120.6960
Well Depth		-
Ground Surface Elevation		796.21 ft
Ref. Point Elevation		796.21 ft
Screen Depth Range		-
Screen Elevation Range		-
Principal Aquifer		Quaternary Allivium
Well Period of Record		
Period-of-Record		2017..2019
WS Elev-Range	Min:	774.9 ft
	Max	783.1 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	0.253 ft/yr
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	774.9 ft
	Max	783.1 ft
2015 WS Elevations	Spring:	-
	Fall:	-
Current WS Elevations	Spring:	779.1 ft
	Fall:	776.4 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	780.9 ft	-
2030	782.1 ft	-
2035	783.4 ft	-
2040	784.7 ft	-
2040	784.7 ft	-
2042	785.2 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	774.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	778.0 ft	Mean of high and low WSE

Groundwater Level Report

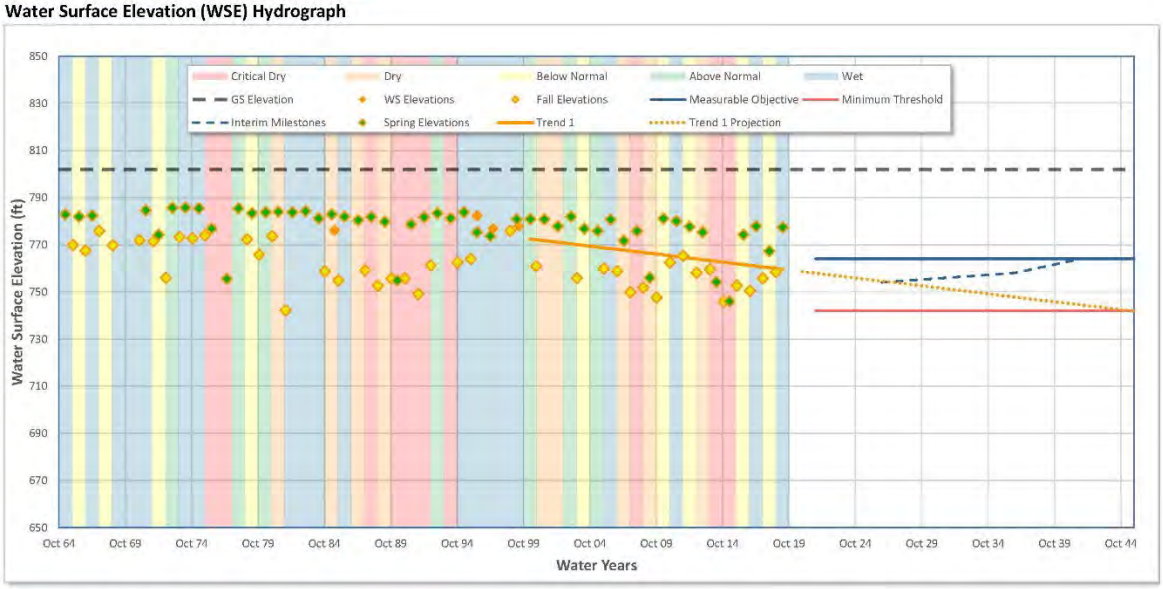
Date: 1/24/2021

Well Information	
Well ID	001996-28S/12E-04J02
Alternate Name	28S/12E-04J02
State Number	28S12E04J002M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5203
	Long:	-120.6761
Well Depth		85.00 ft
Ground Surface Elevation		801.99 ft
Ref. Point Elevation		795.83 ft
Screen Depth Range		21 to 86 ft
Screen Elevation Range		775 to 710 ft
Principal Aquifer		Quaternary Allivium
Well Period of Record		
Period-of-Record		1965..2019
WS Elev-Range	Min:	742.0 ft
	Max	785.7 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(0.675 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	742.0 ft
	Max	785.7 ft
2015 WS Elevations	Spring:	746.0 ft
	Fall:	752.6 ft
Current WS Elevations	Spring:	777.4 ft
	Fall:	758.3 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	755.2 ft	-
2030	751.8 ft	-
2035	748.5 ft	-
2040	745.1 ft	-
2040	745.1 ft	-
2042	743.7 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	742.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	764.0 ft	Mean of high and low WSE
IM	Interim Milestone	2027	754.0 ft	
IM	Interim Milestone	2032	756.0 ft	
IM	Interim Milestone	2037	758.0 ft	
IM	Interim Milestone	2042	764.0 ft	

Groundwater Level Report

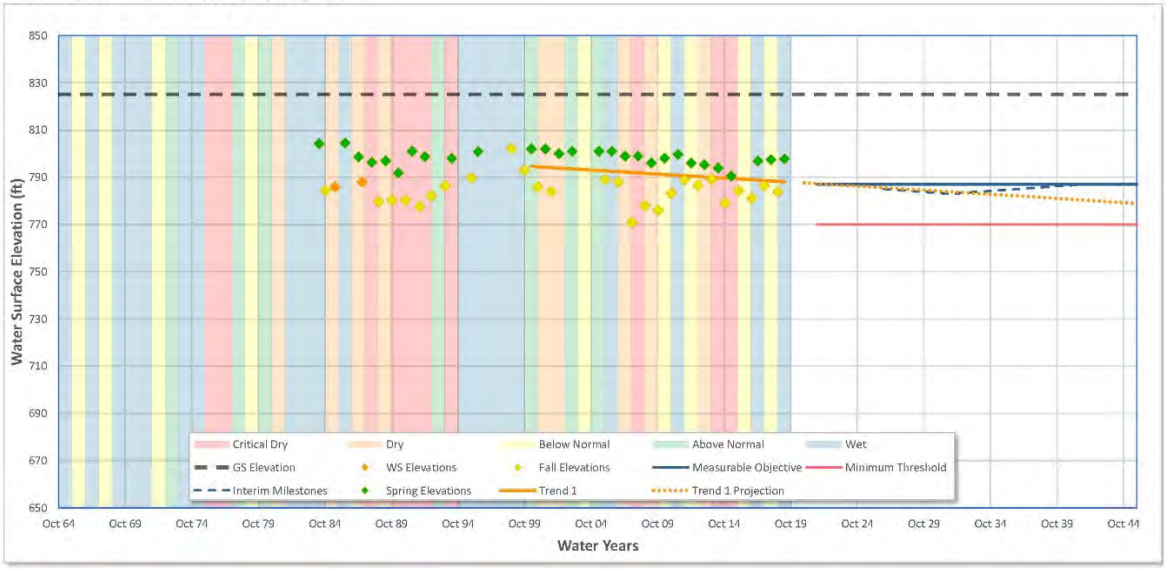
Date: 1/24/2021

Well Information	
Well ID	001995-28S/12E-10R04
Alternate Name	28S/12E-10R04
State Number	28S12E10R004M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5028
	Long:	-120.6605
Well Depth		75.00 ft
Ground Surface Elevation		825.02 ft
Ref. Point Elevation		820.00 ft
Screen Depth Range		46 to 75 ft
Screen Elevation Range		750 to 721 ft
Principal Aquifer		Quaternary Allivium
Well Period of Record		
Period-of-Record		1984..2019
WS Elev-Range	Min:	770.9 ft
	Max	804.5 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(0.344 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	770.9 ft
	Max	804.5 ft
2015 WS Elevations	Spring:	790.5 ft
	Fall:	784.2 ft
Current WS Elevations	Spring:	797.8 ft
	Fall:	783.8 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	785.8 ft	-
2030	784.1 ft	-
2035	782.4 ft	-
2040	780.7 ft	-
2040	780.7 ft	-
2042	780.0 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	770.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	787.0 ft	Mean of high and low WSE
IM	Interim Milestone	2027	785.0 ft	
IM	Interim Milestone	2032	783.0 ft	
IM	Interim Milestone	2037	785.0 ft	
IM	Interim Milestone	2042	787.0 ft	

Groundwater Level Report

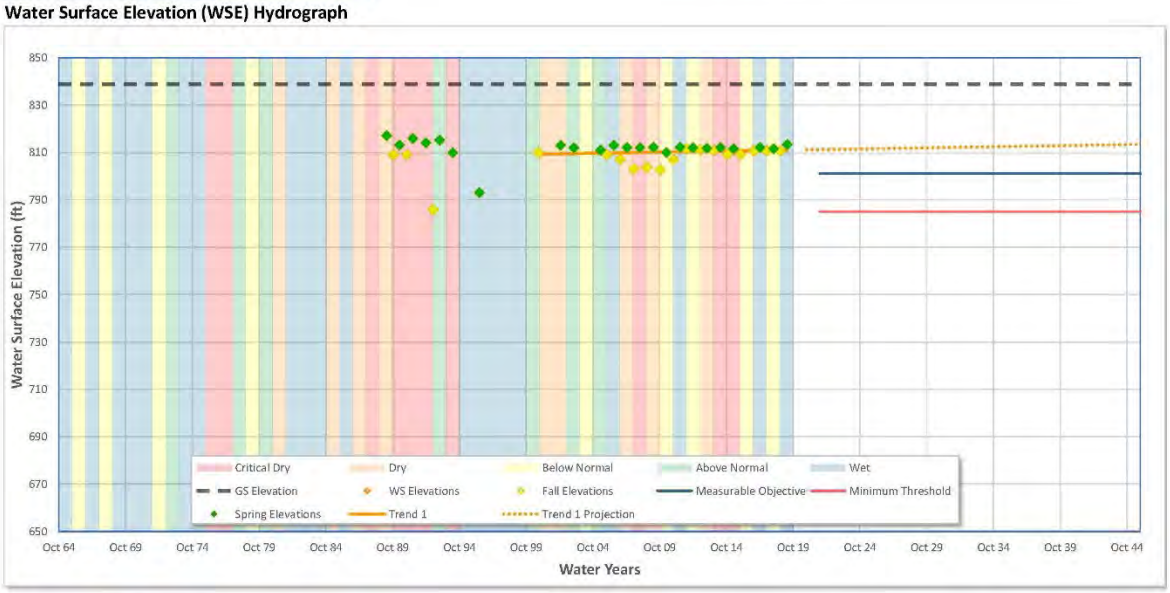
Date: 1/15/2021

Well Information	
Well ID	001993-28S/12E-14K04
Alternate Name	28S/12E-14K04
State Number	28S12E14K004M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.4929
	Long:	-120.6484
Well Depth		105.00 ft
Ground Surface Elevation		838.78 ft
Ref. Point Elevation		835.00 ft
Screen Depth Range		50 to 100 ft
Screen Elevation Range		770 to 720 ft
Principal Aquifer		Quaternary Allivium
Well Period of Record		
Period-of-Record		1989..2019
WS Elev-Range	Min:	785.8 ft
	Max	817.0 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	0.091 ft/yr
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	785.8 ft
	Max	817.0 ft
2015 WS Elevations	Spring:	811.5 ft
	Fall:	809.1 ft
Current WS Elevations	Spring:	813.3 ft
	Fall:	810.6 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	811.5 ft	-
2030	812.0 ft	-
2035	812.4 ft	-
2040	812.9 ft	-
2040	812.9 ft	-
2042	813.1 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	785.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	801.0 ft	Mean of high and low WSE

Groundwater Level Report

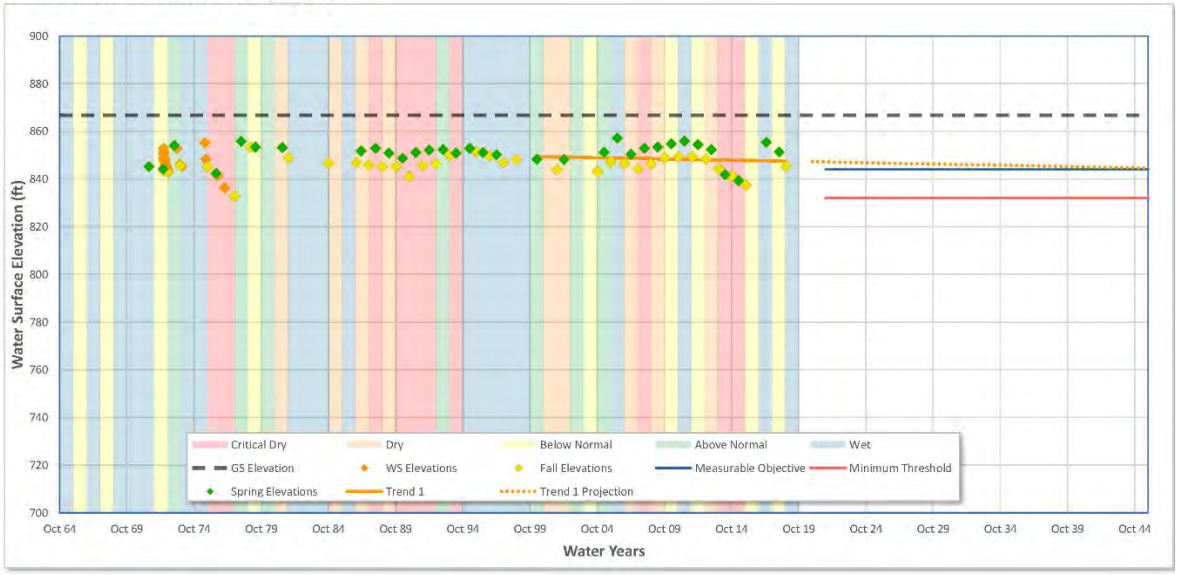
Date: 1/15/2021

Well Information	
Well ID	002033-28S/12E-25B03
Alternate Name	28S/12E-25B03
State Number	28S12E25B003M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.4676
	Long:	-120.6306
Well Depth		120.00 ft
Ground Surface Elevation		866.78 ft
Ref. Point Elevation		867.80 ft
Screen Depth Range		100 to 120 ft
Screen Elevation Range		768 to 748 ft
Principal Aquifer		Quaternary Allivium
Well Period of Record		
Period-of-Record		1971..2019
WS Elev-Range	Min:	832.8 ft
	Max	857.1 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(0.106 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	832.8 ft
	Max	857.1 ft
2015 WS Elevations	Spring:	839.4 ft
	Fall:	837.4 ft
Current WS Elevations	Spring:	851.4 ft
	Fall:	845.4 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	846.7 ft	-
2030	846.2 ft	-
2035	845.6 ft	-
2040	845.1 ft	-
2040	845.1 ft	-
2042	844.9 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	832.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	844.0 ft	Mean of high and low WSE

Groundwater Level Report

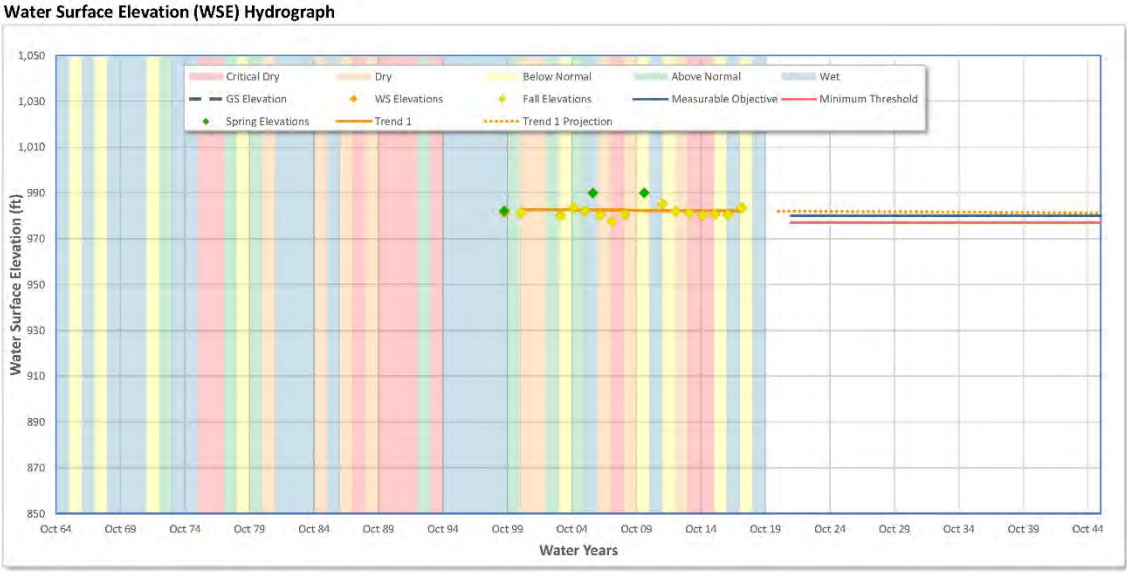
Date: 1/15/2021

Well Information	
Well ID	002053-SL0607989492
Alternate Name	SL0607989492
State Number	-
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Monitoring
Well Use	Observation
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.4025
	Long:	-120.6124
Well Depth		35.00 ft
Ground Surface Elevation		-
Ref. Point Elevation		1002.97 ft
Screen Depth Range		10 to 35 ft
Screen Elevation Range		993 to 968 ft
Principal Aquifer		Quaternary Allivium
Well Period of Record		
Period-of-Record		1999..2018
WS Elev-Range	Min:	977.5 ft
	Max	990.0 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(0.032 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	977.5 ft
	Max	990.0 ft
2015 WS Elevations	Spring:	-
	Fall:	980.8 ft
Current WS Elevations	Spring:	990.0 ft
	Fall:	983.5 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	981.8 ft	-
2030	981.7 ft	-
2035	981.5 ft	-
2040	981.4 ft	-
2040	981.4 ft	-
2042	981.3 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	977.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	980.0 ft	Mean of high and low WSE

Groundwater Level Report

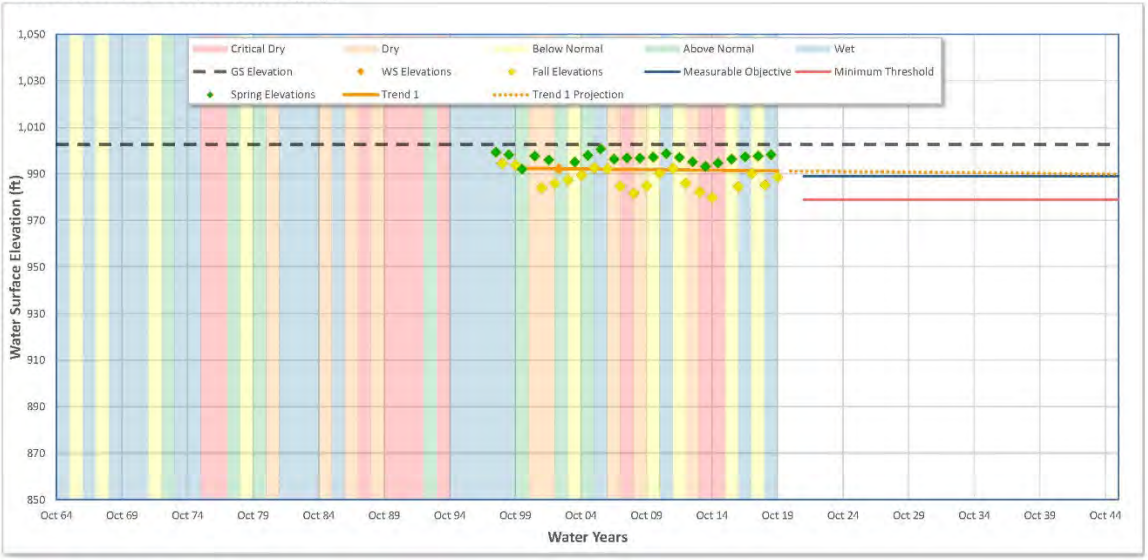
Date: 1/15/2021

Well Information	
Well ID	001710-PASO-0263
Alternate Name	PASO-0263
State Number	29S13E19H004M
CASGEM ID	353889N1206123W001
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.3889
	Long:	-120.6123
Well Depth		57.00 ft
Ground Surface Elevation		1002.50 ft
Ref. Point Elevation		1005.00 ft
Screen Depth Range		-
Screen Elevation Range		-
Principal Aquifer		Quaternary Allivium
Well Period of Record		
Period-of-Record		1998..2020
WS Elev-Range	Min:	979.8 ft
	Max	1000.7 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(0.054 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	979.8 ft
	Max	1000.7 ft
2015 WS Elevations	Spring:	994.6 ft
	Fall:	-
Current WS Elevations	Spring:	998.2 ft
	Fall:	988.6 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	991.0 ft	-
2030	990.7 ft	-
2035	990.4 ft	-
2040	990.1 ft	-
2040	990.1 ft	-
2042	990.0 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	979.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	989.0 ft	Mean of high and low WSE

Groundwater Level Report

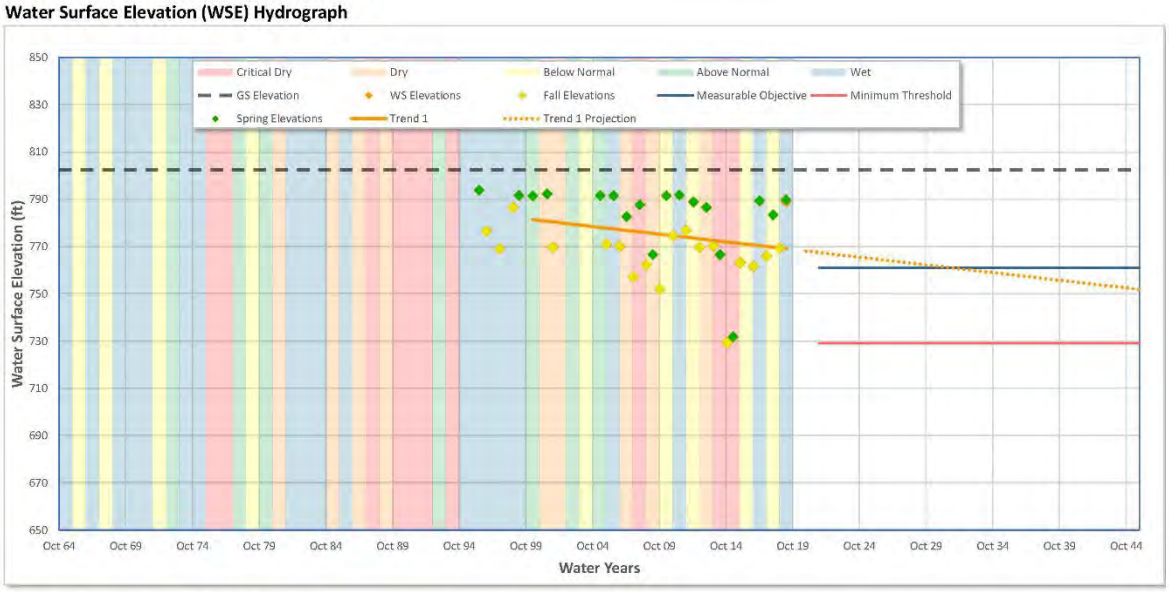
Date: 1/15/2021

Well Information	
Well ID	002014-28S/12E-04J04
Alternate Name	28S/12E-04J04
State Number	28S12E04J004M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Monitoring
Well Use	Observation
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5200
	Long:	-120.6750
Well Depth		70.00 ft
Ground Surface Elevation		802.37 ft
Ref. Point Elevation		802.37 ft
Screen Depth Range		30 to 70 ft
Screen Elevation Range		772 to 732 ft
Principal Aquifer		Quaternary Allivium
Well Period of Record		
Period-of-Record		1996..2019
WS Elev-Range	Min:	729.3 ft
	Max	793.8 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(0.650 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	729.3 ft
	Max	793.8 ft
2015 WS Elevations	Spring:	731.7 ft
	Fall:	763.1 ft
Current WS Elevations	Spring:	789.7 ft
	Fall:	769.3 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	764.8 ft	-
2030	761.5 ft	-
2035	758.3 ft	-
2040	755.0 ft	-
2040	755.0 ft	-
2042	753.7 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	729.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	761.0 ft	Mean of high and low WSE

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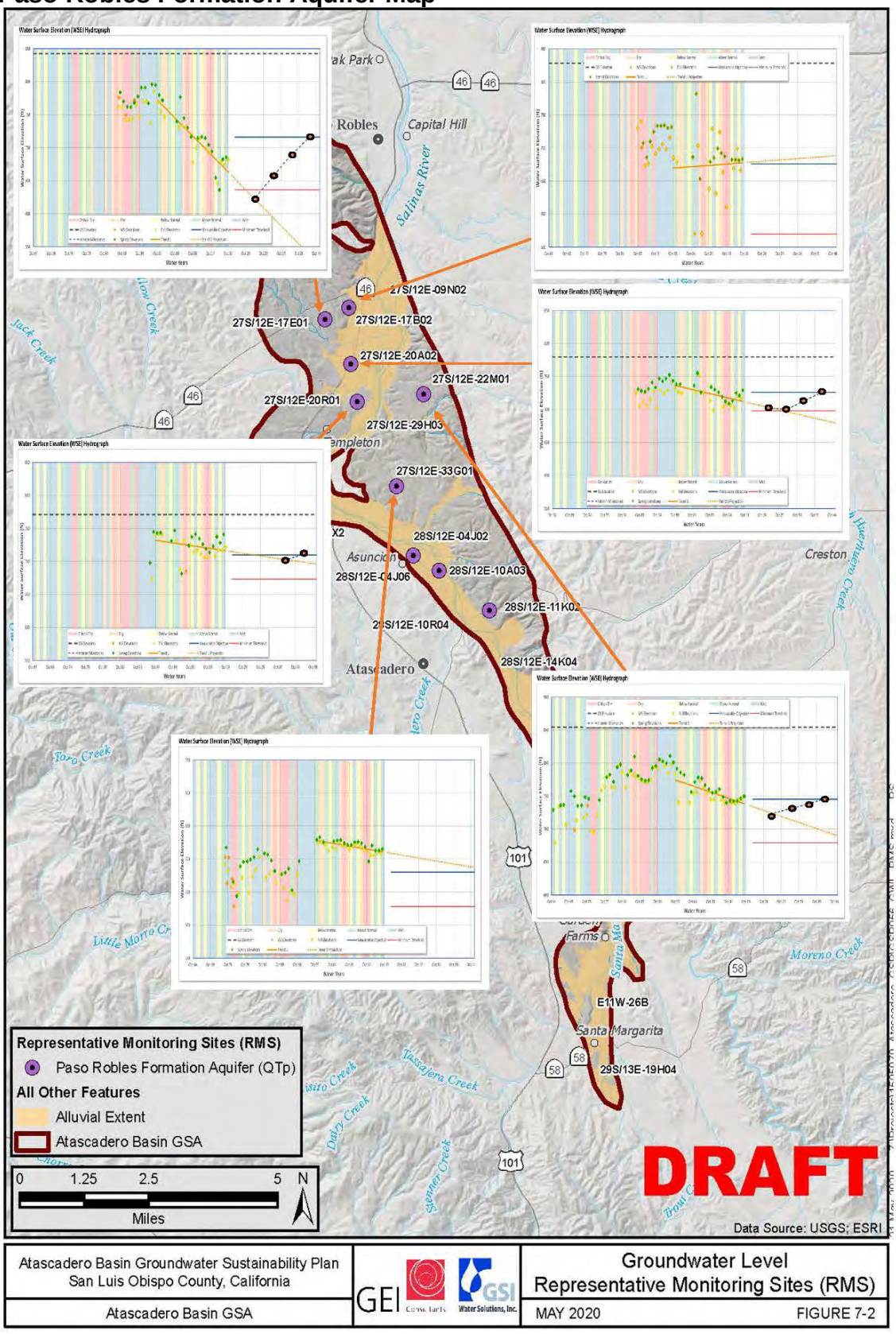
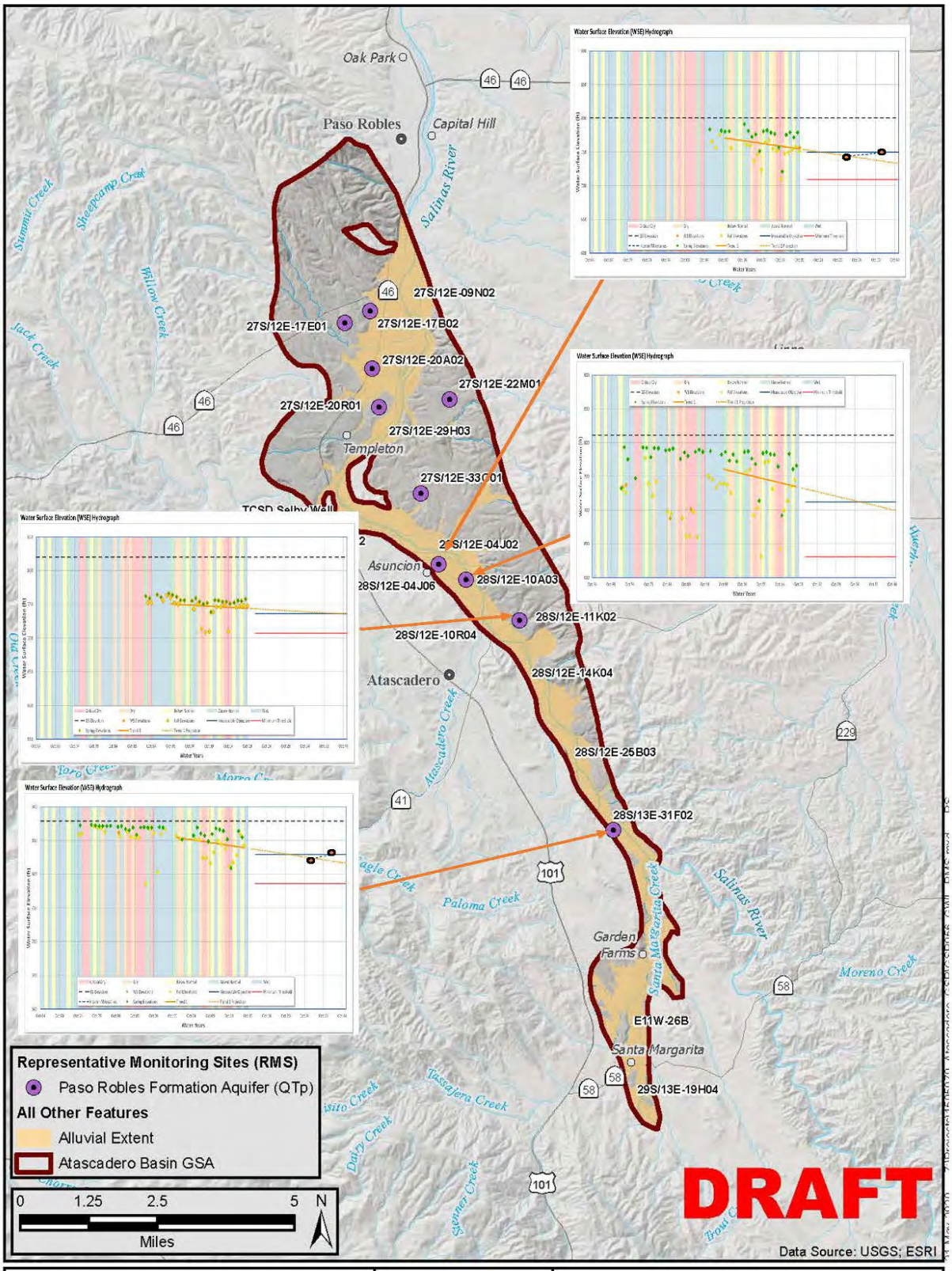
Appendix 8C – Paso Robles Formation Aquifer Hydrographs

Paso Robles Formation Aquifer Map





Atascadero Basin Groundwater Sustainability Plan San Luis Obispo County, California	GEI Consultants, Inc. / GSI Water Solutions, Inc.	Groundwater Level Representative Monitoring Sites (RMS)
Atascadero Basin GSA		MAY 2020 FIGURE 7-2

Paso Robles Formation Aquifer Hydrographs

Groundwater Level Report

Date: 1/17/2021

Well Information	
Well ID	002126-27S/12E-17B02
Alternate Name	27S/12E-17B02
State Number	27S12E17B002M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5842
	Long:	-120.7007
Well Depth		400.00 ft
Ground Surface Elevation		828.31 ft
Ref. Point Elevation		828.31 ft
Screen Depth Range		200 to 400 ft
Screen Elevation Range		642 to 442 ft
Principal Aquifer		Paso Robles Formation
Well Period of Record		
Period-of-Record		1989..2019
WS Elev-Range	Min:	570.3 ft
	Max	782.3 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	0.409 ft/yr
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph

Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	570.3 ft
	Max	782.3 ft
2015 WS Elevations	Spring:	-
	Fall:	-
Current WS Elevations	Spring:	683.3 ft
	Fall:	666.2 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	680.2 ft	-
2030	682.3 ft	-
2035	684.3 ft	-
2040	686.4 ft	-
2040	686.4 ft	-
2042	687.2 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	570.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	676.0 ft	Mean of high and low WSE

Groundwater Level Report

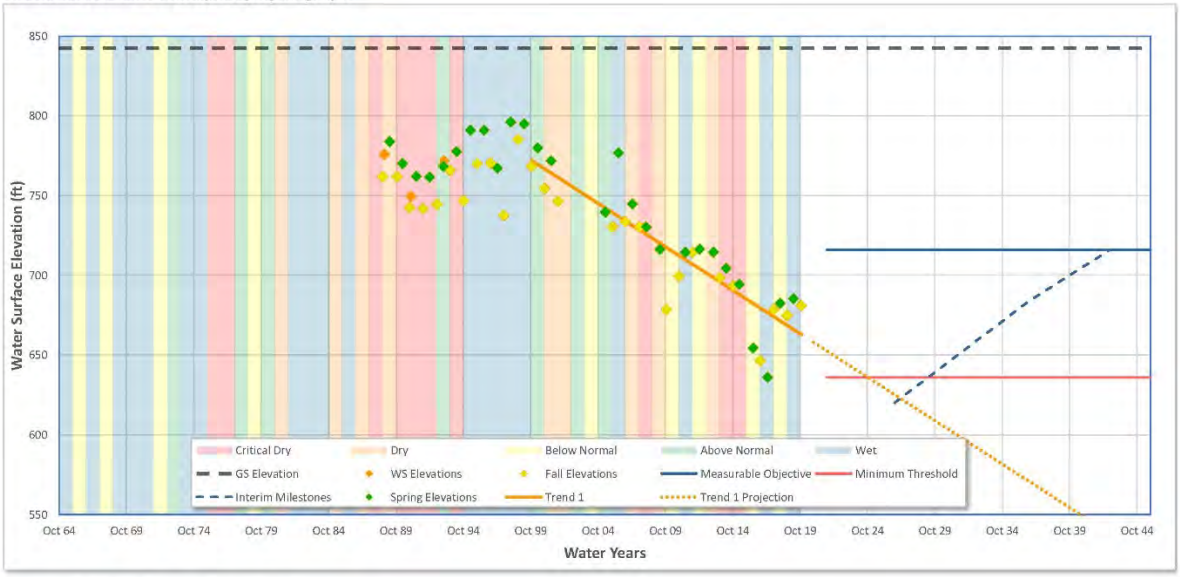
Date: 1/24/2021

Well Information	
Well ID	001707-PASO-0328
Alternate Name	PASO-0328
State Number	27S12E17E001M
CASGEM ID	355808N1207086W001
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5808
	Long:	-120.7086
Well Depth		310.00 ft
Ground Surface Elevation		842.40 ft
Ref. Point Elevation		842.40 ft
Screen Depth Range		-
Screen Elevation Range		-
Principal Aquifer		Paso Robles Formation
Well Period of Record		
Period-of-Record		1989..2020
WS Elev-Range	Min:	636.1 ft
	Max	796.1 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(5.448 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		**Value**
WS Elevation Range	Min:	636.1 ft
	Max	796.1 ft
2015 WS Elevations	Spring:	694.4 ft
	Fall:	-
Current WS Elevations	Spring:	685.4 ft
	Fall:	681.2 ft

Trend Projections		
Year	**Trend 1**	**Trend 2**
2025	630.7 ft	-
2030	603.5 ft	-
2035	576.2 ft	-
2040	549.0 ft	-
2040	549.0 ft	-
2042	538.1 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	636.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	716.0 ft	Mean of high and low WSE
IM	Interim Milestone	2027	620.0 ft	
IM	Interim Milestone	2032	652.0 ft	
IM	Interim Milestone	2037	684.0 ft	
IM	Interim Milestone	2043	716.0 ft	

Groundwater Level Report

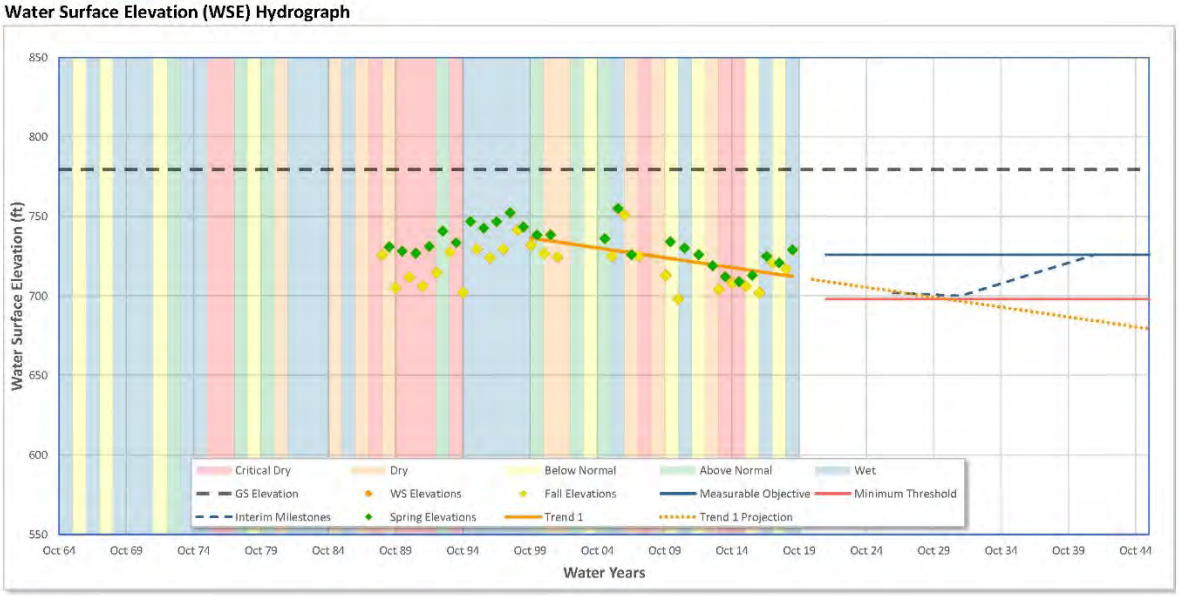
Date: 1/24/2021

Well Information	
Well ID	002132-27S/12E-20A02
Alternate Name	27S/12E-20A02
State Number	27S12E20A002M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5693
	Long:	-120.6994
Well Depth		205.00 ft
Ground Surface Elevation		779.35 ft
Ref. Point Elevation		776.00 ft
Screen Depth Range		105 to 195 ft
Screen Elevation Range		737 to 647 ft
Principal Aquifer		Paso Robles Formation
Well Period of Record		
Period-of-Record		1989..2019
WS Elev-Range	Min:	698.0 ft
	Max	755.0 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(1.242 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	698.0 ft
	Max	755.0 ft
2015 WS Elevations	Spring:	709.0 ft
	Fall:	706.0 ft
Current WS Elevations	Spring:	729.0 ft
	Fall:	717.0 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	704.2 ft	-
2030	697.9 ft	-
2035	691.7 ft	-
2040	685.5 ft	-
2040	685.5 ft	-
2042	683.0 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	698.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	726.0 ft	Maximum Water Surface Elevation
IM	Interim Milestone	2027	702.0 ft	
IM	Interim Milestone	2032	700.0 ft	
IM	Interim Milestone	2037	713.0 ft	
IM	Interim Milestone	2042	726.0 ft	

Groundwater Level Report

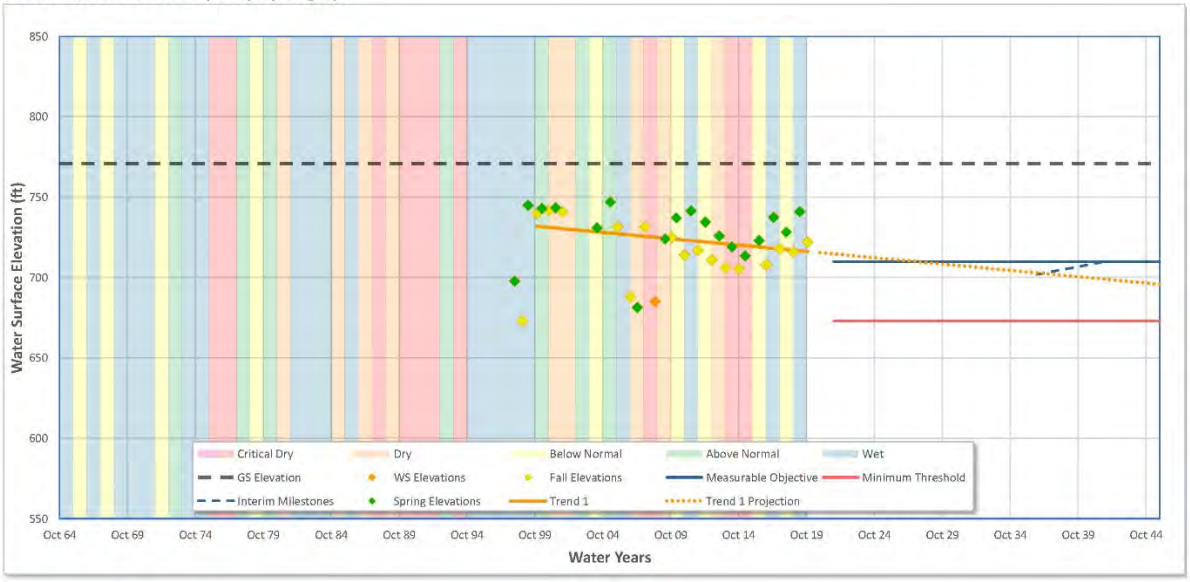
Date: 1/24/2021

Well Information	
Well ID	001926-PASO-0283
Alternate Name	PASO-0283
State Number	27S12E20R001M
CASGEM ID	355593N1206969W001
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5593
	Long:	-120.6969
Well Depth		230.00 ft
Ground Surface Elevation		771.00 ft
Ref. Point Elevation		771.00 ft
Screen Depth Range		-
Screen Elevation Range		-
Principal Aquifer		Paso Robles Formation
Well Period of Record		
Period-of-Record		1998..2020
WS Elev-Range	Min:	673.0 ft
	Max	747.0 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(0.787 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	673.0 ft
	Max	747.0 ft
2015 WS Elevations	Spring:	713.5 ft
	Fall:	-
Current WS Elevations	Spring:	741.0 ft
	Fall:	722.2 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	711.5 ft	-
2030	707.6 ft	-
2035	703.7 ft	-
2040	699.7 ft	-
2040	699.7 ft	-
2042	698.2 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	673.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	710.0 ft	Mean of high and low WSE
IM	Interim Milestone	2037	702.0 ft	
IM	Interim Milestone	2042	710.0 ft	

Groundwater Level Report

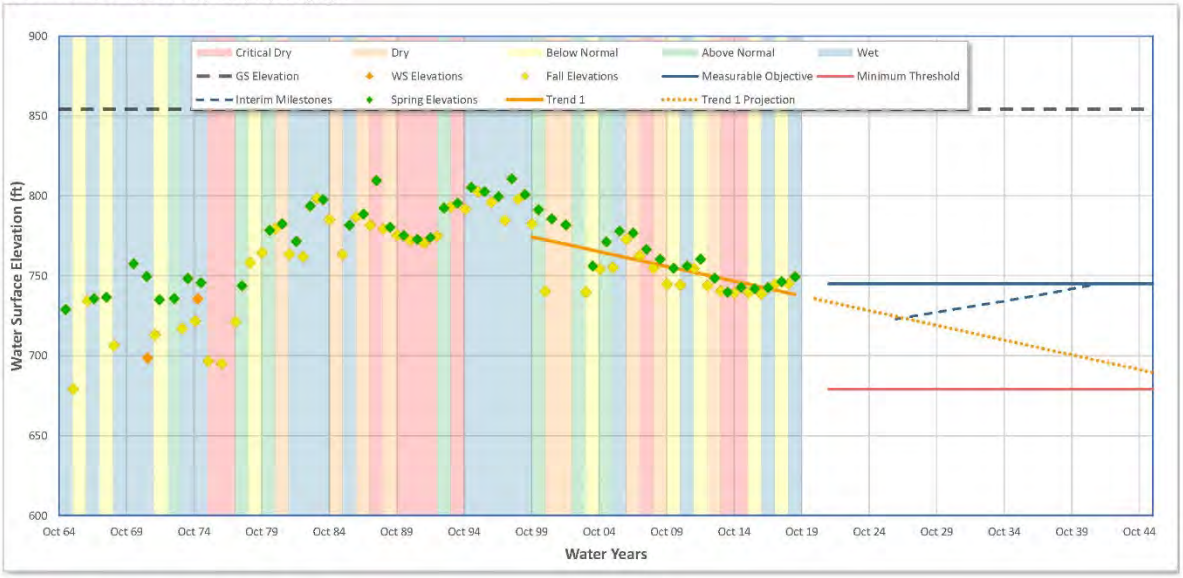
Date: 1/24/2021

Well Information	
Well ID	002078-27S/12E-22M01
Alternate Name	27S/12E-22M01
State Number	27S12E22M001M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Irrigation
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5620
	Long:	-120.6741
Well Depth		550.00 ft
Ground Surface Elevation		854.15 ft
Ref. Point Elevation		850.50 ft
Screen Depth Range		-
Screen Elevation Range		-
Principal Aquifer		Paso Robles Formation
Well Period of Record		
Period-of-Record		1965..2019
WS Elev-Range	Min:	679.0 ft
	Max	810.7 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(1.846 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	679.0 ft
	Max	810.7 ft
2015 WS Elevations	Spring:	742.9 ft
	Fall:	739.5 ft
Current WS Elevations	Spring:	749.4 ft
	Fall:	745.0 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	726.4 ft	-
2030	717.1 ft	-
2035	707.9 ft	-
2040	698.7 ft	-
2040	698.7 ft	-
2042	695.0 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	679.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	745.0 ft	Mean of high and low wse
IM	Interim Milestone	2027	723.0 ft	
IM	Interim Milestone	2032	730.0 ft	
IM	Interim Milestone	2037	737.0 ft	
IM	Interim Milestone	2042	745.0 ft	

Groundwater Level Report

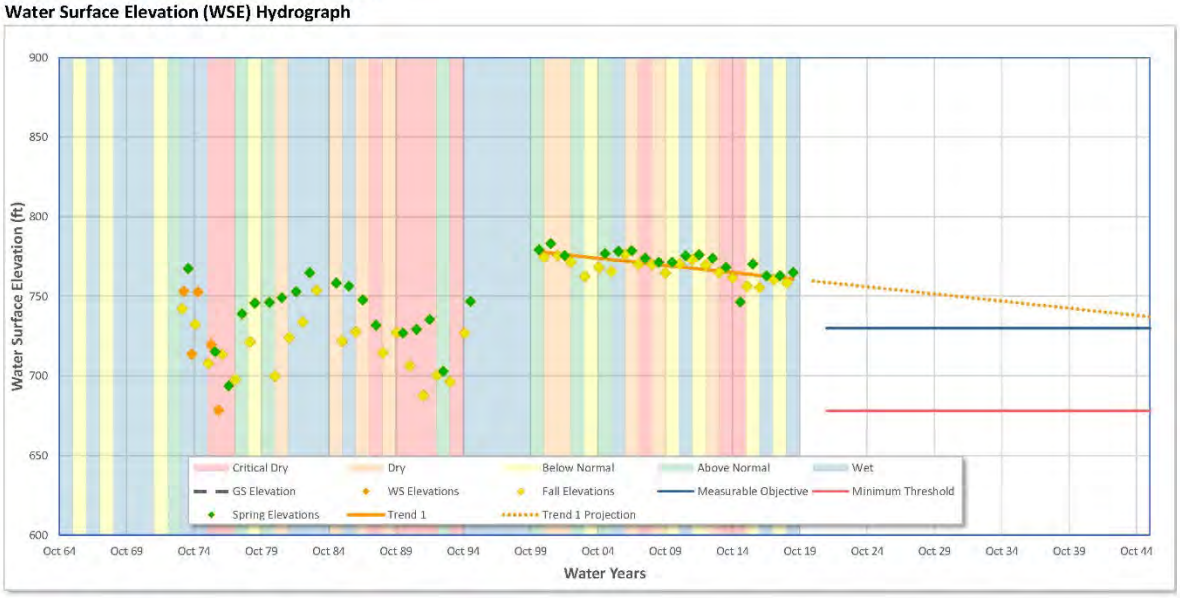
Date: 1/17/2021

Well Information	
Well ID	002083-27S/12E-33G01
Alternate Name	27S/12E-33G01
State Number	27S12E33G001M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Irrigation
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5374
	Long:	-120.6828
Well Depth		460.00 ft
Ground Surface Elevation		901.46 ft
Ref. Point Elevation		892.00 ft
Screen Depth Range		200 to 460 ft
Screen Elevation Range		680 to 420 ft
Principal Aquifer		Paso Robles Formation
Well Period of Record		
Period-of-Record		1974..2019
WS Elev-Range	Min:	678.3 ft
	Max	783.2 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(0.898 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	678.3 ft
	Max	783.2 ft
2015 WS Elevations	Spring:	746.4 ft
	Fall:	756.3 ft
Current WS Elevations	Spring:	765.0 ft
	Fall:	758.5 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	755.0 ft	-
2030	750.6 ft	-
2035	746.1 ft	-
2040	741.6 ft	-
2040	741.6 ft	-
2042	739.8 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	678.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	730.0 ft	Mean of high and low WSE

Groundwater Level Report

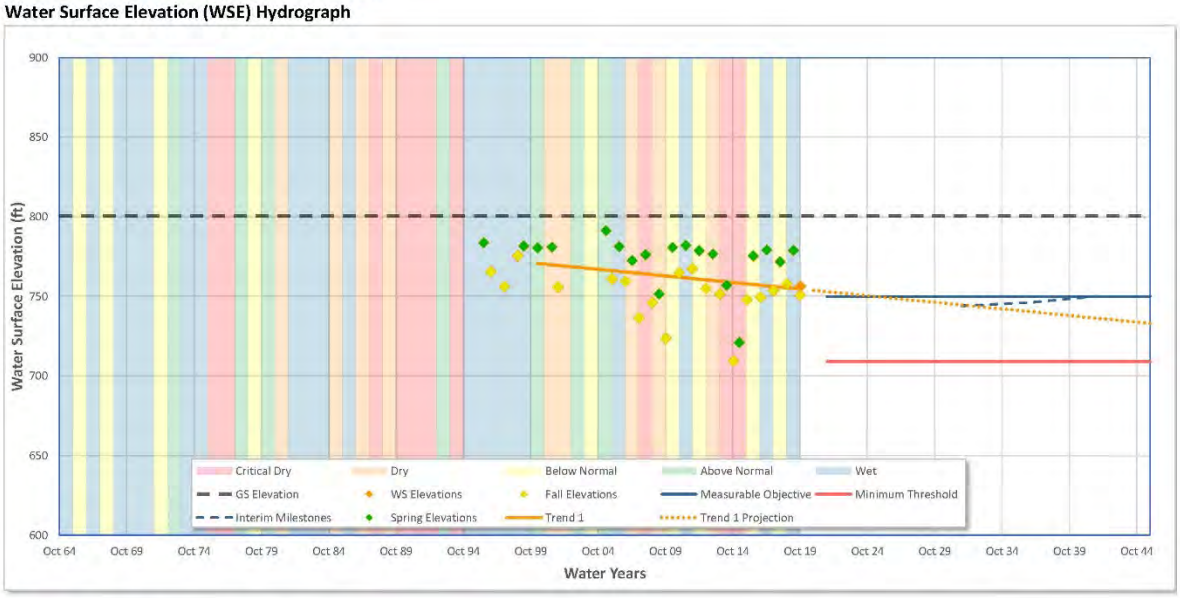
Date: 1/24/2021

Well Information	
Well ID	001708-PASO-0317
Alternate Name	PASO-0317
State Number	28S12E04J006M
CASGEM ID	355192N1206764W001
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Monitoring
Well Use	Observation
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5192
	Long:	-120.6764
Well Depth		153.00 ft
Ground Surface Elevation		800.51 ft
Ref. Point Elevation		800.51 ft
Screen Depth Range		-
Screen Elevation Range		-
Principal Aquifer		Paso Robles Formation
Well Period of Record		
Period-of-Record		1996..2020
WS Elev-Range	Min:	709.2 ft
	Max	791.3 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(0.830 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		**Value**
WS Elevation Range	Min:	709.2 ft
	Max	791.3 ft
2015 WS Elevations	Spring:	721.0 ft
	Fall:	747.9 ft
Current WS Elevations	Spring:	778.8 ft
	Fall:	750.6 ft

Trend Projections		
Year	**Trend 1**	**Trend 2**
2025	749.5 ft	-
2030	745.4 ft	-
2035	741.2 ft	-
2040	737.1 ft	-
2040	737.1 ft	-
2042	735.4 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	709.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	750.0 ft	Mean of high and low WSE
IM	Interim Milestone	2032	744.0 ft	
IM	Interim Milestone	2037	746.0 ft	
IM	Interim Milestone	2042	750.0 ft	

Groundwater Level Report

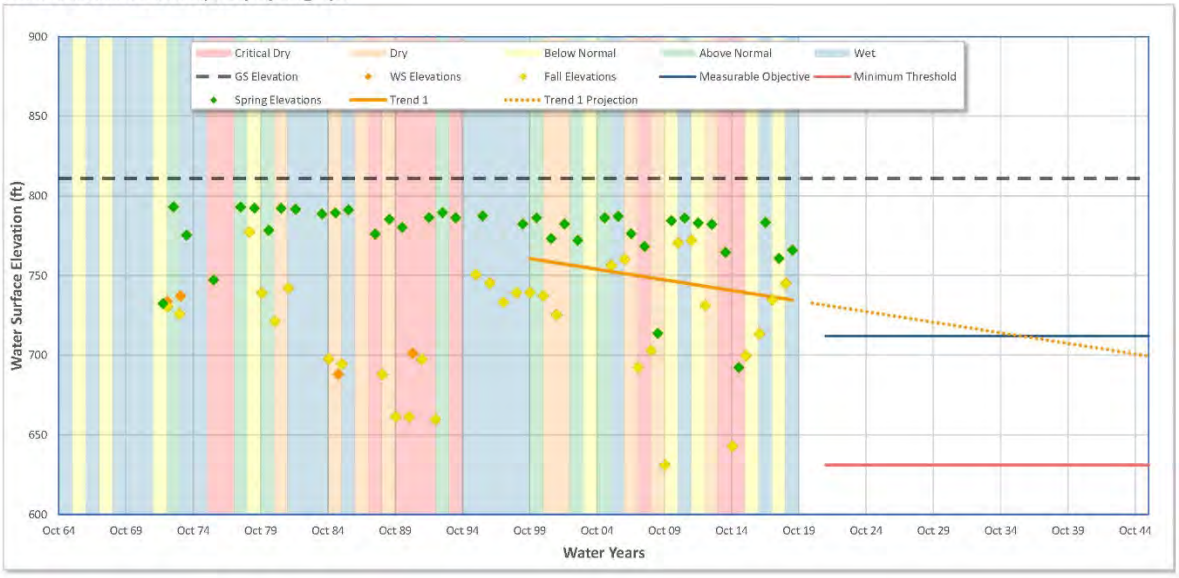
Date: 1/24/2021

Well Information	
Well ID	002001-28S/12E-10A03
Alternate Name	28S/12E-10A03
State Number	28S12E10A003M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Unknown
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5154
	Long:	-120.6673
Well Depth		500.00 ft
Ground Surface Elevation		810.95 ft
Ref. Point Elevation		808.29 ft
Screen Depth Range		157 to 500 ft
Screen Elevation Range		-
Principal Aquifer		Paso Robles Formation
Well Period of Record		
Period-of-Record		1972..2019
WS Elev-Range	Min:	631.1 ft
	Max	793.0 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(1.331 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	631.1 ft
	Max	793.0 ft
2015 WS Elevations	Spring:	692.3 ft
	Fall:	699.7 ft
Current WS Elevations	Spring:	765.9 ft
	Fall:	745.0 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	726.0 ft	-
2030	719.3 ft	-
2035	712.6 ft	-
2040	706.0 ft	-
2040	706.0 ft	-
2042	703.3 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	631.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	712.0 ft	Mean of high and low WSE

Groundwater Level Report

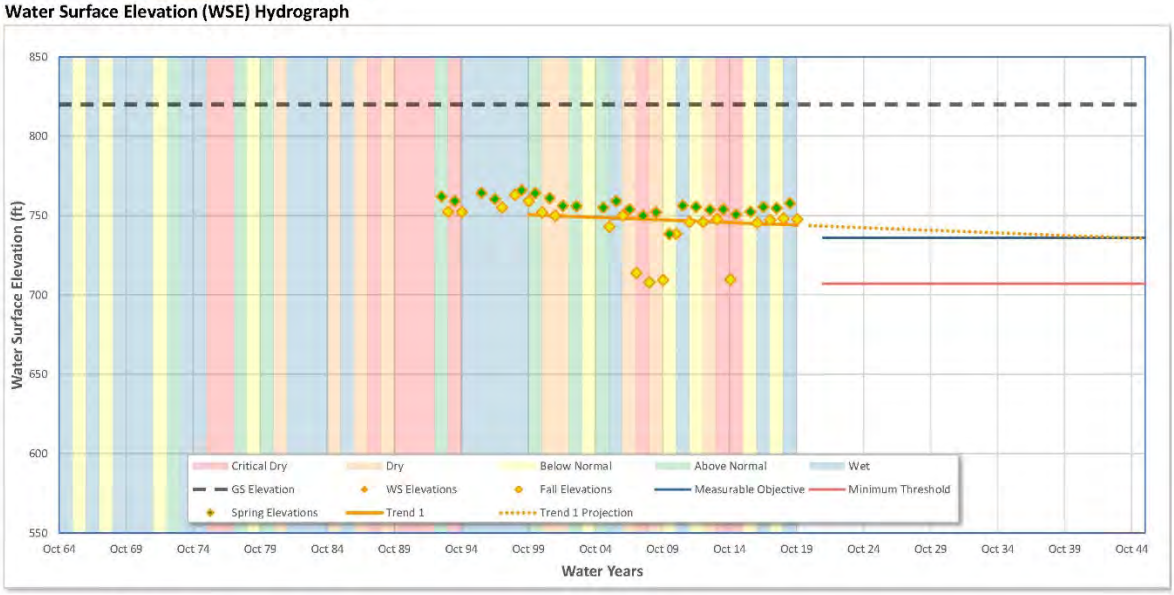
Date: 1/17/2021

Well Information	
Well ID	001927-PASO-0399
Alternate Name	PASO-0399
State Number	28S12E11K002M
CASGEM ID	355086N1206525W001
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5086
	Long:	-120.6525
Well Depth		603.00 ft
Ground Surface Elevation		820.00 ft
Ref. Point Elevation		882.00 ft
Screen Depth Range		-
Screen Elevation Range		-
Principal Aquifer		Paso Robles Formation
Well Period of Record		
Period-of-Record		1993..2020
WS Elev-Range	Min:	180.0 ft
	Max	766.0 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(0.328 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	180.0 ft
	Max	766.0 ft
2015 WS Elevations	Spring:	750.5 ft
	Fall:	-
Current WS Elevations	Spring:	757.6 ft
	Fall:	747.6 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	742.0 ft	-
2030	740.4 ft	-
2035	738.7 ft	-
2040	737.1 ft	-
2040	737.1 ft	-
2042	736.5 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	707.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	736.0 ft	Mean of high and low WSE

Groundwater Level Report

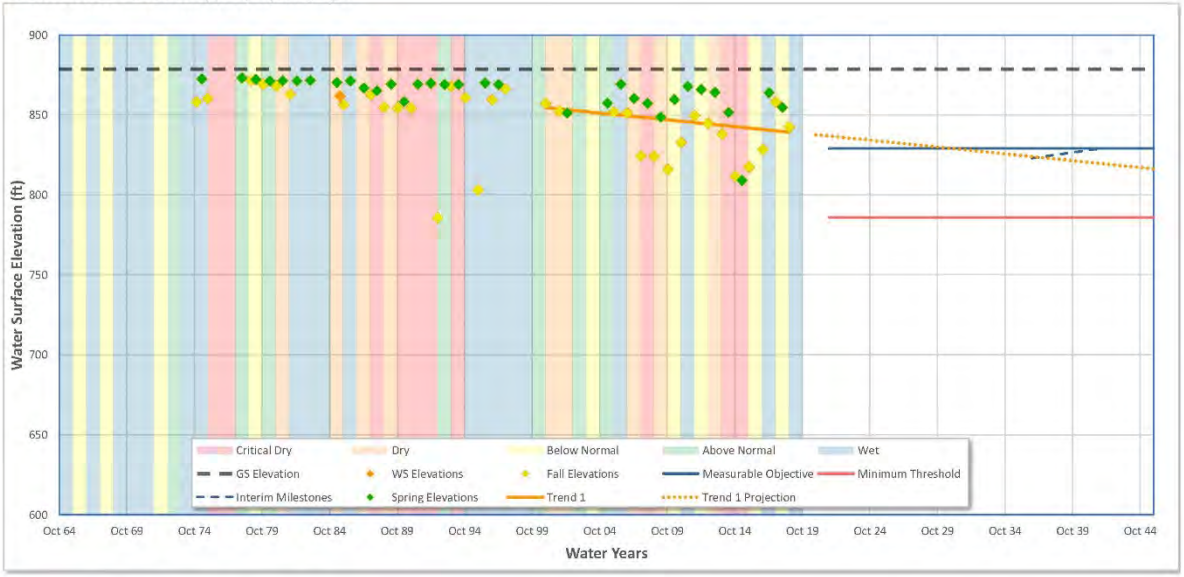
Date: 1/24/2021

Well Information	
Well ID	002002-28S/13E-31F02
Alternate Name	28S/13E-31F02
State Number	28S13E31F002M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Monitoring
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.4516
	Long:	-120.6176
Well Depth		310.00 ft
Ground Surface Elevation		878.54 ft
Ref. Point Elevation		884.30 ft
Screen Depth Range		55 to 300 ft
Screen Elevation Range		829 to 584 ft
Principal Aquifer		Paso Robles Formation
Well Period of Record		
Period-of-Record		1975..2019
WS Elev-Range	Min:	785.7 ft
	Max	873.2 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(0.851 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	785.7 ft
	Max	873.2 ft
2015 WS Elevations	Spring:	809.1 ft
	Fall:	817.5 ft
Current WS Elevations	Spring:	854.7 ft
	Fall:	842.5 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	833.4 ft	-
2030	829.1 ft	-
2035	824.9 ft	-
2040	820.6 ft	-
2040	820.6 ft	-
2042	818.9 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	786.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	829.0 ft	Mean of high and low wse
IM	Interim Milestone	2037	823.0 ft	
IM	Interim Milestone	2042	829.0 ft	

Groundwater Level Report

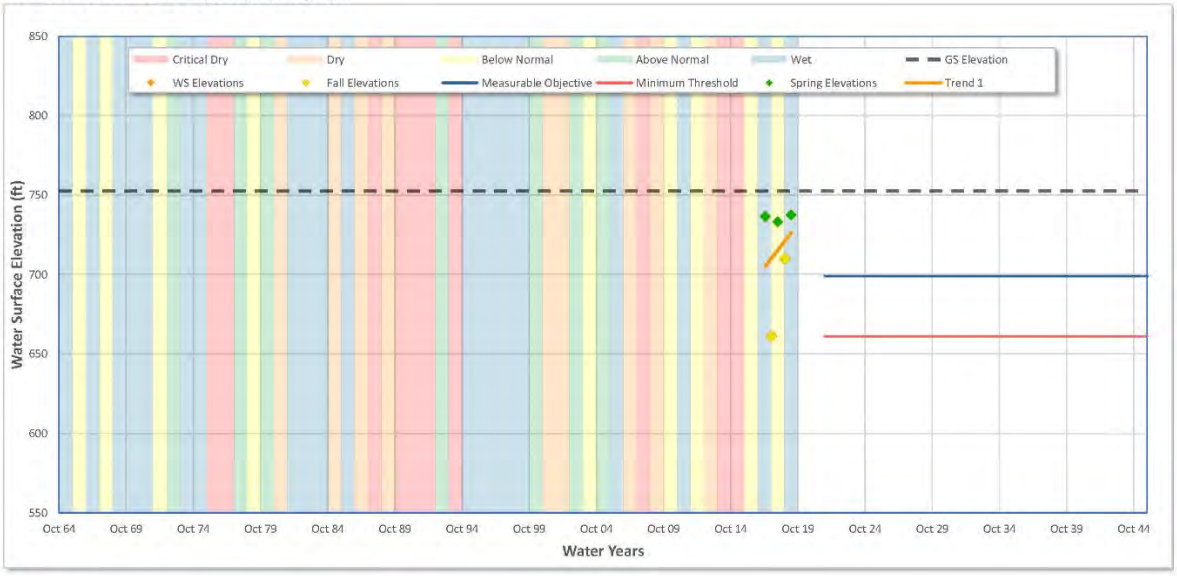
Date: 1/17/2021

Well Information	
Well ID	002124-27S/12E-21XX5
Alternate Name	27S/12E-21XX5
State Number	-
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5594
	Long:	-120.6925
Well Depth		360.00 ft
Ground Surface Elevation		752.46 ft
Ref. Point Elevation		752.46 ft
Screen Depth Range		110 to 360 ft
Screen Elevation Range		642 to 392 ft
Principal Aquifer		Paso Robles Formation
Well Period of Record		
Period-of-Record		2017..2019
WS Elev-Range	Min:	661.1 ft
	Max	737.5 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	10.874 ft/yr
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	661.1 ft
	Max	737.5 ft
2015 WS Elevations	Spring:	-
	Fall:	-
Current WS Elevations	Spring:	737.5 ft
	Fall:	710.0 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	796.8 ft	-
2030	851.2 ft	-
2035	905.6 ft	-
2040	960.0 ft	-
2040	960.0 ft	-
2042	981.7 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	661.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	699.0 ft	Maximum Water Surface Elevation

Groundwater Level Report

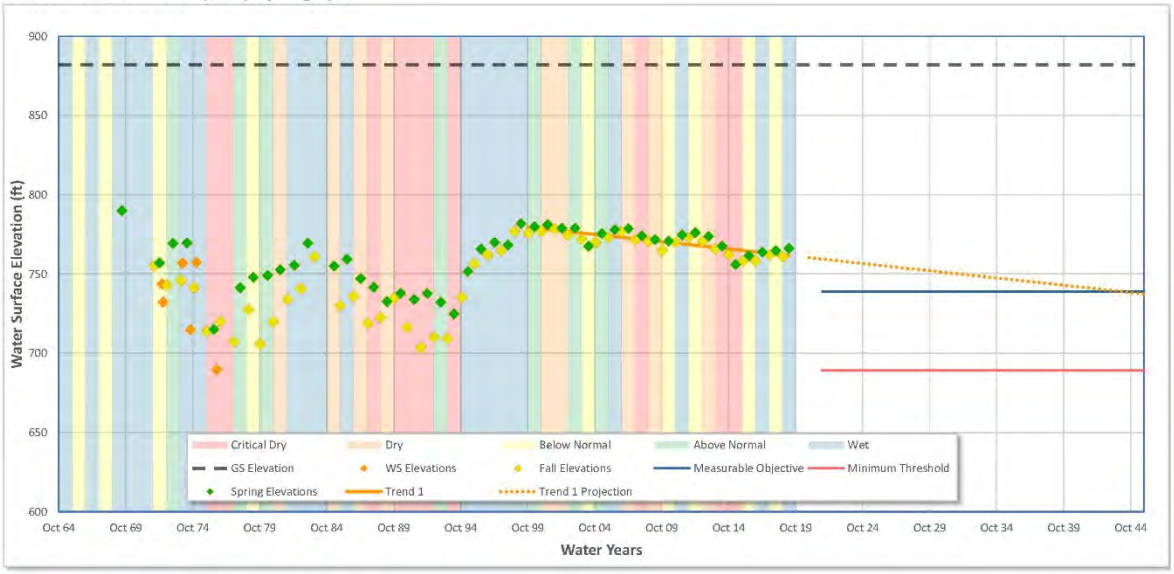
Date: 1/17/2021

Well Information	
Well ID	002082-27S/12E-33F01
Alternate Name	27S/12E-33F01
State Number	27S12E33F001M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Unknown
Well Use	Irrigation
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5407
	Long:	-120.6885
Well Depth		340.00 ft
Ground Surface Elevation		882.13 ft
Ref. Point Elevation		880.00 ft
Screen Depth Range		140 to 340 ft
Screen Elevation Range		711 to 511 ft
Principal Aquifer		Paso Robles Formation
Well Period of Record		
Period-of-Record		1969..2019
WS Elev-Range	Min:	689.8 ft
	Max	790.0 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(0.916 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	689.8 ft
	Max	790.0 ft
2015 WS Elevations	Spring:	756.0 ft
	Fall:	758.2 ft
Current WS Elevations	Spring:	766.2 ft
	Fall:	760.8 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	755.7 ft	-
2030	751.1 ft	-
2035	746.6 ft	-
2040	742.0 ft	-
2040	742.0 ft	-
2042	740.2 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	689.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	739.0 ft	Mean of high and low WSE

Groundwater Level Report

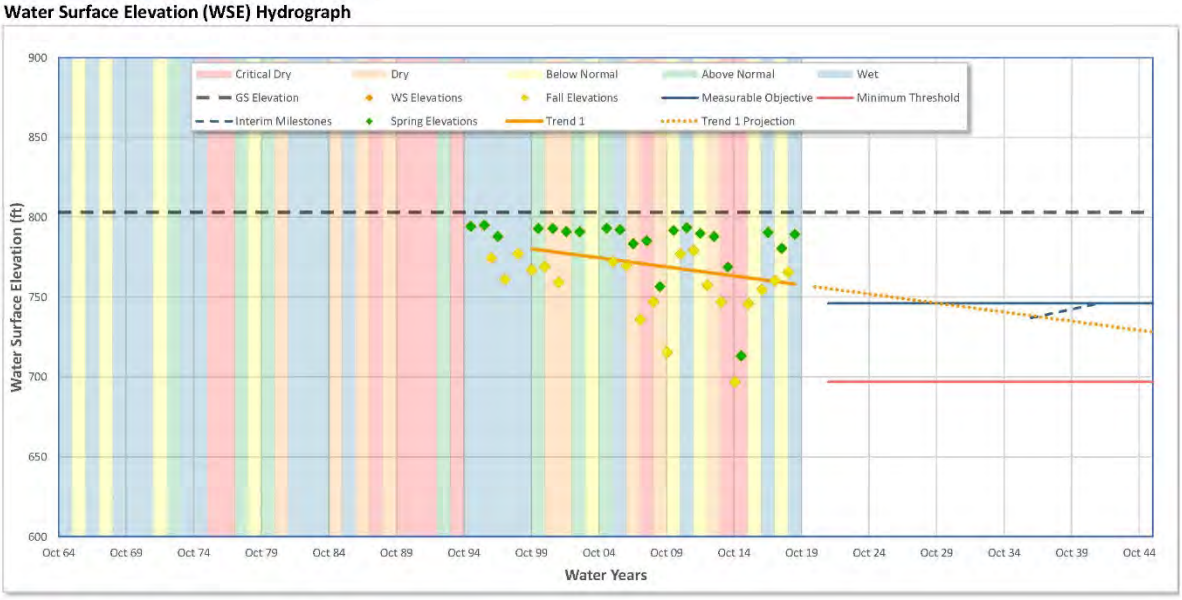
Date: 1/24/2021

Well Information	
Well ID	002016-28S/12E-04J05
Alternate Name	28S/12E-04J05
State Number	28S12E04J005M
CASGEM ID	-
Well Location	
County	San Luis Obispo
Basin	SALINAS VALLEY
Sub-Basin	ATASCADERO AREA
Management Area	-
Proveyor Agency	-
Well Type Information	
Well Type	Monitoring
Well Use	Municipal
Completion Type	Single

Well Coordinates/Geometry		
Location	Lat:	35.5200
	Long:	-120.6761
Well Depth		360.00 ft
Ground Surface Elevation		803.13 ft
Ref. Point Elevation		803.13 ft
Screen Depth Range		145 to 360 ft
Screen Elevation Range		-
Principal Aquifer		Paso Robles Formation
Well Period of Record		
Period-of-Record		1995..2019
WS Elev-Range	Min:	696.8 ft
	Max	795.0 ft

Trend Analysis		
Seasonal Data Method		Apr1/Oct1
Show Trend 1		All Data
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		Yes
Trend Results	Slope	(1.132 ft/yr)
Show Trend 2		None
Date Range	Start WY:	2000
	End WY:	2020
Extend Trend Line		No
Trend Results	Slope	-

Water Surface Elevation (WSE) Hydrograph



Sustainability Indicator Considerations

Observed WS Elevations		
Parameter		Value
WS Elevation Range	Min:	696.8 ft
	Max	795.0 ft
2015 WS Elevations	Spring:	713.0 ft
	Fall:	745.8 ft
Current WS Elevations	Spring:	789.3 ft
	Fall:	765.6 ft

Trend Projections		
Year	Trend 1	Trend 2
2025	750.8 ft	-
2030	745.1 ft	-
2035	739.5 ft	-
2040	733.8 ft	-
2040	733.8 ft	-
2042	731.6 ft	-

Sustainability Indicator Settings

Key	Threshold Type	Effect. Yr.	Value	Description
MT	Minimum Threshold	2022	697.0 ft	Minimum Water Surface Elevation
MO	Measureable Objective	2022	746.0 ft	Mean of high and low wse
IM	Interim Milestone	2037	737.0 ft	
IM	Interim Milestone	2042	746.0 ft	

ATASCADERO BASIN
Groundwater
Sustainability Agency

TO: Executive Committee

FROM: GSA Staff/ John Neil, Atascadero Mutual Water Company

DATE: February 4, 2021

SUBJECT: Agenda Item 10.a, Proposition 1 Grant Progress Report

RECOMMENDED ACTION:

Receive report.

DISCUSSION:

The Proposition 1 Grant awarded to the GSA for the preparation of the Groundwater Sustainability Plan requires quarterly progress reports. Progress Report 5 for the period Q4 2020 is attached.

ATTACHMENTS:

A. Progress Report 05, Q4 2020

Sustainable Groundwater Management (SGM) GRANT PROGRAM

ATTACHMENT A

Grantee Name: Atascadero Mutual Water Company
Grant Agreement No.: 46-12646
Progress Report No.: 5
Reporting Period: 10/1/2020 TO 12/31/2020
Prepared: 1/12/2021

Project: Atascadero Basin Groundwater Sustainability Plan

1. Project or Component Description

Develop a SGMA-complaint Groundwater Sustainability Plan (GSP) for the Atascadero Area Groundwater Subbasin of the Salinas Valley Basin identified as Basin No. 3-004.11 in the Department of Water Resources' Bulletin 118 ("Atascadero Basin").

2. Project Progress

Budget Category (a): Grant Administration

- Updates on All Tasks (activities accomplished during the reporting period)
    - Milestones or Deliverables Completed/Submitted

Activity	% complete
Prepared & submitted Grant Amendment 01, approved by DWR	100
Prepared & submitted Invoice 01 to DWR	100
Revised Invoice 01 per DWR comments, provided compiled add'l backup information	100
Prepared & submitted Progress Report 02 to DWR covering 2019 Q2 – 2020 Q1	100
Prepared & submitted Invoice 02 to DWR covering 2019 Q2 – 2020 Q1	100
Prepared & submitted Progress Report 03 to DWR covering 2020 Q2	100
Prepared & submitted Invoice 03 to DWR covering 2020 Q2	100
Prepared Progress Report 04 to DWR covering 2020 Q3	100
Prepared Invoice 04 to DWR covering 2020 Q3	100
Prepared Progress Report 05 to DWR covering 2020 Q3	90
Prepared Invoice 05 to DWR covering 2020 Q3	90

    - Impediments to Completion of Task
        - There are no anticipated impediments to the future completion of Category A tasks.
    - Describe activities that negatively or positively impacted the schedule and/or budget. If Change Orders (COs) have been approved, describe the reason for those and how the situation was resolved.
        - Issues associated with the form of the information required by the DWR have been addressed. The amount of information submitted with Inv 03 and future invoices is far more manageable than that submitted with Invoices 01 & 02.

Budget Category (b): Stakeholder Engagement

- Updates on All Tasks (activities accomplished during the reporting period)

- Milestones or Deliverables Completed/Submitted

Activity	% complete
GSA Executive Committee meeting, 04/03/2019	100
Developed and distributed stakeholder survey. The survey was mailed to every property owner in the Atascadero Basin who does not obtain water service from one of the GSA participant water purveyors.	100
Distributed Communication and Engagement Plan (C&E Plan) outline	100
Deployed version 1.0 of the Atascadero Basin Groundwater Communication Portal (GCP), which is linked to the www.atascaderobasin.com website. The GCP documents C&E Plan implementation; tracks stakeholders and interested parties, meetings, and; and collects public comments on draft documents. Full GCP Deployment will include reporting module and enhanced agency usability.	100
GSA Executive Committee meeting, 10/02/2019	100
Posted Sections 4 & 5 of the GSP on the www.atascaderobasin.com website for the public comment via the Atascadero Basin Groundwater Communication Portal (GCP), which is linked to the website.	100
Send notice re: cancelation of January 8, 2020 Executive Committee Meeting	100
Cancel April 1, 2020 Executive Committee due to Corona virus: noticed on website and GCP. Notify interested parties' list of meeting cancelation using GCP.	100
Reviewing options for Stakeholder outreach and coordination meeting in response to COVID-19 pandemic	100
Provide progress report to Executive Committee and post on GCP	100
Conduct Working Group meeting on June 24, 2020.	100
GSA Executive Committee meeting, July 1, 2020. Notify interested parties' list of meeting using GCP. The Executive Committee was a virtual meeting. Notice of the meeting was sent out to the 250 unique interested parties included in the Stakeholder list of the Groundwater Communication Portal. Posted Section 7 of the GSP on the www.atascaderobasin.com website for the public comment via the Atascadero Basin Groundwater Communication Portal (GCP), which is linked to the website.	100
Prepared draft of stakeholder notification post card and questionnaire in preparation of workshop on Sustainable Management Criteria to be held in November 2020 and compiled results.	100
GSA Executive Committee meeting, 10/07/2020	100
Hold stakeholder workshop on GSP Section 8 – Sustainable Management Criteria	100
Coordinate with Executive Committee staff on rescheduling the next EC meeting from January 6, 2021 to February 4 to allow time to consider comments made by the Water Board on the Paso Robles Basin GSP that may be applicable to the Atascadero Basin GSP. Post notice of rescheduled meeting on the communications portal.	90

- Impediments to Completion of Task
  - The COVID19 pandemic still affects stakeholder outreach task during this period resulting from by preventing in-person attendance at workshops and executive committee meetings. Virtual public meetings will continue to be used to allow people to participate.
- Describe activities that negatively or positively impacted the schedule and/or budget. If Change Orders (COs) have been approved, describe the reason for those and how the situation was resolved.

- At this point, there is sufficient time in the project schedule to absorb the delays caused by the pandemic. We are working out the details of holding meetings via webinar due to the continued social distancing orders that are anticipated.

Budget Category (c): GSP Development

- Updates on All Tasks (activities accomplished during the reporting period)
  - Milestones or Deliverables Completed/Submitted

Activity	% complete
Circulated draft GSP Section 1 (Introduction) for stakeholder review and comment	100
Circulated draft GSP Section 2 (Agency Information) for stakeholder review and comment	100
Prepare draft GSP Section 3 (Description of Plan Area) for Executive Committee review and released for stakeholder review and comment	100
Prepare draft GSP Section 4 (Basin Setting) for working group and Executive Committee review prior to releasing section for stakeholder review and comment	100
Prepare draft GSP Section 5 (Groundwater Conditions) for working group review and Executive Committee review prior to releasing section for stakeholder review and comment	100
Obtain historical water quality data from municipal agencies in basin	100
Developed approach to groundwater dependent ecosystems evaluation	60
Review consultant task orders for the Phase 2 work, which includes preparation of the following sections of the GSP over the next three quarters and execute task orders: 6. Water Budget 7. Monitoring Network 8. Sustainable Management Criteria 9. Projects & Management Actions 10. Implementation Plan	100
Prepare GSP Section 7 and forward administrative draft to working group for review and comment.	100
Prepare historical water budget for GSP Section 6 and forward administrative draft to working group for review and comment.	100
Develop assumptions for preparation of future water budget for GSP Section 6 and forward to working group for review and comment.	100
Develop outline of GSP Section 8 for review/workshop to be held at the July 1, 2020 Executive Committee meeting	100
Completed draft of GSP Section 6 and posted on the Communications Portal for 45-day public comment period.	100
Held stakeholder workshop on GSP Section 8 on November 18, 2020	100
Prepared draft of GSP Section 8 for review at February 4, 2021 Executive Committee meeting	80

- Impediments to Completion of Task
  - There were delays in rolling-out some sections of the GSP due to the inability to hold workshops and public meetings as a result of the COVID-19 pandemic.
- Describe activities that negatively or positively impacted the schedule and/or budget. If Change Orders (COs) have been approved, describe the reason for those and how the situation was resolved.
  - Progress is still being made on the various sections of the GSP. At this point, there is sufficient time in the project schedule to absorb the delays caused by the pandemic. The project schedule was updated to reflect this delay and was posted on the Portal and sent to interested parties.
  - The EC hearing scheduled for January 6, 2021 where action would be taken on releasing the public draft of Section 8, Sustainable Manager Criteria, was delayed by one month to allow GSA staff to consider comments made by the Water Board on the Paso Robles Basin GSP that may be applicable to the Atascadero Basin GSP.

3. Activities for next reporting period:

I*nsert general statement of what work is expected to be completed during the next invoice period. Or, insert a column in the table below that provides an estimated due date for the deliverables.*

Budget Category (a): Grant Administration

Activity
Prepare & submit Invoice 05 to DWR
Prepare & submit Progress Report 05 to DWR

Budget Category (b): Stakeholder Engagement

Activity
Hold February 4, 2021, Executive Committee meeting via webinar

Budget Category (c): GSP Development

Activity
Finalize Section 8 of the GSP in 2021 Q1, post on communications portal, and solicit public input
Collect gaging data and begin to populate data management system
Complete groundwater dependent ecosystems initial assessment
Begin Section 9 (Projects and Management Actions) and Section 10 (Implementation Plan)
Begin to assemble draft GSP from existing Sections10/13/2020

I*nsert general statement of what work is expected to be completed during the next invoice period. Or, insert a column in the table below that provides an estimated due date for the deliverables.*

4. Project Cost Update:

ESTIMATED TOTAL PROJECT COST INCURRED THIS REPORTING PERIOD:	$44,158
ESTIMATED TOTAL PROJECT COST INCURRED TO DATE:	$405,731

5. Other Major Issues:

There are no major issues or hindrances to completing the GSP on time and within budget.

Appendix A

Status of Required Deliverables

	TABLE 1: Deliverable Table for Atascadero Basin Groundwater Sustainability Plan			
Budget Category Item#	**Budget Category Work Items for Review**	**Estimated Due Date**	**% Of Work Complete**	**Date Submitted**
(a)	**Grant Administration**			
	Invoices and associated backup documentation, Inv 05	2/1/2021	50%	
	Progress Report 05	2/1/2021	60%	
	Draft and Final Grant Completion Report	12/31/2021	0%	
(b)	**Stakeholder Engagement**			
	Communication and Engagement Plan		100%	4/3/2019
	Atascadero Groundwater Communication Portal		100%	4/3/2019
(c)	**GSP Development**			
Task 1	Section 1. Introduction to Atascadero Basin GSP		100%	4/3/2019
Task 2.1	Section 2. Agency Information		100%	4/3/2019
Task 2.2	Section 3. Description of Plan Area		100%	7/10/2019
Task 2.3	Section 4. Hydrogeologic Conceptual Model		100%	10/2/2019
Task 2.4	Section 5. Groundwater Conditions		100%	10/2/2019
Task 2.5	Section 6. Water Budget		100%	10/13/2020
Task 2.6	Section 7. Monitoring Networks		100%	7/8/2020
Task 2.7	Section 8. Sustainable Management Criteria	3/21/2021	90%	
Task 2.8	Section 9. Projects and Management Actions	5/5/2021	0%	
Task 2.9	Section 10. Implementation Plan	5/5/2021	0%	
Task 2.10	Section 11. Notice and Communications	5/5/2021	60%	
Task 2.11	Section 12. Interagency Agreements	7/7/2021	0%	
Task 2.12	Section 13. Reference List	7/7/2021	0%	

	TABLE 1: Deliverable Table for Atascadero Basin Groundwater Sustainability Plan			
Budget Category Item#	**Budget Category Work Items for Review**	**Estimated Due Date**	**% Of Work Complete**	**Date Submitted**
Task 2.13	Draft GSP	9/1/2021	0%	
Task 2.14	Final Draft GSP and associated GSP content	11/1/2021	0%	

Sustainable Groundwater Management (SGM) GRANT PROGRAM

Appendix B

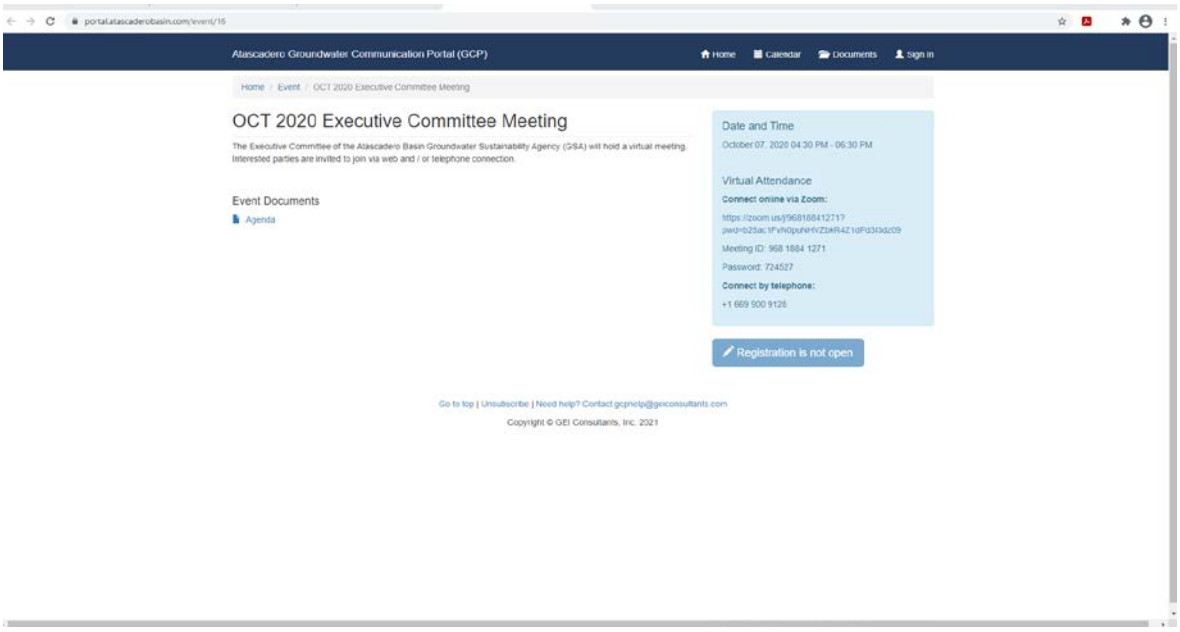
Stakeholder Outreach and Coordination Documentation

Provide a description of all outreach and stakeholder meetings/events conducted for the reporting period. Ensure that the activities described below provides enough justification of the costs included in the invoice (both reimbursement and cost share) especially if the Grant Agreement does not have separate deliverables to justify the costs. Information provided in this Appendix can include, but not be limited to, sign in sheets, agendas, meeting notes, copies of presentation materials, photos of meetings, etc.

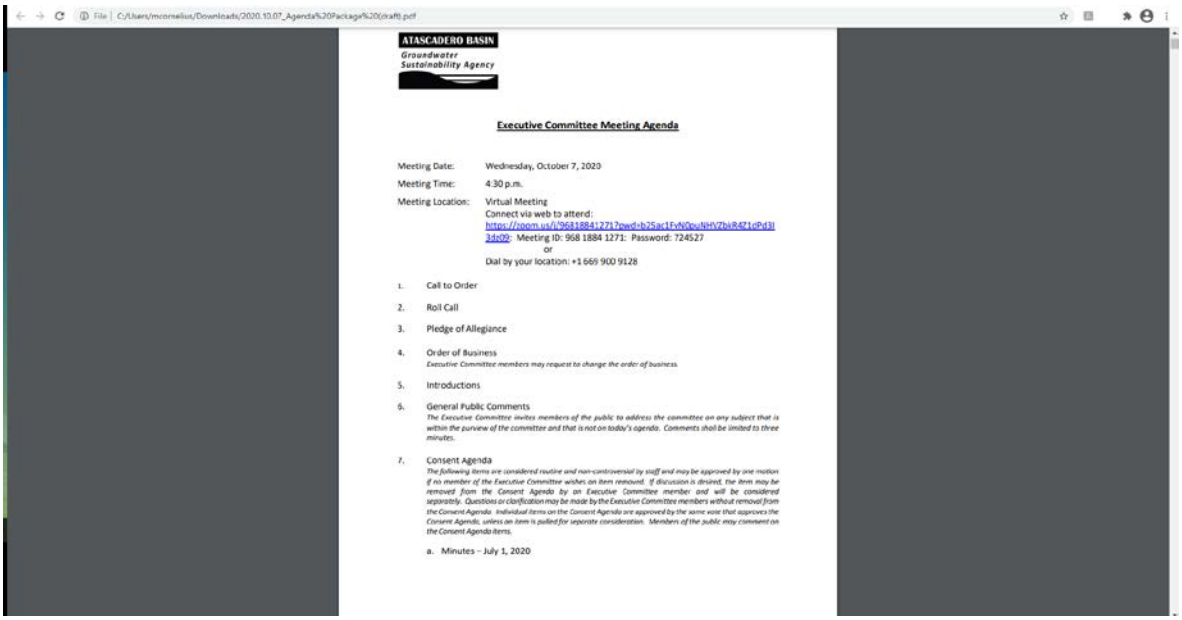
These Events include:

- *October 7, 2020 Executive Committee Meeting*
- *November 11, 2020 E-blast regarding comment period and SMC Survey*
- *November 18, 2020 Sustainable Management Criteria Workshop*

Add Agenda from October 7, 2020 Executive Committee Meeting – Meeting Announcement form Communications Portal



The Executive Committee Meeting Agenda includes the information to join the virtual meeting.



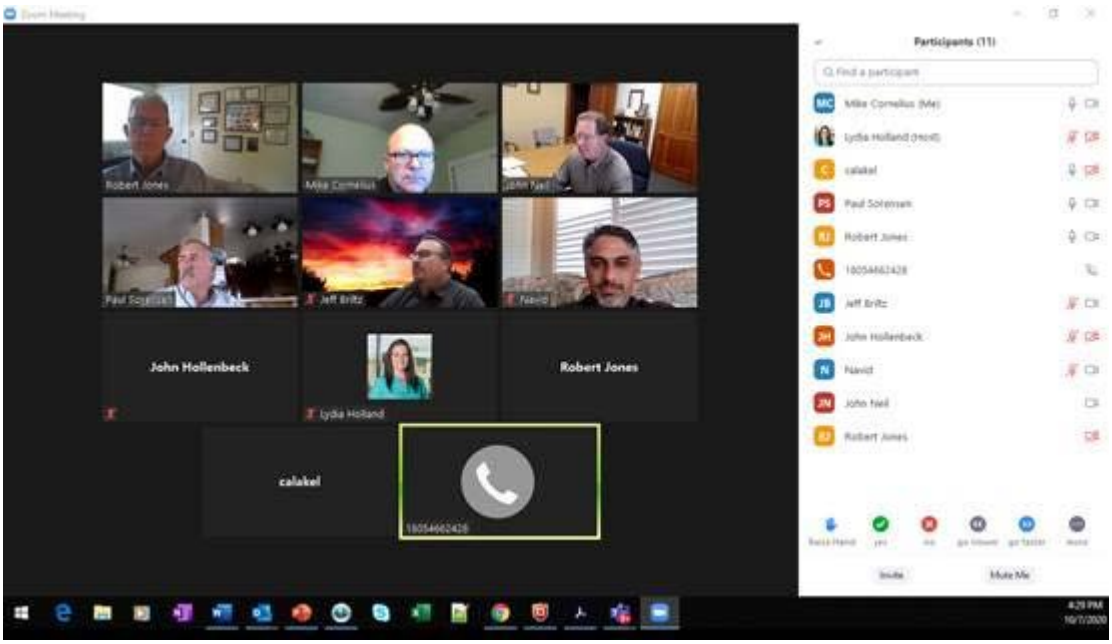
ATASCADERO BASIN
Groundwater Sustainability Agency

Executive Committee Meeting Agenda

Meeting Date: Wednesday, October 7, 2020
Meeting Time: 4:30 p.m.
Meeting Location: Virtual Meeting
Connect via web to attend:
https://zoom.us/j/96818841271?pwd=b25ac1FyNOpuNHV2bk84Z1cPd3I3dz09; Meeting ID: 968 1884 1271; Password: 724527
or
Dial by your location: +1 669 900 9128

1. Call to Order
2. Roll Call
3. Pledge of Allegiance
4. Order of Business
Executive Committee members may request to change the order of business.
5. Introductions
6. General Public Comments
The Executive Committee invites members of the public to address the committee on any subject that is within the purview of the committee and that is not on today's agenda. Comments shall be limited to three minutes.
7. Consent Agenda
The following items are considered routine and non-controversial by staff and may be approved by one motion if no member of the Executive Committee wishes an item removed. If discussion is desired, the item may be removed from the Consent Agenda by an Executive Committee member and will be considered separately. Questions or clarification may be made by the Executive Committee members without removal from the Consent Agenda. Individual items on the Consent Agenda are approved by the same vote that approves the Consent Agenda, unless an item is pulled for separate consideration. Members of the public may comment on the Consent Agenda items.
a. Minutes – July 1, 2020

Screenshot of Attendees at October 2, 2020 Executive Committee Meeting. May not reflect all meeting participants because some join and drop off during the meeting.



November 11, 2020 email blast from Atascadero Groundwater Communications Portal re: public comment periods and sustainable management criteria survey.

From: Atascadero Groundwater Communication Portal (GCP) <atascaderogcp-no-reply@geiconsultants.com>
Sent: Tuesday, November 10, 2020 10:36 AM
To: John Neil <jneil@amwc.us>
Subject: *REMINDER* Comments / Survey DUE NOV 27

****REMINDER****

Public Comments

The Atascadero Basin Groundwater Sustainability Plan (GSP) Draft Section 6, Water Budgets, remains open for comment through November 27, 2020. Use the online form to submit your comments.

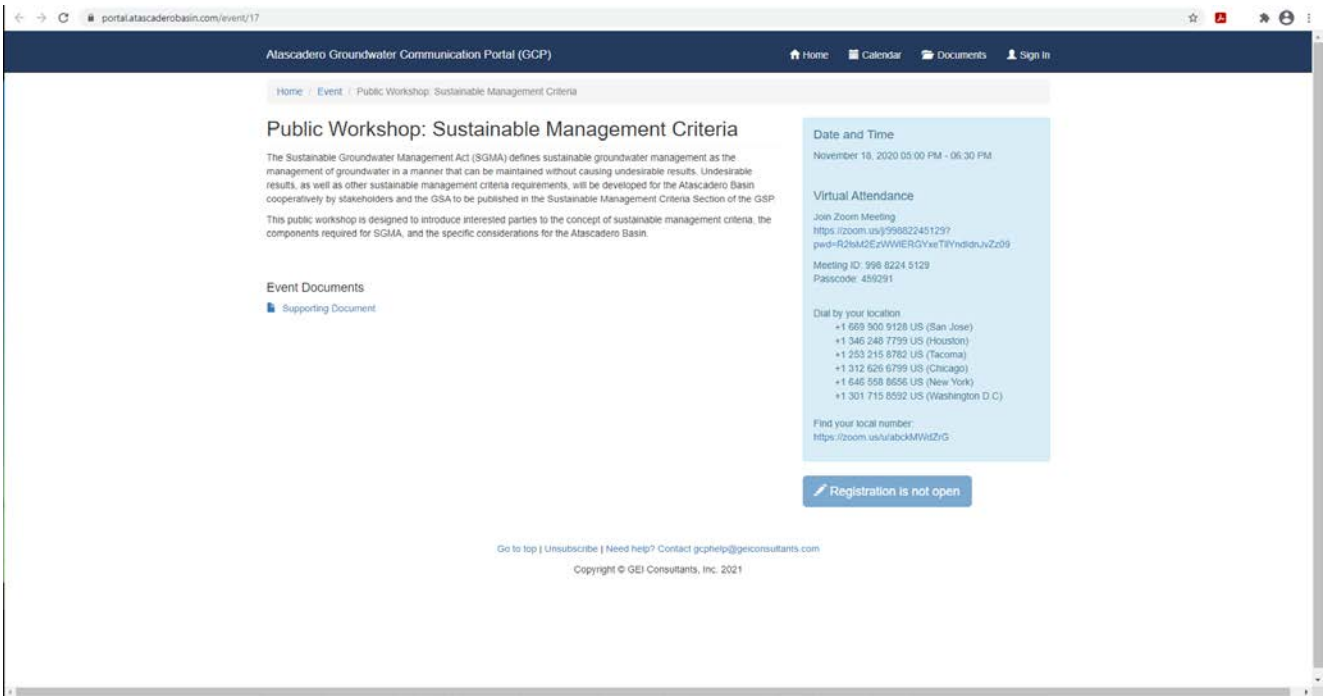
Survey

The survey about sustainable groundwater management in the Atascadero Basin is also open through November 27. Input to the survey will be used to guide development of basin goals and objectives for the GSP.

For more information, visit www.atascaderobasin.com.

November 18, 2020 Sustainable Management Criteria workshop.

Meeting Announcement for November 18 SMC Workshop from Communications Portal


portal.atascaderobasin.com/event/17
Atascadero Groundwater Communication Portal (GCP)
Home
Calendar
Documents
Sign In
Home / Event / Public Workshop: Sustainable Management Criteria
Public Workshop: Sustainable Management Criteria
The Sustainable Groundwater Management Act (SGMA) defines sustainable groundwater management as the management of groundwater in a manner that can be maintained without causing undesirable results. Undesirable results, as well as other sustainable management criteria requirements, will be developed for the Atascadero Basin cooperatively by stakeholders and the GSA to be published in the Sustainable Management Criteria Section of the GSP.
This public workshop is designed to introduce interested parties to the concept of sustainable management criteria, the components required for SGMA, and the specific considerations for the Atascadero Basin.
Event Documents
Supporting Document
Date and Time
November 18, 2020 05:00 PM - 06:30 PM
Virtual Attendance
Join Zoom Meeting
https://zoom.us/j/99882245129?pwd=R2toM2EzWWlERGYxeTlIYndIdnJvZz09
Meeting ID: 998 8224 5129
Passcode: 459291
Dial by your location
+1 669 900 9128 US (San Jose)
+1 346 248 7799 US (Houston)
+1 253 215 8782 US (Tacoma)
+1 312 626 6799 US (Chicago)
+1 646 558 8656 US (New York)
+1 301 715 8592 US (Washington D.C)
Find your local number:
https://zoom.us/u/abckMWdZrG
Registration is not open
Go to top | Unsubscribe | Need help? Contact gcphelp@geiconsultants.com
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Appendix C

GSP Development Activities

Provide a description of the GSP development activities conducted for the reporting period. Provide enough description to justify the costs included in the associated invoice for both reimbursement and cost share. Describe the decisions made, milestones achieved, etc. Also include any setbacks encountered along the way.

Section 6 – Water Budget	Posted GSP Section 6 on the Communications Portal for a 45-day public comment period.
Section 7 – Monitoring Network	Posted GSP Section 7 on the Communications Portal for a 45-day public comment period.
Section 8 – Sustainable Management Criteria	Developed a questionnaire and mailed to stakeholders. Compiled results. Held a stakeholder workshop. Prepared a draft of GSP Section 8 based on stakeholder input for review by Executive Committee at its meeting on February 4, 2021.

Appendix D

Project Photographs

Appendix E

Invoice Projections

PIN #: 3860-P01-229

Calendar Year	Quarter 1 Jan 1 - Mar 31	Quarter 2 Apr 1 - Jun 30	Quarter 3 Jul 1 - Sep 30	Quarter 4 Oct 1 - Dec 31	Total Grant Funds per Calendar Year
2019	$90,829	$75,623	$60,153	$17,462	**$244,067**
2020	$23,322	$52,815	$41,369	$44,158	**$161,664**
2021	$135,000	$135,000	$133,519		**$403,519**
				Total Grant Project Award	**$809,250**