

ATASCADERO BASIN

Groundwater
Sustainability Agency



Executive Committee Meeting Agenda

Meeting Date: Wednesday, July 1, 2020

Meeting Time: 4:30 p.m.

Meeting Location: Virtual Meeting

Connect via web to attend:

<https://zoom.us/j/96818841271?pwd=b25ac1FvN0puNHVZbkR4Z1dPd3I3dz09>

: 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 – October 2, 2019

8. Old Business:

9. New Business:
 - a. Election of Officers
 - b. GSP Section 6, Water Budget (historic and current periods)
 - c. GSP Section 7, Monitoring Network (public comment draft)
 - d. GSP Section 8, Sustainable Manage Criteria (introduction)
 - e. Request for Future Items
 - f. Next Meeting: October 7, 2020, 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: July 1, 2020

SUBJECT: Agenda Item 7.a, Minutes from October 2, 2019 Meeting

The Executive Committee (Committee) of the Atascadero Basin Groundwater Sustainability Agency (GSA) held a meeting on Wednesday, October 2, at 4:30 p.m. in the board meeting room of the Templeton Community Services District located at 206 5th Street, Templeton, CA.

1. Call to Order: Chairperson Debbie Arnold called the meeting to order at 4:30 p.m.
2. Roll Call: Voting committee members present at the meeting were Chairperson Debbie Arnold, Vice-chairperson Robert Jones, Roberta Fonzi, Navid Fardanesh, Rob Rossi, and Alternate Member Steve Martin. Non-voting member Tom Mora was absent. A quorum (minimum of 4 voting members) of the committee was established.
3. Pledge of Allegiance: The pledge was recited by the Committee, staff, and public.
4. Introductions: Staff member Neil introduced Mike Cornelius with GEI Consultants who is working with the GSA to develop the GSP.
5. 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.
6. General Public Comments: Chairperson Arnold opened public comment and, seeing none, closed public comment.
7. Consent Agenda:
Agenda 7.a: July 10, 2019, Meeting Minutes – The Committee reviewed the minutes from the July 10, 2019, meeting. No changes were noted. Member Rossi motioned to approve the minutes with a second by Member Jones. Voice vote of Voting Members: Ayes – 5. Nays – none. Abstain – Member Martin. Motion carried.
8. Old Business: None

9. New Business:

Agenda 9.a: GSP Section 4, Basin Setting (draft) – Staff member John Neil, General Manager with the Atascadero Mutual Water Company, introduced this item to the Committee. He described the work effort in Section 4 as a compilation of existing information, much of which was generated from the basin boundary modification application submitted to and approved by the Department of Water Resources (DWR). Neil did not feel that there would be much controversy over the information presented in the section since most of it has been available to the public in various forms prior to its compilation in Section 4.

Neil introduced Paul Sorensen of Groundwater Solutions, Inc. (GSI) who provided the Committee with an overview of the information contained in the Section 4. Mr. Sorensen informed the Committee much of the information included in Section 4 is from existing reports including the 2002 Fugro Report, 2005 Fugro Report, and the Basin Boundary Modification effort, which separated the Atascadero Basin from the Paso Basin. Mr. Sorensen's presentation provided a brief explanation of each of the figures in Section 4, figures which are required by the DWR to be included in the GSP.

Member Fonzi asked why the live stream agreement provision of the City of San Luis Obispo's water rights license was not referenced in the chapter in Section 4 that addressed surface water in the basin. Mr. Sorensen said the live stream requirement is referred to in Section 5, Basin Conditions, and will be further addressed in Section 6, Groundwater Budget. He noted that the live stream agreement was not referred to in surface water chapter of Section 4, since the Salinas River is ephemeral. He informed the Committee that a reference to the live stream agreement will be added to Section 4.

Mr. Sorensen was asked about the westerly limits of the Atascadero Basin. He responded that it extends westerly along Highway 46 to approximately Arbor Road or Bethel Road.

Member Fardanesh asked Mr. Sorensen if the Templeton Community Serviced District (TCSD) is currently using its NWP water (an imported water supply). Staff member Jeff Briltz, TCSD General Manager, responded that the TCSD is not.

Member Fardanesh asked Mr. Sorensen if the TCSD's new recycled water get counted as an imported supply. He responded that it is not and imported supply because it is generated within the Basin. However, it will be accounted for in the water budget.

Member Fardanesh asked Mr. Sorensen if the water being recycled and used by TCSD impacts the Paso Robles Basin, since the water is no longer flowing to the Paso wastewater treatment facility. He responded that the 250 acre-feet of water included in the recycling program is significant to TCSD but has an insignificant effect on the Paso Robles Basin.

At the end of the discussion, staff member Neil recommended that the Committee authorize staff to post Section 4 on the Groundwater Communication Portal for a 45-day public review. Member Fonzi motioned to approve the minutes with a second by Member Rossi. A voice vote was unanimous for approval.

Agenda 9.b: GSP Section 5, Basin Conditions (draft) – Staff member Neil introduced this item to the Committee. He informed the Committee that completion of this section signified the end of Phase 1 of the GSP preparation process. He commented that the upcoming Phase 2 will involve new work products and may be more controversial.

Neil introduced Nate Page of GSI who provided the Committee with an overview of the information contained in the Section 5. Mr. Pages presentation provided a brief explanation of the six GSP sustainability indicators, each of which needs to be addressed in the GSP. He presented figures that showed changes groundwater elevation for various periods.

Member Fardanesh asked how the DWR will view this basin with the groundwater levels declining during the dry period. Mr. Sorensen of GSI responded that the hydrographs show the expected response of the basin to annual hydrologic conditions. In dry years there is increased pumping which draws down groundwater levels. In wet years when there is less pumping and more recharge, the groundwater levels increase. Staff member Dick McKinley, City of Paso Robles, described the basin as a bank account that water is drawn from in dry years (groundwater levels do down), and is deposited to in wet years (groundwater levels go up). Mr. Sorensen of GSI explained that the figures showing the change in groundwater elevation show the expected response of the basin to droughts, that the basin is being managed effectively, and the DWR's "very-low priority" status is appropriate.

Member Fardanesh asked how long of a drought the basin could tolerate. Staff member Neil responded that the GSP will not specifically address this issue. However, the State Water Board does require water systems to self-certify that they have sufficient water supplies and/or contingency plans for a 3-year drought. He expects that the Water Board will expand this requirement to a 5-year drought.

Voting Member Jones left the meeting at 5:25 p.m.

At the end of the discussion, staff member Neil recommended that the Committee authorize staff to post Section 5 on the Groundwater Communication Portal for a 45-day public review. Member Rossi motioned to approve the minutes with a second by Member Fonzi. Member Jones absent. Voice vote of Voting Members: Ayes – 5. Nays – none. Absent – 1. Motion carried.

Agenda 9.c: Future Agenda Items – Staff member Neil informed the Committee that a Proposition 1 Grant Amendment may be brought to the Committee in January 2020 to address comments by the DWR on the first invoice submitted by the GSA. The DWR

initially rejected costs incurred by the GSA participants for the basin boundary modification work. The DWR suggested preparing a grant amendment.

Agenda 9.c: Next Meeting – The Committee noted that the next EC meeting will be held on January 8, 2020, at 4:30 p.m. in the board meeting room of the Templeton Community Services District located at 206 5th Street, Templeton, CA.

10. Adjournment: There being no further business to discuss, Chairperson Arnold adjourned the meeting at 5:35 p.m.

Submitted by: _____
Member Fardanesh, Secretary

DRAFT



TO: Executive Committee

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

DATE: July 1, 2020

SUBJECT: Agenda Item 9.a, Executive Committee Officers

RECOMMENDED ACTION:

1. The Executive Committee, by motion, elect a member to serve as Chair for 2020
2. The Executive Committee, by motion, elect a member to serve as Vice Chair for 2020
3. The Executive Committee, by motion, elect a member to serve as Secretary for 2020
4. The Executive Committee, by motion, elect a member to serve as Treasurer for 2020

DISCUSSION:

Article 5 of the Memorandum of Agreement (MOA) forming the Atascadero Basin Groundwater Sustainability Agency (GSA) addresses Officers of the Executive Committee (EC). The article reads:

5.1 Officers. Officers of the Agency shall be a Chair, Vice Chair, Secretary, and Treasurer. The Vice Chair shall exercise all power of the Chair in the Chair's absence or inability to act.

5.2 Appointment of Officers. Officers shall be elected annually by, and serve at the pleasure of, the ED. Officers shall be elected by simple majority vote at the first ED meeting, and thereafter at the first EC meeting following January 1st of each year, or as duly continued by the EC. An officer may serve for multiple consecutive terms, with not term limit. Any officer may resign at any time upon written notice to the EC, and may be removed and replaced by a simple majority vote of the EC.

Once elected, the officers should begin their service immediately. Staff recommend electing the Chair first, with the Chair then presiding over the remainder of the officer elections, and the remainder of the meeting.

FISCAL IMPACT:

None.



TO: Executive Committee

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

DATE: July 1, 2020

SUBJECT: Agenda Item 9.b, GSP Section 6, Groundwater Budget (historic & current)

RECOMMENDED ACTION:

Direct staff to continue preparation of Section 6, Groundwater Budget, of the Groundwater Sustainability Plan GSP using data from the years 1981–2011 for the historic groundwater budget and data from the years 2012–2016 as the current groundwater budget.

DISCUSSION:

SGMA regulations require that a GSP include a groundwater budget. The budget must include a minimum of a 20-year historic budget. SGMA also requires the budget to include future projections of groundwater use in the basin. The groundwater budget for the Atascadero Basin will make up Section 6 of the GSP.

For the Atascadero Basin groundwater budget, staff is recommending using data from the years 1981–2011 for the historic groundwater budget, and data from the years 2012–2016 for the current budget (see Attachments A - C). These years are those used for the hydro-geologic modeling of the Paso Robles Basin. Staff feels that using these years for the Atascadero Basin will aid in any coordination efforts between the two basins and will help reduce modeling expenses.

It should be noted that the current water budget covers a period of extreme drought in California. Local rainfall records show that the period 2012-2016 had the driest 2-year, 4-year, and 5-year periods of the past 105 years. SGMA anticipates that groundwater pumping in excess of basin inflow may occur in these periods of extended drought.

Assumptions used for the future water budget will be brought back to the Executive Committee at a future meeting.

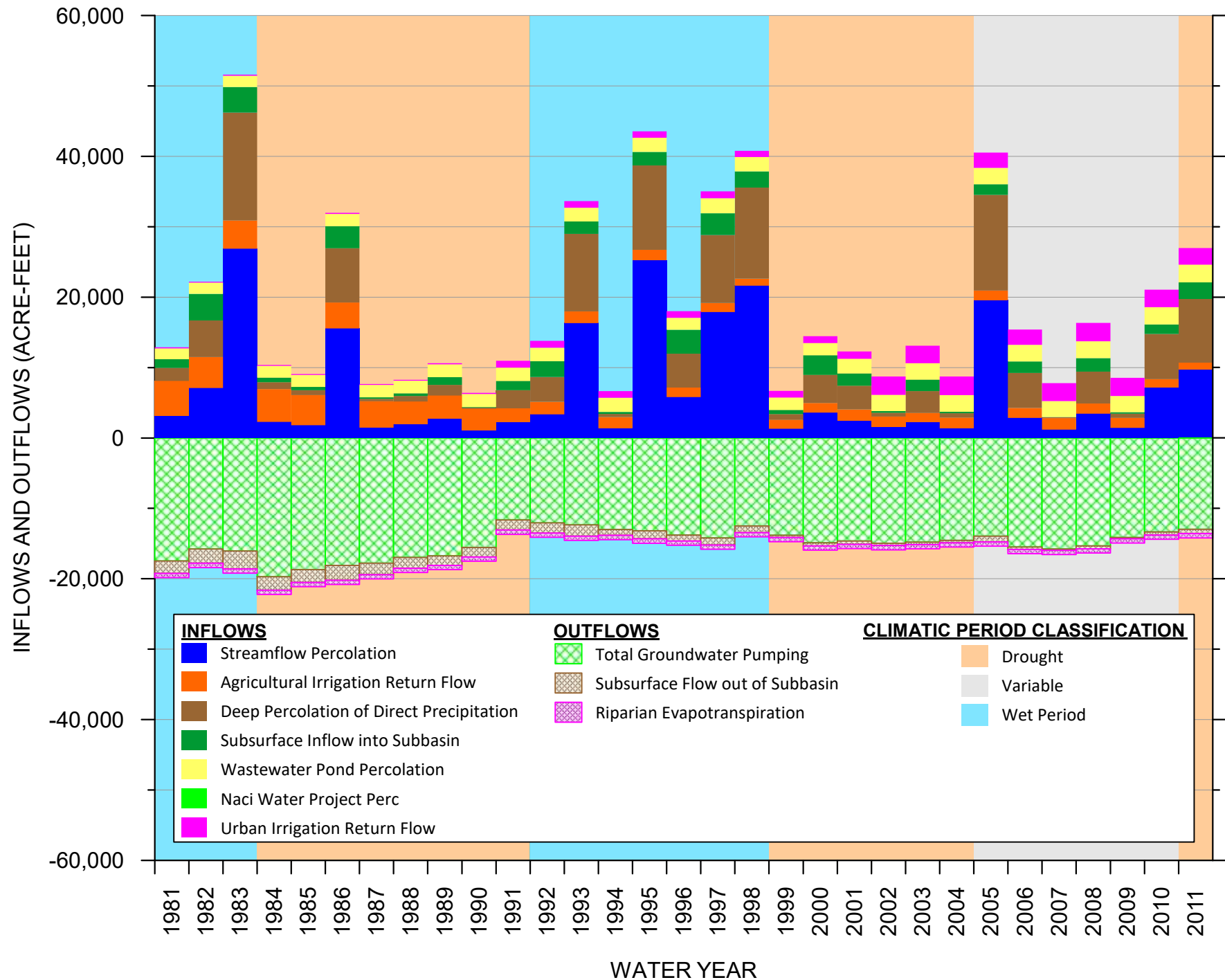
FISCAL IMPACT:

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

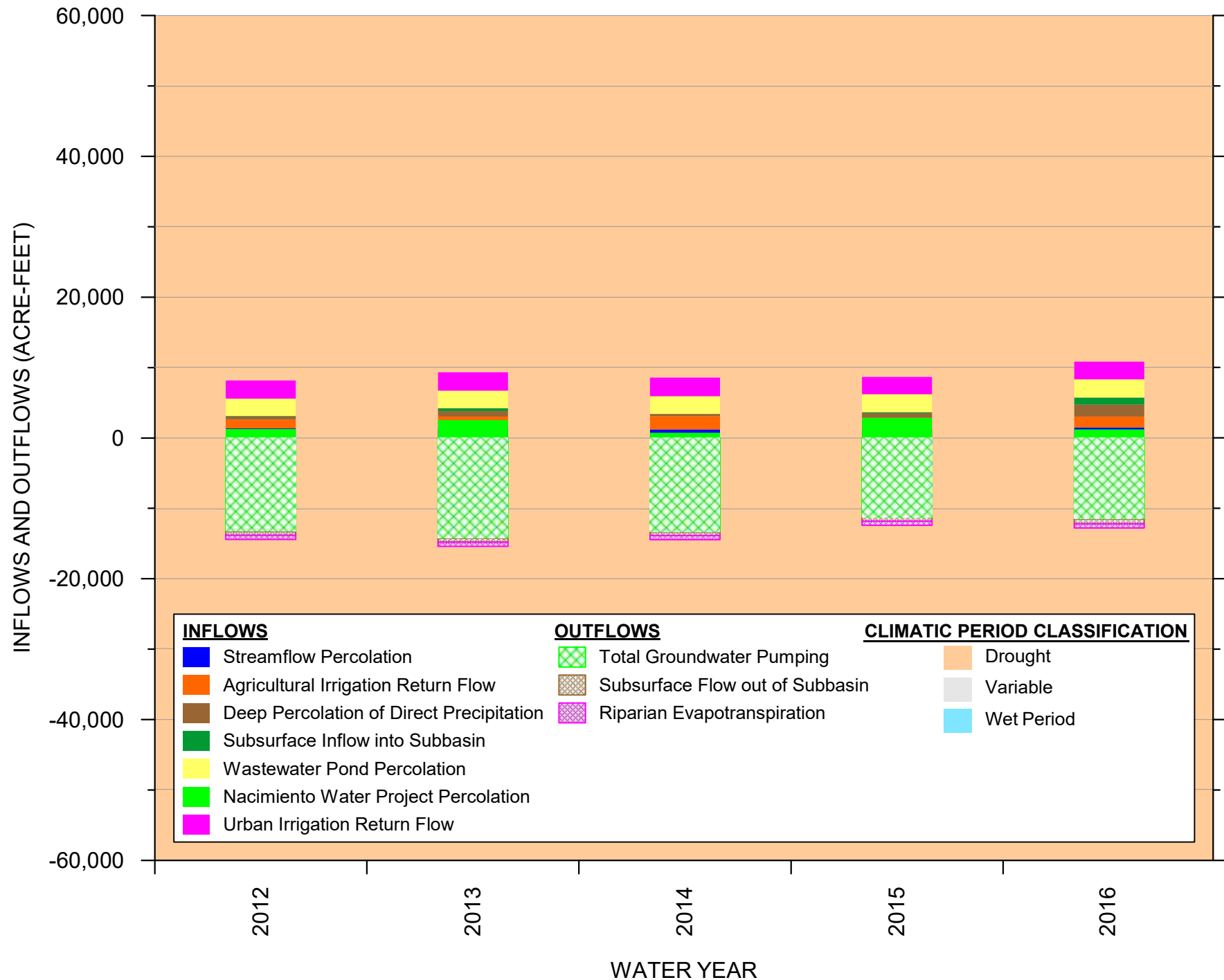
ATTACHMENTS:

- A. Historic water budget bar chart
- B. Current water budget bar chart
- C. Water budget table

ATTACHMENT A



Atascadero Subbasin Current Groundwater Water Budget (2012-2016)



ATTACHMENT C

Water Budget	Water Year	INFLOW (Acre Feet per Year)								OUTFLOW (Acre Feet per Year)								Difference between inflow and outflow (Acre-feet)
		Treated Wastewater Discharge	NWP Perc	Perc of Precip	Urban Irr Return Flow	Ag Irrigation Return Flow	Stream Infiltration	Mountain front Recharge	Total Inflow	Municipal Pumping	Ag Irrigation Pumping	Rural Domestic Pumping	Small PWS Pumping	Total Pumping	Riparian Evapo-transpiration	Outflow to Paso Robles Subbasin	Total Outflow	
Historical Water Budget	1981	1,566	--	1,869	142	4,934	3,159	1,209	12,880	4,809	11,825	189	655	17,479	602	1,742	19,823	-6,943
	1982	1,598	--	5,186	134	4,406	7,082	3,789	22,195	4,809	10,195	193	582	15,780	602	2,020	18,402	3,793
	1983	1,630	--	15,322	131	4,005	26,892	3,612	51,591	4,940	10,348	198	579	16,065	602	2,545	19,212	32,380
	1984	1,662	--	967	141	4,668	2,269	667	10,373	6,688	12,147	202	665	19,703	602	1,934	22,239	-11,866
	1985	1,694	--	692	140	4,270	1,821	467	9,083	6,748	11,108	207	648	18,711	602	1,801	21,114	-12,031
	1986	1,726	--	7,711	138	3,674	15,554	3,161	31,965	7,224	10,050	212	629	18,115	602	2,096	20,813	11,152
	1987	1,759	--	345	142	3,723	1,471	228	7,668	7,926	8,983	217	666	17,792	602	1,642	20,036	-12,368
	1988	1,792	--	764	139	3,263	1,923	387	8,269	8,204	7,924	222	613	16,963	602	1,534	19,099	-10,830
	1989	1,825	--	1,524	141	3,282	2,732	1,109	10,612	8,002	7,890	227	634	16,752	602	1,356	18,710	-8,098
	1990	1,858	--	147	142	3,078	1,069	92	6,387	7,422	7,247	232	667	15,568	602	1,345	17,515	-11,128
	1991	1,892	--	2,566	961	1,961	2,262	1,319	10,961	6,173	4,574	237	673	11,658	602	1,426	13,686	-2,725
	1992	1,926	--	3,533	963	1,782	3,363	2,218	13,785	6,977	4,199	243	653	12,072	602	1,438	14,111	-326
	1993	1,960	--	11,013	952	1,666	16,301	1,760	33,651	7,561	3,888	248	650	12,348	602	1,595	14,544	19,107
	1994	1,994	--	432	959	1,604	1,374	291	6,654	8,541	3,598	254	619	13,012	602	826	14,440	-7,786
	1995	2,029	--	11,974	925	1,490	25,231	1,918	43,567	8,929	3,371	260	626	13,187	602	1,154	14,943	28,624
	1996	1,702	--	4,796	961	1,359	5,806	3,391	18,015	9,750	3,130	266	644	13,790	602	860	15,252	2,763
	1997	2,125	--	9,673	987	1,275	17,893	3,081	35,034	10,466	2,809	272	663	14,210	602	986	15,798	19,236
	1998	2,040	--	12,915	877	1,032	21,612	2,300	40,777	9,216	2,422	278	581	12,498	602	946	14,046	26,731
	1999	1,771	--	813	948	1,264	1,297	604	6,697	10,261	2,688	285	594	13,828	602	322	14,752	-8,054
	2000	1,723	--	4,002	953	1,334	3,616	2,812	14,440	11,132	2,842	291	618	14,884	602	439	15,924	-1,484
	2001	2,085	--	3,354	1,018	1,540	2,501	1,776	12,275	10,612	3,122	298	601	14,633	602	471	15,705	-3,430
	2002	2,284	--	527	2,623	1,462	1,577	255	8,727	10,838	3,180	305	636	14,959	602	327	15,888	-7,161
	2003	2,344	--	3,108	2,493	1,274	2,276	1,623	13,118	11,020	2,862	312	607	14,801	602	333	15,736	-2,618
	2004	2,339	--	618	2,643	1,508	1,378	238	8,724	10,257	3,324	319	642	14,541	602	349	15,492	-6,767
	2005	2,316	--	13,595	2,179	1,373	19,556	1,520	40,539	9,817	3,244	326	573	13,960	602	810	15,373	25,166
	2006	2,371	--	4,989	2,179	1,405	2,848	1,621	15,414	11,215	3,324	334	604	15,476	602	364	16,443	-1,029
	2007	2,267	--	152	2,536	1,630	1,172	23	7,780	11,915	2,869	342	662	15,788	602	187	16,577	-8,797
	2008	2,378	--	4,514	2,625	1,440	3,457	1,932	16,346	11,457	2,848	350	666	15,320	602	410	16,332	14
	2009	2,283	--	603	2,583	1,411	1,421	232	8,533	10,346	2,797	358	628	14,129	602	196	14,927	-6,393
	2010	2,452	--	6,418	2,470	1,189	7,173	1,344	21,046	10,040	2,343	366	613	13,362	602	433	14,397	6,649
	2011	2,539	74	8,997	2,354	1,025	9,712	2,351	27,052	9,947	2,069	359	605	12,980	602	607	14,190	12,862
	Average	1,998	74	4,617	1,180	2,236	6,961	1,527	18,521	8,814	5,265	271	629	14,979	602	1,048	16,630	1,892
	Min	1,566	74	147	131	1,025	1,069	23	6,387	4,809	2,069	189	573	11,658	602	187	13,686	-12,368
	Max	2,539	74	15,322	2,643	4,934	26,892	3,789	51,591	11,915	12,147	366	673	19,703	602	2,545	22,239	32,380
Current Water Budget	2012	2,459	1,274	474	2,555	1,224	1,357	83	9,427	10,123	2,178	367	620	13,289	602	523	14,414	-4,987
	2013	2,495	2,527	786	2,608	1,734	1,317	390	11,856	10,688	2,594	374	620	14,275	602	512	15,389	-3,533
	2014	2,517	731	304	2,650	1,905	1,201	8	9,316	9,242	3,113	380	619	13,353	602	508	14,464	-5,148
	2015	2,546	2,863	659	2,458	1,625	1,231	139	11,522	7,740	2,504	386	618	11,248	602	571	12,421	-899
	2016	2,575	1,220	1,720	2,537	1,532	1,497	984	12,065	8,003	2,489	392	618	11,501	602	698	12,801	-736
	Average	2,518	1,723	789	2,562	1,604	1,321	321	10,837	9,159	2,575	380	619	12,733	602	562	13,898	-3,061
	Min	2,459	731	304	2,458	1,224	1,201	8	9,316	7,740	2,178	367	618	11,248	602	508	12,421	-5,148
	Max	2,575	2,863	1,720	2,650	1,905	1,497	984	12,065	10,688	3,113	392	620	14,275	602	698	15,389	-736



TO: Executive Committee

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

DATE: July 1, 2020

SUBJECT: Agenda Item 9.b, GSP Section 7, Monitoring Network (draft)

RECOMMENDED ACTION:

Review and comment on the draft of Section 7, Monitoring Network, of the Atascadero Basin Groundwater Sustainability Plan (GSP) and authorize staff to post Section 7 on the Communications Portal for public comment.

DISCUSSION:

SGMA regulations require monitoring networks be developed to promote the collection of data of sufficient quality, frequency, and spatial distribution to characterize groundwater and related surface water conditions in the basin and to evaluate changing conditions that occur through implementation of the GSP.

Section 7, Monitoring Network, of the Atascadero Basin GSP (see attachment A) describes the monitoring networks that exist and improvements to the monitoring networks that will be developed for the basin to conform with SGMA requirements.

Staff recommending posting Section 7 on the Atascadero Basin Communication Portal for 45-days for public comment. All comments received on the portal or in writing will be considered and incorporated into a fully assembled draft of the GSP. The fully assembled draft will be made available for final review and comment by your committee and the basin stakeholders.

Preparation of GSP Sections 6 – 10 are in Phase 2 of the GSP development process. Phase 2 will occur over the next three quarters and will include sections on the water budget, sustainable management criteria, projects & management, and the implementation plan. Staff anticipates significant stakeholder input during the development of these sections.

FISCAL IMPACT:

Fifty percent of the cost to develop the GSP, including the development of a monitoring network, will be funded through a Proposition 1 grant awarded to the GSA by the Department of Water Resources, with the remaining costs being a local match.

ATTACHMENTS:

- A. Draft GSP Section 7, Monitoring Network

Atascadero Basin Groundwater Sustainability Plan

Draft Chapter for Public Comment

Section 7

Monitoring Networks

Released for Comment June 1, 2020

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 by postal mail, please contact Atascadero Mutual Water Company at 5005 El Camino Real, Atascadero, CA 93422.

Thank you for your interest in sustainable groundwater management.





Draft Atascadero Groundwater Sustainability Plan

Atascadero Groundwater Subbasin Section 7

DRAFT

June 2020



Prepared for: Atascadero Subbasin Groundwater Sustainability Agency

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Abbreviations and Acronyms

Act (or SGMA)	Sustainable Groundwater Management Act
AMWC	Atascadero Mutual Water Company
Basin	Salinas Valley Basin
BMP	Best Management Practice
CASGEM	California Statewide Groundwater Elevation Monitoring
County	San Luis Obispo County
DMS	data management system
DWR	Department of Water Resources
GIS	Geographic Information System
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
ILRP	Irrigated Lands Regulatory Program
MWC	Mutual Water Company
NED 10	10-meter USGS National Elevation Dataset
NWIS	National Water Information System
OSWCR	DWR's Online System for Well Completion Reports
Qa	Alluvial Aquifer
QTp	Paso Robles Formation Aquifer
RMS	Representative Monitoring Sites
RPE	reference point elevation
SGMA	Sustainable Groundwater Management Act
SLOFCWCD	San Luis Obispo County Flood Control and Water Conservation District
SWRCB	State Water Resources Control Board
TCSD	Templeton Community Services District
USGS	United States Geologic Survey
WCR	well completion report

7. Monitoring Networks

This section describes the monitoring networks that exist and improvements to the monitoring networks that will be developed for the basin identified by the Department of Water Resources (DWR) in its Bulletin 118 as Basin No. 3-004.11, Atascadero Area Groundwater Sub-basin of the Salinas Valley Basin (Basin) as part of Groundwater Sustainability Plan (GSP) implementation. This section is prepared in accordance with the Sustainable Groundwater Management Act (SGMA) regulations §354.32 and §354.34 and includes monitoring objectives, monitoring protocols, and data reporting requirements.

The monitoring networks presented in this section are based on existing monitoring sites. It will be necessary to expand the existing monitoring networks and identify or install more monitoring sites to fully demonstrate sustainability and improve the GSP model. Monitoring networks are described for each of the five applicable sustainability indicators, and data gaps are identified for every monitoring network. These data gaps will be addressed during GSP implementation. Addressing these data gaps and developing more extensive and complete monitoring networks will improve the Atascadero Basin Groundwater Sustainability Agency's (GSA) ability to track progress and demonstrate sustainability.

7.1 Monitoring Objectives

The SGMA regulations require monitoring networks be developed to promote the collection of data of sufficient quality, frequency, and spatial distribution to characterize groundwater and related surface water conditions in the Basin and to evaluate changing conditions that occur through implementation of the GSP. The monitoring network should accomplish the following:

- Demonstrate progress toward achieving measurable objectives described in the GSP
- Monitor impacts to the beneficial uses and users of groundwater
- Monitor changes in groundwater conditions relative to measurable objectives and minimum thresholds
- Quantify annual changes in water budget components

The minimum thresholds and measurable objectives monitored by the networks are described in Section 8 - Sustainable Management Criteria.

7.1.1 Monitoring Networks

Monitoring networks are developed for each of the five sustainability indicators that are relevant to the Basin:

- Chronic lowering of groundwater levels

- Reduction in groundwater storage
- Degraded water quality
- Land subsidence
- Depletion of interconnected surface water

The Basin is isolated from the Pacific Ocean and is not threatened by seawater intrusion; therefore, this GSP does not provide monitoring for the seawater intrusion sustainability indicator.

The SGMA regulations allow the GSP to use existing monitoring sites for the monitoring network. Wells used for monitoring, however, are limited by restrictions in §352.4(c) of the SGMA regulations which requires the GSAs to provide various data for any wells used as monitoring wells, including but not limited to: California Statewide Groundwater Elevation Monitoring (CASGEM) well identification number, well location, ground surface elevation, well depth, and perforated intervals. Wells for which these data were not available, were not publicly accessible because of confidentiality agreements, or could not be easily inferred, could not be used in the current groundwater monitoring network.

The approach for establishing the monitoring network for the Basin is to leverage existing monitoring programs and incorporate additional monitoring locations that have been made available by cooperating entities. The monitoring networks are limited to locations with data that are publicly available and not collected under confidentiality agreements. This section identifies data gaps in each monitoring network and proposes locations for filling those data gaps.

7.1.2 Management Areas

The SGMA regulations require that if management areas are established, the quantity and density of monitoring sites in those areas shall be sufficient to evaluate conditions of the Basin setting and sustainable management criteria specific to that area. At this time, management areas have not been defined for the Basin. If management areas are developed in the future, the monitoring networks will be reevaluated to ensure that there is sufficient monitoring to evaluate conditions in each management area.

7.2 Groundwater Level Monitoring Network

The minimum thresholds and measurable objectives for the chronic lowering of groundwater levels sustainability indicator are evaluated by monitoring groundwater levels. The SGMA regulations require a network of monitoring wells sufficient to demonstrate groundwater occurrence, flow directions, and hydraulic gradients between principal aquifers and surface water features.

Existing well records and existing groundwater monitoring programs in the Basin are described in Sections 3 and 5, respectively. Groundwater well construction data and water level data were obtained from the following public sources:

- San Luis Obispo County Flood Control and Water Conservation District (SLOFCWCD)
- United States Geological Survey (USGS) National Water Information System (NWIS)
- DWR Online System for Well Completion Reports (OSWCR)
- DWR SGMA Data Viewer
- DWR CASGEM
- City of Paso Robles, Atascadero Mutual Water Company (AMWC) and Templeton Community Services District (TCSD) for public drinking water supply wells and associated monitoring wells
- Environmental consulting reports for the Santa Margarita to Tassajara Creek Pipeline cleanup (Geotracker site ID: SL0607989492)

These data sources resulted in a dataset of nearly 200 wells, each analyzed using the following steps to assess whether they would be included in the GSP groundwater level monitoring network:

1. Include Only Currently Measured Wells: To reduce the possibility of selecting a well that has not been monitored in many years or that may no longer be accessible, wells were excluded that did not have at least one groundwater level measurement from 2017 or later. All the groundwater level monitoring data available for the Basin that met this criterion were provided by SLOFCWCD (a subset of which is included in CASGEM) or the environmental consulting reports for the Santa Margarita to Tassajara Creek Pipeline cleanup, for a total of 114 wells.
2. Prioritize Wells with Known Well Completion Information: Wells without enough information to determine principal aquifer of completion were removed. This excluded nine wells.
3. Remove Confidential Wells: Many of the wells in the SLOFCWCD groundwater level monitoring network are subject to confidentiality agreements. An effort has been made to reach out to confidential well owners and offer them the opportunity to opt in to the GSP groundwater level monitoring network. Several wells have been added to the GSP monitoring network as a result of this effort. Because monitoring data collected as part of this GSP will be publicly available, data from the wells subject to confidentiality agreements cannot be published and therefore these wells are currently excluded from the GSP monitoring network. The groundwater level data that met this criterion resulted in a total of 85 wells.
4. Additional Wells: Include Additional Wells and/or Water Level Data Provided by AMWC and TCSD. This resulted in the addition of the TCSD Selby monitoring well, for a total of 86 wells.

5. Remaining Wells: The remaining 86 wells were scored in terms of their total number of historical water elevation records, data quality¹, and in terms of their spatial distribution within the Basin and their spatial distribution relative to other candidate wells completed in the same principal aquifer. Wells with a greater number of high-quality historical water elevation records were prioritized over those with fewer records or wells with lower quality data. In cases where multiple high-scoring wells completed in the same principal aquifer are located in close proximity, only the highest-scoring well, based on number of high-quality water elevation records, was retained. In addition to these considerations, wells that are included in the CASGEM network were prioritized over other wells and three sets of paired vertical-gradient monitoring wells were included, despite a couple of them being in close proximity to other high-scoring wells. This selection process resulted in a GSP groundwater level monitoring network consisting of 26 wells (12 completed in the Alluvial Aquifer [Qa]; 14 completed in the Paso Robles Formation Aquifer [QTp]).

The wells in the GSP groundwater level monitoring network are listed in Table 7-1 and shown on Figure 7-1.

A subset of wells from the GSP groundwater level monitoring network has been selected as Representative Monitoring Sites (RMS). RMS are defined in the SGMA regulations as a subset of monitoring sites that are representative of conditions in the Basin. These RMS wells are evaluated in terms of sustainable management criteria in Section 8. The groundwater level RMS network is indicated in Table 7-1 and shown on Figure 7-2.

All but two wells in the GSP groundwater level monitoring network are part of the SLOFCWCD monitoring network. None of these wells are subject to confidentiality agreements and therefore the data are publicly available. The monitoring frequency indicates that water levels are presumably measured twice a year, in accordance with the SLOFCWCD protocol of measuring depths to water in April and October of each year. The most recent available measurement was 2017, 2018, or 2019 in all wells.

¹ Historical water elevation data were inspected for obvious pumping effects or otherwise suspect data. These suspect data were flagged for removal.

Table 7-1. Groundwater Level Monitoring Network

Well ID	Well Depth (feet)	Screen Interval(s) (feet bgs)	Reference Point Elevation (feet AMSL)	First Date Measured	Last Date Measured	Years Measured (years)	Number of Measurements	Aquifer	RMS Well (y/n)	Int. SW Well (y/n)
27S/12E-09N02*	85	44-85	721	4/16/1996	4/5/2019	23	32	Qa	Y	Y
27S/12E-21XX6	61	31-51	754.2	4/30/2017	4/5/2019	2	5	Qa		Y
27S/12E-29H03	65	35-55	753.0	4/16/1996	4/5/2019	23	33	Qa	Y	Y
28S/12E-04J02	86	21-86	795.8	3/29/1965	4/10/2019	54	96	Qa	Y	Y
28S/12E-04J04	70	30-70	802.4	4/1/1996	4/8/2019	23	37	Qa		
28S/12E-05AX2	60	25-55	796.2	10/24/2016	4/1/2019	3	6	Qa	Y	Y
28S/12E-10R04	75	46-75	820	4/27/1984	4/11/2019	35	56	Qa	Y	Y
28S/12E-14K04	105	50-100	835	4/21/1989	4/18/2019	30	41	Qa	Y	Y
28S/12E-25B03	120	100-120	867.8	5/25/1971	10/19/2018	47	95	Qa	Y	Y
29S/13E-19H04*	57	29-49	1005	4/6/1998	3/29/2019	21	43	Qa	Y	
E11W-26B	35	10-35	1,003.0	6/30/1999	11/29/2017	18	18	Qa	Y	
TCSD Selby Well	50	25-50	764.5	2/21/1997	4/6/2020	23	2	Qa	Y	Y
27S/12E-17B02	400	200-360, 380-400	828.3	9/29/1989	4/5/2019	30	46	QTp	Y	
27S/12E-17E01*	310	190-300	842.4	10/4/1988	4/5/2019	31	60	QTp	Y	
27S/12E-20A02	205	105-195	776	10/4/1988	4/5/2019	31	51	QTp	Y	
27S/12E-20R01*	230	110-230	771	4/6/1998	4/5/2019	21	36	QTp	Y	
27S/12E-21XX5	360	110-140, 180-250, 300-360	752.5	4/30/2017	4/5/2019	2	5	QTp		Y
27S/12E-22M01	550	pump @ 300 ¹	850.5	3/30/1965	3/29/2019	54	99	QTp	Y	
27S/12E-33F01	340	140-340	880	6/15/1969	3/29/2019	50	99	QTp		
27S/12E-33G01	460	200-460	892	11/14/1973	3/29/2019	46	79	QTp	Y	
27S/12E-XXXX1	650	260-420, 440-640	723.2	4/30/2017	4/5/2019	2	4	QTp		Y
28S/12E-04J05	360	145-190, 210-360	803.1	4/3/1995	4/1/2019	24	41	QTp		Y
28S/12E-04J06*	153	93-153	800.5	4/1/1996	4/1/2019	23	37	QTp	Y	
28S/12E-10A03	500	157-500	808.3	6/30/1972	4/8/2019	47	75	QTp	Y	Y
28S/12E-11K02*	603	300-600	882	4/5/1993	4/9/2019	26	46	QTp	Y	
28S/13E-31F02	310	55-300	884.3	11/26/1974	10/8/2018	44	67	QTp	Y	Y

Figure 7-1. Groundwater Level Monitoring Network

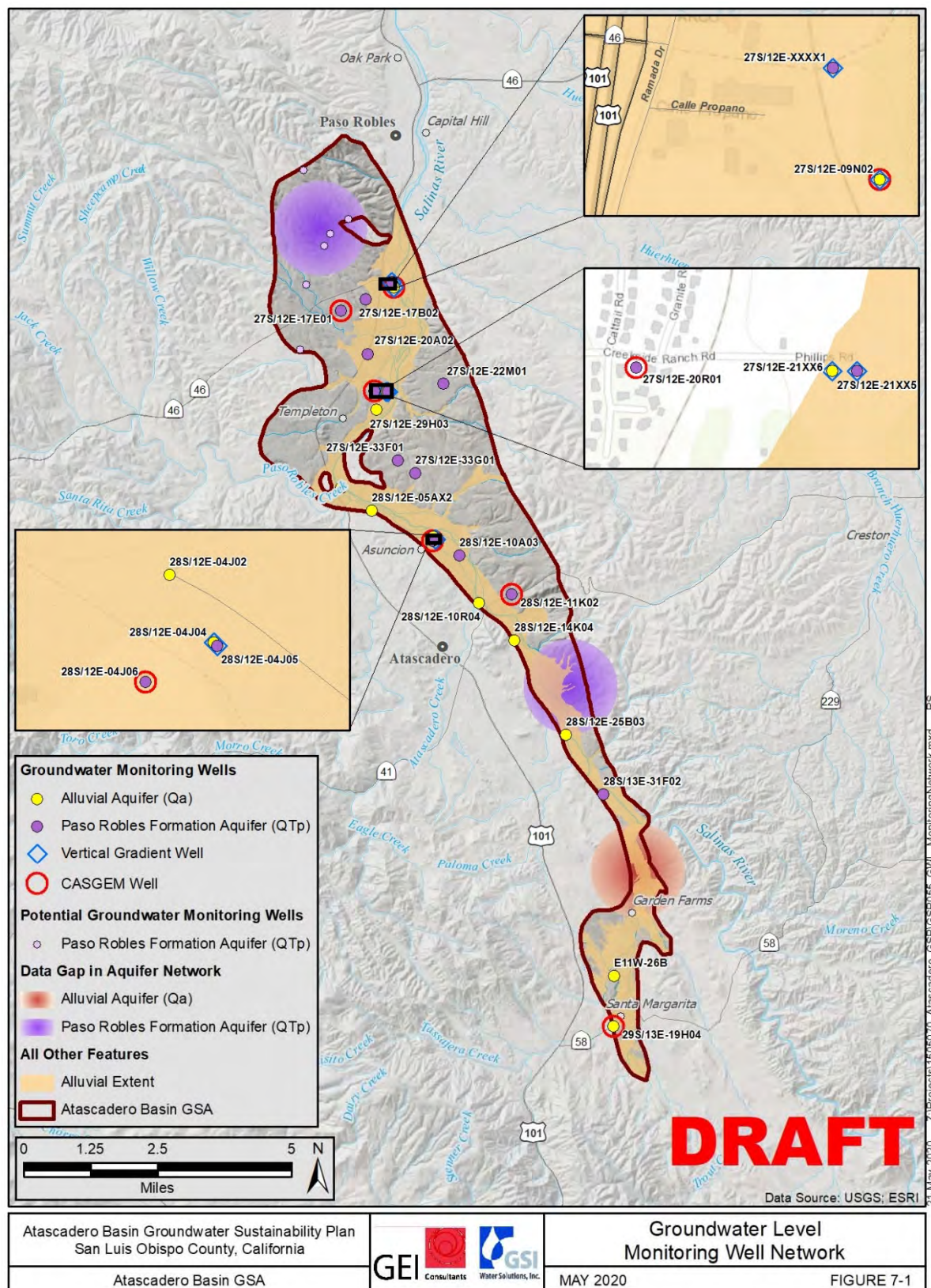
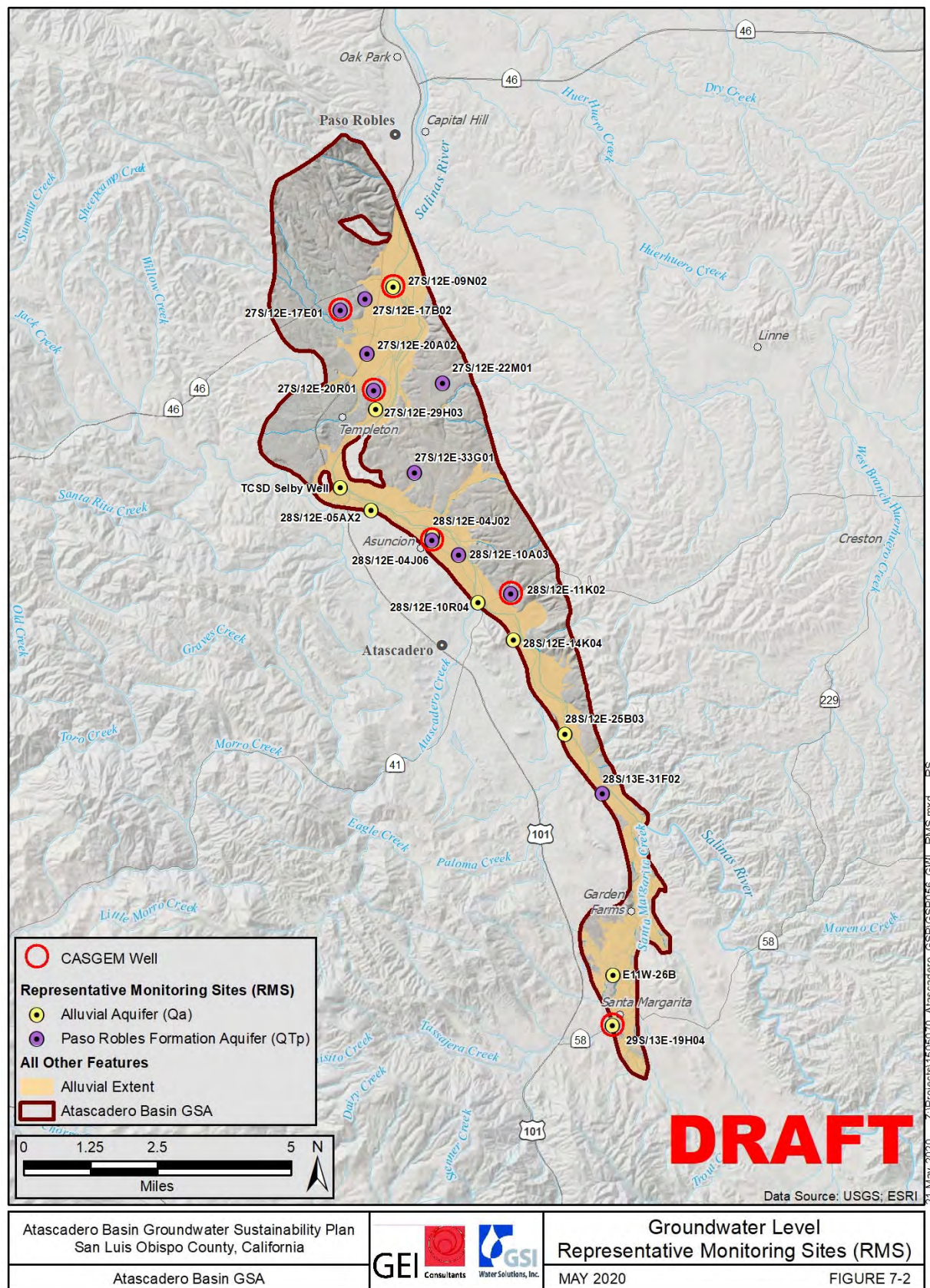


Figure 7-2. Groundwater Level Representative Monitoring Sites



7.2.1 Groundwater Level Monitoring Network Data Gaps

The GSA identified data gaps using guidelines in the SGMA regulations and Best Management Practices (BMPs) published by DWR on monitoring networks (DWR, 2016). Table 7-2 summarizes the suggested attributes of a groundwater level monitoring network from the BMPs in comparison to the current network and identifies data gaps.

The SGMA regulations require a sufficient density of monitoring wells to characterize the groundwater table or potentiometric surface for each principal aquifer. Professional judgement is also used to determine an adequate level of monitoring density.

While there is no definitive rule on well density, the BMP cites a range of 0.2 to 10 wells per 100 square miles, with a median of 5 wells per 100 square miles from various cited studies. The Basin is 31 square miles, which equates to 1.6 wells at a median density of 5 wells per 100 square miles. The monitoring network of 11 wells in the Alluvial Aquifer and 14 wells in the Paso Robles Formation Aquifer is many times greater than the recommended range cited in the BMP (0.1 to 3.1 wells).

Although the existing GSP groundwater level monitoring network satisfies the requirements cited in the BMP, there are two data gap areas identified, based on professional judgement, in the Paso Robles Formation Aquifer and one data gap area identified in the Alluvial Aquifer, as shown on Figure 7-1. The Paso Robles Formation Aquifer data gap in the northwest area of the Basin occurs in an area with many existing private agricultural supply and domestic supply wells. Several of these wells are currently enrolled in the Irrigated Lands Regulatory Program (ILRP, *see* Section 7.4) and may be good candidates to bring into the GSP groundwater level monitoring program through an outreach program that will be initiated during GSP implementation. The five most recently sampled ILRP wells (all sampled since 2018) and one USGS well are shown as potential Paso Robles Formation Aquifer monitoring wells on Figure 7-1.

The other Paso Robles Formation Aquifer data gap area located to the south and the single Alluvial Aquifer data gap area located near Garden Farms both occur in areas where existing confidential SLOFCWCD monitoring network wells are located. These confidential wells cannot be shown on the map. However, the GSA will reach out to these confidential well owners and offer them the opportunity to opt in to the GSP groundwater level monitoring network during GSP implementation.

A program to increase monitoring frequency may be considered during GSP implementation to better determine seasonal high and low groundwater elevations and monitor groundwater response to recharge and other activities². One method to increase monitoring frequency is to install continuous dataloggers in existing and new monitoring wells.

The reference point elevations (RPE's) for each GSP groundwater level monitoring well listed in Table 7-1 were taken from the SLOFCWCD monitoring program database, where available, or were estimated using the 10-meter USGS National Elevation Dataset (NED 10) in a Geographic Information

² AMWC and TCSD both measure groundwater levels in their wells on a weekly basis, but only the April and October data are reported to the SLOFCWCD groundwater monitoring program.

System (GIS). The accuracies of these RPE's are unknown. The elevations of these RPE's should be determined to within 0.1-foot NAVD88³ accuracy by a professional land surveyor during GSP implementation.

Although well completion reports are available online via DWR's Online System for Well Completion Reports (OSWCR), the well completion report (WCR) identification numbers are unknown for many of the wells in the GSP groundwater level monitoring network and therefore it is not possible to always identify the associated WCRs. The known WCRs, with redacted ownership information, are provided in Appendix 7A.

Groundwater level data must be sufficient to identify changes in groundwater flow directions and gradients. Groundwater contour maps are presented in Section 5 for both the Alluvial Aquifer and the Paso Robles Formation Aquifer. These maps were prepared using available monitoring data, including data collected from wells subject to confidentiality agreements. To comply with the confidentiality agreements, the data and well locations are not included on the maps. Continued use of confidential wells/groundwater level data is expected to be sufficient for preparation of future groundwater contour maps.

³ NAVD88 – North American Vertical Datum of 1988.

Table 7-2. Summary of Best Management Practices, Groundwater Level Monitoring Well Network, and Data Gaps

Best Management Practice (DWR, 2016a)	Current Monitoring Network	Data Gap
Groundwater level data will be collected from each principal aquifer in the basin.	14 wells in the Paso Robles Formation Aquifer; and 12 wells in the Alluvial Aquifer.	Minor data gaps: two data gap areas identified based on professional judgement in the Paso Robles Formation Aquifer and one data gap area identified in the Alluvial Aquifer
Groundwater level data must be sufficient to produce seasonal maps of groundwater elevations throughout the basin that clearly identify changes in groundwater flow direction and gradient (Spatial Density).	Current GSP network of 26 wells plus additional wells in the SLOFCWCD monitoring network is sufficient for mapping all of these areas.	Some data used to prepare groundwater elevation maps in the GSP are confidential. Continued use of confidential wells/groundwater level data is expected to be sufficient for preparation of future groundwater contour maps.
Groundwater levels will be collected during the middle of October and March for comparative reporting purposes, although more frequent monitoring may be required (Frequency).	All 26 wells in the existing monitoring network have been monitored twice a year, in spring (April ⁴) and fall (October).	Seasonal monitoring is the protocol for SLOFCWCD (Appendix 7B); more frequent monitoring may be needed to identify actual seasonal high and low groundwater elevations and further characterize groundwater level fluctuations; instrumentation like transducers or other technology may be used in future to monitor groundwater elevations.
Data must be sufficient for mapping groundwater depressions, recharge areas, and along margins of basins where groundwater flow is known to enter or leave a basin.	Current GSP network of 26 wells plus additional wells in the SLOFCWCD monitoring network is sufficient for mapping all of these areas.	Some data used to prepare groundwater elevation maps in the GSP are confidential. Continued use of confidential wells/groundwater level data is expected to be sufficient for preparation of future groundwater contour maps.
Well density must be adequate to determine changes in storage.	Current GSP network of 26 wells plus additional wells in the SLOFCWCD monitoring network is sufficient for mapping all of these areas.	None.
Data must be able to demonstrate the interconnectivity between shallow groundwater and surface water bodies, where appropriate.	Current Interconnected Surface Water network of 14 wells plus 3 confidential wells in the SLOFCWCD monitoring network is sufficient for mapping these areas.	There are no surface water gaging stations in the Basin. The potential need for installation of surface water gaging station(s) along the Salinas River within the Basin to aid in determining gaining/losing reaches may be evaluated during GSP implementation.
Data must be able to map the effects of management actions, i.e., managed aquifer recharge.	Current GSP network of 26 wells plus additional wells in the SLOFCWCD monitoring network is sufficient for mapping all of these areas.	Additional monitoring wells may be required to map the effectiveness of management actions. This monitoring will be addressed as projects are implemented.
Data must be able to demonstrate conditions near basin boundaries; agencies may consider coordinating monitoring efforts with adjacent basins to provide consistent data across basin boundaries. Agencies may consider characterization and continued impacts of internal hydraulic boundary conditions, such as faults, disconformities, or other internal boundary types.	Current GSP network of 26 wells plus additional wells in the SLOFCWCD monitoring network is sufficient for mapping all of these areas.	Additional wells may be necessary to map the structure and effect of internal faults.
Data must be able to characterize conditions and monitor adverse impacts to beneficial uses and users identified within the basin.	Current GSP network of 26 wells plus additional wells in the SLOFCWCD monitoring network is sufficient for mapping all of these areas.	Network may be expanded in accordance with the data gaps identified above.

⁴ Although the Monitoring Networks and Identification of Data Gaps BMP calls for collection of groundwater levels in the middle of March, the only available spring data for many of the GSP groundwater level monitoring wells were from the month of April (as available from the SLOFCWCD monitoring program database). The April data is considered representative of spring conditions in the Basin.

7.2.2 Groundwater Level Monitoring Protocols

The groundwater level monitoring protocols established by SLOFCWCD are adopted by this GSP for manual groundwater level monitoring. The monitoring protocols are included in Appendix 7B.

AMWC and TCSD measure groundwater levels in their wells on a weekly basis. It is likely that these more frequently measured data will be incorporated during GSP implementation. The GSA may consider use of automated groundwater level data loggers in the GSP groundwater level monitoring network wells. These data may be used to supplement the current water level monitoring network in the future. As automated groundwater level monitoring systems are added to the monitoring network, appropriate protocols for each automated system will be incorporated into this GSP.

Automated groundwater level monitoring systems have the advantage of supplying more frequent groundwater levels. The groundwater level monitoring BMP recommends more frequent monitoring in certain areas, including shallow, unconfined aquifers, in areas of rapid recharge, and in areas of greater withdrawal rates. More frequent monitoring may also be required in specific places where sustainability indicators are a concern or to track impacts of specific management actions and projects. The need for more frequent monitoring will be evaluated, and a program to increase monitoring frequency may be developed during the GSP implementation phase.

7.3 Groundwater Storage Monitoring Network

This GSP adopts groundwater levels as a proxy for assessing change in groundwater storage, as described in Section 8, Sustainable Management Criteria. The GSP groundwater level monitoring network identified in Section 7.2 is central to the monitoring network used to create historical groundwater elevation contour maps and change in groundwater elevation maps for each principal aquifer (*see* Section 5). However, there are several additional wells used for these analyses that are subject to confidentiality agreements or otherwise do not meet the criteria for inclusion in the GSP groundwater level monitoring network as specified in Section 7.2. As described in Section 5, a total of approximately 128 wells (depending on year) were used for these groundwater elevation analyses. Of these wells, 95 are not subject to confidentiality agreements. The locations of these non-confidential wells are shown on Figure 5-1 (*see* Section 5) and are listed in Appendix 7C.

7.3.1 Groundwater Storage Monitoring Data Gaps

Data gaps in the groundwater storage monitoring network are the same as the data gaps identified for the groundwater level monitoring network discussed in Section 7.2.1.

7.3.2 Groundwater Storage Monitoring Protocols

The groundwater storage monitoring network is identical to the groundwater level monitoring network. Therefore, the protocols used for gathering water level data to assess changes in groundwater storage are identical to the protocols used for the chronic lowering of groundwater levels sustainability indicator. Protocols for the manual collection of groundwater levels are included in Appendix 7B. As automated groundwater level collection devices are added to the monitoring network, protocols will be developed for each of these automated systems and incorporated into the GSP.

7.4 Water Quality Monitoring Network

The sustainability indicator for degraded water quality is evaluated by monitoring groundwater quality at a network of existing supply wells. The SGMA regulations require sufficient spatial and temporal data from each applicable principal aquifer to determine groundwater quality trends for water quality indicators to address known water quality issues.

As described in Section 5, there are no known contaminant plumes in the Basin, therefore the monitoring network is monitoring only non-point source constituents of concern and naturally occurring water quality impacts.

Existing groundwater quality monitoring programs in the Basin are described in Section 3 and groundwater quality distribution and trends are described in Section 5. Constituents of concern were identified in Section 5 based on comparison to drinking water standards and levels that could impact crop production. As described in Section 8, separate minimum thresholds are set for agricultural constituents of concern and drinking water constituents of concern. Therefore, different wells in the network will be assessed for different constituents. Constituents of concern for drinking water will be assessed at public water supply wells, domestic wells associated with the Irrigated Lands Regulatory Program (ILRP), and monitoring wells associated with open/active State Water Resources Control Board (SWRCB) Geotracker contamination sites (*see* Section 5). Constituents of concern for crop health will be assessed at agricultural supply wells.

The GSP groundwater quality monitoring network includes 54 public water supply wells that were identified by reviewing data from the SWRCB Division of Drinking Water. Wells were selected that were sampled for at least one of the constituents of concern during 2015 or more recently. These 54 wells are listed in Table 7-3 and shown on Figure 7-3. There are 28 public water supply wells that are completed in the Paso Robles Formation Aquifer and 26 public water supply wells completed in the Alluvial Aquifer⁵.

The agricultural supply wells and associated domestic supply wells included in the GSP groundwater monitoring network were identified by reviewing data from the ILRP that are stored in the SWRCB's Geotracker/GAMA database. Wells were selected that were sampled in 2012 or more recently. There are 54 ILRP properties in the groundwater quality monitoring network with a total of 73 wells. Of these 73 wells, 24 are assumed to be domestic supply wells based on their Geotracker/GAMA ID and the other 49 are assumed to be agricultural supply wells. Although well completion information is unknown for the ILRP wells, 68 are assumed to be completed in the Paso Robles Formation Aquifer, based on the surficial geology at the well locations. The remaining five wells are assumed to be completed in the Alluvial Aquifer based on their proximity to the Salinas River. These well completions will be confirmed during GSP implementation. The agricultural supply wells and associated domestic supply wells are listed in Table 7-3 and shown on Figure 7-3.

The GSP groundwater quality monitoring network also includes 55 monitoring wells associated with open/active SWRCB Geotracker contamination sites. All of these wells are completed in the Alluvial

⁵ Three of these 26 public water supply wells do not have available well completion information but based on location are assumed to be completed in the Alluvial Aquifer. These well completions will be confirmed during GSP implementation.

Aquifer. These wells are sampled for various water quality constituents as determined by each site's monitoring plan including constituents of concern for drinking water. These monitoring wells will be included in the GSP groundwater quality monitoring network at least until the parent SWRCB Geotracker contamination site(s) are closed⁶. The SWRCB Geotracker monitoring wells are listed in Table 7-3 and shown on Figure 7-3.

⁶ In the event of SWRCB Geotracker site closure(s) the GSA may endeavor to retain certain monitoring wells in the GSP groundwater quality monitoring network if agreement(s) with the well owner(s) can be coordinated.

Table 7-3. Groundwater Quality Monitoring Network

Well ID	Type of Well	Well Depth (feet)	Screen Interval(s)	First Sampling Event Date	Last Sampling Event Date	Number of Sampling Events	Assumed Aquifer
AMWC-1B	PWS	65	50-65	5/22/2007	5/14/2019	83	Qa
AMWC-2A	PWS	105	50-100	1/31/2000	7/19/2018	77	Qa
AMWC-3A	PWS	75	46-75	2/7/1984	5/5/2014	44	Qa
AMWC-4	PWS	86	21-85	5/10/1984	5/9/2019	109	Qa
AMWC-5	PWS	90	20-90	3/12/1985	4/11/2019	125	Qa
AMWC-5A	PWS	100	50-100	2/3/1994	5/14/2019	149	Qa
AMWC-13A	PWS	330	210-310	9/12/2000	6/7/2018	28	Qa
AMWC-16	PWS	72	37-72	3/9/1995	11/27/2018	90	Qa
AMWC-19	PWS	115	35-105	3/7/1995	11/27/2018	86	Qa
Atascadero State Hosp - WELL 01 (1953)	PWS	--	--	10/31/1988	6/6/2019	717	Qa
Atascadero State Hosp - WELL 02 (1968) - STANDBY	PWS	120	40-120	7/12/1989	6/6/2019	810	Qa
Atascadero State Hosp - WELL 03 (1969)	PWS	--	20-77	7/12/1989	3/14/2019	867	Qa
Atascadero State Hosp - WELL 04	PWS	--	--	4/15/2003	3/14/2019	609	Qa
CSA23 Well-3	PWS	49.5	30-49.5	1/24/1992	6/17/2019	734	Qa
CSA23 Well-4	PWS	57	29-49	7/29/1997	6/17/2019	136	Qa
Garden Farms 1	PWS	80	40-80	4/9/1987	2/25/2019	28	Qa
Garden Farms 2	PWS	127	--	1/15/2002	2/28/2018	26	Qa
Garden Farms 3	PWS	80	55-80	8/19/2002	2/25/2019	12	Qa
Paso Robles-Thunderbird 10	PWS	210	60-210	10/8/1984	11/1/2018	114	Qa
Paso Robles-Thunderbird 13	PWS	130	70-130	9/11/1985	11/1/2018	101	Qa
Paso Robles-Thunderbird 17	PWS	130	70-130	6/22/1993	2/12/2019	65	Qa
Paso Robles-Thunderbird 23	PWS	140	90-140	10/7/1998	11/1/2018	53	Qa
SANTA LUCIA SCHOOL - WELL 01	PWS	--	--	9/18/2002	11/7/2019	136	Qa
TCSD-Creekside River Well	PWS	61	31-51	6/10/2008	5/14/2019	335	Qa
TCSD-Platz Well 02	PWS	85	44-85	4/17/1985	10/29/2018	69	Qa
TCSD-Smith River Well	PWS	65	35-55	1/12/1994	10/29/2018	95	Qa
ALMIRA WATER ASSOCIATION - WELL 02	PWS	--	--	12/10/1987	12/23/2019	397	QTp
AMWC-6A	PWS	480	240-470	4/2/2002	11/19/2018	31	QTp
AMWC-7	PWS	500	157-500	4/24/1989	11/6/2018	85	QTp
AMWC-8A	PWS	425	140-415	9/14/2004	2/14/2019	39	QTp
AMWC-9A	PWS	400	155-420	6/4/2001	11/6/2018	48	QTp
AMWC-10	PWS	550	192-550	4/18/1989	11/27/2018	77	QTp

Well ID	Type of Well	Well Depth (feet)	Screen Interval(s)	First Sampling Event Date	Last Sampling Event Date	Number of Sampling Events	Assumed Aquifer
AMWC-12	PWS	603	300-600	7/6/1988	4/16/2019	101	QTp
AMWC-25	PWS	400	155-355	4/5/2011	5/9/2019	26	QTp
AMWC-26	PWS	500	160-490	4/5/2011	2/26/2019	28	QTp
LOS ROBLES MOBILE HOME ESTATES - WELL 01	PWS	--	102-184	1/2/2002	7/1/2019	407	QTp
LOS ROBLES MOBILE HOME ESTATES - WELL 02	PWS	--	125-240	1/2/2002	7/1/2019	447	QTp
LOS ROBLES MOBILE HOME ESTATES - WELL 03	PWS	--	115-185	1/2/2002	7/1/2019	397	QTp
PASO ROBLES CHEVROLET CADILLAC - WELL 01	PWS	--	--	10/27/2003	8/13/2019	131	QTp
SANTA YSABEL RANCH MWC - WELL 01, RESERVIOR WELL	PWS	--	145-315	6/30/2004	7/3/2019	402	QTp
SANTA YSABEL RANCH MWC - WELL 02, RANCH HOUSE WELL	PWS	--	140-410	6/30/2004	7/3/2019	433	QTp
TCSD-Bonita Well 01	PWS	245	140-240	4/11/1989	7/11/2017	56	QTp
TCSD-Claussen Well 01	PWS	310	190-300	10/13/1987	10/29/2018	61	QTp
TCSD-Cow Meadows	PWS	290	120-290	6/16/1998	10/29/2018	229	QTp
TCSD-Creekside Deep Well	PWS	360	110-360	5/20/2008	5/14/2019	311	QTp
TCSD-Davis Well	PWS	230	110-230	3/9/1990	5/7/2019	57	QTp
TCSD-Fortini Well	PWS	400	200-400	2/27/1989	10/29/2018	66	QTp
TCSD-Platz Well 04	PWS	650	260-640	5/19/2009	10/29/2018	35	QTp
TCSD-Saunders Well	PWS	280	160-280	3/11/2003	10/29/2018	28	QTp
TCSD-Silva Well 01	PWS	205	105-195	3/14/2003	10/29/2018	128	QTp
WALNUT HILLS MUTUAL WATER CO - WELL 01	PWS	--	120-240	10/27/2003	8/13/2019	131	QTp
WALNUT HILLS MUTUAL WATER CO - WELL 04	PWS	--	--	6/4/2009	4/16/2019	232	QTp
WALNUT HILLS MUTUAL WATER CO - WELL 05	PWS	--	--	5/19/2010	5/19/2010	1	QTp
WALNUT HILLS MUTUAL WATER CO - WELL 07	PWS	--	--	7/31/2018	12/12/2019	267	QTp
SL0607989492-B10-2	MW	--	--	9/30/2005	10/4/2011	25	Qa
SL0607989492-B10-3	MW	--	--	9/30/2005	10/4/2011	25	Qa
SL0607989492-B1-1A	MW	--	--	12/14/2006	10/24/2012	24	Qa
SL0607989492-B1-2	MW	--	--	12/15/2006	10/11/2011	12	Qa
SL0607989492-B1-3	MW	--	--	12/14/2006	10/24/2012	24	Qa
SL0607989492-B5-2	MW	--	--	10/5/2005	10/24/2012	30	Qa
SL0607989492-E10W-40A	MW	--	--	9/30/2005	10/25/2012	31	Qa
SL0607989492-E10W-41A	MW	--	--	9/30/2005	10/25/2012	31	Qa
SL0607989492-E11W-26B	MW	--	--	10/4/2005	12/4/2015	35	Qa
SL0607989492-E1W-1	MW	--	--	12/14/2006	10/24/2012	24	Qa
SL0607989492-E1W-2	MW	--	--	12/14/2006	10/24/2012	24	Qa

Well ID	Type of Well	Well Depth (feet)	Screen Interval(s)	First Sampling Event Date	Last Sampling Event Date	Number of Sampling Events	Assumed Aquifer
SL0607989492-E1W-4A	MW	--	--	12/14/2006	10/24/2012	24	Qa
SL0607989492-E3W-22	MW	--	--	10/5/2005	12/4/2015	29	Qa
SL0607989492-E3W-24	MW	--	--	10/5/2005	10/24/2012	30	Qa
SL0607989492-E5W-8	MW	--	--	10/5/2005	10/24/2012	24	Qa
SL0607989492-E5W-9	MW	--	--	10/5/2005	10/24/2012	30	Qa
SL0607989492-E9W-33C	MW	--	--	10/3/2005	10/25/2012	30	Qa
SL0607989492-P-1A	MW	--	--	10/21/2009	10/31/2011	57	Qa
SL0607989492-P-1B	MW	--	--	10/21/2009	10/31/2011	57	Qa
SL0607989492-P-2A	MW	--	--	10/21/2009	10/31/2011	57	Qa
SL0607989492-P-2B	MW	--	--	10/21/2009	10/31/2011	55	Qa
SL0607989492-S11-B12	MW	--	--	10/4/2005	10/24/2012	30	Qa
SL0607989492-S11-B13	MW	--	--	10/4/2005	10/24/2012	30	Qa
SL0607989492-S11-B14	MW	--	--	12/13/2006	12/13/2006	6	Qa
SL0607989492-S11-B17	MW	--	--	10/4/2005	10/25/2012	30	Qa
SL0607989492-S11-B18	MW	--	--	10/5/2005	12/4/2015	35	Qa
SL0607989492-S11-B20	MW	--	--	10/4/2005	10/25/2012	24	Qa
SL0607989492-S11-B6	MW	--	--	10/3/2005	10/25/2012	36	Qa
SL0607989492-S11-B9	MW	--	--	10/4/2005	12/4/2015	35	Qa
SL0607989492-S1-B3	MW	--	--	12/14/2006	10/24/2012	24	Qa
SL0607989492-S1-B4	MW	--	--	12/14/2006	10/24/2012	24	Qa
SL0607989492-S3-B1	MW	--	--	10/4/2005	10/24/2012	24	Qa
SL0607989492-S3-B2	MW	--	--	10/5/2005	10/24/2012	24	Qa
SL0607989492-S9-B1	MW	--	--	10/3/2005	10/25/2012	30	Qa
SL0607989492-S9-B2	MW	--	--	10/3/2005	10/25/2012	30	Qa
SL0607989492-S9-B3	MW	--	--	10/3/2005	10/25/2012	30	Qa
T0607900001-MW-10	MW	--	27-47	11/28/2001	4/20/2018	313	Qa
T0607900001-MW-11	MW	--	25-45	11/28/2001	1/13/2011	48	Qa
T0607900001-MW-12	MW	--	20-40	11/28/2001	2/13/2017	192	Qa
T0607900001-MW-13	MW	--	25-45	11/28/2001	1/12/2011	48	Qa
T0607900001-MW-14	MW	--	19-35	9/20/2002	2/13/2017	194	Qa
T0607900001-MW-15	MW	--	19-35	9/20/2002	12/15/2009	137	Qa
T0607900001-MW-16	MW	--	20-35	5/16/2003	1/12/2011	98	Qa
T0607900001-MW-17	MW	--	19-26	5/16/2003	1/12/2011	136	Qa

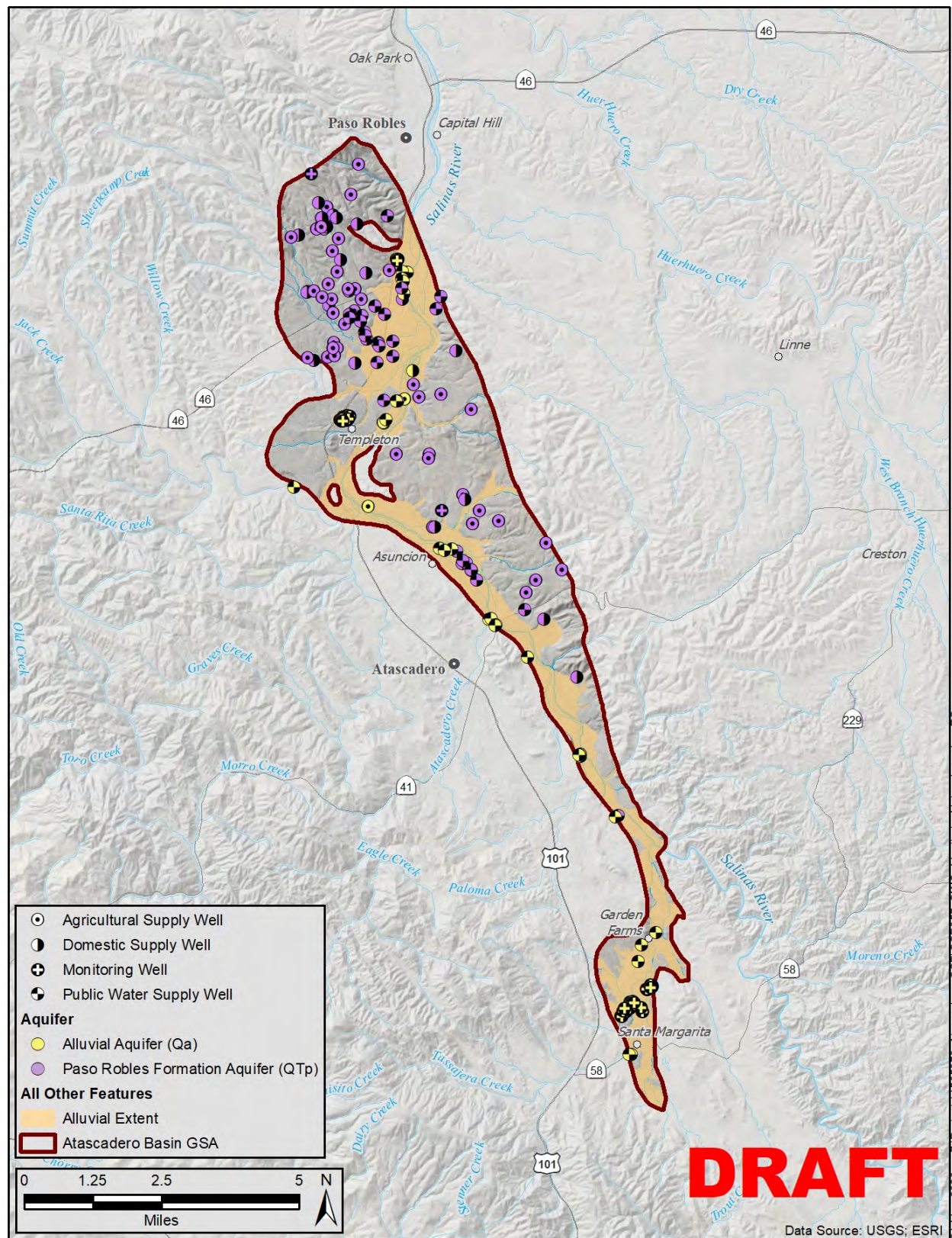
Well ID	Type of Well	Well Depth (feet)	Screen Interval(s)	First Sampling Event Date	Last Sampling Event Date	Number of Sampling Events	Assumed Aquifer
T0607900001-MW-18	MW	--	20-35	5/16/2003	1/12/2011	145	Qa
T0607900001-MW-2	MW	--	25-40	11/28/2001	2/13/2017	250	Qa
T0607900001-MW-3	MW	--	16.5-46.5	11/28/2001	1/13/2011	39	Qa
T0607900001-MW-4	MW	--	30-40	11/28/2001	1/13/2011	39	Qa
T0607900001-MW-5	MW	--	27-47	11/28/2001	2/13/2017	229	Qa
T0607900001-MW-6	MW	--	29-39	11/28/2001	1/13/2011	211	Qa
T0607900001-MW-7	MW	--	25-45	8/30/2002	1/13/2011	59	Qa
T0607900001-MW-8	MW	--	29-44	11/28/2001	1/12/2011	38	Qa
T10000009038-MW1	MW	--	45-60	4/7/2016	12/7/2018	146	Qa
T10000009038-MW2	MW	--	45-60	4/7/2016	7/26/2016	98	Qa
T10000009038-MW3	MW	--	45-60	4/7/2016	7/26/2016	98	Qa
MSPR-01	MW	--	--	7/19/2005	8/11/2014	2	QTp
S-MS-H04	MW	235	--	11/27/2012	11/27/2012	1	QTp
S-MS-SV01	MW	--	--	11/8/2012	11/8/2012	1	QTp
AGL020000598-FLETCHER DOM	Dom	--	--	3/26/2013	6/14/2013	2	Qa
AGL020027483-VAQUERO DW	Dom	--	--	12/27/2012	12/12/2017	4	Qa
AGL020000508-DW	Dom	--	--	10/16/2012	6/14/2017	3	QTp
AGL020000648-MAIN_D/I	Dom	--	--	1/7/2014	6/2/2014	2	QTp
AGL020001003-HOME DOMESTIC	Dom	--	--	12/12/2012	10/26/2017	4	QTp
AGL020001035-DW	Dom	--	--	12/11/2012	6/24/2013	2	QTp
AGL020001087-PRIMARY AW DW	Dom	--	--	12/12/2012	10/26/2017	4	QTp
AGL020001433-COBBLE C HOME #	Dom	--	--	12/17/2012	12/17/2012	1	QTp
AGL020002826-DOM/AG WELL	Dom	--	--	12/10/2012	6/4/2013	2	QTp
AGL020003068-DW	Dom	--	--	1/22/2013	6/4/2013	2	QTp
AGL020003461-WINERY DOM	Dom	--	--	7/28/2014	7/28/2014	1	QTp
AGL020005112-DW	Dom	--	--	10/16/2012	4/6/2016	2	QTp
AGL020005225-DW AW	Dom	--	--	9/24/2013	12/7/2017	5	QTp
AGL020007294-DW	Dom	--	--	12/4/2012	12/12/2017	4	QTp
AGL020012109-HOME WELL #1	Dom	--	--	12/11/2012	5/27/2013	2	QTp
AGL020015262-AVR DW	Dom	--	--	9/25/2012	11/27/2017	3	QTp
AGL020019682-DW AW	Dom	--	--	10/15/2013	6/17/2014	2	QTp
AGL020027467-BLACKSETH DW	Dom	--	--	12/27/2012	11/29/2017	4	QTp
AGL020027660-DOM WELL	Dom	--	--	12/16/2016	9/24/2017	4	QTp

Well ID	Type of Well	Well Depth (feet)	Screen Interval(s)	First Sampling Event Date	Last Sampling Event Date	Number of Sampling Events	Assumed Aquifer
AGL020028468-AOK DOM	Dom	--	--	6/21/2017	10/30/2017	3	QTp
AGL020028474-KCV DOM 1	Dom	--	--	6/21/2017	10/30/2017	2	QTp
AGL020028474-KCV DOM 2	Dom	--	--	6/21/2017	10/30/2017	2	QTp
AGL020028474-KCV DOM 3	Dom	--	--	6/21/2017	10/30/2017	2	QTp
AGL020035786-MAINCOPIA_DOM	Dom	--	--	1/11/2019	1/11/2019	1	QTp
AGL020000598-FLETCHER IRR	Ag	--	--	3/26/2013	6/14/2013	2	Qa
AGL020003146-RIVER	Ag	--	--	6/8/2015	12/12/2017	3	Qa
AGL020027481-RIVER WELL	Ag	--	--	4/18/2016	9/21/2017	4	Qa
AGL020000484-ROOS-HOMESTEAD	Ag	--	--	11/27/2012	12/12/2017	4	QTp
AGL020000508-AW	Ag	--	--	10/16/2012	6/14/2017	3	QTp
AGL020001000-LAGO FOSSIL	Ag	--	--	12/12/2012	10/26/2017	4	QTp
AGL020001035-AW	Ag	--	--	12/11/2012	6/24/2013	2	QTp
AGL020001138-PRIMARY AW	Ag	--	--	5/14/2013	12/19/2017	4	QTp
AGL020001433-JACK CREEK WELL	Ag	--	--	12/17/2012	12/17/2012	1	QTp
AGL020001433-WHALE ROCK #1	Ag	--	--	12/17/2012	1/17/2018	4	QTp
AGL020001744-BARN WELL	Ag	--	--	10/31/2013	12/8/2017	3	QTp
AGL020001744-POND WELL	Ag	--	--	10/31/2013	12/8/2017	3	QTp
AGL020002320-PRIMARY WELL	Ag	--	--	11/12/2012	6/17/2013	3	QTp
AGL020002364-AG WELL	Ag	--	--	11/28/2012	9/25/2017	4	QTp
AGL020002753-OLEA WELL	Ag	--	--	1/31/2013	12/28/2017	3	QTp
AGL020002801-PROPERTY WELL	Ag	--	--	1/15/2013	9/29/2017	4	QTp
AGL020002926-AW DW	Ag	--	--	2/26/2013	12/12/2017	4	QTp
AGL020003068-AW	Ag	--	--	1/15/2013	11/28/2017	5	QTp
AGL020003146-BARN	Ag	--	--	6/8/2015	12/12/2017	3	QTp
AGL020003461-AG WELL	Ag	--	--	12/11/2012	12/19/2017	3	QTp
AGL020004031-POMAR RIDGE	Ag	--	--	12/3/2012	5/24/2017	3	QTp
AGL020004709-IRR1	Ag	--	--	6/8/2015	12/5/2017	4	QTp
AGL020004789-IRRIGATION	Ag	--	--	3/8/2018	6/8/2018	2	QTp
AGL020005112-AW 1	Ag	--	--	10/16/2012	10/16/2012	1	QTp
AGL020007196-DWS NEW	Ag	--	--	11/16/2012	4/20/2018	3	QTp
AGL020007294-AW	Ag	--	--	12/4/2012	12/12/2017	4	QTp
AGL020007507-ONLY WELL	Ag	--	--	12/17/2013	9/29/2017	3	QTp
AGL020007659-YRLY WTR SAMPLE	Ag	--	--	9/24/2012	4/26/2017	3	QTp

Well ID	Type of Well	Well Depth (feet)	Screen Interval(s)	First Sampling Event Date	Last Sampling Event Date	Number of Sampling Events	Assumed Aquifer
AGL020007709-AG WELL	Ag	--	--	12/5/2012	12/12/2017	4	QTp
AGL020012109-WELL #1	Ag	--	--	12/11/2012	6/21/2017	3	QTp
AGL020012322-WELL 1	Ag	--	--	11/13/2012	10/16/2017	4	QTp
AGL020012322-WELL 2	Ag	--	--	11/13/2012	10/16/2017	4	QTp
AGL020012842-AG WELL	Ag	--	--	11/28/2012	9/25/2017	4	QTp
AGL020013302-WELL 1	Ag	--	--	12/5/2012	10/3/2017	3	QTp
AGL020015262-AVR IRR	Ag	--	--	9/25/2012	11/27/2017	3	QTp
AGL020017182-AG WELL	Ag	--	--	2/28/2013	9/25/2017	4	QTp
AGL020017862-ANDERSON	Ag	--	--	1/3/2013	12/8/2017	3	QTp
AGL020018782-BELLETO	Ag	--	--	5/28/2015	10/11/2017	3	QTp
AGL020022602-WELL	Ag	--	--	4/28/2014	9/25/2017	3	QTp
AGL020023442-WELL	Ag	--	--	4/28/2014	10/13/2014	2	QTp
AGL020025242-PRIMARY AG	Ag	--	--	12/16/2014	8/25/2015	2	QTp
AGL020027472-JAVADI - CAT 1	Ag	--	--	6/20/2016	11/29/2017	4	QTp
AGL020027483-VAQUERO IW	Ag	--	--	12/27/2012	12/12/2017	4	QTp
AGL020027660-AG WELL	Ag	--	--	12/16/2016	9/24/2017	4	QTp
AGL020027743-PRIMARY AG	Ag	--	--	8/25/2015	10/30/2017	4	QTp
AGL020027968-J DUSI WELL 1	Ag	--	--	4/14/2016	4/14/2016	1	QTp
AGL020028424-WELL	Ag	--	--	9/25/2017	9/25/2017	1	QTp
AGL020028474-KCV PRIMARY AG	Ag	--	--	6/21/2017	10/31/2017	2	QTp
AGL020035655-ARBORMAIN_IRR	Ag	--	--	11/16/2018	11/16/2018	1	QTp

Notes: PWS – public water supply well, MW – monitoring well, Dom – domestic well, Ag – agricultural supply well, Qa – Alluvial Aquifer, QTp – Paso Robles Formation Aquifer

Figure 7-3. Groundwater Quality Monitoring Well Network



Atascadero Basin Groundwater Sustainability Plan San Luis Obispo County, California	 	Groundwater Quality Monitoring Well Network	
Atascadero Basin GSA		MAY 2020	FIGURE 7-3

7.4.1 *Groundwater Quality Monitoring Data Gaps*

Because the GSP groundwater quality monitoring network is based on existing supply wells, there are no spatial data gaps in the network. Table 7-4 summarizes the recommendations for groundwater quality monitoring from the BMPs, the current network, and data gaps. There is adequate spatial coverage in the network to assess impacts to beneficial uses and users. The primary data gap is that well construction info for many wells in the monitoring network is unknown. This is a data gap that will be addressed during GSP implementation.

Table 7-4. Summary of Groundwater Quality Monitoring, Best Management Practices, and Data Gaps

Best Management Practices (DWR, 2016a)	Current Network	Data Gap
<p>Monitor groundwater quality data from each principal aquifer in the basin that is currently, or may be in the future, impacted by degraded water quality.</p> <p>The spatial distribution must be adequate to map or supplement mapping of known contaminants.</p> <p>Monitoring should occur based upon professional opinion, but generally correlate to the seasonal high and low groundwater level, or more frequent as appropriate.</p>	<p>There are 54 municipal wells, 73 IRLP wells, and 55 monitoring wells associated with open/active SWRCB Geotracker contamination sites within the plan area that have been regularly sampled since at least 2015 for groundwater quality.</p>	<p>None; the current monitoring network contains adequate spatial distribution to map water quality in the basin.</p>
<p>Collect groundwater quality data from each principal aquifer in the basin that is currently, or may be in the future, impacted by degraded water quality.</p> <p>Agencies should use existing water quality monitoring data to the greatest degree possible. For example, these could include ILRP, GAMA, existing RWQCB monitoring and remediation programs, and drinking water source assessment programs.</p>	<p>Public databases provide adequate water quality information for degraded water quality.</p>	<p>Well depth and construction info for some wells in the monitoring network is unknown; however, there is adequate coverage in both principal aquifers.</p>
<p>Define the three-dimensional extent of any existing degraded water quality impact.</p>	<p>There are a large number of wells that are actively sampled.</p>	<p>Depth or construction information will need to be obtained for some wells to determine the vertical extent of contaminants.</p>
<p>Data should be sufficient for mapping movement of degraded water quality.</p>	<p>There are a large number of wells that are actively sampled.</p>	<p>None.</p>
<p>Data should be sufficient to assess groundwater quality impacts to beneficial uses and users.</p>	<p>Water quality monitoring program assesses impacts to agricultural, domestic, and municipal users.</p>	<p>None.</p>
<p>Data should be adequate to evaluate whether management activities are contributing to water quality degradation.</p>	<p>There are a large number of wells that are actively sampled.</p>	<p>Projects and actions may be developed. Water quality network will be evaluated and augmented if necessary.</p>

7.4.2 Groundwater Quality Monitoring Protocols

Water quality samples are currently being collected according to SWRCB and ILRP requirements and according to the monitoring plans associated with open/active SWRCB Geotracker contamination sites. ILRP data are currently collected under Central Coast RWQCB Ag Order 3.0. ILRP samples are collected under the Tier 1, Tier 2, or Tier 3 monitoring and reporting programs. Copies of these monitoring and reporting programs are included in Appendix 7B and incorporated herein as monitoring protocols. These protocols will continue to be followed during GSP implementation for the groundwater quality monitoring.

7.5 Land Subsidence Monitoring Network

The sustainability indicator for land subsidence is evaluated by monitoring land subsidence using interferometric synthetic-aperture radar (InSAR) data. As described in Section 5, land subsidence is monitored in the Basin by measuring ground elevation using microwave satellite imagery. This data is currently provided by DWR, covers the most recent three years of subsidence data (2015-2018), and is adequate to identify areas of recent subsidence. The GSA will continue to annually assess subsidence using the DWR provided InSAR data.

7.5.1 Land Subsidence Monitoring Data Gaps

Available data indicate that there is currently no long-term subsidence occurring in the Basin that affects infrastructure. There are no data gaps identified with the subsidence network at this time.

7.5.2 Land Subsidence Monitoring Protocols

The BMP notes that no standard procedures exist for collecting subsidence data. The GSA will continue to monitor data annually as part of GSP implementation. If additional relevant datasets become available, they will be evaluated and incorporated into the monitoring program. If monitoring indicates subsidence is occurring at a rate greater than the minimum thresholds, then additional investigation and monitoring may be warranted. In this case, the GSA would implement a study to assess if the observed subsidence can be correlated to groundwater elevations, and whether a reasonable causality can be established. The GSA will also consider subsidence surveys published by the USGS in assessing land subsidence across the Basin if they become available.

7.6 Interconnected Surface Water Monitoring Network

As discussed in Section 5, the spatial extent of interconnected surface water in the Basin was evaluated using water level data from confidential and non-confidential Alluvial Aquifer and Paso Robles Formation Aquifer wells adjacent to the Salinas River. The GSP groundwater level monitoring network (*see* Table 7-1 and Figure 7-2) contains all of the non-confidential wells used to evaluate interconnected surface water. As discussed in Section 7.2, an effort has been made to reach out to confidential well owners and offer them the opportunity to opt in to the GSP

groundwater level monitoring network. Several wells have been added to the GSP monitoring network as a result of this effort and the GSA will continue to make this effort during implementation. Regardless, as was done for the analysis in Section 5, water level data from the confidential wells will continue to be utilized for evaluations of interconnected surface water in the Basin. In accordance with the assessment of wells discussed in Section 7.2, nine Alluvial Aquifer wells and five Paso Robles Aquifer wells were identified that meet the criteria for inclusion in the GSP groundwater level monitoring network for monitoring shallow groundwater levels adjacent to the Salinas River. These monitoring wells are indicated in Table 7-1 and shown on Figure 7-4.

7.6.1 *Interconnected Surface Water Monitoring Data Gaps*

The existing GSP groundwater level monitoring network provides good coverage to evaluate interconnected surface water in both principal aquifers within the Basin. The network is of sufficient density and spatial distribution especially when coupled with three additional existing confidential wells in the SLOFCWCD groundwater level monitoring network. The potential need for an increased frequency of water level measurements, especially in spring months, to capture annual maximum groundwater levels will be evaluated during GSP implementation.

Although the county of San Luis Obispo(County) records releases from the Salinas Reservoir (upstream of the Basin) and completes “Live Stream” surveys (as described in Section 5) and there is an active USGS stream gaging station in the City of Paso Robles (USGS Station 11147500), there are no surface water gaging stations in the Basin. The potential need for installation of surface water gaging station(s) along the Salinas River within the Basin to aid in determining gaining/losing reaches will be evaluated during GSP implementation.

7.6.2 *Interconnected Surface Water Monitoring Protocols*

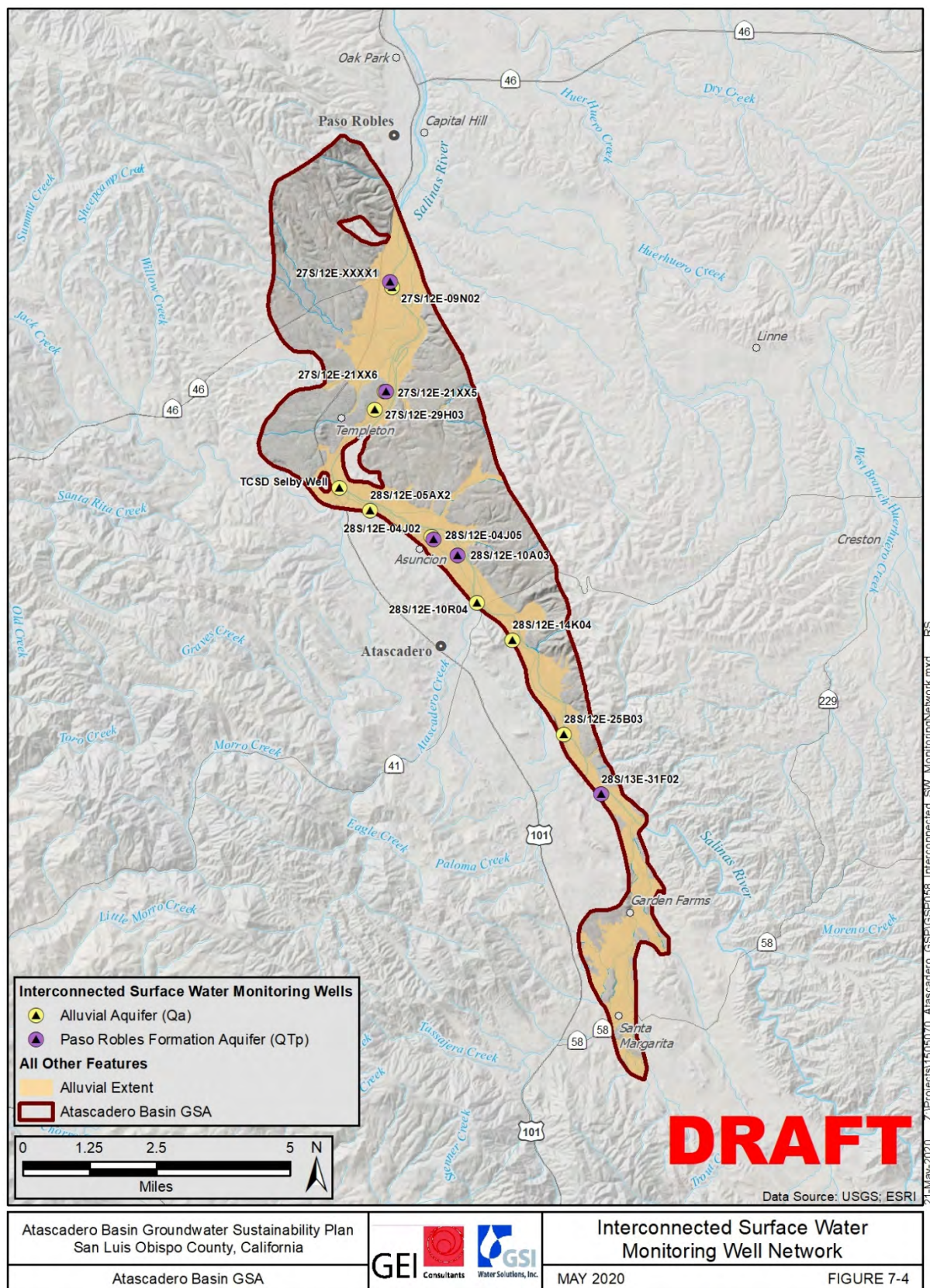
Water level monitoring will be conducted in accordance the protocols described in the water level monitoring network section of this section.

7.7 Data Management System and Data Reporting

The SGMA regulations provide broad requirements on data management, stating that a GSP must adhere to the following guidelines for a data management system (DMS):

- Article 3, Section 352.6: Each Agency shall develop and maintain a data management system that is capable of storing and reporting information relevant to the development or implementation of the GSP and monitoring of the Basin.
- Article 5, Section 354.40: Monitoring data shall be stored in the DMS developed pursuant to Section 352.6. A copy of the monitoring data shall be included in the Annual Report and submitted electronically on forms provided by the Department.

Figure 7-4. Interconnected Surface Water Monitoring Well Network



SGMA-related data for the Atascadero Basin will be incorporated into the county-wide Data Management System currently under development for the County as part of another project. The Atascadero Basin GSA and entities that collect and report data within the Basin will have access and authorization to enter their data into the County DMS.

The data and information stored in the DMS will be presented on a web-based map viewer that displays data relevant to SGMA implementation, GSP development, and annual reporting to the DWR. The map viewer accommodates data within and outside of GSA monitoring networks. The types of data visualized on the map and available via the map's navigation menu are listed in Table 7-5.

Table 7-5. Map Viewer Navigation

Menu Navigation	Description
Groundwater Levels	Water level data and associated wells with well completion reports.
Groundwater Storage	GSA groundwater storage monitoring network sites.
Water Quality	Water quality well and station data for greater than 100 constituents (e.g., Magnesium).
Land Subsidence	Subsidence data from extensometers and other stations plus InSAR data.
Interconnected Surface Water	Data related to the interconnected surface water sustainability indicator such as proximity wells, river and stream gages, precipitation stations, and more.
Seawater Intrusion	Sites (primarily wells) tracking the SGMA seawater intrusion sustainability indicator. This data set is not applicable to the Atascadero Basin, but will be present in the San Luis Obispo County DMS.
Hydrogeologic Conceptual Model (HCM)	Data useful for development of a hydrogeologic conceptual model of the basin including suitability of soil for recharge, geologic maps, and fault maps.
Boundaries	GSA and other relevant boundaries.

Data sources used to populate the DMS are listed on Table 7-6. Categories marked with an X indicate datasets that are publicly accessible. Data are compiled and reviewed to comply with data quality objectives. The review included the following checks:

- Identifying outliers that may have been introduced during the original data entry process by others.
- Removing or flagging questionable data being uploaded in the DMS. This applies to historic water level data, water quality data, and water level over time.

The data will be loaded into the database and checked for errors and missing data. Error tables will be developed to identify water level and/or well construction data that were missing. For water level data, another data quality check was completed by plotting well hydrographs to identify and remove anomalous data points.

In the future, well log information will be entered for selected wells and other information will be added as needed to satisfy the requirements of the SGMA regulations.

Table 7-6. Data Sources Used to Populate DMS

Data Sets	Data Category						
	Well and site info	Well construction	Aquifer properties and lithology (data to be added)	Water level	Pumping (data to be added)	Recharge (data to be added)	Water quality
DWR (CASGEM)	X	X		X			
San Luis Obispo County	X	X		X			
SRWCB Geotracker	X	X		X			
Geotracker GAMA	X						X

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Reference

California Department of Water Resources (DWR). 2016. California's Groundwater: Bulletin 118 Interim Update.



TO: Executive Committee

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

DATE: July 1, 2020

SUBJECT: Agenda Item 9.d, GSP Section 8, Sustainable Management Criteria (introduction)

RECOMMENDED ACTION:

Review information and concepts related to sustainable management criteria that must be included in the Groundwater Sustainability Plan.

DISCUSSION:

SGMA regulations require that a GSP include a section on Sustainable Management Criteria. The development of the Sustainable Management Criteria must be reasonable and supported by the best available information and science. This information will make up Section 8 of the GSP for the Atascadero Basin. According to SGMA regulations, Sustainable Management Criteria must include:

- Establishing sustainability goals
- Identifying undesirable results
- Establishing minimum thresholds
- Identifying measurable objectives and interim milestones

The development of these criteria relies upon information about the basin developed using the hydrogeologic model, the description of current and historical groundwater conditions, and the water budget. SGMA is outcome based, so the progress towards achieving sustainability will be measured at monitoring wells where minimum thresholds, measurable objectives, and interim milestones will be established during the development of the Groundwater Sustainability Plan.

FISCAL IMPACT:

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

ATTACHMENTS:



TO: Executive Committee

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

DATE: July 1, 2020

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 02 for the period Q2 2019 – Q1 2020 is attached.

The submittal of Invoice 02 and Progress Report 02 were delayed due to issues related to the processing of Invoice 01 under the grant amendment; the amendment that allowed the GSA to claim pre-grant award funding match for basin boundary modification studies.

Invoice 01 and Progress Report 01 were submitted in April 2019, covering the period 01/01/2015 - 03/31/2019. It was approved by the DWR on 04/24/2020. According to the grant manager, the approval delay was caused by in part by the large number of backup invoices that had to be reviewed (>250 pgs.) and in part because DWR ordered most region office staff to begin teleworking on 03/23/2020 due to COVID-19. Staff did submit quarterly progress reports and invoices quarters Q2 2019 - Q1 2020 as required by the grant agreement. These invoices and progress reports were returned by the grant manager who asked that they be combined into a single invoice and progress report. These changes delayed submittal of the combined documents until 05/07/2020.

The amount of information submitted with Inv 003 and future invoices is far more manageable than that submitted with Invoices 01 & 02. Staff does not anticipate delays in the processing of future invoices.

ATTACHMENTS:

- A. Progress Report, Q2 2019 – Q1 2020

ATTACHMENT A

Prop 1 SGWP Grant Progress Report

Grantee Name: Atascadero Mutual Water Company
Grant Agreement No.: 46-12646
Progress Report No.: 02
Reporting Period: 03/31/2019 – 03/31/2020
Prepared: April 1, 2020

Project: Atascadero Basin Groundwater Sustainability Plan

Completion Checklist	Completed?
Narrative Description	<input checked="" type="checkbox"/>
Appendix A – Status of Required Deliverables	<input checked="" type="checkbox"/>
Appendix B – Stakeholder Outreach & Coordination Documentation	<input checked="" type="checkbox"/>
Appendix C – GSP Development Activities	<input type="checkbox"/>
Appendix D – Project Photographs	<input type="checkbox"/>
Appendix E – Invoice Projections	<input checked="" type="checkbox"/>

Narrative Description(s)

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

Activity	% complete
Prepared & submitted Invoice 001 to DWR	100
Revised Invoice 001 per DWR comments, provided compiled add'l backup information	100
Prepared & submitted Progress Report 002 to DWR covering Q2 2019 – Q1 2020	90
Prepared & submitted Invoice 002 to DWR covering Q2 2019 – Q1 2020	90
Prepared & submitted Grant Amendment 001, approved by DWR	100

- **Impediments to Completion of Task**

There were delays in completing Invoice 1 which delayed the submittal of this Progress Report and Invoice 2 to DWR.

- **Describe activities that negatively or positively impacted the schedule and/or budget.**

There were delays in the preparation and processing of Invoice 2 because the delay in preparation of Invoice 1 which required submitting and subsequent approval of Amendment 1 to allow the GSA to claim pre-grant award funding match for basin boundary modification studies and DWR approval process of the new Atascadero sub-basin. The draft for Amendment 1 Invoice 1 was submitted in early Nov. 2019 covering the period from 2015 to 03/31/2019 and not approved by DWR until 12/02/2019. Until the Amendment was approved, Atascadero MWC couldn't submit the final Invoice 1 for approval since this invoice was the only opportunity to seek reimbursement for pre-grant award work on the basin boundary modification. While waiting for the Amendment approval, AMWC was further delayed making DWR requested changes to Invoice 1 because of some difficulties obtaining pre-grant award invoice backup material from GSA members. Once Invoice 1 was submitted in Jan. 2020, it wasn't approved and sent for signature by DWR until 04/24/2020. According to the grant manager, it was partly because of the large number of backup invoices that had to be reviewed (>250 pgs.) and partly because DWR ordered most Region Office staff to begin teleworking on 03/23/2020 due to COVID-19. While AMWC did submit draft quarterly reports/invoices for Q2 2019, Q3 2019, Q4 2019, and Q1 2020 separately on 04/07/2020, these were returned by the grant manager who asked that the individual invoices and progress reports be combined into one Invoice 2 and one Progress Report 2 which was done. The changes delayed submittal of the combined documents until 05/07/2020.

Budget Category (b): Stakeholder Engagement

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 to Executive Committee re: cancelation of January 8, 2020	100
Cancel April 1, 2020 Executive Committee due to Corona virus: noticed on website and GCP. Notify interested parties' list of cancelation using GCP.	100
Reviewing options for Stakeholder outreach and coordination meeting in response to COVID-19 pandemic	50
Provide progress report to Executive Committee and post on GCP	100

- Impediments to Completion of Task**

There were some impediments to the stakeholder outreach task during this period resulting from the COVID-19 pandemic that prevented in-person attendance at workshops and executive committee meetings.

- Describe activities that negatively or positively impacted the schedule and/or budget.**

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 prolonged social distancing orders that are anticipated.

Budget Category (c): GSP Development

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	50
Developed approach to groundwater dependent ecosystems evaluation	30
Review consultant task orders for the Phase 2 work, which includes preparation of the following sections of the GSP over the next three quarters: 6. Water Budget 7. Sustainable Management Criteria 8. Monitoring Network 9. Projects & Management Actions 10. Implementation Plan	25

- **Impediments to Completion of Task**

There were delays in rolling-out 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.**

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.

3. Major activities for next reporting period:

The next reporting period includes April 1, 2020 through June 30, 2020. Anticipated activities are listed below.

Budget Category (a): Grant Administration

Activity
Prepare & submit Invoice 3 to DWR
Prepare & submit Progress Report 3 to DWR

Budget Category (b): Stakeholder Engagement

Activity
Hold Working Group meeting to review draft of GSP section 6 (Water Budget) and draft SGP Section 8 (Monitoring Network) via webinar
Hold July 1, 2020, Executive Committee meeting via webinar

Budget Category (c): GSP Development

Activity
Finalize draft Sections 6 – 8 of the GSP in Q2, 2020
Collect gaging data and begin to populate data management system
Complete groundwater dependent ecosystems initial assessment

Appendix A

Status of Required Deliverables

Provide a status table for each Project or Component separately. Once set up, this section should not change except for the % of Work Complete and Date Submitted. Please delete these instructions prior to submitting.

Budget Category

Work Item #: *The table should number and list all items for review included in the grant agreement. Provide work item Task Number as applicable.*

Budget Category Work

Items for Review: *The table should list all items for review included in the grant agreement. The information provided should be cumulative from the start of the project. The table should provide an at-a-glance status of the project work items.*

% Of Work Complete: *Cumulative percentage of work complete to date. This does not have to be in line with the percent invoiced; however, the two should be close.*

Date Submitted: *For items for review that are submitted more than once (i.e., progress reports), please leave previous submittal dates on the table so that there is a list of dates within the box. If a draft item for review is submitted, write “draft” after the date.*

Table A-1. Atascadero Basin GSP Deliverables Status

Budget Category Work Item#	Budget Category Work Items for Review	% Of Work Complete	Date Submitted
(a)	Grant Administration		
	Invoices and associated backup documentation	20%	Various
	Progress Reports	30%	Various
	Draft and Final Grant Completion Report		
(b)	Stakeholder Engagement		
	Communication and Engagement Plan	100%	April 3, 2019
	Atascadero Groundwater Communication Portal	100%	April 3, 2019: deployed
(c)	GSP Development		
	Section 1. Introduction to Atascadero basin GSP	100%	April 3, 2019
	Section 2. Agency Information	100%	April 3, 2019
	Section 3. Description of Plan Area	100%	July 10, 2019
	Section 4. Hydrogeologic Conceptual Model	100%	October 2, 2019
	Section 5. Groundwater Conditions	100%	October 2, 2019
	Section 6. Water Budget	30%	
	Section 7. Monitoring Networks	50%	
	Section 8. Sustainable Management Criteria	20%	
	Section 9. Projects and Management Actions		
	Section 10. Implementation Plan		
	Section 11. Notice and Communications		
	Section 12. Interagency Agreements		
	Section 13. Reference List	20%	
	Draft GSP		
	Final Draft GSP and associated GSP content		

Appendix B

Stakeholder Outreach and Coordination Documentation

USE AS NEEDED: Add sign-in sheets, presentations (small, 6 slides per page), meeting materials, additional information, etc. as needed to accompany the description(s) provided in the Narrative Description portion of this report. **DO NOT** provide another description here and duplicate work. This is only for attachments for backup documentation of the description and is to only be used when necessary. If you use this appendix, please refer to these documents in the Narrative Description portion of the report.



Atascadero Groundwater Basin

Notice of Preparation Groundwater Sustainability Plan

You are receiving this notice because San Luis Obispo County assessor records show that you own property that overlies the Atascadero Groundwater Basin.

The County of San Luis Obispo, Cities of Atascadero and Paso Robles, Templeton Community Services District, Atascadero Mutual Water Company, and other entities have formed a Groundwater Sustainability Agency (GSA) for the Atascadero Basin in accordance with the Sustainable Groundwater Management Act (SGMA). The purpose of the agency is to develop a SGMA-compliant Groundwater Sustainability Plan (GSP) for the basin.

We invite you participate in the process of developing the Groundwater Sustainability Plan (GSP) for the Atascadero Basin.

- **Attend meetings.** Preparation of the GSP has begun, and your input during the GSP development process is essential. The GSA is governed by an Executive Committee that meets quarterly. Meetings are held in the board room of Templeton Community Services District. The next meeting is July 10, 2019.
- **Complete the questionnaire.** Enclosed is a questionnaire. Your responses will help guide the development of the GSP. Return completed questionnaires to:

Atascadero Basin GSA
c/o Atascadero Mutual Water Co.
P.O. Box 6075
Atascadero, CA 93423

- **Register as an interested party.** For information regarding SGMA efforts, or to receive emails about SGMA compliance in the Atascadero Basin, or comment on the draft sections of the GSP, please visit the website www.AtascaderoBasin.com and register as an interested party.

Questions? Please contact:

John Neil, General Manager, Atascadero Mutual Water Company at (805) 464-5351 or jneil@amwc.us

Atascadero Basin Stakeholder Survey

Thank you for taking the time to share your thoughts and concerns with us. All information will be collected, analyzed, and shared in aggregate. Individual responses will remain confidential.

1. Are you familiar with the Sustainable Groundwater Management Act (SGMA)? Yes
No
 2. Are you currently engaged in activities or discussions regarding groundwater management in this region?
Yes

No
 3. Do you own or manage land in this region?
Yes

No
 - 3b. If yes, what is the approximate size (in acres) of the largest land area you own or manage in this region?

Residential (under 1 acre)

1-5 acres

6-20 acres

21-100 acres

More than 100 acres

Decline to state
 - 3c. If yes, please tell us about your current land use and are you planning any future changes in land use or water use in the next 20 years? *(optional)*
-

4. Where do you get your water supply?
Private well

Mutual Water Company or Community Service District

Unsure

Other, please specify _____

4b. *If private well is selected in Q1, what is your well depth? If you are unsure, please leave this field blank. (optional)*

4c. *If private well is selected in Q1, has your well ever gone dry? Yes*

No

Unsure

5. Please indicate which type(s) of stakeholder best describes you (select all that apply): Residential user of water

Ag user of water

Environmental user of water

Entity responsible for monitoring and reporting groundwater data

Local land use planning agency

California Native American Tribe

Disadvantaged/Rural Community

Federal government

Other, please specify _____

6. Do you manage water resources?

Yes

No

6b. *If yes, please tell us more about your role. (optional)*

7. What is your primary interest in land or water resource management? *(optional)*

8. Do you have concerns about groundwater management?

Yes

No

8b. *If yes, what are your groundwater management concerns? (optional)*

9. Do you have recommendations regarding groundwater management?

Yes

No

9b. If yes, what are your groundwater management recommendations? *(optional)*

10. Through which mediums would you prefer to receive SGMA updates, public meeting notices, etc.?

Select all that apply.

Email

Direct postal mail

Direct call

Along with my water bill

Newspaper

Social media

Website

Radio

Public workshops/meetings

Other, please specify _____

11. Please use the space below to share any other information, thoughts, concerns, etc. regarding groundwater management in your area. *(optional)*

12. Please identify any other individuals, agencies, groups, resources, experts, etc. you'd recommend us being in contact with as we develop the Atascadero GSP. *(optional)*

Please provide your contact information below.

Name: _____ Date: _____

Organization or Business Name: _____

Address: _____

Phone: _____ Email: _____

Atascadero Basin Stakeholder Survey Results

Throughout the months of April, May, and June 2019, the Atascadero Basin Groundwater Sustainability Agency (GSA) conducted a stakeholder survey to assess the interests and concerns of parties within and around the groundwater basin. The surveys were mailed to 598 property owners whose properties overlie the basin, and who are not within the service area of a community water system. Hard copies of the survey were available during meetings of the GSA Executive Committee.

There were 47 responses to the survey. All responders indicated they own or manage land in the region. **Figure 1** shows the variation in size of the land areas owned or managed by responders.

Approximately half¹ of the survey respondents indicated they were familiar with the Sustainable Groundwater Management Act (SGMA). This result may point to a need to communicate the basics of SGMA and how it will impact local parties.

Respondents indicated that their land is utilized primarily for residential, agricultural, equestrian, and grazing/livestock uses. All but one survey respondent indicated that their water supply is a private well. Of the well owners, two reported that their well had gone dry at least one time.

When asked, “What is your primary interest in land or water resources management,” responses varied but centered around the following themes:

- Sustainable water supply
- Fair distribution and protection of the Basin’s resources
- Understanding and feeling comfortable with local water management decisions

As shown on **Figure 2**, the majority of respondents have concerns about groundwater management.

Concerns generally fell into the following categories:

- Demand exceeding supply
- Preventing degrade of water quality
- Keeping local control

Responses from the survey were compiled and will be considered as development of a Groundwater Sustainability Plan (GSP) for the Atascadero Basin continues.

Figure 1. Total acres owned or managed by survey responders

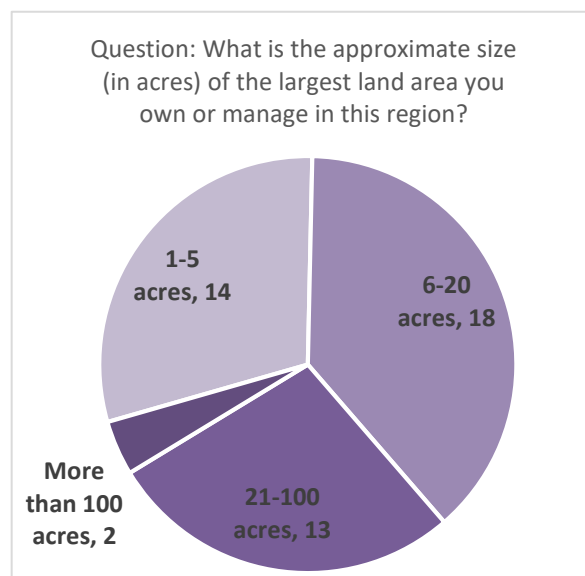
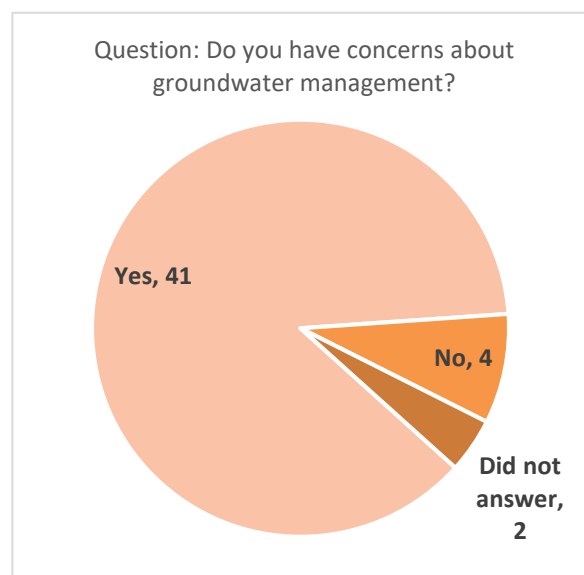


Figure 2. Respondents concerned about groundwater management



¹ Responses were 25 yes; 21 no; 1 did not answer; 1 somewhat

UPDATE

Atascadero Groundwater Basin

April 2020 Update

Meetings Postponed Until Further Notice

After careful consideration, the Atascadero Basin GSA Executive Committee has decided to postpone meetings until further notice. We will continue to monitor the COVID-19 situation and modify our meeting schedule to ensure your safety and your continued opportunity to provide valuable input into the development of the Atascadero Basin Groundwater Sustainability Plan.

We'll notify you via email as details for future meetings are confirmed. To receive emails, visit <https://portal.atascaderobasin.com> and register as an interested party.

Groundwater Sustainability Plan Update

On October 2, 2019, [Section 4](#) and [Section 5](#) of the Atascadero Basin Groundwater Sustainability Plan (GSP) were presented at the Executive Committee Meeting and released to the public for comment. Comments were collected using an online form at <https://portal.atascaderobasin.com>. The comment period was scheduled to close in November but was extended through December 19, 2019 to provide additional opportunity for interested parties to comment. The comment period is now closed. General comments are still welcome.

Managing Changing Conditions

The Atascadero Basin GSP schedule has been modified due to the COVID-19 pandemic. The end date for the Final GSP in April 2021 and Public Hearing to adopt in July 2021 remain unchanged. The time period for development of Sections 6, 7, and 8 has been extended to allow an improved opportunity for public participation. The GSP development team is currently exploring methods to best engage interested parties while maintaining safety as the number one priority.

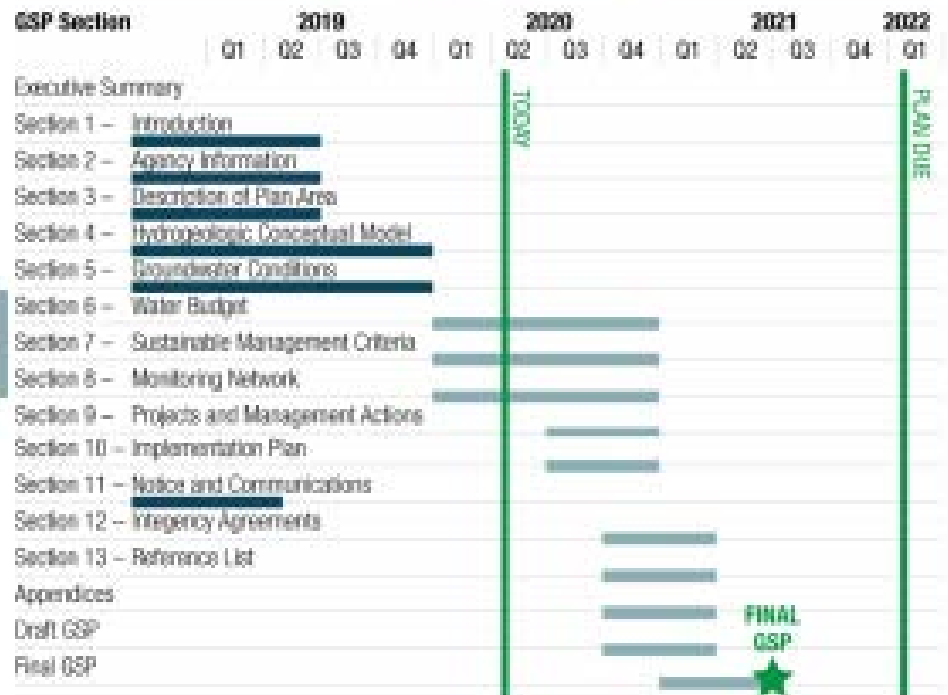
ATASCADERO BASIN
Groundwater
Sustainability Agency

Stay Informed

Register as an interested party to receive updates about the GSP process in the Atascadero Basin
<https://portal.atascaderobasin.com/>

Atascadero Basin GSP Schedule

Development of Sections 6, 7, and 8 now extend through 2020 to allow an improved opportunity for public participation



What's Next?

We'll notify you via email as details for future meetings are confirmed.

- To receive emails, visit <https://portal.atascaderobasin.com> and register as an interested party.
- For more information on the Atascadero Basin, visit our website at www.atascaderobasin.com.
- If you have any questions, please contact Plan Manager John Neil at jnail@amwcus.com.

Thank you for your continued support.



Appendix C

GSP Development Activities

USE AS NEEDED: Add sign-in sheets, presentations (small, 6 slides per page), meeting materials, additional information, etc. as needed to accompany the description(s) provided in the Narrative Description portion of this report. **DO NOT** provide another description here and duplicate work. This is only for attachments for backup documentation of the description and is to only be used when necessary. If you use this appendix, please refer to these documents in the Narrative Description portion of the report.

Appendix D
Project Photographs

Appendix E

Invoice Projections

Provide an estimate of the cash flow anticipated for the life of the grant and for each project/component. A table must be provided for each project/component in your grant that has a separate PIN. This section should be updated every quarter if the estimates of reimbursement requires increasing. The State sells General Obligation Bonds as needed and projected. It is safer to err on the high side in the beginning of the grant and taper off towards the end of the grant. This, of course, will occur once all cost share requirements have been met for a budget Category.

Agreement Number: **4600012646**
Funding Match: **\$850,758**
Grant Share: **\$809,250** *italicized=actual billing*

TOTAL: **\$1,660,008**

Calendar Year (CY)	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
2019 Funding Match	\$379,962	\$41,789	\$31,993	\$11,967	\$465,711
2019 Grant Share	\$90,829	\$78,826	\$60,153	\$17,462	\$247,270
TOTAL	\$470,791	\$120,615	\$92,146	\$29,429	\$712,981
2020 Funding Match	\$13,222	\$75,000	\$75,000	\$75,000	\$238,222
2020 Grant Share	\$23,322	\$120,000	\$120,000	\$120,000	\$383,322
TOTAL	\$36,544	\$195,000	\$195,000	\$195,000	\$621,544
2021 Funding Match	\$75,000	\$71,825			\$146,825
2021 Grant Share	\$120,000	\$58,658			\$178,658
TOTAL	\$195,000	\$130,483			\$325,483
Note: Q1-2019 Funding Match amount includes 2015-2018 pre-grant award funding match amounts on Inv. 1.				Total Funding Match	\$850,758
				Total Grant Share	\$809,250
				TOTAL	\$1,660,008

