Appendix 5-4

Sonoma Valley Subbasin
Groundwater Quality Monitoring Network Evaluation

February 18, 2026

INTRODUCTION

An evaluation of the Sonoma Valley Subbasin (Subbasin) groundwater quality monitoring network was undertaken as part of the Subbasin's first Periodic Evaluation. The purpose of the evaluation was to refine and simplify the arsenic and nitrate, and Total Dissolved Solids (TDS) representative monitoring networks (networks) as well as address the groundwater quality network recommended corrective action identified by the Department of Water Resources (DWR) in their 2023 Groundwater Sustainability Plan (GSP) determination letter for the Subbasin (DWR, 2023). The evaluation includes all representative monitoring points (RMPs) in the GSP networks and additional public supply wells available through the State Water Resources Control Board's Division of Drinking Water database. This evaluation informed the revised groundwater quality monitoring network for the Periodic Evaluation.

The approach to the evaluation includes three main steps:

1. **GSP Monitoring Network Evaluation**: Review public drinking water supply wells sampled in the GSP groundwater quality monitoring networks and assess their annual sampling frequency for the 2021-2025 evaluation cycle;

2. **Criteria Assignment**: Apply criteria to evaluate each well's suitability for monitoring based on recent sample data, well construction information, and location, then assign a criteria score to each well by COC network;

3. **Geospatial Evaluation and Network Refinements**: Conduct geospatial analysis for each network and identify RMPs to remove, retain, or wells to add to the refined network based on the wells' criteria score.

The following sections describe each of these steps including the technical processes and results from the groundwater quality network evaluation.

Background and Purpose

During the 2021 GSP development, RMPs were identified for the arsenic, nitrate, and TDS monitoring networks, and groundwater quality data collected from 2015 to 2019 were used to assess baseline conditions at those RMPs. Data collected from 2021-2025 (current evaluation cycle) in the 2021 GSP networks have been used annually to determine if there are minimum threshold (MT) exceedances for each of the three constituents of concern (COC). Exceedances of MTs are based on the number of RMPs exceeding regulatory standards during the baseline assessment period.

Table 1 shows during the 2015-2020 baseline period there were 11 arsenic maximum contaminant level (MCL) exceedances, one nitrate MCL exceedances, and two TDS MCL exceedances. Therefore, according to the definition of an MT in the GSP, annual assessment relative to the MT would require at least 12 RMPs to be sampled for arsenic, at least two RMPs to be sampled for nitrate, and at least three RMPs to be sampled for TDS. Table 1 summarizes the MTs for each COC and compares the number of RMPs sampled and the exceedances observed over the past five years.

Variations in annual sample frequency in the past five years compared to the total wells in the GSP networks (Table 1) indicate that many wells included in the baseline assessment may not be active and sampling may have been discontinued at some supply wells—identifying a need for network refinement. Table 1 also indicates that, for each year of the evaluation cycle (2021–2025), an insufficient number of RMPs in the TDS network were sampled, rendering these public supply wells unsuitable for TDS monitoring. To improve sampling frequency, the TDS monitoring network will be aligned with the groundwater level monitoring network, and TDS will be field-measured at all shallow and deep groundwater level RMPs when groundwater levels are measured, twice per year. The following sections evaluate the monitoring networks for nitrate and arsenic only.

Table 1. Summary of Annually Reported Groundwater Quality Data (2021-2025) Compared to Baseline Conditions

Constituent of Concern	Minimum Threshold (No. of MCL Exceedances Allowed)	RMP Sampled in											
		2015-2020		2021		2022		2023		2024		2025	
		Total Wells	No. of Wells Exceeding MCL	Total Wells	No. of Wells Exceeding MCL	Total Wells	No. of Wells Exceeding MCL	Total Wells	No. of Wells Exceeding MCL	Total Wells	No. of Wells Exceeding MCL	Total Wells	No. of Wells Exceeding MCL
Arsenic	12	25	11	13	8	15	9	13	6	14	7	14	8
Nitrate	2	40	1	30	0	29	0	29	0	28	0	32	0
TDS	3	11	2	0	0	1	0	2	1	1	0	1	0

GSP NETWORKS' SAMPLE FREQUENCY EVALUATION

The networks were evaluated on a COC basis to identify annual sample data for each RMP. Table 2 and Table 3 identify RMPs included in the respective 2021 GSP networks and indicate which years (if any) the RMP was sampled from 2021 to 2025.

Table 2 shows that 20-percent of the GSP arsenic network have not been sampled within the past five years and 40-percent have been sampled each year during this evaluation cycle (2021-2025). From the 2021-2025 data contained in Table 3, 63-percent of the nitrate network RMPs were sampled each year and 8-percent were not sampled at any time during the evaluation cycle (2021-2025).

Table 2. GSP Network RMPs Sampled for Arsenic During the Evaluation Period (2021 to 2025)

Well ID	RMP Sampled In					Screen Interval (feet bgs)
	2021	2022	2023	2024	2025	
CA4900533_001_001	-	-	Yes	-	-	64-132
CA4900871_004_004	-	Yes	-	Yes	Yes	Missing
CA4900909_002_002	Yes	Yes	Yes	Yes	Yes	155-235
CA4900945_002_002	-	-	Yes	-	-	220-300
CA4900973_002_002	Yes	Yes	Yes	Yes	Yes	0-103
CA4901061_001_001	Yes	Yes	Yes	Yes	Yes	465-565
CA4901218_001_001	Yes	Yes	Yes	Yes	Yes	Missing
CA4901225_001_001	Yes	Yes	Yes	Yes	Yes	0-100
CA4901247_001_001	Yes	Yes	Yes	Yes	Yes	210-770
CA4901254_004_004	Yes	-	-	Yes	Yes	420-480
CA4901258_001_001	Yes	Yes	Yes	Yes	Yes	195-755
CA4901258_002_002	Yes	Yes	-	-	Yes	195-755
CA4901273_001_001	Yes	-	-	-	-	80-360
CA4901278_001_001	Yes	-	-	Yes	-	0-50
CA4901294_001_001	-	-	-	-	-	100-720
CA4901332_001_001	Yes	Yes	Yes	Yes	Yes	100-640
CA4901345_001_001	Yes	Yes	Yes	Yes	Yes	180-500
CA4901366_001_001	Yes	-		Yes	-	80-360
CA4901366_004_004	Yes	Yes	Yes	Yes	Yes	180-580
CA4901446_001_001	Yes	Yes	-	-	Yes	400-415
CA4901466_001_001	-	-	-	-	-	100-165
CA4910012_005_005	-	-	-	-	-	530-730
CA4910013_003_003	-	-	Yes	-	-	0-170
CA4910013_019_019	-	-	-	-	-	Missing
CA4910013_024_024	-	-	-	-	-	Missing

Table 3. GSP Network RMPs Sampled for Nitrate During the Evaluation Period (2021 to 2025)

Well ID	RMP Sampled In					Screen Interval, feet bgs
	2021	2022	2023	2024	2025	
CA4900533_001_001	Yes	Yes	Yes	Yes	Yes	64-132
CA4900871_004_004	Yes	Yes	Yes	Yes	Yes	Missing
CA4900909_002_002	Yes	Yes	Yes	Yes	Yes	155-235
CA4900924_001_001	-	-	Yes	-	-	Missing
CA4900945_002_002	Yes	Yes	Yes	Yes	Yes	220-300
CA4900973_002_002	Yes	Yes	Yes	Yes	Yes	0-103
CA4901061_001_001	Yes	Yes	Yes	Yes	Yes	465-565
CA4901069_001_001	Yes	Yes	Yes	Yes	Yes	430-530
CA4901083_002_002	Yes	Yes	-	-	Yes	280-580
CA4901193_001_001	Yes	Yes	Yes	Yes	Yes	Missing
CA4901218_001_001	Yes	Yes	Yes	Yes	Yes	Missing
CA4901225_001_001	Yes	Yes	Yes	Yes	Yes	0-100
CA4901231_001_001	Yes	Yes	Yes	Yes	Yes	160-260
CA4901234_001_001	Yes	Yes	-	Yes	Yes	Missing
CA4901247_001_001	Yes	Yes	Yes	Yes	Yes	210-770
CA4901254_004_004	Yes	Yes	Yes	Yes	Yes	420-480
CA4901258_001_001	Yes	Yes	Yes	Yes	Yes	195-755
CA4901258_002_002	Yes	Yes	Yes	Yes	Yes	195-755
CA4901273_001_001	Yes	Yes	-	-	Yes	80-360
CA4901275_001_001	Yes	-	Yes	Yes	Yes	65-105
CA4901278_001_001	Yes	Yes	Yes	Yes	Yes	0-50
CA4901294_001_001	Yes	Yes	Yes	-	-	100-720
CA4901310_001_001	Yes	Yes	Yes	Yes	Yes	Missing
CA4901332_001_001	Yes	Yes	Yes	Yes	Yes	100-640
CA4901345_001_001	Yes	Yes	Yes	Yes	Yes	180-500
CA4901361_001_001	Yes	Yes	Yes	Yes	Yes	170-350
CA4901366_001_001	Yes	Yes	-	-	-	80-360
CA4901366_004_004	Yes	Yes	-	Yes	Yes	180-580
CA4901375_001_001	Yes	Yes	-	-	Yes	Missing
CA4901383_001_001	Yes	Yes	Yes	Yes	Yes	Missing
CA4901388_001_001	Yes	Yes	Yes	Yes	Yes	Missing
CA4901413_001_001	Yes	Yes	Yes	-	-	Missing
CA4901433_001_001	Yes	Yes	Yes	Yes	Yes	Missing
CA4901446_001_001	Yes	Yes	-	-	Yes	400-415

Table 3. GSP Network RMPs Sampled for Nitrate During the Evaluation Period (2021 to 2025)						
Well ID	RMP Sampled In					Screen Interval, feet bgs
	2021	2022	2023	2024	2025	
CA4901447_001_001	Yes	Yes	-	-	-	Missing
CA4901466_001_001	Yes	Yes	Yes	Yes	Yes	100-165
CA4910012_005_005	-	-	-	-	-	530-730
CA4910013_003_003	Yes	Yes	Yes	Yes	Yes	0-170
CA4910013_019_019	-	-	-	-	-	Missing
CA4910013_024_024	-	-	-	-	-	Missing

CRITERIA ASSIGNMENT

Monitoring network evaluation criteria were developed as a systematic approach to refine the networks. Each RMP in the existing arsenic and nitrate networks was assessed based on recent groundwater quality data availability (2021–2025), sampling consistency, availability of screened interval information, and location. The wells were evaluated independently for each COC and assigned a score from 1 to 7, with higher scores indicating greater suitability for assessing groundwater quality. The resulting criteria scores were used to guide network refinement by identifying RMPs for removal due to lack of recent sampling (score of 1), wells requiring further spatial evaluation to avoid creating data gaps (scores of 2, 3, or 4), and wells to retain in the respective networks due to consistent recent sampling (scores of 5, 6, or 7).

Table 4 summarizes the groundwater quality network criteria applied to each RMP and COC network. For each criteria score, it includes the criteria definition and corresponding preliminary decision guiding network refinement.

Table 4. Groundwater Quality Network Evaluation Criteria		
Criteria Score	Criteria Definition	Preliminary Decision to Keep, Remove, or Further Evaluate the RMP (For Each Constituent of Concern)
1	Well not sampled in the past 5 years (2021-2025)	Remove
2	Well has missing perforation data & has at least 1 sample taken in the past 5 years (2021-2025)	Remove if there is a higher ranked RMP within 0.5 miles, if not keep RMP (to not create data gap)
3	Well has perforation data & has at least 1 sample taken in the past 5 years (2021-2025)	Remove if there is a higher ranked RMP within 0.5 miles, if not keep RMP (to not create data gap)
4	Well has missing perforation data & has at least 3 samples taken in the past 3 years (2023-2025)	Remove if there is a higher ranked RMP within 0.5 miles, if not keep RMP (to not create data gap)
5	Well has perforation data & has at least 3 samples taken in the past 3 years (2023-2025)	Keep

Table 4. Groundwater Quality Network Evaluation Criteria		
Criteria Score	**Criteria Definition**	**Preliminary Decision to Keep, Remove, or Further Evaluate the RMP (For Each Constituent of Concern)**
6	Well has missing perforation data & samples from 2021-2025	Keep
7	Well has samples from 2021-2025 & has perforation data (ideal)	Keep

After scoring each RMP using the evaluation criteria, additional public supply wells not included in the existing networks were reviewed for potential inclusion to the network. To be considered, a well needed to have at least one sample for any COC in each year from 2021 to 2025 and be located more than 0.5 miles away from an existing well in the revised network. Although some public supply wells met the sampling frequency criteria for arsenic and nitrate, none filled a spatial data gap. Therefore, no additional public supply wells were added to the existing groundwater quality monitoring networks.

The following subsections describe the distribution of the criteria scores for existing RMPs in the arsenic and nitrate networks.

Arsenic Monitoring Network Criteria Evaluation

Figure 1 shows the spatial distribution of criteria scores for the 25 public supply well RMPs in the existing arsenic network. The RMPs are symbolized by their criteria score defined in Table 4. The criteria evaluation for the arsenic monitoring network indicates 20-percent of the RMPs were not sampled from 2021 to 2025 (score of 1), 40-percent have at least one sample taken in the past five years (score of 2 or 3), and 40-percent have had annual arsenic monitoring (score of 6 or 7). There are no scores of 4 or 5.

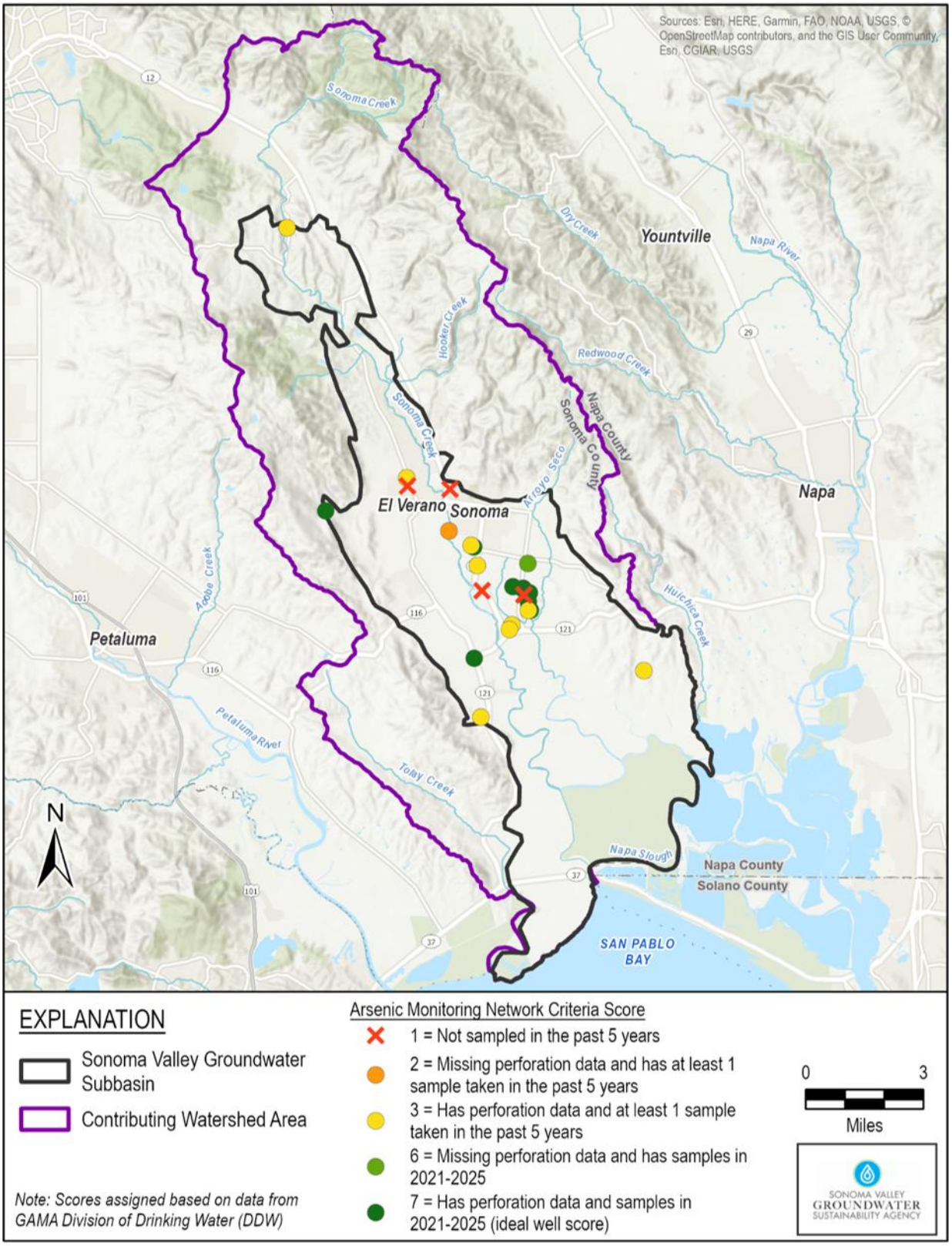

Figure 1. Arsenic Monitoring Network Criteria Scores Across the Sonoma Valley Subbasin

Nitrate Monitoring Network Criteria Evaluation

Figure 2 shows the spatial distribution of criteria scores for the 40 public supply well RMPs in the existing nitrate network. The RMPs are symbolized by their criteria score defined above (Table 4). The criteria evaluation for the nitrate monitoring network indicate that 8-percent of the RMPs have not been sampled from 2021 to 2025 (score of 1), 28-percent have at least one sample taken in the past five years (score of 2 or 3), one RMP has been sampled annually over the past three years (score of 5), and 63-percent have been monitored for nitrate in the past five years (scores of 6 or 7).

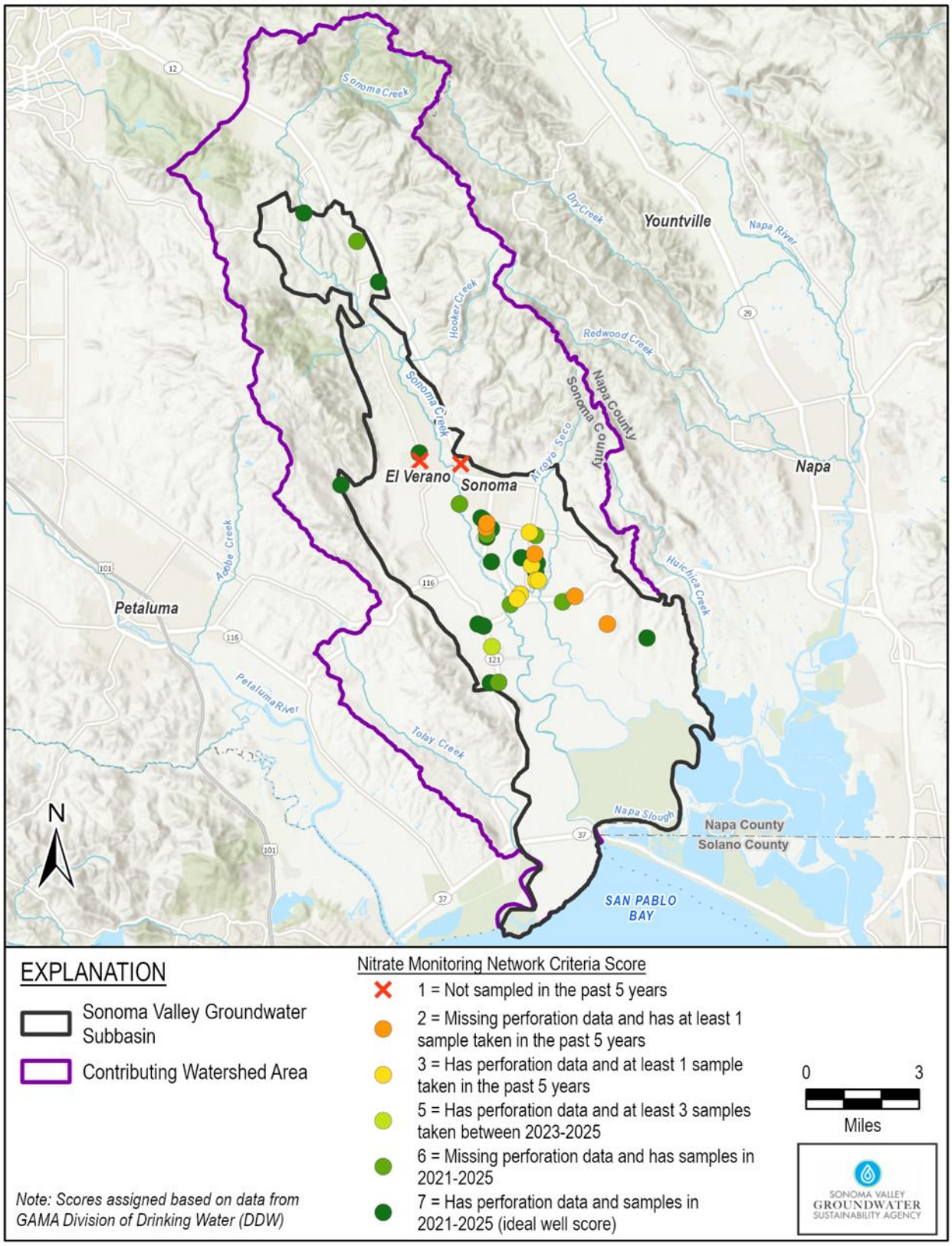

Figure 2. Nitrate Monitoring Network Criteria Scores Across the Sonoma Valley Subbasin

GEOSPATIAL EVALUATION AND NETWORK REFINEMENTS

The criteria score results were spatially assessed against each RMP in the networks using ArcGIS. As described above, RMPs that have not been sampled in the past five years are unsuitable for assessing future groundwater quality conditions in the Subbasin. Therefore, RMPs with scores of 1 were removed from the networks. RMPs with scores of 5, 6, or 7 were retained in the network due to consistent recent annual sampling. Wells with scores of 2 through 4 were assessed spatially and compared to surrounding public supply wells' criteria scores, using a half mile radius. The spatial assessment resulted in one of the following decisions for network refinement:

1. Remove the RMP from the network if it is within a half mile of a higher ranked well that would replace it, or
2. Retain the RMP in the network if it is more than a half mile away from a higher ranked well, to ensure adequate spatial coverage

The following subsections summarize the geospatial evaluation for the arsenic and nitrate networks, respectively.

Arsenic Monitoring Network Evaluation Results

Of the 25 RMPs in the arsenic network, 8 were removed, five of which had scores of 1 and three had scores of 3. A total of 17 wells of the initial 25 were retained in the arsenic RMP network. Table 5 summarizes the criteria score for each RMP, the criteria evaluation decision, and the rationale supporting the decision to keep or remove the RMP following the spatial analysis for all RMPs in the arsenic network. Figure 3 shows the location of each RMP and identifies if it was removed or retained in the network after the geospatial analysis. Table 6 provides information on the water system, well construction, recent annual sample frequency, and coordinates for the 17 RMPs in the revised arsenic monitoring network.

Table 5. Arsenic Network Criteria Scores and Geospatial Evaluation Results

Representative Monitoring Point Well ID	Criteria Score for Geospatial Evaluation	Geospatial Evaluation Decision	Geospatial Evaluation Decision Description
CA4900533_001_001	3	Keep	Keep because more than 0.5 miles from a higher ranked well
CA4900871_004_004	2	Keep	Keep because more than 0.5 miles from a higher ranked well
CA4900909_002_002	7	Keep	Keep because Score > 4
CA4900945_002_002	3	Remove	Remove because less than 0.5 miles from a higher ranked well
CA4900973_002_002	7	Keep	Keep because Score > 4
CA4901061_001_001	7	Keep	Keep because Score > 4
CA4901218_001_001	6	Keep	Keep because Score > 4

Table 5. Arsenic Network Criteria Scores and Geospatial Evaluation Results			
Representative Monitoring Point Well ID	**Criteria Score for Geospatial Evaluation**	**Geospatial Evaluation Decision**	**Geospatial Evaluation Decision Description**
CA4901225_001_001	7	Keep	Keep because Score > 4
CA4901247_001_001	7	Keep	Keep because Score > 4
CA4901254_004_004	3	Keep	Keep because more than 0.5 miles from a higher ranked well
CA4901258_001_001	7	Keep	Keep because Score > 4
CA4901258_002_002	3	Remove	Remove because less than 0.5 miles from a higher ranked well
CA4901273_001_001	3	Keep	Keep because more than 0.5 miles from a higher ranked well
CA4901278_001_001	3	Keep	Keep because more than 0.5 miles from a higher ranked well
CA4901294_001_001	1	Remove	Remove because Score = 1
CA4901332_001_001	7	Keep	Keep because Score > 4
CA4901345_001_001	7	Keep	Keep because Score > 4
CA4901366_001_001	3	Remove	Remove because less than 0.5 miles from a higher ranked well
CA4901366_004_004	7	Keep	Keep because Score > 4
CA4901446_001_001	3	Keep	Keep because more than 0.5 miles from a higher ranked well
CA4901466_001_001	1	Remove	Remove because Score = 1
CA4910012_005_005	1	Remove	Remove because Score = 1
CA4910013_003_003	3	Keep	Keep because more than 0.5 miles from a higher ranked well
CA4910013_019_019	1	Remove	Remove because Score = 1
CA4910013_024_024	1	Remove	Remove because Score = 1

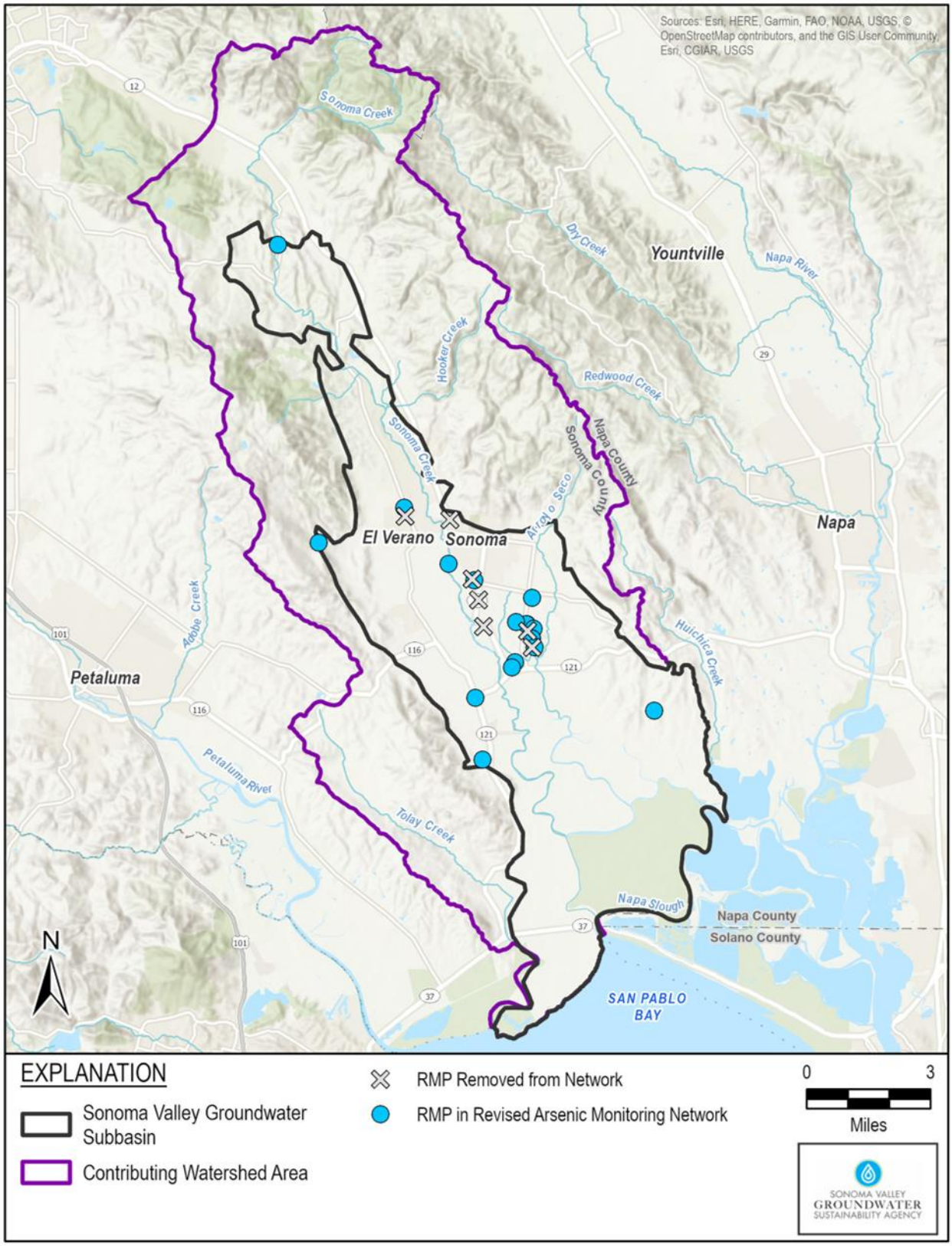

Figure 3. Location of Retained and Removed Wells in the Arsenic Monitoring Network

Table 6. Summary of Sonoma Valley Subbasin Public Supply Wells in the Revised Arsenic Monitoring Network

Representative Monitoring Point Well ID	Screen Interval (feet bgs)	Water System	Recent Sample Year (2021-2025)	Latitude	Longitude
CA4900533_001_001	64-132	Morton's Warm Springs / Sonoma Springs	2023	38.394466	-122.55093
CA4900871_004_004	Missing	Moon Valley Water System	2022, 2024, 2025	38.282765	-122.474072
CA4900909_002_002	155-235	Carneros Deli	2021, 2022, 2023, 2024, 2025	38.23575	-122.461972
CA4900973_002_002	0-103	George Ranch Mutual Water Company	2021, 2022, 2023, 2024, 2025	38.289944	-122.532019
CA4901061_001_001	465-565	Sonoma Warehousing	2021, 2022, 2023, 2024, 2025	38.261747	-122.439166
CA4901218_001_001	Missing	Groskopf Warehouse & Logistics	2021, 2022, 2023, 2024, 2025	38.270831	-122.436959
CA4901225_001_001	0-100	The Rental Place	2021, 2022, 2023, 2024, 2025	38.261602	-122.439268
CA4901247_001_001	210-770	Carneros Warehousing	2021, 2022, 2023, 2024, 2025	38.262287	-122.443909
CA4901254_004_004	420-480	KJ Carneros Hills Winery	2021, 2024, 2025	38.231448	-122.382337
CA4901258_001_001	195-755	The Lodge At Sonoma	2021, 2022, 2023, 2024, 2025	38.27689	-122.462507
CA4901273_001_001	80-360	S & W Warehousing, LLC	2021	38.248162	-122.444267
CA4901278_001_001	0-50	Cline Cellars	2021, 2024	38.21405	-122.458534
CA4901332_001_001	100-640	Wine Country Ind Park - Bldg C	2021, 2022, 2023, 2024, 2025	38.260062	-122.43614
CA4901345_001_001	180-500	Buckley Family Partnership	2021, 2022, 2023, 2024, 2025	38.256521	-122.436719

Table 6. Summary of Sonoma Valley Subbasin Public Supply Wells in the Revised Arsenic Monitoring Network					
Representative Monitoring Point Well ID	**Screen Interval (feet bgs)**	**Water System**	**Recent Sample Year (2021-2025)**	**Latitude**	**Longitude**
CA4901366_004_004	180-580	Laura Chenel's Chevre Inc.	2021, 2022, 2023, 2024, 2025	38.2535	-122.4356
CA4901446_001_001	400-415	Sonoma Pacific Pallet Company	2021, 2022, 2025	38.246433	-122.445657
CA4910013_003_003	0-170	Valley Of the Moon Water	2023	38.302341	-122.494029

Nitrate Monitoring Network Evaluation Results

Of the 40 RMPs in the nitrate network, 13 RMPs were removed, three of which had a score of 1, four with a score of 2, and six with a score of 3. A total of 27 RMPs of the initial 40 were kept in the nitrate RMP network. Table 7 summarizes the criteria score for each RMP, the criteria evaluation decision, and the rationale supporting the decision to keep or remove the RMP following the spatial analysis for all RMPs in the nitrate network. Figure 4 shows the location of each RMP and identifies if the well was removed or retained in the network after the geospatial analysis. Table 8 provides information on the water system, well construction, recent annual sample frequency, and coordinates for the 27 RMPs in the revised nitrate monitoring network.

Table 7. Nitrate Network Criteria Scores and Geospatial Evaluation Results			
Representative Monitoring Point Well ID	**Criteria Score for Geospatial Evaluation**	**Geospatial Evaluation Decision**	**Geospatial Evaluation Decision Description**
CA4900533_001_001	7	Keep	Keep because Score > 4
CA4900871_004_004	6	Keep	Keep because Score > 4
CA4900909_002_002	7	Keep	Keep because Score > 4
CA4900924_001_001	2	Remove	Remove because less than 0.5 miles from a higher ranked well
CA4900945_002_002	7	Keep	Keep because Score > 4
CA4900973_002_002	7	Keep	Keep because Score > 4
CA4901061_001_001	7	Keep	Keep because Score > 4

Table 7. Nitrate Network Criteria Scores and Geospatial Evaluation Results			
Representative Monitoring Point Well ID	**Criteria Score for Geospatial Evaluation**	**Geospatial Evaluation Decision**	**Geospatial Evaluation Decision Description**
CA4901069_001_001	7	Keep	Keep because Score > 4
CA4901083_002_002	3	Remove	Remove because less than 0.5 miles from a higher ranked well
CA4901193_001_001	6	Keep	Keep because Score > 4
CA4901218_001_001	6	Keep	Keep because Score > 4
CA4901225_001_001	7	Keep	Keep because Score > 4
CA4901231_001_001	7	Keep	Keep because Score > 4
CA4901234_001_001	2	Remove	Remove because less than 0.5 miles from a higher ranked well
CA4901247_001_001	7	Keep	Keep because Score > 4
CA4901254_004_004	7	Keep	Keep because Score > 4
CA4901258_001_001	7	Keep	Keep because Score > 4
CA4901258_002_002	7	Keep	Keep because Score > 4
CA4901273_001_001	3	Remove	Remove because less than 0.5 miles from a higher ranked well
CA4901275_001_001	5	Keep	Keep because Score > 4
CA4901278_001_001	7	Keep	Keep because Score > 4
CA4901294_001_001	3	Remove	Remove because less than 0.5 miles from a higher ranked well
CA4901310_001_001	6	Keep	Keep because Score > 4
CA4901332_001_001	7	Keep	Keep because Score > 4
CA4901345_001_001	7	Keep	Keep because Score > 4
CA4901361_001_001	7	Keep	Keep because Score > 4

Table 7. Nitrate Network Criteria Scores and Geospatial Evaluation Results			
Representative Monitoring Point Well ID	**Criteria Score for Geospatial Evaluation**	**Geospatial Evaluation Decision**	**Geospatial Evaluation Decision Description**
CA4901366_001_001	3	Remove	Remove because less than 0.5 miles from a higher ranked well
CA4901366_004_004	3	Remove	Remove because less than 0.5 miles from a higher ranked well
CA4901375_001_001	2	Remove	Remove because less than 0.5 miles from a higher ranked well
CA4901383_001_001	6	Keep	Keep because Score > 4
CA4901388_001_001	6	Keep	Keep because Score > 4
CA4901413_001_001	2	Remove	Remove because less than 0.5 miles from a higher ranked well
CA4901433_001_001	6	Keep	Keep because Score > 4
CA4901446_001_001	3	Remove	Remove because less than 0.5 miles from a higher ranked well
CA4901447_001_001	2	Keep	Keep because more than 0.5 miles from a higher ranked well
CA4901466_001_001	7	Keep	Keep because Score > 4
CA4910012_005_005	1	Remove	Remove because Score = 1
CA4910013_003_003	7	Keep	Keep because Score > 4
CA4910013_019_019	1	Remove	Remove because Score = 1
CA4910013_024_024	1	Remove	Remove because Score = 1

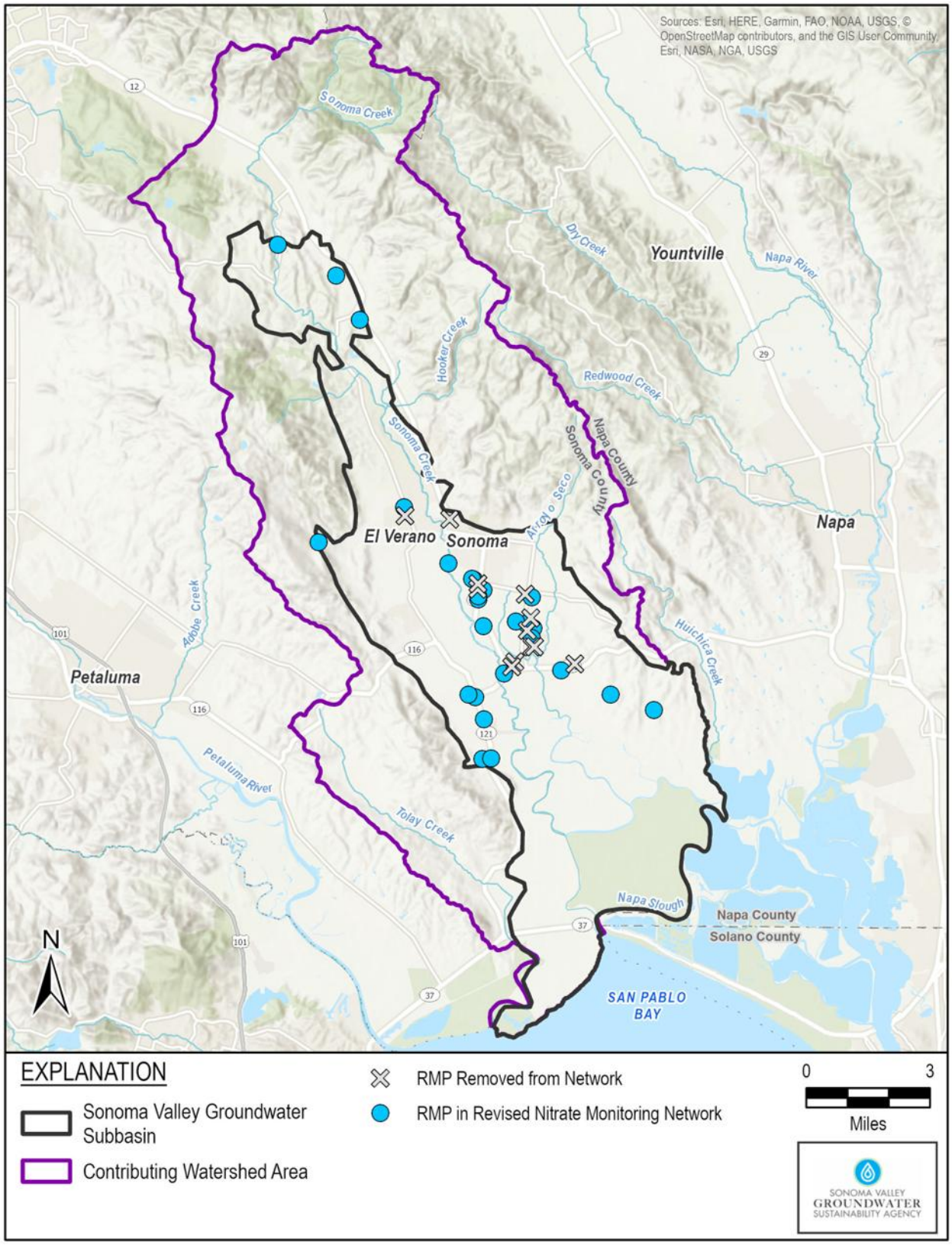

Figure 4. Location of Retained and Removed Wells in the Nitrate Monitoring Network

Table 8. Summary of Sonoma Valley Subbasin Public Supply Wells in the Revised Nitrate Monitoring Network

Representative Monitoring Point Well ID	Screen Interval feet bgs	Water System	Recent Sample Year, 2021-2025	Latitude	Longitude
CA4901361_001_001	170-350	Anaba Winery	2021, 2022, 2023, 2024, 2025	38.236662	-122.464896
CA4901231_001_001	160-260	Arrowood Vineyards & Winery	2021, 2022, 2023, 2024, 2025	38.368056	-122.514167
CA4900533_001_001	64-132	Morton's Warm Springs / Sonoma Springs	2021, 2022, 2023, 2024, 2025	38.394466	-122.55093
CA4900871_004_004	Missing	Moon Valley Water System	2021, 2022, 2023, 2024, 2025	38.282765	-122.474072
CA4900909_002_002	155-235	Carneros Deli	2021, 2022, 2023, 2024, 2025	38.23575	-122.461972
CA4900973_002_002	0-103	George Ranch Mutual Water Company	2021, 2022, 2023, 2024, 2025	38.289944	-122.532019
CA4901275_001_001	65-105	Cornerstone Sonoma	2021, 2023, 2024, 2025	38.227948	-122.457931
CA4901447_001_001	Missing	Donum Estate Water System	2021, 2022	38.236769	-122.401588
CA4901433_001_001	Missing	Fat Pilgrim General Store	2021, 2022, 2023, 2024, 2025	38.271114	-122.460687
CA4901061_001_001	465-565	Sonoma Warehousing	2021, 2022, 2023, 2024, 2025	38.261747	-122.439166
CA4901218_001_001	Missing	Groskopf Warehouse & Logistics	2021, 2022, 2023, 2024, 2025	38.270831	-122.436959
CA4901388_001_001	Missing	Heirs Of My Dream Winery, Inc.	2021, 2022, 2023, 2024, 2025	38.245309	-122.423656
CA4901310_001_001	Missing	Jacuzzi Winery	2021, 2022, 2023, 2024, 2025	38.214175	-122.454737

Table 8. Summary of Sonoma Valley Subbasin Public Supply Wells in the Revised Nitrate Monitoring Network

Representative Monitoring Point Well ID	Screen Interval feet bgs	Water System	Recent Sample Year, 2021-2025	Latitude	Longitude
CA4901225_001_001	0-100	The Rental Place	2021, 2022, 2023, 2024, 2025	38.261602	-122.439268
CA4901383_001_001	Missing	Lasseter Family Winery	2021, 2022, 2023, 2024, 2025	38.383645	-122.524949
CA4901247_001_001	210-770	Carneros Warehousing	2021, 2022, 2023, 2024, 2025	38.262287	-122.443909
CA4901254_004_004	420-480	KJ Carneros Hills Winery	2021, 2022, 2023, 2024, 2025	38.231448	-122.382337
CA4901258_001_001	195-755	The Lodge At Sonoma	2021, 2022, 2023, 2024, 2025	38.27689	-122.462507
CA4900945_002_002	220-300	Presentation School	2021, 2022, 2023, 2024, 2025	38.270074	-122.46069
CA4901466_001_001	100-165	Sangiacomo Winery	2021, 2022, 2023, 2024, 2025	38.260716	-122.458411
CA4901193_001_001	Missing	Schellville Grill	2021, 2022, 2023, 2024, 2025	38.244123	-122.449011
CA4901278_001_001	0-50	Cline Cellars	2021, 2022, 2023, 2024, 2025	38.21405	-122.458534
CA4901069_001_001	430-530	Sonoma Valley Moose Lodge #2048	2021, 2022, 2023, 2024, 2025	38.273328	-122.458416
CA4901332_001_001	100-640	Wine Country Ind Park - Bldg C	2021, 2022, 2023, 2024, 2025	38.260062	-122.43614
CA4901345_001_001	180-500	Buckley Family Partnership	2021, 2022, 2023, 2024, 2025	38.256521	-122.436719

Table 8. Summary of Sonoma Valley Subbasin Public Supply Wells in the Revised Nitrate Monitoring Network

Representative Monitoring Point Well ID	Screen Interval feet bgs	Water System	Recent Sample Year, 2021-2025	Latitude	Longitude
CA4901258_002_002	195-755	The Lodge At Sonoma	2021, 2022, 2023, 2024, 2025	38.277372	-122.463534
CA4910013_003_003	0-170	Valley Of The Moon Water	2021, 2022, 2023, 2024, 2025	38.302341	-122.494029

Summary of Refined Groundwater Quality Representative Monitoring Networks

The Sonoma Valley Subbasin's Periodic Evaluation provides maps of the locations and well specifications for the RMPs included in the revised arsenic and nitrate networks developed through this evaluation. Periodic reassessment will continue to ensure the networks remain sufficient for monitoring and managing groundwater quality in the Subbasin. Table 9 summarizes changes to the degraded groundwater quality representative monitoring networks including the number of removed RMPs from the 2021 GSP networks and the number of RMPs included in the revised networks.

Table 9. Summary of Sonoma Valley Subbasin Refined Groundwater Quality Monitoring Networks for Arsenic and Nitrate

Constituent of Concern	Number of Wells in GSP Network	Number of Wells Removed	Number of Wells in Revised PE Network
Arsenic	25	8	17
Nitrate	40	13	27

REFERENCES

California Department of Water Resources (DWR). 2023. *Sonoma Valley Groundwater Subbasin -2022 Groundwater Sustainability Plan Determination*. Accessed 5/22/2026 at: https://sgma.water.ca.gov/portal/gsp/assessments/101