

## Section 5.0 Management Components

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Table 5-1 Summary of Basin Management Objectives and Management Components.

Draft for TAC Review

Basin Management Objectives	BMO No.1 Ensure information is readily accessible through the internet and other public forums, and receive public input during public meetings	BMO No.2 Provide information to increase public awareness of current surface water and groundwater supplies and planning activities in a changing climate	BMO No.3 Measure groundwater elevations and foster activities aimed at maintaining groundwater elevations	BMO No.4 Evaluate surface water and groundwater interactions and foster protection against adverse interactions	BMO No.5 Monitor groundwater quality and foster activities aimed at groundwater protection and improvement	BMO No.6 Monitor for land subsidence and foster activities aimed at protecting against groundwater extraction-related land subsidence	BMO No.7 Monitor rainfall to improve modeling of water supply through a better understanding of rainfall distribution and density	BMO No.8 Maintain and update the surface water/ groundwater model to support and enhance science-based decision-making	BMO No.9 Identify map and encourage protection of groundwater recharge areas, and provide groundwater recharge area maps to local agencies for planning	BMO No.10 Encourage best practices and proper permitting for the construction, placement, reconstruction and destruction of all wells	BMO No.11 Promote actions to conserve and reduce water usage and increase water and energy efficiency by urban and non-urban water users	BMO No.12 Enhance groundwater recharge while protecting or improving groundwater quality	BMO No.13 Increase water reuse in a safe and environmentally sound manner to enhance water supply reliability and reduce demands on groundwater and surface water resources	BMO No.14 Improve coordination and interaction between water resource management agencies and further cultivate state and federal partnerships for program implementation	BMO No.15 Conjunctively manage surface water and groundwater to improve water supply availability and reliability	BMO No.16 Coordinate surface water and groundwater management with land use planning and development	BMO No.17 Foster shared management responsibilities among urban and rural stakeholders	BMO No.18 Incorporate planning for the potential effects of climate change on surface water and groundwater supplies into existing and future local and regional plans
<b>Component 1 - Stakeholder Involvement</b>																		
Involving the Public	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Advisory Groups	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Informing Stakeholders & Public Agencies	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Partnerships & Coordination	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
<b>Component 2 - Monitoring Program &amp; Modeling</b>																		
Groundwater-Level Monitoring			√	√	√	√		√						√				√
Groundwater Quality Monitoring				√	√			√						√				
Inelastic Land Surface Subsidence Monitoring			√			√		√						√				
Surface Water-Groundwater Interaction Monitoring			√	√				√						√				
Hydrometeorological Monitoring							√							√				√
Monitoring & Reporting Protocols			√	√	√	√	√	√						√				
Data Management			√	√	√	√	√	√						√				
Data Needs Prioritization			√	√	√	√	√	√						√				
Modeling			√	√	√	√	√	√						√				√
<b>Component 3 - Groundwater Protection</b>																		
Maintain Groundwater Levels			√	√	√							√	√					√
Prevent Adverse Interactions Between Groundwater and Surface Water			√		√							√	√					
Well Construction, Maintenance, Protection, Abandonment and Destruction				√	√				√					√				√
Mapping and Protecting Groundwater Recharge Areas			√	√	√		√	√				√		√				√
Evaluate Distribution and Remediation of Contaminated Groundwater				√	√							√		√				
Identify and Provide Information to the Public on Groundwater Protection	√	√		√	√							√						√
<b>Component 4 - Increase Conservation &amp; Efficiency</b>																		
Continue and Increase BMPs for Urban Water Conservation			√	√		√					√							√
Voluntary Water Conservation BMPs for Unincorporated Areas			√	√		√					√							√
<b>Component 5 - Increase Groundwater Recharge</b>																		
Stormwater Recharge by Infiltration			√	√	√	√						√		√	√			√
Aquifer Storage & Recovery and Groundwater Banking			√	√	√	√						√		√	√			√
Surface Water Use In Lieu of Groundwater			√	√	√	√						√		√	√			√
Low Impact Development (LID) in New Construction			√	√	√	√		√				√		√	√			√
<b>Component 6 - Increase Water Reuse</b>																		
Increase Recycled Water for Agricultural Irrigation			√	√		√							√	√	√			√
Increase Recycled Water for Landscape Irrigation			√	√		√							√	√	√			√
Graywater for Domestic Landscape Irrigation			√	√		√							√	√	√			√
<b>Component 7 - Integrated Groundwater Management</b>																		
Groundwater Management & Land Use Planning			√	√	√	√		√	√	√		√		√		√		√
Monitor, Track and Incorporate UWMP Revisions into GMP Updates				√										√		√		√
Incorporate Multi-Agency and -Organization Integration into GMP				√				√	√					√	√	√		√
Plan for Climate Change		√		√				√						√				√
Multi-Benefit Actions & Activities				√				√				√		√		√		√

**Table 5-2**  
**Summary of Proposed and Existing Monitoring Programs**  
**Santa Rosa Plain Watershed**

<b>Parameter Monitored</b>	<b>Existing Program</b>	<b>Proposed Program</b>
<b>Groundwater Levels</b>  (variable monitoring frequency)	CASGEM - 36 private water wells, dedicated monitoring wells and inactive municipal supply wells	
	DWR – 27 private wells	
	PRMD - 10 public supply wells	
<b>Groundwater Quality</b>  (varied sampling)		
Specific Conductance	DWR - ?? wells	
General Minerals	DWR - ?? wells	
Drinking Water Title 22 Analytes	Public & private water systems	
<b>Land Surface Subsidence</b>	3 Plate Boundary GPS Stations	
<b>Surface Water</b>	12 Streamflow Gauging Stations	
<b>Rainfall Monitoring</b>	15 Weather Stations	

**Table 5-3**  
**Summary of Existing Groundwater-Level Monitoring Wells**  
**Santa Rosa Plain Watershed**

<b>SRP_ID</b>	<b>Well Type</b>	<b>Program</b>	<b>Well Depth Category</b>
1	Private	CASGEM	<200
2	Private	CASGEM	<200
3	Private	CASGEM	<200
4	Private	CASGEM	200-500
5	Private	CASGEM	Unknown
6	Private	CASGEM	Unknown
7	Dedicated	CASGEM	Unknown
8	Dedicated	CASGEM	Unknown
9	Dedicated	CASGEM	<200
10	Dedicated	CASGEM	<200
11	Dedicated	CASGEM	<200
12	Dedicated	CASGEM	<200
13	Dedicated	CASGEM	<200
14	Dedicated	CASGEM	<200
15	Dedicated	CASGEM	<200
16	Dedicated	CASGEM	Unknown
17	Dedicated	CASGEM	Unknown
18	Dedicated	CASGEM	<200
19	Dedicated	CASGEM	<200
20	Dedicated	CASGEM	200-500
21	Dedicated	CASGEM	<200
22	Dedicated	CASGEM	<200
23	Dedicated	CASGEM	<200
24	Dedicated	CASGEM	<200
25	Dedicated	CASGEM	200-500
26	Dedicated	CASGEM	200-500
27	Dedicated	CASGEM	<200
28	Dedicated	CASGEM	Unknown
29	Dedicated	CASGEM	Unknown
30	Dedicated	CASGEM	Unknown
31	Inactive Municipal	CASGEM	Unknown
32	Inactive Municipal	CASGEM	>500
33	Inactive Municipal	CASGEM	200-500
34	Inactive Municipal	CASGEM	>500
35	Inactive Municipal	CASGEM	200-500
36	Inactive Municipal	CASGEM	Unknown
37	Private	DWR	Unknown
38	Private	DWR	Unknown
39	Private	DWR	<200
40	Private	DWR	<200
41	Private	DWR	<200
42	Private	DWR	<200
43	Private	DWR	>500
44	Private	DWR	<200

**Table 5-3**  
**Summary of Existing Groundwater-Level Monitoring Wells**  
**Santa Rosa Plain Watershed**

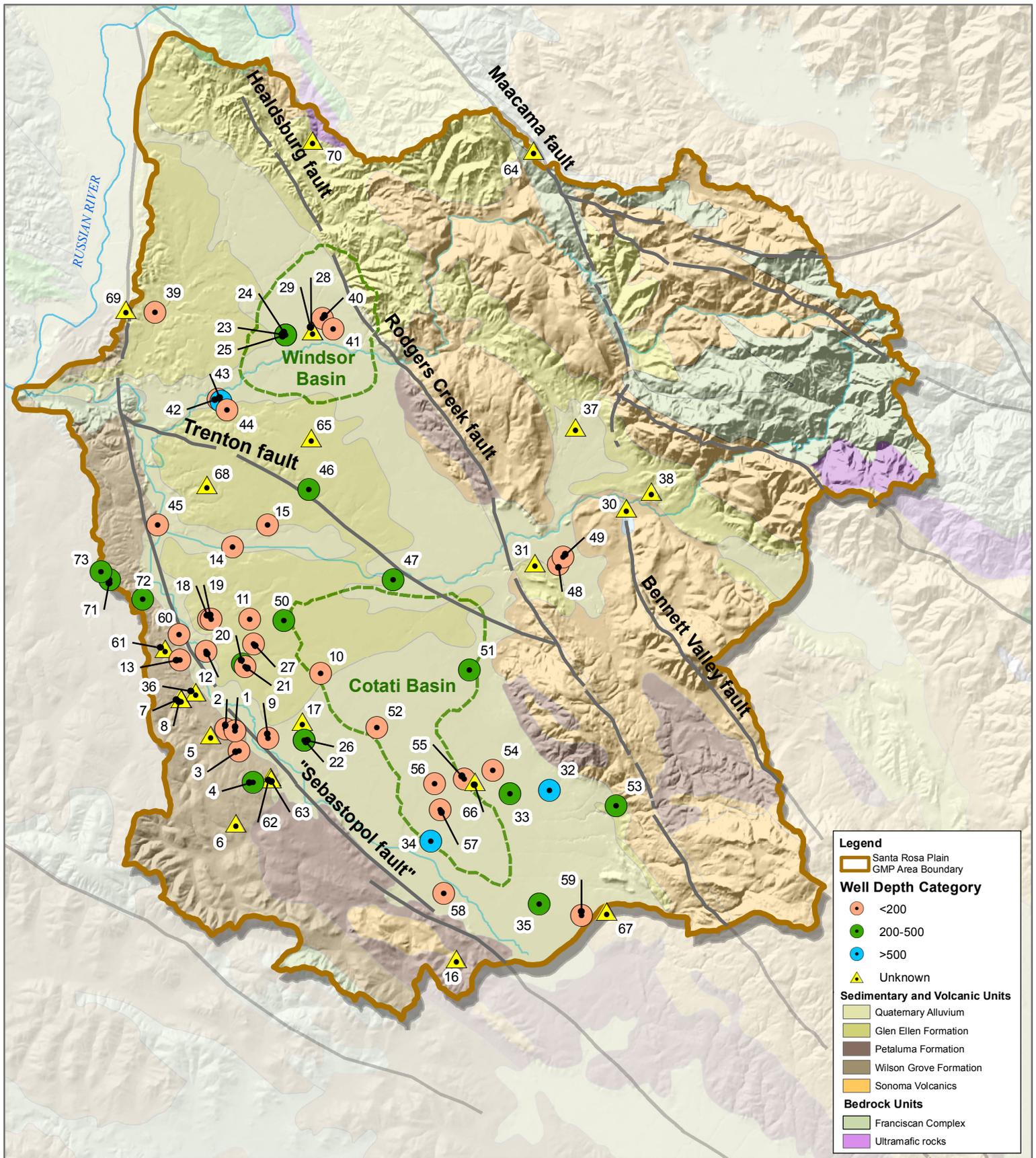
<b>SRP_ID</b>	<b>Well Type</b>	<b>Program</b>	<b>Well Depth Category</b>
45	Private	DWR	<200
46	Private	DWR	200-500
47	Private	DWR	200-500
48	Private	DWR	<200
49	Private	DWR	<200
50	Private	DWR	200-500
51	Private	DWR	200-500
52	Private	DWR	<200
53	Private	DWR	200-500
54	Private	DWR	<200
55	Private	DWR	<200
56	Private	DWR	<200
57	Private	DWR	<200
58	Private	DWR	<200
59	Private	DWR	<200
60	Private	DWR	<200
61	Private	DWR	Unknown
62	Private	DWR	Unknown
63	Private	DWR	Unknown
64	Public Supply	PRMD	Unknown
65	Public Supply	PRMD	Unknown
66	Public Supply	PRMD	Unknown
67	Public Supply	PRMD	Unknown
68	Public Supply	PRMD	Unknown
69	Public Supply	PRMD	Unknown
70	Public Supply	PRMD	Unknown
71	Public Supply	PRMD	200-500
72	Public Supply	PRMD	200-500
73	Public Supply	PRMD	200-500

**Table 5-4**  
**Summary of Existing Streamflow Gaging Stations**  
**Santa Rosa Plain Watershed**

<b>Station ID</b>	<b>Station Name</b>	<b>Begin Date</b>	<b>End Date</b>	<b>Gage Active?</b>
USGS 11465500	MARK WEST C NR WINDSOR CA	10/1/2006	4/30/2008	Inactive
USGS 11465660	COPELAND C A ROHNERT PARK CA	10/1/2006	Active	Active
USGS 11465680	LAGUNA DE SANTA ROSA A STONY PT RD NR COTATI CA	11/6/1998	Active	Active
USGS 11465690	COLGAN C NR SANTA ROSA CA	10/1/2006	Active	Active
USGS 11465700	COLGAN C NR SEBASTOPOL CA	11/7/1998	Active	Active
USGS 11465750	LAGUNA DE SANTA ROSA C NR SEBASTOPOL CA	11/18/1998	Active	Active
USGS 11466065	BRUSH C A SANTA ROSA CA	10/1/2005	4/30/2010	Inactive
USGS 11466170	MATANZAS C A SANTA ROSA CA	10/1/2004	Active	Active
USGS 11466200	SANTA ROSA C A SANTA ROSA CA	10/1/1939	Active	Active
USGS 11466320	SANTA ROSA C A WILLOWSIDE RD NR SANTA ROSA CA	12/9/1998	Active	Active
USGS 11466800	MARK WEST C NR MIRABEL HEIGHTS CA	10/1/2005	Active	Active
CEMAR MW 01	Mark West Creek below Tarwater Road	10/1/2010	Active	Active
CEMAR MW 02	Mark West Creek above Port Creek	9/25/2012	Active	Active
CEMAR MW 06	Mark West Creek at Neal Creek	9/25/2012	Active	Active

**Table 5-5**  
**Summary of Existing Rainfall Monitoring Stations**  
**Santa Rosa Plain Watershed**

<b>ID</b>	<b>Active?</b>	<b>Data Source</b>	<b>Agency</b>	<b>Data Availability</b>	<b>Reporting Interval</b>
KSTS	Yes	NWS Mesonet	NWS/FAA		Hourly
DW9521	Yes	NWS Mesonet	APRSWXNET/CWOP		5 Min
DW2144	Yes	NWS Mesonet	APRSWXNET/CWOP		15 Min
CW1766	Yes	NWS Mesonet	APRSWXNET/CWOP		15 Min
RSAC1	Yes	NWS Mesonet	RAWS		Hourly
CW6940	Yes	NWS Mesonet	APRSWXNET/CWOP		10 Min
CW3628	Yes	NWS Mesonet	APRSWXNET/CWOP		20 Min
DW9840	Yes	NWS Mesonet	APRSWXNET/CWOP		15 Min
CW0677	Yes	NWS Mesonet	APRSWXNET/CWOP		10 Min
KF6YUA	Yes	NWS Mesonet	APRSWXNET/CWOP		10 Min
Santa Rosa	Yes	NOAA	Earth System Research Laboratory		
Meachum LFI	Yes	NOAA	Earth System Research Laboratory		
CIMIS #158	Yes	UC Davis	CIMIS	12/24/2000 - on-going	Daily
CIMIS #83	Yes	UC Davis	CIMIS	2/14/1989 - on-going	Daily
NCDC #7965	Yes	UC Davis	NCDC	1/1/1951 - on-going	Daily
CIMIS #103	Yes	UC Davis	CIMIS	12/14/1990 - on-going	Daily



**Legend**

- Santa Rosa Plain GMP Area Boundary
- Well Depth Category**
  - <200
  - 200-500
  - >500
  - Unknown
- Sedimentary and Volcanic Units**
  - Quaternary Alluvium
  - Glen Ellen Formation
  - Petaluma Formation
  - Wilson Grove Formation
  - Sonoma Volcanics
- Bedrock Units**
  - Franciscan Complex
  - Ultramafic rocks

Santa Rosa Plain Watershed Groundwater Monitoring Wells

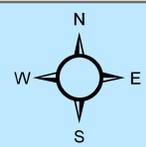
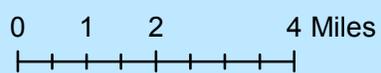
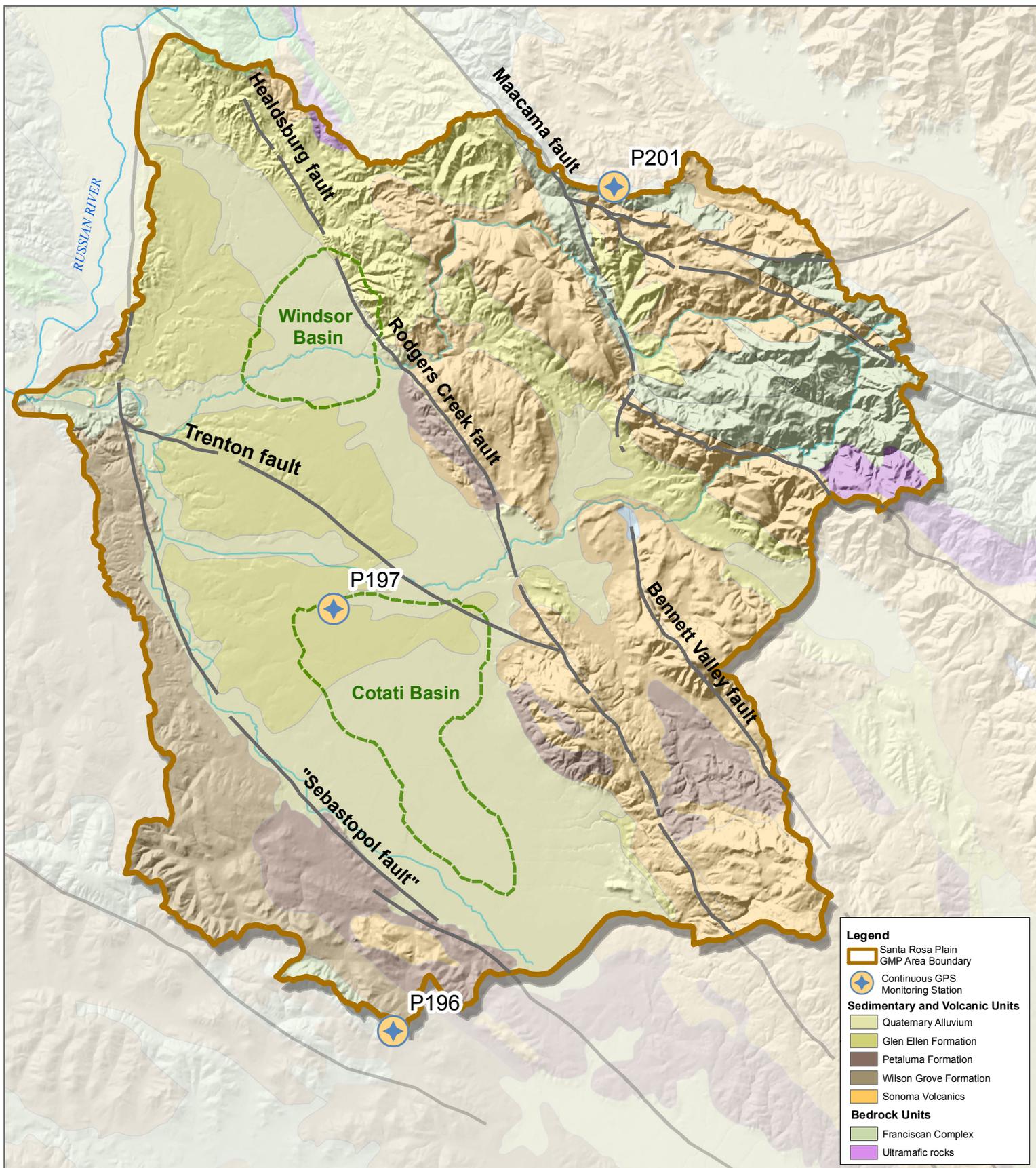


Figure 5-1

**Figure 5-2. Groundwater Quality Monitoring Wells, Santa Rosa Plan Watershed. (*Under Development*)**



Santa Rosa Plain Watershed  
Ground Surface Monitoring Stations

0 1 2 4 Miles

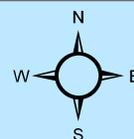
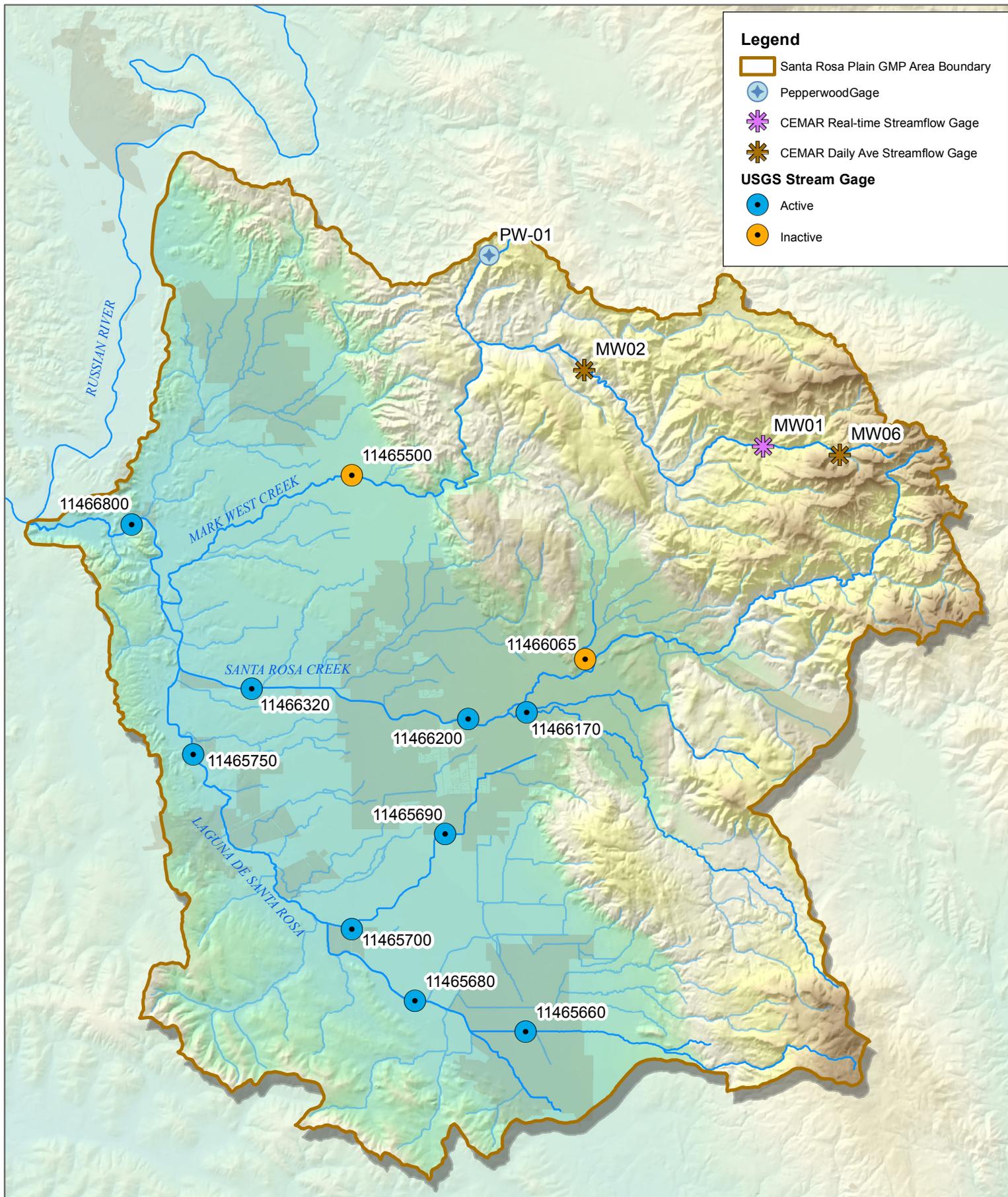


Figure  
5-3



Santa Rosa Plain Watershed  
Hydrological Monitoring Stations

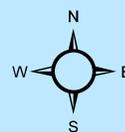
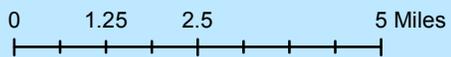
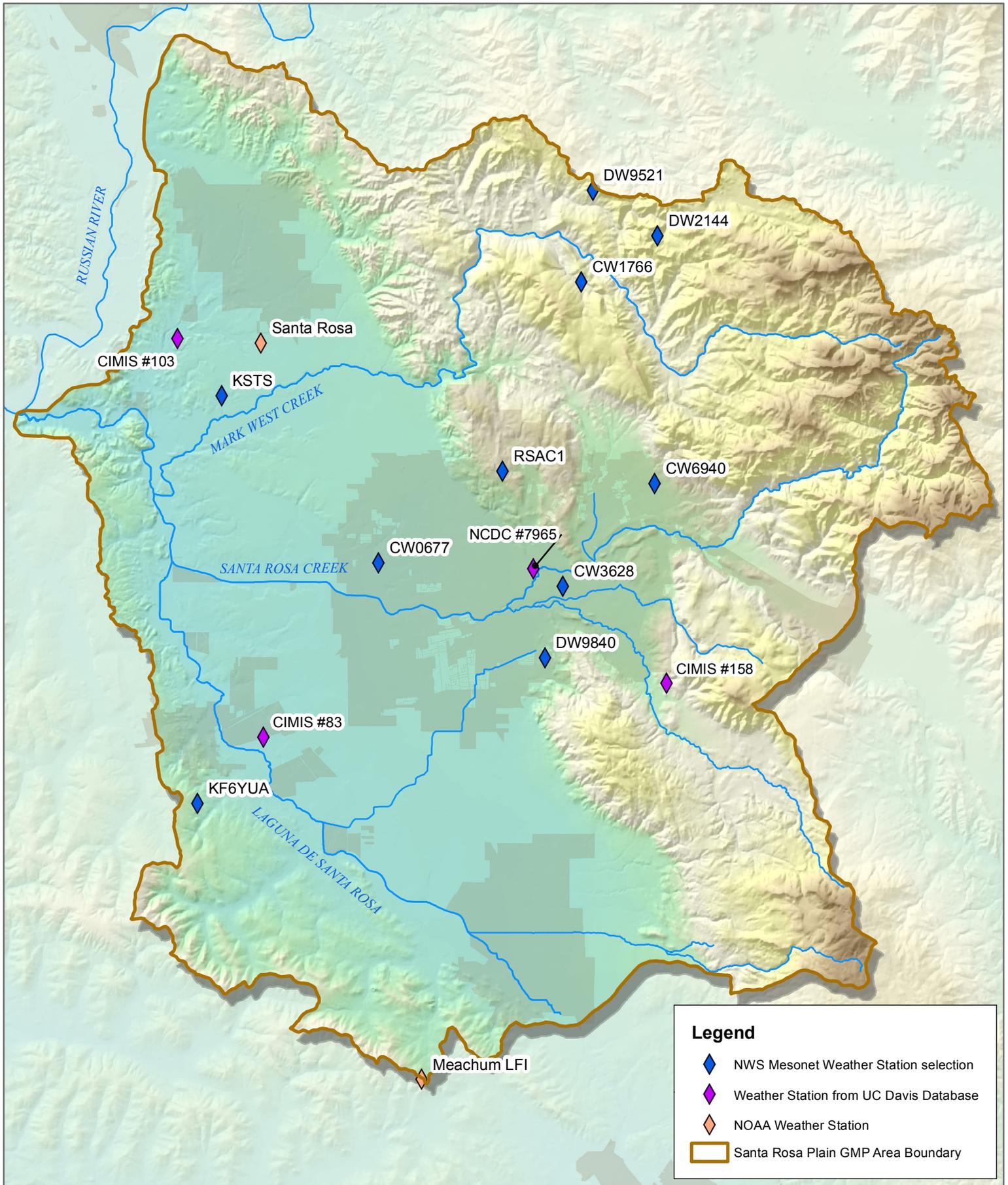


Figure  
5-4



Santa Rosa Plain Watershed  
 Meteorological Monitoring Stations

0 1 2 4 Miles



Figure  
 5-5