10 Basin/Sub-Basin Wide Monitoring Plan

10.1 MONITORING PROGRAM APPROACH

The Recycled Water Policy requires the development of a monitoring program with the primary objectives to characterize the basin and to provide targeted monitoring.

- Basin-Wide Characterization (Recycled Water Policy Section 6.b.(3)(a))
  "A basin/sub-basin wide monitoring plan that includes an appropriate network of monitoring locations."
- Targeted Monitoring (Recycled Water Policy Section 6.b.(3)(a)(i))
  "…focus on basin water quality near water supply wells and areas proximate to large water recycling projects, particularly groundwater recharge projects… where appropriate target groundwater and surface waters where groundwater has connectivity with adjacent surface waters."

Consistent with the requirements of the Recycled Water Policy, this monitoring program: identifies a network of wells to characterize water quality in the basin and establishes a framework for targeted monitoring; identifies stakeholders responsible for implementing the monitoring program, and addresses monitoring of CECs.

The goals of the LSCR SNMP Monitoring Program are to:

1. Assess spatial and temporal changes in salt and nutrient concentrations and characterize groundwater quality; and
2. Assess the impact of future large recycled water and groundwater recharge projects on groundwater quality.

Using the preferred approach in the Recycled Water Policy, the program relies on existing groundwater wells to fulfill the goals of the monitoring program.

The five sub-basins of the LSCR Basin (Piru, Fillmore, Santa Paula, Mound and the Oxnard Forebay) are further subdivided into one or more subareas based on the water quality objectives established in the Basin Plan (**Figure 2-1).**

Basin-wide characterization monitoring will establish one to two monitoring locations within each water quality objective subarea. Where groundwater movement is ambiguous additional monitoring locations in each subarea are established to increase spatial resolution. Well locations are selected to maximize efficiency, maximize quality, and minimize costs.

Targeted monitoring will focus on water quality priorities and Recycled Water Policy requirements within the LSCR Basin. Priorities and requirements in the basin may change over time; therefore a framework for designing targeted monitoring has been created to allow all the stakeholders to adaptively manage the monitoring program to meet future needs.

10.2 EXISTING MONITORING PROGRAMS

Groundwater quality is currently monitored throughout the LSCR Basin as part of regional groundwater resource assessment and management and to meet regulatory requirements such as drinking water regulations and waste discharge requirements. Appendix B provides a summary of all the current monitoring programs within the LSCR Basin. The summary documents current monitoring programs, monitored constituents, frequency of monitoring, and the agency in charge of the monitoring program.

The proposed LSCR SNMP monitoring program primarily relies on wells monitored by the Ventura County (County) Groundwater Monitoring Program and UWCD's Water Quality Monitoring Program, supplemented by wells monitored under water reclamation and wastewater treatment facilities that discharge to percolation ponds. Wells monitored by other programs in the LSCR basin are used to supplement the monitoring program in subareas without appropriate County or UWCD wells.

As shown in Appendix B, existing monitoring programs also include surface water and discharge quality monitored by the Ventura Countywide Stormwater Management Program, VCAILG, City of Ventura, and UWCD. While a specific network of surface water monitoring locations is not being proposed for the LSCR Basin, these existing programs will be used to provide information regarding surface water inputs to the groundwater. It is recommended that a network of surface water monitoring locations be maintained in the study area to characterize surface water quality that may recharge groundwater. The existing monitoring programs are sufficient for this purpose at this time, but modifications to those programs should consider the SNMP data needs.

10.3 PROPOSED WATER QUALITY CONSTITUENTS

The Recycled Water Policy requires monitoring of salts, nutrients, and consideration of monitoring for constituents other than salt and nutrients that adversely affect groundwater quality. In addition, monitoring for CECs is discussed in several places in Attachment A of the Recycled Water Policy and is specifically required in recycled water used for groundwater recharge reuse[1].

- Water Quality Constituents (Recycled Water Policy Section 6.b.(3)(a))
  "…shall be adequate to provide a reasonable, cost-effective means of determining whether the concentrations of salt, nutrients, and other constituents of concern as identified in the salt and nutrient plans are consistent with applicable water quality objectives."
- Recycled Water Policy Section 6.b.(3)(b):
  "A provision for annual monitoring of Constituents of Emerging Concern (e.g., endocrine disrupters, personal care products or pharmaceuticals) (CECs) consistent with recommendations by CDPH and consistent with any actions by the State Water Board taken pursuant to paragraph 10(b) of this Policy."

[1] Use of recycled water for groundwater recharge reuse has the same meaning as indirect potable reuse for groundwater recharge as defined in Water Code section 13561(c), where it is defined as the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system.

- Recycled Water Groundwater Recharge Projects (Recycled Water Policy Section 8.b.(2))
  "Implementation of a monitoring program for CECs…Groundwater recharge projects shall include monitoring of recycled water for priority pollutants…"

- Constituents of Emerging Concern (Recycled Water Policy Section (Recycled Water Policy Section 10.b.(1)(c))
  "The State Water Board considered the panel report and the comments received and adopted an amendment to the Policy establishing monitoring requirements for CECs in recycled water. These monitoring requirements are prescribed in Attachment A."

Proposed water quality constituents were selected to meet the needs of basin-wide or targeted monitoring goals and requirements:

- **Basin-wide monitoring** – Constituents were selected for the LSCR SNMP Monitoring Program based on the established salt and nutrient water quality objectives, historic monitoring that establishes a baseline, and constituents of interest in the basin. The proposed water quality constituents for all basin-wide monitoring locations are TDS, Sulfate, Chloride, Boron, and Nitrate as N.

  Basin-wide monitoring of CECs is not being proposed at this time. Surveys of pharmaceuticals in groundwater conducted by USGS have shown a low detection rate in groundwater samples.[2] Additionally, widespread applications of recycled water are not being proposed at this time and are not anticipated at levels that will necessitate regular basin-wide monitoring. Instead CEC monitoring will be conducted in specified instances as part of the targeted monitoring program.

  CEC effluent monitoring is also likely to be required by the monitoring programs for the wastewater treatment plants. As a result, monitoring data on CECs in recycled water should be available for consideration. It is recommended that the effluent monitoring for CECs occur as required by permits.

  The Basin Plan identifies groundwater water quality objectives for sub-basins and subareas within the LSCR Basin. As a result, the monitoring plan is developed to assess the sub-basins and subareas. **Table 10-1** summarizes the groundwater water quality objectives.

Table 10-1 Water Quality Objectives for the Lower Santa Clara River Groundwater Basins

Basin	1994 Basin Plan Name	Objectives (mg/L)				
		TDS	Chloride	Nitrate-N	Sulfate	Boron
Piru 4-4.06	**Santa Clara - Piru Creek area**					
	Upper area (above Lake Piru)	1,100	200	10	400	2.0
	Lower area east of Piru Creek	2,500	200	10	1200	1.5
	Lower area west of Piru Creek	1,200	100	10	600	1.5

[2] 2011, Fram, Miranda S.; Belitz, Kenneth. *Occurrence and concentrations of pharmaceutical compounds in deep groundwater used for public drinking-water supply in California Science of the Total Environment*, 409: 3409 - 3417

Table 10-1 Water Quality Objectives for the Lower Santa Clara River Groundwater Basins

Basin	1994 Basin Plan Name	Objectives (mg/L)				
		TDS	Chloride	Nitrate-N	Sulfate	Boron
Fillmore 4-4.05	**Fillmore Area**					
	Pole Creek Fan Area	2,000	100	10	800	1.0
	South side of Santa Clara River	1,500	100	10	800	1.1
	Remaining Fillmore Area	1,000	50	10	400	0.7
Santa Paula 4-4.04	**Santa Clara - Santa Paula Area**					
	East of Peck Road	1,200	100	10	600	1.0
	West of Peck Road	2,000	110	10	800	1.0
Oxnard 4-4.02	**Oxnard Plain**					
	Oxnard Forebay	1,200	150	10	600	1.0
	Confined aquifers[1]	1,200	150	10	600	1.0
	Unconfined and perched aquifers	3,000	500	10	600	
Mound	Use Oxnard Forebay[1]	1,200	150	10	600	1.0

[1] As part of the non-regulatory amendments to administratively update Chapter 3 of the Basin Plan in 2013, the Mound Basin was called out separately from the Oxnard Plain for the first time. Prior the update, the Mound Basin was included as part of the Oxnard Plain Basin. Based on review of previous Basin Plans and associated technical documents, the RWQCB determined that the objectives for the confined aquifers in the Oxnard basin apply to the Mound basin.

- **Targeted monitoring** – The constituents collected during targeted monitoring may vary depending on the goal of the monitoring. In general, any targeted monitoring should include constituents monitored as part of the basin-wide monitoring (TDS, Sulfate, Chloride, Boron, and Nitrate as N). Additionally, CECs will be included for specified types of targeted monitoring as required by Attachment A of the Recycled Water Policy and consistent with recommendations by CDPH.

  The Recycled Water Policy provides a list of required health based, and performance based parameters that are required for all recycled water monitoring programs specific to recycled water used for groundwater recharge reuse by surface and subsurface application methods **Table 10-2**.[3] Health based CECs are of toxicological relevance to human health. Performance based CECs do not have relevance to human health but are useful for monitoring treatment process effectiveness because the removal of these CECs from a treatment process provides an indication of remove of CECs with similar properties. Various surrogate parameters are also required depending on if the groundwater recharge is being applied to the surface or subsurface. **Table 10-3** presents a list of surrogates that shall be considered for monitoring. Surrogates shall be proposed for a project on a case-by-case basis appropriate for the treatment process or processes. A surrogate is a measurable physical or chemical property that can be used to measure the effectiveness of trace organic compound removal.

[3] Groundwater recharge by surface application is the controlled application of water to a spreading area for infiltration resulting in the recharge of a groundwater basin. Subsurface application is the controlled application of water to a groundwater basin or aquifer by a means other than surface application, such as direct injection through a well. Monitoring of CECs is not required for recycled water used for landscape irrigation.

Table 10-2 Chemicals Identified as Health or Performance CECs

Compound	Relevance/Indicator Type	Performance indicator MRL (ng/L)
17beta-estradiol[a]	Health	1
NDMA[1]	Health	2
Caffeine[1]	Health & Performance	50
Triclosan[1]	Health	50
Sucralose[1]	Performance	100
Iopromide[2]	Performance	50
DEET[1]	Performance	50
Gemfibrozil[2]	Performance	50

[1] Groundwater recharge reuse surface and subsurface application projects

[2] Groundwater recharge reuse surface application projects only

Table 10-3 Chemicals Identified as Surrogate Parameters

Surrogates	Groundwater Recharge Reuse
Ammonia	Surface application
Total Organic Carbon	Surface application Subsurface application
Nitrate	Surface application
UV Light Absorption	Surface application
Electrical Conductivity	Subsurface application

Parameters for CECs as identified in **Table 10-2** and **Table 10-3** will be monitored at all targeted area monitoring sites corresponding to groundwater recharge projects using surface or subsurface application projects as specified.

In addition, targeted monitoring locations for areas of interest may also add constituents to measure based on project needs. This may include monitoring for CECs in areas other than those corresponding to groundwater recharge applications if other information indicates monitoring is warranted. For example, if the monitoring of WWTP effluent contains levels of CECs that could impact groundwater basins, targeted monitoring near recycled water projects using the water could be warranted.

10.4 BASIN-WIDE MONITORING LOCATIONS AND FREQUENCY

Proposed wells for basin-wide monitoring are summarized in **Table 10-4** and **Table 10-5** and in **Figure 10-2** through **Figure 10-5**. These wells were selected to provide sampling locations that characterize the subareas based on groundwater gradients and flow paths in the sub-basin and subarea.

Three basins, Piru, Fillmore, and Santa Paula contain existing water reclamation or wastewater treatment plant that discharge treated effluent and reclaimed water to percolation ponds. Monitoring in these basins will be supplemented by the monitoring conducted pursuant to waste discharger and water reclamation permits issued to these facilities.

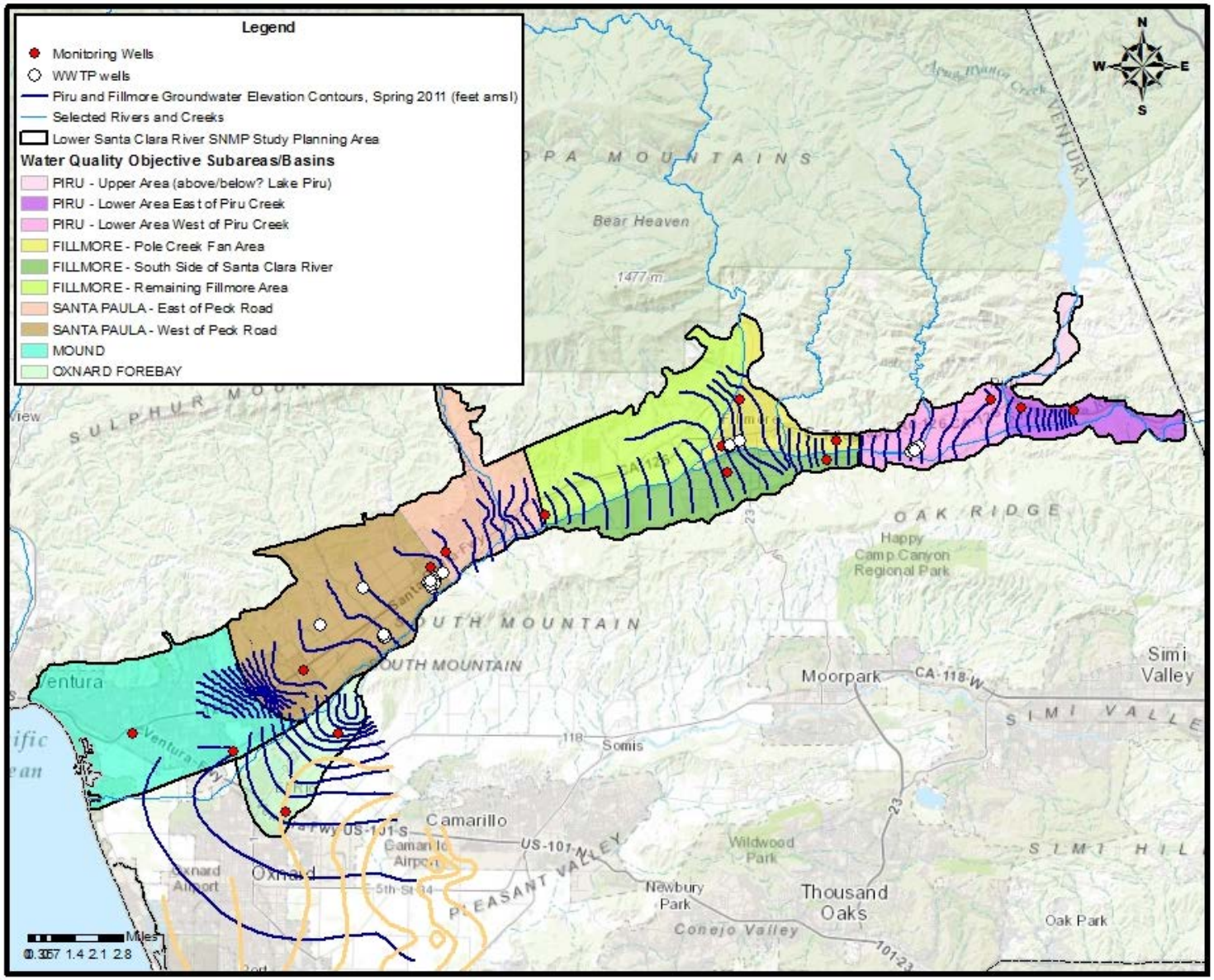

Figure 10-1 LSCR SNMP Monitoring Locations Overview Map

Table 10-4 Basin-Wide Monitoring Locations – General Wells

Well ID	Groundwater Basin	Sub-basin
04N18W27B01S	Piru	Lower Area West of Piru Creek
04N18W20R01S	Piru	Lower Area West of Piru Creek
04N18W20M03S	Piru	Lower Area East of Piru Creek
04N19W33M07S	Fillmore	South Side of Santa Clara River
04N20W36N03S	Fillmore	South Side of Santa Clara River
04N19W33B01S	Fillmore	Pole Creek Fan Area
04N20W36D07S	Fillmore	Pole Creek Fan Area
04N20W24Q04S	Fillmore	Pole Creek Fan Area
03N21W12H01S	Fillmore	Remaining Fillmore Area
03N21W16H07S	Santa Paula	East of Peck Road
03N22W35Q01S	Santa Paula	West of Peck Road
03N21W16P02S	Santa Paula	West of Peck Road
02N22W09K05S	Mound	Mound
02N23W13K03S	Mound	Mound
02N22W12Q06S	Oxnard Plain Forebay	Oxnard Forebay
02N22W26E01S	Oxnard Plain Forebay	Oxnard Forebay

Table 10-5 Basin-Wide Monitoring Locations – WWTP and WRP Wells

Well ID	Groundwater Basin	Sub-basin
Piru_WTP_MW1	Piru	West of Piru Creek
Piru_WTP_MW2	Piru	West of Piru Creek
Piru_WTP_MW3	Piru	West of Piru Creek
Piru_WTP_MW4	Piru	West of Piru Creek
04N20W36MW1	Fillmore	Pole Creek Fan
04N20W36MW2	Fillmore	Pole Creek Fan
04N20W36MW3	Fillmore	Pole Creek Fan
03N21W29MW1	Santa Paula	West of Peck Rd
03N21W29MW11	Santa Paula	West of Peck Rd
03N21W29MW17	Santa Paula	West of Peck Rd

Table 10-5 Basin-Wide Monitoring Locations – WWTP and WRP Wells

Well ID	Groundwater Basin	Sub-basin
03N21W29MW8	Santa Paula	West of Peck Rd
SantaPaulaWTP_MW1	Santa Paula	West of Peck Rd
SantaPaulaWTP_MW2A	Santa Paula	West of Peck Rd
SantaPaulaWTP_MW3	Santa Paula	West of Peck Rd
SantaPaulaWTP_MW4	Santa Paula	West of Peck Rd
SantaPaulaWTP_MW5	Santa Paula	West of Peck Rd
SantaPaulaWTP_MW6	Santa Paula	West of Peck Rd
SantaPaulaWTP_MW7	Santa Paula	West of Peck Rd
SantaPaulaWTP_MW8	Santa Paula	West of Peck Rd
Limoneria_Lower2Well	Santa Paula	West of Peck Rd
Limoneria_OrchardFarmWell	Santa Paula	West of Peck Rd

Within each subarea, at least one well was selected to characterize the subarea and to provide multiple points for analyzing a sub-basin. In sub-basins not divided into multiple water quality objective areas, at least two wells were selected. A well at the upstream portion of the LSCR Basin will be selected to provide a baseline water quality for groundwater entering the basin from the Upper Santa Clara River Basin. Wells upgradient and downgradient of WWTPs and WRPs were selected based on their Waste Discharger Requirements monitoring programs.

Monitoring wells were selected based on the following considerations:

- Ease of access;
- Well is monitored by UWCD or Ventura County;
- Type of well use (preference for municipal, monitoring, agricultural wells);
- Depths corresponding to main aquifer regions as opposed to perched aquifers;
- Whether the well is currently being monitored as part of another program;
- The range and extensiveness of the water quality record;
- Ability to representative potential impacts on beneficial uses; and
- Use of well as representative monitoring location by USGS and GAMA.

The baseline recommended sampling frequency for basin-wide monitoring sites is annual. The annual sampling frequency has been identified based on the lack of seasonal trends identified in the data analysis. The proposed baseline sampling frequency should be reviewed after five years of data collection or after sufficient data is collected to evaluate potential trends. After evaluation, data showing no significant trends will be considered for monitoring on a less frequent basis. A summary of the proposed basin-wide monitoring is in **Table 10-6.**

Table 10-6 Proposed Basin-Wide Monitoring Program

Type of Monitoring	Constituents		Frequency
Basin-Wide Monitoring	TDS Sulfate Chloride	Boron Nitrate as N	• Baseline: Annual • May be reduced following baseline evaluation

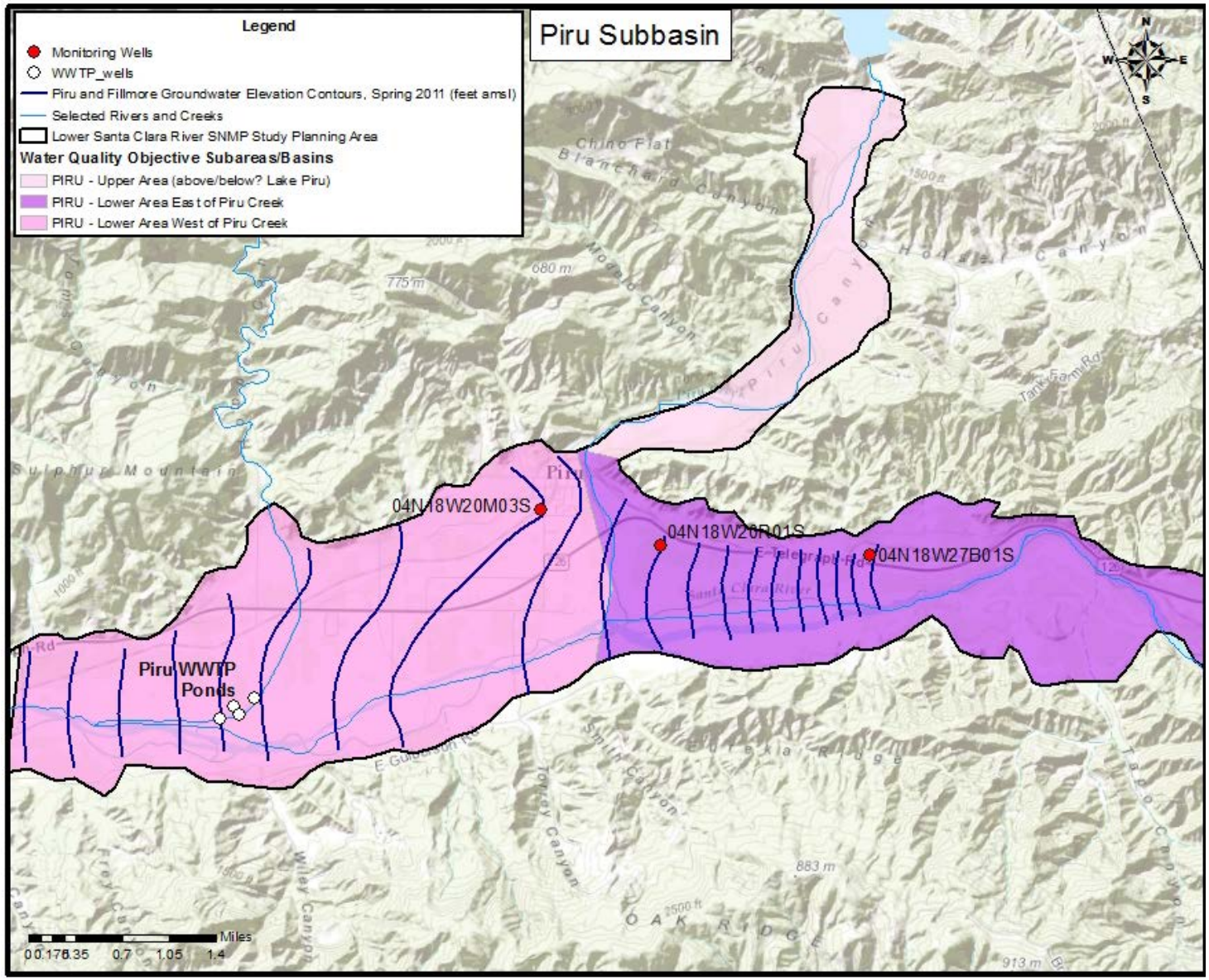

Figure 10-2 Piru Basin Monitoring Well Locations

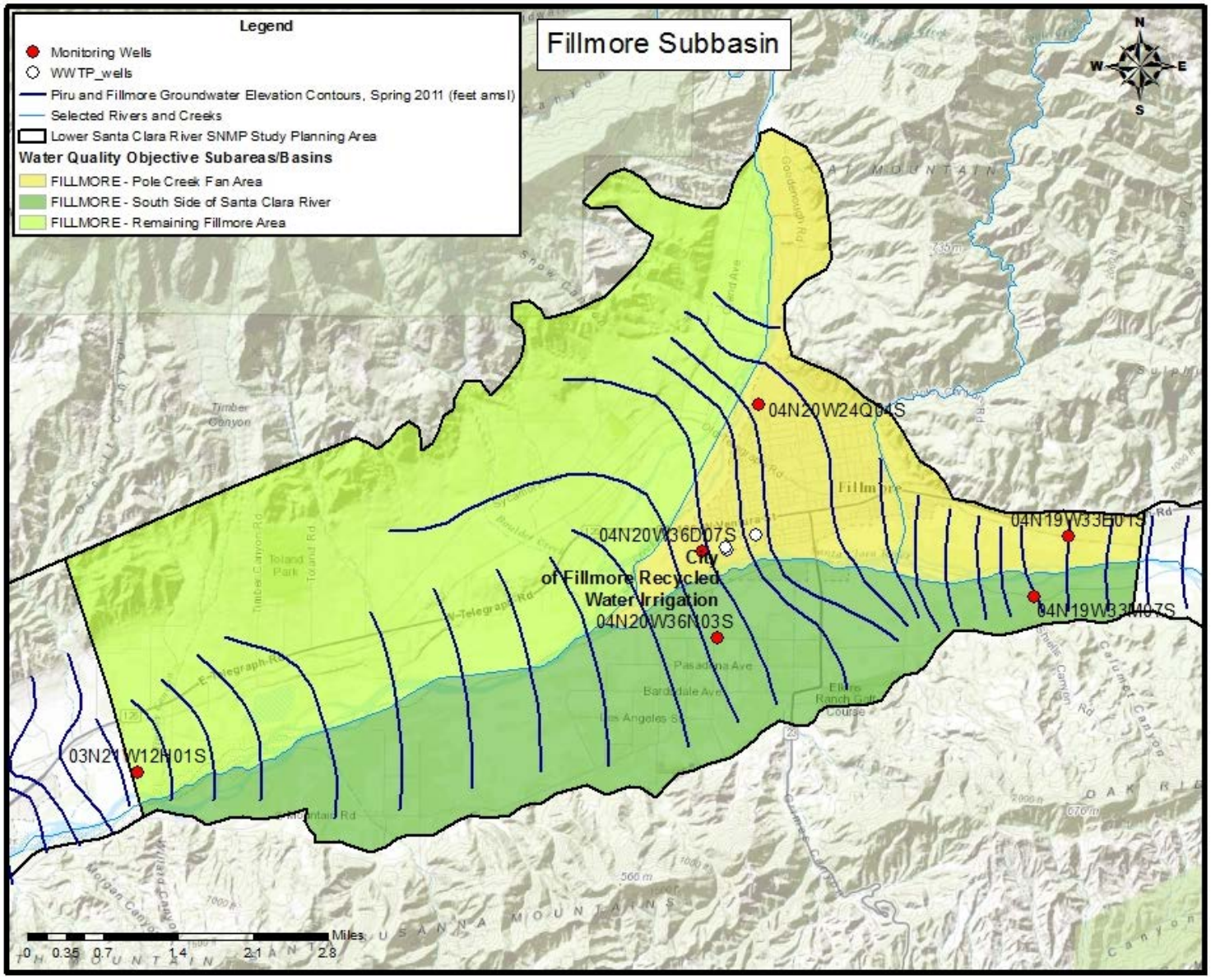

Figure 10-3 Fillmore Basin Monitoring Well Locations

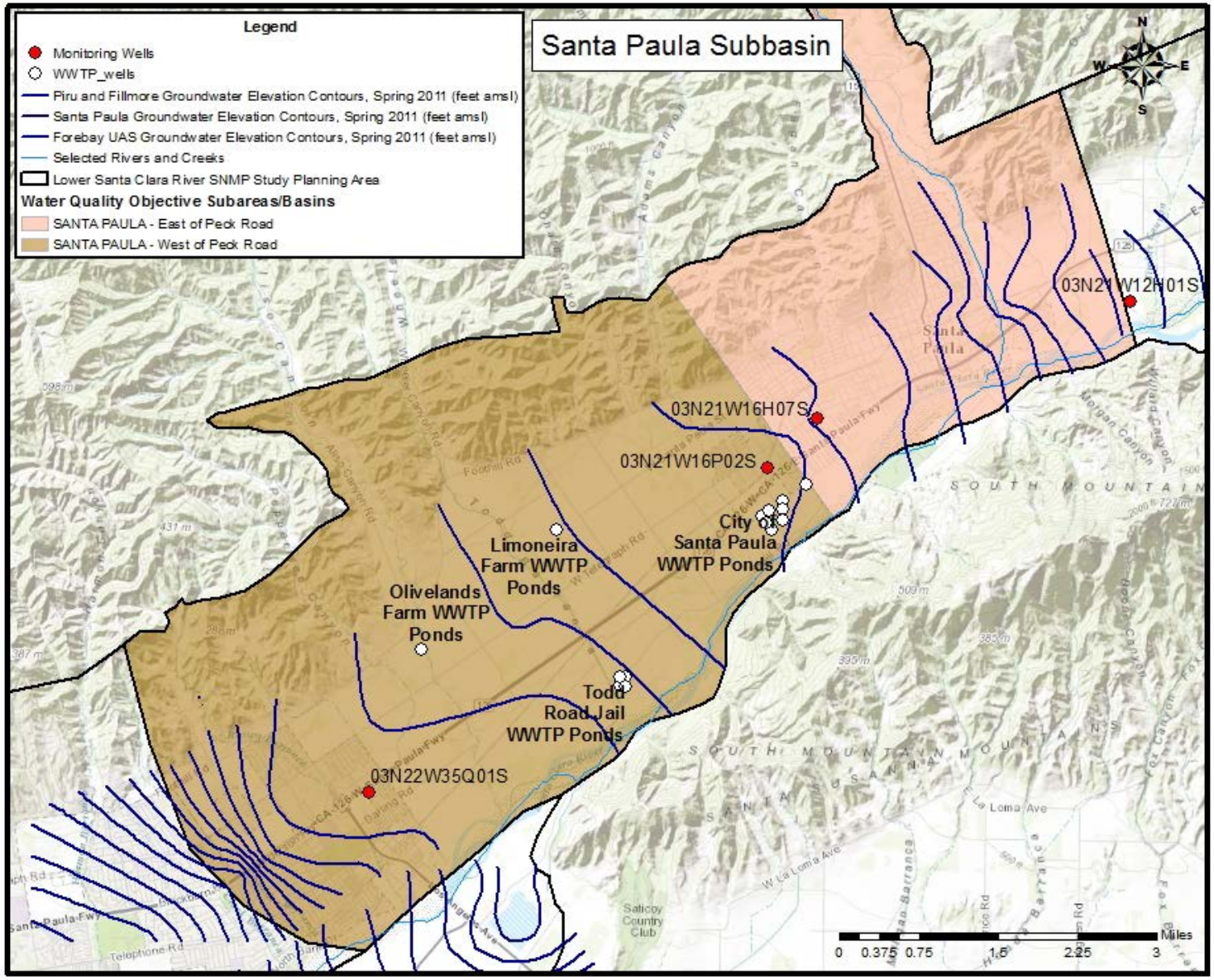

Figure 10-4 Santa Paula Basin Monitoring Well Locations

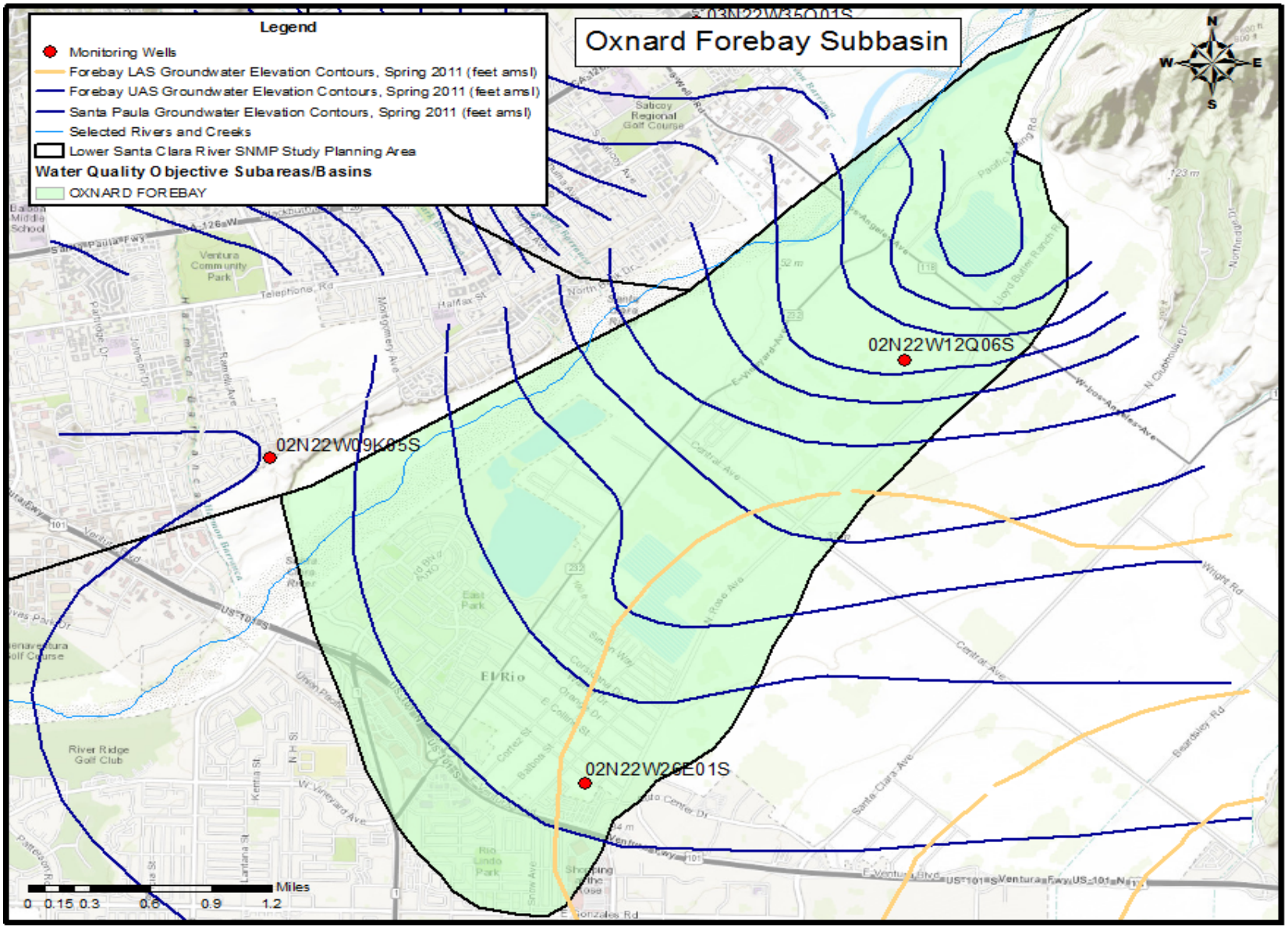

Figure 10-5 Mound and Oxnard Forebay Basin Monitoring Well Locations

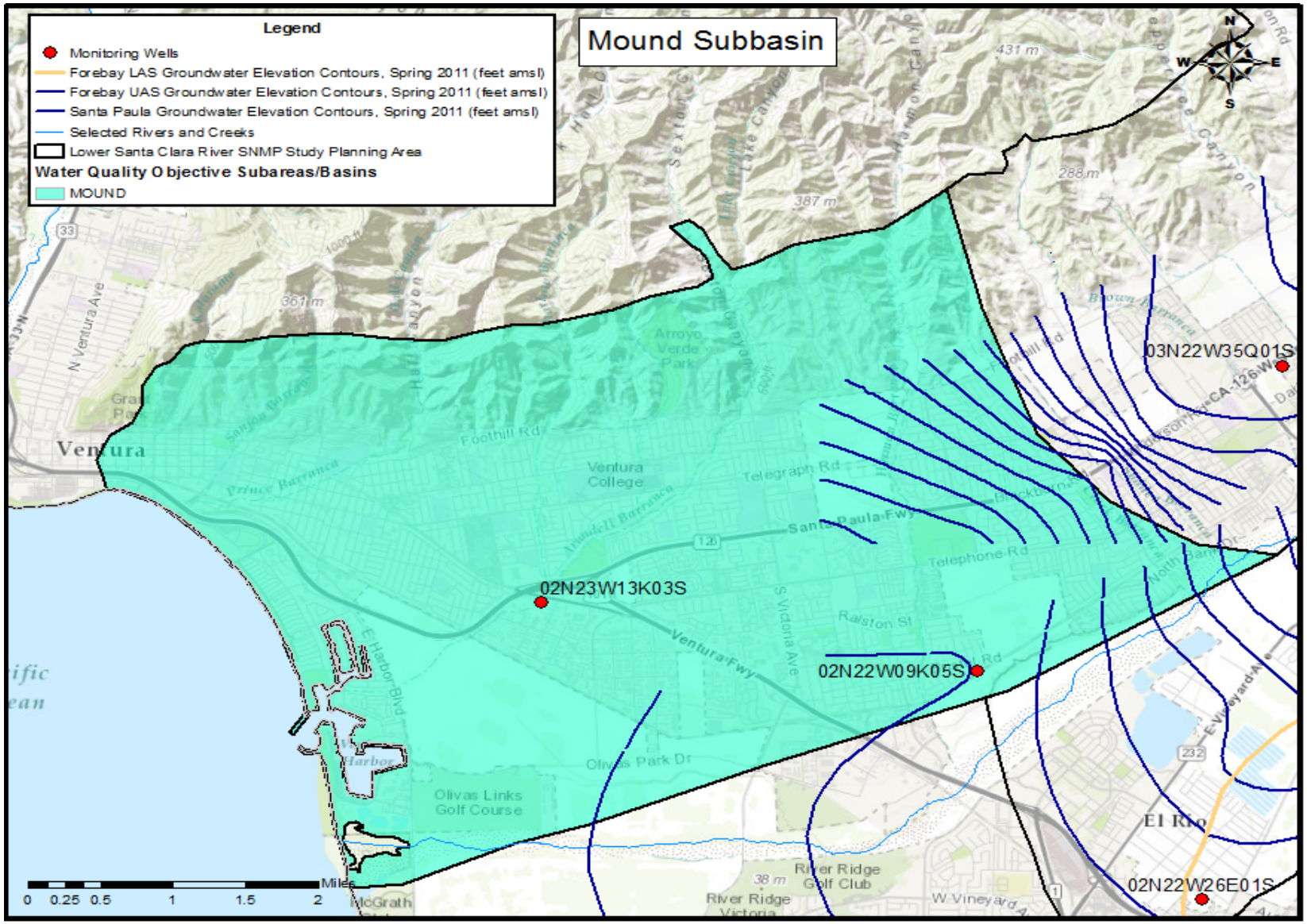

Figure 10-6 Mound Basin Monitoring Well Locations

10.5 TARGETED MONITORING LOCATIONS AND FREQUENCY

10.5.1 Recycled Water Projects and Groundwater Recharge Projects

The Recycled Water Policy requires monitoring proximate to large water recycling projects, particularly groundwater recharge projects. Salts, nutrients, and CECs will be part of the targeted monitoring for these projects. As noted, TDS, sulfate, chloride, boron, and nitrate as N will be monitored at all the targeted monitoring locations for large water recycling project and groundwater recharge projects. Each project will identify wells upgradient and downgradient of the surface or subsurface application areas. Additionally, the Recycled Water Policy provides requirements for the monitoring of CECs in recycled water used for groundwater recharge reuse as surface application and subsurface application. This monitoring, which is further described in this section, will be accomplished through the permits, such as WDRs, issued for the projects.

Targeted monitoring of CECs has three phases:

- Initial Assessment Phase – monitoring for a period of one year. Applies to the start-up of new facilities, piloting of new unit processes at existing facilities, and existing facilities where CECs and surrogates have not been assessed.
- Baseline Phase – monitoring for a period of three years following the initial assessment phase.
- Standard Operation Phase – standard monitoring following baseline phase

Groundwater recharge and reuse projects with surface application during the initial assessment phase will monitor health-based, performances based, and surrogate CECs on a quarterly basis following tertiary treatment prior to application to surface spreading area and at a monitoring well 30 days downgradient from the site. Groundwater recharge and reuse projects with subsurface applications during the initial assessment phase will monitor health based CECs on a quarterly basis following treatment prior to release to the aquifer. Performance indicator and surrogate CECs during the initial assessment phase monitored on a quarterly basis prior to Reverse Osmosis treatment and following treatment prior to release to the aquifer.

After enough data has been gathered during the initial assessment phase, the monitoring requirements shall be re-evaluated and monitoring may be reduced to semi-annually during the baseline phase. After the baseline phase of three years, the findings will again be evaluated and sampling frequency may be reduced to semi-annually or annually during the standard operation phase.

10.5.2 Areas of Interest

Targeted monitoring can be implemented for certain areas of interest to stakeholders within the LSCR Basin such as areas near municipal supply wells, areas of surface water and groundwater connectivity, or agricultural regions. When new projects are proposed in areas with exceedances of water quality objectives, targeted monitoring will be considered for implementation. Targeted monitoring for areas of interest would cater to the needs and goals of the specific project. For example, areas of surface water and groundwater connectivity can include surface water monitoring locations to help analyze the connection with groundwater.

Within areas of interest, an appropriate number of proposed monitoring wells would be selected based on the needs of the projects. A minimum number of wells would be chosen to provide sampling locations both upgradient and downgradient of the areas of interest in order to characterize water quality changes. Baseline monitoring locations will be utilized if possible with additional targeted wells selected as needed. The upgradient and downgradient wells would be monitored on a semi-annual or quarterly basis in order to allow for evaluation of seasonal wet weather and dry weather effects on groundwater quality. After sufficient data is collected, sampling frequency may be reduced to annual dependent on the needs of the project.

Table 10-7 Proposed Targeted Monitoring Program

Type of Monitoring	Constituents		Frequency
Targeted Monitoring for Recycled Water Projects and Groundwater Recharge Projects *Salts and Nutrients*	TDS Sulfate Chloride	Boron Nitrate as N	• Semi Annual • May be reduced to annual following baseline evaluation
Targeted Monitoring for Recycled Water Projects and Groundwater Recharge Projects *CECs*	CECs 17beta-estradiol NDMA Caffeine Triclosan Sucralose Iopromide DEET Gemfibrozil	Surrogates[1] Ammonia Total Organic Carbon Nitrate Ultraviolet Light Absorption Electrical Conductivity	• Initial assessment phase: Quarterly • Baseline phase: may be reduced to semi-annual after one year of initial monitoring • Standard operation phase: may be reduced to semi-annual or annual after three years of baseline monitoring
Targeted Monitoring for Areas of Interest	TDS Sulfate Chloride	Boron Nitrate as N	• Semi-annual or Quarterly based on target of interest • May be reduced to annual based on project needs

[1] Surrogates will be selected on a project-specific basis.

10.6 QA/QC AND REPORTING

A Quality Assurance/Quality Control (QA/QC) plan shall be implemented to ensure that analytical data can be used with confidence. QA/QC measures shall be used for both collection of samples and laboratory analysis. QA/QC procedures to be initiated include the following:

- Field Logs;
- Clean sampling techniques;
- Chains of Custody (CoCs);
- QA/QC samples; and
- Data verification.

Field logs will be used to record sampling information and field observations during monitoring that may explain any uncharacteristic analytical results. Sampling information to be included in the field log include the date and time of water quality sample collection, sampling personnel, sample container identification numbers, and types of samples that were collected. Field observations should be noted in the field log for any abnormalities (e.g., color, odor).

Clean sampling techniques will be used to ensure that samples are not contaminated. This involves the use of certified clean containers for sample collection, appropriate containers for the constituents, use of clean sampling equipment, and clean powder-free nitrile gloves during sample collection and handling.

CoCs will be used to track samples from collection through analysis and help ensure the validity of the sample. As part of the process, containers will be properly labeled, CoC forms will be used for all samples, and samples will be delivered to the analytical laboratory promptly to meet hold times.

QA/QC of samples will include field duplicates, field blanks, and Matrix Spike/Matrix Spike Duplicates (MS/MSDs). The USGS NAWQA program[4] provides guidance on the number and types of replicates, and blanks to be collected in the field.

Table 10-8 Quality Control Samples

Constituent	Field Duplicate[1]	Field Blank[1]	MS/MSD[1]
TDS			
Sulfate	X		
Chloride			
Boron	X		
Nitrate as N	X	X	
CECs	X	X	X

[1] Minimum of one monitoring site per basin per sampling event.

Field duplicates will be collected, handled, and analyzed using the same protocols as environmental samples and collected immediately after the environmental sample has been collected. Field blanks assess potential sample contamination levels that occur during field sampling activities. De-ionized water field blanks will be taken to the field, transferred to the appropriate container, and treated the same as the corresponding environmental sample type during the course of a sampling event. MS/MSDs that are required for a specified analyte will have additional volume collected directly after the environmental sample is collected. MS/MSDs require the collection of three times the standard sample volume.

Analytical methods for constituents will be selected to achieve EPA reporting limits and based on methods published by the EPA or methods certified by the CDPH as seen in **Table 10-1**.

[4] U.S. Geological Survey, 1997 to present, National field manual for the collection of water-quality data: U.S. Geological Survey Techniques of Water-Resources Investigations. 2003, National Water-Quality Assessment (NAWQA) protocol: accessed at: http://water.usgs.gov/nawqa/protocols/doc_list.html.

Analytical methods for laboratory analysis of CECs shall be selected to achieve the reporting limits presented in **Table 10-2**.

Table 10-9 Method and Detection Limits for Salts and Nutrients[5]

Constituent	Typical Test Method(s)	Detection Limit for Reporting (mg/L)[1]
TDS	EPA General Methods	10
Sulfate	Anions by EPA Method 300	0.5
Chloride	Anions by EPA Method 300	1
Boron	EPA Method 200.7	0.1
Nitrate as N	EPA 353.2, EPA Method 9210; Anions by EPA Method 300	2.0

[1] The testing procedure must be able to resolve concentrations at this level in order for the results to be acceptable.

After results are received from the analytical laboratory, the data will be analyzed to ensure that it is complete, accurate, and the appropriate QA/QC requirements were met. Data must be verified as soon as the data reports are received and will include checking the CoC and laboratory reports, verifying hold times and reporting levels were met, and checking QA/QC samples. For any exceedances of these criteria for QA/QC samples, the stakeholder will investigate possible sources of error and contamination. If feasible, samples will be re-analyzed. Results still not meeting these criteria will be qualified in the data submittal.

For QA/QC samples:

- Blank Samples should be below the analytical Reporting Limit;
- Duplicate measurements should be less than 25% Relative Percent Difference; and
- Matrix spikes and matrix spike duplicates should be within 75% to 125% recovery.

Data for this project will largely be in the form of lab reports of analytical sample concentrations. A SNMP groundwater monitoring report and results will be submitted to the RWQCB every three years through the GAMA Program. The SNMP report will include the following:

- Water quality summary tables;
- Time concentration plots to assess trends;
- Comparison of detections with water quality objectives; and
- Status of recycled water use and stormwater capture projects and implementation measures.

Data generated from the monitoring program will be submitted to the SWRCB's online groundwater information system – GeoTracker. Monitoring of WWTP and WRP wells are submitted routinely by the permitted entities to the RWQCB according to the reporting requirements for the individual Waste Discharge Requirements. The stakeholders responsible for conducting the sampling will also be responsible for reporting of the monitoring data.

[5] State Water Resource Control Board, Division of Water Quality Gama Program, Domestic Wells: Chemicals and Test Methods: accessed: http://www.waterboards.ca.gov/gama/docs/test_method.pdf.