

Attachment 4-1

Table 4-1. FY 05-06 SCVURPPP monitoring plan for Santa Clara Basin Watersheds¹.

Watershed Area	Data Type ²	Quarter in FY 05-06				Rationale	Lead Agency
		1st	2nd	3rd	4th		
Calabazas Creek	Chemical						
	Contaminants-Water ³	I (1)		I (1)		<ul style="list-style-type: none"> Baseline: Dissolved and total metals and organophosphate pesticides were measured in FY 04-05 by SCVURPPP at two sites during dry and wet seasons. FY 05-06: Further investigation of dissolved and total metals and organophosphate pesticides concentrations will be measured synoptically with toxicity testing at one site during dry and wet seasons. Future: Conduct monitoring of contaminants in water, synoptically with toxicity testing and physical and biological parameters, to determine status and trends. Monitoring pollutants of concern will be coordinated with the CEP. 	SCVURPPP
	General Water Quality ⁴	S (2)		S (2)	S(4)	<ul style="list-style-type: none"> Baseline: General water quality sampling was conducted in FY 04-05 by SCVURPPP at three sites during dry and wet seasons and four sites during spring season. FY 05-06: Screening level measurements of general water quality will be conducted synoptically with water chemistry (two sites) and bioassessment (four sites). Future: Conduct general water quality monitoring synoptic with chemical, physical and biological parameters to determine status and trends. 	SCVURPPP
	Conventional Water Chemistry ⁵	S (2)		S (2)		<ul style="list-style-type: none"> Baseline: Conventional water quality parameters were collected in FY 04-05 by SCVURPPP during dry and wet seasons at three locations to investigate potential sources of nutrients. FY 05-06: Screening level measurements of conventional water chemistry parameters will be collected at two sites during dry and wet seasons. Future: Conduct monitoring of conventional water chemistry synoptically with other chemical, biological and physical parameters to determine status and trends. 	SCVURPPP
	Biological						
	Toxicity-Water Quality ⁶	I (1)		I (1)		<ul style="list-style-type: none"> Baseline: Water toxicity testing was conducted in FY 04-05 by SCVURPPP at two sites during the dry and wet season, synoptically with water chemistry samples. FY 05-06: Water toxicity testing will be conducted at one site during wet and dry season, synoptically with water chemistry samples. Future: Water toxicity will be conducted synoptically with water chemistry for three species during wet and dry seasons to determine status and trends. 	SCVURPPP
Pathogen Indicator Organisms ⁷	S (2)		S (2)		<ul style="list-style-type: none"> Baseline: Bacterial indicators samples were collected in FY 04-05 by SCVURPPP at two sites during the dry and wet season. FY 05-06: Conduct monitoring of bacterial indicators at one site during two seasonal time periods. Future: Conduct monitoring of bacterial indicator organisms synoptically with other chemical, biological and physical parameters to determine status and trends. 	SCVURPPP	

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Watershed Area	Data Type ²	Quarter in FY 05-06				Rationale	Lead Agency
		1st	2nd	3rd	4th		
	Bioassessment – Macroinvertebrates ⁸				S (4)	<ul style="list-style-type: none"> Baseline: Benthic macroinvertebrate bioassessments were conducted in FY 04-05 by SCVURPPP at four sites during spring season. FY 05-06: Benthic macroinvertebrate bioassessment will be conducted at four sites. Future: Conduct benthic macroinvertebrate bioassessment synoptically with chemical and physical data to determine status and trends. 	SCVURPPP
	Bioassessment – Fish ⁹					<ul style="list-style-type: none"> Baseline: Existing SCVWD fish survey indicates majority of creek does not support native fish fauna due to lack of flow during summer season. FY 05-06: No fish bioassessment is currently planned. Future: No fish bioassessment is planned. 	SCVURPPP
Physical							
	Physical Habitat ¹⁰				S (4)	<ul style="list-style-type: none"> Baseline: Visual physical habitat assessment was conducted in FY 04-05 by SCVURPPP at four sites. FY 05-06: Visual physical habitat assessment will be conducted, concurrent with macroinvertebrate sampling, at four sites. Future: Conduct visual physical habitat assessment to determine status and trends. 	SCVURPPP
	Sediment Characterization ¹¹				S (4)	<ul style="list-style-type: none"> Baseline: Substrate composition and embeddedness was visually estimated in FY 04-05 by SCVURPPP at four sites. FY 05-06: Substrate composition and embeddedness will be visually estimated, concurrent with habitat assessment, at four sites. Future: Conduct visual estimates of substrate composition and embeddedness to determine status and trends. 	SCVURPPP
	Channel Dynamics and Hydrology					<ul style="list-style-type: none"> Baseline: Geomorphic assessment conducted in 2004 as part of SCVWD Stream Stewardship Project; type and extent of assessment is unknown. FY 05-06: Monitoring objectives have not been identified at this time. Future: Future monitoring objectives have not been identified at this time. 	SCVURPPP/ SCVWD
	Riparian Vegetation					<ul style="list-style-type: none"> Baseline: No existing data sources identified. FY 05-06: Specific monitoring objectives have not been identified at this time. Future: Future monitoring objectives have not been identified at this time. 	SCVURPPP

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Watershed Area	Data Type ²	Quarter in FY 05-06				Rationale	Lead Agency
		1st	2nd	3rd	4th		
Sunnyvale	Chemical						
East/West Channel	Contaminants – Water Quality	I (2)		I (2)		<ul style="list-style-type: none"> Baseline: Dissolved and total metals and organophosphate pesticides was measured in FY 04-05 by SCVURPPP during the dry and wet season at two sites on the East Channel and one site on the West Channel. FY 05-06: Further investigation of dissolved and total metals and organophosphate pesticides concentrations will be measured at one site in East Channel and one site in West Channel during the dry and wet season. Future: Conduct monitoring of contaminants in water to determine status and trends. Monitoring pollutants of concern will be coordinated with the CEP. 	SCVURPPP
	General Water Quality	S (2)		S (2)		<ul style="list-style-type: none"> Baseline: General water quality sampling was conducted at three sites in FY 04-05 by SCVURPPP during the dry and wet season. FY 05-06: Screening level measurements of general water quality will be conducted synoptically with water chemistry at one site in East Channel and one site in West Channel during the dry and wet season Future: Conduct general water quality monitoring synoptic with chemical, physical and biological parameters to determine status and trends. 	SCVURPPP
	Conventional Water Chemistry	S (2)		S (2)		<ul style="list-style-type: none"> Baseline: Conventional water quality parameters were collected in FY 04-05 by SCVURPPP during the dry and wet season at three locations to investigate potential sources of nutrients. FY 05-06: Screening level measurements of conventional water chemistry parameters will be collected at two sites during two seasonal time periods. Future: Conduct monitoring of conventional water chemistry synoptically with other chemical, biological and physical parameters to determine status and trends. 	SCVURPPP
	Biological						
	Toxicity - Water Quality					<ul style="list-style-type: none"> Baseline: No existing data was available. FY 05-06: Water toxicity testing is not planned. Future: Water toxicity testing is currently not planned. 	SCVURPPP
	Pathogen Indicator Organisms					<ul style="list-style-type: none"> Baseline: No existing data was available. FY 05-06: Sampling is not planned due to limited potential for contact recreation. Future: Future monitoring of bacterial indicator organisms is currently not planned. 	SCVURPPP
	Bioassessment - Macroinvertebrates					<ul style="list-style-type: none"> Baseline: No existing data was available. FY 05-06: Sampling is not planned. Future: Future monitoring of benthic macroinvertebrates is currently not planned. 	SCVURPPP

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Watershed Area	Data Type ²	Quarter in FY 05-06				Rationale	Lead Agency
		1st	2nd	3rd	4th		
	Bioassessment - Fish					<ul style="list-style-type: none"> Baseline: No existing data was available. FY 05-06: Sampling is not planned. Future: Future monitoring of fish is currently not planned. 	SCVURPPP
	Physical						
	Physical Habitat					<ul style="list-style-type: none"> Baseline: No existing data was available. FY 05-06: Sampling is not planned. Future: Future monitoring of physical habitat is currently not planned. 	SCVURPPP
	Sediment Characterization					<ul style="list-style-type: none"> Baseline: No existing data was available. FY 05-06: Sampling is not planned. Future: Future monitoring of sediment condition is currently not planned. 	SCVURPPP
	Channel Dynamics and Hydrology					<ul style="list-style-type: none"> Baseline: No existing data sources identified. FY 05-06: Monitoring objectives have not been identified at this time. Future: Future monitoring objectives have not been identified at this time. 	SCVURPPP
Riparian Vegetation					<ul style="list-style-type: none"> Baseline: No existing data sources identified. FY 05-06: Monitoring objectives have not been identified at this time. Future: Future monitoring objectives have not been identified at this time. 	SCVURPPP	
Matadero Creek	Chemical						
	Contaminants – Water Quality	I (1)		I (1)		<ul style="list-style-type: none"> Baseline: Dissolved and total metals and organophosphate pesticides were measured in FY 04-05 by SCVURPPP at two sites during dry and wet seasons. FY 05-06: Investigation of dissolved and total metals and organophosphate pesticides concentrations will be measured synoptically with toxicity testing at one site during dry and wet seasons. Future: Conduct monitoring of contaminants in water, synoptically with toxicity testing and physical and biological parameters, to determine status and trends. Monitoring pollutants of concern will be coordinated with the CEP. 	SCVURPPP
General Water Quality	S (2)		S (2)	S (2)	<ul style="list-style-type: none"> Baseline: General water quality sampling was conducted in FY 04-05 by SCVURPPP at three sites during dry and wet seasons and two sites during spring season. FY 05-06: Screening level measurements of general water quality will be conducted synoptically with water chemistry (2 sites) and bioassessment sampling (2 sites). Future: Conduct general water quality monitoring synoptic with chemical, physical and biological parameters to determine status and trends. 	SCVURPPP	

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Watershed Area	Data Type ²	Quarter in FY 05-06				Rationale	Lead Agency
		1st	2nd	3rd	4th		
	Conventional Water Chemistry	S (2)		S (2)		<ul style="list-style-type: none"> Baseline: Conventional water quality parameters were collected in FY 04-05 by SCVURPPP during dry and wet seasons at three locations to investigate potential sources of nutrients. FY 05-06: Screening level measurements of conventional water chemistry parameters will be collected at two sites during dry and wet seasons. Future: Conduct monitoring of conventional water chemistry synoptically with other chemical, biological and physical parameters to determine status and trends. 	SCVURPPP
<i>Biological</i>							
	Toxicity - Water Quality	I (1)		I (1)		<ul style="list-style-type: none"> Baseline: Water toxicity testing was conducted in FY 04-05 by SCVURPPP at two sites during the dry and wet season, synoptically with water chemistry samples. FY 05-06: Toxicity of water will be conducted at one site during wet and dry season, synoptically with water chemistry samples. Future: Water toxicity will be conducted synoptically with water chemistry for three species during wet and dry seasons to determine status and trends. 	SCVURPPP
	Pathogen Indicator Organisms	S (2)		S (2)		<ul style="list-style-type: none"> Baseline: Bacterial indicators samples were collected in FY 04-05 by SCVURPPP at two sites during the dry and wet season. FY 05-06: Conduct monitoring of bacterial indicators at two sites during two seasonal time periods. Future: Conduct monitoring of bacterial indicator organisms synoptically with other chemical, biological and physical parameters to determine status and trends. 	SCVURPPP
	Bioassessment - Macroinvertebrates				S (2)	<ul style="list-style-type: none"> Baseline: Benthic macroinvertebrate bioassessments were conducted in FY 04-05 by SCVURPPP at two sites during spring season. FY 05-06: Conduct benthic macroinvertebrate bioassessment at two sites. Future: Conduct benthic macroinvertebrate bioassessment synoptically with chemical and physical data to determine status and trends. 	SCVURPPP
	Bioassessment - Fish					<ul style="list-style-type: none"> Baseline: Fish bioassessments were conducted in FY 04-05 by SCVURPPP at two sites in October 2004. FY 05-06: No sampling is planned. Future: Conduct fish bioassessment synoptically with chemical and physical data to determine status and trends. 	SCVURPPP

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Watershed Area	Data Type ²	Quarter in FY 05-06				Rationale	Lead Agency
	<i>Physical</i>						
	Physical Habitat				S (2)	<ul style="list-style-type: none"> Baseline: Visual physical habitat assessment was conducted in FY 04-05 by SCVURPPP at two sites. FY 05-06: Visual physical habitat assessment will be conducted, concurrent with macroinvertebrate sampling, at two sites. Future: Visual habitat assessment will be conducted in the future, concurrent with macroinvertebrate sampling, to determine status and trends 	SCVURPPP
	Sediment Characterization				S (2)	<ul style="list-style-type: none"> Baseline: Substrate composition and embeddedness was visually estimated in FY 04-05 by SCVURPPP at two sites. FY 05-06: Substrate composition and embeddedness will be visually estimated, concurrent with habitat assessment, at two sites. Future: Conduct visual estimates of substrate composition and embeddedness to determine status and trends. 	SCVURPPP
	Channel Dynamics and Hydrology					<ul style="list-style-type: none"> Baseline: Channel cross-sections and longitudinal profiles were conducted by SCVWD starting in 2002 for lower section of Matadero Creek. FY 05-06: Continued measurements of channel geometry by the SCVWD. Future: Channel cross-sections and longitudinal profiles will be measured on an annual basis by SCVWD through 2011 as part of sediment transport study. 	SCVWD
	Riparian Vegetation					<ul style="list-style-type: none"> Baseline: No baseline data sources identified. FY 05-06: Specific monitoring objectives have not been identified at this time. Future: Future monitoring objectives have not been identified at this time. 	SCVURPPP
Stevens Creek	<i>Chemical</i>						
	Contaminants – Water Quality	I (2)			I (2)	<ul style="list-style-type: none"> Baseline: Dissolved and total metals and pesticide suite were measured in 2002 and 2003 by RWQCB at two sites during three seasonal time periods. FY 05-06: Investigation of dissolved and total metals and organophosphate pesticides concentrations will be measured synoptically with toxicity testing at two sites during dry and wet seasons. Future: Conduct monitoring of contaminants in water to determine status and trends. Monitoring pollutants of concern will be coordinated with the CEP. 	SCVURPPP
	General Water Quality	S (4)			S (4) S (7)	<ul style="list-style-type: none"> Baseline: General water quality sampling (both probe and continuous) was conducted in 2002 and 2003 by RWQCB at three sites during three seasonal time periods. FY 05-06: Screening level measurements of general water quality will be conducted synoptically with water chemistry (4 sites) and bioassessment sampling (7 sites). Future: Conduct general water quality monitoring synoptic with other chemical parameters to determine status and trends. 	SCVURPPP

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Watershed Area	Data Type ²	Quarter in FY 05-06				Rationale	Lead Agency
	Conventional Water Chemistry	S (4)		S (4)		<ul style="list-style-type: none"> Baseline: Conventional water quality parameters were collected in 2002 and 2003 by RWQCB at three sites during three seasonal time periods. FY 05-06: Screening level measurements of conventional water chemistry parameters will be collected at four sites during dry and wet seasons. Future: Conduct monitoring of conventional water chemistry synoptically with other chemical parameters to determine status and trends. 	SCVURPPP
	Biological						
	Toxicity - Water Quality	I (2)		I (2)		<ul style="list-style-type: none"> Baseline: Water toxicity testing was conducted in 2002 and 2003 by RWQCB at two sites during three seasonal time periods. FY 05-06: Toxicity of water will be conducted at two sites during dry and wet season, synoptically with water chemistry samples. Future: Water toxicity will be conducted synoptically with water chemistry for three species during wet and dry seasons to determine status and trends. 	Toxicity - Water Quality
	Pathogen Indicator Organisms	S (2)		S (2)		<ul style="list-style-type: none"> Baseline: No baseline data was available. FY 05-06: Conduct monitoring of bacterial indicators at two sites during two seasonal time periods. Future: Conduct monitoring of bacterial indicator organisms synoptically with other chemical, biological and physical parameters to determine status and trends. 	SCVURPPP
	Bioassessment - Macroinvertebrates				S (7)	<ul style="list-style-type: none"> Baseline: Benthic macroinvertebrate bioassessments were conducted in April 2002 by RWQCB at eight sites. USGS also collected BMI samples in spring and fall 1997 at seven sites in Stevens Creek. FY 05-06: Conduct benthic macroinvertebrate bioassessment at seven sites during spring season. Future: Conduct benthic macroinvertebrate bioassessment synoptically with chemical and physical data to determine status and trends. 	SCVURPPP
	Bioassessment - Fish					<ul style="list-style-type: none"> Baseline: Fish surveys were conducted at five stream locations between 1994 and 1996 by Rob Leidy. Additional fish survey information was collected by the SCVWD at selected locations between 1998 and 2000. FY 05-06: No sampling is planned. Future: Future monitoring of fish populations is not currently planned due to anticipated difficulty in obtaining collecting permits for steelhead. 	SCVURPPP

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Watershed Area	Data Type ²	Quarter in FY 05-06				Rationale	Lead Agency
	<i>Physical</i>						
	Physical Habitat				S (7)	<ul style="list-style-type: none"> Baseline: Visual physical habitat assessment was conducted in April 2002 by RWQCB at eight sites. FY 05-06: Visual physical habitat assessment will be conducted, concurrent with macroinvertebrate sampling, at seven sites. Future: Conduct visual physical habitat assessment to determine status and trends. 	SCVURPPP
	Sediment Characterization				S (7)	<ul style="list-style-type: none"> Baseline: Substrate composition and embeddedness was visually estimated in April 2002 by RWQCB at eight sites. FY 05-06: Substrate composition and embeddedness will be visually estimated, concurrent with habitat assessment, at seven sites. Future: Conduct visual estimates of substrate composition and embeddedness to determine status and trends. 	SCVURPPP
	Channel Dynamics and Hydrology					<ul style="list-style-type: none"> Baseline: Geomorphic assessment conducted in 2004 as part of SCVWD Stream Stewardship Project; type and extent of assessment is unknown. FY 05-06: Monitoring objectives have not been identified at this time. Future: Future monitoring objectives have not been identified at this time. 	SCVURPPP
	Riparian Vegetation					<ul style="list-style-type: none"> Baseline: No existing data sources identified. FY 05-06: Specific monitoring objectives have not been identified at this time. Future: Future monitoring objectives have not been identified at this time. 	SCVURPPP
Permanente Creek	<i>Chemical</i>						
	Contaminants – Water Quality	I (2)			I (2)	<ul style="list-style-type: none"> Baseline: Dissolved and total metals and pesticide suite were measured in 2002 and 2003 by RWQCB at two sites during three seasonal time periods. FY 05-06: Investigation of dissolved and total metals and organophosphate pesticides concentrations will be measured synoptically with toxicity testing at two sites during dry and wet seasons. Future: Conduct monitoring of contaminants in water to determine status and trends. Monitoring pollutants of concern will be coordinated with the CEP. 	SCVURPPP
	General Water Quality	S (3)			S (3) S (6)	<ul style="list-style-type: none"> Baseline: General water quality sampling (both probe and continuous) was conducted in 2002 and 2003 by RWQCB at two sites during three seasonal time periods. FY 05-06: Screening level measurements of general water quality will be conducted synoptically with water chemistry (3 sites) and bioassessment sampling (6 sites). Future: Conduct general water quality monitoring synoptic with other chemical parameters to determine status and trends. 	SCVURPPP

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Watershed Area	Data Type ²	Quarter in FY 05-06				Rationale	Lead Agency
	Conventional Water Chemistry	S (3)		S (3)		<ul style="list-style-type: none"> Baseline: Conventional water quality parameters were collected in 2002 and 2003 by RWQCB at two sites during three seasonal time periods. FY 05-06: Screening level measurements of conventional water chemistry parameters will be collected at three sites during dry and wet seasons. Future: Conduct monitoring of conventional water chemistry synoptically with other chemical parameters to determine status and trends. 	SCVURPPP
<i>Biological</i>							
	Toxicity - Water Quality	I (2)		I (2)		<ul style="list-style-type: none"> Baseline: Water toxicity testing was conducted in 2002 and 2003 by RWQCB at two sites during three seasonal time periods. FY 05-06: Toxicity of water will be conducted at two sites during dry and wet season, synoptically with water chemistry samples. Future: Water toxicity will be conducted synoptically with water chemistry for three species during wet and dry seasons to determine status and trends. 	SCVURPPP
	Pathogen Indicator Organisms	S (2)		S (2)		<ul style="list-style-type: none"> Baseline: No baseline data was available. FY 05-06: Conduct monitoring of bacterial indicators at two sites during two seasonal time periods. Future: Conduct monitoring of bacterial indicator organisms synoptically with other chemical, biological and physical parameters to determine status and trends. 	SCVURPPP
	Bioassessment - Macroinvertebrates				S (6)	<ul style="list-style-type: none"> Baseline: Benthic macroinvertebrate bioassessments were conducted in April 2002 by RWQCB at seven sites. FY 05-06: Conduct benthic macroinvertebrate bioassessment at six sites during spring season. Future: Conduct benthic macroinvertebrate bioassessment synoptically with chemical and physical data to determine status and trends. 	SCVURPPP
	Bioassessment - Fish		S (3)			<ul style="list-style-type: none"> Baseline: Fish surveys were conducted at two stream locations between 1994 and 1996 by Rob Leidy. FY 05-06: Conduct fish bioassessments at three sites in summer/fall season. Future: Future monitoring of fish populations is not currently planned due to anticipated difficulty in obtaining collecting permits for steelhead. 	SCVURPPP
<i>Physical</i>							
	Physical Habitat				S (6)	<ul style="list-style-type: none"> Baseline: Visual physical habitat assessment was conducted in April 2002 by RWQCB at seven sites. FY 05-06: Visual physical habitat assessment will be conducted, concurrent with macroinvertebrate sampling, at six sites. Future: Conduct visual physical habitat assessment to determine status and trends. 	SCVURPPP

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Watershed Area	Data Type ²	Quarter in FY 05-06				Rationale	Lead Agency
	Sediment Characterization				S (6)	<ul style="list-style-type: none"> • Baseline: Substrate composition and embeddedness was visually estimated in April 2002 by RWQCB at seven sites. • FY 05-06: Substrate composition and embeddedness will be visually estimated, concurrent with habitat assessment, at six sites. • Future: Conduct visual estimates of substrate composition and embeddedness to determine status and trends. 	SCVURPPP
	Channel Dynamics and Hydrology					<ul style="list-style-type: none"> • Baseline: Existing channel conditions downstream of Foothill Expressway described by SCVWD as part of flood planning study. • FY 05-06: Monitoring objectives have not been identified at this time. • Future: Future monitoring objectives have not been identified at this time. 	SCVURPPP
	Riparian Vegetation					<ul style="list-style-type: none"> • Baseline: No existing data sources identified. • FY 05-06: Specific monitoring objectives have not been identified at this time. • Future: Future monitoring objectives have not been identified at this time. 	SCVURPPP

1 Parameter types are listed with category of monitoring design, which include: (S) screening level, (I) investigative, and (T) status and trends. The number in parentheses represents the number of sampling locations for that sampling period. Sampling locations are described in separate table and figure attached to Plan.

2 Description of analyses conducted for each data type is described in the footnotes below. In some cases, partial analyses may be implemented for data types when existing data satisfies screening level target. Standard analytical methods are indicated in separate table attached to Plan; methods are intended to be congruent with SWAMP/RMAS methodology.

3 Water Chemistry: Total and dissolved metals (Al, Cr, Mn, Ni, Cu, Zn, Ag, Cd, Pb, As, Se), Hg and organophosphate pesticides; sampling conducted during dry and wet seasons (summer/fall and winter/spring).

4 General Water Quality: Temperature, dissolved oxygen, pH and specific conductance (multiparameter probe readings and/or continuous measurements); sampling conducted during dry and wet seasons.

5 Conventional Water Chemistry: Major anions: ortho-phosphate, nitrate, nitrite, chloride, sulfate; total phosphate, boron, TKN, TDS, SSC, ammonia, chlorophyll-a, alkalinity, hardness, TOC and DOC; during dry and wet seasons

6 Toxicity Testing: Aquatic bioassays on three species: (1) Ceriodaphnia: 7 day survival and reproduction; (2) pimephales 7-day; and (3) selenastrum test; toxicity conducted during dry and wet seasons.

7 Pathogen Indicator Organisms: total and fecal coliform, *enterococcus*, and *E. coli*; sampling conducted during dry and wet seasons.

8 Bioassessment - Macroinvertebrates: following CSBP methodology and conducted in the spring season.

9 Bioassessment – Fish: Rapid assessment of fish communities will be done using methods established in the SEIDP or by other standardized methods utilized by the SCVWD or other Co-permittee agencies; sampling likely to occur in the spring.

10 Habitat survey physical habitat assessment using CSBP methodology.

11 Creek substrate sediment composition and embeddedness is qualitatively estimated by visual observation during bioassessment and habitat survey.

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Table 4-2. Sampling locations and data types for SCVURPPP's FY 05-06 monitoring plan.

Stat Id	Station Name	Site Characteristics	Water Chem	Gen Water Qual	Water Tox (3spp.)	Conven chem	Bact Indicat	Fish Bioass	Macro-Invert Bioass	P-Hab Assmt
Matadero Creek										
M-2	Matadero Cr at Laguna	At Bol Park; channelized; warm native fish	2	3	2	2	2		1	1
M-3	Matadero Cr at Old Page Mill	Open space; natural channel; warm native fish		3		2	2		1	1
Sunnyvale (East/West)										
SU-1	Sunnyvale East at Ahwanhee	At Fair Oaks Park residential; excavated channel and box culvert;	2	2		2				
SU-3	Sunnyvale West at Mathilda	Industrial land use; below stormdrain outlet and just upstream of tidal area	2	2		2				
Calabazas Creek										
C-1	Calabazas Creek at Arques	Industrial and commercial; concrete channel	2	2	2	2				
C-2	Calabazas Creek above Miller Ave	At Creekside Park; above Regnart confluence; natural channel; residential		1					1	1
C-3	Calabazas Creek at Blaney Ave	At Calabazas Park; natural channel; recreational access; residential		3		2	2	1	1	1
C-4	Calabazas Creek below Railroad Crossing	Downstream Prospect Cr confl and SCVWD turnout; natural channel; residential		1					1	1
C-5	Calabazas Creek at Pierce Rd crossing	Natural channel; low density residential; some new development		1					1	1

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Stat Id	Station Name	Site Characteristics	Water Chem	Gen Water Qual	Water Tox (3 spp.)	Conven chem	Bact Indicat	Fish Bioass	Macro-Invert Bioass	P-Hab Assmt
Stevens Creek										
SV-1	Stevens Creek at La Avenida	Upstream tidal zone; earth levee channel; industrial and commercial	2	3	2	2			1	1
SV-2	Stevens Creek at Diversion Channel	Downstream of Permanente Creek Diversion; modified channel; residential		1					1	1
SV-3	Stevens Creek at Barranca	Downstream of Heney Creek confl; natural modified channel; residential		1					1	1
SV-4	Stevens Creek above Stevens Creek Blvd	Downstream of Blackberry Farm Golf Course; natural modified channel; residential	2	3	2	2	2		1	1
SV-5	Stevens Creek at USGS Gage Station	At Lower Stevens Creek County Park; natural channel below dam;		3		2	2		1	1
SV-6	Stevens Creek at Lower Stevens Cr County Park	Upper end of Lower Stevens Creek County Park above reservoir; natural channel;		3		2			1	1
SV-7	Stevens Creek at Upper Stevens Cr County Park	At Upper Stevens Creek County Park; natural channel;		1					1	1
Permanente Creek										
P-1	Permanente Creek at Charleston	Upstream tidal zone; earth levee channel; industrial and commercial	2	3	2	2			1	1
P-2	Permanente Creek above Diversion Channel	Above diversion; concrete and natural channel; residential		3		2	2		1	1
P-3	Permanente Creek at Foothill Expressway	Natural modified channel; residential		1				1	1	1
P-4	Permanente Creek at Rancho San Antonio park		2	3	2	2	2	1	1	1

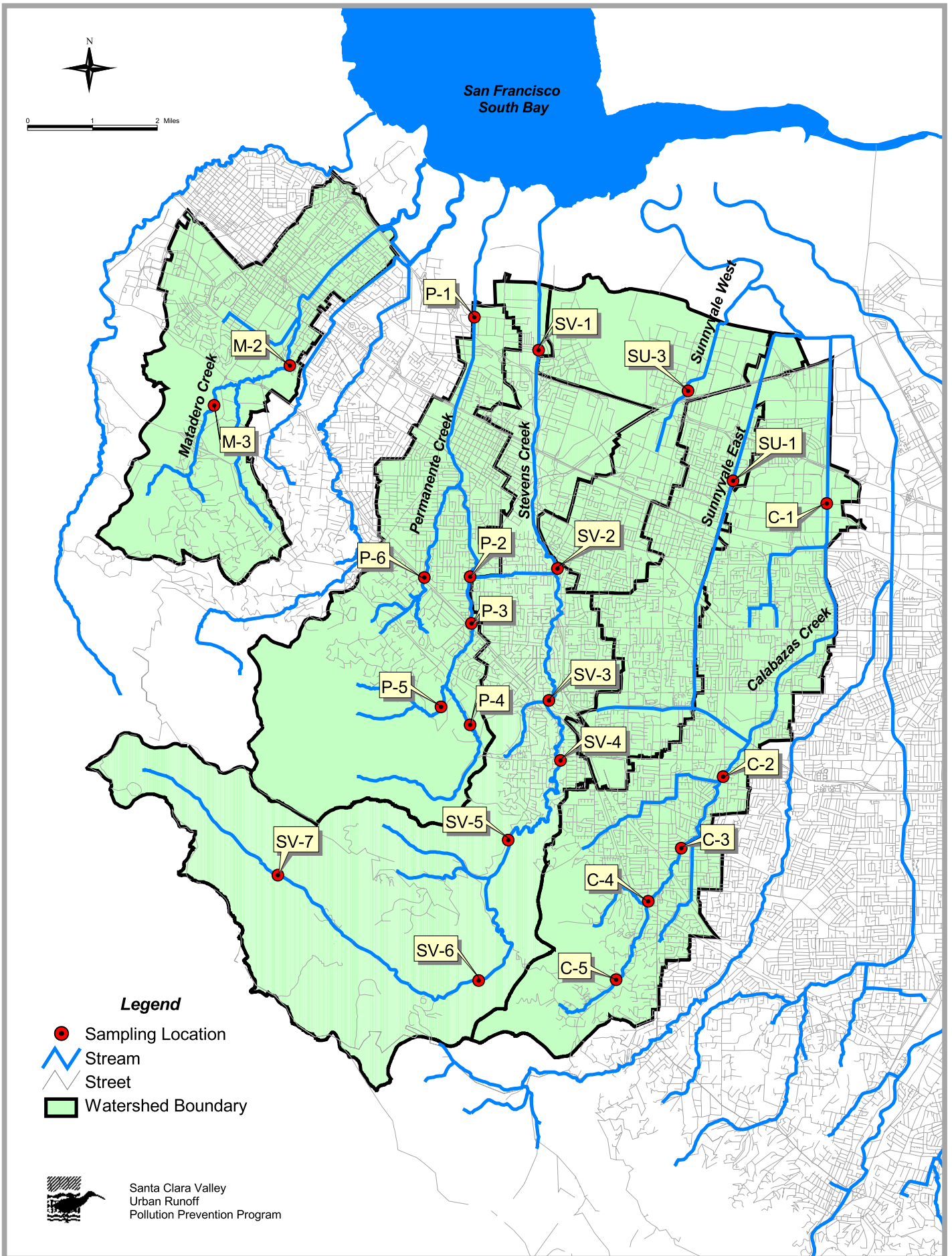
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Stat Id	Station Name	Site Characteristics	Water Chem	Gen Water Qual	Water Tox (3spp.)	Conven chem	Bact Indicat	Fish Bioass	Macro-Invert Bioass	P-Hab Assmt
P-4d	Duplicate sample		2			2				
P-5	West Branch Permanente Creek at Open Space District			1				1	1	1
P-6	Hale Creek at Foothill Expressway			1					1	1

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Table 4-3. Analytical methods used in SCVURPPP Multi-Year Monitoring Plan.

Description of data parameters	Analytical Methods
Pesticides (water) - Organophosphate suite	EPA 8141A
ICPMS metals suite (water)--unfiltered "total" (Includes Al, Cr, Mn, Ni, Cu, Zn, Ag, Cd, Pb, As, Se)	EPA 200.8, 206.3TR, 270.3
ICPMS metals suite (water)--filtered "dissolved" (Includes Al, Cr, Mn, Ni, Cu, Zn, Ag, Cd, Pb, As, Se)	EPA 200.8, 206.3D, 270.3
Total mercury (water)	EPA 245.7
Major anions nutrient scan: ortho-phosphate, nitrate, nitrite, chloride, sulfate	EPA 365.3, EPA 300.0
Total Phosphorus	EPA 365.2
Boron	EPA 200.8
TKN	EPA 351.3
TDS	EPA 160.1
Suspended Sediment Concentration (SSC)	ASTM D3977-97C
Ammonia	EPA 350.2
Chlorophyll-a	SM 10200H
Alkalinity	EPA 310.1
Hardness	EPA 130.2
TOC	EPA 415.1
DOC	EPA 415.1
Total coliform	SM 9221B&E
Fecal coliform	SM 9221B&E
<i>Enterococcus</i>	EPA 1600
<i>Ceriodaphnia 7-day Survival & Reproduction</i>	EPA-821-R-02-013
<i>Pimephales (fathead minnow) 7 - day</i>	EPA-821-R-02-013
<i>Selenastrum (algae) test</i>	EPA-821-R-02-013



Attachment 4-1 Figure 4-1. SCVURPPP FY 05-06 Watersheds and Sampling Site Locations.