

## Attachment 4-1

**Table 4-1. FY 04-05 SCVURPPP monitoring plan for Santa Clara Basin Watersheds<sup>1</sup>.**

Watershed Area	Data Type <sup>2</sup>	Quarter in FY 04-05				Rationale	Lead Agency
		1st	2nd	3rd	4th		
Adobe Creek	<b>Chemical</b>						
	Contaminants-Water <sup>3</sup>	I (1)		I (1)		<ul style="list-style-type: none"> <li>Baseline: Dissolved and total metals and organophosphate pesticides were measured in FY 03-04 by SCVURPPP at two sites during three seasonal time periods.</li> <li>FY 04-05: Further investigation of dissolved and total metals and organophosphate pesticides concentrations will be measured synoptically with toxicity testing at one site during two seasonal time periods.</li> <li>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.</li> </ul>	SCVURPPP
	General Water Quality <sup>4</sup>	S (2)		S (2)	S (3)	<ul style="list-style-type: none"> <li>Baseline: General water quality sampling was conducted in FY 03-04 by SCVURPPP at three sites during three seasonal time periods.</li> <li>FY 04-05: Screening level measurements of general water quality will be conducted synoptically with water chemistry (two sites) and bioassessment (three sites).</li> <li>Future: Conduct general water quality monitoring synoptic with chemical, physical and biological parameters to determine status and trends.</li> </ul>	SCVURPPP
	Conventional Water Chemistry <sup>5</sup>	S (2)		S (2)		<ul style="list-style-type: none"> <li>Baseline: Conventional water quality parameters were collected in FY 03-04 by SCVURPPP during three seasons at three locations to investigate potential sources of nutrients.</li> <li>FY 04-05: Screening level measurements of conventional water chemistry parameters will be collected at two sites during two seasonal time periods.</li> <li>Future: Conduct monitoring of conventional water chemistry synoptically with other chemical, biological and physical parameters to determine status and trends.</li> </ul>	SCVURPPP
	<b>Biological</b>						
	Toxicity-Water Quality <sup>6</sup>	I (1)		I (1)		<ul style="list-style-type: none"> <li>Baseline: Water toxicity testing was conducted in FY 03-04 by SCVURPPP at two sites for wet and dry season, synoptically with water chemistry samples.</li> <li>FY 04-05: Water toxicity testing will be conducted during wet and dry season, synoptically with water chemistry samples.</li> <li>Future: Water toxicity will be conducted synoptically with water chemistry for three species during wet and dry seasons to determine status and trends.</li> </ul>	SCVURPPP
Pathogen Indicator Organisms <sup>7</sup>	S (2)		S (2)		<ul style="list-style-type: none"> <li>Baseline: Bacterial indicators samples were collected in FY 03-04 by SCVURPPP at three sites for three seasonal time periods.</li> <li>FY 04-05: Conduct monitoring of bacterial indicators at two sites during two seasonal time periods.</li> <li>Future: Conduct monitoring of bacterial indicator organisms synoptically with other chemical, biological and physical parameters to determine status and trends.</li> </ul>	SCVURPPP	

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Watershed Area	Data Type <sup>2</sup>	Quarter in FY 04-05				Rationale	Lead Agency
		1st	2nd	3rd	4th		
	Bioassessment – Macroinvertebrates <sup>8</sup>				S (4)	<ul style="list-style-type: none"> <li>Baseline: Benthic macroinvertebrate bioassessments were conducted in FY 03-04 by SCVURPPP at four sites during spring season.</li> <li>FY 04-05: Benthic macroinvertebrate bioassessment will be conducted at four sites.</li> <li>Future: Conduct benthic macroinvertebrate bioassessment synoptically with chemical and physical data to determine status and trends.</li> </ul>	SCVURPPP
	Bioassessment – Fish <sup>9</sup>	S (2)				<ul style="list-style-type: none"> <li>Baseline: SCVWD existing fisheries map indicate native warm water fish community in the upper reaches of the watershed.</li> <li>FY 04-05: Conduct fish bioassessment at two sites in the fall.</li> <li>Future: Conduct fish bioassessment synoptically with chemical and physical data to determine status and trends.</li> </ul>	SCVURPPP
<b>Physical</b>							
	Physical Habitat <sup>10</sup>				S (4)	<ul style="list-style-type: none"> <li>Baseline: Visual physical habitat assessment was conducted in FY 03-04 by SCVURPPP at four sites.</li> <li>FY 04-05: Visual physical habitat assessment will be conducted, concurrent with macroinvertebrate sampling, at four sites.</li> <li>Future: Conduct visual physical habitat assessment to determine status and trends.</li> </ul>	SCVURPPP
	Sediment Characterization <sup>11</sup>				S (4)	<ul style="list-style-type: none"> <li>Baseline: Substrate composition and embeddedness was visually estimated in FY 03-04 by SCVURPPP at four sites.</li> <li>FY 04-05: Substrate composition and embeddedness will be visually estimated, concurrent with habitat assessment, at four sites.</li> <li>Future: Conduct visual estimates of substrate composition and embeddedness to determine status and trends.</li> </ul>	SCVURPPP
	Channel Dynamics and Hydrology					<ul style="list-style-type: none"> <li>Baseline: No existing data sources identified.</li> <li>FY 04-05: Monitoring objectives have not been identified at this time.</li> <li>Future: Future monitoring objectives have not been identified at this time.</li> </ul>	SCVURPPP
	Riparian Vegetation					<ul style="list-style-type: none"> <li>Baseline: No existing data sources identified.</li> <li>FY 04-05: Specific monitoring objectives have not been identified at this time.</li> <li>Future: Future monitoring objectives have not been identified at this time.</li> </ul>	SCVURPPP

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Watershed Area	Data Type <sup>2</sup>	Quarter in FY 04-05				Rationale	Lead Agency
		1st	2nd	3rd	4th		
San Tomas Aquino	<b>Chemical</b>						
	Contaminants – Water Quality	I (1)		I (1)		<ul style="list-style-type: none"> <li>Baseline: Dissolved and total metals and organophosphate pesticides was measured in FY 03-04 by SCVURPPP during three seasonal time periods at three sites on Saratoga and two sites on San Tomas Creek.</li> <li>FY 04-05: Further investigation of dissolved and total metals and organophosphate pesticides concentrations will be measured synoptically with toxicity testing at one site in San Tomas during two seasonal time periods.</li> <li>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.</li> </ul>	SCVURPPP
	General Water Quality	S (4)		S (4)	S (7)	<ul style="list-style-type: none"> <li>Baseline: General water quality sampling was conducted in FY 03-04 by SCVURPPP at seven sites during three seasonal time periods.</li> <li>FY 04-05: Screening level measurements of general water quality will be conducted synoptically with water chemistry (four sites) and bioassessment sampling (seven sites).</li> <li>Future: Conduct general water quality monitoring synoptic with chemical, physical and biological parameters to determine status and trends.</li> </ul>	SCVURPPP
	Conventional Water Chemistry	S (4)		S (4)		<ul style="list-style-type: none"> <li>Baseline: Conventional water quality parameters were collected in FY 03-04 by SCVURPPP during three seasons at seven locations to investigate potential sources of nutrients.</li> <li>FY 04-05: Screening level measurements of conventional water chemistry parameters will be collected at four sites during two seasonal time periods.</li> <li>Future: Conduct monitoring of conventional water chemistry synoptically with other chemical, biological and physical parameters to determine status and trends.</li> </ul>	SCVURPPP
	<b>Biological</b>						
	Toxicity - Water Quality	I (1)		I (1)		<ul style="list-style-type: none"> <li>Baseline: Water toxicity testing was conducted in FY 03-04 by SCVURPPP at three sites for wet and dry season, synoptically with water chemistry samples.</li> <li>FY 04-05: Water toxicity testing will be conducted at one site during wet and dry season, synoptically with water chemistry samples.</li> <li>Future: Water toxicity will be conducted synoptically with water chemistry for three species during wet and dry seasons to determine status and trends.</li> </ul>	SCVURPPP
	Pathogen Indicator Organisms	S (3)		S (3)		<ul style="list-style-type: none"> <li>Baseline: Bacterial indicators samples were collected in FY 03-04 by SCVURPPP at seven sites for three seasonal time periods.</li> <li>FY 04-05: Conduct monitoring of bacterial indicators at three sites during two seasonal time periods.</li> <li>Future: Conduct monitoring of bacterial indicator organisms synoptically with other chemical, biological and physical parameters to determine status and trends.</li> </ul>	SCVURPPP

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Watershed Area	Data Type <sup>2</sup>	Quarter in FY 04-05				Rationale	Lead Agency
		1st	2nd	3rd	4th		
	Bioassessment - Macroinvertebrates				S (7)	<ul style="list-style-type: none"> <li>Baseline: Benthic macroinvertebrate bioassessments were conducted in FY 03-04 by SCVURPPP at seven sites during spring season. Benthic macroinvertebrate data were also collected at six sites on Saratoga Creek in 1997 by the USGS.</li> <li>FY 04-05: Benthic macroinvertebrate bioassessments will be conducted at seven sites during spring season.</li> <li>Future: Conduct benthic macroinvertebrate bioassessment synoptically with chemical and physical data to determine status and trends.</li> </ul>	SCVURPPP
	Bioassessment - Fish	S (2)				<ul style="list-style-type: none"> <li>Baseline: SCVWD existing fisheries map indicate resident rainbow trout fish community. Rob Leidy conducted fish surveys at two sites in Saratoga in 1996.</li> <li>FY 04-05: Conduct fish bioassessment at two sites in the fall.</li> <li>Future: Conduct fish bioassessment synoptically with chemical and physical data to determine status and trends.</li> </ul>	SCVURPPP
<b>Physical</b>							
	Physical Habitat				S (7)	<ul style="list-style-type: none"> <li>Baseline: Visual physical habitat assessment was conducted in FY 03-04 by SCVURPPP at seven sites.</li> <li>FY 04-05: Visual physical habitat assessment will be conducted, concurrent with macroinvertebrate sampling, at seven sites.</li> <li>Future: Visual habitat assessment will be conducted in the future, concurrent with macroinvertebrate sampling, to determine status and trends</li> </ul>	SCVURPPP
	Sediment Characterization				S (7)	<ul style="list-style-type: none"> <li>Baseline: Substrate composition and embeddedness was visually estimated in FY 03-04 by SCVURPPP at six sites in Saratoga and one site in San Tomas Creek.</li> <li>FY 04-05: Substrate composition and embeddedness will be visually estimated, concurrent with habitat assmt at six sites in Saratoga and one site in San Tomas Creek.</li> <li>Future: Conduct visual estimates of substrate composition and embeddedness to determine status and trends.</li> </ul>	SCVURPPP
	Channel Dynamics and Hydrology					<ul style="list-style-type: none"> <li>Baseline: No existing data sources identified.</li> <li>FY 04-05: Monitoring objectives have not been identified at this time.</li> <li>Future: Future monitoring objectives have not been identified at this time.</li> </ul>	SCVURPPP
	Riparian Vegetation					<ul style="list-style-type: none"> <li>Baseline: No existing data sources identified.</li> <li>FY 04-05: Monitoring objectives have not been identified at this time.</li> <li>Future: Future monitoring objectives have not been identified at this time.</li> </ul>	SCVURPPP

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Watershed Area	Data Type <sup>2</sup>	Quarter in FY 04-05				Rationale	Lead Agency
		1st	2nd	3rd	4th		
Matadero Creek	<b>Chemical</b>						
	Contaminants – Water Quality	I (2)		I (2)		<ul style="list-style-type: none"> <li>Baseline: Metal concentrations in water were measured by City of Palo Alto at two locations in spring 1998.</li> <li>FY 04-05: Investigation of dissolved and total metals and organophosphate pesticides concentrations will be measured synoptically with toxicity testing at two sites during two seasonal time periods.</li> <li>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.</li> </ul>	SCVURPPP
	General Water Quality	S (3)		S (3)	S (3)	<ul style="list-style-type: none"> <li>Baseline: General water quality parameters were measured by City of Palo Alto at two locations in spring 1998.</li> <li>FY 04-05: Screening level measurements of general water quality will be conducted synoptically with water chemistry (3 sites) and bioassessment sampling (3 sites).</li> <li>Future: Conduct general water quality monitoring synoptic with chemical, physical and biological parameters to determine status and trends.</li> </ul>	SCVURPPP
	Conventional Water Chemistry	S (3)		S (3)		<ul style="list-style-type: none"> <li>Baseline: Nitrates, turbidity and total and dissolved solids were measured by City of Palo Alto at two locations in spring 1998.</li> <li>FY 04-05: Screening level measurements of conventional water chemistry parameters will be collected at three sites during two seasonal time periods.</li> <li>Future: Conduct monitoring of conventional water chemistry synoptically with other chemical, biological and physical parameters to determine status and trends.</li> </ul>	SCVURPPP
	<b>Biological</b>						
	Toxicity - Water Quality	I (2)		I (2)		<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Toxicity of water will be conducted at two sites during wet and dry season, synoptically with water chemistry samples.</li> <li>Future: Water toxicity will be conducted synoptically with water chemistry for three species during wet and dry seasons to determine status and trends.</li> </ul>	SCVURPPP
	Pathogen Indicator Organisms	S (2)		S (2)		<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Conduct monitoring of bacterial indicators at two sites during two seasonal time periods.</li> <li>Future: Conduct monitoring of bacterial indicator organisms synoptically with other chemical, biological and physical parameters to determine status and trends.</li> </ul>	SCVURPPP
	Bioassessment - Macroinvertebrates				S (3)	<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Conduct benthic macroinvertebrate bioassessment at three sites.</li> <li>Future: Conduct benthic macroinvertebrate bioassessment synoptically with chemical and physical data to determine status and trends.</li> </ul>	SCVURPPP

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Watershed Area	Data Type <sup>2</sup>	Quarter in FY 04-05				Rationale	Lead Agency
		1st	2nd	3rd	4th		
	Bioassessment - Fish	S (2)				<ul style="list-style-type: none"> <li>Baseline: SCVWD existing fisheries map indicate native warm water fish community. Rob Leidy conducted fish surveys at three locations in Matadero Creek in 1997.</li> <li>FY 04-05: Conduct fish bioassessment at two sites in the fall.</li> <li>Future: Conduct fish bioassessment synoptically with chemical and physical data to determine status and trends.</li> </ul>	SCVURPPP
<b><i>Physical</i></b>							
	Physical Habitat				S (3)	<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Visual physical habitat assessment will be conducted, concurrent with macroinvertebrate sampling, at three sites.</li> <li>Future: Visual habitat assessment will be conducted in the future, concurrent with macroinvertebrate sampling, to determine status and trends</li> </ul>	SCVURPPP
	Sediment Characterization				S (3)	<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Substrate composition and embeddedness will be visually estimated, concurrent with habitat assessment, at three sites.</li> <li>Future: Conduct visual estimates of substrate composition and embeddedness to determine status and trends.</li> </ul>	SCVURPPP
	Channel Dynamics and Hydrology					<ul style="list-style-type: none"> <li>Baseline: Channel cross-sections and longitudinal profiles were conducted by SCVWD starting in 2002 for lower section of Matadero Creek.</li> <li>FY 04-05: Channel cross-sections and longitudinal profiles will be measured by SCVWD.</li> <li>Future: Channel cross-sections and longitudinal profiles will be measured on an annual basis by SCVWD through 2011 as part of sediment transport study.</li> </ul>	SCVWD
	Riparian Vegetation					<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Specific monitoring objectives have not been identified at this time.</li> <li>Future: Future monitoring objectives have not been identified at this time.</li> </ul>	SCVURPPP

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Watershed Area	Data Type <sup>2</sup>	Quarter in FY 04-05				Rationale	Lead Agency
		1st	2nd	3rd	4th		
<b>Barron Creek</b>	<b>Chemical</b>						
	Contaminants – Water Quality	S (1)		S (1)		<ul style="list-style-type: none"> <li>Baseline: Metal concentrations in water were measured by City of Palo Alto at one location in spring 1998.</li> <li>FY 04-05: Investigation of dissolved and total metals concentrations will be measured at two sites during two seasonal time periods.</li> <li>Future: Conduct monitoring of contaminants in water to determine status and trends. Monitoring pollutants of concern will be coordinated with the CEP.</li> </ul>	SCVURPPP
	General Water Quality	S (1)		S (1)	S (1)	<ul style="list-style-type: none"> <li>Baseline: General water quality parameters were measured by City of Palo Alto at one location in spring 1998.</li> <li>FY 04-05: Screening level measurements of general water quality will be conducted synoptically with water chemistry (1 site) and bioassessment sampling (1 site).</li> <li>Future: Conduct general water quality monitoring synoptically with chemical, physical and biological parameters to determine status and trends.</li> </ul>	SCVURPPP
	Conventional Water Chemistry	S (1)		S (1)		<ul style="list-style-type: none"> <li>Baseline: Nitrates, turbidity and total and dissolved solids were measured by City of Palo Alto at one location in spring 1998.</li> <li>FY 04-05: Screening level measurements of conventional water chemistry parameters will be collected at one site during two seasonal time periods.</li> <li>Future: Conduct monitoring of conventional water chemistry synoptically with other chemical, biological and physical parameters to determine status and trends.</li> </ul>	SCVURPPP
	<b>Biological</b>						
	Bioassessment - Macroinvertebrates				S (1)	<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Conduct benthic macroinvertebrate bioassessment at one site.</li> <li>Future: Conduct benthic macroinvertebrate bioassessment synoptically with chemical and physical data to determine status and trends.</li> </ul>	SCVURPPP
	<b>Physical</b>						
	Physical Habitat				S (1)	<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 03-04: Conduct visual habitat assessment synoptically with macroinvertebrate bioassessment.</li> <li>Future: Visual habitat assessment will be conducted in the future, concurrent with macroinvertebrate sampling, to determine status and trends</li> </ul>	SCVURPPP
	Sediment Characterization				S (1)	<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Substrate composition and embeddedness will be visually estimated, concurrent with habitat assessment, at one site.</li> <li>Future: Conduct visual estimates of substrate composition and embeddedness to determine status and trends.</li> </ul>	SCVURPPP

## Attachment 4-1

Watershed Area	Data Type <sup>2</sup>	Quarter in FY 04-05				Rationale	Lead Agency
		1st	2nd	3rd	4th		
	Channel Dynamics and Hydrology					<ul style="list-style-type: none"> <li>No baseline data sources identified.</li> <li>FY 04-05: Specific monitoring objectives have not been identified at this time.</li> <li>Future: Future monitoring objectives have not been identified at this time.</li> </ul>	SCVURPPP
	Riparian Vegetation					<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Specific monitoring objectives have not been identified at this time.</li> <li>Future: Future monitoring objectives have not been identified at this time.</li> </ul>	SCVURPPP
<b>Sunnyvale (East/West)</b>	<b>Chemical</b>						
	Contaminants – Water Quality	S (3)		S (3)		<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Investigation of dissolved and total metals will be measured in West Channel (one site) and East Channel (two sites) during two seasonal time periods.</li> <li>Future: Conduct monitoring of contaminants in water to determine status and trends. Monitoring pollutants of concern will be coordinated with the CEP.</li> </ul>	SCVURPPP
	General Water Quality	S (3)		S (3)		<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Screening level measurements of general water quality will be conducted synoptically with water chemistry in West Channel (one site) and East Channel (two sites).</li> <li>Future: Conduct general water quality monitoring synoptic with other chemical parameters to determine status and trends.</li> </ul>	SCVURPPP
	Conventional Water Chemistry	S (3)		S (3)		<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Screening level measurements of conventional water chemistry parameters will be collected in West Channel (one site) and East Channel (two sites).</li> <li>Future: Conduct monitoring of conventional water chemistry synoptically with other chemical parameters to determine status and trends.</li> </ul>	SCVURPPP
<b>Calabazas Creek</b>	<b>Chemical</b>						
	Contaminants – Water Quality	I (2)		I (2)		<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Investigation of dissolved and total metals and organophosphate pesticides concentrations will be measured synoptically with toxicity testing at two sites during two seasonal time periods.</li> <li>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.</li> </ul>	SCVURPPP

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Watershed Area	Data Type <sup>2</sup>	Quarter in FY 04-05				Rationale	Lead Agency
		1st	2nd	3rd	4th		
	General Water Quality	S (3)		S (3)	S (4)	<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Screening level measurements of general water quality will be conducted synoptically with water chemistry (3 sites) and bioassessment sampling (4 sites).</li> <li>Future: Conduct general water quality monitoring synoptic with chemical, physical and biological parameters to determine status and trends.</li> </ul>	SCVURPPP
	Conventional Water Chemistry	S (3)		S (3)		<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Screening level measurements of conventional water chemistry parameters will be collected at three sites during two seasonal time periods.</li> <li>Future: Conduct monitoring of conventional water chemistry synoptically with other chemical, biological and physical parameters to determine status and trends.</li> </ul>	SCVURPPP
<b>Biological</b>							
	Toxicity - Water Quality	I (2)		I (2)		<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Toxicity of water will be conducted at two sites during wet and dry season, synoptically with water chemistry samples.</li> <li>Future: Water toxicity will be conducted synoptically with water chemistry for three species during wet and dry seasons to determine status and trends.</li> </ul>	SCVURPPP
	Pathogen Indicator Organisms	S (2)		S (2)		<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Conduct monitoring of bacterial indicators at two sites during two seasonal time periods.</li> <li>Future: Conduct monitoring of bacterial indicator organisms synoptically with other chemical, biological and physical parameters to determine status and trends.</li> </ul>	SCVURPPP
	Bioassessment - Macroinvertebrates				S (4)	<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Conduct benthic macroinvertebrate bioassessment at four sites.</li> <li>Future: Conduct benthic macroinvertebrate bioassessment synoptically with chemical and physical data to determine status and trends.</li> </ul>	SCVURPPP
	Bioassessment - Fish	S (2)				<ul style="list-style-type: none"> <li>Baseline: SCVWD existing fisheries map indicate mixed native and introduced fish community in the upper and lower reaches.</li> <li>FY 04-05: Conduct fish bioassessment at two sites.</li> <li>Future: Conduct fish bioassessment synoptically with chemical and physical data to determine status and trends.</li> </ul>	SCVURPPP
<b>Physical</b>							
	Physical Habitat				S (4)	<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Visual physical habitat assessment will be conducted, concurrent with macroinvertebrate sampling, at four sites.</li> <li>Future: Visual habitat assessment will be conducted in the future, concurrent with macroinvertebrate sampling, to determine status and trends.</li> </ul>	SCVURPPP

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Watershed Area	Data Type <sup>2</sup>	Quarter in FY 04-05				Rationale	Lead Agency
		1st	2nd	3rd	4th		
	Sediment Characterization				S (4)	<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 04-05: Substrate composition and embeddedness will be visually estimated, concurrent with habitat assessment, at four sites.</li> <li>Future: Conduct visual estimates of substrate composition and embeddedness to determine status and trends.</li> </ul>	SCVURPPP
	Channel Dynamics and Hydrology					<ul style="list-style-type: none"> <li>Baseline: No existing data sources identified.</li> <li>FY 04-05: Monitoring objectives have not been identified at this time.</li> <li>Future: Future monitoring objectives have not been identified at this time.</li> </ul>	SCVURPPP
	Riparian Vegetation					<ul style="list-style-type: none"> <li>Baseline: No baseline data sources identified.</li> <li>FY 03-04: Specific monitoring objectives have not been identified at this time.</li> <li>Future: Future monitoring objectives have not been identified at this time.</li> </ul>	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 two seasonal time periods (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 for three seasonal time periods.

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 two seasonal time periods (summer/fall and winter/spring).

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 at wet and dry season.

7 Pathogen Indicator Organisms: total and fecal coliform, *enterococcus*, and *E. coli*; sampling conducted for three seasonal time periods.

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 04-05 monitoring plan.**

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
<b>Adobe Creek</b>										
A-1	Adobe Cr at Middlefield Rd	At Mitchell Park; residential/commercial; concrete channel	2	2	2	2	2			
A-2	Adobe Cr at Terman Park	At Terman Park; residential land use; natural channel		3		2	2		1	1
A-3	Adobe Cr at Edith Ave	Residential; natural channel; mixed native/introduced fish		1				1	1	1
A-4	Adobe Cr at Foothill College	College campus, low density residential and open space land uses; natural channel; warm native fish community		1				1	1	1
A-5	Adobe Cr at Moody Rd	Low density residential, open space; natural channel; warm native fish community		1					1	1
<b>San Tomas Aquino Creek</b>										
ST-1	San Tomas Cr at Scott Blvd	Industrial; concrete channel; below Saratoga Cr confl.	2	2	2	2				
ST-3	San Tomas Cr at Westmont Ave	Below tributary confl. at High school; earth channel		1					1	1
S-1	Saratoga Cr at Cabrillo	At Bowers Park; commercial/resident; earthen channel		2		2	2			
S-1.5	Saratoga Cr at Kiely	At Central Park; residential; earthen channel		2		2	2			
S-2	Saratoga Cr at Bollinger	Mixed land use; natural channel; potential trout fish community		1					1	1
S-2.5	Saratoga Cr at bend of Oak Knoll Dr	At Murdoch Park; mixed landuse; earthen channel; potential trout fish community		2		2	2			

## ATTACHMENT 4-1

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
S-3	Saratoga Cr at Prospect	Mixed land use; natural channel; potential trout fish community		1				1	1	1
S-4	Saratoga Cr at Via Monte	Residential; natural channel; potential trout fish community		1					1	1
S-5	Saratoga Cr at Alta Vista Ave	Residential; natural channel; potential trout fish community		1					1	1
S-6	Saratoga Cr at Big Basin and Gate	Low density residential; natural channel; cold trout fish community		1				1	1	1
S-7	Saratoga Cr at Congress Springs and Pierce	Low density residential; natural channel; cold trout fish community		1					1	1
<b>Matadero Creek</b>										
M-1	Matadero Cr above Middlefield Rd	At Hoover Park, residential; concrete channel; mixed native/introduced fish; near upper tidal limit	2	2	2	2	2			
M-2	Matadero Cr at Roble Ridge	At Bol Park; commercial/public use; concrete channel; mixed native/introduced fish		3		2	2		1	1
M-3	Matadero Cr at Old Page Mill	Open space; natural channel; warm native fish		1				1	1	1
M-4	Matadero Cr at Atrascadero Rd crossing	Low density residential, open space, and golf course land uses; warm native fish	2	3	2	2		1	1	1

## ATTACHMENT 4-1

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
<b>Barron Creek</b>										
B-1	Barron Cr at Cowper Rd	Residential land use; concrete channel; no fish data; above tidal	2	2		2				
B-2	Barron Cr at Fremont Rd	Residential land use; natural channel; no fish data		1					1	1
<b>Sunnyvale (East/West)</b>										
SU-1	Sunnyvale East at N. Wolfe	At Fair Oaks Park residential; excavated channel and box culvert;	2	2		2				
SU-2	Sunnyvale East at Daffodil Ct	At Braly 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				
<b>Calabazas Creek</b>										
C-1	Calabazas Creek at Arques	Industrial land use; ½ mi d/s El Camino Storm Drain outfall; concrete channel; native/introduced fish assem	2	2	2	2				
C-2	Calabazas Creek at Benton	At Homestead Park; residential land use; concrete channel; no fish reported		2		2	2			
C-3	Calabazas Creek at Miller	Just below Regnart Cr confl and above newly construct flood control channel		1					1	1

## ATTACHMENT 4-1

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
C-4	Calabazas Creek at Blaney Ave	At Calabazas Park; residential land use; natural channel; mixed native/introduced fish	2	3	2	2	2	1	1	1
C-5	Calabazas Creek at Railroad Crossing	Just below Prospect Cr confl; natural channel; low density resident, golf course; mixed native/introduced fish		1					1	1
C-6	Calabazas Creek at Pierce Rd crossing	Low density resident; mixed native/introduced fish		1				1	1	1

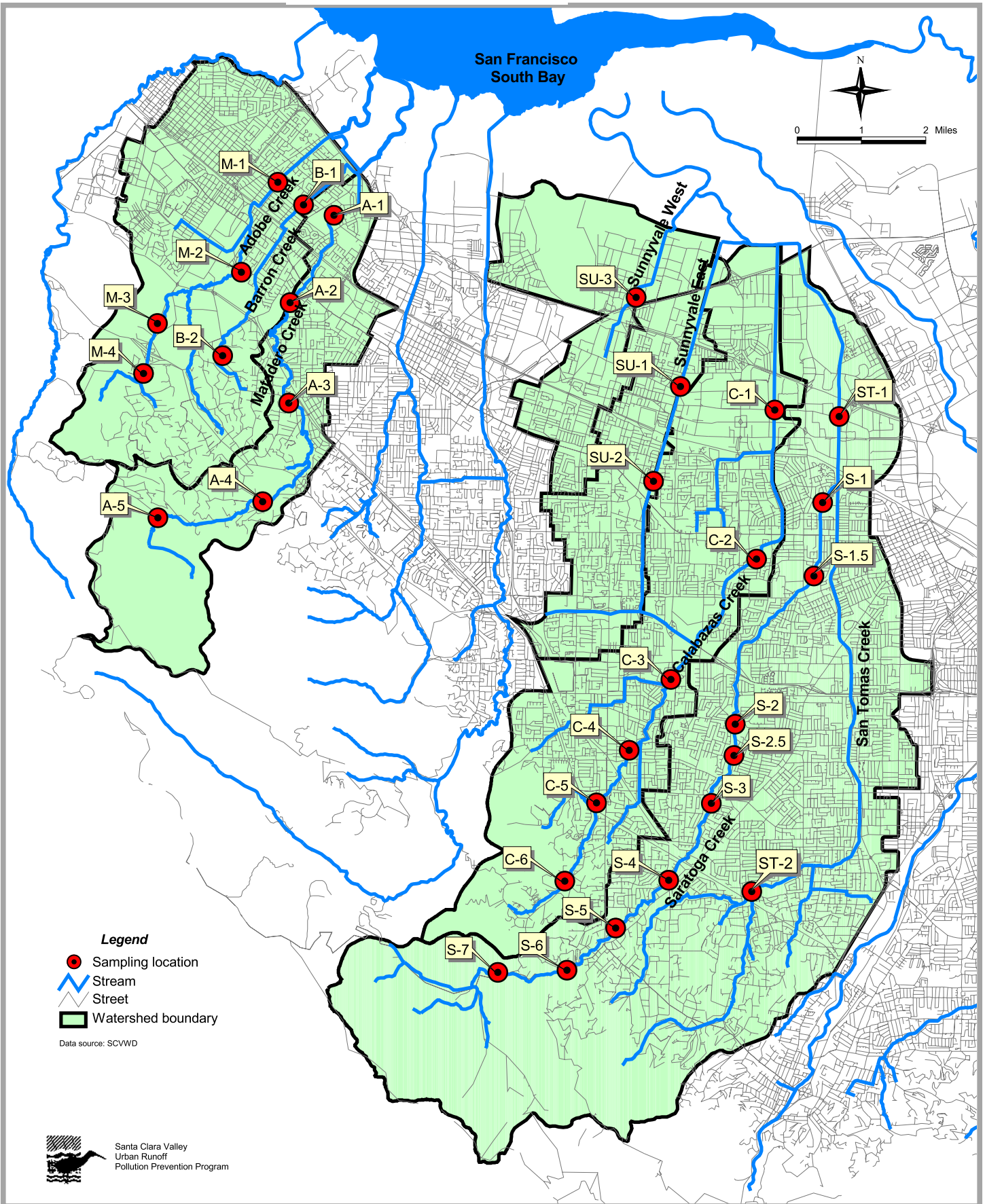


Figure 4-1. Proposed sampling locations for the SCVURPPP FY 04-05 Monitoring Plan.

## Attachment 4-1

**Table 4-3. Analytical methods used in SCVURPPP FY 03-04 and Multiyear Monitoring Plan.**

Description of data parameters	Analytical Methods
Pesticides (water) - Organophosphate suite	EPA 8141A
Pesticides (sediment) - Organochlorine suite	EPA 8081A
PCB congeners	EPA 8082
PAH congeners	EPA 8270
ICPMS metals suite (sediment) (Includes Al, Cr, Mn, Ni, Cu, Zn, Ag, Cd, Pb, As--all costs)	EPA 6020
ICPMS metals suite (water)--unfiltered "total" (Includes Al, Cr, Mn, Ni, Cu, Zn, Ag, Cd, Pb, As, Se--all costs)	EPA 200.8
ICPMS metals suite (water)--filtered "dissolved" (Includes Al, Cr, Mn, Ni, Cu, Zn, Ag, Cd, Pb, As, Se--al costs)	EPA 200.8
Total mercury (sediment)	EPA 245.7/1631M
Major anions nutrient scan: ortho-phosphate, nitrate, nitrite, chloride, sulfate	EPA 365.2, EPA 300
Total Phosphate	EPA 365.2
Boron	EPA 200.8
TKN	EPA 351.3
TDS	EPA 160.1
Suspended Sediment Concentration (SSC)	ASTM D3977-97
Ammonia	EPA 350.3
Chlorophyll-a	SM 10200H/EPA 445.0
Alkalinity	EPA 310.1
Hardness	EPA 130.2
TOC	EPA 415.1
DOC	EPA 415.1
Sediment grain size - full analysis (phi scale)	Plumb/PSEP
Total coliform	SM 9221B
Fecal coliform	SM 9221B
enterococcus	SM 9230B
<i>Ceriodaphnia 7-day Survival &amp; Reproduction</i>	EPA 1002.0 (WET)
<i>Pimephales (fathead minnow) 7 - day</i>	EPA 1000.0 (WET)
<i>Selenastrum (algae) test</i>	EPA 1003.0 (WET)

(WET) Whole Effluent Toxicity: Guidelines Establishing Test Procedures for the Analysis of Pollutants (October 16, 1995)