

# Watershed Monitoring and Assessment Program



## Urban Creeks Monitoring Report Executive Summary

*Water Year 2022 (October 2021 – September 2022)*

Submitted in compliance with Provision C.8.h.iii of NPDES Permit No. CAS612008,  
Order No. R2-2022-0018

**March 31, 2023**

This report is submitted by the agencies participating in the



City of Campbell  
City of Cupertino  
City of Los Altos  
Town of Los Altos Hills  
Town of Los Gatos

City of Milpitas  
City of Monte Sereno  
City of Mountain View  
City of Palo Alto  
City of San José

City of Santa Clara  
City of Saratoga  
City of Sunnyvale  
County of Santa Clara  
Valley Water

**Prepared for:**

**Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP)**

**Prepared by:**

**EOA, Inc.**  
**1410 Jackson St., Oakland, CA 94612**



## Table of Contents

<b>Table of Contents</b> .....	<b>ii</b>
<b>List of Figures</b> .....	<b>ii</b>
<b>Executive Summary</b> .....	<b>1</b>
<b>Part A: Creek Status Monitoring</b> .....	<b>2</b>
A.1 Bioassessment .....	2
A.2 Continuous Temperature and Water Quality Monitoring .....	4
A.3 Chlorine Monitoring .....	4
A.4 Creek Status Recommendations .....	4
<b>Part B: Pesticides and Toxicity Monitoring</b> .....	<b>5</b>
B.1 WY 2022 Results .....	5
B.2 WY 2016 – WY 2022 Data Summary .....	5
B.3 Recommendations for WY 2023 Pesticides and Toxicity Monitoring .....	6
<b>Part C: Pollutants of Concern Monitoring</b> .....	<b>6</b>
C.1 PCBs and Mercury .....	7
C.2 Emerging Contaminants .....	8
C.3 Receiving Water Limitations Monitoring .....	9
C.4 Recommendations for WY 2022 POC Monitoring .....	9
<b>Part D: Low Impact Development (LID) Effectiveness Monitoring</b> .....	<b>9</b>
<b>Part E: Trash Monitoring</b> .....	<b>10</b>
<b>References</b> .....	<b>11</b>

## List of Figures

Figure E.1. Biological condition categories based on CSCI scores for 20 bioassessment sites in Santa Clara County, WY 2022. ....	3
Figure E.2. Locations of POC-monitoring stations in Santa Clara County sampled in WY 2022. ....	7
Figure E.3. Watershed Management Area (WMA) prioritization in the Santa Clara Basin as of WY 2022. ....	8

## Executive Summary

This Water Year 2022 *Urban Creeks Monitoring Report* (UCMR) was prepared by the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP or Program), on behalf of its 15 member agencies (13 cities/towns, the County of Santa Clara, and the Santa Clara Valley Water District). SCVURPPP member agencies are subject to the National Pollutant Discharge Elimination System (NPDES) stormwater permit for Bay Area municipalities referred to as the Municipal Regional Permit (MRP). The MRP was first adopted by the San Francisco Regional Water Quality Control Board (SFBRWQCB or Regional Water Board) on October 14, 2009 as Order R2-2009-0074 (SFRWQCB 2009; referred to as MRP 1.0). On November 19, 2015, the Regional Water Board updated and reissued the MRP as Order R2-2015-0049 (SFBRWQCB 2015; referred to as MRP 2.0). The Regional Water Board subsequently updated and revised the MRP as Order R2-2022-0018 (SFBRWQCB 2022; referred to as MRP 3.0), which took effect on July 1, 2022.

This UCMR, including all appendices and attachments, fulfills the requirements of provision C.8.h.iii of MRP 3.0 for reporting all data collected in Water Year 2022 (WY 2022; October 1, 2021 – September 30, 2022) pursuant to provision C.8. Data presented in this report were submitted in electronic SWAMP-comparable formats by SCVURPPP to the Regional Water Board on behalf of SCVURPPP Permittees and pursuant to provision C.8.h.ii of the MRP, and may be obtained via the California Environmental Data Exchange Network (CEDEN). Data collected in prior water years (i.e., WYs 2012 – WY 2021) pursuant to provision C.8 of MRP 1.0 and MRP 2.0 are presented in previously submitted annual Urban Creeks Monitoring Reports (SCVURPPP 2015, 2016, 2017, 2018, 2019, 2021, 22) and periodic Integrated Monitoring Reports (SCVURPPP 2014, 2020). The older data are also available on CEDEN.

Water quality monitoring required by provision C.8 of the MRP 2.0 is intended to assess the condition of water quality in Bay Area receiving waters (creeks and the Bay); identify and prioritize stormwater runoff associated impacts, stressors, sources, and loads; identify appropriate management actions; and detect trends in water quality over time and the effects of stormwater control measure implementation.

Provision C.8.a (Compliance Options) of MRP 2.0 allows Permittees to address monitoring requirements through regional collaboration, their countywide stormwater program, and/or individually. On behalf of Co-permittees, SCVURPPP conducts creek water quality monitoring and monitoring projects in collaboration with the Bay Area Municipal Stormwater Collaborative (BAMSC)<sup>1</sup> Regional Monitoring Coalition (RMC). Furthermore, SCVURPPP actively participates in the Regional Monitoring Program for Water Quality in San Francisco Bay (RMP), which focuses on assessing Bay water quality and associated impacts. In compliance with provision C.8.c of MRP 2.0 and 3.0 (San Francisco Estuary Receiving Water Monitoring), SCVURPPP also provides financial contributions towards implementing the RMP.<sup>2</sup>

Monitoring data were collected in accordance with the RMC Quality Assurance Project Plan (QAPP; BASMAA 2020) and the RMC Standard Operating Procedures (SOPs; BASMAA 2016). Where applicable, and in compliance with provision C.8.b of MRP 2.0 (Monitoring Protocols and Data Quality), methods described in the QAPP and SOP are comparable with methods specified by the California Surface Water Ambient Monitoring Program (SWAMP) Quality

---

<sup>1</sup> The BAMSC was formed in 2021 upon dissolution of the Bay Area Stormwater Management Agencies Association (BASMAA) as a 501(c)(3) non-profit organization.

<sup>2</sup> See <https://www.sfei.org/programs/sf-bay-regional-monitoring-program> for details on the RMP.

Assurance Program Plan (QAPrP). Provision C.8.a.iii allows Permittees to use third-party data meeting provision C.8.b data quality objectives to satisfy monitoring requirements.

This UCMR consists of five “Parts” (A-E) that address the major sub-provisions of MRP provision C.8 (Water Quality Monitoring). The following sections of this Executive Summary summarize each UCMR Part:

- Part A: Creek Status Monitoring (conducted in compliance with MRP 2.0)
- Part B: Pesticides & Toxicity Monitoring
- Part C: Pollutants of Concern Monitoring
- Part D: Low Impact Development (LID) Effectiveness Monitoring
- Part E: Trash Monitoring

## Part A: Creek Status Monitoring

Part A of the UCMR presents all data collected in compliance with MRP 2.0 provision C.8.d (Creek Status Monitoring), which was in effect for the majority of WY 2022 (i.e., October 1, 2021 through June 30, 2022). The monitoring strategy implemented by SCVURPPP in compliance with this provision is consistent with the RMC’s Creek Status and Long-Term Trends Monitoring Plan (BASMAA 2012). The strategy includes regional ambient/probabilistic monitoring and local targeted monitoring. The probabilistic monitoring design was developed to remove bias from site selection such that ecosystem conditions can be objectively assessed on local (i.e., Santa Clara Basin) and regional (i.e., RMC) scales. The targeted monitoring design focuses on sites selected based on the presence of significant fish and wildlife resources, as well as historical and/or recent indications of water quality concerns. Monitoring results are compared to “triggers” listed in MRP 2.0. Some triggers are equivalent to regulatory Water Quality Objectives (WQOs), while others are thresholds above (or below) which potential impacts to aquatic life or other beneficial uses may occur. Pursuant to MRP 2.0 provision C.8.e, sites where triggers are exceeded (or not met) are considered for future stressor/source identification (SSID) projects. Creek status monitoring and the associated SSID projects are no longer required in MRP 3.0.<sup>3</sup>

### A.1 Bioassessment

During WY 2022, SCVURPPP conducted biological assessments at 20 targeted creek sites. Bioassessments include the collection of benthic macroinvertebrate (BMI) and algae samples, measurement of general water quality and physical habitat parameters, and collection of water samples for laboratory analysis (i.e., nutrients). The California Stream Condition Index (CSCI), a statewide tool that translates benthic macroinvertebrate data into an overall measure of creek health, was used to assess biological condition.

Of the 20 targeted bioassessment sites monitored in WY 2022, 18 were located at sites that are regularly monitored by Valley Water to assess the condition of steelhead (*Oncorhynchus mykiss*) populations. Two additional sites monitored are located in Saratoga Creek. Of the 20 sites, 12 had been previously monitored by SCVURPPP for bioassessment. CSCI scores at these sites ranged from 0.4 to 1.04, with 17 sites scoring below the MRP trigger of 0.795, which corresponds to the two lower condition categories (*likely altered* and *very likely altered*). Low

---

<sup>3</sup> MRP 2.0 Creek Status Monitoring and SSID Projects were replaced with MRP 3.0 LID Effectiveness and Trash Monitoring, which are described in Parts D and E of this UCMR.

CSCI scores are correlated with impacts to physical habitat typical for urbanized areas, such as creek channel modifications (e.g., lining with concrete) and contributing watersheds with high percentages of impervious surface. The four sites with CSCI scores above 0.795 all have relatively low impervious area in their contributing watersheds (i.e., 1-2%). Bioassessment sites and condition categories based on CSCI scores are shown in Figure E.1.

For the 12 sites that were monitored for a second year in WY 2021, CSCI scores were compared between the two years. There were no obvious temporal patterns observed between the two years. Four sites had lower scores in WY 2022 resulting in a lower condition category, and two sites had higher condition categories in WY 2022. CSCI scores for the remaining sites were roughly the same between the two years. For context, WY 2020 through WY 2022 was the driest three-year period on record in Santa Clara County and throughout the state.

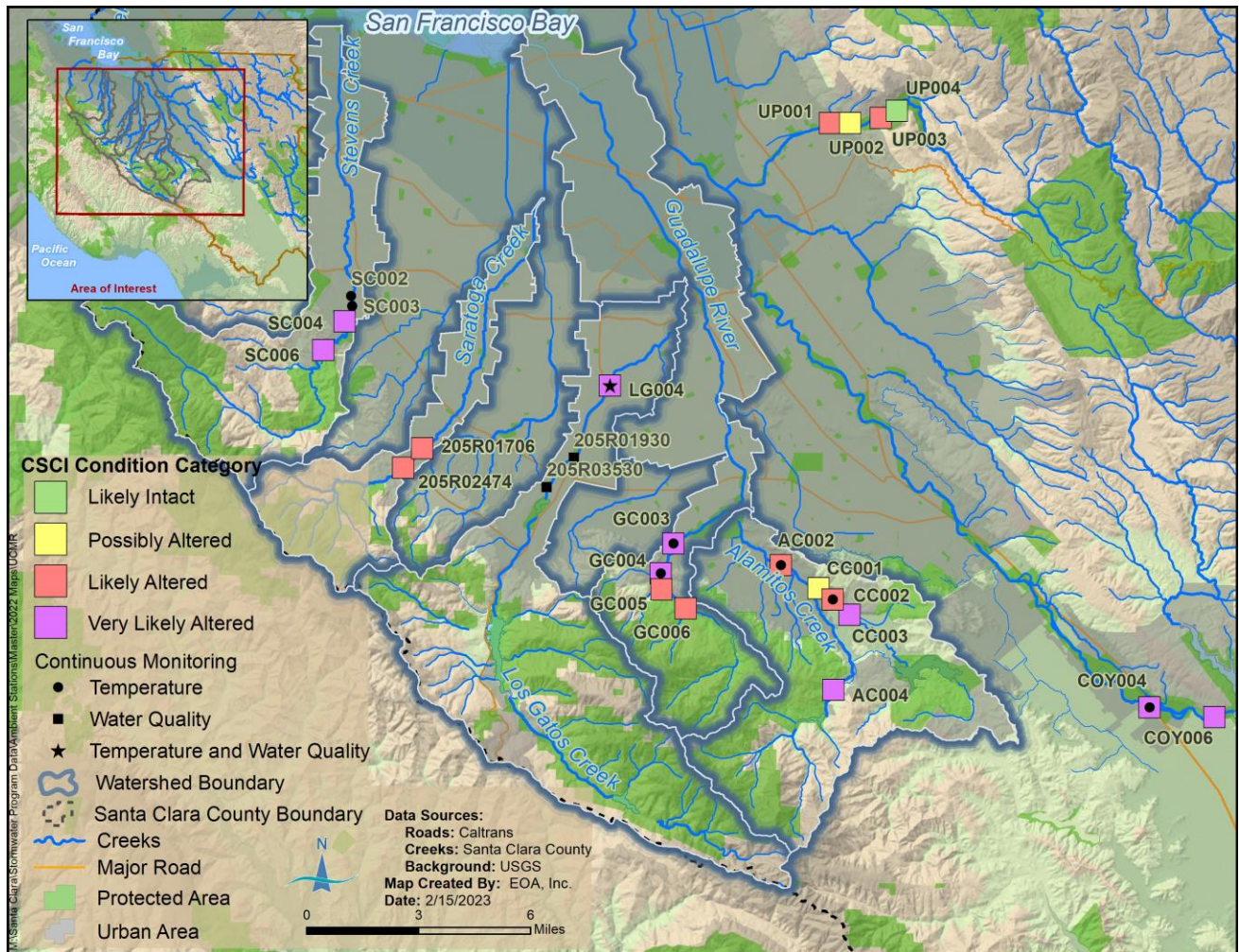


Figure E.1. Biological condition categories based on CSCI scores for 20 bioassessment sites in Santa Clara County, WY 2022.

## A.2 Continuous Temperature and Water Quality Monitoring

Continuous monitoring of water temperature and general water quality in WY 2021 was conducted in compliance with provisions C C.8.d.iii – iv of MRP 2.0. Hourly temperature measurements were recorded at nine sites from April 2022 through the end of the permit term (i.e., June 30, 2022). General water quality parameters (specific conductance, dissolved oxygen, pH, and temperature) were recorded continuously (15-minute interval) at three sites during a two-week period in the spring. Continuous monitoring station locations are shown in Figure E.1.

Continuous temperature monitoring was conducted in stream reaches located throughout the County. These sites were targeted for temperature monitoring because they convey perennial flow and support rearing and spawning habitat for steelhead (*Oncorhynchus mykiss*) and other native fishes (Stillwater 2006). One site, however, went dry in mid-May, likely as a result of extreme drought in the area. MRP maximum weekly average temperature (MWAT) trigger threshold of 17°C was exceeded in WY 2022 at all eight stations, but only two sites had exceedances of the instantaneous maximum MRP trigger of 24°C.

Continuous general water quality monitoring was conducted at three stations in Los Gatos Creek. This creek was targeted because it supports a cold-water fish community and was recently added to the Clean Water Act (CWA) Section 303(d) list as impaired for water temperature. At the three sites, the dissolved oxygen (DO) concentration dropped below the WQO (7 mg/L) at the lower-most site (LG004) during a two-day period (May 24-25), which coincided with an increase in air temperature. The DO concentrations at the other two sites did not fall below the WQO. Specific conductance and pH results followed expected patterns and did not exceed the MRP triggers. Water temperatures exceeded 24°C for 3 to 5% of the results at the two downstream sites, but did not exceed the MRP trigger criteria (20% of data results).

## A.3 Chlorine Monitoring

In compliance with provision C.8.c.ii., free chlorine and total chlorine residual were measured at 20 sites, concurrent with bioassessment surveys. While chlorine residual has generally not been a concern in Santa Clara County creeks, prior monitoring results suggest there are occasional trigger exceedances of free chlorine and total chlorine residual in the County. Trigger exceedances may be the result of one-time potable water discharges (e.g., pool dewatering), and it is generally challenging to determine the source of elevated chlorine from such episodic discharges. The MRP triggers for chlorine were not exceeded in WY 2022 samples.

## A.4 Creek Status Recommendations

Impacts to urban streams identified through creek status monitoring are likely the result of long-term changes in stream hydrology, channel geomorphology, in-stream habitat complexity, and other modifications associated with the urban development and associated impervious surfaces, and, to a lesser extent, pollutant discharges typically found in urban watersheds. SCVURPPP Co-permittees are actively implementing many stormwater management programs to address these stressors and pollutants found in local creeks and the Bay, with the goal of protecting these natural resources and their Beneficial Uses. Through the continued implementation of MRP-associated Best Management Practices (BMPs) and other watershed management programs (e.g., stream restoration and flow augmentation), SCVURPPP anticipates that stream conditions and water quality in local creeks will continue to improve over time.

The Creek Status Monitoring program required by provision C.8.d of MRP 2.0 was eliminated with the adoption of MRP 3.0. Biological assessments, continuous temperature and water quality monitoring, chlorine testing, and pathogen indicator monitoring are no longer required, starting in July 2022. As a result, there are no recommendations associated with these monitoring parameters provided in this report. However, in compliance with provision C.8.h.vi of MRP 3.0, SMCWPPP will work with its RMC partners to collectively submit (by March 31, 2024) a comprehensive analysis of all bioassessment monitoring conducted by the RMC during MRP 1.0 and 2.0 for Water Years 2012 through 2021.

## Part B: Pesticides and Toxicity Monitoring

Toxicity testing provides a tool for assessing the toxic effects (acute and chronic) of all chemicals in water or sediment collected from receiving waters and allows for assessing the cumulative effect of chemicals present. Because different test organisms are sensitive to different classes or combinations of chemicals, several types of organisms are monitored. Sediment and water chemistry monitoring for a variety of potential pollutants is conducted synoptically with toxicity monitoring to provide preliminary insight into the possible causes of toxicity, should it be observed. Provision C.8.g requires the collection of sediment during two dry season samples per year, and the analysis of those samples for toxicity and sediment chemistry. An additional three water samples must be collected during wet weather and analyzed for toxicity and pesticides if collected as part of a regional (RMC) effort.

Part B of the UCMR presents all data collected in compliance with provision C.8.g (Pesticides and Toxicity Monitoring). In WY 2022, dry season samples were collected from Stevens Creek and San Tomas Aquino Creek at the same stations that were monitored for pesticides and toxicity during WYs 2016 through 2021, building a long-term dataset.

### B.1 WY 2022 Results

Statistically significant toxicity to *Chironomus dilutus* (survival), a test organism with known sensitivity to neonicotinoids and fipronil, and *Hyalella azteca* (survival), a test organism with known sensitivity to pyrethroids, was observed in the San Tomas Aquino Creek sediment sample. The magnitude of the toxic effects in the sediment sample exceeded the MRP threshold for resampling of 50 Percent Effect for *C. dilutus*, but the threshold was not exceeded for *H. azteca*. The results from the follow-up *C. dilutus* sediment test resulted in significant toxicity, but the Percent Effect was less than 50%.

Statistically significant toxicity to *Ceriodaphnia dubia* (reproduction) was observed in the Stevens Creek water sample, with a Percent Effect below the follow-up threshold of 50%.

Pesticide concentrations in the WY 2022 sediment samples were low, with no total organic carbon (TOC) normalized concentrations of individual pyrethroids found to be over one toxic unit (TU) equivalent. However, the sum of the TU equivalents calculated for pyrethroid pesticides was 0.9 for the Stevens Creek sample and 1.7 for the San Tomas Aquino sample. Fipronil and its degradates and carbaryl were all below the method detection limit (MDL).

### B.2 WY 2016 – WY 2022 Data Summary

The results of pesticides and toxicity monitoring conducted in San Tomas Aquino and Stevens Creek during WY 2016 through WY 2022 were analyzed to identify temporal trends. The data

provide a reference to inform management decisions regarding water quality improvement in Santa Clara County watersheds and guide the planning of future monitoring in the area.

- Toxicity to *H. azteca* was observed in the WY 2022 dry season sediment sample for San Tomas Aquino Creek for the first time; however, the Percent Effect was below the threshold for resampling. This toxicity finding syncs with the pyrethroid concentrations measured in the corresponding sediment chemistry sample. The sum of pyrethroid TU equivalents exceeded 1.0. Toxicity to *H. azteca* was also observed in wet weather water samples collected in WY 2018 at both monitoring stations.
- Toxicity to *C. dilutus* was observed in the sediment sample collected during the WY 2022 dry season for San Tomas Aquino Creek. A subsequent retest found significant toxicity but a Percent Effect less than the threshold. Previous toxicity to *C. dilutus* has been observed in previous San Tomas Aquino Creek sediment samples.
- Of the 23 dry season samples where significant toxicity was observed, ten were water samples with toxicity to *C. dubia* reproduction observed. *C. dubia* is a water flea that is sensitive to a broad range of aquatic contaminants. However, the specific cause of the chronic *C. dubia* toxicity in San Tomas Aquino and Stevens Creek is unknown, and not seemingly explained by the synoptic sediment chemistry results. It is possible that the chronic *C. dubia* toxicity observed in water samples are false positives resulting from inconsistencies in laboratory quality assurance (QA). Statewide, there have been other reports of unexplained chronic *C. dubia* toxicity, and the State Water Board is currently carrying out a special study to examine this issue.

### **B.3 Recommendations for WY 2023 Pesticides and Toxicity Monitoring**

In WY 2023, SCVURPPP will coordinate with the RMC to fulfill the MRP 3.0 wet weather Pesticides & Toxicity Monitoring requirements. Wet weather samples will be collected from Stevens Creek and San Tomas Aquino Creek. The third station will be located on Guadalupe Creek where the California Department of Pesticide Regulation (DPR) typically monitors pesticides and toxicity. SCVURPPP will coordinate with DPR for the wet weather monitoring event. During the dry weather in WY 2023, samples will be collected samples from Stevens Creek and San Tomas Aquino Creek, as SCVURPPP continues to build long term datasets at these stations.

## **Part C: Pollutants of Concern Monitoring**

Part C of the UCMR reports all Pollutants of Concern (POC) monitoring data collected in WY 2022. POC monitoring required by MRP 3.0 provision C.8.f is intended to assess inputs of POCs to the Bay from local tributaries and urban runoff, provide information to support implementation of TMDL water quality restoration plans and other pollutant control strategies, assess progress toward achieving wasteload allocations (WLAs) for TMDLs, help resolve uncertainties associated with loading estimates for POCs, and provide information to assess whether receiving water limitations (RWLs) are achieved. In WY 2022, SCVURPPP conducted POC monitoring for PCBs and mercury in July/August 2022 and the MRP 3.0-required yearly minimum number of samples was met for all POCs. In WY 2022, SCVURPPP also worked with the RMC to develop approaches for addressing RWL and emerging contaminants monitoring requirements.

POC Monitoring in the Santa Clara Valley is conducted by SCVURPPP and its water quality partners, including the members of the RMC, the RMP, and the SWAMP Stream Pollution Trend

(SPoT) monitoring program. Figure E.2 illustrates locations of monitoring stations associated with POC monitoring conducted by SCVURPPP and its water quality partners in compliance with MRP 3.0 provision C.8.f.

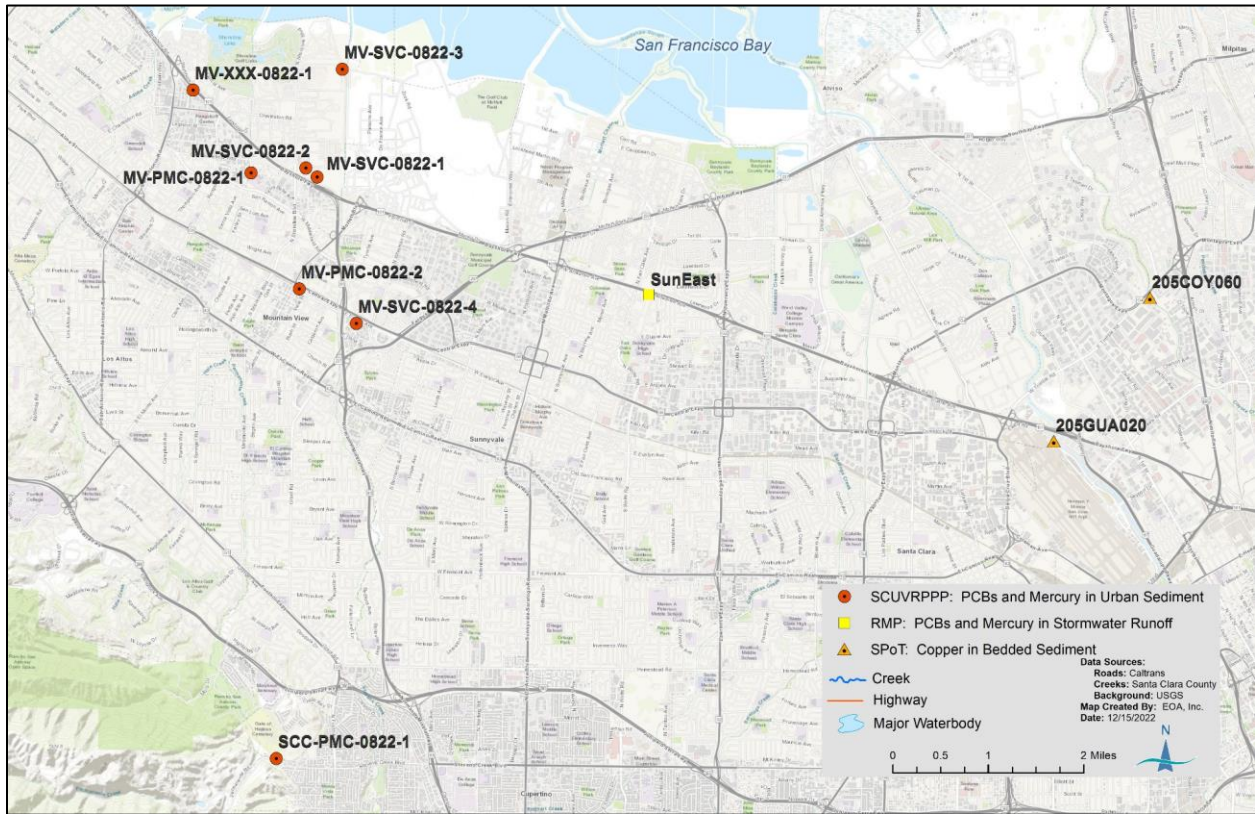


Figure E.2. Locations of POC-monitoring stations in Santa Clara County sampled in WY 2022.

### C.1 PCBs and Mercury

PCBs and mercury monitoring in WY 2022 continued to focus primarily on identification of sources and source areas to the MS4 and San Francisco Bay. In WY 2022, SCVURPPP collected eight sediment samples from the public right-of-way in priority Watershed Management Areas (WMAs) as part of ongoing source property investigations. These investigations are conducted to identify specific properties within a catchment that contribute elevated PCBs or mercury to the municipal separate storm sewer system (MS4). “Total PCBs” were calculated as the sum of the RMP 40 congeners. An MS4 sediment sample, defined as street dirt, surface soil, or sediment collected from streets, gutters, storm drain inlets, and other MS4 structures is considered highly elevated if it has a PCBs concentration over 0.5 mg/kg, and moderately elevated if it has a concentration from 0.2 to 0.5 mg/kg. Similarly for mercury, an MS4 sediment sample is considered highly elevated if it is over 1.0 mg/kg, and moderately elevated if it has a concentration from 0.3 to 1.0 mg/kg. For both PCBs and mercury, concentrations above 1 mg/kg are considered confirmation of a source. These thresholds are used by the BAMSC as approximate benchmarks for identifying areas that should be considered for future investigation (e.g., targeted source property investigations that involve records review, additional sampling, etc.), and for identifying source properties.

Total mercury concentrations in the WY 2022 samples ranged from 0.031 to 0.11 mg/kg, with a median of 0.073 mg/kg and a mean of 0.074 mg/kg. Concentrations of Total PCBs (sum of RMP 40 congeners) ranged from 0.002 to 1.01 mg/kg, with a median of 0.015 mg/kg and a mean of 0.16 mg/kg. One of these samples (collected in the City of Mountain View) had elevated PCBs concentrations above 1.0 mg/kg.

The Program reviewed these data along with sampling data and other information collected during previous years as part of the WMA prioritization process. Figure E.3 presents the WMA prioritization status for all catchments of interest based on all results of screening level monitoring and source investigations conducted in the Santa Clara Valley through WY 2022. To date, the Program has delineated 146 WMAs that contain old industrial land areas. Of these, 45 WMAs are categorized as low priority areas for new or enhanced controls. The remaining 101 WMAs are identified as high priority areas that may require further action to reduce PCBs in urban runoff from these areas.

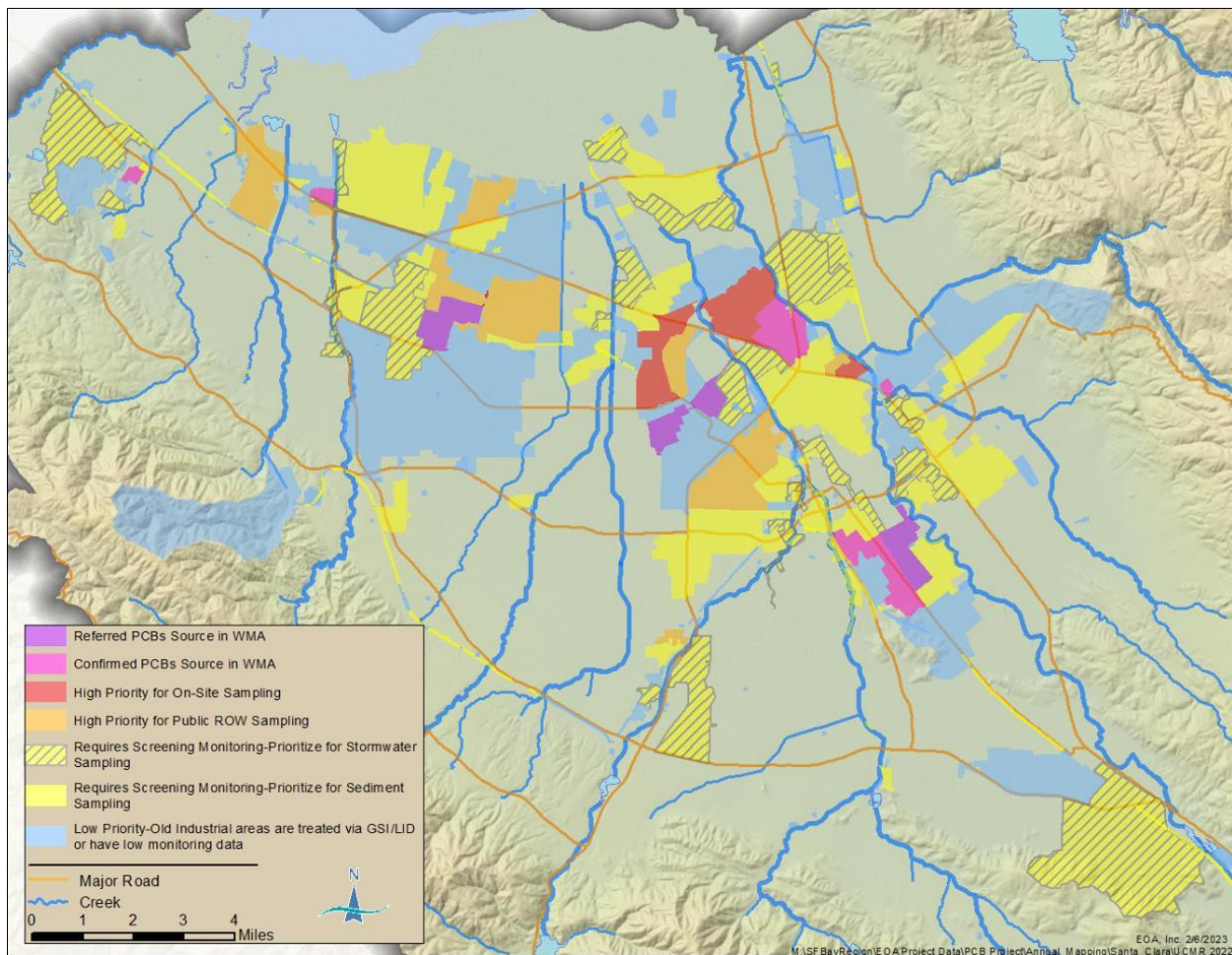


Figure E.3. Watershed Management Area (WMA) prioritization in the Santa Clara Basin as of WY 2022.

## C.2 Emerging Contaminants

Emerging contaminants are a diverse group of chemicals and compounds, broadly defined as synthetic or naturally occurring chemicals that are not regulated or commonly monitored in the

environment but have the potential to enter the environment and cause adverse ecological or human health impacts. MRP 3.0 allows for Permittees to satisfy the emerging contaminant (EC) monitoring requirements through augmentation of the RMP's Emerging Contaminants Monitoring Strategy in the amount of \$100,000 per year for all Permittees combined. SCVURPPP and its RMC partners have elected to exercise this option and are working through the RMP to identify EC analytes and monitoring strategies to address priority management questions.

### **C.3 Receiving Water Limitations Monitoring**

RWL monitoring required in MRP 3.0 must be addressed via the collection of at least four samples during the wet season and one sample during the dry season. Samples must be analyzed for copper, zinc, fecal indicator bacteria (FIB), and any additional analytes identified based on assessment of the potential that discharges may result in receiving waters approaching or exceeding water quality objectives (WQOs). The RWLs Assessment Report required by provision C.8.h.iv.(2) was developed as a regional effort through the RMC. It describes the regional approach to RWLs monitoring and the list of additional analytes that may result in exceedances of WQOs. The report is included with UCMR Part C and is subject to Regional Water Board Executive Officer (EO) approval.

### **C.4 Recommendations for WY 2022 POC Monitoring**

In WY 2023, the Program will continue to collect and analyze POC samples in compliance with MRP 3.0 provision C.8.f. PCBs and mercury monitoring will focus on management questions related to the identification of watershed source areas contributing to Bay impairments, management action effectiveness, loads, and trends. Upon EO approval of the Regional RWLs Assessment Report, SCVURPPP will also begin monitoring for RWL analytes at one receiving water station in the Santa Clara Valley. In addition, SCVURPPP will continue to provide financial contributions and participate in RMP workgroups focused on monitoring POCs.

## **Part D: Low Impact Development (LID) Effectiveness Monitoring**

MRP 3.0 is the first version of the MRP to specifically require LID effectiveness monitoring. Provision C.8.d identifies specific parameters and monitoring frequencies that must be achieved to address management questions related to pollutant removal efficiencies of LID facilities and minimum levels of maintenance necessary to avoid deteriorated conditions. In the Santa Clara Valley, a minimum of 25 water quality sampling events must be conducted during the MRP 3.0 permit term, with an annual minimum of three events beginning in WY 2024. Each sampling event must consist of paired flow- (or time) weighted composite samples of the LID facility influent and effluent collected with automated samplers.

Permittees are required to submit LID Monitoring Plans that demonstrate how the requirements in provision C.8.d will be met. Permittees must submit their Monitoring Plans to the Regional Water Board Executive Officer (EO) for approval by May 1, 2023 and must begin implementation of their approved or conditionally approved Monitoring Plans by October 1, 2023. To assist development and implementation of scientifically-sound LID Monitoring Plans, provision C.8.d.ii requires Permittees to form and convene a Technical Advisory Group (TAG) which includes impartial science advisors and Regional Water Board staff.

In compliance with provision C.8.h.iii.(1), Part D of the UCMR includes the Program's LID Monitoring Status Report for WY 2022. Part D describes progress towards convening the LID TAG and developing a LID Monitoring Plan during the limited portion of WY 2022 when MRP 3.0 was in effect (i.e., July 1 through September 30, 2022). In WY 2023, SCVURPPP will continue to comply with provision C.8.d requirements and planning for starting LID Monitoring in WY 2024.

## **Part E: Trash Monitoring**

Part E of the UCMR contains the Annual Trash Monitoring Status Report for WY 2022, submitted in compliance with provision C.8.h.iii.(2) of MRP 3.0. This report describes provision C.8.e Trash Monitoring requirements and how the Program complied with the requirements during the limited portion of WY 2022 when MRP 3.0 was in effect (i.e., July 1 through September 30, 2022). Provision C.8.e directs Permittees to conduct trash monitoring at MS4 outfalls and in receiving waters, and prescribes specific monitoring location criteria, methods and frequencies that must be achieved to address the management and monitoring questions listed in MRP 3.0.

In Santa Clara County, a minimum of three outfalls must be monitored with nets (or equivalent devices) during a minimum of three wet weather events per year beginning October 1, 2023. In addition, a minimum of two receiving water locations must be monitored with nets (or equivalent) during a minimum of three wet weather events per year beginning October 1, 2024. Permittees must submit a "collective" (assumed regional) Trash Monitoring Plan to the Regional Water Board EO for approval by July 31, 2023. To assist in development and implementation of a scientifically-sound Trash Monitoring Plan, provision C.8.e.iv requires Permittees to form and convene a TAG that will be asked to review and provide input on site selection, monitoring methods, permitting, analysis methods, results, and conclusions.

In WY 2022, SCVURPPP made significant progress towards convening the Trash TAG and developing Program-specific sections of the collective Trash Monitoring Plan that will meet the requirements of provision C.8.e. In addition, SCVURPPP worked with other members of the BAMSC Trash Monitoring Workgroup to develop and submit a grant application for funding under the San Francisco Bay Water Quality Improvement Fund (WQIF) to support trash monitoring, outreach, and information dissemination.

In WY 2023, SCVURPPP will continue to comply with provision C.8.e requirements. SCVURPPP will participate in development of a regional Trash Monitoring Plan, including identification of MS4 outfalls that can be monitored for trash during storm events using the methods prescribed in MRP 3.0, and implementation of MS4 retrofits such that outfall monitoring can begin by October 1, 2023. SCVURPPP will participate in the Trash TAG, which will initially meet in March 2023, and again in spring/summer 2023 to inform the development of the Trash Monitoring Plan.

## References

- BASMAA (Bay Area Stormwater Management Agency Association). 2016. Creek Status and Pesticides & Toxicity Monitoring Standard Operating Procedures, Final Version 3. Prepared for BASMAA by EOA, Inc. on behalf of the Santa Clara Urban Runoff Pollution Prevention Program and the San Mateo Countywide Water Pollution Prevention Program, Applied Marine Sciences on behalf of the Alameda Countywide Clean Water Program, and Armand Ruby Consulting on behalf of the Contra Costa Clean Water Program. 190 pp.
- BASMAA (Bay Area Stormwater Management Agency Association) Regional Monitoring Coalition (RMC). 2020. Creek Status and Pesticides & Toxicity Monitoring Quality Assurance Project Plan, Final Version 4. Prepared for BASMAA by EOA, Inc. on behalf of the Santa Clara Urban Runoff Pollution Prevention Program and the San Mateo Countywide Water Pollution Prevention Program, Applied Marine Sciences on behalf of the Alameda Countywide Clean Water Program, and Armand Ruby Consulting on behalf of the Contra Costa Clean Water Program. 79 pp plus appendices.
- BASMAA (Bay Area Stormwater Management Agency Association). 2012. Regional Monitoring Coalition Final Creek Status and Long-Term Trends Monitoring Plan. Prepared By EOA, Inc. Oakland, CA. 23 pp.
- SFBRWQCB (San Francisco Bay Regional Water Quality Control Board). 2009. Municipal Regional Stormwater NPDES Permit. Order R2-2009-0074, NPDES Permit No. CAS612008. 125 pp plus appendices.
- SFBRWQCB (San Francisco Bay Regional Water Quality Control Board). 2015. Municipal Regional Stormwater NPDES Permit. Order R2-2015-0049, NPDES Permit No. CAS612008. 152 pp plus appendices.
- SFBRWQCB (San Francisco Bay Regional Water Quality Control Board). 2022. Municipal Regional Stormwater NPDES Permit. Order R2-2022-0018, NPDES Permit No. CAS612008.