California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriguez
Secretary for
Environmental Protection

San Francisco Bay Regional Water Quality Control Board

June 28, 2012

Jim Kelly, Interim Executive Director
Bay Area Clean Water Agencies
PO Box 24055, MS 702
Oakland, CA 94623
Via email only: jkelly@bacwa.org

Subject: Approval of Revised Nutrients Study Group Sampling Plan, Bay Area Clean Water Agencies (BACWA)

Dear Mr. Kelly:

We approve the revised Nutrients Study Group Sampling Plan (Plan), dated June 15, 2012. BACWA submitted the Plan on behalf of 36 publicly-owned treatment works (POTWs) in the Bay Area, pursuant to the Water Board's March 2, 2012, 13267 Order requiring information on nutrients in wastewater discharges.

BACWA revised the original plan, dated April 30, 2012, based on Water Board staff's comments. The major changes in the Plan include (1) all POTWs will collect 24-hour composite samples for total ammonia analysis; (2) POTWs have the option to collect either single grab or 24-hour composite samples for ortho-phosphate analysis.

The Plan proposes to analyze only for dissolved ortho-phosphate (i.e., dissolved reactive phosphorus) and not total orthophosphate (i.e., total reactive phosphorus). BACWA raised concerns that the analysis would generate the same results for total and dissolved ortho-phosphate because all samples would need to be filtered through 0.45 um filters. We have had further discussions on this issue with BACWA representatives and have determined that total ortho-phosphate can be measured separately from dissolved ortho-phosphate. Nevertheless, we agree that only dissolved ortho-phosphate need be analyzed for both the influent and the effluent as proposed. In those discussions, we agreed to revisit this matter as monitoring data become available for evaluation and when there is better understanding of the modeling needs. We may require analysis for total ortho-phosphate and/or other forms of nutrients in the future.

We look forward to working with BACWA on assessing which nutrient parameters to continue to monitor for into the future.

The following facilities are currently required by their NPDES permits to collect grab samples for total ammonia compliance monitoring:

City of Benicia
City of Burlingame
City of Calistoga
Sanitary District No. 5
City of Millbrae
Mt. View Sanitary District
City of Pinole/Hercules
City of San Mateo
Rodeo Sanitary District
City and County of San Francisco
San Francisco International Airport
Sewerage Agency of Southern Marin
Sonoma Valley County Sanitation District
West County Agency
Town of Yountville

The above listed facilities may use total ammonia results from 24-hour composite samples collected under this study for their NPDES compliance reporting.

All facilities shall complete their first monthly sampling events in July 2012.

If you have any questions regarding this matte, please contact Tong Yin at 510-622-2418 or by email TYin@waterboards.ca.gov.

Sincerely,

Bruce H. Wolfe
Executive Officer

Copy to:

City of American Canyon
300 Crawford Way
American Canyon, CA 94503
Attn: Peter Lee
(plee@cityofamericancanyon.org)
Wastewater System Manager

City of Benicia
614 East Fifth Street
Benicia, CA 94510
Attn: Jeff Gregory (jgregory@ci.benicia.ca.us)
Superintendent

City of Burlingame
501 Primrose
Burlingame, CA 94010
Attn: Syed Murtuza (smurtuza@burlingame.org)
Director of Public Works

City of Calistoga
414 Washington Street
Calistoga, CA 94515
Attn: Warren Schenstrom
(wschenstrom@ci.calistoga.ca.us)
Water Systems Superintendent

Central Contra Costa Sanitary District
5019 Imhoff Place
Martinez, CA 94553
Attn: Doug Craig (dcraig@centralsan.org)
Director of Operations

Central Marin Sanitation Agency
1301 Andersen Drive
San Rafael, CA 94901
Attn: Robert Cole (rcole@cmsa.us)
Environmental Services Manager

Port Costa Sanitation Department
Crockett Community Services District
Crockett, CA 94525
Attn: Michael Kirker
(mkirker@town.crockett.ca.us)
Department Manager

Delta Diablo Sanitation District
2500 Pittsburg-Antioch Highway
Antioch, CA 94509
Attn: Gary W. Darling (GaryD@ddsd.org)
General Manager

East Bay Dischargers Authority
2651 Grant Avenue
San Lorenzo, CA 94580
Attn: Mike Connor (mconnor@ebda.org)
General Manager

East Bay Municipal Utilities District
P.O. Box 24055
Oakland, CA 94623-1055
Attn: Ben Horenstein (bhorenst@ebmud.com)
Manager of Environmental Services

Fairfield-Suisun Sewer District
1010 Chadbourne Road
Fairfield, CA 94534
Attn: Meg Herston (mherston@fssd.com)
Senior Environmental Compliance Engineer

Las Gallinas Valley Sanitation District
300 Smith Ranch Rd
San Rafael, CA 94903-1929
Attn: Mark Williams (mwilliams@lgvsd.org)
District Manager

Sanitary District No. 5 of Marin County
P.O. Box 227
Tiburon, CA 94920
Attn: Robert L. Lynch (rlynch@sani5.org)
District Manager

City of Millbrae
621 Magnolia Avenue
Millbrae, CA 94030
Attn: Joe Magner (jmagner@ci.millbrae.ca.us)
Superintendent

Mt. View Sanitary District
P. O. Box 2757
Martinez, CA 94553
Attn: Michael Roe (mroe@mvsd.org)
District Manager

Napa Sanitation District
P.O. Box 2480
935 Hartle Court
Napa, CA 94559
Attn: Tim Healy (thealy@napasan.com)
General Manager/District Engineer

Novato Sanitary District
500 Davidson Street
Novato, CA 94945
Attn: Beverly James (BevJ@novatosan.com)
General Manager

City of Palo Alto
2501 Embarcadero Way
Palo Alto, CA 94303
Attn: James Allen
(James.Allen@CityofPaloAlto.org)
Plant Manager

City of Petaluma
202 N. McDowell Blvd.
Petaluma, CA 94954
Attn: Lena Cox (lcox@ci.petaluma.ca.us)
Environmental Services Supervisor

City of Pinole
1 Tennant Avenue
Pinole, CA 94564
Attn: Ron Tobey (RTobey@ci.pinole.ca.us)
Plant Manager

Rodeo Sanitary District
800 San Pablo Avenue
Rodeo, CA 94572
Attn: Steven S. Beall (bealls@rodeosan.org)
Engineer-Manager

City of St. Helena
1480 Main Street
St. Helena, CA 94574
Attn: John Ferons (JohnF@ci.st-helena.ca.us)
Director of Public Works

San Francisco International Airport
P. O. Box 8097
676 McDonnell Road
San Francisco, CA 94128
Attn: Brian Ciappara
(brian.ciappara@flysfo.com)
Superintendent

City and County of San Francisco
1155 Market Street, 11th Floor
San Francisco, CA 94103
Attn: Tommy Moala (tmoala@sfwater.org)
Assistant General Manager

City of San Jose
Water Pollution Control
700 Los Esteros Road
San Jose, CA 95134
Attn: Jim Ervin (james.ervin@sanjoseca.gov)
Supervising Environmental Services Specialist

City of San Mateo
2050 Detroit Drive
San Mateo, CA 94404
Attn: Larry Patterson
(patterson@cityofsanmateo.org)
Director of Public Works

Sausalito-Marin City Sanitary District
#1 East Road
P.O. Box 39
Sausalito, CA 94966-0039
Attn: Robert Simmons (bob@smcsd.net)
General Manager

Sewerage Agency of Southern Marin
26 Corte Madera Ave.
Mill Valley, CA 94941
Attn: Steve Danehy
(sdanehy@cityofmillvalley.org)
Manager

Sonoma County Water Agency
404 Aviation Boulevard
Santa Rosa, CA 95403
Attn: Pam Jeane (pam@scwa.ca.gov)
Assistant General Manager - Operations

South Bayside System Authority
1400 Radio Road
Redwood City, CA 94065
Attn: Daniel Child (dchild@sbsa.org)
Manager

South San Francisco-San Bruno Water
Pollution Control Plant
195 Belle Air Road
South San Francisco, CA 94080
Attn: Ken Navarre (ken.navarre@ssf.net)
Acting Plant Superintendent

City of Sunnyvale
Sunnyvale Water Pollution Control Plant
P.O. Box 3707
Sunnyvale, CA 94088-3707
Attn: Melody Tovar
(mtovar@ci.sunnyvale.ca.us)
Regulatory Programs Division Manager

San Francisco Bay Area
Navy BRAC PMOW
410 Palm Avenue, Bldg 1, Suite 161
Treasure Island
San Francisco, CA 94130-1807
Attn: Michael Mentink
(michael.mentink@navy.mil)
Environmental Coordinator

Vallejo Sanitation and Flood Control District
450 Ryder Street
Vallejo, CA 94590
Attn: Barry Pomeroy (BPomeroy@vsfcd.com)
Interim Director of Operations and Maintenance

West County Agency
2910 Hilltop Drive
Richmond, CA 94806
Attn: E.J. Shalaby
(District.Manager@wcwd.org)
District Manager

Town of Yountville
6550 Yount Street
Yountville, CA 94599
Attn: Donald Moore (dmoore@yville.com)
Wastewater Systems Supervisor

Bay Area Clean Water Agencies

Nutrients Study
Group Sampling Plan

April 30, 2012

Revised June 15, 2012

Prepared by RMC Water and Environment

Introduction

On March 2, 2012 the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) issued a letter to municipal wastewater agencies in the Bay Area requiring submittal of technical information pursuant to Section 13267 of the California Water Code (13267 Letter). This Group Sampling Plan was prepared and is being submitted collectively to fulfill the following requirements (stated on page 6 of the 13267 Letter):

> **A Sampling and Analysis Plan for Collecting Required Information due April 30, 2012.**
>
> Dischargers shall submit a sampling and analysis plan to the Regional Water Board, [Tong Yin, tyin@waterboards.ca.gov or via FTP]. The sampling plan shall include, but not be limited to, a sampling schedule, contract laboratories to be used, and detection limits of the methods. The sampling plan shall also clearly identify any proposed deviations from the requirements of this order, such as proposing to monitor for fewer or different parameters, and include the bases for any proposed deviations. Dischargers are encouraged to collectively submit one sampling plan.
>
> If the Regional Water Board does not provide comments on the sampling plan within 45 days, the discharger shall start monitoring by July 1, 2012.

This Group Sampling Plan includes all of the agencies on the 13267 Letter mailing list with the following exceptions:

- C&H Sugar Company – C&H is not a member of BACWA, as it primarily treats industrial wastewater, and has submitted its own sampling plan.
- City of Pacifica – The 13267 Letter requirements do not apply to the City of Pacifica, as its wastewater treatment plant effluent does not reach the San Francisco Bay (the discharge is to a creek that flows to the Pacific Ocean). The City of Pacifica has obtained an exemption to the 13267 Letter from Regional Water Board staff.
- Crockett Community Services District, Port Costa Wastewater Treatment Plant – The Regional Water Board has agreed to exempt the Port Costa Wastewater Treatment Plant (the smallest agency on the mailing list), from the requirements of the 13267 Letter.

Sampling Locations

Samples for influent and effluent will be collected at compliance monitoring locations currently specified in each agency's NPDES permit. For clarity, those locations are indicated for each agency in **Appendix A**, using nomenclature that matches their current NPDES permits (unless otherwise noted).

Sampling Parameters

Parameters to be sampled in the influent and effluent are shown in **Table 1**, below.

Table 1. Parameters to be Monitored

Parameter [1][2]	Unit	Influent	Effluent
Total Dissolved Nitrogen	mg/L as N kg/day as N	No	Yes
Total Kjeldahl Nitrogen (TKN)	mg/L as N kg/day as N	Yes	Yes
Soluble Kjeldahl Nitrogen (SKN)	mg/L as N kg/day as N	No	Yes
Nitrate	mg/L as N kg/day as N	Yes	Yes
Nitrite	mg/L as N kg/day as N	Yes	Yes
Total Ammonia	mg/L as N kg/day as N	Yes	Yes
Urea [3]	mg/L as N kg/day as N	No	Yes
Total Phosphorus	mg/L as P kg/day as P	Yes	Yes
Total Phosphorus (soluble)	mg/L as P kg/day as P	No	Yes
Orthophosphate [4]	mg/L as P kg/day as P	Yes	Yes
Flow [5]	mgd	Yes	Yes
pH [6]	standard units	No [7]	Yes
Temperature [6]	degrees C	No [7]	Yes
Total Suspended Solids (TSS)	mg/L	Yes	Yes
Total Nitrogen [8]	Percent removal, by concentration		
Total Phosphorus	Percent removal, by concentration		

Notes:

[1] Soluble or dissolved is defined as filtering the sample through a 0.45 µm filter.

[2] Monitoring conducted in accordance with the agency's NPDES permit requirements may be used to satisfy certain monitoring requirements included in this 13267 Letter, as applicable. The Regional Water Board has agreed to issue documentation indicating that 24-hour composite samples collected for this Nutrients Study will be accepted for compliance monitoring in place of NPDES permit-required grab samples for the same parameters.

[3] Urea data will be collected by the five largest agencies only: Central Contra Costa Sanitary District (CCCSD), East Bay Municipal Utility District (EBMUD), East Bay Dischargers Authority (EBDA), San Jose/Santa Clara Water Pollution Control Plant, and San Francisco (Southeast Plant).

[4] Orthophosphate samples will be filtered through a 0.45 µm filter.

[5] For 24-hour composite samples, daily average effluent flow will be reported for the same time period during which composite samples are collected. If single grab samples are collected at peak flow for any parameters, then the flow rate at the time of this sample collection will also be reported. In this context, "peak flow" refers to a peak flow period or set time, and is based on best professional

judgment and familiarity with historical and typical flow patterns at the facility rather than an absolute instantaneous peak flow.

[6] Daily minimum, maximum, and average pH and temperature values will be reported, with variations as noted in **Appendix A**.

[7] Agencies that already routinely collect influent pH and temperature data will include these data in reporting for this study.

[8] Total nitrogen will be calculated as the sum of TKN, nitrate, and nitrite.

Agencies may elect to employ either or both of the following variations, if preferred:

- Calculate total dissolved nitrogen as the sum of soluble Kjeldahl nitrogen, nitrate and nitrite.
- For influent sampling only, measure nitrate and nitrite as one total combined concentration (as may be obtained under standard method 4500-N).

Sample Collection

Sample types are specified for each parameter for each agency in **Appendix A**.

Proper sampling and preservation protocols will be followed at all times according to the applicable methods.

Sample Analysis

Laboratories, analytical methods, method detection limits and minimum levels are included for each parameter for each agency in **Appendix A**.

In some cases, primary preferred laboratories and methods are indicated with the note that another ELAP-certified laboratory or approved method will be used if necessary. Agencies may elect to change laboratories as needed during the study due to any unforeseen circumstances.

Generally, agencies will use ELAP-certified laboratories for analysis of parameters under this study. However, ELAP-certification is not technically required for the analyses conducted under this study. On an individual basis, agencies may elect to conduct analyses in-house for certain parameters without ELAP-certification. Under these circumstances, agencies will follow approved methods and ensure data quality through proper QA/QC techniques. In addition, a minimum of one split sample per year for each parameter will be sent to an ELAP-certified laboratory for analysis and comparison (with the exception of urea[1]).

The following definitions for method detection limits and minimum levels (indicated for each parameter in **Appendix A**), are included here to ensure consistency in reporting[2]:

[1] Since there is no EPA-approved method for urea, agencies are not required to use an EPA-approved method but will ensure data quality through proper QA/QC techniques; split samples for urea will not be sent to an ELAP-certified laboratory.

[2] These definitions are from the standard Attachment A of Bay Area NPDES permits for wastewater treatment plants.

- Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero.
- Minimum level (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

MDLs and MLs (as indicated for each parameter in **Appendix A**), are subject to change based on periodic updates, analytical methods, and laboratories.

QA/QC

QA/QC protocols for this study will be the same as those used by each agency for NPDES compliance sampling.

Sampling Schedule

The implementation of this Group Sampling Plan will begin July 1, 2012, such that the first samples will be collected in July[3].

Sampling frequencies and study duration for each agency are included in **Table 2**, below.

Data Reporting Template

It is expected that BACWA will develop and submit a draft data reporting template to facilitate reporting for this Nutrients Study by July 1, 2012.

[3] The 13267 Letter indicates that monitoring will begin by July 1, 2012. This has been interpreted differently by different readers. The interpretation included here will result in better alignment of the study with the calendar quarters, with the first required quarterly report being due 30 days after the third quarter of 2012 (Tuesday, October 30, 2012).

Table 2. Sampling Frequencies and Study Duration

Agency	ADWF [1]	Flow Category	Sampling Frequency [2][3][4]		Study Duration
			Influent	Effluent	
American Canyon, City of	2.5	Flow < 5 mgd Seasonal	Once during discharge (wet) season, Once during non-discharge (dry) season.	1/month during discharge (wet) season, Once during non-discharge (dry) season.	2 years
Benicia, City of	4.5	Flow < 5 mgd Year-Round	Once during wet season, Once during dry season.	1/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Burlingame, City of [5]	3.4	Flow < 5 mgd Year-Round	Once during wet season, Once during dry season.	1/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Calistoga, City of	0.84	Flow < 1 mgd Seasonal	Once during discharge (wet) season, Once during non-discharge (dry) season.	1/month during discharge (wet) season, Once during non-discharge (dry) season.	1 year
Central Contra Costa Sanitary District [6]	53.8	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Central Marin Sanitation Agency	10	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Delta Diablo Sanitation District	16.5	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
East Bay Dischargers Authority [6]	107.8	Flow ≥ 5 mgd Year-Round		2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
San Leandro, City of			Once during wet season, Once during dry season.		2 years
Oro Loma/Castro Valley Sanitary Districts			Once during wet season, Once during dry season.		2 years
Hayward, City of			Once during wet season, Once during dry season.		2 years
Union Sanitary District			Once during wet season, Once during dry season.		2 years
Dublin San Ramon Services District			Once during wet season, Once during dry season.		2 years
Livermore, City of			Once during wet season, Once during dry season.		2 years
East Bay Municipal Utility District [6]	120	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Fairfield-Suisun Sewer District	17.5	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Las Gallinas Valley Sanitary District	2.92	Flow < 5 mgd Seasonal	Once during discharge (wet) season, Once during non-discharge (dry) season.	1/month during discharge (wet) season, Once during non-discharge (dry) season.	2 years

Agency	ADWF [1]	Flow Category	Sampling Frequency [2][3][4]		Study Duration
			Influent	Effluent	
Marin County (Paradise Cove) Sanitary District No. 5 of	0.04	Flow < 1 mgd Year-Round	Once during wet season, Once during dry season.	1/month	1 year
Marin County (Tiburon) Sanitary District No. 5 of	0.98	Flow < 1 mgd Year-Round	Once during wet season, Once during dry season.	1/month	1 year
Millbrae, City of	3.0	Flow < 5 mgd Year-Round	Once during wet season, Once during dry season.	1/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Mt. View Sanitary District	3.2	Flow < 5 mgd Year-Round	Once during wet season, Once during dry season.	1/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Napa Sanitation District	15.4	Flow ≥ 5 mgd Seasonal	Once during discharge (wet) season, Once during non-discharge (dry) season.	2/month during discharge (wet) season, Once during non-discharge (dry) season.	2 years
Novato Sanitary District	7.05	Flow ≥ 5 mgd Seasonal	Once during discharge (wet) season, Once during non-discharge (dry) season.	2/month during discharge (wet) season, Once during non-discharge (dry) season.	2 years
Palo Alto, City of	39	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Petaluma, City of	6.7	Flow ≥ 5 mgd Seasonal	Once during discharge (wet) season, Once during non-discharge (dry) season.	2/month during discharge (wet) season, Once during non-discharge (dry) season.	2 years
Pinole, City of (Pinole-Hercules WPCP)	4.06	Flow < 5 mgd Year-Round	Once during wet season, Once during dry season.	1/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Rodeo Sanitary District	1.14	Flow < 5 mgd Year-Round	Once during wet season, Once during dry season.	1/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Saint Helena, City of [7]	0.5	Flow < 1 mgd Seasonal	Once during discharge (wet) season, Once during non-discharge (dry) season.	Once during discharge (wet) season, Once during non-discharge (dry) season.	1 year
San Francisco (Southeast Plant), City and County of [6]	84.5	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
San Francisco, City and County of, SF Int'l Airport	2.2	Flow < 5 mgd Year-Round	Once during wet season, Once during dry season.	1/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
San Jose/Santa Clara, Cities of [6]	167	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
San Mateo, City of	15.7	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Sausalito-Marin City Sanitary District	1.8	Flow < 5 mgd Year-Round	Once during wet season, Once during dry season.	1/month and two additional samples each wet season during peak wet weather flow conditions.	2 years

Agency	ADWF [1]	Flow Category	Sampling Frequency [2][3][4]		Study Duration
			Influent	Effluent	
Sewerage Agency of Southern Marin	3.6	Flow < 5 mgd Year-Round	Once during wet season, Once during dry season.	1/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Sonoma Valley County Sanitation District	3.0	Flow < 5 mgd Seasonal	Once during discharge (wet) season, Once during non-discharge (dry) season.	1/month during discharge (wet) season, Once during non-discharge (dry) season.	2 years
South Bayside System Authority	29	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
South San Francisco and San Bruno, Cities of	13	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Sunnyvale, City of	29.5	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
US Naval Support Activity, Treasure Island	2.0	Flow < 5 mgd Year-Round	Once during wet season, Once during dry season.	1/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Vallejo Sanitation and Flood Control District	15.5	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
West County Agency	28.5	Flow ≥ 5 mgd Year-Round	Once during wet season, Once during dry season.	2/month and two additional samples each wet season during peak wet weather flow conditions.	2 years
Yountville, Town of	0.55	Flow < 1 mgd Seasonal	Once during discharge (wet) season, Once during non-discharge (dry) season.	1/month during discharge (wet) season, Once during non-discharge (dry) season.	1 year

Notes:

[1] ADWF = average dry weather flow, (permitted and/or design capacity, except as noted).

[2] Influent monitoring will fall on the same dates as effluent monitoring events.

[3] Wet season is generally considered to be from November through April, and dry season from May through October. Dry season influent sampling will be conducted during July, August, and September, when the weather is the driest of the year. Agencies will estimate the best dates of sampling for peak wet weather flow scenarios; this decision may be based on historical peak wet weather flows, storm forecast, etc. Agencies will make a good faith effort to sample during a significant rain event (normally a multi-day event that would cause a significant increase in flow).

[4] Except for the two samples collected during peak wet weather conditions, sampling dates will be as random as feasible (i.e., samples will be collected on varying days of the month and/or week selected at random).

[5] The City of Burlingame is being categorized according to actual average dry weather flow rather than permitted maximum average dry weather flow.

[6] This agency will collect urea effluent samples once per month for up to one year.

[7] The City of Saint Helena only discharges a few days or weeks per year, if at all. For this reason, effluent monitoring will occur (at a minimum) at the same frequency as influent monitoring. Wet season sampling will occur on the same day as one of the discharge events. One sample will be collected at Pond 5 near the discharge structure during December or January (generally the coldest months of the year), if a wet-season discharge event has not yet occurred.

APPENDIX A

Nutrients Sampling and Analysis Information for Individual Agencies

City of American Canyon

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: EFF-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 353.2	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	Standard Method 4500-N	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH_3	City of American Canyon	0.1	mg/L	---	---
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.007	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.007	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	City of American Canyon	2	mg/L	---	---
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 2/Day	---	---	---	---	---	---
Temperature	Grab - 2/Day	---	---	---	---	---	---

Notes:

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

City of Benicia Wastewater Treatment Plant

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: EFF-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	Standard Method 4500-N	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	Standard Method 4500-N	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	City of Benicia WWTP Laboratory/Caltest	0.1	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.007	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.007	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	EPA 160.2 (Caltest)	City of Benicia WWTP Laboratory/Caltest	2	mg/L	3	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 2/Day	---	---	---	---	---	---
Temperature	Grab - 2/Day	---	---	---	---	---	---

Notes:

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

City of Burlingame Wastewater Treatment Facility

Influent Monitoring Location: A-001

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: E-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Burlingame ELAP #1577	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Burlingame ELAP #1577	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	Standard Method 4500-N	Burlingame ELAP #1577	0.05	mg/L	0.1	mg/L
Nitrite	24-hour Composite	Standard Method 4500-N	Burlingame ELAP #1577	0.05	mg/L	0.1	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	Burlingame ELAP #1577	0.05	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Burlingame ELAP #1577	0.05	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Burlingame ELAP #1577	0.1	mg/L	0.2	mg/L
Orthophosphate	24-hour Composite	Standard Method 4500-P	Burlingame ELAP #1577	0.1	mg/L	0.2	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	Burlingame ELAP #1577	1	mg/L	1	mg/L
Total Dissolved Nitrogen	24-hour Composite	Standard Method 4500-N	Burlingame ELAP #1577	0.1	mg/L	0.2	mg/L
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 2/Day	---	---	---	---	---	---
Temperature	Grab - 2/Day	---	---	---	---	---	---

Notes:

Our laboratory director will purchase equipment that will enable our agency to perform the above required testing in-house. This equipment has an estimated cost of $1,500 and the above parameters that do not exist in the facility DMRQA testing will be added to comply with and to maintain our ELAP certification.

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

City of Calistoga

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001
Effluent Monitoring Location: EFF-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	Standard Method 4500-N	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	Standard Method 4500-N	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	Caltest Analytical Laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.007	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.007	mg/L	0.1	mg/L
Orthophosphate	1 Grab (at Peak Flow)	Standard Method 4500-P	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	Caltest Analytical Laboratory	2	mg/L	3	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Continuous	---	---	---	---	---	---
Temperature	1 Grab (at Peak Flow)	---	---	---	---	---	---

Notes:

Grab samples will be collected for temperature because continuous monitoring equipment is not available for this parameter.

Central Contra Costa Sanitary District (CCCSD)

Influent Monitoring Location: Inf-001

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: Eff-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	CCCSD	0.22	ppm	2.0	ppm
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	CCCSD	0.22	ppm	2.0	ppm
Nitrate	24-hour Composite	SM16-418D	CCCSD	0.06	ppm	0.1	ppm
Nitrite	24-hour Composite	Standard Method 4500-N	CCCSD	0.001	ppm	0.01	ppm
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	CCCSD	0.25	ppm	2.0	ppm
Total Phosphorus	24-hour Composite	Standard Method 4500-P	CCCSD	0.008	ppm	0.05	ppm
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	CCCSD	0.008	ppm	0.05	ppm
Orthophosphate	24-hour Composite	Standard Method 4500-P	CCCSD	0.008	ppm	0.05	ppm
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	CCCSD	1.5	ppm	5	ppm
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 1/D*	---	---	---	---	---	---
Temperature	Grab - 1/D*	---	---	---	---	---	---
Urea	1 Grab (at Peak Flow)	Price & Harrison 1987	East Bay Municipal Utility District	0.01	mg/L	0.01	mg/L

Notes:

*Permit-required peak flow grab pH and temperature will be reported to satisfy the requirement.

Central Marin Sanitation Agency

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: EFF-002

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 300.0	Caltest Analytical Laboratory	0.01	mg/L	0.05	mg/L
Nitrite	24-hour Composite	Standard Method 4500-N	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	Caltest or CMSA	0.1	mg/L	0.2	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.007	mg/L	0.01	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.007	mg/L	0.01	mg/L
Orthophosphate	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	Caltest or CMSA	0.2	mg/L	0.5	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab	---	---	---	---	---	---
Temperature	Grab	---	---	---	---	---	---

Notes:

INF-001 = current permit M-Inf until August 2012-estimate

EFF-002 = current permit M-002 until August 2012-estimate

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

Delta Diablo Sanitation District (DDSD)

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: EFF-002

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Caltest or Weck	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Caltest or Weck	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	SM 4500 or EPA 300.0	DDSD, Caltest or Weck	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	Standard Method 4500-N	DDSD, Caltest or Weck	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	DDSD, Caltest or Weck	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Caltest or Weck	0.015	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Caltest or Weck	0.015	mg/L	0.1	mg/L
Orthophosphate	1 Grab (at Peak Flow)	Standard Method 4500-P	Caltest or Weck	0.006	mg/L	0.1	
Total Suspended Solids (TSS)	24-hour Composite	SM 2540 or EPA 160.2	DDSD, Caltest or Weck	2	mg/L	3	
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Measured Continuously	---	---	---	---	---	---
pH	Grab - 2/Day	---	---	---	---	---	---
Temperature	Grab - 2/Day	---	---	---	---	---	---

Notes:

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

East Bay Dischargers Authority (EBDA)

Nutrients Sampling and Analysis Information

Influent Monitoring Location: [1]

Effluent Monitoring Location: M-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM(20)4500-N ORG C	EBMUD	1	mg/L	1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	SM(20)4500-N ORG C SOL	EBMUD	1	mg/L	1	mg/L
Nitrate	24-hour Composite	EPA 300.1	EBMUD	0.02	mg/L	0.4	mg/L
Nitrite	24-hour Composite	EPA 300.1	EBMUD	0.02	mg/L	0.4	mg/L
Total Ammonia	24-hour Composite	SM(20)4500-NH3 B,C	EBMUD	0.3	mg/L	0.3	mg/L
Total Phosphorus	24-hour Composite	SM(20)4500-P E	EBMUD	0.01	mg/L	0.02	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM(20)4500-P E FILT 0.45UM	EBMUD	0.01	mg/L	0.02	mg/L
Orthophosphate	1 Grab (at Peak Flow)	SM(20)4500-P E	EBMUD	0.01	mg/L	0.02	mg/L
Total Suspended Solids (TSS)	24-hour Composite	SM(20)2540 D	EBMUD	5	mg/L	5	mg/L
Total Dissolved Nitrogen	24-hour Composite	SM(20)4500-N ORG C SOL, EPA 300.1	EBMUD	1	mg/L	1	mg/L
Flow	Continuous	---	---	---	---	---	---
pH	Grab [2]	---	---	---	---	---	---
Temperature	Grab [2]	---	---	---	---	---	---
Urea	1 Grab (at Peak Flow) [3]	Price and Harrison 1987 - Direct Method	EBMUD	0.01	mg/L	0.01	mg/L

Notes:

[1] Influent monitoring will be conducted at each of the facilities that discharge through the common EBDA outfall.

[2] Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

[3] Samples for urea will be grab samples due to hold time considerations.

EBDA - City of Hayward

Influent Monitoring Location: M-INF-A

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: See Notes

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM(20)4500-N ORG C	EBMUD	1	mg/L	1	mg/L
Nitrate	24-hour Composite	EPA 300.1	EBMUD	0.02	mg/L	0.4	mg/L
Nitrite	24-hour Composite	EPA 300.1	EBMUD	0.02	mg/L	0.4	mg/L
Total Ammonia	24-hour Composite	SM(20)4500-NH3 B,C	EBMUD	0.3	mg/L	0.3	mg/L
Total Phosphorus	24-hour Composite	SM(20)4500-P E	EBMUD	0.01	mg/L	0.02	mg/L
Orthophosphate	1 Grab (at Peak Flow)	SM(20)4500-P E	EBMUD	0.01	mg/L	0.02	mg/L
Total Suspended Solids (TSS)	24-hour Composite	SM(20)2540 D	EBMUD	5	mg/L	5	mg/L
Flow	Continuous	---	---	---	---	---	---

Notes:

Effluent monitoring will be conducted by EBDA at the common outfall.

EBDA - Oro Loma/Castro Valley Sanitary Districts

Influent Monitoring Location: M-INF-C

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: See Notes

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM(20)4500-N ORG C	EBMUD	1	mg/L	1	mg/L
Nitrate	24-hour Composite	EPA 300.1	EBMUD	0.02	mg/L	0.4	mg/L
Nitrite	24-hour Composite	EPA 300.1	EBMUD	0.02	mg/L	0.4	mg/L
Total Ammonia	24-hour Composite	SM(20)4500-NH3 B,C	EBMUD	0.3	mg/L	0.3	mg/L
Total Phosphorus	24-hour Composite	SM(20)4500-P E	EBMUD	0.01	mg/L	0.02	mg/L
Orthophosphate	1 Grab (at Peak Flow)	SM(20)4500-P E	EBMUD	0.01	mg/L	0.02	mg/L
Total Suspended Solids (TSS)	24-hour Composite	SM(20)2540 D	EBMUD	5	mg/L	5	mg/L
Flow	Continuous	---	---	---	---	---	---

Notes:

Effluent monitoring will be conducted by EBDA at the common outfall.

EBDA - City of San Leandro

Influent Monitoring Location: M-INF-B

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: See Notes

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM(20)4500-N ORG C	EBMUD	1	mg/L	1	mg/L
Nitrate	24-hour Composite	EPA 300.1	EBMUD	0.02	mg/L	0.4	mg/L
Nitrite	24-hour Composite	EPA 300.1	EBMUD	0.02	mg/L	0.4	mg/L
Total Ammonia	24-hour Composite	SM(20)4500-NH3 B,C	EBMUD	0.3	mg/L	0.3	mg/L
Total Phosphorus	24-hour Composite	SM(20)4500-P E	EBMUD	0.01	mg/L	0.02	mg/L
Orthophosphate	1 Grab (at Peak Flow)	SM(20)4500-P E	EBMUD	0.01	mg/L	0.02	mg/L
Total Suspended Solids (TSS)	24-hour Composite	SM(20)2540 D	EBMUD	5	mg/L	5	mg/L
Flow	Continuous	---	---	---	---	---	---

Notes:

Effluent monitoring will be conducted by EBDA at the common outfall.

EBDA - Union Sanitary District

Influent Monitoring Location: M-INF-D

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: See Notes

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM(20)4500-N ORG C	EBMUD	1	mg/L	1	mg/L
Nitrate	24-hour Composite	EPA 300.1	EBMUD	0.02	mg/L	0.4	mg/L
Nitrite	24-hour Composite	EPA 300.1	EBMUD	0.02	mg/L	0.4	mg/L
Total Ammonia	24-hour Composite	SM(20)4500-NH3 B,C	EBMUD	0.3	mg/L	0.3	mg/L
Total Phosphorus	24-hour Composite	SM(20)4500-P E	EBMUD	0.01	mg/L	0.02	mg/L
Orthophosphate	1 Grab (at Peak Flow)	SM(20)4500-P E	EBMUD	0.01	mg/L	0.02	mg/L
Total Suspended Solids (TSS)	24-hour Composite	SM(20)2540 D	EBMUD	5	mg/L	5	mg/L
Flow	Continuous	---	---	---	---	---	---

Notes:

Effluent monitoring will be conducted by EBDA at the common outfall.

EBDA - Dublin San Ramon Services District

Influent Monitoring Location: M-INF-F

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: See Notes

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 353.2	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM20 4500-NO2 B	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	EPA 160.2	Caltest Analytical Laboratory	2	mg/L	3	mg/L
Flow	Continuous	---	---	---	---	---	---

Notes:

Effluent monitoring will be conducted by EBDA at the common outfall.

EBDA - City of Livermore

Influent Monitoring Location: M-INF-E

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: See Notes

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 353.2	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM20 4500-NO2 B	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	EPA 160.2	Caltest Analytical Laboratory	2	mg/L	3	mg/L
Flow	Continuous	---	---	---	---	---	---

Notes:

Effluent monitoring will be conducted by EBDA at the common outfall.

East Bay Municipal Utility District

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: Eff-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM(20)4500-N ORG C	EBMUD	1	mg/L	1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	SM(20)4500-N ORG C SOL	EBMUD	1	mg/L	1	mg/L
Nitrate	24-hour Composite	EPA 300.1	EBMUD	0.02	mg/L	0.4	mg/L
Nitrite	24-hour Composite	EPA 300.1	EBMUD	0.02	mg/L	0.4	mg/L
Total Ammonia	24-hour Composite	SM(20)4500-NH3 B,C	EBMUD	0.3	mg/L	0.3	mg/L
Total Phosphorus	24-hour Composite	SM(20)4500-P E	EBMUD	0.01	mg/L	0.02	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM(20)4500-P E FILT 0.45UM	EBMUD	0.01	mg/L	0.02	mg/L
Orthophosphate	1 Grab (at Peak Flow)	SM(20)4500-P E	EBMUD	0.01	mg/L	0.02	mg/L
Total Suspended Solids (TSS)	24-hour Composite	SM(20)2540 D	EBMUD	5	mg/L	5	mg/L
Total Dissolved Nitrogen	24-hour Composite	SM(20)4500-N ORG C SOL, EPA 300.1	EBMUD	1	mg/L	1	mg/L
Flow	Continuous	---	---	---	---	---	---
pH	Grab [1]	---	---	---	---	---	---
Temperature	Continuous	---	---	---	---	---	---
Urea	Peak Flow Grab [2]	Price and Harrison 1987 - Direct Method	EBMUD	0.01	mg/L	0.01	mg/L

Notes:

[1] We currently measure pH four times per week using grab samples that are analyzed in the field.

[2] Samples for urea will be grab samples due to hold time considerations.

Fairfield-Suisun Sewer District

Influent Monitoring Location: I-001

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: E-001-D

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic) or other EPA-approved method	CalTest or other ELAP Certified Lab	0.07	mg/l	0.1	mg/l
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic) or other EPA-approved method	CalTest or other ELAP Certified Lab	0.07	mg/l	0.1	mg/l
Nitrate	24-hour Composite	EPA 353.2 or other EPA approved method	In-house, CalTest, or other ELAP Certified Lab	0.02	mg/l	0.1	mg/l
Nitrite	24-hour Composite	Standard Method 4500-N or other EPA-approved method	In-house, CalTest, or other ELAP Certified Lab	0.002	mg/l	0.03	mg/l
Total Ammonia	24-hour Composite	Standard Method 4500-NH3 or other EPA-approved method	In-house, CalTest, or other ELAP Certified Lab	0.02	mg/l	0.1	mg/l
Total Phosphorus	24-hour Composite	Standard Method 4500-P	In-house, CalTest, or other ELAP Certified Lab	0.03	mg/l	0.05	mg/l
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P or other EPA-approved method	In-house, CalTest, or other ELAP Certified Lab	0.03	mg/l	0.05	mg/l
Orthophosphate	24-hour Composite	Standard Method 4500-P or other EPA-approved method	In-house, CalTest, or other ELAP Certified Lab	0.006	mg/l	0.1	mg/l
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D or other EPA-approved method	In-house, CalTest, or other ELAP Certified Lab	0.96	mg/l	2	mg/l
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Continuous	---	---	---	---	---	---
Temperature	Continuous	---	---	---	---	---	---

Notes:

All influent sample types, methods, and frequencies will be repeated for Plant Recycle, a return stream that is separately sampled and metered for flow prior to mixing with influent. Influent is a combined flow that is also metered and sampled. Influent analyses are mathematicaly adjusted to arrive at influent concentrations/loadings exclusive of Plant Recycle, in accordance with Table E-2 of the District's NPDES Permit.

Please note that if a different instrument or laboratory is used for analysis, the MDL & ML may change.

Las Gallinas Valley Sanitary District

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-A00-1

Effluent Monitoring Location: EFF-FE-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 353.2	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM20 4500-NO2 B	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	EPA 160.2	Las Gallinas Valley Sanitary District	0.2	mg/L	1	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	See Notes	---	---	---	---	---	---
Temperature	See Notes	---	---	---	---	---	---

Notes:

pH and temperature value of effluent samples will be taken from a single grab sample.

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

Sanitary District No. 5 of Marin County (Paradise Cove)

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: EFF-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 353.2 or 300.0	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM20 4500-NO2 B	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	EPA 160.2	Caltest Analytical Laboratory	2	mg/L	3	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab	---	---	---	---	---	---
Temperature	Grab	---	---	---	---	---	---

Notes:

MDLs are current as of 4/2012.

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

Sanitary District No. 5 of Marin County (Tiburon)

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: EFF-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 353.2 or 300.0	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM20 4500-NO2 B	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	EPA 160.2	Caltest Analytical Laboratory	2	mg/L	3	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab	---	---	---	---	---	---
Temperature	Grab	---	---	---	---	---	---

Notes:

MDLs are current as of 4/2012.

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

City of Millbrae WPCP

Influent Monitoring Location: A-001

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: E-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 353.2	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM20 4500-NO2 B	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.007	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.007	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	SM20 2540d	In House			0.1	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 2/Day	---	---	---	---	---	---
Temperature	Grab - 2/Day	---	---	---	---	---	---

Notes:

For pH, we will grab one sample in the morning and one in the afternoon (8 hours apart).

For temperature, we will take an instantaneous reading using an NIST digital calibrated temperture probe at E001 at same time as collection of pH.

Grab/instantaneous samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

Mt. View Sanitary District

Influent Monitoring Location: I-001

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: E-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Lab	0.07	mg/L	0.1	mg/L
			Alpha Analytical Labs	0.1	mg/L	1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Lab	0.07	mg/L	0.1	mg/L
			Alpha Analytical Labs	0.1	mg/L	1	mg/L
Nitrate	24-hour Composite	EPA 353.2	Caltest Analytical Lab	0.007	mg/L	0.1	mg/L
			Alpha Analytical Labs	0.003	mg/L	0.2	mg/L
Nitrite	24-hour Composite	Standard Method 4500-N	Caltest Analytical Lab	0.002	mg/L	0.03	mg/L
			Alpha Analytical Labs	0.002	mg/L	0.2	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH_3	Caltest Analytical Lab	0.06	mg/L	0.2	mg/L
			Alpha Analytical Labs	0.06	mg/L	0.2	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Caltest Analytical Lab	0.007	mg/L	0.1	mg/L
			Alpha Analytical Labs	0.02	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Caltest Analytical Lab	0.007	mg/L	0.1	mg/L
			Alpha Analytical Labs	0.02	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	Standard Method 4500-P	Caltest Analytical Lab	0.006	mg/L	0.1	mg/L
			Alpha Analytical Labs	0.009	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	Caltest Analytical Lab	1	mg/L	3	mg/L
			Alpha Analytical Labs	0.3	mg/L	1	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Continuous	---	---	---	---	---	---
Temperature	Continuous	---	---	---	---	---	---

Napa Sanitation District

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: EFF-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	EPA 351.2/SM4500-N	Napa Sanitation District Laboratory/Caltest Analytical	0.1	mg/L	0.2	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	EPA 351.2/SM4500-N	Napa Sanitation District Laboratory/Caltest Analytical	0.1	mg/L	0.2	mg/L
Nitrate	24-hour Composite	EPA353.2	Caltest Analytical Laboratory	0.02	mg/L	0.02	mg/L
Nitrite	24-hour Composite	Hach 8507	Napa Sanitation District Laboratory/Caltest Analytical	0.005	mg/L	See Notes	mg/L
Total Ammonia	24-hour Composite	EPA 350.1	Napa Sanitation District Laboratory/Caltest Analytical	0.01	mg/L	0.05	mg/L
Total Phosphorus	24-hour Composite	Hach 8190	Napa Sanitation District Laboratory/Caltest Analytical	0.06	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	Hach 8190	Napa Sanitation District Laboratory/Caltest Analytical	0.06	mg/L	0.1	mg/L
Orthophosphate	1 Grab (at Peak Flow)	SM4500-PE	Caltest Analytical Laboratory	0.006	mg/L	0.006	mg/L
Total Suspended Solids (TSS)	24-hour Composite	SM2540D	Napa Sanitation District Laboratory/Caltest Analytical	0.1	mg/L	0.4	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Continuous	---	---	---	---	---	---
Temperature	Continuous	---	---	---	---	---	---

Notes

ML for influent samples = 0.1 mg/L. ML for effluent samples = 0.05 mg/L.

Novato Sanitary District (NSD)

Influent Monitoring Location: A-002

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: E-002

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour composite	EPA 353.2 or 300.0	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour composite	SM20 4500-NO2 B	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour composite	SM20 4500-NH3 C / SM 4500-NH3 D	Caltest/NSD laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Orthophosphate	1 grab (at Peak Flow)	SM20 4500-P E	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour composite	Standard Method 2540D	North Marin Water District Laboratory/NSD laboratory		mg/L		mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	See Notes	---	---	---	---	---	---
pH	Grab - 1/Day	---	---	---	---	---	---
Temperature	Grab - 1/Day	---	---	---	---	---	---

Notes:

Plant does not have effluent flow monitoring. Influent flow is measured continuously and will be reported.

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

City of Palo Alto RWQCP

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: EFF-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	4500-NH3-C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	4500-NH3-C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 353.2	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM 4500-N02 B	City of Palo Alto Lab	0.001	mg/L	0.01	mg/L
Total Ammonia	24-hour Composite	SM 4500-NH3 B	City of Palo Alto Lab	0.1	mg/L	0.2	mg/L
Total Phosphorus	24-hour Composite	SM 4500 PE	City of Palo Alto Lab	0.003	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM 4500 PE	City of Palo Alto Lab	0.003	mg/L	0.1	mg/L
Orthophosphate	1 Grab (at Peak Flow)	SM 4500 PE	City of Palo Alto Lab	0.003	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	SM 2540 D	City of Palo Alto Lab	0.5	mg/L	1	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Calculated	---	---	---	---	---	---
pH	Peak flow grab	---	---	---	---	---	---
Temperature	Peak flow grab	---	---	---	---	---	---

Notes:

Our C24 samplers are set up to collect samples from 8am -8am, but the flow calculations are based on the first day the sampler is set up from 12am to 12pm. Our peak flow grab is normally a noon sample.

The laboratories listed here are subject to change - alternate ELAP-certified laboratories may be used if necessary.

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

City of Petaluma

Nutrients Sampling and Analysis Information

Influent Monitoring Location: A-001
Effluent Monitoring Location: E-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Alpha Analytical or Caltest	0.1	mg/L	1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Alpha Analytical or Caltest	0.1	mg/L	1	mg/L
Nitrate	24-hour Composite	EPA 300.0	Alpha Analytical or Caltest	0.05	mg/L	0.2	mg/L
Nitrite	24-hour Composite	EPA 300.0	Alpha Analytical or Caltest	0.01	mg/L	0.2	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	Alpha Analytical or Caltest	0.06	mg/L	0.2	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Alpha Analytical or Caltest	0.06	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Alpha Analytical or Caltest	0.06	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	EPA 300.0	Alpha Analytical or Caltest	0.03	mg/L	0.3	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	City of Petaluma Water Quality Laboratory	NA		1	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite					
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 2/Day	---	---	---	---	---	---
Temperature	Grab - 2/Day	---	---	---	---	---	---

Notes:

Samples will be filtered at the City's Water Quality Laboratory or in the field to meet the 15 minute holding time for dissolved parameters. Then the filtered samples will be sent to the commercial laboratory to perform the analyses.

In the case where different MDL and RL values were provided for an analysis from the laboratories, the higher values were listed on the spreadsheet.

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

Pinole/Hercules WPCP

Influent Monitoring Location: INF-A

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: E-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/l	0.1	mg/l
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/l	0.1	mg/l
Nitrate	24-hour Composite	Standard Method 4500-N	Influent: Caltest	0.02	mg/l	0.1	mg/l
			Effluent: Pinole/Hercules	0.01	mg/l	0.1	mg/l
Nitrite	24-hour Composite	Standard Method 4500-N	Influent: Caltest	0.002	mg/l	0.03	mg/l
			Effluent: Pinole/Hercules	0.01	mg/l	0.1	mg/l
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	Caltest Analytical Laboratory	0.06	mg/l	0.1	mg/l
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.15	mg/l	0.1	mg/l
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.15	mg/l	0.1	mg/l
Orthophosphate	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.006	mg/l	0.1	mg/l
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	Pinole/Hercules	---	---	---	---
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Continuous	---	---	---	---	---	---
Temperature	Grab - 2/Day	---	---	---	---	---	---

Notes:

Grab samples will be collected for temperature because continuous monitoring equipment is not available for this parameter.

Rodeo Sanitary District

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: Eff-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 353.2	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM20 4500-NO2 B	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	EPA 160.2	Caltest Analytical Laboratory	2	mg/L	3	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Continuous	---	---	---	---	---	---
Temperature	Continuous	---	---	---	---	---	---

Notes:

MDLs are current as of 4/2012.

City of St. Helena

Influent Monitoring Location: INF-001

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: EFF-001, EFF-001D (pH)

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	Standard Method 4500-N	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	Standard Method 4500-N	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	Caltest Analytical Laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.007	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.007	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	Caltest Analytical Laboratory	2	mg/L	3	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	See Notes	---	---	---	---	---	---
Temperature	See Notes	---	---	---	---	---	---

Notes:

Influent flow (Inf-001) measurement is continuous with an 8 inch Rosemount Magmeter. Flow trending is recorded on a dedicated computer.

Effluent flow (Eff-001) measurement is contiunous when discharging to Napa River with a Milltronics Hydroranger model 200 and XRS-5 transducer mounted over a 9 inch X 30 inch Parshall Flume which converts level to flow. That flow is totalized at the transmitter and currently recorded in log book by visual observation at 24 hour interval. Plans are in place for transmitter signal to be trending/recorded on dedicated computer as noted above for influent flow.

Influent (Inf-001) pH and Temperature are monitored/recorded 1/wk when required 1/wk influent sample is collected for lab analysis.

Effluent (Eff-001) pH and Temperature are monitored daily with grab sample collected.

San Francisco Int'l Airport - Mel Leong Treatment Plant

Influent Monitoring Location: 0028070_INF & 0038318_INF

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: EFF-001A

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N(organic) B, Standard Method 4500-NH3 C	SFPUC-Southeast Lab	0.5	mg/L	2	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N(organic) B, Standard Method 4500-NH3 C	SFPUC-Southeast Lab	0.5	mg/L	2	mg/L
Nitrate	24-hour Composite	Standard Method 4500-N-E	SFIA-MLTP Lab	0.1	mg/L	1	mg/L
Nitrite	24-hour Composite	Standard Method 4500-N-B	SFIA-MLTP Lab	0.01	mg/L	0.05	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	SFIA-MLTP Lab	0.01	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P B,C,E	SFPUC-Southeast Lab	0.1	mg/L	0.5	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P B,C,E	SFPUC-Southeast Lab	0.1	mg/L	0.5	mg/L
Orthophosphate	24-hour Composite	Standard Method 4500-P C,E	SFPUC-Southeast Lab	0.1	mg/L	0.5	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	SFIA-MLTP Lab	0.2	mg/L	0.5	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab-1/day	---	---	---	---	---	---
Temperature	Grab-1/day	---	---	---	---	---	---

Notes:

Influent samples will be collected at both the industrial plant (NPDES Permit CA0028070), and the municipal wastewater plant (NPDES Permit CA0038318). Influent monitoring locations are currently listed in those permits as INF-001-Ind and INF-001-San, respectively.

Effluent samples will be collected for the combined effluent.

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

San Francisco (Southeast Plant), City and County of

Influent Monitoring Location: INF-001

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: EFF-001A

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N(organic) B, Standard Method 4500-NH3 C	Southeast Water Quality Laboratory	0.5	mg/L	2	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N(organic) B, Standard Method 4500-NH3 C	Southeast Water Quality Laboratory	0.5	mg/L	2	mg/L
Nitrate	24-hour Composite	Standard Method 4500-NO3 E	Southeast Water Quality Laboratory	0.2	mg/L	0.5	mg/L
Nitrite	24-hour Composite	Standard Method 4500-NO2 B	Southeast Water Quality Laboratory	0.002	mg/L	0.02	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3 C	Southeast Water Quality Laboratory	0.15	mg/L	0.6	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P B,C,E	Southeast Water Quality Laboratory	0.1	mg/L	0.5	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P B,C,E	Southeast Water Quality Laboratory	0.1	mg/L	0.5	mg/L
Orthophosphate	24-hour Composite	Standard Method 4500-P C,E	Southeast Water Quality Laboratory	0.1	mg/L	0.5	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	Southeast Water Quality Laboratory	7	mg/L	---	---
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 2/Day	---	---	---	---	---	---
Temperature	Grab - 2/Day	---	---	---	---	---	---
Urea	See Notes	See Notes	Southeast Water Quality Laboratory	See Notes	mg/L	See Notes	mg/L

Notes:

Urea - Spectrophotometric method (the direct method): This is a colorimetric technique based on the formation of a colored product when urea reacts with diacetylmonoxime in acid solution. After the color formation period of 72 hours while kept in the dark at room temperature, the absorbance is measured at 520 nm by a spectrophotometer. The absorbance reading is then compared to an external calibration prepared using urea stock standard solutions for final concentration determination.

Reference: Revilla, M., Alexander, J., and Glibert, P. M. 2005. Urea analysis in coastal waters: comparison of enzymatic and direct methods. Limnol. Oceanogr. 3:290-299.

The proposed analytical method (including MDL and ML) is under development following the procedure described in the cited reference by the Southeast Water Quality Laboratory. Completion of method development is expected in late May to early June 2012.

San Jose/Santa Clara Water Pollution Control Plant

Influent Monitoring Location: INF-001

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: EFF-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM 4500-N (organic)-B	SJ/SC WPCP Lab	0.24	mg/L	0.5	mg/L
Soluble Kjeldahl Nitrogen (SKN)	24-hour Composite	SM 4500-N (organic)-B	SJ/SC WPCP Lab	0.24	mg/L	0.5	mg/L
Nitrate	24-hour Composite	SM 4500-NO_3-F (SFA) / EPA 300.0	SJ/SC WPCP Lab	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM 4500-NO_3-F, B (SFA)	SJ/SC WPCP Lab	0.004	mg/L	0.01	mg/L
Total Ammonia	24-hour Composite	SM 4500-NH_3-B,D / SM 4500-NH3-G (SFA)	SJ/SC WPCP Lab	0.03	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	SM 4500-P, B, E	SJ/SC WPCP Lab	0.006	mg/L	0.03	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM 4500-P, E	SJ/SC WPCP Lab	0.006	mg/L	0.03	mg/L
Orthophosphate	1 Grab (at Peak Flow)	EPA 300.0/SM 4500-P, E	SJ/SC WPCP Lab	0.015/ 0.006	mg/L	0.5	mg/L
Total Suspended Solids (TSS)	24-hour Composite	SM 2540-D	SJ/SC WPCP Lab	0.2	mg/L	1	mg/L
Total Dissolved Nitrogen	Calculated	Nitrate + Nitrite + SKN	SJ/SC WPCP Lab	---	---	---	---
Flow	Continuous	Flow meter	SJ/SC WPCP Lab	---	---	---	---
pH	Continuous/ grab	SM 4500 H+ B	SJ/SC WPCP Lab	1	standard unit	---	---
Temperature	Continuous/ grab	SM 2550 B	SJ/SC WPCP Lab	0.1	°C	---	---
Urea*	1 Grab (at Peak Flow)	Revilla et al., 2005	SJ/SC WPCP Lab	0.005	mg/L	0.02	mg/L

Notes:

If for some reason the SJ/SC WPCP lab is unable to perform one or more of the required analyses, Caltest or East Bay Municipal Utility District (or another ELAP-certified lab) will be used instead. Alternate USEPA approved analytical methods are also included in this table.

*The proposed analytical method for urea is under development following the procedure described in the cited reference: Revilla et al, 2005. A grab sample will be collected for urea because the method recommends analysis within 15 minutes of sample collection or as soon as possible (sample storage may result in lower recoveries).

City of San Mateo, WWTP

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: EFF-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 353.2 or 300.0	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM20 4500-NO2 B	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory/San Mateo Lab	0.06 / 0.07	mg/L	0.1 / 0.4	mg/L
Total Phosphorus	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Orthophosphate	1 Grab (at Peak Flow)	SM20 4500-P E	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	San Mateo Laboratory		mg/L		mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 1/Day	---	---	---	---	---	---
Temperature	Grab - 1/Day	---	---	---	---	---	---

Notes:

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

Sewerage Agency of Southern Marin (SASM)

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001 (see notes)

Effluent Monitoring Location: M-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 353.2 or 300.0	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM20 4500-NO2 B	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite*	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	SM 2040D or EPA 160.2	SASM	2	mg/L	3	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 2/Day	---	---	---	---	---	---
Temperature	Continuous	---	---	---	---	---	---

Notes:

*The ammonia effluent sample will not be the same as for compliance purposes as that sample type must be (peak) grab. MDLs are current as of 4/2012.

For effluent temperature monitoring: Continuous, using a StowAway TidbiT Temperature Logger OR Grab-2/day. pH sampling will be Grab-2/Day minimum.

The influent monitoring location designated on page E-4 of order No.R2-2007-0056 for NPDES No. CA0037711 is M-INF-001.

Sausalito-Marin City Sanitary District

Nutrients Sampling and Analysis Information

Influent Monitoring Location: A-001

Effluent Monitoring Location: M-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 353.2 or 300.0	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM20 4500-NO2 B	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	EPA 160.2	Caltest Analytical Laboratory	2	mg/L	3	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 2/Day	---	---	---	---	---	---
Temperature	Grab - 2/Day	---	---	---	---	---	---

Notes:

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

Sonoma Valley County Sanitation District

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: EFF-001, EFF-001B

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Alpha Analytical Laboratories	0.1	mg/L	1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Alpha Analytical Laboratories	0.1	mg/L	1	mg/L
Nitrate	24-hour Composite	Standard Method 4500-N	Alpha Analytical Laboratories	0.003	mg/L	0.2	mg/L
Nitrite	24-hour Composite	Standard Method 4500-N	Alpha Analytical Laboratories	0.002	mg/L	0.2	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	Alpha Analytical Laboratories	0.06	mg/L	0.2	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Alpha Analytical Laboratories	0.02	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Alpha Analytical Laboratories	0.02	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	Standard Method 4500-P	Alpha Analytical Laboratories	0.009	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	Alpha Analytical Laboratories	0.3	mg/L	1	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 2/Day	---	---	---	---	---	---
Temperature	Grab - 2/Day	---	---	---	---	---	---

Notes:

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

South Bayside System Authority

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: EFF-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Alpha Analytical Laboratories	0.1	mg/L	1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Alpha Analytical Laboratories	0.1	mg/L	1	mg/L
Nitrate	24-hour Composite	Standard Method 4500-N	Alpha Analytical Laboratories	0.003	mg/L	0.2	mg/L
Nitrite	24-hour Composite	Standard Method 4500-N	Alpha Analytical Laboratories	0.02	mg/L	0.2	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	South Bayside System Authority	0.17	mg/L	0.2	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Alpha Analytical Laboratories	0.02	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Alpha Analytical Laboratories	0.02	mg/L	0.04	mg/L
Orthophosphate	1 Grab (at Peak Flow)	Standard Method 4500-P	Alpha Analytical Laboratories	0.009	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	South Bayside System Authority	0.7	mg/L	1	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 1/Day	---	---	---	---	---	---
Temperature	Grab - 1/Day	---	---	---	---	---	---

Notes:

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

Cities of South San Francisco and San Bruno

Influent Monitoring Location: A001

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: E001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Alpha Analytical Laboratories	0.1	mg/L	1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Alpha Analytical Laboratories	0.1	mg/L	1	mg/L
Nitrate	24-hour Composite	Standard Method 4500-N	Alpha Analytical Laboratories	0.003	mg/L	0.2	mg/L
Nitrite	24-hour Composite	Standard Method 4500-N	Alpha Analytical Laboratories	0.002	mg/L	0.2	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	Alpha Analytical Laboratories	0.06	mg/L	0.2	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Alpha Analytical Laboratories	0.02	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Alpha Analytical Laboratories	0.02	mg/L	0.1	mg/L
Orthophosphate	1 Grab (at Peak Flow)	Standard Method 4500-P	Alpha Analytical Laboratories	0.009	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	South San Francisco WQCP	0.3	mg/L	NA	NA
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Measured Continuously	---	---	---	---	---	---
pH	Grab - 12/day	---	---	---	---	---	---
Temperature	Grab - 2/Day	---	---	---	---	---	---

Notes:

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

City of Sunnyvale Water Pollution Control Plant

Influent Monitoring Location: INF-001

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: EFF-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 300.0	In-house	0.02	mg/L	0.5	mg/L
Nitrite	24-hour Composite	SM20 4500-NO2 B	In-house	0.002	mg/L	0.005	mg/L
Total Ammonia	24-hour Composite	SM20 4500-NH3 D	In-house	0.051	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	SM 4500-P E	In-house	0.002	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM 4500-P E	In-house	0.002	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	SM 2540D	In-house	2	mg/L	2	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 1/day	---	---	---	---	---	---
Temperature	Grab - 1/day	---	---	---	---	---	---

Notes:

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

US Naval Support Activity, Treasure Island

Influent Monitoring Location: INF-001

Nutrients Sampling and Analysis Information

Effluent Monitoring Location: EFF-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N(organic) B, Standard Method 4500-NH3 C	Southeast Water Quality Laboratory	0.5	mg/L	2	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N(organic) B, Standard Method 4500-NH3 C	Southeast Water Quality Laboratory	0.5	mg/L	2	mg/L
Nitrate	24-hour Composite	Standard Method 4500-NO3 E	Southeast Water Quality Laboratory	0.2	mg/L	0.5	mg/L
Nitrite	24-hour Composite	Standard Method 4500-NO2 B	Southeast Water Quality Laboratory	0.002	mg/L	0.02	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3 C	Southeast Water Quality Laboratory	0.15	mg/L	0.6	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P B,C,E	Southeast Water Quality Laboratory	0.1	mg/L	0.5	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P B,C,E	Southeast Water Quality Laboratory	0.1	mg/L	0.5	mg/L
Orthophosphate	24-hour Composite	Standard Method 4500-P C,E	Southeast Water Quality Laboratory	0.1	mg/L	0.5	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	Treasure Island/Southeast Water Quality Laboratory	7	mg/L		mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab/ Continuous	---	---	---	---	---	---
Temperature	Grab - 2/Day	---	---	---	---	---	---

Notes:

Grab samples will be collected for temperature because continuous monitoring equipment is not available for this parameter. Continuous monitoring equipment is also not available for influent monitoring of pH.

Vallejo Sanitation & Flood Control District

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001

Effluent Monitoring Location: EFF-001

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL [3]		ML [3]	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM 4500-N [1]	Caltest Analytical Laboratory [2]	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	SM 4500-N [1]	Caltest Analytical Laboratory [2]	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	SM 4500-N [1]	VSFCD, Caltest [2]	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM 4500-N [1]	VSFCD, Caltest [2]	0.02	mg/L	0.06	mg/L
Total Ammonia	24-hour Composite	SM 4500-NH3 [1]	VSFCD, Caltest [2]	0.04	mg/L	0.06	mg/L
Total Phosphorus	24-hour Composite	SM 4500-P [1]	Caltest Analytical Laboratory [2]	0.007	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM 4500-P [1]	Caltest Analytical Laboratory [2]	0.007	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	SM 4500-P [1]	Caltest Analytical Laboratory [2]	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	SM 2540D	VSFCD or Caltest	N/A	---	2	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Continuous [4]	---	---	---	---	---	---
Temperature	Continuous [4]	---	---	---	---	---	---

Notes:

[1] Any other 40CFR part 136 approved method may be used instead if for any reason the method listed here cannot be used.

[2] Any other ELAP-approved lab subcontracted by Caltest may also be used.

[3] MDL and RL are listed for the primary method and will be adjusted if dilution is necessary due to matrix interference or high concenrtaions, or if an alt. method is used.

[4] Plan to use a datalogger for continuous monitoring. If datalogger fails, the single grab collected during the routine Peak Flow monitoring will be used.

N/A = Not applicable

West County Agency

Nutrients Sampling and Analysis Information

Influent Monitoring Location: A-001, A-002

Effluent Monitoring Location: E-001-DC

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	EPA 353.2 or 300.0	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	SM20 4500-NO2 B	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	SM20 4500-NH3 C	Caltest Analytical Laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	SM20 4500-P E	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	Veolia Water Richmond	2	mg/L	3	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	Grab - 2/Day	---	---	---	---	---	---
Temperature	Grab - 2/Day	---	---	---	---	---	---

Notes:

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters.

Town of Yountville

Nutrients Sampling and Analysis Information

Influent Monitoring Location: INF-001
Effluent Monitoring Location: EFF-002

Parameter	Sample Type	USEPA-Approved Method Proposed by Agency	Name of Laboratory to Conduct Analysis	MDL		ML	
				Conc.	Unit	Conc.	Unit
Total Kjeldahl Nitrogen (TKN)	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Soluble Kjeldahl Nitrogen	24-hour Composite	Standard Method 4500-N (organic)	Caltest Analytical Laboratory	0.07	mg/L	0.1	mg/L
Nitrate	24-hour Composite	Standard Method 4500-N	Caltest Analytical Laboratory	0.02	mg/L	0.1	mg/L
Nitrite	24-hour Composite	Standard Method 4500-N	Caltest Analytical Laboratory	0.002	mg/L	0.03	mg/L
Total Ammonia	24-hour Composite	Standard Method 4500-NH3	Caltest Analytical Laboratory	0.06	mg/L	0.1	mg/L
Total Phosphorus	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Total Phosphorus (soluble)	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.015	mg/L	0.1	mg/L
Orthophosphate	24-hour Composite	Standard Method 4500-P	Caltest Analytical Laboratory	0.006	mg/L	0.1	mg/L
Total Suspended Solids (TSS)	24-hour Composite	Standard Method 2540D	Caltest Analytical Laboratory	2	mg/L	3	mg/L
Total Dissolved Nitrogen	Calculated	Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite	---	---	---	---	---
Flow	Continuous	---	---	---	---	---	---
pH	See Notes	---	---	---	---	---	---
Temperature	See Notes	---	---	---	---	---	---

Notes:

Grab samples will be collected for pH and temperature because continuous monitoring equipment is not available for these parameters. 2 grabs will be taken at peak flow within one hour.