BACWA
BAY AREA
CLEAN WATER
AGENCIES

April 30, 2012

**VIA EMAIL:** To: tyin@waterboards.ca.gov
cc: bwolfe@waterboards.ca.gov; nfeger@waterboards.ca.gov;

Ms. Tong Yin
San Francisco Bay Regional Water Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

**Subject: Municipal Wastewater Dischargers Nutrients Sampling and Analysis Plan**

Dear Ms. Yin:

The Regional Water Quality Control Board's (RWQCB) 13267 letter to the Municipal Wastewater Dischargers required the Municipal Dischargers to submit a nutrients sampling and analysis plan and encouraged the dischargers to submit a group plan. In the process of preparing the required plan, a Bay Area Clean Water Agencies representative contacted each agency and all agencies concurred to submit and participate in the enclosed Group Sampling Plan, which is being submitted in compliance with the RWQCB's March 2, 2012 letter.

The information gathered under the requirements of the 13267 Letter will be used by the RWQCB to evaluate the impacts of nutrient loadings to the Bay from wastewater discharges, to characterize nutrient removal and to inform potential nutrient treatment options at Bay area wastewater treatment plants. These activities are part of a larger regional nutrient strategy that includes the development of numeric nutrient endpoints (NNE) for the Bay. Several initial documents have been developed to guide these efforts and define the regional strategy; these documents also provide additional context for the requirements of the 13267 Letter.

The 13267 Letter stated that the sampling plan "shall clearly identify any proposed deviation for the requirements of this order and….include the basis for any proposed deviations." BACWA has proposed deviations from items indicated in the March 2 13267 letter; these proposed deviations are clearly described along with the basis for the proposed deviations in **Attachment A** to this letter. The proposed deviations are also reflected in the Nutrients Study Group Sampling Plan itself (**enclosed**). The 13267 Letter requires influent and effluent monitoring for two years for 13 different parameters; estimates of the total cost of this study to Bay Area wastewater agencies, as written, are on the order of $750,000. Three proposed deviations are included in the Group Sampling Plan: (1) reduce the number of influent constituents monitored, (2) review the data and the needed duration of the sampling program as data is submitted, and (3) reduce the frequency of sampling for some of the smallest plants. As a point of clarification, the data collection is to start in the month of July, 2012, not on July 1, 2012.

BACWA appreciates the importance of the data assembly required by 13267 Letter, as well as the RWQCB's acknowledgment of the impact of these requirements on our member agencies If you have any questions or comments on the Group Sampling Plan, please contact Jim Kelly at (925) 451-2017.

Sincerely,

Jim Kelly, Interim Executive Director
Bay Area Clean Water Agencies

cc: Bruce Wolfe, Regional Water Board
Naomi Feger, Regional Water Board

Enclosure

# ATTACHMENT A

## Nutrients Study
## Proposed Deviations
April 30, 2012

## Introduction

This document describes proposed deviations and the bases for the proposed deviations from sampling and analysis plan requirements of the San Francisco Bay Regional Water Quality Control Board's (RWQCB's) March 2, 2012 letter issued pursuant to Section 13267 of the California Water Code (13267 Letter). The Group Sampling Plan that reflects these proposed deviations is enclosed with this submittal on behalf of the municipal agencies that received the 13267 Letter.

All of the municipal wastewater agencies included on the 13267 Letter Mailing List are included in the Group Sampling Plan. Each agency submitted information regarding sample collection and analysis.

The deviations generally fall into two categories: (1) those proposed to reduce the burden imposed on municipal wastewater agencies while still meeting the goals of the study, and (2) those proposed to allow for flexibility in sampling and analysis to account for site-specific conditions and resources. A general discussion explaining BACWA's response to the 13267 Letter and the basis for reducing the burden on wastewater treatment agencies is included in the following paragraphs. Specific deviations proposed to address agency concerns are presented after that discussion.

## General Discussion

The 13267 Letter requires influent and effluent monitoring for 13 different parameters, as well as percent removal of total nitrogen and phosphorus. Estimates of the total cost of this study to Bay Area wastewater agencies, as written, are on the order of $750,000 (as discussed at the recent NNE Stakeholder Advisory Group Meeting, Oakland, CA, March 29, 2012).

The Draft San Francisco Bay Nutrients Strategy (SFBRWQCB, March 2012) describes six goals and work elements to be realized over the next five years. The Draft Nutrients Strategy is based on previous work summarized in the Numeric

Nutrient Endpoint Development for San Francisco Bay Estuary: Literature Review and Data Gap Analysis (McKee et al., 2011).

The six work elements described in the Draft Nutrients Strategy are:

1. Define the Problem
2. Establish Guidelines
3. Monitoring Program Development and Implementation
4. Develop Load-Response Models
5. Control Strategies
6. Regulatory Approaches

The Draft Nutrients Strategy simply indicates (under Task 4.1), that data collected under the requirements of the 13267 Letter "will be used to refine [POTW] load estimates." Separately, the Draft Nutrients Strategy describes work needed to develop a modeling strategy for the Bay, including the most basic need to "review existing models or types of models that can be used to simulate the sources and pathways of nutrient loads to the Bay and summarize data requirements." The data collected pursuant to this 13267 letter will well characterize the POTW's nutrient loads. BACWA supports this effort and supports the RWQCB's efforts to well define the other sources, as the overall problem will not be well defined without getting the loads right.

## Proposed Deviations

Specific proposed deviations are described in the following paragraphs.

1. Influent Monitoring
   Effluent monitoring parameters included in the Group Sampling Plan are unchanged from 13267 Letter. We believe they could all provide value in modeling the Bay's response to nutrient loadings. However, BACWA is proposing a reduction in the sampling parameters to be measured in the influent**.** A comparison of the influent sampling parameters specified in 13267 Letter and the Group Sampling Plan is included in **Table 1**, below. There are several parameters that we believe do not commonly exist in influent or are not relevant to the goals of this nutrient study. We respectfully request the opportunity to discuss this matter with you to provide the basis for our proposal. We believe there may be other ways of gathering the same information or opportunities to use data that is already gathered under separate RWQCB Orders.

**Table 1. Comparison of Proposed Influent Sampling Parameters**

| Parameters Included in 13267 Letter | Included in BACWA Group Sampling Plan? |
|---|---|
| Total Dissolved Nitrogen | No |
| **Total Kjeldahl Nitrogen (TKN)** | **Yes** |
| Soluble Kjeldahl Nitrogen | No |
| **Nitrate** | **Yes** |
| **Nitrite** | **Yes** |
| Total Ammonia | No |
| Urea | No |
| **Total Phosphorus** | **Yes** |
| Total Phosphorus (soluble) | No |
| Dissolved orthophosphate | No |
| Total orthophosphate | No |
| Flow | No |
| pH | No |
| Temperature | No |
| TSS | No |

2. Duration/Scope of Study

   The 13267 Letter proposes a study duration of two years for most agencies, and one year for minor (flow < 1 mgd) agencies. BACWA respectfully requests that after the initial six months of data have been collected and reviewed, the sampling program be reviewed for mid-course adjustments. At that point, the data should be evaluated to determine which parameters, if any, could be eliminated from further analysis as the study continues for its two-year term. The historical data would be available for evaluation by that time.

3. Deviations for Individual Agencies

   a. The City of Burlingame Wastewater Treatment Facility has an average dry weather design flow rating of 5.5 million gallons per day (mgd). BACWA proposes that this agency be ranked according to its actual annual average flow of 3.4 mgd, instead, thereby reducing monitoring requirements and associated costs.

b. The City of St. Helena only discharges a few days or weeks per year, if at all. BACWA therefore proposes that wet season effluent monitoring be conducted at the same frequency as dry season monitoring.

c. The Port Costa facility, with a permitted average dry weather flow of 0.033 (mgd), is the smallest agency included in the 13267 Letter Mailing List. The facility serves a population of approximately 190[1]. The requirements of the 13267 Letter pose a significant burden to the Port Costa's limited staff and financial resources, while the information is not likely to be significant in the initial characterization of nutrient loadings from wastewater treatment plants to the Bay. For these reasons, BACWA proposes that an exemption to the requirements of the 13267 Letter be granted to the Port Costa Sanitation Department of Crockett Community Services District.

4. Total Dissolved Nitrogen Option

The 13267 Letter requires analyses for total Kjeldahl nitrogen (TKN), nitrate and nitrite, as well as the calculated percent removal of total nitrogen (by concentration). The letter does not specify that total nitrogen must be measured separately, though, so it was assumed that the intention was that agencies would calculate total nitrogen concentrations as the sum of TKN, nitrate and nitrite.

On the other hand, the 13267 Letter requires sampling for soluble Kjeldahl nitrogen, nitrate, and nitrite, as well as total dissolved nitrogen. It is understood that total dissolved nitrogen may be calculated as the sum of those three required parameters (soluble Kjeldahl nitrogen, nitrate, and nitrite), rather than conducting a separate analysis for total dissolved nitrogen. BACWA proposes that agencies have the option to forego the analysis for total dissolved nitrogen in lieu of the calculation. Relationships between the relevant species of nitrogen are nicely described in Numeric Nutrient Endpoint Development for San Francisco Bay Estuary: Literature Review and Data Gap Analysis (McKee et al., 2011, page 33).

5. Nitrate and Nitrite Option

BACWA proposes that agencies have the option to measure nitrate and nitrite as one total combined concentration (as may be obtained under standard method 4500-N) instead of conducting two individual analyses for nitrate and nitrite. It is fairly common to see these two parameters reported as a combined value, and

[1] 2010 US Census data accessed April 18, 2012 at http://2010.census.gov/2010census/popmap/.

the combined value would be equally useful in computing the sum of total nitrogen.

## Considerations for Effluent Temperature and pH

BACWA is not proposing to remove pH and temperature from the list of parameters to be monitored in the effluent. However, there is some concern about the indication in the 13267 Letter that effluent temperature and pH data will be used to calculate ammonium from measured total ammonia concentrations in the receiving waters., In this context, the applicable fractions of total ammonia that exist in the unionized form and as ammonium are those in the Bay itself, rather than the effluent. This should be calculated using ambient pH and temperature data.

## References

Federal Register / Vol. 75, No. 184 / Thursday, September 23, 2010 / Proposed Rules.

McKee, L.J., Sutula, Gilbreath, A.N., Beagle, J., Gluchowski, D., and Hunt, J., Numeric nutrient endpoint development for San Francisco Bay- Literature review and Data Gaps Analysis. Southern California Coastal Water Research Project Technical Report No. 644. April 2011.

San Francisco Bay Regional Water Quality Control Board, Draft San Francisco Bay Nutrient Strategy. March 2011

**Bay Area Clean Water Agencies**

# Nutrients Study
# Group Sampling Plan

April 30, 2012

Prepared by RMC Water and Environment

Bay Area Clean Water Agencies

**Nutrients Study**
**Group Sampling Plan**
April 30, 2012

## 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.

## 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 include those shown in **Table 1**, below, and are specified for each agency in **Appendix A**.

**Table 1. Parameters to be Monitored**

| Parameter [1][2] | Unit | Influent | Effluent |
|---|---|---|---|
| Total Dissolved Nitrogen | mg/L as N<br>kg/day as N | No | Yes |
| Total Kjeldahl Nitrogen | mg/L as N<br>kg/day as N | Yes | Yes |
| Soluble Kjeldahl Nitrogen | mg/L as N<br>kg/day as N | No | Yes |
| Nitrate | mg/L as N<br>kg/day as N | Yes | Yes |
| Nitrite | mg/L as N<br>kg/day as N | Yes | Yes |
| Total Ammonia | mg/L as N<br>kg/day as N | No | Yes |
| Urea [3] | mg/L as N<br>kg/day as N | No | Yes |
| Total Phosphorus | mg/L as P<br>kg/day as P | Yes | Yes |
| Total Phosphorus (soluble) | mg/L as P<br>kg/day as P | No | Yes |
| Dissolved orthophosphate | mg/L as P<br>kg/day as P | No | Yes |
| Total orthophosphate | mg/L as P<br>kg/day as P | No | Yes |
| Flow [4] | mgd | No | Yes |
| pH [5] | standard units | No | Yes |
| Temperature [5] | degrees C | No | Yes |
| TSS | mg/L | No | Yes |
| Total nitrogen | 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.

[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] If 24-hour composite samples are collected for any parameters, 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.

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

Agencies may elect to employ any of the following variations, if preferred:

- Calculate total dissolved nitrogen as the sum of soluble Kjeldahl nitrogen, nitrate and nitrite.
- 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, and method detection limits 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]:

- 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.

[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.

## 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 maximum study duration for each agency are included in **Table 2**, below.

[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 Maximum Study Duration**

| Agency | ADWF [1] | Flow Category | Sampling Frequency [2][3] | | Max Study Duration [4] |
|---|---|---|---|---|---|
| | | | 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] | 5.5 | 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 |
| 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] | | Max Study Duration [4] |
|---|---|---|---|---|---|
| | | | 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 [2] | 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 |
| Sewerage Agency of | 3.6 | Flow < 5 mgd | Once during wet season, | 1/month and two additional samples each wet | 2 years |

| Agency | ADWF [1] | Flow Category | Sampling Frequency [2][3] | | Max Study Duration [4] |
|---|---|---|---|---|---|
| | | | Influent | Effluent | |
| Southern Marin | | Year-Round | Once during dry season. | season during peak wet weather flow conditions. | |
| 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, and sampling dates will be as random as feasible.

[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.

[4] The study will be conducted for six months. These initial six months of data will be reviewed and the need for additional data collection will be reconsidered at that time. If at that time it is clear that further data collection is needed, data collection will continue for up to the maximum study duration listed for each agency in **Table 2**, above.

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

[6] Urea samples will be collected once per month for up to one year.

# 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 | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 353.2 | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | EPA 353.2 | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-$NH_3$ | City of American Canyon | 0.1 | mg/L | --- | --- |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | Caltest Analytical Laboratory | 0.007 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | Caltest Analytical Laboratory | 0.007 | mg/L | 0.1 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | Caltest Analytical Laboratory | 0.007 | mg/L | 0.1 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | Caltest Analytical Laboratory | 0.006 | mg/L | 0.1 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | 24-hour Composite | Standard Method 2540D | City of American Canyon | 2 | mg/L | --- | --- |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Grab - 2/Day | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | Grab - 2/Day | --- | --- | --- | --- | --- | --- |

**Notes:**

## City of Benicia Wastewater Treatment Plant

Nutrients Sampling and Analysis Information

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

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-NH3 | City of Benicia WWTP Laboratory/Caltest | 0.1 | mg/L | 0.1 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.007 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.007 | mg/L | 0.1 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.007 | mg/L | 0.1 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.006 | mg/L | 0.1 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | 1 Grab (at Peak Flow) | EPA 160.2 (Caltest) | City of Benicia WWTP Laboratory/Caltest | 2 | mg/L | 3 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Grab - 2/Day | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | Grab - 2/Day | --- | --- | --- | --- | --- | --- |

**Notes:**

TSS is collected for NPDES compliance in 24 hour composite; for nutrient study, 1 grab at peak flow selected in order to be consistent with other samples collected.

## City of Burlingame Wastewater Treatment Facility

Nutrients Sampling and Analysis Information

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

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N (organic) | Burlingame ELAP #1577 | 0.07 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N (organic) | Burlingame ELAP #1577 | 0.07 | mg/L | 0.1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N (organic) | Burlingame ELAP #1577 | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | Burlingame ELAP #1577 | 0.05 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | Burlingame ELAP #1577 | 0.05 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | Burlingame ELAP #1577 | 0.05 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | Burlingame ELAP #1577 | 0.05 | mg/L | 0.1 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-NH3 | Burlingame ELAP #1577 | 0.05 | mg/L | 0.1 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | Burlingame ELAP #1577 | 0.05 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | Burlingame ELAP #1577 | 0.05 | mg/L | 0.1 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | Burlingame ELAP #1577 | 0.1 | mg/L | 0.2 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | Burlingame ELAP #1577 | 0.1 | mg/L | 0.2 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | 24-hour Composite | Standard Method 2540D | Burlingame ELAP #1577 | 1 | mg/L | 1 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | Burlingame ELAP #1577 | 0.1 | mg/L | 0.2 | mg/L |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Grab - 2/Day | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | 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.

## City of Calistoga

Nutrients Sampling and Analysis Information

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

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-NH3 | Caltest Analytical Laboratory | 0.06 | mg/L | 0.1 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.007 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.007 | mg/L | 0.1 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.007 | mg/L | 0.1 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.006 | mg/L | 0.1 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | 1 Grab (at Peak Flow) | Standard Method 2540D | Caltest Analytical Laboratory | 2 | mg/L | 3 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Continuous | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | 1 Grab (at Peak Flow) | --- | --- | --- | --- | --- | --- |

**Notes:**

## Central Contra Costa Sanitary District (CCCSD)

**Influent Monitoring Location:** Inf-001

Nutrients Sampling and Analysis Information

**Effluent Monitoring Location:** Eff-001

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N (organic) | CCCSD | 0.22 | ppm | | |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N (organic) | CCCSD | 0.22 | ppm | | |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N (organic) | CCCSD | 0.22 | ppm | | |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | CCCSD | 0.06 | ppm | | |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | CCCSD | 0.06 | ppm | | |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | CCCSD | 0.001 | ppm | | |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | CCCSD | 0.001 | ppm | | |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-NH3 | CCCSD | 0.25 | ppm | | |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | CCCSD | 0.008 | ppm | | |
| | Effluent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | CCCSD | 0.008 | ppm | | |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | CCCSD | 0.008 | ppm | | |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | CCCSD | 0.008 | ppm | | |
| Total Suspended Solids (TSS) | Effluent | mg/L | 24-hour Composite | Standard Method 2540D | CCCSD | 1.5 | ppm | | |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | See Notes | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | See Notes | --- | --- | --- | --- | --- | --- |
| Urea | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Price & Harrison 1987 | East Bay Municipal Utility District | 0.01 | mg/L | 0.01 | mg/L |

**Notes:**

No pH or temperature will be measured on the 24-hr flow weighted composite sample. pH and temperature are required for unionized ammonia calculation and should only apply for a grab sample.

## Central Marin Sanitation Agency

Nutrients Sampling and Analysis Information

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

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

**Notes:**
INF-001 = current permit M-Inf until August 2012-estimate
EFF-002 = current permit M-002 until August 2012-estimate

## Delta Diablo Sanitation District (DDSD)

Nutrients Sampling and Analysis Information

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

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

**Notes:**

## East Bay Dischargers Authority (EBDA)

**Influent Monitoring Location:** [1]

Nutrients Sampling and Analysis Information

**Effluent Monitoring Location:** M-001

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM(20)4500-N ORG C | EBMUD | 1 | mg/L | 1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM(20)4500-N ORG C SOL | EBMUD | 1 | mg/L | 1 | mg/L |
| Nitrate | Effluent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| Nitrite | Effluent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM(20)4500-NH3 B,C | EBMUD | 0.3 | mg/L | 0.3 | mg/L |
| Total Phosphorus | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM(20)4500-P E | EBMUD | 0.01 | mg/L | 0.02 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM(20)4500-P E FILT 0.45UM | EBMUD | 0.01 | mg/L | 0.02 | mg/L |
| Orthophosphate (total) | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | SM(20)4500-P E | EBMUD | 0.01 | mg/L | 0.02 | mg/L |
| Orthophosphate (dissolved) | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | SM(20)4500-P E (SOLUBLE) | EBMUD | 0.01 | mg/L | 0.02 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | 24-hour Composite | SM(20)2540 D | EBMUD | 5 | mg/L | 5 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM(20)4500-N ORG C SOL, EPA 300.1 | EBMUD | 1 | mg/L | 1 | mg/L |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Grab [2] | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | Continuous | --- | --- | --- | --- | --- | --- |
| Urea | Effluent | mg/L as N, kg/day as N | 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] pH is currently measured twice per week using grab samples.

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

## East Bay Dischargers Authority (EBDA) - Dublin San Ramon Services District

**Influent Monitoring Location:** M-INF-F

Nutrients Sampling and Analysis Information

**Effluent Monitoring Location:** See Notes

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 353.2 | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NO2 B | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |

**Notes:**

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

## East Bay Dischargers Authority (EBDA) - City of Hayward

**Influent Monitoring Location:** M-INF-A

Nutrients Sampling and Analysis Information

**Effluent Monitoring Location:** See Notes

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM(20)4500-N ORG C | EBMUD | 1 | mg/L | 1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | SM(20)4500-P E | EBMUD | 0.01 | mg/L | 0.02 | mg/L |

**Notes:**

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

## East Bay Dischargers Authority (EBDA) - City of Livermore

**Influent Monitoring Location:** M-INF-E

Nutrients Sampling and Analysis Information

**Effluent Monitoring Location:** See Notes

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour composite | EPA 353.2 | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour composite | SM20 4500-NO2 B | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |

**Notes:**

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

## East Bay Dischargers Authority (EBDA) - Oro Loma/Castro Valley Sanitary Districts

**Influent Monitoring Location:** M-INF-C

Nutrients Sampling and Analysis Information

**Effluent Monitoring Location:** See Notes

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM(20)4500-N ORG C | EBMUD | 1 | mg/L | 1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | SM(20)4500-P E | EBMUD | 0.01 | mg/L | 0.02 | mg/L |

**Notes:**

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

## East Bay Dischargers Authority (EBDA) - City of San Leandro

**Influent Monitoring Location:** M-INF-B

Nutrients Sampling and Analysis Information

**Effluent Monitoring Location:** See Notes

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM(20)4500-N ORG C | EBMUD | 1 | mg/L | 1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | SM(20)4500-P E | EBMUD | 0.01 | mg/L | 0.02 | mg/L |

**Notes:**

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

## East Bay Dischargers Authority (EBDA) - Union Sanitary District

**Influent Monitoring Location:** M-INF-D

Nutrients Sampling and Analysis Information

**Effluent Monitoring Location:** See Notes

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM(20)4500-N ORG C | EBMUD | 1 | mg/L | 1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | SM(20)4500-P E | EBMUD | 0.01 | mg/L | 0.02 | mg/L |

**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 | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM(20)4500-N ORG C | EBMUD | 1 | mg/L | 1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM(20)4500-N ORG C | EBMUD | 1 | mg/L | 1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM(20)4500-N ORG C SOL | EBMUD | 1 | mg/L | 1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | EPA 300.1 | EBMUD | 0.02 | mg/L | 0.4 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM(20)4500-NH3 B,C | EBMUD | 0.3 | mg/L | 0.3 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | SM(20)4500-P E | EBMUD | 0.01 | mg/L | 0.02 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM(20)4500-P E | EBMUD | 0.01 | mg/L | 0.02 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM(20)4500-P E FILT 0.45UM | EBMUD | 0.01 | mg/L | 0.02 | mg/L |
| Orthophosphate (total) | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | SM(20)4500-P E | EBMUD | 0.01 | mg/L | 0.02 | mg/L |
| Orthophosphate (dissolved) | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | SM(20)4500-P E (SOLUBLE) | EBMUD | 0.01 | mg/L | 0.02 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | 24-hour Composite | SM(20)2540 D | EBMUD | 5 | mg/L | 5 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM(20)4500-N ORG C SOL, EPA 300.1 | EBMUD | 1 | mg/L | 1 | mg/L |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Grab [1] | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | Continuous | --- | --- | --- | --- | --- | --- |
| Urea | Effluent | mg/L as N, kg/day as N | 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 | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 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 |
| | Effluent | mg/L as N, kg/day as N | 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 | Effluent | mg/L as N, kg/day as N | 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 | Influent | mg/L as N, kg/day as N | 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 |
| | Effluent | mg/L as N, kg/day as N | 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 | Influent | mg/L as N, kg/day as N | 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 |
| | Effluent | mg/L as N, kg/day as N | 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 | Effluent | mg/L as N, kg/day as N | 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 | Influent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | In-house, CalTest, or other ELAP Certified Lab | 0.03 | mg/l | 0.05 | mg/l |
| | Effluent | mg/L as P, kg/day as P | 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 |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 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 (dissolved & total) | Effluent | mg/L as P, kg/day as P | 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) | Effluent | mg/L | 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 | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Continuous | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | 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 | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 353.2 | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | EPA 353.2 | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NO2 B | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NO2 B | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.06 | mg/L | 0.1 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.006 | mg/L | 0.1 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | 24-hour Composite | EPA 160.2 | Las Gallinas Valley Sanitary District | 0.2 | mg/L | 1 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | See Notes | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | See Notes | --- | --- | --- | --- | --- | --- |

**Notes:**

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

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

**Notes:**

MDLs are current as of 4/2012.

## Sanitary District No. 5 of Marin County (Tiburon)

Nutrients Sampling and Analysis Information

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

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

**Notes:**

MDLs are current as of 4/2012.

## City of Millbrae WPCP

Nutrients Sampling and Analysis Information

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

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

## Mt. View Sanitary District

Nutrients Sampling and Analysis Information

**Influent Monitoring Location:** I-001

**Effluent Monitoring Location:** E-001

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/L as N | 1 Grab (at Peak Flow) | 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 |
| | Effluent | mg/L as N, kg/L as N | 1 Grab (at Peak Flow) | 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 | Effluent | mg/L as N, kg/L as N | 1 Grab (at Peak Flow) | 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 | Influent | mg/L as N, kg/L as N | 1 Grab (at Peak Flow) | 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 |
| | Effluent | mg/L as N, kg/L as N | 1 Grab (at Peak Flow) | 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 | Influent | mg/L as N, kg/L as N | 1 Grab (at Peak Flow) | 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 |
| | Effluent | mg/L as N, kg/L as N | 1 Grab (at Peak Flow) | 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 | Effluent | mg/L as N, kg/L as N | 1 Grab (at Peak Flow) | 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 | Influent | mg/L as P, kg/L as P | 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 |
| | Effluent | mg/L as P, kg/L as P | 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) | Effluent | mg/L as P, kg/L as P | 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 (dissolved & total) | Effluent | mg/L as P, kg/L as P | 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) | Effluent | mg/L | 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 | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Continuous | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | Continuous | --- | --- | --- | --- | --- | --- |

**Notes:**

## Napa Sanitation District

Nutrients Sampling and Analysis Information

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

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

**Notes:**

## Novato Sanitary District (NSD)

Nutrients Sampling and Analysis Information

**Influent Monitoring Location:** A-002
**Effluent Monitoring Location:** E-002

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

**Notes:**

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

## City of Palo Alto RWQCP

Nutrients Sampling and Analysis Information

**Influent Monitoring Location:** INF-001

**Effluent Monitoring Location:** EFF-001

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | 4500-NH3-C | CALTEST ANALYTICAL LABORATORY | 0.07 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | 4500-NH3-C | CALTEST ANALYTICAL LABORATORY | 0.07 | mg/L | 0.1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | 4500-NH3-C | CALTEST ANALYTICAL LABORATORY | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 353.2 | CALTEST ANALYTICAL LABORATORY | 0.02 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | EPA 353.2 | CALTEST ANALYTICAL LABORATORY | 0.02 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-N02 B | CITY OF PALO ALTO LAB | 0.001 | mg/L | 0.01 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-N02 B | CITY OF PALO ALTO LAB | 0.001 | mg/L | 0.01 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-NH3 B | CITY OF PALO ALTO LAB | 0.1 | mg/L | 0.2 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | SM 4500 PE | CITY OF PALO ALTO LAB | 0.003 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM 4500 PE | CITY OF PALO ALTO LAB | 0.003 | mg/L | 0.1 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM 4500 PE | CITY OF PALO ALTO LAB | 0.003 | mg/L | 0.1 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 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) | Effluent | mg/L | 24-hour Composite | SM 2540 D | CITY OF PALO ALTO LAB | 0.5 | mg/L | 1 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Calculated | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Peak flow grab | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | 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.

## City of Petaluma

**Influent Monitoring Location:** A-001

Nutrients Sampling and Analysis Information

**Effluent Monitoring Location:** E-001

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

## Pinole/Hercules WPCP

Nutrients Sampling and Analysis Information

**Influent Monitoring Location:** INF-A

**Effluent Monitoring Location:** E-001

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/l | 0.1 | mg/l |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/l | 0.1 | mg/l |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/l | 0.1 | mg/l |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | Caltest Analytical Laboratory | 0.02 | mg/l | 0.1 | mg/l |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | Pinole/Hercules | 0.01 | mg/l | 0.1 | mg/l |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | Caltest Analytical Laboratory | 0.002 | mg/l | 0.03 | mg/l |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-N | Pinole/Hercules | 0.01 | mg/l | 0.1 | mg/l |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-NH3 | Caltest Analytical Laboratory | 0.06 | mg/l | 0.1 | mg/l |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | Caltest Analytical Laboratory | 0.15 | mg/l | 0.1 | mg/l |
| | Effluent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | Caltest Analytical Laboratory | 0.15 | mg/l | 0.1 | mg/l |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | Caltest Analytical Laboratory | 0.15 | mg/l | 0.1 | mg/l |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P | Caltest Analytical Laboratory | 0.006 | mg/l | 0.1 | mg/l |
| Total Suspended Solids (TSS) | Effluent | mg/L | 24-hour Composite | Standard Method 2540D | Pinole/Hercules | --- | --- | --- | --- |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Continuous | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | Grab - 2/Day | --- | --- | --- | --- | --- | --- |

**Notes:**

## Rodeo Sanitary District

Nutrients Sampling and Analysis Information

**Influent Monitoring Location:** INF-001
**Effluent Monitoring Location:** Eff-001

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | EPA 353.2 | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | EPA 353.2 | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NO2 B | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NO2 B | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.06 | mg/L | 0.1 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.006 | mg/L | 0.1 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | 24-hour Composite | EPA 160.2 | Caltest Analytical Laboratory | 2 | mg/L | 3 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Continuous | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | 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 | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 1 Grab (at Peak Flow) | Standard Method 4500-NH3 | Caltest Analytical Laboratory | 0.06 | mg/L | 0.1 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.007 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.007 | mg/L | 0.1 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.007 | mg/L | 0.1 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.006 | mg/L | 0.1 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | 1 Grab (at Peak Flow) | Standard Method 2540D | Caltest Analytical Laboratory | 2 | mg/L | 3 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | See Notes | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | 1 Grab (at Peak Flow) | --- | --- | --- | --- | --- | --- |

**Notes:**

Effluent (monitoring location Eff-001) is continuous flow measurement 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.

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

## San Francisco International Airport Commission-Mel Leong Treatment Plant

**Influent Monitoring Location:** 0028070_INF & 0038318_INF

Nutrients Sampling and Analysis Information

**Effluent Monitoring Location:** EFF-001A

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

## San Francisco (Southeast Plant), City and County of

**Influent Monitoring Location:** INF-001

Nutrients Sampling and Analysis Information

**Effluent Monitoring Location:** EFF-001A

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 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 |
| | Effluent | mg/L as N, kg/day as N | 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 | Effluent | mg/L as N, kg/day as N | 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 | Influent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-NO3 E | Southeast Water Quality Laboratory | 0.2 | mg/L | 0.5 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-NO3 E | Southeast Water Quality Laboratory | 0.2 | mg/L | 0.5 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-NO2 B | Southeast Water Quality Laboratory | 0.002 | mg/L | 0.02 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-NO2 B | Southeast Water Quality Laboratory | 0.002 | mg/L | 0.02 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Standard Method 4500-NH3 C | Southeast Water Quality Laboratory | 0.15 | mg/L | 0.6 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P B,C,E | Southeast Water Quality Laboratory | 0.1 | mg/L | 0.5 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 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) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | Standard Method 4500-P B,C,E | Southeast Water Quality Laboratory | 0.1 | mg/L | 0.5 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 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) | Effluent | mg/L | 24-hour Composite | Standard Method 2540D | Southeast Water Quality Laboratory | 7 | mg/L | --- | --- |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Grab - 2/Day | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | Grab - 2/Day | --- | --- | --- | --- | --- | --- |

## San Francisco (Southeast Plant), City and County of

**Influent Monitoring Location:** INF-001

Nutrients Sampling and Analysis Information (Cont.)

**Effluent Monitoring Location:** EFF-001A

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Urea | Effluent | mg/L as N, kg/day as N | 24-hour Composite | See Notes | Southeast Water Quality Laboratory | See Notes | mg/L | See Notes | mg/L |

**Notes:**

Urea - Spectrophotometric method (the direct method[1]): 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.

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.

[1] 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.

## San Jose/Santa Clara Water Pollution Control Plant

**Influent Monitoring Location:** INF-001

Nutrients Sampling and Analysis Information

**Effluent Monitoring Location:** EFF-001

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-N (organic)-B / EPA 351.1 (see notes) | SJ/SC WPCP Lab | 0.24 | mg/L | 0.5 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-N (organic)-B / EPA 351.1 | SJ/SC WPCP Lab | 0.24 | mg/L | 0.5 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-N (organic)-B / EPA 351.1 | SJ/SC WPCP Lab | 0.24 | mg/L | 0.5 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-$NO_3$-F (SFA) / EPA 300.0 | SJ/SC WPCP Lab | 0.02 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 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 | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-$NO_2$-B (SFA) / EPA 353.2 | SJ/SC WPCP Lab | 0.004 | mg/L | 0.01 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-$NO_2$-B (SFA) / EPA 353.2 | SJ/SC WPCP Lab | 0.004 | mg/L | 0.01 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 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 | Influent | mg/L as P, kg/day as P | 24-hour Composite | SM 4500-P | SJ/SC WPCP Lab | 0.006 | mg/L | 0.03 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM 4500-P | SJ/SC WPCP Lab | 0.006 | mg/L | 0.03 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM 4500-P,E | SJ/SC WPCP Lab | 0.006 | mg/L | 0.03 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 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) | Effluent | mg/L | 24-hour Composite | SM 2540-D | SJ/SC WPCP Lab | 0.2 | mg/L | 1 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Nitrate + Nitrite + TKN | SJ/SC WPCP Lab | --- | --- | --- | --- |
| Flow | Effluent | mgd | Continuous | Flow meter | SJ/SC WPCP Lab | --- | --- | --- | --- |
| pH | Effluent | standard units | Continuous/ grab | SM 4500 H+ B | SJ/SC WPCP Lab | 1 | standard unit | --- | --- |
| Temperature | Effluent | degree C | Continuous/ grab | SM 2550 B | SJ/SC WPCP Lab | 0.1 | °C | --- | --- |
| Urea | Effluent | mg/L as N, kg/day as N | 24-hour Composite | Revilla et al., 2005 | SJ/SC WPCP Lab | TBD | mg/L | TBD | mg/L |

**Notes:**

Alternate USEPA approved analytical methods are also included in this table.

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.

TBD: The proposed analytical method is under development following the procedure described in the cited reference: Revilla et al, 2005.

## City of San Mateo, WWTP

Nutrients Sampling and Analysis Information

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

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

**Notes:**
Other = Grab - 1/day

## Sewerage Agency of Southern Marin

Nutrients Sampling and Analysis Information

**Influent Monitoring Location:** INF-001 (see notes)

**Effluent Monitoring Location:** M-001

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour composite | EPA 353.2 or 300.0 | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour composite | EPA 353.2 or 300.0 | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour composite | SM20 4500-NO2 B | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour composite | SM20 4500-NO2 B | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour composite * | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.06 | mg/L | 0.1 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 24-hour composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 24-hour composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.006 | mg/L | 0.1 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | 24-hour composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.006 | mg/L | 0.1 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour composite | EPA 160.2 | SASM | 2 | mg/L | 3 | mg/L |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Grab - 2/Day | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | Continuous | --- | --- | --- | --- | --- | --- |

**Notes:**

*This 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. For 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 | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour composite | EPA 353.2 or 300.0 | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour composite | EPA 353.2 or 300.0 | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour composite | SM20 4500-NO2 B | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour composite | SM20 4500-NO2 B | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour composite | SM20 4500-NH3 C | Caltest Analytical Laboratory | 0.06 | mg/L | 0.1 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 24-hour composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| Orthophosphate (dissolved) | Effluent | mg/L as P, kg/day as P | 24-hour composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.006 | mg/L | 0.1 | mg/L |
| Orthophosphate (total) | Effluent | mg/L as P, kg/day as P | 24-hour composite | SM20 4500-P E | Caltest Analytical Laboratory | 0.006 | mg/L | 0.1 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | 24-hour composite | EPA 160.2 | Caltest Analytical Laboratory | 2 | mg/L | 3 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Grab - 2/Day | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | Grab - 2/Day | --- | --- | --- | --- | --- | --- |

**Notes:**

## Sonoma Valley County Sanitation District

Nutrients Sampling and Analysis Information

**Influent Monitoring Location:** INF-001

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

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

**Notes:**

## South Bayside System Authority

Nutrients Sampling and Analysis Information

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

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour composite | Standard Method 4500-N (organic) | Alpha Analytical Laboratories | 0.1 | mg/L | 1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour composite | Standard Method 4500-N (organic) | Alpha Analytical Laboratories | 0.1 | mg/L | 1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour composite | Standard Method 4500-N (organic) | Alpha Analytical Laboratories | 0.1 | mg/L | 1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour composite | Standard Method 4500-N | Alpha Analytical Laboratories | 0.003 | mg/L | 0.2 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour composite | Standard Method 4500-N | Alpha Analytical Laboratories | 0.003 | mg/L | 0.2 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour composite | Standard Method 4500-N | Alpha Analytical Laboratories | 0.02 | mg/L | 0.2 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour composite | Standard Method 4500-N | Alpha Analytical Laboratories | 0.02 | mg/L | 0.2 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour composite | Standard Method 4500-NH3 | South Bayside System Authority | 0.17 | mg/L | 0.2 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour composite | Standard Method 4500-P | Alpha Analytical Laboratories | 0.02 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 24-hour composite | Standard Method 4500-P | Alpha Analytical Laboratories | 0.02 | mg/L | 0.1 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour composite | Standard Method 4500-P | Alpha Analytical Laboratories | 0.02 | mg/L | 0.04 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 1 Grab (at Peak Flow) | Standard Method 4500-P | Alpha Analytical Laboratories | 0.009 | mg/L | 0.1 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | 24-hour composite | Standard Method 2540D | South Bayside System Authority | 0.7 | mg/L | 1 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Grab - 1/Day | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | Grab - 1/Day | --- | --- | --- | --- | --- | --- |

**Notes:**

## Cities of South San Francisco and San Bruno

Nutrients Sampling and Analysis Information

**Influent Monitoring Location:** A001
**Effluent Monitoring Location:** E001

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

**Notes:**

## City of Sunnyvale Water Pollution Control Plant

Nutrients Sampling and Analysis Information

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

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

**Notes:**

## US Naval Support Activity, Treasure Island

Nutrients Sampling and Analysis Information

**Influent Monitoring Location:** INF-001

**Effluent Monitoring Location:** EFF-001

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 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 |
| | Effluent | mg/L as N, kg/day as N | 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 | Effluent | mg/L as N, kg/day as N | 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 | Influent | mg/L as N, kg/day as N | 24-hour composite | Standard Method 4500-NO3 E | Southeast Water Quality Laboratory | 0.2 | mg/L | 0.5 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour composite | Standard Method 4500-NO3 E | Southeast Water Quality Laboratory | 0.2 | mg/L | 0.5 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour composite | Standard Method 4500-NO2 B | Southeast Water Quality Laboratory | 0.002 | mg/L | 0.02 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour composite | Standard Method 4500-NO2 B | Southeast Water Quality Laboratory | 0.002 | mg/L | 0.02 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour composite | Standard Method 4500-NH3 C | Southeast Water Quality Laboratory | 0.15 | mg/L | 0.6 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour composite | Standard Method 4500-P B,C,E | Southeast Water Quality Laboratory | 0.1 | mg/L | 0.5 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 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) | Effluent | mg/L as P, kg/day as P | 24-hour composite | Standard Method 4500-P B,C,E | Southeast Water Quality Laboratory | 0.1 | mg/L | 0.5 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 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) | Effluent | mg/L | 24-hour composite | Standard Method 2540D | Treasure Island/Southeast Water Quality Laboratory | 7 | mg/L | | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Continuous | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | Grab - 2/Day | --- | --- | --- | --- | --- | --- |

**Notes:**

**Vallejo Sanitation & Flood Control District**

Nutrients Sampling and Analysis Information

**Influent Monitoring Location:** INF-001

**Effluent Monitoring Location:** EFF-001

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-N, or any other 40CFR part 136 approved method if for any reason this method cannot be used | Caltest or any ELAP approved lab subcontracted by Caltest | 0.07 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | | | 0.07 | mg/L | 0.1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-N, or any other 40CFR part 136 approved method if for any reason this method cannot be used | Caltest or any ELAP approved lab subcontracted by Caltest | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-N, or any other 40CFR part 136 approved method if for any reason this method cannot be used | VSFCD, Caltest or any ELAP approved lab subcontracted by Caltest | 0.02 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | | | 0.02 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-N, or any other 40CFR part 136 approved method if for any reason this method cannot be used | VSFCD, Caltest or any ELAP approved lab subcontracted by Caltest | 0.02 | mg/L | 0.06 | mg/L |
| | Effluent | mg/L as N, kg/day as N | 24-hour Composite | | | 0.02 | mg/L | 0.06 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | 24-hour Composite | SM 4500-NH3, or any other 40CFR part 136 approved method if for any reason this method cannot be used | VSFCD, Caltest or any ELAP approved lab subcontracted by Caltest | 0.04 | mg/L | 0.06 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | 24-hour Composite | SM 4500-P, or any other 40CFR part 136 approved method if for any reason this method cannot be used | Caltest or any ELAP approved lab subcontracted by Caltest | 0.007 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as P, kg/day as P | 24-hour Composite | | | 0.007 | mg/L | 0.1 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | 24-hour Composite | SM 4500-P, or any other 40CFR part 136 approved method if for any reason this method cannot be used | Caltest or any ELAP approved lab subcontracted by Caltest | 0.007 | mg/L | 0.1 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | 24-hour Composite, see notes | SM 4500-P, or any other 40CFR part 136 approved method if for any reason this method cannot be used | Caltest or any ELAP approved lab subcontracted by Caltest | 0.006 | mg/L | 0.1 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | 24-hour Composite | SM 2540D | VSFCD or Caltest | NA | --- | 2 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Measured Continuously | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Continuous, or hourly grabs if meter fails | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | Continuous or grab, see notes | --- | --- | --- | --- | --- | --- |

**Notes:**

For dissolved Orthophosphate, if SFRWQCB does not allow filtration of a 24-hour composite within 15 minutes after collection of the final alliquot, a single grab sample at peak flow will be collected and filtered for this analysis.

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 alternate method is used.

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

NA = not applicable.

## West County Agency

Nutrients Sampling and Analysis Information

**Influent Monitoring Location:** A-001, A-002

**Effluent Monitoring Location:** E-001-DC

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

**Notes:**

## Town of Yountville

**Influent Monitoring Location:** INF-001

Nutrients Sampling and Analysis Information

**Effluent Monitoring Location:** EFF-002

| Parameter | Location | Unit | Sample Type | USEPA-Approved Method Proposed by Agency | Name of Laboratory to Conduct Analysis | MDL | | ML | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conc. | Unit | Conc. | Unit |
| Total Kjeldahl Nitrogen (TKN) | Influent | mg/L as N, kg/day as N | One Grab (at peak flow) | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | One Grab (at peak flow) | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Soluble Kjeldahl Nitrogen | Effluent | mg/L as N, kg/day as N | One Grab (at peak flow) | Standard Method 4500-N (organic) | Caltest Analytical Laboratory | 0.07 | mg/L | 0.1 | mg/L |
| Nitrate | Influent | mg/L as N, kg/day as N | One Grab (at peak flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as N, kg/day as N | One Grab (at peak flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.02 | mg/L | 0.1 | mg/L |
| Nitrite | Influent | mg/L as N, kg/day as N | One Grab (at peak flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| | Effluent | mg/L as N, kg/day as N | One Grab (at peak flow) | Standard Method 4500-N | Caltest Analytical Laboratory | 0.002 | mg/L | 0.03 | mg/L |
| Total Ammonia | Effluent | mg/L as N, kg/day as N | One Grab (at peak flow) | Standard Method 4500-NH3 | Caltest Analytical Laboratory | 0.06 | mg/L | 0.1 | mg/L |
| Total Phosphorus | Influent | mg/L as P, kg/day as P | One Grab (at peak flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| | Effluent | mg/L as P, kg/day as P | One Grab (at peak flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| Total Phosphorus (soluble) | Effluent | mg/L as P, kg/day as P | One Grab (at peak flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.015 | mg/L | 0.1 | mg/L |
| Orthophosphate (dissolved & total) | Effluent | mg/L as P, kg/day as P | One Grab (at peak flow) | Standard Method 4500-P | Caltest Analytical Laboratory | 0.006 | mg/L | 0.1 | mg/L |
| Total Suspended Solids (TSS) | Effluent | mg/L | One Grab (at peak flow) | Standard Method 2540D | Caltest Analytical Laboratory | 2 | mg/L | 3 | mg/L |
| Total Dissolved Nitrogen | Effluent | mg/L as N, kg/day as N | Calculated | Sum of Soluble Kjeldahl Nitrogen, Nitrate and Nitrite | --- | --- | --- | --- | --- |
| Flow | Effluent | mgd | Continuous | --- | --- | --- | --- | --- | --- |
| pH | Effluent | standard units | Two Grabs (at peak flow within 1 hour) | --- | --- | --- | --- | --- | --- |
| Temperature | Effluent | degree C | Two Grabs (at peak flow within 1 hour) | --- | --- | --- | --- | --- | --- |

**Notes:**