# 2025 ANNUAL PRETREATMENT REPORT

CITY OF ROSEVILLE

CALIFORNIA

February 23, 2026

**NPDES PERMIT NO. CAG585001**

**ORDER R5-2023-0025-008**
**&**
**ORDER R5-2023-0025-006**

ENVIRONMENTAL UTILITIES DEPARTMENT, INDUSTRIAL WASTE DIVISION

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## 1.0 SUMMARY OF PRIORITY POLLUTANT MONITORING REQUIREMENTS AND ANALYTICAL RESULTS FROM MONTHLY EFFLUENT SAMPLING

On June 27, 2025 the Central Valley Regional Water Quality Control Board (CVRWQCB) issued a new NPDES discharge permit for the City of Roseville's Dry Creek Wastewater Treatment Plant (DCWWTP), NPDES No. CAG585001/Order No. R5-2023-0025-008 and the Pleasant Grove Wastewater Treatment Plant (PGWWTP), NPDES No. CAG585001/Order No. R5-2023-0025-006. These permits became effective on October 1, 2025.

**Table 1.0** presents the priority pollutant monitoring requirements for the final effluent of both plants from January 1, 2025 to December 31, 2025 under the current permit.

**Table 1.0** Priority Pollutant Monitoring as per Order No. R5-2023-0025-008 and R5-2023-0025-006

| DCWWTP | | | PGWWTP | | |
|---|---|---|---|---|---|
| **Pollutant Name** | **Analytical Method** | **Frequency** | **Pollutant Name** | **Analytical Method** | **Frequency** |
| Nitrate | Hach 10206 | Monthly | Nitrate | Hach 10206 | Monthly |
| Nitrite | SM 4500-NO2 | Monthly | Nitrite | SM 4500-NO2 | Monthly |
| Nitrate + Nitrite | Hach 10206 | Monthly | Nitrate + Nitrite | Hach 10206 | Monthly |

Results of final effluent priority pollutant sampling at DCWWTP and PGWWTP are summarized in **Attachment A**. There were no priority pollutant effluent violations for either the DCWWTP or PGWWTP facilities during 2025.

The final effluent composite samples were collected using composite samplers outfitted with silicone tubing with the effluent sample pumped directly into the sample bottles. Grab samples were collected either by pumping forward through the composite samplers or using a pole directly from the sample trough if required to prevent potential contamination from the tubing. Samples were transferred to appropriate certified laboratory containers and analyzed. Quality assurance and quality control was achieved through method blanks, laboratory control samples, matrix spikes, matrix spike duplicates, and proper chain of custody procedures.

The influent, effluent, and sludge were annually sampled and monitored for the pollutants that EPA has identified under section 307(a) of the Clean Water Act which are known or suspected to be discharged by nondomestic users. Two sources of influent are conveyed through separate headworks at the DCWWTP facility which are identified as East Roseville Influent and West Placer Influent. The approximate proportion of total influent flow is as follows; 98 % East Roseville, and 2 % West Placer. **Attachment C** presents the 2025 pretreatment monitoring results in tabular form. These sampling events took place on December 2, 2025 for DCWWTP and October 29, 2025 for PGWWTP.

## 2.0 DISCUSSION OF UPSET, INTERFERENCE OR PASS-THROUGH INCIDENTS

There were no recorded cases of upsets, interferences, or pass through incidents at the DCWWTP or PGWWTP in 2025.

## 3.0 LIST OF POTW USERS AND APPLICABLE STANDARDS

A. Significant / Permitted Industrial Users

The City of Roseville currently permits or is in the process of permitting 31 Industrial Users (IUs):

- 10 Significant Industrial Users (SIU) with active permits
- 4 SIUs pending application submission
- 2 SIUs pending construction
- 7 IUs (non-significant)
- 6 Non-Significant Categorical Industrial Users (NSCIUs)
- 2 Waste Haulers

Roseville employs the following EPA definition of Significant Industrial User:

1. All categorical industrial users (CIU).

2. Any non-categorical industrial user that:

    - Discharges 25,000 gallons per day or more of process wastewater (process wastewater excludes sanitary, non-contact cooling and blowdown wastewater).

    - Contributes a process waste stream that makes up 5 percent or more of the average dry weather hydraulic or organic (BOD, TSS, etc.) capacity of the treatment plant.

    - Has a reasonable potential, in the opinion of the City or Approval Authority, to adversely affect the treatment plant (inhibition, pass-through of pollutants, sludge contamination, or endangerment of POTW and collection system workers).

A current list of significant / permitted industrial users is presented in **Table 3.0**. Results of compliance monitoring at SIUs are summarized in **Attachment B**.

In 2025, the City continued its efforts to conduct surveys of its sewershed to locate non-domestic users that are operating as SIUs or IUs required to obtain wastewater discharge permits. Surveys are directed towards businesses that are likely to possess wet industrial processes. These businesses are identified by reviewing monthly business licenses, analyzing water usage data, and conducting field inspections. Since January, a total of 10 surveys were conducted across the sewershed. From these surveys, no non-domestic users were deemed to be SIUs or IUs required to obtain Non-Domestic Wastewater Discharge Permits.

The City discovered four SIUs and one NSCIU operating without wastewater discharge permits in 2025. Upon being notified by the City, the NSCIU has applied for and obtained a wastewater discharge permit. The four SIUs are under order to obtain wastewater discharge permits by April of 2026. In addition, there are two pending SIUs that are currently under construction. The City is closely monitoring these users to coordinate permitting efforts when they are ready to begin operations.

B. Non-Significant Industrial/Commercial Users:

Inspection and control of Non-Significant Industrial/Commercial Users within Roseville's sewershed is divided between South Placer Wastewater Authority's regional partners: City of Roseville, South Placer Municipal Utility District (SPMUD), and Placer County. Contact with these facilities may be in the form of a formal site inspection or submission of a Non-Domestic Wastewater Discharge Permit Application. The City of Roseville is currently responsible for inspection of all Non-Significant Industrial/Commercial Users within the City of Roseville, and Placer County, and "High Risk Facilities" within SPMUD territory. Placer County and SPMUD are responsible for managing their own Fat's, Oil, and Grease (FOG) Program.

The City of Roseville's FOG Program monitors all FSE's within city limits. Field inspections are conducted by the City's Wastewater Collections Division. The program monitors FSEs through the issuance of bi-annual Waste Discharge Permits (WDP). The goal of the program is to inspect each facility at least once annually. The inspections include grease removal device inspection, dye tests, or review of the best management practices (BMPs) employed at the FSE. In 2025, no sewer spills occurred from the buildup of FOG.

The City inspects Non-Significant Industrial/Commercial Users such as automotive maintenance and carwash facilities more frequently than other categories. This category has been deemed a higher priority due to the presence of private sand-oil interceptors requiring regular maintenance and the threat of oils and metals being discharged from washing operations. The inspections include interceptor oil and solids measurement, interceptor atmosphere measurement, observation of storage of chemical/hazardous materials, and review of BMPs at the facilities. The City continues to inspect these facilities to locate and ensure proper maintenance of these sand-oil interceptors.

All other categories of Non–Significant Industrial/Commercial Users are subject to an inspection on an as needed basis. Regular inspection schedules have not been established for these facilities, but it is the goal of IWD to establish a more routine inspection schedule in the future when staffing allows.

In accordance with regulation under 40 CFR 441, the City's Industrial Waste Division (IWD) sends out letters of notification and One-Time Compliance Report (OTCR) forms to all dental facilities within the regional sewershed. New dental facilities are identified by the City through their NAICS Code when they file for a new business license or when they submit a permit for a tenant improvement or new construction project to each regional partner's Building Department. The new dental facility is promptly made aware of the ruling and the required OTCR forms are mailed to the business address by the City's IWD. Upon receiving the completed OTCRs, the forms are filed both as hardcopy and electronically. Dental Amalgam Rule information, and OTCR forms are available on the City's website.

When an applicant is seeking the issuance of a certificate of occupancy, the Building Department will notify City's IWD if the facility is equipped with applicable pretreatment equipment. If so, IWD will conduct an inspection of this equipment prior to the facility starting operations. This system allows IWD to determine if pretreatment equipment has been appropriately installed prior to its use and avoid potentially costly improvements for the customer.

Updated lists of all Non-Significant Industrial/Commercial Facilities are kept on file in the IWD office and are updated on a monthly basis.

Progress on the number of facilities and corresponding inspections can be viewed in **Table 2.0, Table 2.1, and Table 2.2**.

**Table 2.0**

| City of Roseville Non-Significant Industrial/Commercial Users | | |
|---|---|---|
| **Category** | **# of Facilities** | **# of Inspections / Applications[1]** |
| Food Service Establishments | 522 | 1,261 |
| Car Wash/Auto Maintenance | 287 | 162 |
| Laundromat/Dry Cleaners | 8 | 0 |
| Brewery/Winery/Distilleries | 0 | 0 |
| Machine Shop | 15 | 0 |
| Medical Facilities | 55 | 9 |
| Dental Facilities | 120 | 3 |
| Other High Risk Facilities | 37 | 10 |

**Table 2.1**

| SPMUD Non-Significant Industrial/Commercial Users | | |
|---|---|---|
| **Category** | **# of Facilities** | **# of Inspections / Applications. [1]** |
| Food Service Establishments | 189 | 88 |
| Car Wash/Auto Maintenance | 123 | 1 |
| Laundromat/Dry Cleaners | 10 | 0 |
| Brewery/Winery/Distilleries | 3 | 1 |
| Machine Shop | 10 | 1 |
| Medical Facilities | 46 | 0 |
| Dental Facilities | 72 | 0 |
| Other High Risk Facilities | 20 | 3 |

**Table 2.2**

| Placer County Non-Significant Industrial/Commercial Users | | |
|---|---|---|
| **Category** | **# of Facilities** | **# of Inspections / Applications[1]** |
| Food Service Establishments | 27 | 27 |
| Car Wash/Auto Maintenance | 40 | 11 |
| Laundromat/Dry Cleaners | 2 | 0 |
| Brewery/Winery/Distilleries | 1 | 0 |
| Machine Shop | 7 | 1 |
| Medical Facilities | 34 | 0 |
| Dental Facilities | 12 | 0 |
| Other High Risk Facilities | 22 | 7 |

(1) Non Domestic Wastewater Discharge Permit Applications are at times submitted in lieu of an inspection while conducting surveys throughout the sewershed of lesser-known businesses.

## 4.0 INSPECTIONS AND SAMPLING PROGRAM

All SIUs are inspected, at a minimum, once a year. Sampling frequency of IUs varies and is outlined in each individual Non-Domestic Wastewater Discharge Permit, see **Table 3.0**.

The inspection reports outline the purpose of the inspection, general operational information of the SIU, processing area descriptions, historic violations, sampling summaries, implementation of best management practices, wastewater sources, and their respective discharge volumes. The required pollutants to be analyzed for each SIU are outlined in the individual Non Domestic Wastewater Discharge Permits. Samples are collected using portable peristaltic composite samplers, on-site composite samplers, or as direct grabs.

Site inspections of Non-Significant Industrial/Commercial Users are conducted to ensure compliance with the City's municipal code, education of best management practices, and to identify businesses with high potential to discharge wastewater that may impact the City's sanitary sewer collection or treatment systems. Due to limited staffing, Non Domestic Wastewater Discharge Permit Applications are at times submitted in lieu of an inspection while conducting surveys throughout the sewershed. Follow-up onsite inspections are conducted when it is determined that the facility may be discharging high strength or regulated wastewater.

In 2025 the City began conducting inspections prior to a final signoff of a building permit or certificate of occupancy being issued. These inspections allow the City to ensure all required pretreatment is installed appropriately and the City is fully aware of any historic pretreatment infrastructure in existence.

The goal of the FOG program is to visit FSE's once per year to ensure proper implementation of best management practices, and that each grease removal device is properly maintained. The City's FOG Program is managed and administered by the Wastewater Collections Division.

# PERMITTED INDUSTRIAL USERS 2025

| Permitted Industries | Address | Applicable Regs. | IU Type | Permitted Discharge (gpd) | Industry Description | Pretreatment | Contact | Phone |
|---|---|---|---|---|---|---|---|---|
| Advanced Metal Finishing | 2130 March Road Roseville, CA 95747 | Local & 433.17 | NSCIU | Zero Discharge | Metal finishing for various industrial and commercial applications | Yes | Michael Coons<br>Michael Von Rembow | 916-780-1030 |
| Roseville Energy Park | 5120 Phillip Rd Roseville, CA 95747 | Local & 423.17 | NSCIU | Zero Discharge | 160 MW natural gas fired power plant | Yes | Julie Manfredi | 916-746-5674 |
| Parallax Inc. | 599 Menlo Drive #100 Rocklin, CA 95765 | Local & 433.17 | NSCIU | 50 | Printed control board manufacturer | Yes | Bonnie Teuton | 916-625-3050 |
| PowderCraft, LLC. | 4311 Anthony Ct. #200 Rocklin, CA 95677 | Local & 433.17 | NSCIU | 10 | Powdercoating, phosphating, and sand blasting | Yes | Walther Beasley<br>Todd Beasley | 916-652-5808 |
| Cosmedica Skincare | 4446 Yankee Hill Rd. Rocklin, CA 95677 | Local & 439.47 | NSCIU | 55 | Blending and manufacturing of pharmaceutical products. | Yes | Thomas Conway | 503-308-3044 |
| Performance Polymer Technologies | 8801 Washington Blvd. Roseville, CA 95678 | Local & 428 (E) | NSCIU | 500 | Rubber forming, extrusion, and cleaning | Yes | Lonnie Wimberly<br>Robert Vargas | 916-677-1414 |
| Robert Bosch Semiconductors LLC | 7501 Foothills Blvd. Roseville, CA 95678 | Local & 469.18 | SIU / CIU | 800,000 | Semiconductor manufacturer. | Yes | Evan Haydu<br>Aaron Hirota | 916-789-4918<br>916-789-4948 |
| Roseville Precision | 1180 Tara Ct. Rocklin, CA 95765 | Local & 433.17 | SIU / CIU | 800 | Metal fabrication, chemical etching, phosphating, and powdercoating | No | Jasper Anderson<br>Richard Demarchi | 916-645-1628<br>916-790-4376 |
| HB Fuller Company | 10500 Industrial Ave. Roseville, CA 95678 | Local & | SIU | 30,000 | Polymer, organic chemicals, and water based adhesive manufacturer | Yes | Kevin Poopalasingam<br>Jeffrie Brown | 916-787-6013<br>916-768-6079 |

**TABLE 3.0**

# PERMITTED INDUSTRIAL USERS 2025

| Permitted Industry | Address | Applicable Regs. | IU Type | Permitted Discharge (gpd) | Industry Description | Pretreatment | Contact | Phone |
|---|---|---|---|---|---|---|---|---|
| Shred Beer Company | 4480 Yankee Hill Road #100, Rocklin, CA 95677 | Local | IU | 500 | Alcoholic beverage brewing | Yes | Zack Frasher<br>Amy Heller | 916-259-1341 |
| Loomis Basin Brewing Company | 3277 Swetzer Road Loomis, CA 95650 | Local | IU | 500 | Alcoholic beverage brewing | Yes | James Gowan<br>Kenny Gowan | 916-259-2739 |
| High Hand Brewing Company | 3750 Taylor Road, Loomis, CA 95650 | Local | IU | 250 | Alcoholic beverage brewing | Yes | Chris Murphey<br>Scott Paris | 707-718-0452<br>916-257-6932 |
| Monks Cellar | 240 Vernon Street Roseville, CA 95678 | Local | IU | 250 | Alcoholic beverage brewing, restaurant | Yes | Andy Klein | 916-532-7341 |
| Moksa Brewing Company | 5860 Pacific Street Rocklin, CA 95677 | Local | IU | 500 | Alcoholic beverage brewing | Yes | Cory Meyer<br>Scott Williams | 916-257-0548<br>530-913-3300 |
| SRC Pumping Company | N/A | Local | Hauler | N/A | Wastehauler of fat's oils & grease (FOG) | No | Travis Goodpasture<br>Kevin Dunham | 916-742-6712 |
| Grease Masters | N/A | Local | Hauler | N/A | Wastehauler of fat's oils & grease (FOG) | No | Michael Porter | 916-257-6832 |

**TABLE 3.0**

# PERMITTED INDUSTRIAL USERS 2025

| Permitted Industries | Address | Applicable Regs. | IU Type | Permitted Discharge (gpd) | Industry Description | Pretreatment | Contact | Phone |
|---|---|---|---|---|---|---|---|---|
| Union Pacific Railroad | 9451 Atkinson St. Roseville, CA 95747 | Local | SIU | 85,000 | Locomotive maintenance yard and washrack | Yes | Elizabeth Wollenberg<br>Brian Beasley | 916-938-1516<br>801-212-5403 |
| Rio Bravo | 3100 Thunder Valley Ct. Lincoln, CA 95648 | Local | SIU | 55,615 | 25 megawatt waste-wood fired electric power plant | Yes | Matt Gerber<br>Jared Pate | 916-645-3383 |
| Well Above Bottling & Canning LLC | 8250 Industrail Avenue Roseville, CA 95678 | Local | SIU | 15,000 | Water bottle extrusion & Filling | Yes | Mekonen Teame<br>Gabriel Cardenas | 916-918-1546<br>916-228-0830 |
| Nate's Fine Foods | 8880 Industrial Ave. Roseville, CA 95678 | Local | SIU | 60,000 | Pasta product manufacturing | No | Nathan Barker<br>Rebecca Torres | 916-742-6712<br>925-457-2468 |
| Western Placer Waste Management Authority | 3195 Athens Avenue Lincoln, CA 95648 | Local | SIU | 20,000 | Municipal landfill, compost processing, MRF, and HHW receiving | Yes | Sara Lyons<br>Will Scheffler | 916-543-3997<br>916-543-3993 |
| Slurry Station LLC | 2480 Athens Avenue Lincoln, CA 95648 | Local | SIU | 72,000 | Concrete and asphalt slurry treatment and reclamation facility | Yes | Lance Edling<br>Keith Wilton | 916-508-1791<br>562-332-0229 |
| Loomis Landfill | 1 Ong Place Road Loomis, CA 95650 | Local | SIU | 6,000 | Closed domestic landfill. Leachate collection,transport and disposal | No | Phil Barker<br>Robin MaHoney | 530-886-4935<br>530-886-4929 |
| Jeld-Wen | 3901 Cincinnati Ave. Rocklin, CA 95677 | Local | IU | Zero Discharge | Interior door manufacturing. Glue application and parts washing | Yes | Dennis Aday<br>Patrick Smith | 916-644-4102<br>916-644-4107 |
| Pacific Coast Optics | 2610 Sunset Boulevard Rocklin, CA 95677 | Local | IU | 1,120 | Optics lens manufacturing, grinding and polishing | Yes | Hai Vu | 916-789-0111 |

**TABLE 3.0**

## 5.0 COMPLIANCE AND ENFORCEMENT ACTIVITIES

A summary of enforcement activities can be viewed in **Table 3.2**.

In 2025, Nate's Fine Foods LLC was found to be in Significant Non-Compliance in the third and fourth evaluation periods. Nate's Fine Foods LLC is under a compliance schedule work plan to install pretreatment facilities to reach compliance with local discharge limitations outlined in their wastewater discharge permit. A required milestone report due in July 2025 was submitted over 45 days late in which triggered their Significant Non-Compliance status. In response, the City issued a Notice of Violation and met with the industrial customer to explain and discuss the severity of the violation. Since then, Nate's Fine Foods LLC has submitted their required reports in a timely manner.

One administrative citation was raised against Nate's Fine Foods LLC in 2025. In October, City staff responded to a sanitary sewer spill that was tied to industrial discharges from the facility. It was discovered the facility failed to notify City staff of the violation and caused a Category 2 sanitary sewer spill. In response, the City issued a Notice of Violation and required the facility to retrofit all process drains with finer screens. The City issued a citation in the amount of $8,906.82

**Table 3.1** provides a summary of the level of compliance with permit limits for each of the City of Roseville's permitted SIUs.

The table employs the following definitions:

1. Consistent compliance: 95% compliance for all samples analyzed in the monitoring program.

2. Inconsistent compliance: anything other than consistent compliance or significant non-compliance.

3. Significant Non-Compliance (SNC): the City has adopted the definition of SNC as defined in from 40 CFR 403.8(f)(2)(viii). For the purposes of this provision, a SIU (or any IU that violates paragraphs (f)(2)(viii)(C), (D), or (H) of this section) is in SNC if its violation meets one or more of the following criteria:

(A) Chronic violations of wastewater Discharge limits, defined here as those in which 66 percent or more of all of the measurements taken for the same pollutant parameter during a 6-month period exceed (by any magnitude) a numeric Pretreatment Standard or Requirement, including instantaneous limits, as defined by 40 CFR 403.3(l).

(B) Technical Review Criteria (TRC) violations, defined here as those in which 33 percent or more of all of the measurements taken for the same pollutant parameter during a 6-month period equal or exceed the product of the numeric Pretreatment Standard or Requirement including instantaneous limits, as defined by 40 CFR 403.3(l) multiplied by the applicable TRC factor (TRC=1.4 for BOD, TSS, fats, oil, and grease, and 1.2 for all other pollutants except pH);

(C) Any other violation of a Pretreatment Standard or Requirement as defined by 40 CFR 403.3(l) (daily maximum, long-term average, instantaneous limit, or narrative Standard) that

the POTW determines has caused, alone or in combination with other Discharges, Interference or Pass Through (including endangering the health of POTW personnel or the general public).

(D) Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority under paragraph (f)(1)(vi)(B) of this section to halt or prevent such a discharge.

(E) Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in a local control mechanism or enforcement order for starting construction, completing construction, or attaining final compliance.

(F) Failure to provide, within 45 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules.

(G) Failure to accurately report noncompliance.

(H) Any other violation or group of violations, which may include a violation of Best Management Practices, which the POTW determines will adversely affect the operation or implementation of the local pretreatment program.

# SIU SAMPLING COMPLIANCE RECORD 2025

| SIU | Address | Type of Wastewater Pretreatment | # of Inspections | Times Sampled[1] | Consistent Compliance? | Significant Non-Compliance? |
|---|---|---|---|---|---|---|
| H.B.Fuller Co. | 10500 Industrial Ave. Roseville, CA 95678 | Chemical coagulation, polymer addition, filter press, and pH adjustment | 1 | 4 | Yes | No |
| Loomis Landfill | 1 Ong Place Road Loomis, CA 95650 | No pretreatment | 1 | 2 | Yes | No |
| Nate's Fine Foods | 8880 Industrial Ave. Roseville, CA 95678 | No pretreatment. Undergoing a compliance schedule to install pretreatment | 1 | 12 | No | Yes |
| Slurry Station LLC | 2480 Athens Avenue Lincoln, CA 95648 | Solids settling, plate press, pH neutralization and precipitation, filtration | 1 | 2 | Yes | No |
| Rio Bravo | 3100 Thunder Valley Ct. Lincoln, CA 95648 | Intermittent cooling tower blowdown controlled by electrical conductivity set points. Oily water separator | 1 | 4 | Yes | No |
| Roseville Precision | 1180 Tara Ct. Rocklin, CA 95765 | Carbon filtration, pH and EC monitoring. | 1 | 4 | No | No |
| Robert Bosch Semiconductors LLC | 7501 Foothills Blvd. Roseville, CA 95678 | Chemical precipitation of fluoride, clarifier settling, sludge press, pH adjustment | 1 | 4 | Yes | No |
| Union Pacific Railroad | 9451 Atkinson St Roseville, CA 95747 | Oily water separator, rotary screening, dissolved air flotation, polymer coagulation & flocculation, pH adjustment | 1 | 4 | Yes | No |
| Well Above Bottling & Canning LLC | 8250 Industrial Ave. Roseville, Ca 95678 | pH Neutralization | 1 | 4 | Yes | No |
| Western Placer Waste Management Authority | 3195 Athens Avenue, Lincoln, CA 95648 | Sand-Oil Interceptors. Under a compliance schedule to install further pretreatment. | 1 | 16 | No | No |

(1) Includes both City conducted and industrial self monitored sampling events.

**Table 3.1**

# ENFORCEMENT RESPONSE LOG 2025

| Date of Violation | Name of Industry | Code Violation | Violation Description | Violation Response | Issuance Date |
|---|---|---|---|---|---|
| 1/9/2025 | AAA | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 1/9/2025 |
| 1/9/2025 | Autonation Honda | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 1/9/2025 |
| 1/10/2025 | Honda Pre-Owned | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 1/16/2025 |
| 1/16/2025 | Dirt Busters | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 1/31/2025 |
| 1/21/2025 | BMR | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 2/12/2025 |
| 1/21/2025 | Tommy's Express | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 2/10/2025 |
| 1/31/2025 | Douglas Shell | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 1/31/2025 |
| 2/5/2025 | Western Placer Waste Management Authority | 14.26.430(A) | Violation of permit (Flow) | NOV | 3/14/2025 |
| 2/11/2025 | Arco AM/PM Blue Oaks | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 2/20/2025 |
| 2/11/2025 | Arco AM/PM Blue Oaks | 14.12.050(G) | Failiure to maintain PT Equipment | WNOV | 3/14/2025 |
| 2/14/2025 | Dirt Busters | 14.12.050(G) | Failiure to maintain PT Equipment | WNOV | 2/19/2025 |
| 2/14/2025 | Autonation Honda | 14.12.050(G) | Failiure to maintain PT Equipment | WNOV | 2/24/2025 |
| 2/14/2025 | Honda Pre-Owned | 14.12.050(G) | Failiure to maintain PT Equipment | WNOV | 2/24/2025 |
| 2/14/2025 | Tommy's Express | 14.12.050(G) | Failiure to maintain PT Equipment | WNOV | 3/20/2025 |
| 2/16/2025 | Advanced Metal Finishing | 14.26.430(A) | Violation of permit (Failiure to Report) | WNOV | 2/16/2025 |
| 2/18/2025 | Triple Crown Auto Sales | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 3/3/2025 |
| 2/21/2025 | J&J Autobody | 14.20.120 | Discharge of industrial waste to MS4 | WNOV | 2/24/2025 |
| 2/25/2025 | Caliber Collision | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 2/25/2025 |
| 2/26/2025 | Precedence Auto Collision | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 4/22/2025 |
| 3/5/2025 | Roseville Carwash | 14.12.050(G) | Failiure to maintain PT Equipment | NOV | 3/14/2025 |
| 3/7/2025 | Fedex Foothills Blvd | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 3/17/2025 |
| 3/12/2025 | Savemart Distribution Center | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 3/25/2025 |
| 3/19/2025 | Hertz Car Sales | 14.12.050(F) | Lack of sand oil interceptor | WNOV | 3/20/2025 |
| 3/21/2025 | Roseville Carwash | 14.12.050(G) | Failiure to maintain PT Equipment | NOV | 3/24/2025 |
| 3/25/2025 | Vacant - 199_201 N Sunrise | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 3/25/2025 |
| 3/27/2025 | Roseville Chevron | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 4/1/2025 |
| 4/14/2025 | Sun City Association | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 4/14/2025 |
| 4/21/2025 | Roseville Shell | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 4/21/2025 |
| 5/1/2025 | Western Placer Waste Management Authority | 14.26.390.1 | Monitoring station failiure | Verbal/Email | 5/1/2025 |
| 5/5/2025 | Arco AM/PM Woodcreek Oaks | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 5/12/2025 |
| 5/7/2025 | H&S Energy Products | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 5/12/2025 |
| 5/14/2025 | Roseville Shell | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 5/22/2025 |
| 5/16/2025 | Carvana | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 5/27/2025 |
| 5/20/2025 | Quick Quack Blue Oaks | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 5/28/2025 |
| 5/22/2025 | Vitablend LLC | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 5/23/2025 |
| 5/27/2025 | Goodyear Tire Service Center of Roseville | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 5/29/2025 |
| 5/28/2025 | Roseville Toyota | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 6/20/2025 |
| 5/28/2025 | Roseville Toyota Used | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 6/20/2025 |
| 5/29/2025 | Fairway Carwash | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 5/29/2025 |
| 6/5/2025 | Justins Roseville Car Wash & Lube | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 6/20/2025 |
| 6/11/2025 | Future Ford Lincoln | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 6/20/2025 |
| 6/11/2025 | Amazon DSR2 | 14.12.050(C)(3) | Discharge of corrosive waste | Verbal/Email | 6/11/2025 |
| 6/12/2025 | Roseville Shell | 14.12.050(G) | Failiure to maintain PT Equipment | WNOV | 6/30/2025 |
| 6/18/2025 | Well Above Bottling & Canning LLC | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 6/18/2025 |
| 6/18/2025 | Quick Quack Blue Oaks | 14.12.050(G) | Failiure to maintain PT Equipment | WNOV | 8/1/2025 |
| 6/24/2025 | Western Placer Waste Management Authority | 14.26.390.1 | Monitoring station failiure | Verbal/Email | 6/24/2025 |
| 6/27/2025 | Mazda of Roseville | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 7/14/2025 |
| 6/27/2025 | Infinity of Roseville | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 7/14/2025 |
| 7/11/2025 | Justins Roseville Car Wash & Lube | 14.12.050(G) | Failiure to maintain PT Equipment | WNOV | 7/15/2025 |
| 7/14/2025 | Five Star Car Wash | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 7/28/2025 |
| 7/14/2025 | Roseville Precision | 14.26.430 | Violation of permit (Cu, Pb, & Zn Exceedance) | WNOV | 8/15/2025 |
| 7/16/2025 | Sunstate Equipment | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 7/25/2025 |
| 7/17/2025 | Nate's Fine Foods LLC | 14.26.430 | Violation of permit (Oil & Grease Exceedance / Late Report) | NOV | 8/1/2025 |
| 7/21/2025 | Echo Park | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 7/21/2025 |
| 7/22/2025 | Chevron Cirby | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 7/22/2025 |
| 7/22/2025 | Roseville Shell | 14.12.050(G) | Failiure to maintain PT Equipment | NOV | 8/1/2025 |
| 7/23/2025 | Goodyear Tire Service Center of Roseville | 14.12.050(G) | Failiure to maintain PT Equipment | WNOV | 8/1/2025 |
| 7/27/2025 | Sunstate Equipment | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 8/8/2025 |
| 7/29/2025 | Western Placer Waste Management Authority | 14.26.430(A) | Violation of Permit (Unauthorized wastestream) | NOV | 8/1/2025 |
| 7/30/2025 | JustBetterCars.com | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 7/30/2025 |
| 8/7/2025 | Sunbelt Rentals | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 8/7/2025 |
| 8/8/2025 | Happy's Car Wash | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 8/18/2025 |
| 8/8/2025 | Justins Roseville Car Wash & Lube | 14.12.050(G) | Failiure to maintain PT Equipment | NOV | 8/26/2025 |
| 8/15/2025 | JustBetterCars.com | 14.12.050(G) | Failiure to maintain PT Equipment | NOV | 8/26/2025 |
| 7/29/2025 | Western Placer Waste Management Authority | 14.26.430 | Violation of Permit (Fluoride Exceedance) | NOV | 9/8/2025 |
| 7/11/2025 | Nate's Fine Foods LLC | 14.26.430 | Violation of Permit (Failiure to Report) | NOV | 9/8/2025 |
| 7/30/2025 | Quick Quack Douglas Blvd | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 10/1/2025 |
| 9/16/2025 | Western Placer Waste Management Authority | 14.12.430 | Violation of Permit (pH) | NOV | 10/13/2025 |
| 10/7/2025 | Western Placer Waste Management Authority | 14.12.430 | Violation of Permit (pH) | NOV | 10/13/2025 |
| 10/11/2025 | Well Above Bottling & Canning LLC | 14.12.430 | Violation of Permit (pH) | WNOV | 10/23/2025 |
| 10/28/2025 | Fix Auto Roseville | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 10/31/2025 |
| 10/13/2025 | Affordable Detail | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 10/20/2025 |
| 10/13/2025 | Nates Fine Foods | 14.26.110(B)(2) | Solids or viscous substance causing obstruction | NOV / AC | 10/27/2025 |
| 11/18/2025 | Well Above Bottling & Canning LLC | 14.12.430 | Violation of Permit (Bypass) | NOV | 12/2/2025 |
| 11/17/2025 | Mr. Transmission | 14.12.050(G) | Failiure to maintain PT Equipment (Grates) | Verbal/Email | 11/17/2025 |
| 11/26/2025 | Sunbelt Rentals | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 12/3/2025 |
| 9/16/2025 | Five Star Car Wash | 14.12.050(G) | Failiure to maintain PT Equipment | WNOV | 12/16/2025 |
| 9/30/2025 | Atlantic Street Pet Hospital | 14.12.050(G) | Failiure to maintain PT Equipment (screen inserts) | Verbal/Email | 10/14/2025 |
| 12/4/2025 | Gerber Collision & Glass | 14.12.050(F) | Lack of pretreatment equipment | WNOV | 1/15/2026 |
| 12/18/2025 | Stella Painting | 14.12.050(E) | Lack of pretreatment equipment | WNOV | 1/15/2026 |
| 12/23/2025 | Justins Roseville Car Wash & Lube | 14.12.050(G) | Failiure to maintain PT Equipment | Verbal/Email | 1/21/2065 |

**TABLE 3.2**

## 6.0 CHANGES IN THE PRETREATMENT PROGRAM

The City's pretreatment program continues to undergo significant growth resulting from increased monitoring of Non-Significant Industrial/Commercial Users and a substantial increase in the number of permitted IUs compared to years past. In response, the City continues to expand the IWD to accommodate this industrial growth. Beginning in 2025 the City began the process of hiring 2 additional staff members to the IWD. Once fully staffed, the IWD will have three full-time employees and one temporary employee, anticipated to be complete in the first quarter of 2026.

Beginning in August 2024, the City hired Brown & Caldwell to conduct a full Industrial Pretreatment Program(IPP) update alongside the development of a separate Commercial Discharger Program (CDP). These updates include an audit of all current program documents, legal authority, staffing, enforcement response, and process flows. In 2025, the City worked diligently to draft new municipal code language to meet all federal standards, as well as update the program's Enforcement Response Plan, Local Limits, and programmatic forms and templates. The new CDP is intended to manage and regulate Non-Significant Industrial/Commercial Users with programmatic differences from the IPP. Updating programmatic elements of the IPP requires approval by the RWQCB and it is anticipated that the City will submit these documents for formal review and approval in Q1 2026.

Robert Bosch Semiconductors LLC ceased categorically regulated operations pending a large facility upgrade effort in 2024. The City temporarily waived categorical monitoring requirements in 2024 but reinitiated these requirements when the facility reintroduced chemicals to the site in Q3 of 2025. Though still not discharging categorically regulated wastewater as of date, the facility is expected to resume categorical manufacturing operations in 2026.

Slurry Station LLC began operations in 2025, and the City issued a 5-year Wastewater Discharge Permit. The City now regulates this facility as a non-categorical SIU based upon volume discharged and their potential to disrupt POTW operations.

Well Above Bottling & Canning, LLC is no longer considered a categorical facility to be regulated under 40 CFR 463.26 as pretreatment standards do not exist for that category of industry. The City now regulates this facility as a non-categorical SIU based upon volume discharged and their potential to disrupt POTW operations.

Roseville Power Plant #2 has temporarily ceased operations due to a facility upgrade effort. During this time period the City had allowed the existing Wastewater Discharge Permit to expire. It is anticipated in 2026 that the facility will no longer be considered a Zero Discharge facility, rather a non-categorical SIU based upon volume discharged and their potential to disrupt POTW operations. The City intends to re-issue a new Wastewater Discharge Permit when that occurs.

HB Fuller Company is no longer considered a Categorical Industrial User as the facility falls under a manufacturing exemption due to the products they now produce. The City continues to regulate the facility using the same discharge limitations as before until new local discharge limitations are approved by the RWQCB. The facility will be considered a non-categorical SIU based upon the volume discharged and their potential to disrupt POTW operations.

Quick Quack Car Wash has four car wash facilities in the service area that were discovered to be SIUs based upon historic water usage data. The City has ordered Quick Quack Car Wash to obtain wastewater discharge permits and will regulate these facilities as non-categorical SIUs based upon the volume of water discharged. It is anticipated that these permits will be issued in Q2 of 2026.

Cosmedica Skincare was discovered to be operating as a Non-Significant Categorical Industrial User under 40 CFR 439.47. Once discovered, the City conducted baseline monitoring and required the facility to obtain a Wastewater Discharge Permit. The City issued a 5-year Wastewater Discharge Permit and Cosmedica Skincare is regulated as a NSCIU.

Performance Polymer Technologies is now being defined as a Non-Significant Categorical Industrial User since the facility discharges less than 100 gallons to the sanitary sewer system on any given day. The facility is now required to submit annual certification statements verifying compliance with the NSCIU regulation.

## 7.0 ANNUAL PRETREATMENT PROGRAM BUDGET

Included in **Attachment D** is a copy of the current 2025-2026 Pretreatment Program Budget.

## 8.0 PUBLIC PARTICIPATION IN THE PRETREATMENT PROGRAM

One SIU was within Significant Non-Compliance within 2025. Publication is being made in the general circulation newspaper in February 2026.

*"In accordance with Section 403.8 (f)(2)(viii) of the Code of Federal Regulations and Chapter 14.26.390.3(B) of the Roseville Municipal Code, the City of Roseville is publishing in this general circulation newspaper, a list of permitted industrial users, which during the previous 12 months were in Significant Non-Compliance with applicable pretreatment standards.*

*Nate's Fine Foods, LLC located at 8880 Industrial Avenue #100, Roseville, CA 95678 was found to be within Significant Non-Compliance during the third and fourth evaluation periods of 2025. Nate's Fine Foods, LLC is required to submit routine milestone reports in efforts to develop a wastewater treatment facility to meet local discharge standards outlined in the Roseville Municipal Code. In July 2025 Nates Fine Foods, LLC failed to submit these reports in a timely manner which resulted in reports being submitted later than 45 days from their respective due dates. Since then, the facility has submitted required compliance reports in a timely manner and continues efforts to develop treatment facilities onsite.*

*Questions or comments concerning compliance status of local industry within the Industrial Pretreatment Program may be directed to Frank Dittrich - Industrial Waste Supervisor, City of Roseville at fadittrich@roseville.ca.us or by calling (916) 746-1882."*

## 9.0 EFFECTIVENESS OF THE PRETREATMENT PROGRAM

The City of Roseville Pretreatment Program has been very effective in controlling pollutants entering DCWWTP and PGWWTP. Identification and inspection of Significant and Non-Significant Industrial/Commercial Users continues to increase as business licenses and field surveys have expanded. Pollutant loadings remain controlled and have resulted in no pass-through violations or plant upsets in 2025.

The City had one Category 2 sanitary sewer spill related to discharges from a SIU. SPMUD reported no sanitary sewer spills in 2025 from commercial or industrial users. Placer County reported no sanitary sewer spills in 2025 from commercial or industrial users.

## 10.0 LOCAL LIMIT ANALYSIS

As part of the National Pretreatment Program, the City is required by the Environmental Protection Agency (EPA) under 40 CFR 403.5(C)(1) to develop and implement technically based local limits to control the discharge of conventional and non-conventional pollutants conveyed to the WWTP from non-domestic users. The City implements local limits which are defined in section §14.26.140 of the Roseville Municipal Code.

In 2025, the City conducted a local limits analysis coordinated by Brown & Caldwell. This full evaluation discovered that discharge limitations may be alleviated due to recent treatment upgrades at the Pleasant Grove Wastewater Treatment Facility, background pollutant concentrations from non-industrial sources, and increased discharges from residential sources due to urban sprawl. The local limit evaluation details are included in **Attachment E**. The City intends to submit this local limit evaluation for formal approval to the RWQCB in late Q1 of 2026.

## 11.0 DEFINITIONS

- Act or "the act" - means the Federal Water Pollution Control Act ( also known as the Clean Water Act), as amended, 33 U.S.C. 1251, et seq.
- Approval Authority - the Director of Region 9, United States Environmental Protection Agency.
- Authorized Representative of Industrial User - an authorized representative of an Industrial User, who may be:
  1. A principal or officer if the Industrial User is a corporation;
  2. A general partner or proprietor if the Industrial User is a partnership or proprietorship respectively;
  3. A duly authorized representative of the individuals designated above if such representative is responsible for the overall operation of the facilities from which the indirect discharge originates.
- Biochemical Oxygen Demand (BOD) - the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure; five (5) days at twenty (20) degrees centigrade expressed in terms of weight and concentration (milligrams per liter).
- Building Drain - that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste and other drainage pipes inside the walls of the building and conveys it to the building sewer, beginning two (2) feet outside the inner face of the building.
- Building Sewer - the extension from the building drain to the public sewer of other place of disposal
- Categorical Industrial User – A Significant Industrial User that discharges process wastewater into a Publicly Owned Treatment Works and is subject to pretreatment effluent standards defined within 40 CFR 405-471.
- City - means the City of Roseville
- Cleanout - a small vertical pipe or shaft extending from the surface of the ground to the sewer provided for the purpose of permitting cleaning of the sewer in any direction.
- Combined Sewer - sewer receiving both surface runoff and sewage.
- Cooling Water - the water discharged from any use such as air conditioning, cooling or refrigeration, or to which the only pollutant added is heat.
- Control Authority - the "Approval Authority" or the California Regional Water Quality Control Board.
- Direct Discharge - the discharge of treated or untreated wastewater directly to the waters of the State of California.
- Director - the Environmental Utilities Director or his authorized representative.
- Environmental Protection Agency - the U.S. Environmental Protection Agency. Where appropriate, the term may also be used as a designation for the Administrator or other duly authorized official of the EPA.
- Food Service Establishment (FSE) – any establishment within the city that serves prepared food products to its clientele.
- Garbage - solid wastes from the domestic and commercial preparation, cooking, and dispensing of food, and from the handling, storage and sale of produce.
- Grab Sample - a sample, which is taken from a waste stream on a one-time basis with no regard to the flow in the waste stream and without consideration of time.
- Grit - the heavy suspended mineral matter present in water or wastewater such as sand, gravel, or cinders.
- Health Officer - the Placer County Health Officer.

- Holding Tank Waste - any waste from holding tanks such as vessels, chemical toilets, campers, trailers, septic tanks, and vacuum-pump tank trucks.
- Indirect Discharge - the discharge or the introduction of non-domestic pollutants from any source regulated under Section 307(b) or (c) of the Act (33 U.S.C. 1317), into the POTW (including Holding Tank Waste discharged into the POTW).
- Industrial User - a source of Indirect Discharge which does not constitute a discharge of Pollutants under regulations issued pursuant to Section 402 of the Act, (33 U.S.C.1342).
- Industrial Wastes - the liquid wastes from industrial manufacturing processes, trade, or business.
- Interference - the inhibition or disruption of the POTW treatment processes or operations which contribute to a violation of any requirements of the city's NPDES Permit. The term includes prevention of sewage sludge use or disposal by the POTW in accordance with Section 405 of the Act (33 U.S.C. 1345), or any criteria, guidelines, or regulations developed pursuant to the Solid Waste Disposal Act (SWDA), the Clean Air Act, the Toxic Substances Control Act, or more stringent state criteria (including those contained in any State sludge management plan prepared pursuant to Title IV of SWDA) applicable to the method of disposal or use employed by the POTW.
- National Categorical Pretreatment Standard - any regulation containing Pollutant discharge limits promulgated by the EPA in accordance with Section 307 (b) and (c) of the Act (33 U.S.C. 1317), which applies to a specific category.
- National Prohibitive Discharge Standard - any regulation developed under the authority of Section 307 (b) of the Act or 40 CFR, Section 403.5.
- Natural Outlet - any outlet into a watercourse, pond, ditch, lake or other body of surface or groundwater.
- New Source - any source, the construction of which is commenced after July 1, 1983.
- National Pollution Discharge Elimination System Permit - (NPDES Permit) a permit issued pursuant to Section 402 of the Act (33 U.S.C. 1342).
- Non-Significant Categorical Industrial User (NSCIU) is defined as a categorical industrial user that never discharges more than 100 gallons per day of total categorical wastewater (excluding sanitary, non-contact cooling, and boiler blowdown wastewater, unless specifically included in the categorical Pretreatment Standard), as well as having consistently complied with all applicable Pretreatment Standards. NSCIU's never discharge any untreated concentrated wastewater.
- North American Industry Classification System (NAICS).
- Pass through - a discharge which exits the POTW into waters of the United States in quantities which may serve to cause a violation of the POTW's NPDES Permit.
- Permit - a Wastewater Contribution Permit.
- Person - any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine and the singular shall include the plural.
- pH - the logarithm (base 10) of the reciprocal of the concentration of hydrogen ions expressed in grams per liter of solution.
- Pollutant - any dredged spoil, solid waste, incinerator residue, Sewage, Garbage, petroleum products or by-products, sewage sludge, munitions, chemical wasted, biological materials, radioactive materials, heat, wrecked or discharged
- Pollution - the manmade or man induced alteration of the chemical, physical, biological and

radiological integrity of water.

- Pretreatment - the reduction of the amount of Pollutants, the elimination of Pollutants, or the alteration of the nature of Pollutant properties in Wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such Pollutants into the POTW. Physical, chemical or biological processes, or process changes can obtain the reduction or alteration by other means, except as prohibited by 40 CFR Section 403.6 (d). Pretreatment Requirements - any substantive or procedural requirement related to pretreatment, other than a National Categorical Pretreatment Standard imposed on an Industrial User.
- Properly Shredded Garbage - the wastes from the preparation, cooking, and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half inch (1.27 centimeters) in any dimension.
- Publicly-owned Treatment Works (POTW) - a wastewater treatment plant as defined by Section 212 of the Act (33 U.S.C. 1291), which is owned in this instance by the City. This definition includes any sewers, pipes, ponds, pumps or other devices that connect to, or convey Wastewater to the wastewater treatment plant. POTW also includes any sewers, pipes, ponds, pumps or other devices that convey wastewaters to the POTW from persons outside the corporate limits of the City who are users of the City's POTW.
- Public sewer - a Sewer which is controlled by public authority.
- POTW Treatment Plant or Wastewater Treatment Plant - that portion of the POTW designed to provide treatment to Wastewater.
- Rate-of-flow Controller - an automatic device that controls the rate of flow of a fluid.
- Sanitary Sewer - a sewer which carries Sewage and to which storm, surface and groundwaters are not intentionally admitted.
- Sewage - a combination of the water-carried waste from residences, business buildings, institutions, and industrial establishments, together with such ground, surface, and stormwaters as may be present.
- Sewage Treatment Plant - any arrangement of devices and structures used for treating sewage.
- Sewage Works - all facilities for collection, pumping, treating and disposing of sewage.
- Sewer - a pipe or conduit for carrying Sewage.
- Shall - is mandatory; "may" is permissive.
- Significant Commercial User (Non-Significant Industrial/Commercial User) - any Commercial User of the POTW, which discharges non-domestic and non-industrial wastewater containing waste chemicals, solvents, oils, or other Pollutants capable of adversely impacting the sewer system or POTW if left unregulated.
- Significant Industrial User - any Industrial User of the POTW who:
    - Has a discharge flow of twenty-five thousand gallons or more per average work day 25,000 gal/day); or
    - Has a flow greater than five (5%) percent of the flow in the POTW; or
    - Has in his or its discharge toxic Pollutants as defined pursuant to Section 307 of the Act or California Statutes and rules; or
    - Is found by the City, the CRWQCB or the EPA to have significant impact, either singly or in combination with other industrial users, on the POTW, the quality of Sludge, the POTW's effluent quality, or air emissions generated by the POTW.
- Slug - any discharge of water, Sewage, or industrial waste which, in concentration of any given constituent or in quantity of flow, exceeds for any period of duration longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration or flows during

normal operation.

- Standard Industrial Classification (SIC) - a classification pursuant to the Standard Industrial Classification Manual issued by the Executive Office of the President, Office of Management and Budget, 1972.
- State - the State of California.
- Storm Drain or Storm Sewer - a Sewer which carries storm and surface waters and drainage, but excludes Sewage and industrial wastes, other than unpolluted cooling water.
- Stormwater - any flow occurring during or following any form of natural precipitation and resulting there from.
- Suspended Solids - the total suspended matter that floats on the surface of, or is suspended in, water, wastewater or other liquids, and which is removable by laboratory filtering.
- Total Toxic Organics (TTO) - sum of all compounds detected by EPA method 624 and 625, excluding phenol
- Toxic Pollutant - any Pollutant or combination of Pollutants listed as toxic in regulations promulgated by the EPA or identified in section 307(a) of the Act.
- User - Any person, who contributes, causes or permits the contribution of Wastewater into the city's POTW.
- Wastewater - the liquid and water carried industrial or domestic wastes from dwellings, commercial buildings, industrial facilities, and institutions, whether treated or untreated, which is contributed into or permitted to enter the POTW.
- Wastewater Contribution Permit - that permit that must be obtained from the City before a Significant Industrial User may connect to or contribute to the POTW.
- Watercourse - a channel or depression in which a flow of water occurs, either continuously or intermittently.
- Waters of the State - all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the State of California or any portion thereof.

# Attachment A

## DCWWTP & PGWWTP MONTHLY PRIORITY POLLUTANTS

[See following page for further details]

City of Roseville

# DCWWTP 2025
## Monthly Priority Pollutants Report, Effluent

| ANALYTE NAME | METHOD | UNITS | 14-Jan | MDL | RL | 11-Feb | MDL | RL | 11-Mar | MDL | RL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate + Nitrite | HACH 10206 | mg/l | 9 | 0.23 | 0.23 | 8 | 0.23 | 0.23 | 10 | 0.23 | 0.23 |
| Nitrate as Nitrogen N | HACH 10206 | mg/l | 9 | 0.23 | 0.23 | 8 | 0.23 | 0.23 | 10 | 0.23 | 0.23 |
| Nitrite as Nitrogen N | SM4500 N02 | mg/l | J0.01 | 0.0037 | 0.03 | 0.14 | 0.0037 | 0.03 | 0.033 | 0.0037 | 0.03 |

| ANALYTE NAME | METHOD | UNITS | 8-Apr | MDL | RL | 20-May | MDL | RL | 10-Jun | MDL | RL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate + Nitrite | HACH 10206 | mg/l | 8 | NT | NT | 9 | 0.23 | 0.23 | 9 | 0.23 | 0.23 |
| Nitrate as Nitrogen N | HACH 10206 | mg/l | 8 | NT | NT | 8 | 0.23 | 0.23 | 9 | 0.23 | 0.23 |
| Nitrite as Nitrogen N | SM4500 N02 | mg/l | J0.028 | 0.0037 | 0.03 | 0.16 | 0.0037 | 0.030 | 0.05 | 0.0037 | 0.03 |

| ANALYTE NAME | METHOD | UNITS | 8-Jul | MDL | RL | 11-Aug | MDL | RL | 8-Sep | MDL | RL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate + Nitrite | HACH 10206 | mg/l | 8 | 0.23 | 0.23 | 7 | 0.23 | 0.23 | 5 | 0.23 | 0.23 |
| Nitrate as Nitrogen N | HACH 10206 | mg/l | 8 | 0.23 | 0.23 | 7 | 0.23 | 0.23 | 5 | 0.23 | 0.23 |
| Nitrite as Nitrogen N | SM4500 N02 | mg/l | J0.011 | 0.0037 | 0.03 | J0.019 | 0.0037 | 0.03 | J0.019 | 0.0037 | 0.03 |

| ANALYTE NAME | METHOD | UNITS | 6-Oct | MDL | RL | 4-Nov | MDL | RL | 9-Dec | MDL | RL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate + Nitrite | HACH 10206 | mg/l | 5 | 0.23 | 0.23 | 10 | 0.23 | 0.23 | 11 | 0.23 | 0.23 |
| Nitrate as Nitrogen N | HACH 10206 | mg/l | 5 | 0.23 | 0.23 | 10 | 0.23 | 0.23 | 11 | 0.23 | 0.23 |
| Nitrite as Nitrogen N | SM4500 N02 | mg/l | J0.006 | 0.0037 | 0.03 | J0.011 | 0.0037 | 0.03 | J0.007 | 0.0037 | 0.03 |

| ANALYTE NAME | METHOD | UNITS | 16-Dec | MDL | RL |
|---|---|---|---|---|---|
| Nitrate + Nitrite | HACH 10206 | mg/l | | | |
| Nitrate as Nitrogen N | HACH 10206 | mg/l | 9 | 0.23 | 0.23 |
| Nitrite as Nitrogen N | SM4500 N02 | mg/l | | | |

**ND = Non Detect**
**NT = Not Tested**
**NA = Not Applicable**

**Attachment A**

City of Roseville

# PGWWTP 2025
## Monthly Priority Pollutants Report, Effluent

| ANALYTE NAME | METHOD | UNITS | 14-Jan | MDL | RL | 11-Feb | MDL | RL | 11-Mar | MDL | RL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate + Nitrite | HACH 10206 | mg/l | 10 | 0.23 | 0.23 | 10 | 0.23 | 0.23 | 10 | 0.23 | 0.23 |
| Nitrate as Nitrogen N | HACH 10206 | mg/l | 10 | 0.23 | 0.23 | 10 | 0.23 | 0.23 | 10.00 | 0.23 | 0.23 |
| Nitrite as Nitrogen N | SM4500 N02 | mg/l | J0.023 | 0.0037 | 0.03 | J0.013 | 0.0037 | 0.03 | J0.014 | 0.0037 | 0.03 |

| ANALYTE NAME | METHOD | UNITS | 9-Apr | MDL | RL | 20-May | MDL | RL | 10-Jun | MDL | RL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate + Nitrite | HACH 10206 | mg/l | 10 | 0.23 | 0.23 | 8 | 0.23 | 0.23 | 9 | 0.23 | 0.23 |
| Nitrate as Nitrogen N | HACH 10206 | mg/l | 10 | 0.23 | 0.23 | 8 | 0.23 | 0.23 | 9 | 0.23 | 0.23 |
| Nitrite as Nitrogen N | SM4500 N02 | mg/l | J0.013 | 0.0037 | 0.03 | 0.053 | 0.0037 | 0.03 | J0.023 | 0.0037 | 0.03 |

| ANALYTE NAME | METHOD | UNITS | 9-Jul | MDL | RL | 11-Aug | MDL | RL | 8-Sep | MDL | RL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate + Nitrite | HACH 10206 | mg/l | 8 | 0.23 | 0.23 | 7 | 0.23 | 0.23 | 9 | 0.23 | 0.23 |
| Nitrate as Nitrogen N | HACH 10206 | mg/l | 8 | 0.23 | 0.23 | 7 | 0.23 | 0.23 | 9 | 0.23 | 0.23 |
| Nitrite as Nitrogen N | SM4500 N02 | mg/l | 0.14 | 0.0037 | 0.03 | 0.16 | 0.0037 | 0.03 | 0.042 | 0.0037 | 0.03 |

| ANALYTE NAME | METHOD | UNITS | 6-Oct | MDL | RL | 4-Nov | MDL | RL | 14-Nov | MDL | RL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate + Nitrite | HACH 10206 | mg/l | 9 | 0.23 | 0.23 | 11 | 0.23 | 0.23 | | | |
| Nitrate as Nitrogen N | HACH 10206 | mg/l | 9 | 0.23 | 0.23 | 11 | 0.23 | 0.23 | 8 | 0.23 | 0.23 |
| Nitrite as Nitrogen N | SM4500 N02 | mg/l | J0.016 | 0.0037 | 0.03 | 0.03 | 0.0037 | 0.03 | | | |

| ANALYTE NAME | METHOD | UNITS | 9-Dec | MDL | RL |
|---|---|---|---|---|---|
| Nitrate + Nitrite | HACH 10206 | mg/l | 10 | 0.23 | 0.23 |
| Nitrate as Nitrogen N | HACH 10206 | mg/l | 10 | 0.23 | 0.23 |
| Nitrite as Nitrogen N | SM4500 N02 | mg/l | 0.0580 | 0.0037 | 0.03 |

**ND = Non Detect**
**NT = Not Tested**
**NA = Not Applicable**

# Attachment B

## SIGNIFICANT INDUSTRIAL USER MONITORING

[See following page for further details]

# INDUSTRIAL USER DISCHARGE REPORT

**Discharger Name:** HB Fuller Company
**Address:** 10500 Industrial Ave
Roseville, CA 95678
**Local/Fed. Limits:** Local
**Permit Number:** 423790

| Chemical Name | Unit | Permit Limits | 1/15/2025 | 4/9/2025 | 7/8/2025 | 10/21/2025 |
|---|---|---|---|---|---|---|
| Ammonia (as N)** | mg/l | 144 | 14 | 38 | 46 | 31 |
| Arsenic, Total R | µg/l | 100 | 0.9 | 1.2 | J0.39 | 8.5 |
| Beryllium, Total (as Be) | µg/l | 10 | <0.079 | <0.079 | <0.4 | <0.079 |
| Biological Oxygen Demand** | mg/l | 240 | 746 | 2469 | 2580 | 5326 |
| Cadmium, Total R | µg/l | 10 | <0.05 | <0.05 | <0.25 | <0.05 |
| Chromium, Total R | µg/l | 560 | 0.6 | 1 | 0.61 | 1.5 |
| Copper, Total R | µg/l | 130 | 4 | 6.5 | 8.5 | 3 |
| Cyanide, Total R* | µg/l | 50** | 7.2 | 7.3 | 28 | 11 |
| Fluoride | mg/l | N/A | NT | NT | NT | NT |
| Iron, Total R | µg/l | N/A | NT | NT | NT | NT |
| Lead, Total R | µg/l | 40** | J0.097 | J0.12 | <0.35 | <0.35 |
| Manganese, Total R | µg/l | N/A | NT | NT | NT | NT |
| Mercury, Total R | µg/l | 2 | 0.23 | 0.13 | 0.17 | 0.17 |
| Nickel, Total R | µg/l | 310 | 3 | 8.4 | 23 | 10 |
| Oil & Grease | mg/l | 100 | J2.0 | <1.7 | J2.0 | <1.5 |
| Phenol | mg/l | 500 | <3 | <6 | <6 | J16 |
| Selenium | µg/l | 6 | J0.8 | 1.3 | <1.8 | 2.9 |
| Silver, Total R | µg/l | 40 | <0.051 | <0.051 | <0.3 | <0.061 |
| Total Petroleum Hydrocarbons | mg/l | N/A | NT | NT | NT | NT |
| Total Suspended Solids** | mg/l | 250 | 43.7 | 88 | 38 | 37 |
| Total Toxic Organics | µg/l | 2000 | 581 | <0.0009 | <0.1 | <0.021 |
| Zinc, Total R | µg/l | 1032 | 27 | 37 | 52 | 25 |
| pH | SU | 5.5-9.5 | 6.98 | 7.11 | 6.33 | 7.98 |

**N/A = Not Applicable**
**NT = Not Tested**
**TF = Test Failure**
*** Local Limit more stringent than federal categorical standard**
**** Sufficient capacity exists to allow discharges in excess of local limit**

# INDUSTRIAL USER DISCHARGE REPORT

**Discharger Name:** Rio Bravo Rocklin
**Address:** 3100 Thunder Valley Ct
Lincoln, CA 95648
**Local/Fed Limits:** local
**Permit Number:** 8589095

| Chemical Name | Unit | Permit Limits | 1/29/2025 | 5/7/2025 | 7/22/2025 | 10/7/2025 |
|---|---|---|---|---|---|---|
| Ammonia (as N) | mg/l | N/A | NT | NT | NT | NT |
| Arsenic, Total R | µg/l | N/A | NT | NT | NT | NT |
| Beryllium, Total (as Be) | µg/l | N/A | NT | NT | NT | NT |
| Biological Oxygen Demand | mg/l | N/A | <2 | 12 | <2 | 4 |
| Cadmium, Total R | µg/l | 10 | 0.11 | <0.2 | <0.05 | <0.05 |
| Chromium, Total R | µg/l | 560 | 5.4 | 4.9 | 3.3 | 2.1 |
| Copper, Total R | µg/l | 130 | 56 | 21 | 15 | 21 |
| Cyanide, Total R | µg/l | N/A | NT | NT | NT | NT |
| Fluoride | mg/l | N/A | NT | NT | NT | NT |
| Iron, Total R | µg/l | N/A | NT | NT | NT | NT |
| Lead, Total R | µg/l | 40 | 6 | 1.3 | 1.1 | 0.4 |
| Manganese, Total R | µg/l | N/A | NT | NT | NT | NT |
| Mercury, Total R | µg/l | N/A | NT | NT | NT | NT |
| Nickel, Total R | µg/l | N/A | NT | NT | NT | NT |
| Oil & Grease | mg/l | 100 | <1.5 | <1.4 | <1.5 | J2.0 |
| Phenol | mg/l | N/A | NT | NT | NT | NT |
| Selenium | µg/l | N/A | NT | NT | NT | NT |
| Silver, Total R | µg/l | N/A | NT | NT | NT | NT |
| Total Petroleum Hydrocarbons | mg/l | N/A | NT | NT | NT | NT |
| Total Suspended Solids | mg/l | N/A | 10 | 14.8 | 11.2 | 4.8 |
| Total Toxic Organics | µg/l | N/A | NT | NT | NT | NT |
| Zinc, Total R | µg/l | 160 | 52 | 13 | 15 | J9.7 |
| pH | SU | 5.5-9.5 | 8.56 | 8.24 | 8.40 | 8.37 |

**N/A = Not Applicable**
**NT = Not Tested**
**TF = Test Failure**

# INDUSTRIAL USER DISCHARGE REPORT

**Discharger Name:** Roseville Precision
**Address:** 1180 Tara Ct
Rocklin, CA 95765
**Local/Fed. Limits:** Local, 433.17
**Permit Number:** 767391

| Chemical Name | Unit | Permit Limits | 3/20/2025 | 7/14/2025 | 9/2/2025 | 9/3/2025 |
|---|---|---|---|---|---|---|
| Ammonia (as N) | mg/l | N/A | NT | NT | NT | NT |
| Arsenic, Total R | µg/l | N/A | NT | NT | NT | NT |
| Beryllium, Total (as Be) | µg/l | N/A | NT | NT | NT | NT |
| Biological Oxygen Demand | mg/l | N/A | NT | NT | NT | NT |
| Cadmium, Total R | µg/l | 10** | <0.05 | 0.2 | NT | NT |
| Chromium, Total R | µg/l | 560** | 1.1 | 234 | NT | NT |
| Copper, Total R | µg/l | 130** | 1.3 | 434 | 2.2 | 1.4 |
| Cyanide, Total R | µg/l | 10** | <1.1 | <1.1 | NT | NT |
| Fluoride | mg/l | N/A | NT | NT | NT | NT |
| Iron, Total R | µg/l | N/A | NT | NT | NT | NT |
| Lead, Total R | µg/l | 40** | <0.07 | 48 | <0.07 | <0.07 |
| Manganese, Total R | µg/l | N/A | NT | NT | NT | NT |
| Mercury, Total R | µg/l | N/A | NT | NT | NT | NT |
| Nickel, Total R | µg/l | 310** | 2.3 | 104 | NT | NT |
| Oil & Grease | mg/l | N/A | NT | NT | NT | NT |
| Phenol | mg/l | N/A | NT | NT | NT | NT |
| Selenium | µg/l | N/A | NT | NT | NT | NT |
| Silver, Total R | µg/l | 40** | <0.051 | J0.077 | NT | NT |
| Total Petroleum Hydrocarbons | mg/l | N/A | NT | NT | NT | NT |
| Total Suspended Solids | mg/l | N/A | NT | NT | NT | NT |
| Total Toxic Organics* | µg/l | 2000 | NT | NT | NT | NT |
| Zinc, Total R | µg/l | 1480 | 41 | 3680 | 55 | 36 |
| pH | SU | 5.5-9.5 | 7.2 | 7.68 | NT | NT |

**N/A = Not Applicable**
**NT = Not Tested**
**TF = Test Failure**
*** Submitted certification statement in accordance with 40 CFR 433.12(a)**
**** Local Limit more stringent than federal categorical standard**

# INDUSTRIAL USER DISCHARGE REPORT

**Discharger Name:** Robert Bosch Semiconductor LLC
**Address:** 7501 Foothills Blvd
Roseville, CA 95678
**Local/Fed. Limits:** Local, 469.18
**Permit Number:** 083023

| Chemical Name | Unit | Permit Limits | 2/11/2025 | 4/29/2025 | 9/12/2025 | 11/7/2025 |
|---|---|---|---|---|---|---|
| Ammonia (as N) | mg/l | 100 | 0.67 | 0.61 | 0.93 | 0.37 |
| Arsenic, Total R | µg/l | N/A | NT | NT | NT | NT |
| Beryllium, Total (as Be) | µg/l | N/A | NT | NT | NT | NT |
| Biological Oxygen Demand | mg/l | 240 | 18 | 16 | 7 | 54 |
| Cadmium, Total R | µg/l | 10 | NT | NT | <0.05 | <0.05 |
| Chromium, Total R | µg/l | 560 | NT | NT | J0.4 | 0.84 |
| Copper, Total R | µg/l | 130 | NT | NT | 3.3 | 7.3 |
| Cyanide, Total R | µg/l | 9.5 | NT | NT | <1.1 | <1.1 |
| Fluoride | mg/l | 32 | 0.72 | 1 | 0.76 | 0.68 |
| Iron, Total R | µg/l | N/A | NT | NT | NT | NT |
| Lead, Total R | µg/l | 40 | NT | NT | <0.07 | J0.2 |
| Manganese, Total R | µg/l | N/A | NT | NT | NT | NT |
| Mercury, Total R | µg/l | 2 | NT | NT | <0.036 | <0.036 |
| Nickel, Total R | µg/l | 310 | NT | NT | 0.76 | 1.2 |
| Oil & Grease | mg/l | 100 | NT | NT | <1.7 | <1.7 |
| Phenol | mg/l | N/A | NT | NT | <0.3 | <0.3 |
| Selenium | µg/l | N/A | NT | NT | NT | NT |
| Silver, Total R | µg/l | 40 | NT | NT | <0.061 | <0.061 |
| Total Petroleum Hydrocarbons | mg/l | N/A | NT | NT | NT | NT |
| Total Suspended Solids | mg/l | 250 | 25 | 17 | 9.6 | 76 |
| Total Toxic Organics | µg/l | 940** | NT | NT | <0.0011 | 21 |
| Zinc, Total R | µg/l | 80 | NT | NT | 19 | 51 |
| pH | SU | 5.5-9.5 | 6.76 | 6.7 | 6.81 | 7.16 |

**N/A = Not Applicable**
**NT = Not Tested**
**TF = Test Failure**
**** Local Limit more stringent than federal categorical standard**

# INDUSTRIAL USER DISCHARGE REPORT

**Discharger Name:** Union Pacific Railroad
**Address:** 9451 Atkinson St
Roseville, CA 95747
**Local/Fed Limits:** Local
**Permit Number:** 076891

| Chemical Name | Unit | Permit Limits | 2/5/2025 | 4/3/2025 | 7//9/2025 | 10/14/2025 |
|---|---|---|---|---|---|---|
| Ammonia (as N) | mg/l | N/A | NT | 30.9 | NT | NT |
| Arsenic, Total R | µg/l | 100 | <0.3 | J0.63 | 1 | 1.1 |
| Beryllium, Total (as Be) | µg/l | 10 | <0.3 | <0.3 | <0.079 | <0.079 |
| Biological Oxygen Demand* | mg/l | 240 | 64 | 340 | 806 | 203 |
| Cadmium, Total R | µg/l | 10 | <0.3 | <0.3 | J0.096 | J0.053 |
| Chromium, Total R | µg/l | 560 | <0.6 | J1 | 4.5 | 1.3 |
| Copper, Total R | µg/l | 130 | <0.3 | 5.1 | 14 | 5.1 |
| Cyanide, Total R | µg/l | N/A | NT | NT | NT | NT |
| Fluoride | mg/l | N/A | NT | NT | NT | NT |
| Iron, Total R | µg/l | N/A | NT | NT | NT | NT |
| Lead, Total R | µg/l | 40 | <0.2 | J0.77 | 4.4 | 1.2 |
| Manganese, Total R | µg/l | N/A | NT | NT | NT | NT |
| Mercury, Total R | µg/l | 2 | NT | <0.03 | <0.036 | <0.036 |
| Nickel, Total R | µg/l | 310 | <0.5 | 11 | 19 | 9 |
| Oil & Grease | mg/l | 100 | <1.2 | 19.5 | 15 | 11 |
| Phenol | mg/l | N/A | NT | NT | NT | NT |
| Selenium | µg/l | 6 | <3.4 | <3.4 | <0.37 | <0.37 |
| Silver, Total R | µg/l | 40 | <0.4 | <0.4 | <0.061 | <0.061 |
| Total Petroleum Hydrocarbons | mg/l | 50 | 17.17 | 19.35 | 27.1 | 14.4 |
| Total Suspended Solids | mg/l | 250 | 26 | 15.5 | 25.5 | 25 |
| Total Toxic Organics | µg/l | 2000 | <0.004 | J0.14 | <4 | <0.0026 |
| Zinc, Total R* | µg/l | 950 | 13.9 | 67.7 | 29 | 47 |
| pH | SU | 5.5-9.5 | 7.41 | 7.44 | 7.29 | 7.84 |

**N/A = Not Applicable**
**NT = Not Tested**
**TF = Test Failure**

*** Sufficient capacity exists to allow discharges above local limits**

# INDUSTRIAL USER DISCHARGE REPORT

**Discharger Name:** Nate's Fine Foods
**Address:** 8880 Industrial Avenue
Roseville, CA 95678
**Local/Fed Limits:** Local
**Permit Number:** 011822

| Chemical Name | Unit | Permit Limits | 3/6/2025 | 4/30/2025 | 5/28/2025 | 6/11/2025 | 7/17/2025 | 8/4/2025 | 8/5/2025 | 8/29/2025 | 9/30/2025 | 10/28/2025 | 11/21/2025 | 12/10/2025 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia (as N) | mg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Arsenic, Total R | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Beryllium, Total (as Be) | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Biological Oxygen Demand | mg/l | 240 | 1903 | 2331 | 2511 | 2140 | TF | NT | NT | 2223 | 4908 | 3218 | 2340 | 6343 |
| Cadmium, Total R | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Chromium, Total R | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Copper, Total R | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Cyanide, Total R | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Fluoride | mg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Iron, Total R | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Lead, Total R | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Manganese, Total R | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Mercury, Total R | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Nickel, Total R | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Oil & Grease | mg/l | 100 | <11 | <11 | NT | NT | 160 | <23 | 41 | NT | NT | <11 | NT | NT |
| Phenol | mg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Selenium | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Silver, Total R | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Total Petroleum Hydrocarbons | mg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Total Suspended Solids | mg/l | 250 | 233 | 760 | 212 | 850 | 1250 | NT | NT | 652 | 107 | 128 | 81 | 2780 |
| Total Toxic Organics | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| Zinc, Total R | µg/l | N/A | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT | NT |
| pH | SU | 5.5-9.5 | 5.95 | 5.9 | 6.24 | 6.12 | 7.01 | NT | NT | 6.23 | 6.62 | 6.04 | 6.62 | 6.28 |

**N/A = Not Applicable**
**NT = Not Tested**
**TF = Test Failure**

# INDUSTRIAL USER DISCHARGE REPORT

**Discharger Name:** Loomis Landfill
**Address:** 1 Ong Place Road
Loomis, CA 95650
**Local/Fed Limits:** Local
**Permit Number:** 071422

| Chemical Name | Unit | Permit Limits | 7/14/2025* | 10/20/2025* |
|---|---|---|---|---|
| Ammonia (as N) | mg/l | 20 | <0.032 | <0.067 |
| Arsenic, Total R | µg/l | 100 | 4.44 | 3.81 |
| Beryllium, Total (as Be) | µg/l | 10 | <0.04 | <0.04 |
| Biological Oxygen Demand | mg/l | 240 | <1.0 | <1.0 |
| Cadmium, Total R | µg/l | 10 | <0.028 | <0.028 |
| Chromium, Total R | µg/l | 560 | <0.24 | 1.29 |
| Copper, Total R | µg/l | 130 | <0.28 | 10.3 |
| Cyanide, Total R | mg/l | 0.01 | NT | NT |
| Fluoride | mg/l | 5.5 | NT | NT |
| Iron, Total R | mg/l | 18 | <0.036 | <0.073 |
| Lead, Total R | µg/l | 40 | <0.08 | <0.08 |
| Manganese, Total R | µg/l | 1100 | 24.1 | 52.1 |
| Mercury, Total R | µg/l | 2 | <0.2 | <0.2 |
| Nickel, Total R | µg/l | 310 | 23.5 | 33.6 |
| Oil & Grease | mg/l | 100 | NT | NT |
| Phenol | mg/l | 500 | NT | NT |
| Selenium | µg/l | 6 | 9.5 | <0.33 |
| Silver, Total R | µg/l | 40 | <0.17 | <0.17 |
| Total Petroleum Hydrocarbons | mg/l | 100 | NT | NT |
| Total Suspended Solids | mg/l | 250 | 2.0 | 2.3 |
| Total Toxic Organics | µg/l | 2000 | NT | NT |
| Zinc, Total R | µg/l | 160 | 8.09 | 5.92 |
| pH | SU | 5.5-9.5 | 7.77 | 7.72 |

**N/A = Not Applicable**
**NT = Not Tested**
**TF = Test Failure**

***Self Monitoring conducted by the Industrial User**

# INDUSTRIAL USER DISCHARGE REPORT

**Discharger Name:** Western Placer Waste Management Authority
**Address:** 3195 Athens Avenue
Lincoln, CA 95648
**Local/Fed Limits:** Local
**Permit Number:** 090222

| Chemical Name | Unit | Permit Limit*** | 1/7/2025 | 1/30/2025 | 1/31/2025 | 2/20/2025 | 3/11/2025 | 4/8/2025 | 5/29/2025 | 6/26/2025 | 7/29/2025 | 8/12/2025 | 9/9/2025 | 9/10/2025 | 9/25/2025 | 10/22/2025 | 11/18/2025 | 12/9/2025 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia (as N) | mg/l | 20 | 80 | NT | NT | 61 | 132.2 | 80.2 | 104.8 | 138.1 | 292.2 | 531.8 | NT | NT | 642.4 | 161.2 | 62.4 | 264 |
| Arsenic, Total R | µg/l | 100 | NT | NT | NT | 19 | NT | 25 | NT | NT | 59 | NT | NT | NT | NT | 39 | NT | NT |
| Beryllium, Total (as Be) | µg/l | 10 | NT | NT | NT | <0.07 | NT | <0.16 | NT | NT | <0.32 | NT | NT | NT | NT | <1.6 | NT | NT |
| Biological Oxygen Demand | mg/l | 240 | 788 | *107 | 511 | *337 | 891 | 176 | 206 | 596 | 1255 | 1839 | NT | NT | 2359 | *401 | TF | 1212 |
| Cadmium, Total R | µg/l | 10 | NT | NT | NT | J0.06 | NT | <0.1 | NT | NT | <0.2 | NT | NT | NT | NT | <0.05 | NT | NT |
| Chromium, Total R | µg/l | 560 | NT | NT | NT | 9 | NT | 8.7 | NT | NT | 31 | NT | NT | NT | NT | 27 | NT | NT |
| Copper, Total R | µg/l | 130 | NT | NT | NT | 20 | NT | 32 | NT | NT | 9.2 | NT | NT | NT | NT | 26 | NT | NT |
| Cyanide, Total R | µg/l | 10 | NT | NT | NT | <1.1 | NT | 4.2 | NT | NT | 6.5 | NT | NT | NT | NT | 8.9 | NT | NT |
| Fluoride | mg/l | 5.5 | NT | NT | NT | J0.09 | NT | 4.3 | NT | NT | 41 | NT | J0.031 | 6.1 | <0.007 | <0.007 | NT | NT |
| Iron, Total R | µg/l | 18 | NT | NT | NT | 8 | NT | 13 | NT | NT | 11 | NT | NT | NT | NT | 10 | NT | NT |
| Lead, Total R | µg/l | 40 | NT | NT | NT | 2 | NT | 0.46 | NT | NT | 0.78 | NT | NT | NT | NT | 1.5 | NT | NT |
| Manganese, Total R | µg/l | 1100 | NT | NT | NT | 2890 | NT | 4930 | NT | NT | 2860 | NT | NT | NT | NT | 4500 | NT | NT |
| Mercury, Total R | µg/l | 2 | NT | NT | NT | J0.19 | NT | J0.07 | NT | NT | <0.18 | NT | NT | NT | NT | <0.036 | NT | NT |
| Nickel, Total R | µg/l | 310 | NT | NT | NT | 52 | NT | 66 | NT | NT | 71 | NT | NT | NT | NT | 205 | NT | NT |
| Oil & Grease | mg/l | 100 | NT | NT | NT | 6.5 | NT | 5.4 | NT | NT | 11 | NT | NT | NT | NT | 14 | NT | NT |
| Phenol | mg/l | 500 | NT | NT | NT | <0.003 | NT | <0.003 | NT | NT | 0.81 | NT | NT | NT | NT | 0.1 | NT | NT |
| Selenium | µg/l | 6 | NT | NT | NT | J0.67 | NT | <0.74 | NT | NT | <1.5 | NT | NT | NT | NT | <7.4 | NT | NT |
| Silver, Total R | µg/l | 40 | NT | NT | NT | <0.05 | NT | <0.1 | NT | NT | <0.24 | NT | NT | NT | NT | <0.61 | NT | NT |
| Total Petroleum Hydrocarbons | mg/l | 50 | NT | NT | NT | 6.8 | NT | 3.26 | NT | NT | 8.22 | NT | NT | NT | NT | 12.12 | NT | NT |
| Total Suspended Solids | mg/l | 250 | 220 | 160 | 132 | 276 | 192 | 140 | 444 | 73.3 | 136 | 218 | NT | NT | 455 | 212 | 167 | 256 |
| Total Toxic Organics | µg/l | 2000 | NT | NT | NT | <0.01 | NT | <0.01 | NT | NT | 1.08 | NT | NT | NT | NT | 0.1 | NT | NT |
| Zinc, Total R | µg/l | 160 | NT | NT | NT | 60 | NT | 34 | NT | NT | 75 | NT | NT | NT | NT | 47 | NT | NT |
| pH | SU | 5.5-9.5 | 6.98 | 7.25 | 7.4 | 7.19 | 7.39 | 6.88 | 7.8 | 7.04 | 7.47 | 7.47 | NT | NT | 7.74 | 7.51 | 7.48 | 7.78 |

**N/A = Not Applicable**
**NT = Not Tested**
**TF = Test Failure**
*** Did not meet QC Criteria**
*****Facility is under a Compliance Schedule Work Plant to install appropriate pretreatment**

# INDUSTRIAL USER DISCHARGE REPORT

**Discharger Name:** Well Above Bottling & Canning LLC
**Address:** 8250 Industrial Avenue
Roseville, CA 95678
**Local/Fed Limits:** Local
**Permit Number:** 092123

| Chemical Name | Unit | Permit Limits | 3/24/2025 | 6/19/2025 | 7/23/2025 | 11/19/2025 |
|---|---|---|---|---|---|---|
| Ammonia (as N) | mg/l | N/A | NT | NT | NT | NT |
| Arsenic, Total R | µg/l | N/A | NT | NT | NT | NT |
| Beryllium, Total (as Be) | µg/l | N/A | NT | NT | NT | NT |
| Biological Oxygen Demand | mg/l | 240 | 2 | 4 | 3 | <2 |
| Cadmium, Total R | µg/l | N/A | NT | NT | NT | NT |
| Chromium, Total R | µg/l | N/A | NT | NT | NT | NT |
| Copper, Total R | µg/l | N/A | NT | NT | NT | NT |
| Cyanide, Total R | µg/l | N/A | NT | NT | NT | NT |
| Fluoride | mg/l | N/A | NT | NT | NT | NT |
| Iron, Total R | µg/l | N/A | NT | NT | NT | NT |
| Lead, Total R | µg/l | N/A | NT | NT | NT | NT |
| Manganese, Total R | µg/l | N/A | NT | NT | NT | NT |
| Mercury, Total R | µg/l | N/A | NT | NT | NT | NT |
| Nickel, Total R | µg/l | N/A | NT | NT | NT | NT |
| Oil & Grease | mg/l | N/A | NT | NT | NT | NT |
| Phenol | mg/l | N/A | NT | NT | NT | NT |
| Selenium | µg/l | N/A | NT | NT | NT | NT |
| Silver, Total R | µg/l | N/A | NT | NT | NT | NT |
| Total Petroleum Hydrocarbons | mg/l | N/A | NT | NT | NT | NT |
| Total Suspended Solids | mg/l | 250 | *2.2 | 5.1 | 3.7 | 13 |
| Total Toxic Organics | µg/l | N/A | NT | NT | NT | NT |
| Zinc, Total R | µg/l | N/A | NT | NT | NT | NT |
| pH | SU | 5.5-9.5 | 7.5 | 6.72 | 7.03 | 6.15 |

**N/A = Not Applicable**
**NT = Not Tested**
**TF = Test Failure**
*** Does not meet QC Requirement**

# INDUSTRIAL USER DISCHARGE REPORT

**Discharger Name:** Slurry Station, LLC
**Address:** 2480 Athens Avenue
Lincoln, CA 95648
**Local/Fed Limits:** Local
**Permit Number:** 042424

| Chemical Name | Unit | Permit Limits | 8/28/2025 | 11/18/2025 |
|---|---|---|---|---|
| Ammonia (as N) | mg/l | N/A | NT | NT |
| Arsenic, Total R | µg/l | 100 | 3.1 | J0.3 |
| Beryllium, Total (as Be) | µg/l | 10 | <0.079 | NT |
| Biological Oxygen Demand | mg/l | 240 | 33 | 12 |
| Cadmium, Total R | µg/l | 10 | <0.05 | <0.05 |
| Chromium, Total R | µg/l | 560 | 5.5 | 66 |
| Copper, Total R | µg/l | 130 | 3.2 | 9.4 |
| Cyanide, Total R | µg/l | N/A | NT | NT |
| Fluoride | mg/l | N/A | NT | NT |
| Iron, Total R | mg/l | 18 | 0.18 | 0.65 |
| Lead, Total R | µg/l | 40 | 1.6 | 1.3 |
| Manganese, Total R | µg/l | 1100 | 11 | 10 |
| Mercury, Total R | µg/l | 2 | <0.036 | <0.036 |
| Nickel, Total R | µg/l | 310 | 6.6 | 7.3 |
| Oil & Grease | mg/l | 100 | <1.5 | <1.7 |
| Phenol | mg/l | N/A | NT | NT |
| Selenium | µg/l | 6 | 1.3 | J0.67 |
| Silver, Total R | µg/l | 40 | <0.061 | <0.061 |
| Total Petroleum Hydrocarbons | mg/l | 50 | 4.02 | 0.69 |
| Total Suspended Solids | mg/l | 250 | 3.8 | 22.6 |
| Total Toxic Organics | µg/l | 2000 | <1.0 | NT |
| Zinc, Total R | µg/l | 160 | J7.6 | NT |
| pH | SU | 5.5-9.5 | 7.45 | 7.88 |

**N/A = Not Applicable**
**NT = Not Tested**
**TF = Test Failure**

# Attachment C

## DCWWTP & PGWWTP ANNUAL PRIORITY POLLUTANTS
## (Influent, Effluent, and Biosolids)

[See following page for further details]

# DCWWTP 2025 Annual Priority Pollutants Report (Influent, Effluent, Biosolids)

| EPA Method | | | | | West Placer Inf | | | East Roseville Inf | | | Effluent | | | Biosolid | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Influent | Effluent | Sludge | Analyte | Units | Result | RL | MDL | Result | RL | MDL | Result | RL | MDL | Result | RL | MDL |
| 624.1 | 624.1 | 8260B | 1,1,1-Trichloroethane | ug/L | ND | 2.5 | 2.3 | ND | 2.5 | 2.3 | ND | 0.5 | 0.46 | ND | 390 | 90 |
| 624.1 | 624.1 | 8260B | 1,1,2,2-Tetrachloroethane | ug/L | ND | 2.5 | 1.2 | ND | 2.5 | 1.2 | ND | 0.5 | 0.23 | ND | 770 | 95 |
| 624.1 | 624.1 | 8260B | 1,1,2-Trichloroethane | ug/L | ND | 2.5 | 1.2 | ND | 2.5 | 1.2 | ND | 0.5 | 0.24 | ND | 390 | 180 |
| 624.1 | 624.1 | 8260B | 1,1-Dichloroethane | ug/L | ND | 2.5 | 2 | ND | 2.5 | 2 | ND | 0.5 | 0.41 | ND | 390 | 110 |
| 624.1 | 624.1 | 8260B | 1,1-Dichloroethylene | ug/L | ND | 2.5 | 2 | ND | 2.5 | 2 | ND | 0.5 | 0.39 | ND | 390 | 100 |
| 624.1 | 624.1 | 8270C | 1,2-Dichlorobenzene | ug/L | ND | 2.5 | 1.4 | ND | 2.5 | 1.4 | ND | 0.5 | 0.27 | ND | 0.50 | 0.084 |
| 624.1 | 624.1 | 8260B | 1,2-Dichloroethane | ug/L | ND | 2.5 | 0.85 | ND | 2.5 | 0.85 | ND | 0.5 | 0.17 | ND | 390 | 110 |
| 624.1 | 624.1 | 8260B | 1,2-Dichloropropane | ug/L | ND | 2.5 | 0.75 | ND | 2.5 | 0.75 | ND | 0.5 | 0.15 | ND | 390 | 110 |
| 624.1 | 624.1 | 8260B | 1,2-trans-Dichloroethylene | ug/L | ND | 2.5 | 0.5 | ND | 2.5 | 0.5 | ND | 0.5 | 0.1 | ND | 390 | 120 |
| 624.1 | 624.1 | 8270C | 1,3-Dichlorobenzene | ug/L | ND | 2.5 | 0.5 | ND | 2.5 | 0.9 | ND | 0.5 | 0.18 | ND | 0.50 | 0.10 |
| 624.1 | 624.1 | 8260B | 1,3-Dichloropropene | ug/L | ND | 2.5 | 0.9 | ND | 2.5 | 0.45 | ND | 0.5 | 0.09 | ND | 770 | 130 |
| 624.1 | 624.1 | 8270C | 1,4-Dichlorobenzene | ug/L | ND | 2.5 | 0.9 | ND | 2.5 | 0.9 | ND | 0.5 | 0.18 | ND | 0.50 | 0.096 |
| 624.1 | 624.1 | 8260B | 2-Chloroethyl vinyl ether (mixed) | ug/L | ND | 5 | 1.8 | ND | 5 | 1.8 | ND | 1 | 0.36 | ND | 7700 | 1800 |
| 624.1 | 624.1 | 8260B | Acrolein | ug/L | ND | 10 | 4 | ND | 10 | 4 | ND | 2 | 0.81 | ND | 19000 | 2200 |
| 624.1 | 624.1 | 8260B | Acrylonitrile | ug/L | ND | 10 | 6.5 | ND | 10 | 6.5 | ND | 2 | 1.3 | ND | 9600 | 750 |
| 624.1 | 624.1 | 8260B | Benzene | ug/L | ND | 2.5 | 0.9 | ND | 2.5 | 0.9 | ND | 0.5 | 0.18 | ND | 390 | 99 |
| 624.1 | 624.1 | 8260B | Bromoform | ug/L | ND | 2.5 | 0.75 | ND | 2.5 | 0.75 | ND | 0.5 | 0.15 | ND | 1900 | 510 |
| 624.1 | 624.1 | 8260B | Carbon Tetrachloride | ug/L | ND | 1.2 | 1 | ND | 1.2 | 1 | ND | 0.5 | 0.21 | ND | 390 | 120 |
| 624.1 | 624.1 | 8260B | Chlorobenzene | ug/L | ND | 2.5 | 0.9 | ND | 2.5 | 0.9 | ND | 0.5 | 0.18 | ND | 390 | 100 |
| 624.1 | 624.1 | 8260B | Chloroethane | ug/L | ND | 2.5 | 2.3 | ND | 2.5 | 2.3 | ND | 0.5 | 0.46 | ND | 770 | 120 |
| 624.1 | 624.1 | 8260B | Chloroform | ug/L | J1.7 | 2.5 | 0.85 | 2.5 | 2.5 | 0.85 | ND | 0.5 | 0.17 | ND | 390 | 230 |
| 624.1 | 624.1 | 8260B | Dibromochloromethane | ug/L | ND | 1.2 | 0.85 | ND | 1.2 | 0.85 | ND | 0.25 | 0.17 | ND | 770 | 110 |
| 624.1 | 624.1 | 8260B | Bromodichloromethane | ug/L | ND | 2.5 | 0.4 | ND | 2.5 | 0.4 | ND | 0.5 | 0.08 | ND | 390 | 130 |
| 624.1 | 624.1 | 8260B | Ethylbenzene | ug/L | ND | 2.5 | 0.5 | ND | 2.5 | 0.5 | ND | 0.5 | 0.1 | ND | 390 | 80 |
| 624.1 | 624.1 | 8260B | Methyl bromide | ug/L | ND | 2.5 | 0.65 | ND | 2.5 | 0.65 | ND | 0.5 | 0.13 | ND | 7700 | 2500 |
| 624.1 | 624.1 | 8260B | Methyl chloride | ug/L | ND | 2.5 | 2.4 | ND | 2.5 | 2.3 | ND | 0.5 | 0.46 | ND | 7700 | 590 |
| 624.1 | 624.1 | 8260B | Methylene chloride | ug/L | ND | 2.5 | 2.4 | ND | 2.5 | 2.4 | ND | 0.5 | 0.49 | ND | 3900 | 1200 |
| 624.1 | 624.1 | 8260B | Tetrachloroethylene | ug/L | ND | 2.5 | 0.95 | ND | 2.5 | 0.95 | ND | 0.5 | 0.19 | ND | 390 | 86 |
| 624.1 | 624.1 | 8260B | Toluene | ug/L | 4.2 | 2.5 | 0.95 | ND | 2.5 | 0.95 | ND | 0.5 | 0.19 | ND | 390 | 100 |
| 624.1 | 624.1 | 8260B | Trichloroethylene | ug/L | ND | 2.5 | 1 | ND | 2.5 | 1 | ND | 0.5 | 0.2 | ND | 770 | 150 |
| 624.1 | 624.1 | 8260B | Vinyl chloride | ug/L | ND | 2.5 | 1.2 | ND | 2.5 | 1.2 | ND | 0.5 | 0.25 | ND | 390 | 150 |
| 625.1 | 625.1 | 8270C | 1,2,4-Trichlorobenzene | ug/L | ND | 10 | 5 | ND | 10 | 5 | ND | 5 | 0.25 | ND | 0.50 | 0.12 |
| 625.1 | 625.1 | 8270C | 1,2-Diphenylhydrazine | ug/L | ND | 20 | 10 | ND | 20 | 10 | ND | 1 | 0.5 | ND | 0.50 | 0.078 |
| 625.1 | 625.1 | 8270C | 2,4,6-Trichlorophenol | ug/L | ND | 40 | 8 | ND | 40 | 8 | ND | 2 | 0.4 | ND | 0.50 | 0.12 |
| 625.1 | 625.1 | 8270C | 2,4-Dichlorophenol | ug/L | ND | 20 | 9 | ND | 20 | 9 | ND | 1 | 0.45 | ND | 0.50 | 0.13 |
| 625.1 | 625.1 | 8270C | 2,4-Dimethylphenol | ug/L | ND | 20 | 2.2 | ND | 20 | 2.2 | ND | 2 | 0.11 | ND | 0.50 | 0.13 |
| 625.1 | 625.1 | 8270C | 2,4-Dinitrophenol | ug/L | ND | 40 | 5.8 | ND | 40 | 5.8 | ND | 5 | 0.29 | ND | 2.0 | 0.91 |
| 625.1 | 625.1 | 8270C | 2,4-Dinitrotoluene | ug/L | ND | 20 | 5.6 | ND | 20 | 5.6 | ND | 5 | 0.28 | ND | 0.50 | 0.081 |
| 625.1 | 625.1 | 8270C | 2,6-Dinitrotoluene | ug/L | ND | 20 | 4.4 | ND | 20 | 4.4 | ND | 5 | 0.22 | ND | 0.50 | 0.086 |
| 625.1 | 625.1 | 8270C | 2-Chloronaphthalene | ug/L | ND | 20 | 5.6 | ND | 20 | 5.6 | ND | 5 | 0.28 | ND | 0.50 | 0.086 |
| 625.1 | 625.1 | 8270C | 2-Chlorophenol | ug/L | ND | 40 | 11 | ND | 40 | 11 | ND | 2 | 0.53 | ND | 0.50 | 0.13 |
| 625.1 | 625.1 | 8270C | 2-Methyl-4,6-dinitrophenol | ug/L | ND | 40 | 4.6 | ND | 40 | 4.6 | ND | 5 | 0.23 | ND | 2.5 | 0.95 |
| 625.1 | 625.1 | 8270C | 2-Nitrophenol | ug/L | ND | 40 | 7.6 | ND | 40 | 7.6 | ND | 5 | 0.38 | ND | 0.50 | 0.14 |
| 625.1 | 625.1 | 8270C | 3,3'-Dichlorobenzidine | ug/L | ND | 100 | 28 | ND | 100 | 28 | ND | 5 | 1.4 | ND | 2.5 | 0.54 |
| 625.1 | 625.1 | 8270C | 4-Bromophenyl phenyl ether | ug/L | ND | 40 | 4.6 | ND | 40 | 4.6 | ND | 5 | 0.23 | ND | 0.50 | 0.073 |
| 625.1 | 625.1 | 8270C | 4-Chloro-3-methylphenol | ug/L | ND | 20 | 6.4 | ND | 20 | 6.4 | ND | 1 | 0.32 | ND | 0.50 | 0.093 |
| 625.1 | 625.1 | 8270C | 4-Chlorophenyl phenyl ether | ug/L | ND | 40 | 5.8 | ND | 40 | 5.8 | ND | 5 | 0.29 | ND | 0.50 | 0.10 |
| 625.1 | 625.1 | 8270C | 4-Nitrophenol | ug/L | ND | 20 | 6 | ND | 20 | 6 | ND | 5 | 0.3 | ND | 0.50 | 0.31 |
| 625.1 | 625.1 | 8270C | Acenaphthene | ug/L | ND | 5 | 0.4 | ND | 5 | 0.4 | ND | 0.3 | 0.02 | ND | 0.50 | 0.079 |
| 625.1 | 625.1 | 8270C | Acenaphthylene | ug/L | ND | 5 | 0.4 | ND | 5 | 0.4 | ND | 0.2 | 0.02 | ND | 0.50 | 0.096 |
| 625.1 | 625.1 | 8270C | Anthracene | ug/L | ND | 5 | 0.6 | ND | 5 | 0.6 | ND | 0.3 | 0.03 | ND | 0.50 | 0.077 |
| 625.1 | 625.1 | 8270C | Benzidine | ug/L | ND | 100 | 80 | ND | 100 | 80 | ND | 5 | 4 | ND | 5.0 | 0.57 |
| 625.1 | 625.1 | 8270C | Benzo (a) anthracene | ug/L | ND | 5 | 1 | ND | 5 | 1 | ND | 0.3 | 0.05 | ND | 0.50 | 0.083 |
| 625.1 | 625.1 | 8270C | Benzo (a) pyrene | ug/L | ND | 5 | 0.8 | ND | 5 | 0.8 | ND | 0.3 | 0.04 | ND | 0.50 | 0.099 |
| 625.1 | 625.1 | 8270C | Benzo (b) fluoranthene (3,4-Benzo) | ug/L | ND | 5 | 1 | ND | 5 | 1 | ND | 0.3 | 0.05 | ND | 0.50 | 0.085 |
| 625.1 | 625.1 | 8270C | Benzo (ghi) perylene | ug/L | ND | 5 | 1 | ND | 5 | 1 | ND | 0.1 | 0.05 | ND | 0.50 | 0.089 |
| 625.1 | 625.1 | 8270C | Benzo (k) fluoranthene | ug/L | ND | 5 | 0.4 | ND | 5 | 0.4 | ND | 0.3 | 0.02 | ND | 0.50 | 0.094 |
| 625.1 | 625.1 | 8270C | Bis (2-chloroethoxy) methane | ug/L | ND | 20 | 2.8 | ND | 20 | 2.8 | ND | 5 | 0.14 | ND | 0.50 | 0.12 |
| 625.1 | 625.1 | 8270C | Bis (2-chloroethyl) ether | ug/L | ND | 20 | 6.6 | ND | 20 | 6.6 | ND | 1 | 0.33 | ND | 0.50 | 0.11 |

ND = Non Detect
NT = Not Tested
NA = Not Applicable

# DCWWTP 2025 Annual Priority Pollutants Report (Influent, Effluent, Biosolids)

| EPA Method | | | | | West Placer Inf | | | East Roseville Inf | | | Effluent | | | Biosolid | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Influent | Effluent | Sludge | Analyte | Units | Result | RL | MDL | Result | RL | MDL | Result | RL | MDL | Result | RL | MDL |
| 625.1 | 625.1 | 8270C | Bis (2-chloroisopropyl) ether | ug/L | ND | 20 | 4.2 | ND | 20 | 4.2 | ND | 2 | 0.21 | ND | 2.5 | 0.11 |
| 625.1 | 625.1 | 8270C | Bis (2-ethylhexyl) phthalate | ug/L | ND | 20 | 10 | ND | 20 | 10 | ND | 1 | 0.5 | ND | 0.50 | 0.22 |
| 625.1 | 625.1 | 8270C | Benzyl Butyl phthalate | ug/L | ND | 40 | 40 | ND | 40 | 40 | ND | 5 | 2 | ND | 0.50 | 0.23 |
| 625.1 | 625.1 | 8270C | Chrysene | ug/L | ND | 5 | 1 | ND | 5 | 1 | ND | 0.3 | 0.05 | ND | 0.50 | 0.083 |
| 625.1 | 625.1 | 8270C | Dibenzo (a,h) anthracene | ug/L | ND | 5 | 1 | ND | 5 | 1 | ND | 0.1 | 0.05 | ND | 0.5 | 0.080 |
| 625.1 | 625.1 | 8270C | Diethyl Phthalate | ug/L | ND | 20 | 10 | ND | 20 | 10 | ND | 2 | 0.5 | ND | 0.50 | 0.11 |
| 625.1 | 625.1 | 8270C | Dimethyl Phthalate | ug/L | ND | 20 | 10 | ND | 20 | 10 | ND | 2 | 0.5 | ND | 0.50 | 0.098 |
| 625.1 | 625.1 | 8270C | Di-n-butyl phthalate | ug/L | ND | 20 | 8 | ND | 20 | 8 | ND | 5 | 0.4 | ND | 0.50 | 0.11 |
| 625.1 | 625.1 | 8270C | Di-n-octylphthalate | ug/L | ND | 20 | 8 | ND | 20 | 8 | ND | 5 | 0.4 | ND | 0.50 | 0.23 |
| 625.1 | 625.1 | 8270C | Fluoranthene | ug/L | ND | 5 | 0.4 | ND | 5 | 0.4 | ND | 0.05 | 0.02 | ND | 0.50 | 0.095 |
| 625.1 | 625.1 | 8270C | Fluorene | ug/L | ND | 5 | 0.4 | ND | 5 | 0.4 | ND | 0.1 | 0.02 | ND | 0.50 | 0.094 |
| 625.1 | 625.1 | 8270C | Hexachlorobenzene | ug/L | ND | 20 | 20 | ND | 20 | 20 | ND | 1 | 1 | ND | 0.50 | 0.12 |
| 625.1 | 625.1 | 8270C | Hexachlorobutadiene | ug/L | ND | 20 | 8 | ND | 20 | 8 | ND | 1 | 0.4 | ND | 0.50 | 0.080 |
| 625.1 | 625.1 | 8270C | Hexachlorocyclo-pentadiene | ug/L | ND | 20 | 18 | ND | 20 | 18 | ND | 1 | 0.9 | ND | 1.5 | 0.086 |
| 625.1 | 625.1 | 8270C | Hexachloroethane | ug/L | ND | 20 | 8 | ND | 20 | 8 | ND | 1 | 0.4 | ND | 0.50 | 0.092 |
| 625.1 | 625.1 | 8270C | Indeno(1,2,3-cd)pyrene | ug/L | ND | 5 | 1 | ND | 5 | 1 | ND | 0.05 | 0.05 | ND | 0.50 | 0.12 |
| 625.1 | 625.1 | 8270C | Isophorone | ug/L | ND | 20 | 10 | ND | 20 | 10 | ND | 1 | 0.5 | ND | 0.50 | 0.079 |
| 625.1 | 625.1 | 8270C | Naphthalene | ug/L | ND | 5 | 0.4 | ND | 5 | 0.4 | ND | 0.2 | 0.02 | ND | 0.50 | 0.14 |
| 625.1 | 625.1 | 8270C | Nitrobenzene | ug/L | ND | 20 | 10 | ND | 20 | 10 | ND | 1 | 0.5 | ND | 2.0 | 0.14 |
| 625.1 | 625.1 | 8270C | N-Nitrosodimethylamine | ug/L | ND | 20 | 14 | ND | 20 | 14 | ND | 5 | 0.7 | ND | 0.50 | 0.089 |
| 625.1 | 625.1 | 8270C | N-Nitrosodi-n-propylamine | ug/L | ND | 20 | 10 | ND | 20 | 10 | ND | 5 | 0.5 | ND | 0.50 | 0.085 |
| 625.1 | 625.1 | 8270C | N-Nitrosodiphenylamine | ug/L | ND | 20 | 14 | ND | 20 | 14 | ND | 1 | 0.7 | ND | 0.50 | 0.085 |
| 625.1 | 625.1 | 8270C | Pentachlorophenol | ug/L | ND | 20 | 8 | ND | 20 | 8 | ND | 1 | 0.4 | ND | 2.5 | 1.8 |
| 625.1 | 625.1 | 8270C | Phenanthrene | ug/L | ND | 5 | 0.4 | ND | 5 | 0.4 | ND | 0.05 | 0.02 | ND | 0.50 | 0.072 |
| 625.1 | 625.1 | 8270C | Phenol, Single Compound | ug/L | J10 | 20 | 6 | ND | 20 | 6 | ND | 1 | 0.3 | ND | 0.50 | 0.097 |
| 625.1 | 625.1 | 8270C | Pyrene | ug/L | ND | 5 | 0.4 | ND | 5 | 0.4 | ND | 0.05 | 0.02 | ND | 0.50 | 0.10 |
| 625.1 | 625.1 | 8081A | 4,4'-DDD (P,P'-DDD) | ug/L | ND | 0.11 | 0.047 | ND | 0.1 | 0.042 | ND | 0.01 | 0.0021 | ND | 80 | 11 |
| 625.1 | 625.1 | 8081A | 4,4'-DDE (P,P'-DDE) | ug/L | ND | 0.11 | 0.045 | ND | 0.1 | 0.04 | ND | 0.01 | 0.002 | ND | 80 | 11 |
| 625.1 | 625.1 | 8081A | 4,4'-DDT (P,P'-DDT) | ug/L | ND | 0.11 | 0.085 | ND | 0.1 | 0.076 | ND | 0.01 | 0.0038 | ND | 80 | 19 |
| 625.1 | 625.1 | 8081A | Aldrin | ug/L | ND | 0.11 | 0.081 | ND | 0.1 | 0.072 | ND | 0.005 | 0.0036 | ND | 80 | 26 |
| 625.1 | 625.1 | 8081A | alpha-BHC | ug/L | ND | 0.11 | 0.058 | ND | 0.1 | 0.052 | ND | 0.01 | 0.0026 | ND | 80 | 9.4 |
| 625.1 | 625.1 | 8081A | alpha-endosulfan | ug/L | ND | 0.11 | 0.094 | ND | 0.1 | 0.084 | ND | 0.01 | 0.0042 | ND | 80 | 17 |
| 625.1 | 625.1 | 8081A | beta-BHC | ug/L | ND | 0.11 | 0.065 | ND | 0.1 | 0.058 | ND | 0.005 | 0.0029 | ND | 80 | 14 |
| 625.1 | 625.1 | 8081A | beta-endosulfan | ug/L | ND | 0.11 | 0.052 | ND | 0.1 | 0.046 | ND | 0.01 | 0.0023 | ND | 80 | 8.7 |
| 625.1 | 625.1 | 8081A | Chlordane | ug/L | ND | 0.22 | 0.076 | ND | 0.2 | 0.068 | ND | 0.01 | 0.0034 | ND | 400 | 65 |
| 625.1 | 625.1 | 8081A | delta-BHC | ug/L | ND | 0.11 | 0.079 | ND | 0.1 | 0.07 | ND | 0.005 | 0.0035 | ND | 80 | 15 |
| 625.1 | 625.1 | 8081A | Dieldrin | ug/L | ND | 0.11 | 0.038 | ND | 0.1 | 0.034 | ND | 0.01 | 0.0017 | ND | 80 | 8.8 |
| 625.1 | 625.1 | 8081A | Endosulfan sulfate | ug/L | ND | 0.11 | 0.025 | ND | 0.1 | 0.046 | ND | 0.01 | 0.0011 | ND | 80 | 10 |
| 625.1 | 625.1 | 8081A | Endrin | ug/L | ND | 0.11 | 0.061 | ND | 0.1 | 0.054 | ND | 0.01 | 0.0027 | ND | 80 | 11 |
| 625.1 | 625.1 | 8081A | Endrin aldehyde | ug/L | ND | 0.11 | 0.076 | ND | 0.1 | 0.068 | ND | 0.01 | 0.0034 | ND | 80 | 53 |
| 625.1 | 625.1 | 8081A | gamma-BHC | ug/L | ND | 0.11 | 0.049 | ND | 0.1 | 0.044 | ND | 0.01 | 0.0022 | ND | 80 | 8.2 |
| 625.1 | 625.1 | 8081A | Heptachlor | ug/L | ND | 0.11 | 0.07 | ND | 0.1 | 0.062 | ND | 0.01 | 0.0031 | ND | 80 | 9.6 |
| 625.1 | 625.1 | 8081A | Heptachlor epoxide | ug/L | ND | 0.11 | 0.061 | ND | 0.1 | 0.054 | ND | 0.01 | 0.0027 | ND | 80 | 8.6 |
| 625.1 | 625.1 | 8081A | Toxaphene | ug/L | ND | 11 | 9 | ND | 10 | 8 | ND | 0.5 | 0.4 | ND | 400 | 250 |
| 625.1 | 625.1 | 8082 | PCB-1016 (arochlor 1016) | ug/L | ND | 2.2 | 0.67 | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 800 | 630 |
| 625.1 | 625.1 | 8082 | PCB-1221 (arochlor 1221) | ug/L | ND | 2.2 | 0.67 | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 800 | 630 |
| 625.1 | 625.1 | 8082 | PCB-1232 (arochlor 1232) | ug/L | ND | 2.2 | 0.67 | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 800 | 630 |
| 625.1 | 625.1 | 8082 | PCB-1242 (arochlor 1242) | ug/L | ND | 2.2 | 0.67 | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 800 | 630 |
| 625.1 | 625.1 | 8082 | PCB-1248 (arochlor 1248) | ug/L | ND | 2.2 | 0.67 | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 800 | 630 |
| 625.1 | 625.1 | 8082 | PCB-1254 (arochlor 1254) | ug/L | ND | 2.2 | 0.67 | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 800 | 410 |
| 625.1 | 625.1 | 8082 | PCB-1260 (arochlor 1260) | ug/L | ND | 2.2 | 0.67 | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 800 | 410 |

ND = Non Detect
NT = Not Tested
NA = Not Applicable

# DCWWTP 2025 Annual Priority Pollutants Report (Influent, Effluent, Biosolids)

| EPA Method | | | | | West Placer Inf | | | East Roseville Inf | | | Effluent | | | Biosolid | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Influent | Effluent | Sludge | Analyte | Units | Result | RL | MDL | Result | RL | MDL | Result | RL | MDL | Result | RL | MDL |
| 200.8 | 200.8 | 6010B | Antimony, Total | ug/L | 0.62 | 0.5 | 0.028 | 0.58 | 0.5 | 0.028 | J0.42 | 0.5 | 0.028 | ND | 10.2 | 4.33 |
| 200.8 | 200.8 | 6010B | Arsenic, Total | ug/L | 0.55 | 0.5 | 0.049 | 0.64 | 0.5 | 0.049 | J0.33 | 0.5 | 0.049 | ND | 3.06 | 1.53 |
| 200.8 | 200.8 | 6010B | Beryllium, Total | ug/L | ND | 0.1 | 0.079 | ND | 0.1 | 0.079 | ND | 0.1 | 0.079 | ND | 0.510 | 0.0783 |
| 200.8 | 200.8 | 6010B | Cadmium, Total | ug/L | 0.1 | 0.1 | 0.05 | 0.13 | 0.1 | 0.05 | ND | 0.1 | 0.05 | J0.102 | 0.510 | 0.0670 |
| 200.8 | 200.8 | 6010B | Chromium, Total | ug/L | 1.4 | 0.5 | 0.05 | 4.6 | 0.5 | 0.05 | J0.36 | 0.5 | 0.05 | 2.17 | 1.02 | 0.538 |
| 200.8 | 200.8 | 6010B | Copper, Total | ug/L | 18 | 0.5 | 0.36 | 68 | 0.5 | 0.36 | 1.4 | 0.5 | 0.36 | 32.6 | 2.04 | 0.763 |
| 200.8 | 200.8 | 6010B | Lead, Total | ug/L | 0.52 | 0.25 | 0.07 | 0.97 | 0.25 | 0.07 | ND | 0.25 | 0.07 | J1.65 | 2.04 | 0.942 |
| 245.1 | 1631 | 7471A | Mercury, Total | ug/L | 0.068 | 0.05 | 0.036 | J0.049 | 0.05 | 0.036 | 0.00078 | 0.0005 | 0.00019 | J0.0790 | 0.0868 | 0.0210 |
| 200.8 | 200.8 | 6010B | Nickel, Total | ug/L | 2.1 | 0.5 | 0.082 | 3.2 | 0.5 | 0.082 | 1.1 | 0.5 | 0.082 | 2.70 | 2.04 | 0.479 |
| 200.8 | 200.8 | 6010B | Selenium, Total | ug/L | J0.71 | 1 | 0.37 | J0.86 | 1 | 0.37 | ND | 1 | 0.37 | J1.66 | 3.06 | 1.57 |
| 200.8 | 200.8 | 6010B | Silver, Total | ug/L | 0.19 | 0.1 | 0.061 | 0.25 | 0.1 | 0.061 | ND | 0.1 | 0.061 | ND | 1.53 | 0.648 |
| 200.8 | 200.8 | 6010B | Thallium, Total | ug/L | ND | 0.1 | 0.047 | J0.057 | 0.1 | 0.047 | ND | 0.1 | 0.047 | ND | 10.2 | 2.16 |
| 200.8 | 200.8 | 6010B | Zinc, Total | ug/L | 138 | 10 | 0.78 | 132 | 10 | 0.78 | 29 | 1 | 0.78 | 102 | 5.1 | 1.93 |
| 4500 CN | 4500 CN | 9014 | Cyanide, Total | ug/L | ND | 3 | 1.1 | J1.5 | 3 | 1.1 | J1.2 | 3 | 1.1 | J0.107 | 0.5 | 0.092 |
| 8290A | 8290A | 8290A | 2,3,7,8-TCDD | pg/L | ND | 5.53 | 1.97 | ND | 5.14 | 1.83 | ND | 4.94 | 1.76 | ND | 2.5 | 0.948 |

**Note**: Sludge Units: Reported out in wet weight
2,3,7,8-TCDD in pg/g.
6010B in mg/Kg
8081 in ug/Kg
8082 in ug/Kg
8260B in ug/Kg
8270C in mg/Kg
9014 in mg/Kg
7471A in mg/Kg

ND = Non Detect
NT = Not Tested
NA = Not Applicable

# PGWWTP 2025 Annual Priority Pollutants Report (Influent, Effluent, Biosolids)

| EPA Method | | | | | Influent | | | Effluent | | | BioSolids | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Influent | Effluent | Sludge | Analyte | Units | Result | RL | MDL | Result | RL | MDL | Result | RL | MDL |
| 624.1 | 624.1 | 8260B | 1,1,1-Trichloroethane | ug/L | ND | 2.5 | 2.3 | ND | 0.5 | 0.46 | ND | 99 | 23 |
| 624.1 | 624.1 | 8260B | 1,1,2,2-Tetrachloroethane | ug/L | ND | 2.5 | 1.2 | ND | 0.5 | 0.23 | ND | 200 | 24 |
| 624.1 | 624.1 | 8260B | 1,1,2-Trichloroethane | ug/L | ND | 2.5 | 1.2 | ND | 0.5 | 0.24 | ND | 99 | 46 |
| 624.1 | 624.1 | 8260B | 1,1-Dichloroethane | ug/L | ND | 2.5 | 2 | ND | 0.5 | 0.41 | ND | 99 | 28 |
| 624.1 | 624.1 | 8260B | 1,1-Dichloroethylene | ug/L | ND | 2.5 | 2 | ND | 0.5 | 0.39 | ND | 99 | 26 |
| 624.1 | 624.1 | 8260B | 1,2-Dichloroethane | ug/L | ND | 2.5 | 0.85 | ND | 0.5 | 0.17 | ND | 99 | 27 |
| 624.1 | 624.1 | 8260B | 1,2-Dichloropropane | ug/L | ND | 2.5 | 0.75 | ND | 0.5 | 0.15 | ND | 99 | 27 |
| 624.1 | 624.1 | 8260B | 1,2-trans-Dichloroethylene | ug/L | ND | 2.5 | 0.5 | ND | 0.5 | 0.1 | ND | 50 | 30 |
| 624.1 | 624.1 | 8260B | 1,3-Dichloropropene | ug/L | ND | 2.5 | 2.3 | ND | 0.5 | 0.46 | ND | 200 | 35 |
| 624.1 | 624.1 | 8260B | 2-Chloroethyl vinyl ether (mixed) | ug/L | ND | 5 | 1.8 | ND | 1 | 0.36 | ND | 2000 | 460 |
| 624.1 | 624.1 | 8260B | Acrolein | ug/L | ND | 10 | 4 | ND | 2 | 0.81 | ND | 5000 | 560 |
| 624.1 | 624.1 | 8260B | Acrylonitrile | ug/L | ND | 10 | 6.5 | ND | 2 | 1.3 | ND | 2500 | 190 |
| 624.1 | 624.1 | 8260B | Benzene | ug/L | ND | 2.5 | 0.9 | ND | 0.5 | 0.18 | ND | 99 | 25 |
| 624.1 | 624.1 | 8260B | Bromoform | ug/L | ND | 2.5 | 0.75 | ND | 0.5 | 0.15 | ND | 500 | 130 |
| 624.1 | 624.1 | 8260B | Carbon Tetrachloride | ug/L | ND | 1.2 | 1 | ND | 0.5 | 0.21 | ND | 99 | 30 |
| 624.1 | 624.1 | 8260B | Chlorobenzene | ug/L | ND | 2.5 | 0.9 | ND | 0.5 | 0.18 | ND | 99 | 27 |
| 624.1 | 624.1 | 8260B | Chloroethane | ug/L | ND | 2.5 | 2.3 | ND | 0.5 | 0.46 | ND | 2000 | 150 |
| 624.1 | 624.1 | 8260B | Chloroform | ug/L | 3.2 | 2.5 | 0.85 | ND | 0.5 | 0.17 | ND | 99 | 58 |
| 624.1 | 624.1 | 8260B | Dibromochloromethane | ug/L | ND | 1.2 | 0.85 | ND | 0.25 | 0.17 | ND | 200 | 27 |
| 624.1 | 624.1 | 8260B | Bromodichloromethane | ug/L | ND | 2.5 | 0.4 | ND | 0.5 | 0.08 | ND | 99 | 32 |
| 624.1 | 624.1 | 8260B | Ethylbenzene | ug/L | ND | 2.5 | 0.5 | ND | 0.5 | 0.1 | ND | 99 | 20 |
| 624.1 | 624.1 | 8260B | Methyl bromide | ug/L | ND | 2.5 | 0.65 | ND | 0.5 | 0.13 | ND | 2000 | 650 |
| 624.1 | 624.1 | 8260B | Methyl chloride | ug/L | ND | 2.5 | 2.3 | ND | 0.5 | 0.46 | ND | 2000 | 150 |
| 624.1 | 624.1 | 8260B | Methylene chloride | ug/L | ND | 2.5 | 2.4 | ND | 0.5 | 0.49 | ND | 990 | 310 |
| 624.1 | 624.1 | 8260B | Tetrachloroethylene | ug/L | ND | 2.5 | 0.95 | ND | 0.5 | 0.19 | ND | 99 | 22 |
| 624.1 | 624.1 | 8260B | Toluene | ug/L | ND | 2.5 | 0.95 | ND | 0.5 | 0.19 | ND | 99 | 27 |
| 624.1 | 624.1 | 8260B | Trichloroethylene | ug/L | ND | 2.5 | 1 | ND | 0.5 | 0.2 | ND | 200 | 38 |
| 624.1 | 624.1 | 8260B | Vinyl chloride | ug/L | ND | 2.5 | 1.2 | ND | 0.5 | 0.25 | ND | 99 | 37 |
| 624.1 | 624.1 | 8270C | 1,2-Dichlorobenzene | ug/L | ND | 2.5 | 1.4 | ND | 0.5 | 0.27 | ND | 34 | 5.7 |
| 624.1 | 624.1 | 8270C | 1,3-Dichlorobenzene | ug/L | ND | 2.5 | 0.9 | ND | 0.5 | 0.18 | ND | 34 | 7.1 |
| 624.1 | 624.1 | 8270C | 1,4-Dichlorobenzene | ug/L | ND | 2.5 | 0.9 | ND | 0.5 | 0.18 | ND | 34 | 6.5 |
| 625.1 | 625.1 | 8270C | 1,2,4-Trichlorobenzene | ug/L | ND | 10 | 5 | ND | 5 | 0.25 | ND | 34 | 8.2 |
| 625.1 | 625.1 | 8270C | 1,2-Diphenylhydrazine | ug/L | ND | 20 | 10 | ND | 1 | 0.5 | ND | 34 | 5.3 |
| 625.1 | 625.1 | 8270C | 2,4,6-Trichlorophenol | ug/L | ND | 40 | 8 | ND | 2 | 0.4 | ND | 34 | 8.0 |
| 625.1 | 625.1 | 8270C | 2,4-Dichlorophenol | ug/L | ND | 20 | 9 | ND | 1 | 0.45 | ND | 34 | 9.0 |
| 625.1 | 625.1 | 8270C | 2,4-Dimethylphenol | ug/L | ND | 20 | 2.2 | ND | 2 | 0.11 | ND | 34 | 8.8 |
| 625.1 | 625.1 | 8270C | 2,4-Dinitrophenol | ug/L | ND | 40 | 5.8 | ND | 5 | 0.29 | ND | 140 | 62 |
| 625.1 | 625.1 | 8270C | 2,4-Dinitrotoluene | ug/L | ND | 20 | 5.6 | ND | 5 | 0.28 | ND | 34 | 5.5 |
| 625.1 | 625.1 | 8270C | 2,6-Dinitrotoluene | ug/L | ND | 20 | 4.4 | ND | 5 | 0.22 | ND | 34 | 5.9 |
| 625.1 | 625.1 | 8270C | 2-Chloronaphthalene | ug/L | ND | 20 | 5.6 | ND | 5 | 0.28 | ND | 34 | 5.9 |
| 625.1 | 625.1 | 8270C | 2-Chlorophenol | ug/L | ND | 40 | 11 | ND | 2 | 0.53 | ND | 34 | 9.0 |
| 625.1 | 625.1 | 8270C | 2-Methyl-4,6-dinitrophenol | ug/L | ND | 40 | 4.6 | ND | 5 | 0.23 | ND | 170 | 64 |
| 625.1 | 625.1 | 8270C | 2-Nitrophenol | ug/L | ND | 40 | 7.6 | ND | 5 | 0.38 | ND | 34 | 9.5 |
| 625.1 | 625.1 | 8270C | 3,3'-Dichlorobenzidine | ug/L | ND | 100 | 28 | ND | 5 | 1.4 | ND | 170 | 37 |
| 625.1 | 625.1 | 8270C | 4-Bromophenyl phenyl ether | ug/L | ND | 40 | 4.6 | ND | 5 | 0.23 | ND | 34 | 5.0 |
| 625.1 | 625.1 | 8270C | 4-Chloro-3-methylphenol | ug/L | ND | 20 | 6.4 | ND | 1 | 0.32 | ND | 34 | 6.3 |
| 625.1 | 625.1 | 8270C | 4-Chlorophenyl phenyl ether | ug/L | ND | 40 | 5.8 | ND | 5 | 0.29 | ND | 34 | 6.9 |
| 625.1 | 625.1 | 8270C | 4-Nitrophenol | ug/L | ND | 20 | 6 | ND | 5 | 0.3 | ND | 34 | 21 |
| 625.1 | 625.1 | 8270C | Acenaphthene | ug/L | ND | 5 | 0.4 | ND | 0.3 | 0.02 | ND | 34 | 5.4 |
| 625.1 | 625.1 | 8270C | Acenaphthylene | ug/L | ND | 5 | 0.4 | ND | 0.2 | 0.02 | ND | 34 | 6.6 |
| 625.1 | 625.1 | 8270C | Anthracene | ug/L | ND | 5 | 0.6 | ND | 0.3 | 0.03 | ND | 34 | 5.3 |
| 625.1 | 625.1 | 8270C | Benzidine | ug/L | ND | 100 | 80 | ND | 5 | 4 | ND | 340 | 39 |
| 625.1 | 625.1 | 8270C | Benzo (a) anthracene | ug/L | ND | 5 | 1 | ND | 0.3 | 0.05 | ND | 34 | 5.7 |
| 625.1 | 625.1 | 8270C | Benzo (a) pyrene | ug/L | ND | 5 | 0.8 | ND | 0.3 | 0.04 | ND | 34 | 6.8 |
| 625.1 | 625.1 | 8270C | Benzo (b) fluoranthene (3,4-Benzo) | ug/L | ND | 5 | 1 | ND | 0.3 | 0.05 | ND | 34 | 5.8 |
| 625.1 | 625.1 | 8270C | Benzo (ghi) perylene | ug/L | ND | 5 | 1 | ND | 0.1 | 0.05 | ND | 34 | 6.1 |
| 625.1 | 625.1 | 8270C | Benzo (k) fluoranthene | ug/L | ND | 5 | 0.4 | ND | 0.3 | 0.02 | ND | 34 | 6.4 |
| 625.1 | 625.1 | 8270C | Bis (2-chloroethoxy) methane | ug/L | ND | 20 | 2.8 | ND | 5 | 0.14 | ND | 34 | 7.6 |

ND = Non Detect
NT = Not Tested
NA = Not Applicable

# PGWWTP 2025 Annual Priority Pollutants Report (Influent, Effluent, Biosolids)

| EPA Method | | | | | Influent | | | Effluent | | | BioSolids | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Influent | Effluent | Sludge | Analyte | Units | Result | RL | MDL | Result | RL | MDL | Result | RL | MDL |
| 625.1 | 625.1 | 8270C | Bis (2-chloroethyl) ether | ug/L | ND | 20 | 6.6 | ND | 1 | 0.33 | ND | 170 | 7.2 |
| 625.1 | 625.1 | 8270C | Bis (2-chloroisopropyl) ether | ug/L | ND | 20 | 4.2 | ND | 2 | 0.21 | ND | 34 | 8.0 |
| 625.1 | 625.1 | 8270C | Bis (2-ethylhexyl) phthalate | ug/L | ND | 20 | 10 | ND | 1 | 0.5 | ND | 34 | 15 |
| 625.1 | 625.1 | 8270C | Butyl benzyl phthalate | ug/L | ND | 40 | 40 | ND | 5 | 2 | ND | 34 | 16 |
| 625.1 | 625.1 | 8270C | Chrysene | ug/L | ND | 5 | 1 | ND | 0.3 | 0.05 | ND | 34 | 5.7 |
| 625.1 | 625.1 | 8270C | Dibenzo (a,h) anthracene | ug/L | ND | 5 | 1 | ND | 0.1 | 0.05 | ND | 34 | 5.4 |
| 625.1 | 625.1 | 8270C | Diethyl Phthalate | ug/L | ND | 20 | 10 | ND | 2 | 0.5 | ND | 34 | 7.8 |
| 625.1 | 625.1 | 8270C | Dimethyl Phthalate | ug/L | ND | 20 | 10 | ND | 2 | 0.5 | ND | 34 | 6.7 |
| 625.1 | 625.1 | 8270C | Di-n-butyl phthalate | ug/L | ND | 20 | 8 | ND | 5 | 0.4 | ND | 34 | 7.6 |
| 625.1 | 625.1 | 8270C | Di-n-octylphthalate | ug/L | ND | 20 | 8 | ND | 5 | 0.4 | ND | 34 | 16 |
| 625.1 | 625.1 | 8270C | Fluoranthene | ug/L | ND | 5 | 0.4 | ND | 0.05 | 0.02 | ND | 34 | 6.4 |
| 625.1 | 625.1 | 8270C | Fluorene | ug/L | ND | 5 | 0.4 | ND | 0.1 | 0.02 | ND | 34 | 6.4 |
| 625.1 | 625.1 | 8270C | Hexachlorobenzene | ug/L | ND | 20 | 20 | ND | 1 | 1 | ND | 34 | 5.4 |
| 625.1 | 625.1 | 8270C | Hexachlorobutadiene | ug/L | ND | 20 | 8 | ND | 1 | 0.4 | ND | 34 | 8.5 |
| 625.1 | 625.1 | 8270C | Hexachlorocyclo-pentadiene | ug/L | ND | 20 | 18 | ND | 1 | 0.9 | ND | 100 | 5.9 |
| 625.1 | 625.1 | 8270C | Hexachloroethane | ug/L | ND | 20 | 8 | ND | 1 | 0.4 | ND | 34 | 6.3 |
| 625.1 | 625.1 | 8270C | Indeno(1,2,3-cd)pyrene | ug/L | ND | 5 | 1 | ND | 0.05 | 0.05 | ND | 34 | 8.4 |
| 625.1 | 625.1 | 8270C | Isophorone | ug/L | ND | 20 | 10 | ND | 1 | 0.5 | ND | 34 | 5.4 |
| 625.1 | 625.1 | 8270C | Naphthalene | ug/L | ND | 5 | 0.4 | ND | 0.2 | 0.02 | ND | 34 | 9.5 |
| 625.1 | 625.1 | 8270C | Nitrobenzene | ug/L | ND | 20 | 10 | ND | 1 | 0.5 | ND | 140 | 9.3 |
| 625.1 | 625.1 | 8270C | N-Nitrosodimethylamine | ug/L | ND | 20 | 14 | ND | 5 | 0.7 | ND | 34 | 6.1 |
| 625.1 | 625.1 | 8270C | N-Nitrosodi-n-propylamine | ug/L | ND | 20 | 10 | ND | 5 | 0.5 | ND | 34 | 5.8 |
| 625.1 | 625.1 | 8270C | N-Nitrosodiphenylamine | ug/L | ND | 20 | 14 | ND | 1 | 0.7 | ND | 34 | 5.8 |
| 625.1 | 625.1 | 8270C | Pentachlorophenol | ug/L | ND | 20 | 8 | ND | 1 | 0.4 | ND | 170 | 130 |
| 625.1 | 625.1 | 8270C | Phenanthrene | ug/L | ND | 5 | 0.4 | ND | 0.05 | 0.02 | ND | 34 | 4.9 |
| 625.1 | 625.1 | 8270C | Phenol, Single Compound | ug/L | 11 | 20 | 6 | ND | 1 | 0.3 | ND | 34 | 6.6 |
| 625.1 | 625.1 | 8270C | Pyrene | ug/L | ND | 5 | 0.4 | ND | 0.05 | 0.02 | ND | 3.4 | 6.9 |
| 625.1 | 625.1 | 8081A | 4,4'-DDD (P,P'-DDD) | ug/L | ND | 0.1 | 0.042 | ND | 0.01 | 0.0021 | ND | 26 | 3.7 |
| 625.1 | 625.1 | 8081A | 4,4'-DDE (P,P'-DDE) | ug/L | ND | 0.1 | 0.04 | ND | 0.01 | 0.002 | ND | 26 | 3.5 |
| 625.1 | 625.1 | 8081A | 4,4'-DDT (P,P'-DDT) | ug/L | ND | 0.1 | 0.076 | ND | 0.01 | 0.0038 | ND | 26 | 6.0 |
| 625.1 | 625.1 | 8081A | Aldrin | ug/L | ND | 0.1 | 0.072 | ND | 0.005 | 0.0036 | ND | 26 | 8.2 |
| 625.1 | 625.1 | 8081A | alpha-BHC | ug/L | ND | 0.1 | 0.052 | ND | 0.01 | 0.0026 | ND | 26 | 3.0 |
| 625.1 | 625.1 | 8081A | alpha-endosulfan | ug/L | ND | 0.1 | 0.084 | ND | 0.01 | 0.0042 | ND | 26 | 5.5 |
| 625.1 | 625.1 | 8081A | beta-BHC | ug/L | ND | 0.1 | 0.058 | ND | 0.005 | 0.0029 | ND | 26 | 4.6 |
| 625.1 | 625.1 | 8081A | beta-endosulfan | ug/L | ND | 0.1 | 0.046 | ND | 0.01 | 0.0023 | ND | 26 | 2.8 |
| 625.1 | 625.1 | 8081A | Chlordane | ug/L | ND | 0.2 | 0.068 | ND | 0.01 | 0.0034 | ND | 130 | 21 |
| 625.1 | 625.1 | 8081A | delta-BHC | ug/L | ND | 0.1 | 0.07 | ND | 0.005 | 0.0035 | ND | 26 | 4.8 |
| 625.1 | 625.1 | 8081A | Dieldrin | ug/L | ND | 0.1 | 0.034 | ND | 0.01 | 0.0017 | ND | 26 | 2.8 |
| 625.1 | 625.1 | 8081A | Endosulfan sulfate | ug/L | ND | 0.1 | 0.022 | ND | 0.01 | 0.0011 | ND | 26 | 3.2 |
| 625.1 | 625.1 | 8081A | Endrin | ug/L | ND | 0.1 | 0.054 | ND | 0.01 | 0.0027 | ND | 26 | 3.5 |
| 625.1 | 625.1 | 8081A | Endrin aldehyde | ug/L | ND | 0.1 | 0.068 | ND | 0.01 | 0.0034 | ND | 26 | 17 |
| 625.1 | 625.1 | 8081A | gamma-BHC | ug/L | ND | 0.1 | 0.044 | ND | 0.01 | 0.0022 | ND | 26 | 2.6 |
| 625.1 | 625.1 | 8081A | Heptachlor | ug/L | ND | 0.1 | 0.062 | ND | 0.01 | 0.0031 | ND | 26 | 3.1 |
| 625.1 | 625.1 | 8081A | Heptachlor epoxide | ug/L | ND | 0.1 | 0.054 | ND | 0.01 | 0.0027 | ND | 26 | 2.8 |
| 625.1 | 625.1 | 8082 | Toxaphene | ug/L | ND | 10 | 8 | ND | 0.5 | 0.4 | ND | 130 | 79 |
| 625.1 | 625.1 | 8082 | PCB-1016 (arochlor 1016) | ug/L | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 260 | 200 |
| 625.1 | 625.1 | 8082 | PCB-1221 (arochlor 1221) | ug/L | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 260 | 200 |
| 625.1 | 625.1 | 8082 | PCB-1232 (arochlor 1232) | ug/L | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 260 | 200 |
| 625.1 | 625.1 | 8082 | PCB-1242 (arochlor 1242) | ug/L | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 260 | 200 |
| 625.1 | 625.1 | 8082 | PCB-1248 (arochlor 1248) | ug/L | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 260 | 200 |
| 625.1 | 625.1 | 8082 | PCB-1254 (arochlor 1254) | ug/L | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 260 | 130 |
| 625.1 | 625.1 | 8082 | PCB-1260 (arochlor 1260) | ug/L | ND | 2 | 0.6 | ND | 0.1 | 0.03 | ND | 260 | 130 |

ND = Non Detect
NT = Not Tested
NA = Not Applicable

# PGWWTP 2025 Annual Priority Pollutants Report (Influent, Effluent, Biosolids)

| EPA Method | | | | | Influent | | | Effluent | | | BioSolids | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Influent | Effluent | Sludge | Analyte | Units | Result | RL | MDL | Result | RL | MDL | Result | RL | MDL |
| 200.8 | 200.8 | 6010B | Antimony, Total | ug/L | 0.58 | 0.5 | 0.028 | J0.48 | 0.5 | 0.028 | ND | 10 | 4.25 |
| 200.8 | 200.8 | 6010B | Arsenic, Total | ug/L | J0.48 | 0.5 | 0.049 | J0.29 | 0.5 | 0.049 | ND | 3 | 1.5 |
| 200.8 | 200.8 | 6010B | Beryllium, Total | ug/L | ND | 0.1 | 0.079 | ND | 0.1 | 0.079 | ND | 0.5 | 0.0767 |
| 200.8 | 200.8 | 6010B | Cadmium, Total | ug/L | 0.1 | 0.1 | 0.05 | ND | 0.1 | 0.05 | J0.15 | 0.5 | 0.0657 |
| 200.8 | 200.8 | 6010B | Chromium, Total | ug/L | 1.4 | 0.5 | 0.05 | J0.41 | 0.5 | 0.05 | 2.84 | 1 | 0.528 |
| 200.8 | 200.8 | 6010B | Copper, Total | ug/L | 23 | 0.5 | 0.36 | 1.4 | 0.5 | 0.36 | 41.1 | 2 | 0.748 |
| 200.8 | 200.8 | 6010B | Lead, Total | ug/L | 0.5 | 0.25 | 0.07 | ND | 0.25 | 0.07 | ND | 2 | 0.923 |
| 245.1 | 1631 | 7471A | Mercury, Total | ug/L | 0.049 | 0.05 | 0.036 | 0.00042 | 0.00050 | 0.00019 | J0.0838 | 0.0850 | 0.0235 |
| 200.8 | 200.8 | 6010B | Nickel, Total | ug/L | 2.6 | 0.5 | 0.082 | 1.2 | 0.5 | 0.082 | 3.94 | 2 | 0.469 |
| 200.8 | 200.8 | 6010B | Selenium, Total | ug/L | 0.41 | 1 | 0.37 | ND | 1 | 0.37 | ND | 3 | 1.54 |
| 200.8 | 200.8 | 6010B | Silver, Total | ug/L | 0.16 | 0.1 | 0.061 | ND | 0.1 | 0.061 | ND | 1.5 | 0.635 |
| 200.8 | 200.8 | 6010B | Thallium, Total | ug/L | ND | 0.1 | 0.047 | ND | 0.1 | 0.047 | 2.11 | 10 | 2.11 |
| 200.8 | 200.8 | 6010B | Zinc, Total | ug/L | 103 | 10 | 0.78 | 34 | 1 | 0.78 | 148 | 5 | 1.9 |
| 4500 CN | 4500 CN | 9014 | Cyanide, Total | ug/L | ND | 3 | 1.1 | J1.2 | 3 | 1.1 | ND | 0.5 | 0.092 |
| 8290 | 8290 | 8290 | 2,3,7,8-TCDD | pg/L | ND | 5.36 | 1.91 | ND | 5.08 | 1.81 | ND | 5.08 | 1.81 |

**Note**: Sludge Units: Reported out in wet weight
2,3,7,8-TCDD in pg/g.
6010B in mg/Kg
8081 in ug/Kg
8082 in ug/Kg
8260B in ug/Kg
8270 in mg/Kg
9014 in mg/Kg
7471A in mg/Kg

ND = Non Detect
NT = Not Tested
NA = Not Applicable

# Attachment D

## INDUSTRIAL WASTE DIVISION'S 2025-2026 BUDGET

[See following page for further details]

# INDUSTRIAL PRETREATMENT PROGRAM FY 26 BUDGET

| Budget Year | Fund | Fund Description | Center | Center Description | Account Type | Account | Account Description | Adopted Budget | Budget Adjustments | Amended Budget |
|---|---|---|---|---|---|---|---|---|---|---|
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5001 | Salaries | 205,813.00 | | 205,813.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5005 | Overtime | 2,748.00 | | 2,748.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5030 | Longevity and Service Term Bonus | 4,814.00 | | 4,814.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5035 | Certificate Pay | 0.00 | | 0.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5045 | Leave Payoffs | 4,389.00 | | 4,389.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5053 | Temporary - 1500 Hr Salaries | 79,576.00 | | 79,576.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5071 | Budget only - Labor Adjustments | 185,581.00 | | 185,581.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5090 | Accrued Salaries | 0.00 | | |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5101 | Benefit - Medical Insurance | 47,572.00 | | 47,572.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5108 | Benefit - Long Term Disability - City Paid | 263.00 | | 263.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5112 | Benefit - Life Insurance | 389.00 | | 389.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5120 | PERS - City | 33,145.00 | | 33,145.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5128 | PERS - UAL | 45,855.00 | | 45,855.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5138 | Deferred Compensation | 4,676.00 | | 4,676.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5150 | Medicare | 5,011.00 | | 5,011.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5154 | State Unemployment Insurance | 864.00 | | 864.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5201 | ISF Expense - Fuel - City Vehicles | 5,100.00 | | 5,100.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5301 | Professional Services | 0.00 | | |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5351 | Office Supplies | 1,500.00 | | 1,500.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5387 | Advertising | 250.00 | | 250.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5389 | Printing | 300.00 | | 300.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5391 | Postage | 750.00 | | 750.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5393 | Software | 1,000.00 | | 1,000.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5395 | Equipment - Under 5000 | 1,200.00 | | 1,200.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5399 | Equipment - Technology Under 5000 | 7,900.00 | | 7,900.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5403 | Safety and Protective Gear | 2,500.00 | | 2,500.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5411 | Repairs and Maintenance - General | 500.00 | | 500.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5417 | Repairs and Maintenance - Equipment | 5,000.00 | | 5,000.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5421 | Repairs and Maintenance - System | 1,000.00 | | 1,000.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5451 | Utility Charges - Telecommunication | 1,500.00 | | 1,500.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5461 | Training and Development | 15,500.00 | | 15,500.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5465 | Mileage | 1,000.00 | | 1,000.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5471 | Membership | 1,500.00 | | 1,500.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5491 | General liability insurance - fixed | 13,149.00 | | 13,149.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5495 | Workers compensation insurance - fixed | 11,135.00 | | 11,135.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5510 | ISF Expense - Fleet Rent | 6,902.00 | | 6,902.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5512 | ISF Expense - Fleet Replacement | 7,625.00 | | 7,625.00 |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5585 | Miscellaneous | 0.00 | | |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5980 | Internal Labor - Raw Cost Reimbursement | 0.00 | | |
| FY26 | 6201 | Wastewater Operations | 74310 | Industrial Treatment | Expenditures | 5981 | Internal Labor - Burden Reimbursement | 0.00 | | |
| | | | | | **Expenditures Total** | | | **706,007.00** | | **706,007.00** |

# Attachment E

## LOCAL LIMITS EVALUATION

[See following page for further details]

# Local Limits Evaluation
# City of Roseville

Prepared for
City of Roseville
Roseville, CA
November 10, 2025

# Local Limits Evaluation
# City of Roseville

Prepared for
City of Roseville
Roseville, CA
November 10, 2025

Brown AND Caldwell

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# List of Abbreviations

| | |
|---|---|
| AHL | allowable headworks loading |
| BC | Brown and Caldwell |
| BOD | biochemical oxygen demand |
| CBOD | carbonaceous biochemical oxygen demand |
| EPA | Environmental Protection Agency |
| IU | Industrial User |
| LLE | Local Limits Evaluation |
| MAHL | maximum allowable headworks loading |
| MAIL | maximum allowable industrial loading |
| mgd | million gallons per day |
| NOA | Notice of Applicability |
| NPDES | National Pollutant Discharge Elimination System |
| POC | Pollutant of Concern |
| POTW | Publicly Owned Treatment Works |
| SIU | Significant Industrial User |
| TCLP | toxicity characteristic leachate procedure |
| TSS | total suspended solids |
| TTO | Total Toxic Organics |
| WQS | Water Quality Standard |
| WWTP | Wastewater Treatment Plant |

# Executive Summary

Brown and Caldwell (BC) conducted a Local Limits Evaluation (LLE) for the City of Roseville (City) in accordance with the procedures established by the United States Environmental Protection Agency (EPA). This report provides BC's recommendations and rationale for the revision or development of local limits for discharges to City's Dry Creek and Pleasant Grove Wastewater Treatment Plants (WWTP). Important findings noted during the evaluation are also provided.

## Applied Methodology and Approach

This LLE was prepared in accordance with EPA requirements. Details on the applied methodology, assumptions, and approach used during development of the proposed new local limits for the WWTPs are described below.

- Potential pollutants of concern (POCs) were selected based on the following criteria:
  - EPA's 15 National POCs
  - Existing Local Limits and previous POCs
  - Revised National Pollutant Discharge Elimination System (NPDES) permit limits
  - Sludge quality
  - Water Quality Standards (WQS) and Primary Maximum Contaminant Levels (MCL)
  - Prevention of treatment plant process interference or inhibition
  - Worker protection
- Historical data were assessed to identify the POCs.
- Site-specific removal efficiencies were calculated for the POCs based on WWTP influent and effluent analytical results from sampling conducted September 2, 2025 through September 11, 2025. If a removal efficiency could not be calculated using the sampling results, literature values were used.
- Allowable headworks loadings (AHLs) were calculated for each facility based on design criteria, permit limits, activated sludge inhibition, nitrification inhibition, anaerobic digestion inhibition, sludge disposal criteria, and California WQSs and MCLs.
- The most stringent AHL for each WWTP was designated as the maximum allowable headworks loading (MAHL) for that WWTP. The influent loading was compared to the MAHL to determine the percentage of the MAHL that is currently in use for each WWTP. If the percent of MAHL currently in use was below a specific threshold, and the parameter did not have an existing local limit, the parameter was removed from further analysis.
- A twenty percent (20%) safety factor was applied, and the domestic and commercial loading from site-specific collection system sampling conducted August 19, 2025 through August 26, 2025 was subtracted from the MAHL to calculate the maximum allowable industrial loading (MAIL) for each POC.
- Uniform local limits were calculated using the MAIL for each WWTP and industrial user flow proportional to that facility. The calculated local limits for each WWTP were compared, and the most stringent local limit was selected as the uniform local limit for the City.

## Important Findings of the LLE

- A new local limit for molybdenum was developed to ensure compliance with EPA's biosolids regulations.
- The City is requesting removal of local limits for beryllium, hydrocarbon solvents, iron, manganese, phenol , and Total Toxic Organics (TTO) . Standards (e.g., effluent limits, inhibition criteria) to develop MAHLs and local limits for hydrocarbon solvents, iron, manganese, and TTO are not available. Phenol was eliminated from further analysis by demonstration through influent and effluent monitoring that samples were consistently significantly lower than half of the inhibition criteria in the influent and consistently non-detect in the effluent. The influent loading of beryllium is less than one percent (1%) of the calculated MAHL and is not included in EPA's national POCs.
- Because the percentage of MAHL in use for Nitrate + Nitrite was below 50%, local limits for these parameters were not developed.
- Ammonia was found to be in greater concentrations in the domestic/commercial sampling than the WWTP influent, indicating no significant industrial contribution of Ammonia. The calculated MAIL for Ammonia is negative due to the domestic loading exceeding the MAHL. A uniform concentration local limit of 55.5 mg/L will be set based upon maximum recorded background concentrations.
- The City is requesting the approval of the MAILs and uniform local limits. A single concentration-based local limit for each POC will apply to all IUs regardless of the receiving WWTP. The MAILs may be re-allocated in the future as needed in either mass- or concentration-based limits, not to exceed the approved MAIL. A summary of the existing limits and recommended MAILs and local limits is presented in Table ES-1.

**Table ES-1. Summary of Local Limits for City of Roseville**

| Pollutant | Existing Local Limits (mg/L) | Calculated MAIL (lb/day) | Proposed Local Limits (mg/L) |
|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 240 | 2,427 | 634 |
| Suspended Solids, Total (TSS) | 250 | 6,824 | 1,782 |
| Ammonia (as N) | 20 | ---[1] | 55.5 |
| Arsenic | 0.1 | 0.55 | 0.14 |
| Cadmium | 0.01 | 0.41 | 0.11 |
| Chromium | 0.56 | 15.27 | 4.35 |
| Copper | 0.13 | 5.57 | 1.99 |
| Cyanide | 0.01 | 0.24 | 0.06 |
| Fluoride | 5.5 | 68.06 | 17.77 |
| Lead | 0.04 | 1.50 | 0.55 |
| Mercury | 0.02 | 0.22 | 0.06 |
| Molybdenum | ----- | 1.18 | 0.31 |
| Nickel | 0.31 | 4.84 | 1.26 |
| Selenium | 0.006 | 0.95 | 0.26 |
| Silver | 0.04 | 0.94 | 0.25 |
| Zinc | 0.16 | 16.57 | 4.33 |

[1] The calculated MAIL for ammonia is negative due to the domestic loading exceeding the MAHL. A uniform concentration local limit of 55.5 mg/L will be set based upon maximum recorded background concentrations.

## Section 1

# Introduction

EPA's general pretreatment regulations in 40 CFR 403.5(c) require approved pretreatment programs to develop and enforce local limits to implement the general and specific prohibitions of the pretreatment program. Local limits must also be periodically evaluated and revised as necessary to ensure they are protective of the publicly owned treatment works (POTW), receiving stream, and worker health and safety.

The City of Roseville currently administers an approved pretreatment program with eighteen (18) permitted significant industrial users (SIUs) with a combined contributory flow of 0.57 million gallons per day (mgd). The City has two permitted WWTPs: Dry Creek WWTP and Pleasant Grove WWTP. The Central Valley Regional Water Quality Control Board (Central Valley Regional Board) authorizes the City to discharge to the Dry Creek and Pleasant Grove Creek through the NPDES permits. The last LLE was conducted in August in 2010 and was based upon data from June 2009 through May 2010.

This local limits evaluation is a technical and detailed evaluation of the local limits developed specifically for the City of Roseville.

## 1.1 Project Objective

The objective of this effort was to re-evaluate and update industrial local limits for the WWTPs to enforce the specific and general prohibitions as well as state and local regulations, address site-specific concerns, and protect worker health and safety. The specific and general prohibitions, along with categorical standards, are designed to provide a minimum acceptable level of control over industrial user discharges. Local limits are established to provide additional control to prevent site-specific and environmental impacts due to non-domestic discharges. Therefore, this LLE used site-specific data to identify POCs that may be expected to be discharged in quantities sufficient to cause deleterious impacts at the POTW or to the environment. Some of the factors considered in developing local limits included:

- Efficiency of the WWTPs in treating wastes
- Compliance with permit
- Condition of the water body that receives treated effluent
- State and/or federal WQS that are applicable to the water body receiving treated effluent
- State Primary MCLs
- Retention, use, and disposal of sewage sludge
- Worker health and safety concerns.

This LLE provides documentation and reasoned guidance on the following:

- Determining POCs
- Gathering and analyzing data
- Calculating AHLs for each POC based on applicable criteria
- Determining MAHLs and MAILsfor each POC
- Allocating MAILs to industrial users

## 1.2 Organization of Report

This LLE report is organized into seven sections as follows:

- **Section 1** is an introduction to the LLE and describes the project objectives.
- **Section 2** describes how POCs were chosen for inclusion in the LLE.
- **Section 3** provides details regarding the headworks loading analysis.
- **Section 4** discusses the development of the industrial loadings and local limits.
- **Section 5** lists the final proposed local limits.
- **Section 6** provides the limitations.
- **Section 7** lists the references.

A large volume of data and calculations was utilized to complete the LLE for the City of Roseville, including site-specific data, literature values, and calculation spreadsheets. The tables and appendices of this LLE contain the information needed to reproduce the local limits.

The following data and calculation spreadsheets can be found in the appendices to this LLE:

- **Appendix A** contains the regulatory limits and/or criteria applicable to the WWTPs, including the following:
  - Design-based wastewater treatment plant capacity criteria (Table A1)
  - NPDES permit limits (Table A2)
  - Receiving Stream Hardness Data (Table A3)
  - Derivation of State Water Quality Standard for Metals for Pleasant Grove (Table A4)
  - Summary of Water Quality Standards and Maximum Contaminant Levels for Pleasant Grove WWTP (Table A5)
  - Derivation of State Water Quality Standard for Metals for Dry Creek (Table A6)
  - Summary of Water Quality Standards and Maximum Contaminant Levels for Dry Creek WWTP (Table A7)
  - Biosolids regulatory limits (Table A8)
- **Appendix B** contains the literature data used in the LLE when site-specific data were not available. Included in this appendix are the following:
  - Removal efficiencies for priority pollutants through primary and secondary treatment processes (Tables B1 and B2)
  - Treatment inhibition threshold levels for activated sludge (Table B3)
  - Treatment inhibition threshold levels for nitrification (Table B4)
  - Treatment Inhibition threshold levels for anaerobic digestion (Table B5)
  - Domestic and commercial pollutant loadings (Table B6)
  - Worker protection screening levels based on fume toxicity and explosivity (Table B7)
- **Appendix C** contains biosolids data used to develop the local limits. Included in this appendix are the following:
  - Sludge flow to Anaerobic Digesters for Dry Creek and Pleasant Grove WWTPs (Table C1)
  - Sludge sent to Disposal for Dry Creek and Pleasant Grove WWTPs (Table C2)
- **Appendix D** contains site-specific WWTP data used to develop the local limits. Included in this appendix are the following:

  - Monthly influent and effluent flow data for Dry Creek and Pleasant Grove WWTPs from 2024 (Table D1)
  - Annual average industrial flow contributions for Pleasant Grove from 2024 (Table D2)
  - Annual average industrial flow contributions for Dry Creek from 2024 (Table D3)
  - Concentrations of conventional POCs in influent and effluent samples from Pleasant Grove WWTP (Table D4)
  - Concentrations of non-conventional POCs in influent and effluent samples from Pleasant Grove WWTP (Table D5)
  - Concentrations of conventional POCs in influent and effluent samples from Dry Creek WWTP (Table D6)
  - Concentrations of non-conventional POCs in influent and effluent samples from Dry Creek WWTP (Table D7)
  - Concentrations of domestic and commercial background samples collected from August 19, 2025 to August 26, 2025 (Table D8)
  - Removal efficiencies calculated for Pleasant Grove conventional and non-conventional pollutants based on average influent and effluent concentrations from the WWTP (Tables D4 and D5)
  - Removal efficiencies calculated for Dry Creek conventional and non-conventional pollutants based on average influent and effluent concentrations from the WWTP (Tables D6 and D7)
- **Appendix E** contains the Pleasant Grove WWTP AHL and MAIL calculations.
- **Appendix F** contains the Dry Creek WWTP AHL and MAIL calculations.
- **Appendix G** contains the MAHL and MAIL calculation comparisons and final local limits for Pleasant Grove and Dry Creek WWTPs.

## Section 2

# Pollutants of Concern

A POC is any pollutant that may be expected to be discharged to the POTW in sufficient amounts to cause pass-through, interference, or present risk to workers and the environment. Pollutants that are contributing to or known to cause operational issues (i.e., inhibition of a treatment process) are considered POCs even if the pollutants are not currently causing permit violations.

Historical data was reviewed and was found to be sufficient to identify POCs. Results of WWTP influent, effluent, and sludge sampling were compared with regulatory, WWTP-specific, and literature-based criteria levels to determine if a pollutant is a POC. POCs selected for a headworks loading analysis are listed in Table 2-1 and were identified using applicable EPA screening criteria contained in EPA's *Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program* (EPA 1987) and *Local Limits Development Guidance Manual* (EPA 2004).

This section describes how POCs were chosen for inclusion in the LLE and the general methodology followed through the evaluation.

## 2.1 Initial Pollutants of Concern Selection

The initial selection process for POCs includes the following criteria:

- **EPA POCs:** These include arsenic, cadmium, chromium, copper, cyanide, lead, mercury, nickel, silver, zinc, molybdenum, selenium, 5-day BOD, TSS, and ammonia as nitrogen (for plants that accept non-domestic sources of ammonia).
- **Regulatory permit limits:** Effluent from the WWTPs are through NPDES permit CAG585001 and municipal general orders R5-2023-0025-006 and R5-2023-0025-008 . Pollutants regulated in these permits were identified as POCs.
- **Sludge quality:** Because the City land applies biosolids, pollutants from EPA's Table 3 of 40 CFR 503.13 were identified as POCs.
- **Existing local limits:** For re-evaluation of local limits, any existing local limit will be re-assessed to establish if the limit is still required or requires revision based on changes in loadings, changes to the WWTPs, or any other criteria.

## 2.2 Additional Pollutants of Concern Identification

Additional POCs may be identified based on the following factors:

- **Water quality standards:** WQS have been developed by EPA for protection of surface waters, including the receiving waters for permitted dischargers. The POTW does not have to develop a local limit for every pollutant for which a water quality standard or criterion exists. However, EPA recommends that any pollutant that has a reasonable potential to be discharged in amounts that could exceed WQS or criteria should be considered a POC and evaluated accordingly.
- **Inhibition:** The General Pretreatment Regulations prohibit any user of a POTW from discharging pollutants that cause interference. EPA recommends that the POTW consider pollutants that have previously interfered with or may potentially interfere with the treatment works' operation

to be a potential POC. These recommendations have been considered in the identification of POCs identified for the WWTPs.

- **Worker protection standards:** The EPA has established worker protection standards for pollutants discharged to the WWTP. Influent screening is conducted to identify pollutants detected at the POTW to determine, based on the pollutant's concentration, if the pollutant should be selected as a POC for which local limits are developed.
- **POTW-specific pollutants:** Any other pollutant which the City has determined to be of concern was included.

### 2.2.1 Sampling and Analysis for POC Identification

Site-specific data is necessary to identify any additional POCs based on the potential for exceeding WQS, causing or contributing to inhibition, contaminating sludge, or presenting risks to worker health and safety. Historical results from priority pollutant scans of the WWTPs' influent, effluent, and sludge were evaluated as part of the POC selection to identify any additional POCs. Historical data from 2021-2024 was assessed. Results with detected values were evaluated based on the criteria below, which is derived from guidance in EPA's 1987 *Guidance Manual on the Development and Implementation of Local Discharge Limitation Under the Pretreatment Program*. If a pollutant meets the following criteria, it is generally considered a POC.

- **Influent scans:**
  - If the maximum influent concentration is greater than the most stringent water quality standard, adjusted for dilution, for that pollutant. Influent exceedances of WQS alone do not necessarily indicate that the parameter is a POC. If sufficient effluent data is available to indicate there is no reasonable potential to violate WQS, the POCs based only on influent exceedances of WQS can be screened out.
  - If the maximum influent grab concentration is greater than one half of the inhibition threshold value or the maximum influent composite concentration is greater than one fourth of the inhibition threshold value
  - If the maximum influent concentration is greater than one five-hundredth of the associated biosolids criteria
  - If the maximum influent concentration exceeds the worker protection value
- **Effluent scans:**
  - If the maximum effluent concentration is greater than one half of the allowable effluent concentration required to meet WQS
- **Sludge scans:**
  - If the maximum sludge concentration is more than half of the sludge criteria

No additional POCs were identified from the results of the annual priority pollutant scans from 2021 through 2024.

## 2.3 POC Screening: Final Assessment

Pollutants initially identified as POCs can be eliminated through the POC screening process if sufficient data exists to indicate there is no reasonable potential to violate standards or adversely affect the POTW.

### 2.3.1 Elimination of POCs

Phenol was eliminated by demonstration through influent and effluent monitoring that samples were consistently non-detectable or less than half the most stringent WQS or inhibition criteria. TTO was

eliminated as there is no reasonable potential for any individual toxic organics to exceed inhibition levels or water quality standards, and "TTO" itself is defined differently in different EPA effluent guidelines. The rationale behind the historical development of local limits for hydrocarbon solvents is unavailable. Furthermore, standardized methodologies for establishing MAHLs and local limits specific to hydrocarbon solvents do not exist. As a result, hydrocarbon solvents have been excluded as a pollutant of concern POC.

### 2.3.2 Final Pollutants of Concern

Table 2-1 below lists the POCs for which a headworks analysis was conducted as part of the LLE.

**Table 2-1. Pollutants of Concern**

| Pollutant | Criteria |
|---|---|
| Biochemical Oxygen Demand (BOD) | Previous Local Limits; EPA POC; NPDES Limit |
| Suspended Solids, Total (TSS) | Previous Local Limits; EPA POC; NPDES Limit |
| Ammonia (as N) | Previous Local Limits; EPA POC; NPDES Limit |
| Nitrate + Nitrate | NPDES Limit |
| Arsenic | Previous Local Limits; EPA POC |
| Beryllium | Previous Local Limits |
| Cadmium | Previous Local Limits; EPA POC |
| Chromium | Previous Local Limits; EPA POC |
| Copper | Previous Local Limits; EPA POC |
| Cyanide | Previous Local Limits; EPA POC |
| Fluoride | Previous Local Limits |
| Iron | Previous Local Limits |
| Lead | Previous Local Limits; EPA POC |
| Manganese | Previous Local Limits |
| Mercury | Previous Local Limits; EPA POC |
| Molybdenum | EPA POC |
| Nickel | Previous Local Limits; EPA POC |
| Selenium | Previous Local Limits; EPA POC |
| Silver | Previous Local Limits; EPA POC |
| Zinc | Previous Local Limits; EPA POC |

## Section 3

# Headworks Loading Analysis

The primary objective of this section is to describe the methodologies used to develop allowable headworks loadings. Included in this section are descriptions of AHL calculations based on various environmental criteria, including:

- Design criteria
- NPDES permit limits
- Water Quality Standards
- Activate sludge treatment inhibition
- Nitrification inhibition
- Anaerobic digestion inhibition
- Biosolids / sludge limits

Also included in this section are references to data sources used for calculating AHLs and the rationale for assumptions. Results of AHL calculations and determinations of the MAHLs are also provided.

## 3.1 Background

The Pleasant Grove WWTP is located at 5051 Westpark Drive, Roseville, CA 95747 (Figure 3-1). The facility discharges to the Pleasant Grove Creek in the Lower Sacramento watershed.

**Figure 3-1. Google Earth image of the Pleasant Grove Wastewater Treatment Plant**

*Imagery Date November 6, 2025*

The Dry Creek WWTP is located at 1800 Booth Road, Roseville, CA 95747 (Figure 3-1). The facility discharges to the Dry Creek in the Lower American watershed.

**Figure 3-2. Google Earth image of the Dry Creek Wastewater Treatment Plant**

*Imagery Date November 6, 2025*

### 3.1.1 Permits

Both Pleasant Grove WWTP and Dry Creek WWTP are authorized to discharge treated wastewater to under NPDES General Permit Number CAG585001 order R5-2023-0025, which became effective October 2, 2023 and expires on October 1, 2028.

The Pleasant Grove WWTP is authorized to discharge treated wastewater to the Pleasant Grove Creek under Notice of Applicability (NOA) R5-2023-0025-006. The permitted design flow for the WWTP is 12 mgd as provided in the NOA.

The Dry Creek WWTP is authorized to discharge treated wastewater to the Dry Creek under NOA R5-2023-0025-008. The permitted design flow for the WWTP is 18 mgd as provided in the NOA.

### 3.1.2 Treatment Processes

The Pleasant Grove WWTP is designed to treat 12 mgd. The Facility provides full nitrification and denitrification for nitrogen removal and uses tertiary filtration followed by ultraviolet light (UV) for disinfection. The components of the treatment system at the Facility include two bar screens, two aerated grit chambers, four primary clarifiers, three oxidation ditches, four secondary clarifiers, six sand filters, four UV disinfection channels, three storage basins totaling 64 million gallons storage capacity, one influent emergency storage basin with 20.6 million gallons storage capacity, and two anerobic digesters.

The Dry Creek WWTP is designed to treat 18 mgd. The components of the treatment system at the Facility include headworks with screening and grit removal, four primary clarifiers, eight aeration basins with nitrification/denitrification, six secondary clarifiers, four cooling towers, three sand/anthracite down-flow tertiary filters, five UV disinfection channels, one concrete lined UV backwash water pond, one 2-acre concrete lined emergency storage pond and one 16-acre high-density polyethylene (HDPE) lined emergency storage pond. Solids handling facilities include a

gravity belt thickener, anaerobic sludge digesters, sludge holding tanks, and a belt filter press. The Biosolids are land applied or composted by a third-party contractor under the contractor's Waste Discharge Requirements.

## 3.2 Site-Specific Flows and Removal Efficiencies

Average flow rates are used to calculate AHLs for all criteria. All applicable LLE flows for the WWTPs and contributing SIUs are summarized in Appendix D, Tables D1, D2, and D3. The average plant flows of 9.34 mgd for Pleasant Grove WWTP and 10.76 mgd for Dry Creek WWTP were calculated from the monthly average influent flows from January 2024 through December 2024. An average industrial flow of 0.46 mgd for Pleasant Grove WWTP and 0.11 mgd for Dry Creek WWTP was calculated using annual average industrial flows from 2024.

Site-specific removal efficiencies, $R_{WWTP}$, were calculated using historic influent and effluent sampling data of the WWTPs from 2023 through 2025, as presented in Tables D4, D5, D6, and D7. If an appropriate removal efficiency could not be calculated from the sampling data (e.g., if all results are non-detect), literature values were used.

Literature values for primary removal efficiencies, as reported by other POTWs in studies that have been published in professional journals or by EPA, were used in developing local limits. These literature-based data are presented in Appendix R of EPA's *Local Limits Development Guidance Manual* (EPA 2004) and can be found in Appendix B, Table B1.

## 3.3 Calculation of AHLs Based on Permit Limits

An effective means of restricting the discharge of pollutants into receiving waters is through an NPDES permit limit. NPDES is the permitting system established by the Clean Water Act that regulates the discharge of pollutants into the waters of the United States. NPDES permit limits applied to discharges from the WWTPs are used in the derivation of local limits to prevent pollutant pass-through.

The WWTP NPDES permits include monthly average, 7-day average, and daily maximum discharge limitations for POCs outlined in Table A2 of Appendix A. EPA recommends that only the more conservative monthly average concentrations be used in calculating NPDES-based AHLs. Monthly average permit limits were used to calculate AHLs for POCs for which a value exists.

As illustrated in Equation 3-1, an AHL based on an NPDES permit limit ($AHL_{NPDES}$) is the pollutant loading at the WWTP flow ($C_{NPDES}$ * $Q_{WWTP}$) divided by the fraction of the pollutant not removed by the plant (1 – $R_{WWTP}$).

*Equation 3-1*

$$AHL_{NPDES} = \frac{(8.34)(C_{NPDES})(Q_{WWTP})}{(1-R_{WWTP})}$$

Where:

| | |
|---|---|
| $AHL_{NPDES}$ | = AHL based on NPDES permit limit, lb/day |
| $C_{NPDES}$ | = NPDES permit limit or APP limit, mg/L |
| $Q_{WWTP}$ | = WWTP average flow rate, mgd |
| $R_{WWTP}$ | = Plant removal efficiency from headworks to plant effluent, as decimal |
| 8.34 | = Conversion factor, lb/gal |

### 3.3.1 Data Sources and Assumptions

Calculations were performed based on the following components.

**Flow Rates.**

Average flows from Appendix D, Table D1 for the WWTPs were used in this calculation: $Q_{WWTP}$, 9.34 mgd for Pleasant Grove WWTP and 10.76 mgd for Dry Creek WWTP.

**Permit Limits.**

WWTP NPDES permit limits for POCs, $C_{NPDES}$, are shown in Appendix A, Table A2.

**Plant Removal Efficiencies.**

Site-specific removal efficiencies, $R_{WWTP}$, described in 3.2, were used in this calculation. No Literature values were used.

### 3.3.2 Calculation Results

The calculation results for the AHLs to ensure compliance with the permit limits at the WWTPs are provided in Appendix E, Table E3 and Appendix F, Table F3.

## 3.4 Calculation of AHLs Based on Water Quality Standards and Maximum Contaminant Levels

WQSs and Primary MCLs established by EPA and the State of California were used to calculate AHLs for the protection of the receiving stream. As illustrated in Equation 3-2, AHLs based on state WQS ($AHL_{WQS}$) are calculated as the pollutant loading to the water body at the water quality limit [$C_{WQS}$ * $Q_{WWTP}$) and divided by the fraction of the pollutant not removed by the plant (1 – $R_{WWTP}$).

*Equation 3-2*

$$AHL_{WQS} = \frac{(8.34)(C_{WQS})(Q_{WWTP})}{(1-R_{WWTP})}$$

Where:

| | |
|---|---|
| $AHL_{WQS}$ | = AHL based on state WQS, lb/day |
| $C_{WQS}$ | = In-stream state WQS, mg/L |
| $Q_{WWTP}$ | = WWTP average flow rate, mgd |
| $R_{WWTP}$ | = Plant removal efficiency from headworks to plant effluent, as decimal |
| 8.34 | = Conversion factor, lb/gal |

### 3.4.1 Data Sources and Assumptions

AHLs based on WQS were calculated using Equation 3-2. The following data sources and assumptions were used.

**Receiving Stream Flow Rates.**

No mixing zone information is provided in the NOAs R5-2023-0025-008 or R5-2023-0025-006 for NPDES permit CAG585001. In order to be conservative, a stream flow of zero (0) mgd was used in the calculations.

**Water Quality Standards and Maximum Contaminant Levels.**

As noted in the NOAs R5-2023-0025-008 and R5-2023-0025-006, the designated uses for the Pleasant Grove Creek and Dry Creek are Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2), Warm Freshwater Habitat (WARM), Cold Freshwater Habitat (COLD), Wildlife Habitat (WILD), Navigation (NAV), Migration of Aquatic Organisms (MIGR), and Spawning, Reproduction, and/or Early Development (SPWN). The WQS from *40 CFR 131.38 Establishment of numeric criteria for priority toxic pollutants for the State of California* for these use classifications were used in the calculations. These values

are provided in Appendix A, Table A4,A5,A6, and A7. A hardness value of 75.2 mg/L for Pleasant Grove WWTP and 79.3 mg/L for Dry Creek WWTP was used for hardness-dependent metals criteria calculations. The Basin Plan for the Central Valley region states that at a minimum surface water designated for use as MUN shall not contain concentrations of chemical constituents in excess of the MCLs specified in the provisions of Title 22 of the California Code of Regulations (Title 22). MCLs were included as a criteria for this evaluation, these values are provided in Appendix A, Table A5 and A7.

**Flow Rates.**

Average flows from Appendix D, Table D1 for the WWTPs were used in this calculation: $Q_{WWTP}$, 9.34 mgd for Pleasant Grove WWTP and 10.76 mgd for Dry Creek WWTP.

### 3.4.2 Calculation Results

The final WQS and MCLs for POCs are listed in Appendix A, Table A5 and A7. The data and calculation results for the AHLs to ensure compliance with the WQS at the WWTPs are provided in Appendix E, table E8 and Appendix F, table F8. AHLs based on WQS and MCLs were calculated only for those pollutants with established standards or criteria.

## 3.5 Calculation of AHLs Based on Activated Sludge Treatment Inhibition

Inhibition-based AHLs were calculated to protect against operational problems for biological treatment processes during secondary treatment. This inhibition can interfere with a POTW's ability to remove pollutants, including BOD. EPA does not require POTWs to calculate AHLs based on inhibition threshold levels if current loadings are acceptable to the treatment processes. For the WWTPs, AHLs were calculated to prevent future loadings that may cause inhibition.

As illustrated in Equation 3-3, the AHL based on inhibition of activated sludge treatment ($AHL_{INHIB1}$) is calculated by dividing the pollutant loading to the secondary treatment unit at the inhibition criterion ($C_{INHIB1}$ * $Q_{WWTP}$) by the fraction of the pollutant not removed after primary treatment (1 - $R_{PRIM}$).

*Equation 3-3*

$$AHL_{INH1} = \frac{(8.34)(C_{INHIB1})(Q_{WWTP})}{(1-R_{PRIM})}$$

Where:

| | |
|---|---|
| $AHL_{INHIB1}$ | = AHL based on inhibition of activated sludge treatment, lb/day |
| $C_{INHIB1}$ | = Inhibition criterion for activated sludge treatment, mg/L |
| $Q_{WWTP}$ | = WWTP average flow rate, mgd |
| $R_{PRIM}$ | = Removal efficiency from headworks to primary treatment effluent, decimal |
| 8.34 | = Conversion factor, lb/gal |

### 3.5.1 Data Sources and Assumptions

AHLs based on activated sludge inhibition were calculated using Equation 3-3. The following data sources and assumptions were used.

**Activated Sludge Inhibition Thresholds.**

Inhibition threshold levels have been reported at other POTWs, as provided in EPA's *Local Limits Development Guidance Manual* (EPA 2004). These literature-based inhibition threshold levels for activated sludge treatment, $C_{INHIB1}$, are provided in Appendix B, Table B3. Site-specific inhibition threshold levels were not available. Therefore, all inhibition threshold levels are based on literature values. Where the literature provided a range of inhibition thresholds values, the median reported threshold levels were used in calculating the AHLs.

**Flow Rate**.

Average flows from Appendix D, Table D1 for the WWTPs were used in this calculation: $Q_{WWTP}$, 9.34 mgd for Pleasant Grove WWTP and 10.76 mgd for Dry Creek WWTP.

**Primary Removal Efficiencies.**

Primary removal efficiencies reported by other POTWs in studies that have been published in professional journals or by EPA were used calculating the AHLs. These literature-based data are presented in Appendix R of EPA's *Local Limits Development Guidance Manual* (EPA 2004) and can be found in Appendix B, Table B1.

### 3.5.2 Calculation Results

The data and calculation results for the AHLs to protect against activated sludge treatment inhibition at the WWTPs are provided in Appendix E, Table E4 and Appendix F, Table F4.

## 3.6 Calculation of AHLs Based on Nitrification Inhibition

Inhibition-based AHLs were calculated to protect against operational problems for nitrification. EPA does not require POTWs to calculate AHLs based on inhibition threshold levels if current loadings are acceptable to the treatment processes. For the WWRPs, AHLs were calculated to prevent future loadings that may cause inhibition.

As illustrated in Equation 3-4, the AHL based on inhibition of nitrification ($AHL_{INHIB2}$) is calculated by dividing the pollutant loading to the secondary treatment unit at the inhibition criterion ($C_{INHIB2}$ * $Q_{WWTP}$) by the fraction of the pollutant not removed after primary treatment (1 - $R_{PRIM}$).

*Equation 3-4*

$$AHL_{INHIB2} = \frac{(8.34)(C_{INHIB2})(Q_{WWTP})}{(1-R_{PRIM})}$$

Where:

| | |
|---|---|
| $AHL_{INHIB2}$ | = AHL based on inhibition of nitrification, lb/day |
| $C_{INHIB2}$ | = Inhibition criterion for nitrification, mg/L |
| $Q_{WWTP}$ | = WWTP average flow rate, mgd |
| $R_{PRIM}$ | = Removal efficiency from headworks to primary treatment effluent, decimal |
| 8.34 | = Conversion factor, lb/gal |

### 3.6.1 Data Sources and Assumptions

AHLs based on nitrification inhibition were calculated using Equation 3-4. The following data sources and assumptions were used.

**Nitrification Inhibition Thresholds.**

Inhibition threshold levels have been reported at other POTWs, as provided in EPA's *Local Limits Development Guidance Manual* (EPA 2004). These literature-based inhibition threshold levels for nitrification, $C_{INHIB2}$, are provided in Appendix B, Table B4. Site-specific inhibition threshold levels were not available. Therefore, all inhibition threshold levels are based on literature values. Where the literature provided a range of inhibition thresholds values, the median reported threshold levels were used in calculating the AHLs.

**Flow Rate**.

Average flows from Appendix D, Table D1 for the WWTPs were used in this calculation: $Q_{WWTP}$, 9.34 mgd for Pleasant Grove WWTP and 10.76 mgd for Dry Creek WWTP.

**Primary Removal Efficiencies.**

Primary removal efficiencies reported by other POTWs in studies that have been published in professional journals or by EPA were used calculating the AHLs. These literature-based data are presented in Appendix R of EPA's *Local Limits Development Guidance Manual* (EPA 2004) and can be found in Appendix B, Table B1.

### 3.6.2 Calculation Results

The data and calculation results for the AHLs to protect against nitrification inhibition at the WWTPs are provided in Appendix E, Table E5 and Appendix F, Table F5.

## 3.7 Calculation of AHLs Based on Anaerobic Digestion Inhibition

Inhibition-based AHLs were calculated to protect against operational problems for anaerobic digestion. EPA does not require POTWs to calculate AHLs based on inhibition threshold levels if current loadings are acceptable to the treatment processes. For the WWTPs, AHLs were calculated to prevent future loadings that may cause inhibition.

As illustrated in Equation 3-5, the AHLs based on inhibition of anaerobic digestion ($AHL_{INHIB3}$) are calculated by dividing the pollutant loading to the digesters at the inhibition criterion ($C_{INHIB3}$ * $Q_{DIG}$) by the fraction of the pollutant removed by the WWTPs ($R_{WWTP}$).

*Equation 3-5*

$$AHL_{INHIB_3} = \frac{(8.34)(C_{INHIB3})(Q_{DIG})}{(R_{WWTP})}$$

Where:

| | |
|---|---|
| $AHL_{INHIB3}$ | = AHL based on inhibition of anaerobic digestion, lb/day |
| $C_{INHIB3}$ | = Inhibition criterion for anaerobic digestion, mg/L |
| $Q_{DIG}$ | = Digester average flow rate, mgd |
| $R_{WWTP}$ | = Removal efficiency from headworks to plant effluent, decimal |
| 8.34 | = Conversion factor, lb/gal |

### 3.7.1 Data Sources and Assumptions

AHLs based on anaerobic digestion inhibition were calculated using Equation 3-5. The following data sources and assumptions were used.

**Anaerobic Digestion Inhibition Thresholds.**

Inhibition threshold levels have been reported at other POTWs, as provided in EPA's *Local Limits Development Guidance Manual* (EPA 2004). These literature-based inhibition threshold levels for anaerobic digestion, $C_{INHIB3}$, are provided in Appendix B, Table B5. Site-specific inhibition threshold levels were not available. Therefore, all inhibition threshold levels are based on literature values. Where the literature provided a range of inhibition thresholds values, the median reported threshold levels were used in calculating the AHLs.

**Flow Rate**.

Average flow to the digesters for the WWTPs are provided in Appendix C, Table C1: $Q_{DIG}$, 0.03 mgd for Pleasant Grove WWTP and 0.05 mgd for Dry Creek WWTP.

**Plant Removal Efficiencies.**

Site-specific removal efficiencies and literature values, $R_{WWTP}$, described in 3.2, were used in this calculation.

### 3.7.2 Calculation Results

The data and calculation results for the AHLs to protect against anaerobic digestion inhibition at the WWTPs are provided in Appendix E, Table E6 and Appendix F, Table F6.

## 3.8 Calculation of AHLs Based on Design Criteria

Some pollutants such as BOD and TSS require additional evaluation before MAHLs are established because POTWs are typically designed to treat these pollutants. EPA recommends that POTWs investigate options to reduce or respond to future loadings when the POTW begins to operate at 80 to 90 percent of its design capacity for 3 to 6 consecutive months. In addition, if the rate of increase in pollutant loadings suggests that the full capacity of the WWTPs will be used within 5 to 7 years, then planning to avoid future violations should begin immediately.

As illustrated in Equation 3-6, the AHL based on design criteria ($AHL_{DESIGN}$) is the design criteria in lb/day.

*Equation 3-6* $$AHL_{DESIGN} = DC$$

Where:

$AHL_{DESIGN}$ = AHL based on design criteria, lb/day
DC = Design criteria, lb/day

### 3.8.1 Data Sources and Assumptions

AHLs based on design criteria were calculated using Equation 3-6. The following data sources and assumptions were used.

**Design Criteria.**

Design loadings from the Pleasant Grove Design Submittal for Expansion, 2020; Dry Creek WWTP Capacity Analysis,2023; and the South Placer Regional Wastewater 2020 Systems Evaluation Report, 2020 as provided by the City of Roseville were used.

### 3.8.2 Calculation Results

The data and calculation results for the AHLs based on design criteria for the WWTPs are provided in Appendix E, Table E2 and Appendix F, Table F2.

## 3.9 Calculation of AHLs Based on Sludge Disposal Regulations

Sludge disposal-based AHLs can be calculated for sludge depending on its end use. For example, sludge may be applied to land to condition the soil or fertilize crops, disposed of in a landfill, or incinerated. Biosolids are land applied or composted by a third-party contractor under the contractor's Waste Discharge Requirements. Therefore, land application concentrations from 40 CFR Part 503 were used. The concentrations are found in Table A8 of Appendix A.

As illustrated in Equation 3-7, the AHL based on sludge regulations ($AHL_{SLUDGE}$) is calculated by dividing the pollutant loading of sludge at the sludge standard ($C_{SLUDGE}$ * $Q_{SLUDGE}$) by the overall plant removal efficiency ($R_{WWTP}$).

*Equation 3-7* $$AHL_{SLUDGE} = \frac{(C_{SLUDGE})(Q_{SLUDGE})(0.0022)}{(R_{WWTP})}$$

Where:

$AHL_{SLUDGE}$ = AHL based on sludge regulations, lb/day
$C_{SLUDGE}$ = Most stringent sludge standard, mg/kg-dry
$Q_{SLUDGE}$ = Total sludge flow to disposal, dry metric tons/day

$R_{WWTP}$ = Removal efficiency from headworks to final effluent, decimal
0.0022 = Conversion factor

### 3.9.1 Data Sources and Assumptions

AHLs based on sludge regulations were calculated using Equation 3-7. The following data sources and assumptions were used.

**Sludge Disposal Criteria**

The sludge criteria used in the equation, $C_{SLUDGE}$, is the land application criteria listed in Table A8 of Appendix A.

**Flow Rate**.

The sludge flow to disposal was based on data from March 2023 through February 2024 . The average dry tons of sludge sent to disposal for the WWTPs are provided in Appendix C, Table C2: $Q_{SLUDGE}$, 7.47 average dry tons per day for Pleasant Grove WWTP and 7.43 average dry tons per day for Dry Creek WWTP.

**Plant Removal Efficiencies.**

Plant removal efficiencies were applied as discussed in Section 3.2.

### 3.9.2 Calculation Results

The data and calculation results for the AHLs based on sludge disposal regulations for the WWTPs are provided in Appendix E, Table E7 and Appendix F, Table F7.

## 3.10 Maximum Allowable Headworks Loadings

Appendix E, Table E9 and Appendix F, Table F9 provide a summary of the AHLs calculated to ensure compliance with each of the environmental criteria: design criteria, permit limits, activated sludge treatment inhibition, nitrification inhibition, anaerobic digestion inhibition, sludge disposal and WQS and MCL. Appendix E, Table E11 and Appendix F, Table F11 identifies the most stringent AHL for each POC, referred to as the MAHL. This loading is the maximum loading the WWTP can accept at the headworks, and it is used to calculate the MAILs and local limits. Appendix G, Table 1 provides a comparison of the calculated MAHLs for the Pleasant Grove WWTP and Dry Creek WWTP.

EPA recommends that local limits are needed when the current average influent loading of a toxic pollutant exceeds 60 percent of the MAHL, when the maximum daily influent loading of a toxic pollutant exceeds 80 percent of the MAHL any time during the 12-month period preceding the analysis, or when the monthly average influent loading reaches 80 percent of average design capacity for BOD and TSS during any one month in the 12-month period preceding the analysis. Equation 3-8 is used to compare the WWTP loadings based on influent concentrations and flow to the calculated MAHLs for individual POCs and can be used to calculate the percentage of the MAHL currently being received at the WWTP. The average influent loading was used in this equation for all POCs.

*Equation 3-8* $$L_{\%} = \frac{L_{INFL}}{MAHL} * 100$$

Where: $$L_{INFL} = 8.34 \times Q_{WWTP} \times C_{INFL}$$

and:

| | | |
|---|---|---|
| $L_{\%}$ | = | Percentage of MAHL currently utilized, percent |
| $L_{INFL}$ | = | Current influent loading, lb/day |
| MAHL | = | Calculated MAHL, lb/day |
| $Q_{WWTP}$ | = | WWTP average flow rate, mgd |
| $C_{INFL}$ | = | Average influent pollutant loading, lb/day |
| 8.34 | = | Conversion factor, lb/gal |

### 3.10.1 Data Sources and Assumptions

Average influent concentrations were used (Appendix D, Tables D4, D5, D6, and D7). Using the average flow rates (9.34 mgd for Pleasant Grove WWTP and 10.76 mgd for Dry Creek WWTP) and the conversion factor 8.34, the average influent concentrations were converted to average influent loadings for use in Equation 3-8.

### 3.10.2 Calculation Results

Calculated percentages of MAHLs currently received at the WWTPs are provided in Appendix E, Table E11 and Appendix F, Table F11. No new local limits for parameters without existing local limits were developed solely based on the comparison of current loadings to MAHLs.

Standards to develop MAHLs for Iron and Manganese are not available. The City is requesting removal of local limits for these parameters.

The MAHL and limiting criteria for each POC is provided below in Tables 3-1 and 3-2.

**Table 3-1. Proposed Maximum Allowable Headworks Loadings for Pleasant Grove WWTP**

| Pollutant | Maximum Allowable Headworks Loading (lb/day) | Technical Basis |
|---|---|---|
| Biochemical Oxygen Demand (BOD) | 27,277 | Design Criteria |
| Suspended Solids, Total (TSS) | 24,939 | Design Criteria |
| Ammonia (as N) | 2,806 | Design Criteria |
| Nitrate + Nitrate | 779 | Permit Limits |
| Arsenic | 0.72 | Anaerobic Digestion Inhibition |
| Beryllium | 0.31 | Water Quality Standards |
| Cadmium | 0.5 | Water Quality Standards |
| Chromium | 4.8 | Water Quality Standards |
| Copper | 11.4 | Anaerobic Digestion Inhibition |
| Cyanide | 0.41 | Water Quality Standards |
| Fluoride | 155.867 | Water Quality Standards |
| Iron | ---- | |
| Lead | 2.7 | Water Quality Standards |
| Manganese | ---- | |
| Mercury | 0.3 | Sludge Disposal |
| Molybdenum | 1.6 | Sludge Disposal |
| Nickel | 6.2 | Water Quality Standards |
| Selenium | 1.3 | Water Quality Standards |

| Table 3-1. Proposed Maximum Allowable Headworks Loadings for Pleasant Grove WWTP | | |
|---|---|---|
| Pollutant | Maximum Allowable Headworks Loading (lb/day) | Technical Basis |
| Silver | 1.2 | Water Quality Standards |
| Zinc | 31.0 | Nitrification Treatment Inhibition |

| Table 3-2. Proposed Maximum Allowable Headworks Loadings for Dry Creek WWTP | | |
|---|---|---|
| Pollutant | Maximum Allowable Headworks Loading (lb/day) | Technical Basis |
| Biochemical Oxygen Demand (BOD) | 33,900 | Design Criteria |
| Suspended Solids, Total (TSS) | 42,800 | Design Criteria |
| Ammonia (as N) | 3,052 | Design Criteria |
| Nitrate + Nitrate | 898 | Permit Limits |
| Arsenic | 1.30 | Water Quality Standards |
| Beryllium | 0.36 | Water Quality Standards |
| Cadmium | 0.8 | Water Quality Standards |
| Chromium | 4.4 | Water Quality Standards |
| Copper | 9.2 | Water Quality Standards |
| Cyanide | 0.47 | Water Quality Standards |
| Fluoride | 179.542 | Water Quality Standards |
| Iron | ---- | |
| Lead | 1.9 | Water Quality Standards |
| Manganese | ---- | |
| Mercury | 0.3 | Sludge Disposal |
| Molybdenum | 1.6 | Sludge Disposal |
| Nickel | 9.7 | Water Quality Standards |
| Selenium | 1.2 | Water Quality Standards |
| Silver | 2.0 | Water Quality Standards |
| Zinc | 35.7 | Water Quality Standards |

Section 4

# Maximum Allowable Industrial Loading and Local Limit Calculations

The primary objective of this section is to describe the methodologies used to develop MAILs and local limits.

Also included in this section are details regarding safety factors and industrial allocations, data sources, and rationale for assumptions. Results of MAIL and local limits calculations are also provided.

## 4.1 Maximum Allowable Industrial Loadings

The MAIL is the estimated maximum loading of a pollutant that can be received at a POTW's headworks from all permitted industrial users and other controlled sources without causing pass-through or interference. As shown in Equation 4-1, the MAIL is calculated by subtracting estimates of loadings from uncontrolled sources ($L_{UNC}$), from a MAHL adjusted with a safety and growth factor (SGF).

*Equation 4-1* $$MAIL = MAHL(1 - SF) - (L_{UNC})$$

Where: $$L_{UNC} = (C_{UNC} \times Q_{UNC} \times 8.34)$$

and:

| | | |
|---|---|---|
| MAIL | = | Maximum allowable industrial loading, lb/day |
| MAHL | = | Maximum allowable headworks loading, lb/day |
| $L_{UNC}$ | = | Loadings from uncontrolled sources, lb/day |
| SF | = | Safety factor, decimal |
| $C_{UNC}$ | = | Domestic and commercial background levels, mg/L |
| $Q_{UNC}$ | = | Domestic and commercial flow, mgd |
| 8.34 | = | Conversion factor, lb/gal |

### 4.1.1 Eliminated Pollutants of Concern

As noted in Section 3.10, local limits are not needed for a POC if the percent of MAHL in use is below the recommended threshold.

The percentage of MAHL in use for nitrate+nitrite and beryllium was below the recommended thresholds, therefore MAILs and local limits for these parameters were not developed. If the City identifies an increase in the loadings for these parameters, the need for MAILs and local limits will be reevaluated. MAILs were calculated for all other POCs.

### 4.1.2 Data Sources and Assumptions

**Flow Rates.**

Average flow for the Pleasant Grove WWTP from domestic and commercial sources ($Q_{UNC}$) is 8.89 mgd and was calculated by subtracting total industrial flow, 0.46 mgd, ($Q_{IND}$) from the WWTP average flow rate ($Q_{WWTP}$) of 9.34 mgd. Average flow for the Dry Creek WWTP from domestic and commercial sources ($Q_{UNC}$) is 10.66 mgd and was calculated by subtracting total industrial flow, 0.11 mgd, ($Q_{IND}$) from the WWTP average flow rate ($Q_{WWTP}$) of 10.76 mgd.

**Domestic and Commercial Wastewater Background Concentrations.**

The average domestic/commercial background concentrations of POCs were calculated using results from background sampling in the City's collection system conducted August 19, 2025 through August 26, 2025. Sample collection sites were selected within the City's collection system that are exclusive to domestic and commercial flows and independent of any industrial contributions.

**Safety and Growth Factor.**

The main purpose of a safety factor is to address data "uncertainties" that can affect the ability of the WWTPs to calculate accurate local limits. At a minimum, EPA recommends a 10 percent safety factor. Safety factors can vary between POCs and should depend on the variability of the WWTP's data, amount of data the WWTP used to develop its MAHLs, quality of the WWTP's data, amount of literature data used, history of compliance with the parameter, and potential for industrial user slug loadings (for example, because of a chemical spill or flood event). In addition to the safety factor, a growth factor can be incorporated to account for anticipated growth in the service area from present until the local limits will be reevaluated.

A safety factor of 20 percent was used in the evaluation for all parameters with the exception of fluoride. A safety factor of 10 percent was used for fluoride to allow for additional capacity within the MAIL to accommodate the industrial users needs to meet compliance. No additional growth factor was included at the City's discretion.

### 4.1.3 Calculation Results

Appendix E and Appendix F provide the calculated MAILs. Appendix G provides a comparison of the calculated MAILs of the two WWTPs. Table 4-1 presented below summarizes the most stringent MAILs and corresponding protective basis and limiting facility.

**Table 4-1. Proposed Maximum Allowable Industrial Loadings**

| Pollutant | Maximum Allowable Industrial Loading (lb/day) | Technical Basis | Limiting Facility |
|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 2,427 | Design Criteria | Pleasant Grove |
| Suspended Solids, Total (TSS) | 6,824 | Design Criteria | Pleasant Grove |
| Ammonia (as N) | ----[1] | Design Criteria | Pleasant Grove / Dry Creek |
| Arsenic | 0.55 | Nitrification Treatment Inhibition | Pleasant Grove |
| Cadmium | 0.41 | Water Quality Standards | Pleasant Grove |
| Chromium | 3.41 | Water Quality Standards | Dry Creek |
| Copper | 5.57 | Water Quality Standards | Dry Creek |

| | | | |
|---|---|---|---|
| Cyanide | 0.24 | Water Quality Standards | Pleasant Grove |
| Fluoride | 83.64 | Water Quality Standards | Pleasant Grove |
| Lead | 1.50 | Water Quality Standards | Dry Creek |
| Mercury | 0.22 | Sludge Disposal | Pleasant Grove / Dry Creek |
| Molybdenum | 1.18 | Sludge Disposal | Dry Creek |
| Nickel | 4.84 | Water Quality Standards | Pleasant Grove |
| Selenium | 0.95 | Water Quality Standards | Dry Creek |
| Silver | 0.94 | Water Quality Standards | Pleasant Grove |
| Zinc | 16.57 | Nitrification Treatment Inhibition | Pleasant Grove |

[1] The calculated MAIL for ammonia is negative due to the domestic loading exceeding the MAHL. A uniform concentration local limit of 55.5 mg/L will be set based upon maximum recorded background concentrations.

## 4.2 Local Limits

A POTW can then use several basic approaches to assign limits to its controlled or permitted dischargers, including limits based on industrial user contributions of a pollutant, uniform limits for all controlled dischargers, as needed case-by-case, or creative allocation methods. These approaches can vary between POTWs and pollutants. For this LLE, uniform concentration-based limits were developed. As illustrated in Equation 4-2, this method of allocating MAILs yields a single concentration-based limit per pollutant ($C_{LIM}$) that applies to every controlled discharger. In this equation, the MAIL for each pollutant is divided by the total industrial flow rate, $Q_{IND}$.

*Equation 4-2*

$$C_{LIM} = \frac{MAIL}{Q_{IND}\ X\ 8.34}$$

Where:

$$Q_{IND} = Q_{WWTP} - Q_{DOM}$$

and:

$C_{LIM}$ = Concentration-based local limit, mg/L
MAIL = Maximum allowable industrial loading, lb/day
$Q_{IND}$ = Total flow rate from industrial sources, mgd
$Q_{DOM}$ = Total flow rate from domestic/commercial sources, mgd
$Q_{WWTP}$ = WWTP average flow rate, mgd
8.34 = Conversion factor, lb/gal

### 4.2.1 Data Sources and Assumptions

**Flow Rates.**

Average flow for the Pleasant Grove WWTP from domestic and commercial sources ($Q_{UNC}$) is 8.89 mgd and was calculated by subtracting total industrial flow, 0.46 mgd, ($Q_{IND}$) from the WWTP average flow rate ($Q_{WWTP}$) of 9.34 mgd. Average flow for the Dry Creek WWTP from domestic and commercial sources ($Q_{UNC}$) is 10.66 mgd and was calculated by subtracting total industrial flow, 0.11 mgd, ($Q_{IND}$) from the WWTP average flow rate ($Q_{WWTP}$) of 10.76 mgd.

### 4.2.2 Calculation Results

The uniform local limits calculations are provided in Appendix G, Table 1. The most stringent local limit of the two plants was selected. A summary of the proposed local limits is also provided in Section 5 of this report.

## 4.3 Oil and Grease

The pretreatment regulations in 40 CFR 403.5(b)(6) prohibit the discharge of "petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass-through." If treatment inhibition is occurring, WWTPs could calculate oil and grease removal efficiencies, determine inhibition criteria, and determine AHLs based on inhibition. According to EPA, most WWTPs have adopted a limit between 100 and 400 mg/L limit for fats, oil, and grease of animal or vegetable origin as determined by an approved analytical procedure for oil and grease analysis. The City currently uses a 100 mg/L oil and grease limit. The current oil and grease limit of 100 mg/L will be maintained.

## 4.4 Removal of Local Limits

As noted in Section 2.3.1, phenol, hydrocarbon solvents, and TTO have existing local limits but were not considered POCs. The City is requesting removal of local limits for these parameters.

## 4.5 pH

Besides the low-end pH limit specified in the General Pretreatment Regulations, EPA recommends WWTPs evaluate the need to set upper pH limits or more stringent low-end pH limits. A POTW should set an upper pH limit if corrosion damage attributable to high-pH discharges is identified. An upper limit pH of up to 12.5 may be an appropriate upper limit in lieu of any identified high pH corrosion concerns. However, because wastewater of pH 12.5 or higher is considered a hazardous waste (exhibiting the characteristic of corrosivity) under 40 CFR 261.22(a)(1), additional reporting and liability results when hazardous waste is discharged to a sanitary sewer. The POTW needs to set an upper pH limit that is protective of the POTW, but also allows for some margin of safety to avoid characterization as hazardous waste.

The City currently uses the pH range limit of 5.5 to 9.0 S.U. There were no identified issues with the current pH range; therefore, the pH range limit will remain at 5.5 to 9.0 S.U.

## 4.6 Summary

The calculated local limits that apply to all non-domestic dischargers to the WWTPs are provided in Section 5. Because the headworks loading analysis for nitrate+nitrite indicates that the influent loadings are well below the corresponding MAHLs, new local limits for these parameters are not needed. A new local limit is proposed for molybdenum to ensure compliance with biosolids criteria for beneficial reuse.

Based on this comprehensive evaluation, industrial discharges below the proposed limits are not expected to cause interferences with treatment processes at the WWTPs, pass through the WWTPs, or contaminate biosolids. Table 5-1 provides a summary of the existing and proposed local limits.

## Section 5

# Final Proposed Local Limits

Table 5-1 provides a summary of the existing local limits, calculated MAILs, and proposed local limits for the WWTPs. The City is requesting the approval of the MAILs and uniform local limits. The MAILs may be re-allocated in the future as needed in either mass- or concentration- based limits. The final proposed MAILs and local limits are as follows:

**Table 5-1. Final Proposed Local Limits for City of Roseville**

| Pollutant | Existing Local Limits (mg/L) | Calculated MAIL (lb/day) | Proposed Local Limits (mg/L) |
|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 240 | 2,427 | 634 |
| Suspended Solids, Total (TSS) | 250 | 6,824 | 1,782 |
| Ammonia (as N) | 20 | ----[1] | ----[2] |
| Arsenic | 0.1 | 0.55 | 0.14 |
| Cadmium | 0.01 | 0.41 | 0.11 |
| Chromium | 0.56 | 3.41 | 0.98 |
| Copper | 0.13 | 5.57 | 1.99 |
| Cyanide | 0.01 | 0.24 | 0.06 |
| Fluoride | 5.5 | 83.64 | 21.84 |
| Lead | 0.04 | 1.50 | 0.55 |
| Mercury | 0.02 | 0.22 | 0.06 |
| Molybdenum | ----- | 1.18 | 0.31 |
| Nickel | 0.31 | 4.84 | 1.26 |
| Selenium | 0.006 | 0.95 | 0.26 |
| Silver | 0.04 | 0.94 | 0.25 |
| Zinc | 0.16 | 16.57 | 4.33 |

[1] MAIL is negative due to the domestic loading exceeding the MAHL

[2] The calculated MAIL for ammonia is negative due to the domestic loading exceeding the MAHL. A uniform concentration local limit of 55.5 mg/L will be set based upon maximum recorded background concentrations.

## Section 6

# Limitations

This document was prepared solely for the City of Roseville in accordance with professional standards at the time the services were performed and in accordance with the contract between City and Brown and Caldwell dated July 26, 2024. This document is governed by the specific scope of work authorized by the City; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by the City and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

Further, Brown and Caldwell makes no warranties, express or implied, with respect to this document, except for those, if any, contained in the agreement pursuant to which the document was prepared. All data, drawings, documents, or information contained this report have been prepared exclusively for the person or entity to whom it was addressed and may not be relied upon by any other person or entity without the prior written consent of Brown and Caldwell unless otherwise provided by the Agreement pursuant to which these services were provided.

## Section 7

# References


Central Valley Regional Water Quality Control Board, July 11, 2023, *Permit No. CAG585001, Municipal General Order.*

Central Valley Regional Water Quality Control Board, June 27, 2025, *NOA R5-2023-0025-006*, *Pleasant Grove.*

Central Valley Regional Water Quality Control Board, June 27, 2025, *NOA R5-2023-0025-008*, *Dry Creek*

Woodard & Curran, April 24, 2023, *Dry Creek Wastewater Treatment Plant (DCWWTP) Capacity Capital Analysis Draft Technical Memorandum.*

Kennedy/Jenks Consultants, 2020, *Pleasant Grove Design Submittal for Expansion 2020.*

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Eckenfelder, Wesley, et al. *Activated Sludge: Treatment of Industrial Wastewater*. Switzerland, Taylor & Francis, 1995.

United States Environmental Protection Agency, 1982, *Fate of Priority Pollutants in Publicly Owned Treatment Works*, Volume I, EPA 440/1-82/303.

United States Environmental Protection Agency, 1987, *Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program.*

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United States Environmental Protection Agency, 1992, *Guidance to Protect POTW Workers from Toxic and Reactive Gases and Vapors,* EPA 812-B-92-001.

United States Environmental Protection Agency, 1994*, A Plain English Guide to the EPA Part 503 Biosolids Rule,* EPA 832-R-93-003.

United States Environmental Protection Agency, 2004*, Local Limits Development Guidance*, EPA 833-R-04-002A.

# Appendix A: Regulatory Limits and Criteria

| Table A1. Influent Basis of Design for City of Roseville, CA<br>Industrial Pretreatment Program: Local Limits Evaluation<br>City of Roseville, CA | | |
|---|---|---|
| Calculated Design Loading | | |
| Parameter | Pleasant Grove | Dry Creek |
| Flow - MGD | 12 [1] | 18 [2] |
| Biochemical oxygen demand, lbs/day | ---- | 33900 [3] |
| Biochemical oxygen demand, mg/L | 350 [1] | ---- |
| Total Suspended Solids, lbs/day | ---- | 42800 [3] |
| Biochemical oxygen demand, mg/L | 320 [1] | ---- |
| Ammonia, mg/L | 36 [1] | 34 [2] |

Source:

**Table A2. Permit Limits for City of Roseville, CA**
**Industrial Pretreatment Program: Local Limits Evaluation**
**City of Roseville, CA**

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Mass Limits (kg/day) | | | Concentration Limits (mg/L) | | | Minimum Measurement Frequency | Required Sample Type |
| | Monthly Average | Weekly Average | Daily Maximum | Monthly Average | Weekly Average | Daily Maximum | | |
| Pleasant Grove Outfall 001 Effluent Limits and Monitoring Requirements | | | | | | | | |
| Flow (continuous) MGD | | | | Report | Report | | Continuous | Meter |
| Biochemical oxygen demand (BOD5) | | | | 10 | 15 | | 1/week | 24-Hour Composite |
| Total Suspended Solids (TSS) | | | | 10 | 15 | | 1/week | 24-Hour Composite |
| BOD5 & TSS | | | | > 85% removal | | | 1/month | Calculated |
| Ammonia, Total (as N) | | | | 3.8 | 8.3 | | 1/week | Grab |
| Nitrate + Nitrite, Total (as N) | | | | 10.0 | 13.0 | | 1/month | Grab |
| Fecal Coliform Bacteria (MPN/100mL) | | | | 23 | 2.2 | 240.0 | 1/week | Grab |
| pH | Not less than 6.5 standard units (S.U.) nor greater than 8.5 S.U. | | | | | | 1/day | Grab |
| Electrical Conductivity @ 25 degrees C | Shall not exceed 900 umhos/cm | | | | | | 1/month | Grab |
| Dry Creek Outfall 001 Effluent Limits and Monitoring Requirements | | | | | | | | |
| Flow (continuous) MGD | | | | Report | Report | | Continuous | Meter |
| Biochemical oxygen demand (BOD5) | | | | 10 | 15 | | 1/week | 24-Hour Composite |
| Total Suspended Solids (TSS) | | | | 10 | 15 | | 1/week | 24-Hour Composite |
| BOD5 & TSS | | | | > 85% removal | | | 1/month | Calculated |
| Ammonia, Total (as N) | | | | 3.1 | 6.9 | | 1/week | Grab |
| Nitrate + Nitrite, Total (as N) | | | | 10.0 | 13.0 | | 1/month | Grab |
| Fecal Coliform Bacteria (MPN/100mL) | | | | 23 | 2.2 | 240.0 | 1/week | Grab |
| pH | Not less than 6.5 standard units (S.U.) nor greater than 8.5 S.U. | | | | | | 1/day | Grab |
| Electrical Conductivity @ 25 degrees C | Shall not exceed 900 umhos/cm | | | | | | 1/month | Grab |

| Table A3. Receiving Stream Hardness Summary<br>Industrial Pretreatment Program: Local Limits Evaluation<br>City of Roseville, CA | | |
|---|---|---|
| Date | Pleasant Grove Creek Hardness (mg/L) | Dry Creek Hardness (mg/L) |
| 7/9/2024 | 53 | 87 |
| 8/7/2024 | 52 | 85 |
| 9/3/2024 | 49 | 61 |
| 10/3/2024 | 47 | 52 |
| 11/12/2024 | 62 | 53 |
| 12/10/2024 | 70 | 75 |
| 1/7/2025 | 85 | 95 |
| 2/5/2025 | 96 | 62 |
| 3/12/2025 | 36 | 96 |
| 4/16/2025 | 149 | 96 |

**Table A4. Derivation of State Water Quality Standard for Metals for Pleasant Grove Industrial Pretreatment Program: Local Limits Evaluation Roseville, CA**

| Metal | Conversion Factor (CF) for Acute (CMC)[a] | Conversion Factor (CF) for Chronic (CCC)[a] | California WQS, Dissolved, Adjusted for Receiving Stream Hardness [b] (mg/L) | | California WQS, Total Recoverable, Adjusted for Receiving Stream Hardness [c] (mg/L) | |
|---|---|---|---|---|---|---|
| | | | Acute (CMC) | Chronic (CCC) | Acute (CMC) | Chronic (CCC) |
| Arsenic[d] | 1.000 | 1.000 | 0.34 | 0.15 | 0.34 | 0.15 |
| Cadmium[d,e] | 0.956 | 0.921 | 0.00313 | 0.001812 | 0.00327 | 0.001967 |
| Chromium (III)[d,e] | 0.316 | 0.86 | 0.43 | 0.141 | 1.374 | 0.164 |
| Chromium (VI)[d] | 0.982 | 0.962 | 0.0160 | 0.0110 | 0.0163 | 0.0114 |
| Chromium, Total | ---- | ---- | ---- | ---- | ---- | ---- |
| Copper[d,e] | 0.960 | 0.960 | 0.0103 | 0.0070 | 0.011 | 0.0073 |
| Cyanide | | | 0.022 | 0.0052 | 0.022 | 0.0052 |
| Lead[d,e] | 0.833 | 0.833 | 0.0473 | 0.00184 | 0.0568 | 0.00221 |
| Mercury | | | ---- | ---- | ---- | ---- |
| Nickel[d,e] | 0.998 | 0.997 | 0.368 | 0.041 | 0.368 | 0.041 |
| Selenium | ---- | ---- | 0.02 | 0.005 | 0.020 | 0.005 |
| Silver | 0.85 | ---- | 0.00211 | ---- | 0.00248 | ---- |
| Zinc[d,e] | 0.978 | 0.986 | 0.092 | 0.093 | 0.094 | 0.094 |

WQS = Water Quality Standard.

CMC = Criterion Maximum Concentration.

CCC = Criterion Continuous Concentration.

[a] Conversion Factors for Acute and Chronic Standards are from the National Recommended Water Quality Criteria, USEPA accessed 5/22/2024 and available at: https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table.

[b] In-stream criteria for freshwater bodies are from California Toxics Rule 40 CFR 131.38. For those hardness-dependent metals, criteria are calculated from the following:

CMC (dissolved) = exp{mA [ln(hardness)]+ bA} (CF)

[c] For those metals reported in 391-3-6-.03 in terms of dissolved fraction, total recoverable critera are calculated from the following:

CMC (total) = CMC (dissolved) / CF.

CCC (total) = CCC (dissolved) / CF.

[d] Values are expressed in terms of the dissolved fraction in the water column.

[e] The freshwater aquatic life criteria for these metals are expressed as a function of total hardness (mg/L) in a water body.

| Table A5. Summary of Water Quality Standards and Maximum Contaminant Levels for Pleasant Grove WWTP<br>Industrial Pretreatment Program: Local Limits Evaluation<br>Roseville, CA | | | | | |
|---|---|---|---|---|---|
| Pollutant | Primary MCL (mg/L) | State WQS Acute (mg/L) | State WQS Chronic (mg/L) | Human Health (mg/L) | Most Stringent WQS |
| BOD | | | | | |
| TSS | | | | | |
| Ammonia | | | | | |
| Nitrate + Nitrite | 10 | | | | 10.000 |
| Arsenic | 0.01 | 0.340 | 0.150 | | 0.010 |
| Beryllium | 0.004 | | | | 0.004 |
| Cadmium | 0.005 | 0.003 | 0.002 | | 0.002 |
| Chromium | 0.05 | 0.016 | 0.011 | | 0.011 |
| Copper | 1.3 | 0.011 | 0.007 | 1.3 | 0.007 |
| Cyanide | 0.15 | 0.022 | 0.005 | 0.7 | 0.005 |
| Fluoride | 2 | | | | 2.000 |
| Iron | | | | | |
| Lead | 0.015 | 0.057 | 0.002 | | 0.002 |
| Manganese | | | | | |
| Mercury | 0.002 | | | 0.00005 | 0.00005 |
| Molybdenum | | | | | |
| Nickel | 0.1 | 0.368 | 0.041 | 0.61 | 0.041 |
| Selenium | 0.05 | 0.020 | 0.005 | | 0.005 |
| Silver | | 0.002 | | | 0.002 |
| Zinc | | 0.094 | 0.094 | | 0.094 |
| Oil & Grease (SGT-HEM) | | | | | |

Copper and Lead are action levels according to Article 3. Monitoring for Lead and Copper of Title 22 of the California Code of Regulations

**Table A6. Derivation of State Water Quality Standard for Metals for Dry Creek Industrial Pretreatment Program: Local Limits Evaluation Roseville, CA**

| Metal | Conversion Factor (CF) for Acute (CMC)[a] | Conversion Factor (CF) for Chronic (CCC)[a] | California WQS, Dissolved, Adjusted for Receiving Stream Hardness [b] (mg/L) | | California WQS, Total Recoverable, Adjusted for Receiving Stream Hardness [c] (mg/L) | |
|---|---|---|---|---|---|---|
| | | | Acute (CMC) | Chronic (CCC) | Acute (CMC) | Chronic (CCC) |
| Arsenic[d] | 1.000 | 1.000 | 0.34 | 0.15 | 0.34 | 0.15 |
| Cadmium[d,e] | 0.954 | 0.919 | 0.00330 | 0.001880 | 0.00346 | 0.002046 |
| Chromium (III)[d,e] | 0.316 | 0.86 | 0.45 | 0.147 | 1.432 | 0.171 |
| Chromium (VI)[d] | 0.982 | 0.962 | 0.0160 | 0.0110 | 0.0163 | 0.0114 |
| Chromium, Total | ---- | ---- | ---- | ---- | ---- | ---- |
| Copper[d,e] | 0.960 | 0.960 | 0.0108 | 0.0073 | 0.011 | 0.0076 |
| Cyanide | | | 0.022 | 0.0052 | 0.022 | 0.0052 |
| Lead[d,e] | 0.825 | 0.825 | 0.0499 | 0.00195 | 0.0605 | 0.00236 |
| Mercury | | | ---- | ---- | ---- | ---- |
| Nickel[d,e] | 0.998 | 0.997 | 0.384 | 0.043 | 0.384 | 0.043 |
| Selenium | ---- | ---- | 0.02 | 0.005 | 0.020 | 0.005 |
| Silver | 0.85 | ---- | 0.00230 | ---- | 0.00271 | ---- |
| Zinc[d,e] | 0.978 | 0.986 | 0.096 | 0.097 | 0.098 | 0.098 |

WQS = Water Quality Standard.

CMC = Criterion Maximum Concentration.

CCC = Criterion Continuous Concentration.

[a] Conversion Factors for Acute and Chronic Standards are from the National Recommended Water Quality Criteria, USEPA accessed 5/22/2024 and available at: https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table.

[b] In-stream criteria for freshwater bodies are from California Toxics Rule 40 CFR 131.38. For those hardness-dependent metals, criteria are calculated from the following:

CMC (dissolved) = exp{mA [ln(hardness)]+ bA} (CF)

[c] For those metals reported in 391-3-6-.03 in terms of dissolved fraction, total recoverable critera are calculated from the following:

CMC (total) = CMC (dissolved) / CF.

CCC (total) = CCC (dissolved) / CF.

[d] Values are expressed in terms of the dissolved fraction in the water column.

[e] The freshwater aquatic life criteria for these metals are expressed as a function of total hardness (mg/L) in a water body.

| Table A7. Summary of Water Quality Standards and Maximum Contaminant Levels for Dry Creek WWTP<br>Industrial Pretreatment Program: Local Limits Evaluation<br>Roseville, CA | | | | | |
|---|---|---|---|---|---|
| Pollutant | Primary MCL (mg/L) | State WQS Acute (mg/L) | State WQS Chronic (mg/L) | Human Health (mg/L) | Most Stringent WQS |
| BOD | | | | | |
| TSS | | | | | |
| Ammonia | | | | | |
| Nitrate + Nitrite | 10 | | | | 10.0000 |
| Arsenic | 0.01 | 0.3400 | 0.1500 | | 0.0100 |
| Beryllium | 0.004 | | | | 0.0040 |
| Cadmium | 0.005 | 0.0035 | 0.0020 | | 0.0020 |
| Chromium | 0.05 | 0.0163 | 0.0114 | | 0.0114 |
| Copper | 1.3 | 0.0112 | 0.0076 | 1.3 | 0.0076 |
| Cyanide | 0.15 | 0.0220 | 0.0052 | 0.7 | 0.0052 |
| Fluoride | 2 | | | | 2.0000 |
| Iron | | | | | |
| Lead | 0.015 | 0.0605 | 0.0024 | | 0.0024 |
| Manganese | | | | | |
| Mercury | 0.002 | | | 0.00005 | 0.00005 |
| Molybdenum | | | | | |
| Nickel | 0.1 | 0.3843 | 0.0427 | 0.61 | 0.0427 |
| Selenium | 0.05 | 0.0200 | 0.0050 | | 0.0050 |
| Silver | | 0.0027 | | | 0.0027 |
| Zinc | | 0.0981 | 0.0981 | | 0.0981 |
| Oil & Grease (SGT-HEM) | | | | | 0.0000 |

Copper and Lead are action levels according to Article 3. Monitoring for Lead and Copper of Title 22 of the California Code of Regulations

| Table A8. Biosolids Land Application Regulatory Limits for Roseville, CA<br>Industrial Pretreatment Program: Local Limits Evaluation<br>City of Roseville, CA | | |
|---|---|---|
| Biosolids Land Application Limitations, dry weight basis | | |
| Pollutant | Ceiling Concentration (mg/kg) | Monthly Average Pollutant Concentration (mg/kg) |
| Arsenic | 75 | 41 |
| Cadmium | 85 | 39 |
| Copper | 4300 | 1500 |
| Lead | 840 | 300 |
| Mercury | 57 | 17 |
| Molybdenum | 75 | - |
| Nickel | 420 | 420 |
| Selenium | 100 | 100 |
| Zinc | 7500 | 2800 |

Source: EPA, 40 CFR Part 503 - Standards for the Use or Disposal of Sewage Sludge, Tables 1 and 3

# Appendix B: Literature Data

| Table B1. Primary Treatment Removal Efficiencies[a] - Literature Values<br>Industrial Pretreatment Program: Local Limits Evaluation<br>City of Roseville, CA | | |
|---|---|---|
| Pollutant | Median (%) | No. of POTWs with Removal Data[b] |
| Metal/Nonmetal Inorganics | | |
| Cadmium | 15 | 6 of 40 |
| Chromium | 27 | 12 of 40 |
| Copper | 22 | 12 of 40 |
| Cyanide | 27 | 12 of 40 |
| Lead | 57 | 1 of 40 |
| Mercury | 10 | 8 of 40 |
| Nickel | 14 | 9 of 40 |
| Silver | 20 | 4 of 40 |
| Zinc | 27 | 12 of 40 |
| Organics | | |
| 1,1,1-Trichloroethane | 40 | 10 of 40 |
| trans-1,2-Dichloroethene | 36 | 9 of 40 |
| Benzene | 25 | 8 of 40 |
| Benzyl butyl phthalate | 62 | 4 of 40 |
| Chloroform | 14 | 11 of 40 |
| Diethyl phthalate | 56 | 1 of 40 |
| dI-n-Butyl phthalate | 36 | 3 of 40 |
| Ethylbenzene | 13 | 12 of 40 |
| Naphthalene | 44 | 4 of 40 |
| Phenol | 8 | 11 of 40 |
| Tetrachloroethene (PCE) | 4 | 12 of 40 |
| Trichloroethene (TCE) | 20 | 12 of 40 |

[a] Pollutant removals between POTW influent and primary effluent. From *Fate of Priority Pollutants in Publicly Owned Treatment Works,* Volume I (EPA 440/1-82/303), USEPA, Washington, DC, September 1982, page 61.

[b] Median removal efficiencies from a database of removal efficiencies for 40 POTWs. Only POTWs with average influent concentrations exceeding three times each pollutant's detection limit were considered.

USEPA. *EPA Guidance Manual - Local Discharge Limitations Under the Pretreatment Program,* Page 3-55, Table 3-9.

USEPA. *EPA Guidance Manual - Local Limits Development Guidance* , Appendix R. Page R-1. July 2004.

| Table B2. Removal Efficiencies Through Activated Sludge Treatment[a] - Literature Values<br>Industrial Pretreatment Program: Local Limits Evaluation<br>City of Roseville, CA | | | | | |
|---|---|---|---|---|---|
| Pollutant | Range (%) | Second Decile (%) | Median (%) | Eighth Decile (%) | No. of POTWs with Removal Data |
| Metal/Nonmetal Inorganics[b] | | | | | |
| Arsenic | 11-78 | 31 | 45 | 53 | 5 of 26 |
| Cadmium | 25-99 | 33 | 67 | 91 | 19 of 26 |
| Chromium | 25-97 | 68 | 82 | 91 | 25 of 26 |
| Copper | 2-99 | 67 | 86 | 95 | 26 of 26 |
| Cyanide | 3-99 | 41 | 69 | 84 | 25 of 26 |
| Lead | 1-92 | 39 | 61 | 76 | 23 of 26 |
| Mercury | 1-95 | 50 | 60 | 79 | 20 of 26 |
| Nickel | 2-99 | 25 | 42 | 62 | 23 of 26 |
| Selenium | 25-89 | 33 | 50 | 67 | 4 of 26 |
| Silver | 17-95 | 50 | 75 | 88 | 24 of 26 |
| Zinc | 23-99 | 64 | 79 | 88 | 26 of 26 |
| Organics[b] | | | | | |
| 1,1,1-Trichloroethane | 18-99 | 75 | 85 | 94 | 23 of 26 |
| trans-1,2-Dichloroethene | 17-99 | 50 | 67 | 91 | 17 of 26 |
| Anthracene | 29-99 | 44 | 67 | 91 | 5 of 26 |
| Benzene | 25-99 | 50 | 80 | 96 | 18 of 26 |
| bis(2-Ethylhexyl)phthalate | 17-99 | 47 | 72 | 87 | 25 of 26 |
| Benzyl butyl phthalate | 25-99 | 50 | 67 | 92 | 16 of 26 |
| Chloroform | 17-99 | 50 | 67 | 83 | 24 of 26 |
| Diethyl phthalate | 17-98 | 39 | 62 | 90 | 15 of 26 |
| dI-n-Butyl phthalate | 11-97 | 39 | 64 | 87 | 19 of 26 |
| Ethylbenzene | 25-99 | 67 | 86 | 97 | 25 of 26 |
| Methylene Chloride | 2-99 | 36 | 62 | 77 | 26 of 26 |
| Naphthalene | 25-98 | 40 | 78 | 90 | 16 of 26 |
| Phenanthrene | 29-99 | 37 | 68 | 86 | 6 of 26 |
| Phenol | 3-99 | 75 | 90 | 98 | 19 of 26 |
| Pyrene | 73-95 | 76 | 86 | 95 | 2 of 26 |
| Tetrachloroethene (PCE) | 15-99 | 50 | 80 | 93 | 26 of 26 |
| Toluene | 25-99 | 80 | 93 | 98 | 26 of 26 |
| Trichloroethene (TCE) | 20-99 | 75 | 89 | 98 | 25 of 26 |

[a] Pollutant removals between POTW influent and secondary effluent (including secondary clarification). Based on a computer analysis of POTW removal efficiency data, (derived from actual POTW influent and effluent sampling data) provided in the *Fate of Priority Pollutants in Publicly Owned Treatment Works,* Volume II (EPA 440/1-82/303), USEPA, Washington, DC, September 1982.

[b] For the purpose of deriving removal efficiencies, effluent levels reported as below the detection were set equal to the reported detection limits. All secondary activated sludge treatment plants sampled as part of the study were considered.

USPEA. *EPA Guidance Manual - Local Discharge Limitations Under the Pretreatment Program,* Page -57, Table 3-11.

USEPA. *EPA Guidance Manual - Local Limits Development Guidance* , Appendix R. Page R-2. July 2004.

| Table B3. Activated Sludge Inhibition Threshold Levels[a] - Literature Values<br>Industrial Pretreatment Program: Local Limits Evaluation<br>City of Roseville, CA | | | | |
|---|---|---|---|---|
| Pollutant | Minimum Reported Inhibition Threshold (mg/L) | Reported Range of Inhibition Threshold Level (mg/L) | Laboratory, Pilot, or Full-Scale | Median of Range used for Calculation |
| Metal/Nonmetal Inorganics | | | | |
| Cadmium | 1 | 1-10 | Unknown | 5.5 |
| Chromium | 1 | 1-100 | Pilot | 50.5 |
| Chromium, Trivalent | 10 | 10-50 | Unknown | 30 |
| Chromium, Hexavalent | 1 | 1 | Unknown | 1 |
| Copper | 1 | 1 | Pilot | 1 |
| Lead | 0.1 | 0.1-5.0 | Unknown[b] | 2.55 |
| | | 10-100 | Lab | 55 |
| Nickel | 1 | 1.0-2.5 | Unknown[b] | 1.75 |
| | | 5 | Pilot | |
| Zinc | 0.08 | 0.08-5 | Unknown[b] | 2.54 |
| | | 5-10 | Pilot | 7.5 |
| Arsenic | 0.1 | 0.1 | Unknown | 0.1 |
| Mercury | 0.1 | 0.1-1 | Unknown[b] | 0.55 |
| | | 2.5 as Hg(II) | Lab | |
| Silver | 0.25 | 0.25-5 | Unknown | 2.625 |
| Cyanide | 0.1 | 0.1-5 | Unknown[b] | 2.55 |
| | | 5 | Full | |
| Ammonia (as N) | 480 | 480 | Unknown | 480 |
| Iodine | 10 | 10 | Unknown | 10 |
| Sulfide | 25 | 25-30 | Unknown | 27.5 |
| Organics | | | | |
| Anthracene | 500 | 500 | Lab | 500 |
| Benzene | 100 | 100-500 | Unknown[b] | 300 |
| | | 125-500 | Lab | 312.5 |
| 2-Chlorophenol | 5 | 5 | Unknown[b] | 5 |
| | | 20-200 | Unknown | 110 |
| 1,2-Dichlorobenzene | 5 | 5 | Unknown | 5 |
| 1,3-Dichlorobenzene | 5 | 5 | Unknown | 5 |
| 1,4-Dichlorobenzene | 5 | 5 | Unknown | 5 |
| 2,4-Dichlorophenol | 64 | 64 | Unknown | 64 |
| 2,4-Dimethylphenol | 50 | 40-200 | Unknown | 210 |
| 2,4-Dinitrotoluene | 5 | 5 | Unknown | 5 |
| 1,2-Diphenylhydrazine | 5 | 5 | Unknown | 5 |
| Ethylbenzene | 200 | 200 | Unknown | 200 |
| Hexachlorobenzene | 5 | 5 | Unknown | 5 |
| Naphthalene | 500 | 500 | Lab | 500 |
| | -- | 500 | Unknown[b] | 500 |
| | -- | 500 | Unknown | 500 |
| Nitrobenzene | 30 | 30-500 | Unknown[b] | 265 |
| | -- | 500 | Lab | 500 |
| | -- | 500 | Unknown | 500 |
| Pentachlorophenol | 0.95 | 0.95 | Unknown[b] | 0.95 |
| | -- | 50 | Unknown | 50 |
| | -- | 75-150 | Lab | |
| Phenathrene | 500 | 500 | Lab | 500 |
| | -- | 500 | Unknown[b] | |
| Phenol | 50 | 50-200 | Unknown[b] | 125 |
| | -- | 200 | Unknown | |
| | -- | 200 | Unknown | |
| Toluene | 200 | 200 | Unknown | 200 |
| 2,4,6-Trichlorophenol | 50 | 50-100 | Lab | 75 |
| Surfactants | 100 | 100-500 | Unknown | 300 |

[a] References/Sources did not distinguish between total or dissolved pollutant levels.

[b] Multiple rows per pollutant indicate values from multiple references/sources values.

USEPA. *EPA Guidance Manual - Local Discharge Limitations Under the Pretreatment Program,* Pages 3-44 and 3-45, Table 3-2.

USEPA. *EPA Guidance Manual - Local Limits Development Guidance* , Appendix G. Page G-1. July 2004.

| Table B4. Nitrification Inhibition Threshold Levels[a] - Literature Values<br>Industrial Pretreatment Program: Local Limits Evaluation<br>City of Roseville, CA | | | | |
|---|---|---|---|---|
| Pollutant | Minimum Reported Inhibition Threshold (mg/L) | Reported Range of Inhibition Threshold Level (mg/L) | Laboratory, Pilot, or Full-Scale | Median of Range used for Calculation |
| Metal/Nonmetal Inorganics | | | | |
| Cadmium | 5.2 | 5.2 | Lab | 5.2 |
| Chromium | 0.25 | 0.25-1.9 | Unknown[b] | 1.075 |
| | -- | 1-100 (trickling filter) | Unknown | |
| Chromium, Hexavalent | 1 | 1-10 | As $CrO_4^{2-}$; Unknown | 5.5 |
| Copper | 0.05 | 0.05-0.48 | Unknown | 0.265 |
| Lead | 0.5 | 0.5 | Unknown | 0.5 |
| Nickel | 0.25 | 0.25-0.5 | Unknown[b] | 0.375 |
| | -- | 5 | Pilot | |
| Zinc | 0.08 | 0.08-0.5 | Unknown | 0.29 |
| Arsenic | -- | 1.5 | Unknown | 1.5 |
| Cyanide | 0.34 | 0.34-0.5 | Unknown | 0.42 |
| Chloride | -- | 180 | Unknown | 180 |
| Organics | | | | |
| Chloroform | 10 | 10 | Unknown | 10 |
| 2,4-Dichlorophenol | 64 | 64 | Unknown | 64 |
| 2,4-Dinitrophenol | 150 | 150 | Unknown | 150 |
| Phenol | 4 | 4 | Unknown[b] | 4 |
| | -- | 4-10 | Unknown | 7 |

[a] References/sources did not distinguish between total or dissolved pollutant levels.

[b] Multiple rows per pollutant indicate values from multiple references/sources values.

USEPA *EPA Guidance Manual - Local Discharge Limitations Under the Pretreatment Program*, Page 3-47, Table 3-4.

USEPA. *EPA Guidance Manual - Local Limits Development Guidance*, Appendix G. Page G-2. July 2004.

| Table B5. Anaerobic Digestion Inhibition Threshold Levels[a] - Literature Values<br>Industrial Pretreatment Program: Local Limits Evaluation<br>City of Roseville, CA | | |
|---|---|---|
| Pollutant | Reported Range of Anaerobic Digestion Inhibition Threshold Levels, mg/L | Median of Range used for Calculation |
| Metal/Nonmetal Inorganics | | |
| Ammonia (as N) | 1500 - 8000 | 4750 |
| Arsenic | 1.6 | 1.6 |
| Cadmium | 20 | 20.0 |
| Chromium (III) | 130 | 130.0 |
| Chromium (VI) | 110 | 110.0 |
| Copper | 40 | 40.0 |
| Cyanide | 4 - 100<br>1 - 4 | 50.5 |
| Lead | 340 | 340 |
| Nickel | 10<br>136 | 73 |
| Silver | 13 - 65[b] | 39 |
| Sulfate | 500 - 1000 | 750 |
| Sulfide | 50 - 100 | 75 |
| Zinc | 400 | 400 |
| Organics | | |
| Acrylonitrile | 5<br>5 | 5 |
| Carbon Tetrachloride | 2.9 - 159.4<br>10 - 20<br>2.0 | 80.7 |
| Chlorobenzene | 0.96 - 3<br>0.96 | 1.98 |
| Chloroform | 1<br>5 - 16<br>10 - 16 | 8.5 |
| 1,2-Dichlorobenzene | 0.23 - 3.8<br>0.23 | 2.015 |
| 1,4-Dichlorobenzene | 1.4 - 5.3<br>1.4 | 3.35 |
| Methyl chloride | 3.3 - 536.4<br>100 | 269.85 |
| Pentachlorophenol | 0.2<br>0.2 - 1.8 | 1 |
| Tetrachloroethylene | 20 | 20 |
| Trichloroethylene | 1 - 20<br>20<br>20 | 10.5 |
| Trichlorofluoromethane | - | - |

[a]Total pollutant inhibition levels, unless otherwise indicated.

[b]Dissolved metal inhibition levels.

USEPA. *EPA Guidance Manual - Local Limits Development Guidance*, Appendix G. Page G-2. July 2004.

| Table B6. Domestic/Commercial Pollutant Loading - Literature Values<br>Industrial Pretreatment Program: Local Limits Evaluation<br>Little Rock, Arkansas | | | | | |
|---|---|---|---|---|---|
| Pollutant | USEPA Literature Values[a] | | | | |
| | Number of Detections | Number of Samples | Minimum Concentration (mg/L) | Maximum Concentration (mg/L) | Average Concentration (mg/L) |
| Metal/Nonmetal Inorganics | | | | | |
| Arsenic | 140 | 205 | 0.0004 | 0.088 | 0.007 |
| Barium | 3 | 3 | 0.04 | 0.216 | 0.115 |
| Boron | 4 | 4 | 0.1 | 0.42 | 0.3 |
| Cadmium | 361 | 538 | 0.00076 | 0.11 | 0.008 |
| Chromium, Trivalent | 1 | 2 | <0.005 | 0.007 | 0.006 |
| Chromium, Hexavalent | - | - | - | - | - |
| Chromium | 311 | 522 | <0.001 | 1.2 | 0.034 |
| Copper | 603 | 607 | 0.005 | 0.74 | 0.14 |
| Cyanide | 7 | 7 | 0.01 | 0.37 | 0.082 |
| Fluoride | 2 | 2 | 0.24 | 0.27 | 0.255 |
| Iron | 18 | 18 | 0.0002 | 3.4 | 0.989 |
| Lead | 433 | 540 | 0.001 | 2.04 | 0.058 |
| Lithium | 2 | 2 | 0.03 | 0.031 | 0.031 |
| Manganese | 3 | 3 | 0.04 | 0.161 | 0.087 |
| Mercury | 218 | 235 | <0.0001 | 0.054 | 0.002 |
| Molybdenum | - | - | - | - | - |
| Nickel | 313 | 540 | <0.001 | 1.6 | 0.047 |
| Total Phosphate as P | 2 | 2 | 27.4 | 30.2 | 28.8 |
| Phosphorus, Total | 1 | 1 | 0.7 | 0.7 | 0.7 |
| Silver | 181 | 224 | 0.0007 | 1.052 | 0.019 |
| Zinc | 636 | 638 | 0.01 | 1.28 | 0.231 |
| Organics | | | | | |
| Chloroform | 21 | 30 | <0.002 | 0.069 | 0.009 |
| 1,1-Dichloroethene | 2 | 29 | 0.005 | 0.008 | 0.007 |
| 1,1-Dichloroethane | 1 | 28 | 0.026 | 0.026 | 0.026 |
| Trans-1,2-Dichloroethene | 1 | 28 | 0.013 | 0.013 | 0.013 |
| Fluoranthene | 2 | 5 | 0.00001 | <0.001 | 0.001 |
| Methylene Chloride | 7 | 30 | 0.00008 | 0.055 | 0.027 |
| Phenol | 2 | 2 | 0.00002 | 0.00003 | 0.000025 |
| Bis(2-ethylhexyl)Phthalate | 5 | 5 | 0.00002 | 0.022 | 0.006 |
| Pyrene | 2 | 3 | 0.00001 | <0.005 | 0.0002 |
| Tetrachloroethene (PCE) | 5 | 29 | 0.00001 | 0.037 | 0.014 |
| Toluene | - | - | - | - | - |
| 1,2,4-Trichlorobenzene | 1 | 3 | <0.002 | 0.035 | 0.013 |
| Pesticides | | | | | |
| BHC | 3 | 3 | 0.001 | 0.001 | 0.001 |
| 4,4-DDD | 3 | 3 | 0.00026 | 0.0004 | 0.0003 |
| Endosulfan | 3 | 3 | 0.002 | 0.002 | 0.002 |

[a] Pollutant levels reported below specified detection limit were considered in the data analysis and, for the purpose of statistical analysis, were considered equal to the detection limit.
USEPA. *EPA Guidance Manual - Local Limits Development Guidance* , Appendix V. Page V-1. July 2004.

USEPA. *EPA Supplemental Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Programs,* Page I-9. Table 2. May 1991

| Table B7. Screening Levels for WRP Worker Protection Industrial Pretreatment Program: Local Limits Evaluation City of Roseville, CA | |
|---|---|
| Pollutant | Most Stringent Screening Level for Worker Protection (mg/L) |
| Acrolein | 0.047 |
| Acrylonitrile | 1.19 |
| Aldrin | 0.38 |
| Aroclor 1242 | 0.01 |
| Aroclor 1254 | 0.005 |
| Benzene | 0.014 |
| Bis(2-chloromethyl)Ether | 0.0005 |
| Bromoform | 0.227 |
| Carbon Disulfide | 0.06 |
| Carbon Tetrachloride | 0.011 |
| Chlordane | 1.27 |
| Chlorobenzene | 2.290 |
| Chloroethane | 1.6 |
| Chloroform | 0.060 |
| 1,2-Dichlorobenzene | 3.750 |
| 1,4-Dichlorobenzene | 3.55 |
| Dichlorodifluoromethane | 0.04 |
| 1,1-Dichloroethane | 1.685 |
| 1,2-Dichloroethane | 0.17 |
| 1,1-Dichloroethene | 0.003 |
| trans-1,2-Dichloroethene | 0.28 |
| 1,2-Dichloropropane | 3.62 |
| 1,3-Dichloropropene, total | 0.08 |
| Dieldrin | 13 |
| Diethyl phthalate | 107 |
| 4,6-Dinitro-2-methylphenol | 10.78 |
| 2,4-Dinitrotoluene | 7.21 |
| Endrin | 4.9 |
| Ethylbenzene | 1.59 |
| Formaldehyde | 0.06 |
| Heptachlor | 0.003 |
| Hexachlorobutadiene | 0.0002 |
| Hexachlorocyclopentadiene | 658 |
| Hexachloroethane | 0.093 |
| Hydrogen Cyanide | 1.149 |
| Un-ionized Hydrogen Sulfide | 0.034 |
| Bromomethane | 0.002 |
| Chloromethane | 0.29 |
| 2-Butanone (MEK) | 249 |
| Methylene chloride | 2.06 |
| Napthalene | 2.65 |
| Nitrobenzene | 9.41 |
| Pentachlorophenol | 4.37 |
| Phenol | 1024 |
| 1,1,2,2-Tetrachloroethane | 0.44 |
| Tetrachloroethene (PCE) | 0.53 |
| Toluene | 1.36 |
| Toxaphene | 0.003 |
| 1,2,4-Trichlorobenzene | 0.39 |
| 1,1,1-Trichloroethane | 1.55 |
| 1,1,2-Trichloroethane | 1.15 |
| Trichloroethene (TCE) | 0.026 |
| Trichlorofluoromethane | 1.23 |
| Vinyl Chloride | 0.004 |

[a] USEPA. *EPA Guidance Manual - Local Limits Development Guidance*, Gas/Vapor Toxicity Screening Levels from Tables 4-2 and/or B-1 of USEPA's *Guidance to Protect POTW Workers from Toxic and Reactive Gases and Vapors* (EPA 812-B-92-001), June 1992.

[b] Explosivity Screening Levels from Table 4-2 of USEPA's *Guidance to Protect POTW Workers from Toxic and Reactive Gases and Vapors* (EPA 812-B-92-001), June 1992.

----- indicates no value reported

# Appendix C: Biosolids Data

| Table C1. Sludge flow to Anaerobic Digester<br>Industrial Pretreatment Program: Local Limits Evaluation<br>City of Roseville, CA | | |
|---|---|---|
| Date | Pleasant Grove (mgd) | Dry Creek (mgd) |
| Sep-23 | 0.032 | 0.043 |
| Oct-23 | 0.036 | 0.034 |
| Nov-23 | 0.039 | 0.035 |
| Dec-23 | 0.037 | 0.037 |
| Jan-24 | 0.031 | 0.040 |
| Feb-24 | 0.030 | 0.036 |
| Mar-24 | 0.031 | 0.032 |
| Apr-24 | 0.033 | 0.028 |
| May-24 | 0.032 | 0.057 |
| Jun-24 | 0.031 | 0.079 |

| Table C1. Sludge to Disposal<br>Industrial Pretreatment Program: Local Limits Evaluation<br>City of Roseville, CA | | |
|---|---|---|
| Date | Pleasant Grove<br>(dry tons) | Dry Creek<br>(dry tons) |
| Mar-23 | 7.826 | 8.904 |
| Apr-23 | 7.213 | 7.021 |
| May-23 | 6.529 | 6.636 |
| Jun-23 | 7.755 | 7.451 |
| Jul-23 | 6.275 | 7.798 |
| Aug-23 | 7.060 | 8.638 |
| Sep-23 | 7.841 | 7.540 |
| Oct-23 | 8.156 | 7.181 |
| Nov-23 | 9.071 | 7.333 |
| Dec-23 | 8.087 | 6.222 |

# Appendix D: Site-Specific Sampling Data

**Table D1. Flow Summary for Pleasant Grove and Dry Creek**
**Industrial Pretreatment Program: Local Limits Evaluation**
**City of Roseville, CA**

| 2024 | Pleasant Grove | | | Dry Creek | | | | |
|---|---|---|---|---|---|---|---|---|
| | Influent Flow (mgd) | Recycle Flow (mgd) | Effluent Flow (mgd) | Influent Flow ER (mgd) | Influent Flow WP (mgd) | Total Influent Flow (mgd) | Recycle Flow (mgd) | Effluent Flow (mgd) |
| | Monthly Average | Monthly Average | Monthly Average | Monthly Average | Monthly Average | Monthly Average | Monthly Average | Monthly Average |
| January | 9.64 | 0.75 | 9.19 | 10.94 | 0.30 | 11.23 | 0.02 | 10.35 |
| February | 10.66 | 0.29 | 10.68 | 14.33 | 0.31 | 14.64 | 0.02 | 13.50 |
| March | 9.43 | 0.37 | 9.13 | 11.75 | 0.30 | 12.05 | 0.02 | 9.66 |
| April | 9.23 | 1.63 | 7.72 | 11.13 | 0.30 | 11.42 | 0.26 | 10.10 |
| May | 9.00 | 3.52 | 5.52 | 10.06 | 0.29 | 10.35 | 0.98 | 8.24 |
| June | 8.61 | 4.98 | 3.54 | 9.30 | 0.28 | 9.58 | 1.71 | 6.61 |
| July | 8.49 | 5.81 | 2.70 | 9.06 | 0.30 | 9.36 | 1.86 | 6.30 |
| August | 8.52 | 4.30 | 4.08 | 9.05 | 0.31 | 9.36 | 2.36 | 6.06 |
| September | 9.25 | 2.84 | 6.00 | 8.90 | 0.31 | 9.21 | 2.60 | 5.67 |
| October | 9.56 | 2.41 | 6.49 | 9.00 | 0.32 | 9.32 | 1.52 | 6.78 |
| November | 9.56 | 0.78 | 9.32 | 10.22 | 0.35 | 10.57 | 0.35 | 9.22 |
| December | 10.18 | 0.63 | 10.23 | 11.70 | 0.37 | 12.08 | 0.07 | 10.96 |
| Averages | 9.34 | 2.36 | 7.05 | 10.45 | 0.31 | 10.76 | 0.98 | 8.62 |
| Maximum | 10.6579 | 5.8097 | 10.6779 | 14.3345 | 0.3710 | 14.6410 | 2.5981 | 13.4976 |
| Minimum | 8.4923 | 0.2931 | 2.6952 | 8.8993 | 0.2827 | 9.2113 | 0.0177 | 5.6653 |

**Table D2. Industrial Flow Summary - Pleasant Grove**
**Industrial Pretreatment Program: Local Limits Evaluation**
**City of Roseville, CA**

| Date | Nates Fine Foods | Slurry Station | WPMA | Rio-Bravo | Bosch | CPC | HB Fuller | PPT | Roseville Precision | Quick Quack Blue Oaks | Quick Quack Stanford | Well Above | IU Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Average Daily Flow (gpd) | Average Daily Flow (gpd) | Average Daily Flow (gpd) | Average Daily Flow (gpd) | Average Daily Flow (gpd) | Average Daily Flow (gpd) | Average Daily Flow (gpd) | Average Daily Flow (gpd) | Average Daily Flow (gpd) | Average Daily Flow (gpd) | Average Daily Flow (gpd) | Average Daily Flow (gpd) | Average Daily Flow (mgd) |
| 2024 annual average | 57,355.0 | 2,500 | 21,781 | 28,019 | 300,000 | | 8,000 | 60 | 250 | 17,254 | 22,320 | 1,696 | 459,235.0 |
| Minimum | 57,355.0 | 2,500.0 | 21,781.0 | 28,019.0 | 300,000.0 | 0.0 | 8,000.0 | 60.0 | 250.0 | 17,254.0 | 22,320.0 | 1,696.0 | 0.46 |
| Maximum | 57,355.0 | 2,500.0 | 21,781.0 | 28,019.0 | 300,000.0 | 0.0 | 8,000.0 | 60.0 | 250.0 | 17,254.0 | 22,320.0 | 1,696.0 | 0.46 |
| Average | 57,355.0 | 2,500.0 | 21,781.0 | 28,019.0 | 300,000.0 | #DIV/0! | 8,000.0 | 60.0 | 250.0 | 17,254.0 | 22,320.0 | 1,696.0 | 0.46 |

| Table D3. Industrial Flow Summary - Dry Creek<br>Industrial Pretreatment Program: Local Limits Evaluation<br>City of Roseville, CA | | | | | | | |
|---|---|---|---|---|---|---|---|
| Date | **Loomis Landfill**<br><br>Average Daily Flow (gpd) | **Union Pacific**<br><br>Average Daily Flow (gpd) | **Powder Craft**<br><br>Average Daily Flow (gpd) | **Cosmedica**<br><br>Average Daily Flow (gpd) | **Quick Quack Douglas**<br><br>Average Daily Flow (gpd) | **Quick Quack Sierra College**<br><br>Average Daily Flow (gpd) | **IU Total**<br><br>Average Daily Flow (mgd) |
| 2024 annual average | 6,000 | 68,539 | 1 | 55 | 15,007 | 19,197 | 108,799 |
| Minimum | 6,000 | 68,539 | 1 | 55 | 15,007 | 19,197 | 0.109 |
| Maximum | 6,000 | 68,539 | 1 | 55 | 15,007 | 19,197 | 0.109 |
| Average | 6,000 | 68,539 | 1 | 55 | 15,007 | 19,197 | 0.109 |

**Table D4. Influent and Effluent Summary for Conventional Pollutants for Pleasant Grove Industrial Pretreatment Program: Local Limits Evaluation City of Roseville, CA**

| Date | Influent BOD (mg/L) Monthly Average | Effluent BOD (mg/L) Monthly Average | Paired Sampling Removal Efficiency (%) | Influent TSS (mg/L) Monthly Average | Effluent TSS (mg/L) Monthly Average | Paired Sampling Removal Efficiency (%) | Influent Ammonia (mg/L-N) | Effluent Ammonia (mg/L-N) | Paired Sampling Removal Efficiency (%) |
|---|---|---|---|---|---|---|---|---|---|
| Sep-23 | | | | 303.00 | 3.00 | 99.01% | 42 | 0.1 | 99.76% |
| Oct-23 | 425.50 | 1.00 | 99.76% | 295.40 | 2.00 | 99.32% | 37.4 | 0.08 | 99.79% |
| Nov-23 | 438.60 | 1.00 | 99.77% | 306.00 | 2.00 | 99.35% | 41 | 0.04 | 99.90% |
| Dec-23 | 535.00 | 1.00 | 99.81% | 373.00 | 2.00 | 99.46% | 40.4 | 0.03 | 99.93% |
| Jan-24 | 423.00 | 1.00 | 99.76% | 288.00 | 2.16 | 99.25% | 37.7 | 0.05 | 99.87% |
| Feb-24 | 372.00 | 1.00 | 99.73% | 265.00 | 2.09 | 99.21% | 33.9 | 0.08 | 99.76% |
| Mar-24 | 453.00 | 1.00 | 99.78% | 281.00 | 2.00 | 99.29% | 38.4 | 0.03 | 99.92% |
| Apr-24 | 421.00 | 1.00 | 99.76% | 291.00 | 2.00 | 99.31% | 38.6 | 0.1 | 99.74% |
| May-24 | 433.00 | 1.00 | 99.77% | 305.00 | 2.00 | 99.34% | 38.6 | 0.15 | 99.61% |
| Jun-24 | 455.00 | 1.00 | 99.78% | 333.00 | 2.10 | 99.37% | 40.7 | 0.1 | 99.75% |
| Jul-24 | 469.00 | 1.00 | 99.79% | 364.00 | 2.00 | 99.45% | 42.8 | 0.03 | 99.93% |
| Aug-24 | 542.00 | 1.00 | 99.82% | 382.00 | 2.10 | 99.45% | 41.3 | 0.06 | 99.85% |
| 9/2/25 | 328.00 | 2.00 | 99.39% | 152.00 | ***2.00*** | 98.68% | 43.2 | 0.59 | 98.63% |
| 9/3/25 | 430.00 | 3.00 | 99.30% | 404.00 | ***2.00*** | 99.50% | 47.8 | 0.76 | 98.41% |
| 9/4/25 | 364.00 | 3.00 | 99.18% | 240.00 | ***2.00*** | 99.17% | 47.4 | 0.59 | 98.76% |
| 9/8/25 | 350.00 | 2.00 | 99.43% | 180.00 | ***2.00*** | 98.89% | 38.8 | 0.82 | 97.89% |
| 9/9/25 | 478.00 | 2.00 | 99.58% | 380.00 | ***2.00*** | 99.47% | 40.5 | 0.28 | 99.31% |
| 9/10/25 | 380.00 | 2.00 | 99.47% | 260.00 | ***2.00*** | 99.23% | 49.2 | 0.24 | 99.51% |
| 9/11/25 | 404.00 | ***1.00*** | 99.75% | 250.00 | ***2.00*** | 99.20% | 38.6 | ***0.02*** | 99.95% |
| Average | 428 | 1.4 | 99.65% | 297 | 2.1 | 99.26% | 41.0 | 0.2 | 99.49% |
| Maximum | 542 | 3 | 99.82% | 404 | 3 | 99.50% | 49 | 0.82 | 99.95% |
| Minimum | 328 | 1 | 99.18% | 152 | 2 | 98.68% | 34 | 0.02 | 97.89% |
| Average Removal Efficiency(%) | 99.66% | Used in Calculations (%) | **99.66%** | 99.30% | Used in Calculations (%) | **99.30%** | 99.47% | Used in Calculations (%) | **99.47%** |

Notes:

Values in italics were nondetect and are reported at half the reporting detection limit

**Table D5. Influent and Effluent Summary for Inorganic Pollutants for Pleasant Grove**
**Industrial Pretreatment Program: Local Limits Evaluation**
**City of Roseville, CA**

| Date | Arsenic (ug/L) | | Paired Sampling Removal | Beryllium (ug/L) | | Paired Sampling Removal | Cadmium (ug/L) | | Paired Sampling Removal | Chromium, Total (ug/L) | | Paired Sampling Removal | Copper (ug/L) | | Paired Sampling Removal | Cyanide, Total (ug/L) | | Paired Sampling Removal | Flouride (mg/L) | | Paired Sampling Removal |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Influent | Effluent | Efficiency (%) | Influent | Effluent | Efficiency (%) | Influent | Effluent | Efficiency (%) | Influent | Effluent | Efficiency (%) | Influent | Effluent | Efficiency (%) | Influent | Effluent | Efficiency (%) | Influent | Effluent | Efficiency (%) |
| 9/2/2025 | ***0.0245*** | ***0.0245*** | 0.00% | ***0.0395*** | ***0.0395*** | 0.00% | ***0.025*** | ***0.025*** | 0.00% | 1.4 | ***0.025*** | 98.21% | 25 | 1 | 96.00% | ***0.55*** | ***0.55*** | 0.00% | 0.29 | 0.48 | -65.52% |
| 9/3/2025 | 0.54 | 0.22 | 59.26% | ***0.0395*** | ***0.0395*** | 0.00% | 0.14 | ***0.025*** | 82.14% | 1.7 | 0.4 | 76.47% | 34 | 2.6 | 92.35% | 1.6 | 2 | -25.00% | 0.27 | 0.47 | -74.07% |
| 9/4/2025 | 0.63 | 0.23 | 63.49% | ***0.0395*** | ***0.0395*** | 0.00% | 0.12 | ***0.025*** | 79.17% | 1.6 | 0.34 | 78.75% | 31 | 0.92 | 97.03% | 1.3 | 1.3 | 0.00% | 0.3 | 0.47 | -56.67% |
| 9/8/2025 | ***0.0245*** | ***0.0245*** | 0.00% | ***0.0395*** | ***0.0395*** | 0.00% | ***0.025*** | ***0.025*** | 0.00% | 1.3 | ***0.025*** | 98.08% | 24 | 0.72 | 97.00% | ***0.55*** | ***0.55*** | 0.00% | 0.28 | 0.46 | -64.29% |
| 9/9/2025 | 0.55 | 0.18 | 67.27% | ***0.0395*** | ***0.0395*** | 0.00% | 0.11 | ***0.025*** | 77.27% | 1.6 | 0.35 | 78.13% | 29 | 0.75 | 97.41% | ***0.55*** | 1.2 | -118.18% | 0.27 | 0.46 | -70.37% |
| 9/10/2025 | 0.48 | 0.21 | 56.25% | ***0.0395*** | ***0.0395*** | 0.00% | 0.085 | ***0.025*** | 70.59% | 1.2 | 0.38 | 68.33% | 26 | 0.6 | 97.69% | ***0.55*** | 1.2 | -118.18% | 0.29 | 0.46 | -58.62% |
| 9/11/2025 | 2.6 | 0.35 | 86.54% | ***0.0395*** | ***0.0395*** | 0.00% | 0.085 | ***0.025*** | 70.59% | 1.2 | 0.34 | 71.67% | 25 | 0.62 | 97.52% | ***0.55*** | 1.2 | -118.18% | 0.29 | 0.47 | -62.07% |
| Average | 0.375 | 0.148 | 47.54% | 0.03950 | 0.03950 | 0.00% | 0.08429 | 0.02500 | 54.25% | 1.4286 | 0.2657 | 81.38% | 27.714 | 1.030 | 96.43% | 0.807 | 1.143 | -54.22% | 0.28429 | 0.46714 | -64.51% |
| Maximum | 2.600 | 0.350 | 86.54% | 0.03950 | 0.03950 | 0.00% | 0.14000 | 0.02500 | 82.14% | 1.7000 | 0.4000 | 98.21% | 34.000 | 2.600 | 97.69% | 1.600 | 2.000 | 0.00% | 0.30000 | 0.48000 | -56.67% |
| Minimum | 0.025 | 0.025 | 0.00% | 0.03950 | 0.03950 | 0.00% | 0.02500 | 0.02500 | 0.00% | 1.2000 | 0.0250 | 68.33% | 24.000 | 0.600 | 92.35% | 0.550 | 0.550 | -118.18% | 0.27000 | 0.46000 | -74.07% |
| **Removal Efficiencies (%)** | 60.47% | Used in Calcs (%) | **60.47%** | 0.00% | Used in Calcs (%) | **0.00%** | 70.34% | Used in Calcs (%) | **70.34%** | 81.40% | Used in Calcs (%) | **81.40%** | 96.28% | Used in Calcs (%) | **96.28%** | -41.59% | Used in Calcs (%) | **0.00%** | -64.32% | Used in Calcs (%) | **0.00%** |

| Date | Iron (mg/L) | | Paired Sampling Removal | Lead (ug/L) | | Paired Sampling Removal | Manganese (ug/L) | | Paired Sampling Removal | Mercury (ug/L) | | Paired Sampling Removal | Molybdenum (ug/L) | | Paired Sampling Removal | Nickel (ug/L) | | Paired Sampling Removal |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Influent | Effluent | Efficiency (%) | Influent | Effluent | Efficiency (%) | Influent | Effluent | Efficiency (%) | Influent | Effluent | Efficiency (%) | Influent | Effluent | Efficiency (%) | Influent | Effluent | Efficiency (%) |
| 9/2/2025 | 0.3 | 0.078 | 74.00% | 0.47 | ***0.035*** | 92.55% | 43 | 24 | 44.19% | ***0.018*** | ***0.000095*** | 99.47% | 1 | ***0.2*** | 80.00% | 2.6 | 1.5 | 42.31% |
| 9/3/2025 | 0.56 | 0.078 | 86.07% | 0.72 | ***0.035*** | 95.14% | 55 | 23 | 58.18% | 0.046 | 0.00043 | 99.07% | 1.4 | ***0.2*** | 85.71% | 3 | 1.4 | 53.33% |
| 9/4/2025 | 0.47 | 0.075 | 84.04% | 0.64 | ***0.035*** | 94.53% | 49 | 22 | 55.10% | 0.097 | 0.00042 | 99.57% | 1.3 | ***0.2*** | 84.62% | 2.9 | 1.3 | 55.17% |
| 9/8/2025 | 0.32 | 0.071 | 77.81% | 0.42 | ***0.035*** | 91.67% | 44 | 17 | 61.36% | ***0.018*** | ***0.000095*** | 99.47% | 0.97 | ***0.2*** | 79.38% | 2.4 | 1.4 | 41.67% |
| 9/9/2025 | 0.49 | 0.068 | 86.12% | 0.61 | ***0.035*** | 94.26% | 62 | 16 | 74.19% | 0.18 | 0.00049 | 99.73% | 1.2 | ***0.2*** | 83.33% | 3.2 | 1.5 | 53.13% |
| 9/10/2025 | 0.41 | 0.063 | 84.63% | 0.44 | ***0.035*** | 92.05% | 72 | 16 | 77.78% | ***0.018*** | 0.00036 | 98.00% | 1.7 | ***0.2*** | 88.24% | 3.6 | 1.7 | 52.78% |
| 9/11/2025 | 0.4 | 0.057 | 85.75% | 0.49 | ***0.035*** | 92.86% | 66 | 10 | 84.85% | 0.092 | 0.00042 | 99.54% | 1.1 | 0.64 | 41.82% | 3 | 1.8 | 40.00% |
| Average | 0.42143 | 0.07000 | 82.63% | 0.54143 | 0.03500 | 93.29% | 55.857143 | 17.333333 | 65.09% | 0.067000 | 0.000369 | 99.26% | 1.239 | 0.263 | 77.59% | 2.9571 | 1.5143 | 48.34% |
| Maximum | 0.56000 | 0.07800 | 86.12% | 0.72000 | 0.03500 | 95.14% | 72.000000 | 24.000000 | 84.85% | 0.180000 | 0.000490 | 99.73% | 1.700 | 0.640 | 88.24% | 3.6000 | 1.8000 | 55.17% |
| Minimum | 0.30000 | 0.05700 | 74.00% | 0.42000 | 0.03500 | 91.67% | 43.000000 | 10.000000 | 44.19% | 0.018000 | 0.000095 | 98.00% | 0.970 | 0.200 | 41.82% | 2.4000 | 1.3000 | 40.00% |
| **Removal Efficiencies (%)** | 83.39% | Used in Calcs (%) | **83.39%** | 93.54% | Used in Calcs (%) | **93.54%** | 68.97% | Used in Calcs (%) | **68.97%** | 99.45% | Used in Calcs (%) | **99.45%** | 78.78% | Used in Calcs (%) | **78.78%** | 48.79% | Used in Calcs (%) | **48.79%** |

| Date | Selenium (ug/L) | | Paired Sampling Removal | Silver (ug/L) | | Paired Sampling Removal | Zinc (ug/L) | | Paired Sampling Removal |
|---|---|---|---|---|---|---|---|---|---|
| | Influent | Effluent | Efficiency (%) | Influent | Effluent | Efficiency (%) | Influent | Effluent | Efficiency (%) |
| 9/2/2025 | ***0.185*** | ***0.185*** | 0.00% | 0.14 | ***0.0305*** | 78.21% | 123 | 31 | 74.80% |
| 9/3/2025 | 0.96 | ***0.185*** | 80.73% | 0.24 | ***0.0305*** | 87.29% | 180 | 27 | 85.00% |
| 9/4/2025 | 0.95 | ***0.185*** | 80.53% | 0.18 | ***0.0305*** | 83.06% | 135 | 32 | 76.30% |
| 9/8/2025 | ***0.185*** | ***0.185*** | 0.00% | 0.17 | ***0.0305*** | 82.06% | 136 | 37 | 72.79% |
| 9/9/2025 | 0.68 | ***0.185*** | 72.79% | 0.22 | ***0.0305*** | 86.14% | 166 | 32 | 80.72% |
| 9/10/2025 | 0.57 | ***0.185*** | 67.54% | 0.14 | ***0.0305*** | 78.21% | 133 | 33 | 75.19% |
| 9/11/2025 | 0.7 | ***0.185*** | 73.57% | 0.22 | ***0.0305*** | 86.14% | 136 | 34 | 75.00% |
| Average | 0.6043 | 0.1850 | 53.59% | 0.1871 | 0.0305 | 83.02% | 144.143 | 32.286 | 77.11% |
| Maximum | 0.9600 | 0.1850 | 80.73% | 0.2400 | 0.0305 | 87.29% | 180.000 | 37.000 | 85.00% |
| Minimum | 0.1850 | 0.1850 | 0.00% | 0.1400 | 0.0305 | 78.21% | 123.000 | 27.000 | 72.79% |
| **Removal Efficiencies (%)** | 69.39% | Used in Calcs (%) | **69.39%** | 83.70% | Used in Calcs (%) | **83.70%** | 77.60% | Used in Calcs (%) | **77.60%** |

Notes:

Values in italics were non-detect and are reported at half the reporting or detection limit as available

Red bold font indicates the use of a literature value

Light orange cells were not used in removal efficiency calculations

**Table D6. Influent and Effluent Summary for Conventional Pollutants for Dry Creek**
**Industrial Pretreatment Program: Local Limits Evaluation**
**City of Roseville, CA**

| Date | Flow East Roseville mgd | Flow West Placer mgd | ER Influent BOD (mg/L) | WP Influent BOD (mg/L) | Total Influent BOD (mg/L) | Effluent BOD (mg/L) Monthly Average | Paired Sampling Removal Efficiency (%) | ER Influent TSS (mg/L) | WP Influent TSS (mg/L) | Total Influent TSS (mg/L) | Effluent TSS (mg/L) | Paired Sampling Removal Efficiency (%) | ER Influent Ammonia (mg/L) | WP Influent Ammonia (mg/L) | Total Influent Ammonia (mg/L) | Effluent Ammonia (mg/L-N) | Paired Sampling Removal Efficiency (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan-24 | 10.94 | 0.30 | 397.73 | 391.82 | 397.57 | 1.00 | 99.75% | 444.44 | 351.11 | 441.99 | 2.00 | 99.55% | 25.9 | 40.7 | 26.3 | 0.11 | 99.57% |
| Feb-24 | 14.33 | 0.31 | 277.50 | 313.00 | 278.24 | 1.05 | 99.62% | 286.47 | 281.11 | 286.36 | 2.00 | 99.30% | 19.1 | 35.9 | 19.4 | 0.46 | 97.64% |
| Mar-24 | 11.75 | 0.30 | 378.10 | 337.62 | 377.10 | 1.05 | 99.72% | 359.09 | 298.13 | 357.59 | 2.00 | 99.44% | 26.3 | 41.5 | 26.7 | 0.61 | 97.71% |
| Apr-24 | 11.13 | 0.30 | 390.53 | 349.47 | 389.47 | 1.00 | 99.74% | 389.41 | 303.33 | 387.19 | 2.00 | 99.48% | 26.1 | 44.2 | 26.6 | 0.20 | 99.26% |
| May-24 | 10.06 | 0.29 | 435.00 | 339.55 | 432.33 | 1.14 | 99.74% | 432.14 | 320.00 | 429.01 | 2.00 | 99.53% | 25.6 | 40.7 | 26.0 | 1.01 | 96.11% |
| Jun-24 | 9.30 | 0.28 | 394.71 | 282.94 | 391.41 | 1.00 | 99.74% | 390.00 | 247.22 | 385.79 | 2.00 | 99.48% | 32.1 | 43.6 | 32.4 | 0.07 | 99.78% |
| Jul-24 | 9.06 | 0.30 | 471.25 | 246.88 | 464.05 | 1.00 | 99.78% | 487.14 | 248.57 | 479.49 | 2.00 | 99.58% | 30.4 | 37.7 | 30.6 | 0.11 | 99.66% |
| Aug-24 | 9.05 | 0.31 | 516.11 | 247.78 | 507.15 | 1.00 | 99.80% | 466.67 | 254.67 | 459.59 | 2.00 | 99.56% | 31.5 | 37.3 | 31.7 | 0.23 | 99.28% |
| Sep-24 | 8.90 | 0.31 | 579.05 | 276.19 | 568.79 | 1.00 | 99.82% | 467.50 | 260.83 | 460.50 | 2.00 | 99.57% | 28.5 | 34.9 | 28.8 | 0.11 | 99.61% |
| Oct-24 | 9.00 | 0.32 | 568.42 | 257.89 | 557.80 | 1.00 | 99.82% | 527.65 | 277.22 | 519.08 | 2.00 | 99.61% | 30.0 | 38.2 | 30.3 | 0.13 | 99.57% |
| Nov-24 | 10.22 | 0.35 | 590.48 | 311.43 | 581.26 | 1.00 | 99.83% | 543.33 | 332.38 | 536.37 | 2.14 | 99.60% | 27.8 | 36.3 | 28.1 | 0.28 | 99.00% |
| Dec-24 | 11.70 | 0.37 | 493.81 | 292.38 | 487.62 | 1.00 | 99.79% | 478.57 | 333.50 | 474.11 | 2.00 | 99.58% | 26.3 | 37.3 | 26.6 | 0.09 | 99.65% |
| 9/15/25 | 8.88 | 0.35 | 250.00 | 280.00 | 251.14 | ***1.00*** | 99.60% | 260.00 | 260.00 | 260.00 | ***1.50*** | 99.42% | 28.3 | 37.8 | 28.7 | ***0.05*** | 99.83% |
| 9/16/25 | 8.74 | 0.34 | 260.00 | 220.00 | 258.50 | ***1.00*** | 99.61% | 240.00 | 180.00 | 237.75 | ***1.50*** | 99.37% | 32.5 | 35.3 | 32.6 | ***0.05*** | 99.85% |
| 9/17/25 | 8.94 | 0.35 | 300.00 | 200.00 | 296.23 | ***1.00*** | 99.66% | 330.00 | 200.00 | 325.10 | ***1.50*** | 99.54% | 31 | 35.5 | 31.2 | 0.1 | 99.68% |
| 9/18/25 | 9.05 | 0.37 | 260.00 | 200.00 | 257.64 | ***1.00*** | 99.61% | 280.00 | 190.00 | 276.46 | ***1.50*** | 99.46% | 30.5 | 35.2 | 30.7 | 0.1 | 99.67% |
| 9/22/25 | 8.80 | 0.41 | 322.00 | 468.00 | 328.50 | ***1.00*** | 99.70% | 260.00 | 600.00 | 275.14 | ***1.50*** | 99.45% | 27.6 | 28.8 | 27.7 | ***0.05*** | 99.82% |
| 9/23/25 | 8.55 | 0.38 | 510.00 | 390.00 | 504.89 | ***1.00*** | 99.80% | 530.00 | 490.00 | 528.30 | ***1.50*** | 99.72% | 32.2 | 29.6 | 32.1 | ***0.05*** | 99.84% |
| 9/25/25 | 8.82 | 0.38 | 310.00 | 210.00 | 305.87 | ***1.00*** | 99.67% | 288.00 | 180.00 | 283.54 | ***1.50*** | 99.47% | 31.6 | 32.1 | 31.6 | 0.5 | 98.42% |
| Average | 9.85 | 0.33 | 406 | 295.5 | 401.9 | 1.0 | 99.73% | 393 | 295.2 | 389.6 | 1.8 | 99.51% | 28.6 | 37.0 | 28.8 | 0.2 | 99.16% |
| Maximum | 14.33 | 0.41 | 590 | 468 | 581 | 1 | 99.83% | 543 | 600 | 536 | 2 | 99.72% | 33 | 44 | 33 | 1.01 | 99.85% |
| Minimum | 8.55 | 0.28 | 250 | 200 | 251 | 1 | 99.60% | 240 | 180 | 238 | 2 | 99.30% | 19 | 29 | 19 | 0.05 | 96.11% |
| Average Removal Efficiency(%) | | | | | 99.75% | Used in Calculations (%) | **99.75%** | | | 99.53% | Used in Calculations (%) | **99.53%** | | | 99.21% | Used in Calculations (%) | **99.21%** |

Notes:
Values in italics were nondetect and are reported at half the reporting detection limit

**Table D4. Influent and Effluent Summary for Non-Conventional Pollutants for Dry Creek**
**Industrial Pretreatment Program Local Limits Evaluation**
**City of Roseville, CA**

| Date | Flow East Roseville | Flow West Place | Arsenic (ug/L) | | | | Sampling Removal Efficiency (%) | Beryllium (ug/L) | | | | Sampling Removal Efficiency (%) | Cadmium (ug/L) | | | | Sampling Removal Efficiency (%) | Chromium (total) (ug/L) | | | | Sampling Removal Efficiency (%) | Copper (ug/L) | | | | Sampling Removal Efficiency (%) | Cyanide (ug/L) | | | | Sampling Removal Efficiency (%) | Fluoride (mg/L) | | | | Sampling Removal Efficiency (%) | Iron (mg/L) | | | | Sampling Removal Efficiency (%) | Lead (ug/L) | | | | Sampling Removal Efficiency (%) | Manganese (ug/L) | | | | Sampling Removal Efficiency (%) | Mercury (ug/L) | | | | Sampling Removal Efficiency (%) | Molybdenum (ug/L) | | | | Sampling Removal Efficiency (%) | Nickel (ug/L) | | | | Sampling Removal Efficiency (%) | Selenium (ug/L) | | | | Sampling Removal Efficiency (%) | Silver (ug/L) | | | | Sampling Removal Efficiency (%) | Zinc (ug/L) | | | | Sampling Removal Efficiency (%) | Oil & Grease (ug/L) | | | | Sampling Removal Efficiency (%) |
|---|---|---

**Table D8. Domestic and Commercial Background Data Summary for City of Roseville**
**Industrial Pretreatment Program: Local Limits Evaluation**
**City of Roseville, CA**

| Parameter | Units | A06 8/19/2025 | F99 8/19/2025 | A06 8/20/2025 | F99 8/20/2025 | A06 8/21/2025 | F99 8/21/2025 | F99 8/26/2025 | Average | Maximum | Minumum | Standard Deviation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | mg/L | 248 | 299 | 305 | 331 | 226 | 200 | 223 | 261.7 | 331.0000 | 226.0000 | 43.332 |
| Suspended Solids, Total (TSS) | mg/L | 152 | 520 | 154 | 190 | 106 | 62 | 56 | 177.1 | 520.0000 | 106.0000 | 167.913 |
| Ammonia (as N) | mg/L | 54 | 44.8 | 46.2 | 42 | 52.3 | 47 | 55.5 | 48.8 | 55.5000 | 42.0000 | 5.096 |
| Nitrate + Nitrate | mg/L | ***0.018*** | ***0.018*** | 0.14 | ***0.018*** | ***0.018*** | ***0.018*** | ***0.018*** | 0.0 | 0.1400 | 0.0180 | 0.055 |
| Arsenic | mg/L | 0.00044 | 0.00036 | 0.00043 | 0.00062 | 0.00036 | 0.00041 | 0.00035 | 0.0004 | 0.0006 | 0.0004 | 0.000 |
| Berylium | mg/L | ***0.0000395*** | ***0.0000395*** | ***0.0000395*** | ***0.0000395*** | ***0.0000395*** | ***0.0000395*** | ***0.0000395*** | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| Cadmium | mg/L | 0.000098 | 0.00006 | 0.00014 | 0.000065 | 0.000051 | 0.00006 | 0.00005 | 0.0001 | 0.0001 | 0.0001 | 0.000 |
| Chromium | mg/L | 0.0011 | 0.0011 | 0.0017 | 0.0019 | 0.0007 | 0.0014 | 0.00079 | 0.0012 | 0.0019 | 0.0007 | 0.000 |
| Copper | mg/L | 0.021 | 0.017 | | 0.019 | 0.029 | 0.019 | 0.016 | 0.0202 | 0.0290 | 0.0170 | 0.005 |
| Cyanide | mg/L | 0.0011 | 0.0018 | 0.0011 | 0.0011 | 0.0015 | ***0.00055*** | 0.0011 | 0.0012 | 0.0018 | 0.0011 | 0.000 |
| Flouride | mg/L | 0.7 | 0.84 | 0.62 | 0.7 | 0.73 | 0.8 | 0.96 | 0.7643 | 0.9600 | 0.6200 | 0.079 |
| Iron | mg/L | 0.57 | 0.13 | 0.69 | 0.13 | 0.33 | 0.12 | 0.097 | 0.2953 | 0.6900 | 0.1300 | 0.255 |
| Lead | mg/L | 0.00062 | 0.00026 | 0.00097 | 0.00053 | 0.0005 | 0.00039 | 0.0003 | 0.0005 | 0.0010 | 0.0003 | 0.000 |
| Manganese | mg/L | 0.022 | 0.056 | 0.025 | 0.046 | 0.017 | 0.031 | 0.013 | 0.0300 | 0.0560 | 0.0170 | 0.017 |
| Mercury | mg/L | ***0.000018*** | ***0.000018*** | ***0.000018*** | ***0.000018*** | ***0.000018*** | ***0.000018*** | 0.000085 | 0.000028 | 0.0001 | 0.0000 | 0.000 |
| Molybdenum | mg/L | 0.00074 | 0.0008 | 0.00097 | 0.00092 | 0.0009 | 0.0014 | 0.00089 | 0.0009 | 0.0014 | 0.0007 | 0.000 |
| Nickel | mg/L | 0.002 | 0.0018 | 0.0026 | 0.0019 | 0.0018 | 0.0019 | 0.0016 | 0.0020 | 0.0026 | 0.0018 | 0.000 |
| Selenium | mg/L | 0.00048 | 0.00043 | 0.00056 | 0.00049 | 0.00045 | 0.00076 | 0.00047 | 0.0005 | 0.0008 | 0.0004 | 0.000 |
| Silver | mg/L | 0.00012 | 0.000078 | 0.00015 | 0.00014 | ***0.0000305*** | 0.00011 | 0.000076 | 0.000 | 0.0002 | 0.0000 | 0.000 |
| Zinc | mg/L | 0.116 | 0.099 | 0.137 | 0.115 | 0.086 | 0.109 | 0.08 | 0.111 | 0.1370 | 0.0860 | 0.019 |
| Oil & Grease (SGT-HEM) | mg/L | 12 | 36 | 21 | 26 | 30 | 29 | 24 | 25.000 | 36.0000 | 12.0000 | 9.110 |

Notes:

Values in italics were nondetect and are reported at half the reporting or detection limit as available

# Appendix E: MAHL and MAIL Calculations for Pleasant Grove WWTP

**Table E1. Maximum Allowable Headworks Loading Analysis for Dry Creek Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| | |
|---|---|
| WWTP Name: | Dry Creek Wastewater Treatment Plant |
| Date: | 11/11/2025 |
| | |
| Average WWTP Flow (mgd): | 10.76 |
| Total Actual Industrial Flow (mgd): | 0.11 |
| Septic/Hauled Waste Flow (mgd): | |
| Domestic/Commercial Flow (mgd): | 10.66 |
| Sludge Flow to Digester (mgd): | 0.05 |
| Dry Sludge to Disposal (lb/day): | 7.43 |
| | |
| NPDES / NOA Permit Number: | CAG585001 / R5-2023-0025 |
| NPDES Permitted Discharge (mgd): | 18.0 |
| Receiving Stream: | Dry Creek |
| 7Q10 Stream Flow (mgd): | |
| Stream Classification: | Municipal and Domestic Supply, Agricultural Supply, Water Contact Recreation, Non-contact Recreation, Warm Freshwater Habitat, Cold Freshwater Habitat, Wildlife Habitat, Navigation, Migration of Aquatic Organisms, and Spawning, Reproduction, and/or Early Development. |
| | |
| Safety (10) and Growth Factor (5)(%): | 20 |

**Table E2. Local Limits Determination Based on Design Criteria for Dry Creek Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Septic/Hauled Waste Conc. (mg/L) ($C_{HW}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Design Criteria (mg/L) ($L_{DC}$) | Design Criteria (lb/day) ($L_{DC}$) | Allowable Headworks Loading (lb/day) ($AHL_{DESIGN}$) | Domestic & Commercial Loading (lb/day) ($L_{UNC}$) | Allowable Industrial Loading (lb/day) ($AIL_{DESIGN}$) | Industrial Local Limit (mg/L) ($C_{LIM\text{-}DESIGN}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.1 | 10.8 | 0 | | 10.7 | 261.7143 | | 33,900 | 33900 | 23,256.831 | 3,863 | 4257 | 20 |
| Suspended Solids, Total (TSS) | 0.1 | 10.8 | 0 | | 10.7 | 177.1429 | | 42,800 | 42800 | 15,741.523 | 18,498 | 20387 | 20 |
| Ammonia (as N) | 0.1 | 10.8 | 0 | | 10.7 | 48.8286 | 34 | 3,052 | 3052.207878 | 4,339.075 | -1,897 | -2091 | 20 |
| Nitrate + Nitrite | 0.1 | 10.8 | 0 | | 10.7 | 0.0354 | | | ---- | 3.148 | ----- | ----- | 20 |
| Arsenic | 0.1 | 10.8 | 0 | | 10.7 | 0.0004 | | | ---- | 0.038 | ----- | ----- | 20 |
| Beryllium | 0.1 | 10.8 | 0 | | 10.7 | *0.0000* | | | ---- | 0.004 | ----- | ----- | 20 |
| Cadmium | 0.1 | 10.8 | 0 | | 10.7 | 0.0001 | | | ---- | 0.007 | ----- | ----- | 20 |
| Chromium | 0.1 | 10.8 | 0 | | 10.7 | 0.0012 | | | ---- | 0.110 | ----- | ----- | 20 |
| Copper | 0.1 | 10.8 | 0 | | 10.7 | 0.0202 | | | ---- | 1.792 | ----- | ----- | 20 |
| Cyanide | 0.1 | 10.8 | 0 | | 10.7 | 0.0012 | | | ---- | 0.105 | ----- | ----- | 20 |
| Fluoride | 0.1 | 10.8 | 0 | | 10.7 | 0.76429 | | | ---- | 67.917 | ----- | ----- | 10 |
| Iron | 0.1 | 10.8 | 0 | | 10.7 | 0.2953 | | | ---- | 26.240 | ----- | ----- | 20 |
| Lead | 0.1 | 10.8 | 0 | | 10.7 | 0.0005 | | | ---- | 0.045 | ----- | ----- | 20 |
| Manganese | 0.1 | 10.8 | 0 | | 10.7 | 0.0300 | | | ---- | 2.666 | ----- | ----- | 20 |
| Mercury | 0.1 | 10.8 | 0 | | 10.7 | 0.0000 | | | ---- | 0.002 | ----- | ----- | 20 |
| Molybdenum | 0.1 | 10.8 | 0 | | 10.7 | 0.0009 | | | ---- | 0.077 | ----- | ----- | 20 |
| Nickel | 0.1 | 10.8 | 0 | | 10.7 | 0.0020 | | | ---- | 0.180 | ----- | ----- | 20 |
| Selenium | 0.1 | 10.8 | 0 | | 10.7 | 0.0005 | | | ---- | 0.043 | ----- | ----- | 20 |
| Silver | 0.1 | 10.8 | 0 | | 10.7 | 0.0001 | | | ---- | 0.009 | ----- | ----- | 20 |
| Zinc | 0.1 | 10.8 | 0 | | 10.7 | 0.1106 | | | ---- | 9.828 | ----- | ----- | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

| | | | |
|---|---|---|---|
| ($Q_{IND}$) | Industrial flow in mgd. | ($L_{UNC}$) | Domestic/commercial loading in lb/day. |
| ($Q_{WWTP}$) | WWTP's average flow in mgd. | ($L_{HW}$) | Septic/hauled waste loading in lb/day. |
| ($Q_{DOM}$) | Domestic/commercial background flow in mgd. | ($AIL_{DESIGN}$) | Allowable industrial loading to the WWTP in lb/day. |
| ($Q_{HW}$) | Septic/hauled waste flow in mgd. | ($C_{LIM\text{-}DESIGN}$) | Local limits for industrial users in mg/L. |
| ($C_{DOM}$) | Domestic/commercial background concentrations in mg/L. | (SGF) | Safety and growth factor as a percent. |
| ($C_{HW}$) | Septic/hauled waste concentrations in mg/L. | 8.34 | Unit conversion factor. |
| ($L_{DC}$) | The pollutant loading the WWTP is designed to treat in lb/day. | | |

**Table E3. Local Limits Determination Based on Permit Limits for Dry Creek Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | WWTP Permitted Flow (mgd) ($Q_{NPDES}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Average Influent Pollutant Conc.[a] (mg/L) ($C_{INFL}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Septic/Hauled Waste Conc.[a,b] (mg/L) ($C_{HW}$) | Removal Efficiency[a] (%) ($R_{WWTP}$) | Permit Limit for Discharge (mg/L) ($C_{NPDES}$) | Allowable Headworks Loading (lb/day) ($AHL_{NPDES}$) | Domestic & Commercial Loading (lb/day) ($L_{UNC}$) | Septic/Hauled Waste Loading (lb/day) ($L_{HW}$) | Allowable Industrial Loading (lb/day) ($AIL_{NPDES}$) | Industrial Local Limit (mg/L) ($C_{LIM-NPDES}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 401.9 | 261.71429 | | 99.7% | 10 | 356,375.1 | 23,256.8 | 0 | 261,843.3 | 288,569.5 | 20 |
| Suspended Solids, Total (TSS) | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 389.6 | 177.14286 | | 99.5% | 10 | 191,844.6 | 15,741.5 | 0 | 137,734.2 | 151,792.6 | 20 |
| Ammonia (as N) | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 28.8 | 48.82857 | | 99.2% | 3.1 | 35,411.3 | 4,339.1 | 0 | 23,990.0 | 26,438.6 | 20 |
| Nitrate + Nitrite | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.2888 | 0.03543 | | 0.0% | 10 | 897.7 | 3.1 | 0 | 715.0 | 788.0 | 20 |
| Arsenic | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.0005 | 0.00042 | | 31.0% | | ----- | 0.0377 | 0 | ----- | - | 20 |
| Beryllium | 0.1 | 10.8 | 18.0 | 10.7 | 0 | *0.00004* | *0.00004* | | 0.0% | | ----- | 0.0035 | 0 | ----- | - | 20 |
| Cadmium | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.0001 | 0.00007 | | 76.7% | | ----- | 0.0067 | 0 | ----- | - | 20 |
| Chromium | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.0018 | 0.00124 | | 76.7% | | ----- | 0.1103 | 0 | ----- | - | 20 |
| Copper | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.0376 | 0.02017 | | 92.6% | | ----- | 1.7921 | 0 | ----- | - | 20 |
| Cyanide | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.0008 | 0.00118 | | 0.0% | | ----- | 0.1047 | 0 | ----- | - | 20 |
| Fluoride | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.350545 | 0.76429 | | 0.0% | | ----- | 67.9171 | 0 | ----- | - | 10 |
| Iron | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.6307 | 0.29529 | | 92.5% | | ----- | 26.2401 | 0 | ----- | - | 20 |
| Lead | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.0009 | 0.00051 | | 89.0% | | ----- | 0.0453 | 0 | ----- | - | 20 |
| Manganese | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.0517 | 0.03000 | | 93.2% | | ----- | 2.6659 | 0 | ----- | - | 20 |
| Mercury | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.0001 | 0.00003 | | 99.1% | | ----- | 0.0025 | 0 | ----- | - | 20 |
| Molybdenum | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.0011 | 0.00087 | | 77.9% | | ----- | 0.0770 | 0 | ----- | - | 20 |
| Nickel | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.0029 | 0.00202 | | 60.5% | | ----- | 0.1795 | 0 | ----- | - | 20 |
| Selenium | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.0007 | 0.00048 | | 63.8% | | ----- | 0.0428 | 0 | ----- | - | 20 |
| Silver | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.0002 | 0.00010 | | 87.8% | | ----- | 0.0092 | 0 | ----- | - | 20 |
| Zinc | 0.1 | 10.8 | 18.0 | 10.7 | 0 | 0.1330 | 0.11060 | | 75.3% | | ----- | 9.8283 | 0 | ----- | - | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

| | | | | | |
|---|---|---|---|---|---|
| ($Q_{IND}$) | Industrial flow in mgd. | ($R_{WWTP}$) | Removal efficiency across WWTP as a percent. | (SGF) | Safety and growth factor as a percent. |
| ($Q_{WWTP}$) | WWTP's average flow in mgd. | ($C_{NPDES}$) | NPDES monthly average permit limit in mg/L. | 8.34 | Unit conversion factor. |
| ($Q_{DOM}$) | Domestic/commercial background flow in mgd. | ($AHL_{NPDES}$) | Allowable headworks pollutant loading to the WWTP in lb/day. | ($Q_{NPDES}$) | WWTP's permitted flow in mgd. |
| ($Q_{HW}$) | Septic/hauled waste flow in mgd. | ($L_{UNC}$) | Domestic/commercial loading in lb/day. | | |
| ($C_{DOM}$) | Domestic/commercial background concentrations in mg/L. | ($L_{HW}$) | Septic/hauled waste loading in lb/day. | | |
| ($C_{HW}$) | Septic/hauled waste concentrations in mg/L. | ($AIL_{NPDES}$) | Allowable industrial loading to the WWTP in lb/day. | | |
| ($C_{INFL}$) | Influent pollutant conconcentration in mg/L. | ($C_{LIM-NPDES}$) | Local limits for industrial users in mg/L. | | |

**Table E4. Local Limits Determination Based on Activated Sludge Inhibition Threshold Levels for Dry Creek Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Septic/Hauled Waste Conc.[a] (mg/L) ($C_{HW}$) | Removal Efficiency[a] (%) ($R_{PRIM}$) | Activated SLudge Inhibition Level (mg/L) ($C_{INHIB1}$) | Allowable Headworks Loading (lb/day) ($AHL_{INHIB1}$) | Domestic & Commercial Loading (lb/day) ($L_{UNC}$) | Septic/Hauled Waste Loading (lb/day) ($L_{HW}$) | Allowable Industrial Loading (lb/day) ($AIL_{INHIB1}$) | Industrial Local Limit (mg/L) ($C_{LIM-INHIB1}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.1 | 10.8 | 10.7 | 261.7143 | 0 | | | | ----- | 23,256.831 | 0 | ---- | ---- | 20 |
| Suspended Solids, Total (TSS) | 0.1 | 10.8 | 10.7 | 177.1429 | 0 | | | | ----- | 15,741.523 | 0 | ----- | ----- | 20 |
| Ammonia (as N) | 0.1 | 10.8 | 10.7 | 48.8286 | 0 | | | 480 | 43,090 | 4,339.075 | 0 | 30,133 | 33,209 | 20 |
| Nitrate + Nitrite | 0.1 | 10.8 | 10.7 | 0.0354 | 0 | | | | ----- | 3.148 | 0 | ----- | ----- | 20 |
| Arsenic | 0.1 | 10.8 | 10.7 | 0.0004 | 0 | | | 0.1 | 9 | 0.038 | 0 | 7 | 8 | 20 |
| Beryllium | 0.1 | 10.8 | 10.7 | *0.00004* | 0 | | | | ----- | 0.004 | 0 | ----- | ----- | 20 |
| Cadmium | 0.1 | 10.8 | 10.7 | 0.0001 | 0 | | 15 | 5.5 | 581 | 0.007 | 0 | 465 | 512 | 20 |
| Chromium | 0.1 | 10.8 | 10.7 | 0.0012 | 0 | | 27 | 50.5 | 6,210 | 0.110 | 0 | 4,968 | 5,475 | 20 |
| Copper | 0.1 | 10.8 | 10.7 | 0.0202 | 0 | | 22 | 1 | 115 | 1.792 | 0 | 90 | 99 | 20 |
| Cyanide | 0.1 | 10.8 | 10.7 | 0.0012 | 0 | | 27 | 2.55 | 314 | 0.105 | 0 | 251 | 276 | 20 |
| Fluoride | 0.1 | 10.8 | 10.7 | 0.7643 | 0 | | | | ----- | 67.917 | 0 | ----- | ----- | 10 |
| Iron | 0.1 | 10.8 | 10.7 | 0.2953 | 0 | | | | ----- | 26.240 | 0 | ----- | ----- | 20 |
| Lead | 0.1 | 10.8 | 10.7 | 0.0005 | 0 | | 57 | 2.55 | 532 | 0.045 | 0 | 426 | 469 | 20 |
| Manganese | 0.1 | 10.8 | 10.7 | 0.0300 | 0 | | | | ----- | 2.666 | 0 | ----- | ----- | 20 |
| Mercury | 0.1 | 10.8 | 10.7 | 0.0000 | 0 | | 10 | 0.55 | 55 | 0.002 | 0 | 44 | 48 | 20 |
| Molybdenum | 0.1 | 10.8 | 10.7 | 0.0009 | 0 | | | | ----- | 0.077 | 0 | ----- | ----- | 20 |
| Nickel | 0.1 | 10.8 | 10.7 | 0.0020 | 0 | | 14 | 1.75 | 183 | 0.180 | 0 | 146 | 161 | 20 |
| Selenium | 0.1 | 10.8 | 10.7 | 0.0005 | 0 | | | | ----- | 0.043 | 0 | ----- | ----- | 20 |
| Silver | 0.1 | 10.8 | 10.7 | 0.0001 | 0 | | 20 | 2.625 | 295 | 0.009 | 0 | 236 | 260 | 20 |
| Zinc | 0.1 | 10.8 | 10.7 | 0.1106 | 0 | | 27 | 2.54 | 312 | 9.828 | 0 | 240 | 265 | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

| | | | |
|---|---|---|---|
| ($Q_{IND}$) | Industrial flow in mgd. | ($AHL_{INHIB1}$) | Allowable headworks pollutant loading to the WWTP in lb/day. |
| ($Q_{WWTP}$) | WWTP's average flow in mgd. | ($L_{UNC}$) | Domestic/commercial loading in lb/day. |
| ($Q_{DOM}$) | Domestic/commercial background flow in mgd. | ($L_{HW}$) | Septic/hauled waste loading in lb/day. |
| ($Q_{HW}$) | Septic/hauled waste flow in mgd. | ($AIL_{INHIB1}$) | Allowable industrial loading to the WWTP in lb/day. |
| ($C_{DOM}$) | Domestic/commercial background concentrations in mg/L. | ($C_{LIM-INHIB1}$) | Local limits for industrial users in mg/L. |
| ($C_{HW}$) | Septic/hauled waste concentrations in mg/L. | (SGF) | Safety and growth factor as a percent. |
| ($R_{PRIM}$) | Removal efficiency after primary treatment as a percent. | 8.34 | Unit conversion factor. |
| ($C_{INHIB1}$) | Activated sludge treatment inhibition threshold level for a particular pollutant in mg/L. | | |

**Table E5. Local Limits Determination Based on Nitrification Inhibition Threshold Levels for Dry Creek Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Septic/Hauled Waste Conc.[a] (mg/L) ($C_{HW}$) | Removal Efficiency[a] (%) ($R_{PRIM}$) | Nitrification Inhibition Level (mg/L) ($C_{INHIB2}$) | Allowable Headworks Loading (lb/day) ($AHL_{INHIB2}$) | Domestic & Commercial Loading (lb/day) ($L_{UNC}$) | Septic/Hauled Waste Loading (lb/day) ($L_{HW}$) | Allowable Industrial Loading (lb/day) ($AIL_{INHIB2}$) | Industrial Local Limit (mg/L) ($C_{LIM\text{-}INHIB2}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.1 | 10.8 | 10.7 | 261.7143 | 0 | | | | ----- | ---- | 0 | ----- | ----- | 20 |
| Suspended Solids, Total (TSS) | 0.1 | 10.8 | 10.7 | 177.1429 | 0 | | | | ----- | ---- | 0 | ----- | ----- | 20 |
| Ammonia (as N) | 0.1 | 10.8 | 10.7 | 48.8286 | 0 | | | | ----- | ---- | 0 | ----- | ----- | 20 |
| Nitrate + Nitrite | 0.1 | 10.8 | 10.7 | 0.0354 | 0 | | | | ----- | 3 | 0 | ----- | ----- | 20 |
| Arsenic | 0.1 | 10.8 | 10.7 | 0.0004 | 0 | | | 1.5 | 135 | 0.04 | 0 | 108 | 119 | 20 |
| Beryllium | 0.1 | 10.8 | 10.7 | *0.0000* | 0 | | | | ----- | 0.00 | 0 | ----- | ----- | 20 |
| Cadmium | 0.1 | 10.8 | 10.7 | 0.0001 | 0 | | 15 | 5.2 | 549 | 0.01 | 0 | 439 | 484 | 20 |
| Chromium | 0.1 | 10.8 | 10.7 | 0.0012 | 0 | | 27 | 1.075 | 132 | 0.11 | 0 | 106 | 116 | 20 |
| Copper | 0.1 | 10.8 | 10.7 | 0.0202 | 0 | | 22 | 0.265 | 30 | 1.79 | 0 | 23 | 25 | 20 |
| Cyanide | 0.1 | 10.8 | 10.7 | 0.0012 | 0 | | 27 | 0.42 | 52 | 0.10 | 0 | 41 | 45 | 20 |
| Fluoride | 0.1 | 10.8 | 10.7 | 0.7643 | 0 | | | | ----- | 67.92 | 0 | ----- | ----- | 10 |
| Iron | 0.1 | 10.8 | 10.7 | 0.2953 | 0 | | | | ----- | 26.24 | 0 | ----- | ----- | 20 |
| Lead | 0.1 | 10.8 | 10.7 | 0.0005 | 0 | | 57 | 0.5 | 104 | 0.05 | 0 | 83 | 92 | 20 |
| Manganese | 0.1 | 10.8 | 10.7 | 0.0300 | 0 | | | | ----- | 2.67 | 0 | ----- | ----- | 20 |
| Mercury | 0.1 | 10.8 | 10.7 | 0.0000 | 0 | | 10 | | ----- | 0.00 | 0 | ----- | ----- | 20 |
| Molybdenum | 0.1 | 10.8 | 10.7 | 0.0009 | 0 | | | | ----- | 0.08 | 0 | ----- | ----- | 20 |
| Nickel | 0.1 | 10.8 | 10.7 | 0.0020 | 0 | | 14 | 0.375 | 39 | 0.18 | 0 | 31 | 34 | 20 |
| Selenium | 0.1 | 10.8 | 10.7 | 0.0005 | 0 | | | | ----- | 0.04 | 0 | ----- | ----- | 20 |
| Silver | 0.1 | 10.8 | 10.7 | 0.0001 | 0 | | 20 | | ----- | 0.01 | 0 | ----- | ----- | 20 |
| Zinc | 0.1 | 10.8 | 10.7 | 0.1106 | 0 | | 27 | 0.29 | 36 | 9.83 | 0 | 18.70 | 20.61 | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

($Q_{IND}$) Industrial flow in mgd.
($Q_{WWTP}$) WWTP's average flow in mgd.
($Q_{DOM}$) Domestic/commercial background flow in mgd.
($Q_{HW}$) Septic/hauled waste flow in mgd.
($C_{DOM}$) Domestic/commercial background concentrations in mg/L.
($C_{HW}$) Septic/hauled waste concentrations in mg/L.
($R_{PRIM}$) Removal efficiency after primary treatment as a percent.
($C_{INHIB2}$) Nitrification inhibition threshold level for a particular pollutant in mg/L.

($AHL_{INHIB2}$) Allowable headworks pollutant loading to the WWTP in lb/da
($L_{UNC}$) Domestic/commercial loading in lb/day.
($L_{HW}$) Septic/hauled waste loading in lb/day.
($AIL_{INHIB2}$) Allowable industrial loading to the WWTP in lb/day.
($C_{LIM\text{-}INHIB2}$) Local limits for industrial users in mg/L.
(SGF) Safety and growth factor as a percent.
8.34 Unit conversion factor.

**Table E6. Local Limits Determination Based on Anaerobic Digestion Inhibition Threshold Levels for Dry Creek Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Septic/Hauled Waste Conc.[a] (mg/L) ($C_{HW}$) | Sludge to Digester (mgd) ($Q_{DIG}$) | Removal Efficiency[a] (%) ($R_{WWTP}$) | Anaerobic Digestion Inhibition Level ($C_{INHIB3}$) | Allowable Headworks Loading (lb/day) ($AHL_{INHIB3}$) | Domestic & Commercial Loading (lb/day) ($L_{UNC}$) | Septic/Hauled Waste Loading (lb/day) ($L_{HW}$) | Allowable Industrial Loading (lb/day) ($AIL_{INHIB3}$) | Industrial Local Limit (mg/L) ($C_{LIM\text{-}INHIB3}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.1 | 10.8 | 10.7 | 261.7143 | 0 | | 0.05 | 99.75% | | ----- | 23,257 | 0 | ---- | ---- | 20 |
| Suspended Solids, Total (TSS) | 0.1 | 10.8 | 10.7 | 177.1429 | 0 | | 0.05 | 99.53% | | ----- | 15,742 | 0 | ----- | ----- | 20 |
| Ammonia (as N) | 0.1 | 10.8 | 10.7 | 48.8286 | 0 | | 0.05 | 99.21% | | ----- | 4,339 | 0 | ----- | ----- | 20 |
| Nitrate + Nitrite | 0.1 | 10.8 | 10.7 | 0.0354 | 0 | | 0.05 | 0.00% | | ----- | 3 | 0 | ----- | ----- | 20 |
| Arsenic | 0.1 | 10.8 | 10.7 | 0.0004 | 0 | | 0.05 | 30.96% | 1.6 | 2.04 | 0.038 | 0 | 1.59 | 1.753 | 20 |
| Beryllium | 0.1 | 10.8 | 10.7 | *0.0000* | 0 | | 0.05 | 0.00% | | ----- | 0.004 | 0 | ----- | ----- | 20 |
| Cadmium | 0.1 | 10.8 | 10.7 | 0.0001 | 0 | | 0.05 | 76.73% | 110 | 56.48 | 0.007 | 0 | 45.18 | 49.788 | 20 |
| Chromium | 0.1 | 10.8 | 10.7 | 0.0012 | 0 | | 0.05 | 76.66% | | ----- | 0.110 | 0 | ----- | ----- | 20 |
| Copper | 0.1 | 10.8 | 10.7 | 0.0202 | 0 | | 0.05 | 92.56% | 40 | 17.03 | 1.792 | 0 | 11.83 | 13.036 | 20 |
| Cyanide | 0.1 | 10.8 | 10.7 | 0.0012 | 0 | | 0.05 | 100.00% | 50.5 | 19.90 | 0.105 | 0 | 15.81 | 17.425 | 20 |
| Fluoride | 0.1 | 10.8 | 10.7 | 0.7643 | 0 | | 0.05 | 0.00% | | ----- | 67.917 | 0 | ----- | ----- | 10 |
| Iron | 0.1 | 10.8 | 10.7 | 0.2953 | 0 | | 0.05 | 92.46% | | ----- | 26.240 | 0 | ----- | ----- | 20 |
| Lead | 0.1 | 10.8 | 10.7 | 0.0005 | 0 | | 0.05 | 89.04% | 340 | 150.44 | 0.045 | 0 | 120.30 | 132.583 | 20 |
| Manganese | 0.1 | 10.8 | 10.7 | 0.0300 | 0 | | 0.05 | 93.21% | | ----- | 2.666 | 0 | ----- | ----- | 20 |
| Mercury | 0.1 | 10.8 | 10.7 | 0.0000 | 0 | | 0.05 | 99.14% | | ----- | 0.002 | 0 | ----- | ----- | 20 |
| Molybdenum | 0.1 | 10.8 | 10.7 | 0.0009 | 0 | | 0.05 | 77.85% | | ----- | 0.077 | 0 | ----- | ----- | 20 |
| Nickel | 0.1 | 10.8 | 10.7 | 0.0020 | 0 | | 0.05 | 60.46% | 73 | 47.57 | 0.180 | 0 | 37.87 | 41.741 | 20 |
| Selenium | 0.1 | 10.8 | 10.7 | 0.0005 | 0 | | 0.05 | 63.79% | | ----- | 0.043 | 0 | ----- | ----- | 20 |
| Silver | 0.1 | 10.8 | 10.7 | 0.0001 | 0 | | 0.05 | 87.78% | 39 | 17.50 | 0.009 | 0 | 13.99 | 15.422 | 20 |
| Zinc | 0.1 | 10.8 | 10.7 | 0.1106 | 0 | | 0.05 | 75.30% | 400 | 209.28 | 9.828 | 0 | 157.60 | 173.686 | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

| | | | |
|---|---|---|---|
| ($Q_{IND}$) | Industrial flow in mgd. | ($AHL_{INHIB2}$) | Allowable headworks pollutant loading to the WWTP in lb/da |
| ($Q_{WWTP}$) | WWTP's average flow in mgd. | ($L_{UNC}$) | Domestic/commercial loading in lb/day. |
| ($Q_{DOM}$) | Domestic/commercial background flow in mgd. | ($L_{HW}$) | Septic/hauled waste loading in lb/day. |
| ($Q_{HW}$) | Septic/hauled waste flow in mgd. | ($AIL_{INHIB3}$) | Allowable industrial loading to the WWTP in lb/day. |
| ($C_{DOM}$) | Domestic/commercial background concentrations in mg/L. | ($C_{LIM\text{-}INHIB3}$) | Local limits for industrial users in mg/L. |
| ($C_{HW}$) | Septic/hauled waste concentrations in mg/L. | (SGF) | Safety and growth factor as a percent. |
| ($R_{WWTP}$) | Removal efficiency across WWTP as a percent. | 8.34 | Unit conversion factor. |
| ($C_{INHIB3}$) | Anaerobic digestion inhibition threshold level for a particular pollutant in mg/L. | | |

**Table E7. Local Limits Determination Based on Sludge Disposal for Dry Creek Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Septic/Hauled Waste Conc.[a] (mg/L) ($C_{HW}$) | Sludge to Disposal (dry metric tons/day) ($Q_{SLUDGE}$) | Removal Efficiency[a] (%) ($R_{WWTP}$) | Sludge Criteria (mg/kg) ($C_{SLUDGE}$) | Allowable Headworks Loading (lbs/day) ($AHL_{SLUDGE}$) | Domestic & Commercial Loading (lbs/day) ($L_{UNC}$) | Septic/Hauled Waste Loading (lbs/day) ($L_{HW}$) | Allowable Industrial Loading (lbs/day) ($AIL_{SLUDGE}$) | Industrial Local Limit (mg/L) ($C_{LIM\text{-}SLUDGE}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.1 | 10.8 | 10.7 | 261.7 | 0 | | 7.433 | 99.7% | | ----- | 23,256.831 | 0 | ----- | ----- | 20 |
| Suspended Solids, Total (TSS) | 0.1 | 10.8 | 10.7 | 177.1 | 0 | | 7.433 | 99.5% | | ----- | 15,741.523 | 0 | ----- | ----- | 20 |
| Ammonia (as N) | 0.1 | 10.8 | 10.7 | 48.8 | 0 | | 7.433 | 99.2% | | ----- | 4,339.075 | 0 | ----- | ----- | 20 |
| Nitrate + Nitrite | 0.1 | 10.8 | 10.7 | 0.0 | 0 | | 7.433 | 0.0% | | ----- | 3.148 | 0 | ----- | ----- | 20 |
| Arsenic | 0.1 | 10.8 | 10.7 | 0.0004 | 0 | | 7.433 | 31.0% | 41 | 2.17 | 0.038 | 0 | 1.69 | 1.867 | 20 |
| Beryllium | 0.1 | 10.8 | 10.7 | *0.00004* | 0 | | 7.433 | 0.0% | | ----- | 0.004 | 0 | ----- | ----- | 20 |
| Cadmium | 0.1 | 10.8 | 10.7 | 0.0001 | 0 | | 7.433 | 76.7% | 39 | 0.83 | 0.007 | 0 | 0.66 | 0.725 | 20 |
| Chromium | 0.1 | 10.8 | 10.7 | 0.0012 | 0 | | 7.433 | 76.7% | | ----- | 0.110 | 0 | ----- | ----- | 20 |
| Copper | 0.1 | 10.8 | 10.7 | 0.0202 | 0 | | 7.433 | 92.6% | 1500 | 26.50 | 1.792 | 0 | 19.41 | 21.389 | 20 |
| Cyanide | 0.1 | 10.8 | 10.7 | 0.0012 | 0 | | 7.433 | 0.0% | | ----- | 0.105 | 0 | ----- | ----- | 20 |
| Fluoride | 0.1 | 10.8 | 10.7 | 0.7643 | 0 | | 7.433 | 0.0% | | ----- | 67.917 | 0 | ----- | ----- | 10 |
| Iron | 0.1 | 10.8 | 10.7 | 0.2953 | 0 | | 7.433 | 92.5% | | ----- | 26.240 | 0 | ----- | ----- | 20 |
| Lead | 0.1 | 10.8 | 10.7 | 0.0005 | 0 | | 7.433 | 89.0% | 300 | 5.51 | 0.045 | 0 | 4.36 | 4.807 | 20 |
| Manganese | 0.1 | 10.8 | 10.7 | 0.0300 | 0 | | 7.433 | 93.2% | | ----- | 2.666 | 0 | ----- | ----- | 20 |
| Mercury | 0.1 | 10.8 | 10.7 | 0.0000 | 0 | | 7.433 | 99.1% | 17 | 0.28 | 0.002 | 0 | 0.22 | 0.245 | 20 |
| Molybdenum | 0.1 | 10.8 | 10.7 | 0.0009 | 0 | | 7.433 | 77.9% | 75 | 1.58 | 0.077 | 0 | 1.18 | 1.304 | 20 |
| Nickel | 0.1 | 10.8 | 10.7 | 0.0020 | 0 | | 7.433 | 60.5% | 420 | 11.36 | 0.180 | 0 | 8.91 | 9.817 | 20 |
| Selenium | 0.1 | 10.8 | 10.7 | 0.0005 | 0 | | 7.433 | 63.8% | 100 | 2.56 | 0.043 | 0 | 2.01 | 2.213 | 20 |
| Silver | 0.1 | 10.8 | 10.7 | 0.0001 | 0 | | 7.433 | 87.8% | | ----- | 0.009 | 0 | ----- | ----- | 20 |
| Zinc | 0.1 | 10.8 | 10.7 | 0.1106 | 0 | | 7.433 | 75.3% | 2800 | 60.81 | 9.828 | 0 | 38.82 | 42.778 | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

| | | | |
|---|---|---|---|
| ($Q_{IND}$) | Industrial flow in mgd. | ($Q_{SLUDGE}$) | Dry sludge to disposal in dry metric tons/day. |
| ($Q_{WWTP}$) | WWTP's average flow in mgd. | ($AHL_{SLUDGE}$) | Allowable headworks pollutant loading to the WWTP in lbs/day. |
| ($Q_{DOM}$) | Domestic/commercial background flow in mgd. | ($L_{UNC}$) | Domestic/commercial loading in lbs/day. |
| ($Q_{HW}$) | Septic/hauled waste flow in mgd. | ($L_{HW}$) | Septic/hauled waste loading in lbs/day. |
| ($C_{DOM}$) | Domestic/commercial background concentrations in mg/L. | ($AIL_{SLUDGE}$) | Allowable industrial loading to the WWTP in lbs/day. |
| ($C_{HW}$) | Septic/hauled waste concentrations in mg/L. | ($C_{LIM\text{-}SLUDGE}$) | Local limits for industrial users in mg/L. |
| ($R_{WWTP}$) | Removal efficiency across WWTP as a percent. | (SGF) | Safety and growth factor as a percent. |
| ($C_{SLUDGE}$) | Sludge criteria for a particular pollutant in mg/kg. | 8.34 | Unit conversion factor. |

**Table E8. Local Limits Determination Based on Water Quality Standards for Dry Creek Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Septic/Hauled Waste Conc. (mg/L) ($C_{HW}$) | Removal Efficiency (%) ($R_{WWTP}$) | Stream Flow (mgd) ($Q_{STR}$) | Upstream Conc. (mg/L) ($C_{STR}$) | WQS (mg/L) ($C_{WQS}$) | Allowable Headworks (lb/day) ($AHL_{WQS}$) | Domestic & Commercial Loading (lb/day) ($L_{UNC}$) | Septic/Hauled Waste Loading (lb/day) ($L_{HW}$) | Allowable Industrial Loading (lb/day) ($AIL_{WQS}$) | Industrial Local Limit (mg/L) ($C_{LIM\text{-}WQS}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.1 | 10.8 | 10.7 | 261.714 | 0 | | 99.7% | 0 | | | ----- | ---- | 0 | ----- | ----- | 20 |
| Suspended Solids, Total (TSS) | 0.1 | 10.8 | 10.7 | 177.143 | 0 | | 99.5% | 0 | | | ----- | ---- | 0 | ----- | ----- | 20 |
| Ammonia (as N) | 0.1 | 10.8 | 10.7 | 48.829 | 0 | | 99.2% | 0 | | | ----- | ---- | 0 | ----- | ----- | 20 |
| Nitrate + Nitrite | 0.1 | 10.8 | 10.7 | 0.035 | 0 | | 0.0% | 0 | | 10.0000 | 897.71 | 3 | 0 | 715.02 | 788 | 20 |
| Arsenic | 0.1 | 10.8 | 10.7 | 0.000 | 0 | | 31.0% | 0 | | 0.0100 | 1.30 | 0.04 | 0 | 1.00 | 1 | 20 |
| Beryllium | 0.1 | 10.8 | 10.7 | 0.000 | 0 | | 0.0% | 0 | | 0.0040 | 0.36 | 0.00 | 0 | 0.28 | 0 | 20 |
| Cadmium | 0.1 | 10.8 | 10.7 | 0.000 | 0 | | 76.7% | 0 | | 0.0020 | 0.79 | 0.01 | 0 | 0.62 | 1 | 20 |
| Chromium | 0.1 | 10.8 | 10.7 | 0.001 | 0 | | 76.7% | 0 | | 0.0114 | 4.40 | 0.11 | 0 | 3.41 | 4 | 20 |
| Copper | 0.1 | 10.8 | 10.7 | 0.020 | 0 | | 92.6% | 0 | | 0.0076 | 9.20 | 1.79 | 0 | 5.57 | 6 | 20 |
| Cyanide | 0.1 | 10.8 | 10.7 | 0.001 | 0 | | 0.0% | 0 | | 0.0052 | 0.47 | 0.10 | 0 | 0.27 | 0 | 20 |
| Fluoride | 0.1 | 10.8 | 10.7 | 0.7643 | 0 | | 0.0% | 0 | | 2.0000 | 179.54 | 67.917055 | 0 | 93.67 | 103.23133 | 10 |
| Iron | 0.1 | 10.8 | 10.7 | 0.295 | 0 | | 92.5% | 0 | | | ----- | 26.24 | 0 | ----- | ----- | 20 |
| Lead | 0.1 | 10.8 | 10.7 | 0.0005 | 0 | | 89.0% | 0 | | 0.0024 | 1.93 | 0.05 | 0 | 1.50 | 2 | 20 |
| Manganese | 0.1 | 10.8 | 10.7 | 0.030 | 0 | | 93.2% | 0 | | | ----- | 2.67 | 0 | ----- | ----- | 20 |
| Mercury | 0.1 | 10.8 | 10.7 | 0.000 | 0 | | 99.1% | 0 | | 0.00005 | 0.52 | 0.00 | 0 | 0.42 | 0.46 | 20 |
| Molybdenum | 0.1 | 10.8 | 10.7 | 0.001 | 0 | | 77.9% | 0 | | | ----- | 0.08 | 0 | ----- | ----- | 20 |
| Nickel | 0.1 | 10.8 | 10.7 | 0.002 | 0 | | 60.5% | 0 | | 0.0427 | 9.70 | 0.18 | 0 | 7.58 | 8 | 20 |
| Selenium | 0.1 | 10.8 | 10.7 | 0.0005 | 0 | | 63.8% | 0 | | 0.0050 | 1.24 | 0.043 | 0 | 0.95 | 1.05 | 20 |
| Silver | 0.1 | 10.8 | 10.7 | 0.0001 | 0 | | 87.8% | 0 | | 0.0027 | 1.99 | 0.01 | 0 | 1.58 | 1.74 | 20 |
| Zinc | 0.1 | 10.8 | 10.7 | 0.111 | 0 | | 75.3% | 0 | | 0.0981 | 35.66 | 9.83 | 0 | 18.70 | 21 | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

($Q_{IND}$) Industrial flow in mgd.
($Q_{WWTP}$) WWTP's average flow in mgd.
($Q_{DOM}$) Domestic/commercial background flow in mgd.
($Q_{HW}$) Septic/hauled waste flow in mgd.
($C_{DOM}$) Domestic/commercial background concentrations in mg/L.
($C_{HW}$) Septic/hauled waste concentrations in mg/L.
($Q_{STR}$) Receiving stream flow in mgd.
($R_{WWTP}$) Removal efficiency across WWTP as a percent.
($C_{STR}$) Receiving stream background level, where available, in mg/L.
($C_{WQS}$) Water quality standard for a particular pollutant in mg/L.
($AHL_{WQS}$) Allowable headworks pollutant loading to the WWTP in lb/day.
($L_{UNC}$) Domestic/commercial loading in lb/day.
($L_{HW}$) Septic/hauled waste loading in lb/day.
($AIL_{WQS}$) Allowable industrial loading to the WWTP in lb/day.
($C_{LIM\text{-}WQS}$) Local limits for industrial users in mg/L.
(SGF) Safety and growth factor as a percent.
8.34 Unit conversion factor.

| Table E9. Summary of Allowable Headworks Loadings (AHLs) for Dry Creek Wastewater Treatment Plant<br>Industrial Pretreatment Program: Local Limits Evaluation<br>Roseville, CA | | | | | | | |
|---|---|---|---|---|---|---|---|
| Pollutant | Allowable Headworks Loadings (lb/day) | | | | | | |
| | Design Criteria<br>($AHL_{DC}$) | Discharge Permit Limits<br>($AHL_{NPDES}$) | Activated Sludge Treatment Inhibition<br>($AHL_{INHIB1}$) | Nitrification Inhibition<br>($AHL_{INHIB2}$) | Anaerobic Digestion Inhibition<br>($AHL_{INHIB3}$) | Sludge Disposal<br>($AHL_{SLUDGE}$) | Water Quality Standards<br>($AHL_{WQS}$) |
| Biochemical Oxygen Demand (BOD) | 33,900 | 356,375 | ----- | ----- | ----- | ----- | ----- |
| Suspended Solids, Total (TSS) | 42,800 | 191,845 | ----- | ----- | ----- | ----- | ----- |
| Ammonia (as N) | 3,052 | 35,411 | 43,090 | ----- | ----- | ----- | ----- |
| Nitrate + Nitrite | ---- | 898 | ----- | ----- | ----- | ----- | 898 |
| Arsenic | ---- | ----- | 9.0 | 135 | 2.0 | 2.17 | 1 |
| Beryllium | ---- | ----- | ----- | ----- | ----- | ----- | 0.4 |
| Cadmium | ---- | ----- | 581 | 549 | 56 | 1 | 0.8 |
| Chromium | ---- | ----- | 6,210 | 132.2 | ----- | ----- | 4 |
| Copper | ---- | ----- | 115 | 30 | 17 | 26 | 9.2 |
| Cyanide | ---- | ----- | 314 | 52 | 20 | ----- | 0 |
| Fluoride | ---- | ----- | ----- | ----- | ----- | ----- | 179.542 |
| Iron | ---- | ----- | ----- | ----- | ----- | ----- | ----- |
| Lead | ---- | ----- | 532 | 104.4 | 150 | 5.5 | 2 |
| Manganese | ---- | ----- | ----- | ----- | ----- | ----- | ----- |
| Mercury | ---- | ----- | 55 | ----- | ----- | 0 | 0.5 |
| Molybdenum | ---- | ----- | ----- | ----- | ----- | 2 | ----- |

| Table E10. Summary of Allowable Industrial Loadings (AILs) for Dry Creek Wastewater Treatment Plant<br>Industrial Pretreatment Program: Local Limits Evaluation<br>Roseville, CA | | | | | | | |
|---|---|---|---|---|---|---|---|
| Pollutant | Allowable Industrial Loadings (lb/day) | | | | | | |
| | Design Criteria | Discharge Permit Limits | Activated Sludge Treatment Inhibition | Nitrification Inhibition | Anaerobic Digestion Inhibition | Sludge Disposal | Water Quality Standards |
| | ($AIL_{DC}$) | ($AIL_{NPDES}$) | ($AIL_{INHIB1}$) | ($AIL_{INHIB2}$) | ($AIL_{INHIB3}$) | ($AIL_{SLUDGE}$) | ($AIL_{WQS}$) |
| Biochemical Oxygen Demand (BOD) | 3,863 | 261,843 | ---- | ----- | ---- | ----- | ----- |
| Suspended Solids, Total (TSS) | 18,498 | 137,734 | ----- | ----- | ----- | ----- | ----- |
| Ammonia (as N) | -1,897 | 23,990 | 30,133 | ----- | ----- | ----- | ----- |
| Nitrate + Nitrite | ----- | 715 | ----- | ----- | ----- | ----- | 715 |
| Arsenic | ----- | ----- | 7 | 108 | 1.59 | 1.69 | 1 |
| Beryllium | ----- | ----- | ----- | ----- | ----- | ----- | 0 |
| Cadmium | ----- | ----- | 465 | 439 | 45 | 1 | 1 |
| Chromium | ----- | ----- | 4,968 | 106 | ----- | ----- | 3 |
| Copper | ----- | ----- | 90 | 23 | 12 | 19 | 6 |
| Cyanide | ----- | ----- | 251 | 41 | 16 | ----- | 0 |
| Fluoride | ----- | ----- | ----- | ----- | ----- | ----- | 93.67 |
| Iron | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Lead | ----- | ----- | 426 | 83 | 120 | 4.362 | 1 |
| Manganese | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Mercury | ----- | ----- | 44 | ----- | ----- | 0 | 0 |
| Molybdenum | ----- | ----- | ----- | ----- | ----- | 1 | ----- |

**Table E11. Maximum Allowable Headworks Loadings and Local Limits for Dry Creek Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | Most Stringent Criterion | Maximum Allowable Headworks Loadings | | | Maximum Allowable Industrial Loadings | | Local Limit Calculation Needed? | Calculated Industrial Local Limit (mg/L) | Worker Protection Screening Level[b] (mg/L) | Domestic/ Commercial Background Levels[c] (mg/L) | Existing Local Limits (mg/L) | Final Industrial Local Limit[d] (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated MAHL (lbs/day) | Average Influent Loading[a] (lb/day) | Percent of MAHL Currently in Use (%) | Calculated MAIL (lbs/day) | Existing MAIL (lbs/day) | | | | | | |
| Biochemical Oxygen Demand (BOD) | Design Criteria | 33,900 | 36,076 | 106.42% | 3,863.17 | 181,939 | yes | 4,257.482 | ----- | 261.71429 | 240 | 4257 |
| Suspended Solids, Total (TSS) | Design Criteria | 42,800 | 34,979 | 81.73% | 18,498.48 | 178,856 | yes | 20,386.610 | ----- | 177.14286 | 250 | 20387 |
| Ammonia (as N) | Design Criteria | 3,052 | 2,589 | 84.83% | -1,897.31 | 37,155 | yes | -2,090.966 | ----- | 48.82857 | 20 | -2091 |
| Nitrate + Nitrite | Permit Limits | 898 | 26 | 2.89% | 715.02 | | no | | ----- | 0.03543 | ----- | ----- |
| Arsenic | Water Quality Standards | 1.30 | 0.0474 | 3.64% | 1.00 | 0.8 | yes | 1.105 | ----- | 0.00042 | 0.1 | 1.1049 |
| Beryllium | Water Quality Standards | 0.36 | *0.0035* | 0.99% | 0.28 | | no | | ----- | *0.000040* | 0.01 | ----- |
| Cadmium | Water Quality Standards | 0.8 | 0.0096 | 1.22% | 0.62 | 0.31 | yes | 0.689 | ----- | 0.00007 | 0.01 | 0.69 |
| Chromium | Water Quality Standards | 4.4 | 0.1593 | 3.62% | 3.41 | 37 | yes | 3.755 | ----- | 0.0012 | 0.56 | 3.76 |
| Copper | Water Quality Standards | 9.2 | 3.3781 | 36.71% | 5.57 | 5.4 | yes | 6.138 | ----- | 0.02017 | 0.13 | 6.14 |
| Cyanide | Water Quality Standards | 0.47 | 0.0758 | 16.23% | 0.27 | 0.22 | yes | 0.296 | ----- | 0.00118 | 0.01 | 0.296 |
| Fluoride | Water Quality Standards | 179.542 | 31.4687 | 17.53% | 93.67 | | yes | 103.231 | ----- | 0.7642857 | 5.5 | 103.2313 |
| Iron | | | 56.6153 | | | 356 | no | | ----- | 0.29529 | 18 | ----- |
| Lead | Water Quality Standards | 1.9 | 0.0818 | 4.24% | 1.50 | 0.6 | yes | 1.652 | ----- | 0.00051 | 0.04 | 1.65 |
| Manganese | | | 4.6456 | | | 39 | no | | ----- | 0.0300 | 1.1 | ----- |
| Mercury | Sludge Disposal | 0.3 | 0.0068 | 2.44% | 0.22 | 0.54 | yes | 0.245 | ----- | 0.000028 | 0.020 | 0.24 |
| Molybdenum | Sludge Disposal | 1.6 | 0.1019 | 6.47% | 1.18 | | yes | 1.304 | ----- | 0.0009 | ----- | 1.30 |
| Nickel | Water Quality Standards | 9.7 | 0.2627 | 2.71% | 7.58 | 4.7 | yes | 8.356 | ----- | 0.0020 | 0.31 | 8.36 |
| Selenium | Water Quality Standards | 1.2 | 0.0671 | 5.41% | 0.95 | 1 | yes | 1.046 | ----- | 0.0005 | 0.006 | 1.05 |
| Silver | Water Quality Standards | 2.0 | 0.0224 | 1.13% | 1.58 | 5.1 | yes | 1.743 | ----- | 0.0001 | 0.04 | 1.74 |
| Zinc | Water Quality Standards | 35.7 | 11.9408 | 33.49% | 18.70 | 9.2 | yes | 20.608 | ----- | 0.111 | 0.16 | 20.61 |

[a] Influent loadings in italics were calculated using influent pollutant concentrations that were all non-detect (reported as 1/2 reporting or detection limit as available).

[b] Worker Protection Screening Levels are the most stringent of discharge screening levels based on fume toxicity and explosivity. Refer to Table B8.

[c] Domestic/commercial background levels in italics are non-detect (reported as 1/2 reporting or detection limit as available).

[d] Industrial local limits are the more stringent of the calculated industrial local limits and Worker Protection Screening Levels.

# Appendix F: MAHL and MAIL Calculations for Dry Creek WWTP

**Table E1. Maximum Allowable Headworks Loading Analysis for Pleasant Grove Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| | |
|---|---|
| WWTP Name: | Pleasant Grove Wastewater Treatment Plant |
| Date: | 11/11/2025 |
| | |
| Average WWTP Flow (mgd): | 9.34 |
| Total Actual Industrial Flow (mgd): | 0.46 |
| Septic/Hauled Waste Flow (mgd): | |
| Domestic/Commercial Flow (mgd): | 8.89 |
| Sludge Flow to Digester (mgd): | 0.03 |
| Dry Sludge to Disposal (lb/day): | 7.47 |
| | |
| NPDES / NOA Permit Number: | CAG585001 / R5-2023-0025 |
| NPDES Permitted Discharge (mgd): | 12.0 |
| Receiving Stream: | Pleasant Grove Creek |
| 7Q10 Stream Flow (mgd): | |
| Stream Classification: | Municipal and Domestic Supply, Agricultural Supply, Water Contact Recreation, Non-contact Recreation, Warm Freshwater Habitat, Cold Freshwater Habitat, Wildlife Habitat, Navigation, Migration of Aquatic Organisms, and Spawning, Reproduction, and/or Early Development. |
| | |
| Safety (10) and Growth Factor (5)(%): | 20 |

**Table E2. Local Limits Determination Based on Design Criteria for Pleasant Grove Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Septic/Hauled Waste Conc. (mg/L) ($C_{HW}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Design Criteria (mg/L) ($L_{DC}$) | Design Criteria (lb/day) ($L_{DC}$) | Allowable Headworks Loading (lb/day) ($AHL_{DESIGN}$) | Domestic & Commercial Loading (lb/day) ($L_{UNC}$) | Allowable Industrial Loading (lb/day) ($AIL_{DESIGN}$) | Industrial Local Limit (mg/L) ($C_{LIM\text{-}DESIGN}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.5 | 9.3 | 0 | | 8.9 | 261.7143 | 350 | 27,277 | 27276.66242 | 19,393.893 | 2,427 | 634 | 20 |
| Suspended Solids, Total (TSS) | 0.5 | 9.3 | 0 | | 8.9 | 177.1429 | 320 | 24,939 | 24938.66279 | 13,126.871 | 6,824 | 1782 | 20 |
| Ammonia (as N) | 0.5 | 9.3 | 0 | | 8.9 | 48.8286 | 36 | 2,806 | 2805.599564 | 3,618.358 | -1,374 | -359 | 20 |
| Nitrate + Nitrate | 0.5 | 9.3 | 0 | | 8.9 | 0.0354 | | | ---- | 2.625 | ----- | ----- | 20 |
| Arsenic | 0.5 | 9.3 | 0 | | 8.9 | 0.0004 | | | ---- | 0.031 | ----- | ----- | 20 |
| Beryllium | 0.5 | 9.3 | 0 | | 8.9 | *0.0000* | | | ---- | 0.003 | ----- | ----- | 20 |
| Cadmium | 0.5 | 9.3 | 0 | | 8.9 | 0.0001 | | | ---- | 0.006 | ----- | ----- | 20 |
| Chromium | 0.5 | 9.3 | 0 | | 8.9 | 0.0012 | | | ---- | 0.092 | ----- | ----- | 20 |
| Copper | 0.5 | 9.3 | 0 | | 8.9 | 0.0202 | | | ---- | 1.494 | ----- | ----- | 20 |
| Cyanide | 0.5 | 9.3 | 0 | | 8.9 | 0.0012 | | | ---- | 0.087 | ----- | ----- | 20 |
| Fluoride | 0.5 | 9.3 | 0 | | 8.9 | 0.76429 | | | ---- | 56.636 | ----- | ----- | 10 |
| Iron | 0.5 | 9.3 | 0 | | 8.9 | 0.2953 | | | ---- | 21.882 | ----- | ----- | 20 |
| Lead | 0.5 | 9.3 | 0 | | 8.9 | 0.0005 | | | ---- | 0.038 | ----- | ----- | 20 |
| Manganese | 0.5 | 9.3 | 0 | | 8.9 | 0.0300 | | | ---- | 2.223 | ----- | ----- | 20 |
| Mercury | 0.5 | 9.3 | 0 | | 8.9 | 0.0000 | | | ---- | 0.002 | ----- | ----- | 20 |
| Molybdenum | 0.5 | 9.3 | 0 | | 8.9 | 0.0009 | | | ---- | 0.064 | ----- | ----- | 20 |
| Nickel | 0.5 | 9.3 | 0 | | 8.9 | 0.0020 | | | ---- | 0.150 | ----- | ----- | 20 |
| Selenium | 0.5 | 9.3 | 0 | | 8.9 | 0.0005 | | | ---- | 0.036 | ----- | ----- | 20 |
| Silver | 0.5 | 9.3 | 0 | | 8.9 | 0.0001 | | | ---- | 0.008 | ----- | ----- | 20 |
| Zinc | 0.5 | 9.3 | 0 | | 8.9 | 0.1106 | | | ---- | 8.196 | ----- | ----- | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

| | | | |
|---|---|---|---|
| ($Q_{IND}$) | Industrial flow in mgd. | ($L_{UNC}$) | Domestic/commercial loading in lb/day. |
| ($Q_{WWTP}$) | WWTP's average flow in mgd. | ($L_{HW}$) | Septic/hauled waste loading in lb/day. |
| ($Q_{DOM}$) | Domestic/commercial background flow in mgd. | ($AIL_{DESIGN}$) | Allowable industrial loading to the WWTP in lb/day. |
| ($Q_{HW}$) | Septic/hauled waste flow in mgd. | ($C_{LIM\text{-}DESIGN}$) | Local limits for industrial users in mg/L. |
| ($C_{DOM}$) | Domestic/commercial background concentrations in mg/L. | (SGF) | Safety and growth factor as a percent. |
| ($C_{HW}$) | Septic/hauled waste concentrations in mg/L. | 8.34 | Unit conversion factor. |
| ($L_{DC}$) | The pollutant loading the WWTP is designed to treat in lb/day. | | |

**Table E3. Local Limits Determination Based on Permit Limits for Pleasant Grove Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | WWTP Permitted Flow (mgd) ($Q_{NPDES}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Average Influent Pollutant Conc.[a] (mg/L) ($C_{INFL}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Septic/Hauled Waste Conc.[a,b] (mg/L) ($C_{HW}$) | Removal Efficiency[a] (%) ($R_{WWTP}$) | Permit Limit for Discharge (mg/L) ($C_{NPDES}$) | Allowable Headworks Loading (lb/day) ($AHL_{NPDES}$) | Domestic & Commercial Loading (lb/day) ($L_{UNC}$) | Septic/Hauled Waste Loading (lb/day) ($L_{HW}$) | Allowable Industrial Loading (lb/day) ($AIL_{NPDES}$) | Industrial Local Limit (mg/L) ($C_{LIM-NPDES}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 427.8 | 261.71429 | | 99.7% | 10 | 230,835.5 | 19,393.9 | 0 | 165,274.5 | 43,152.4 | 20 |
| Suspended Solids, Total (TSS) | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 297.5 | 177.14286 | | 99.3% | 10 | 111,662.9 | 13,126.9 | 0 | 76,203.5 | 19,896.4 | 20 |
| Ammonia (as N) | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 41.0 | 48.82857 | | 99.5% | 3.1 | 45,308.9 | 3,618.4 | 0 | 32,628.8 | 8,519.2 | 20 |
| Nitrate + Nitrate | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.0180 | 0.03543 | | 0.0% | 10 | 779.3 | 2.6 | 0 | 620.8 | 162.1 | 20 |
| Arsenic | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.0004 | 0.00042 | | 60.5% | | ----- | 0.0314 | 0 | ----- | - | 20 |
| Beryllium | 0.5 | 9.3 | 12.0 | 8.9 | 0 | *0.00004* | *0.00004* | | 0.0% | | ----- | 0.0029 | 0 | ----- | - | 20 |
| Cadmium | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.0001 | 0.00007 | | 70.3% | | ----- | 0.0055 | 0 | ----- | - | 20 |
| Chromium | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.0014 | 0.00124 | | 81.4% | | ----- | 0.0920 | 0 | ----- | - | 20 |
| Copper | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.0277 | 0.02017 | | 96.3% | | ----- | 1.4944 | 0 | ----- | - | 20 |
| Cyanide | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.0008 | 0.00118 | | 0.0% | | ----- | 0.0873 | 0 | ----- | - | 20 |
| Fluoride | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.284286 | 0.76429 | | 0.0% | | ----- | 56.6361 | 0 | ----- | - | 10 |
| Iron | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.4214 | 0.29529 | | 83.4% | | ----- | 21.8816 | 0 | ----- | - | 20 |
| Lead | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.0005 | 0.00051 | | 93.5% | | ----- | 0.0378 | 0 | ----- | - | 20 |
| Manganese | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.0559 | 0.03000 | | 69.0% | | ----- | 2.2231 | 0 | ----- | - | 20 |
| Mercury | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.0001 | 0.00003 | | 99.4% | | ----- | 0.0020 | 0 | ----- | - | 20 |
| Molybdenum | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.0012 | 0.00087 | | 78.8% | | ----- | 0.0642 | 0 | ----- | - | 20 |
| Nickel | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.0030 | 0.00202 | | 48.8% | | ----- | 0.1497 | 0 | ----- | - | 20 |
| Selenium | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.0006 | 0.00048 | | 69.4% | | ----- | 0.0357 | 0 | ----- | - | 20 |
| Silver | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.0002 | 0.00010 | | 83.7% | | ----- | 0.0077 | 0 | ----- | - | 20 |
| Zinc | 0.5 | 9.3 | 12.0 | 8.9 | 0 | 0.1441 | 0.11060 | | 77.6% | | ----- | 8.1958 | 0 | ----- | - | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

| | | | | | |
|---|---|---|---|---|---|
| ($Q_{IND}$) | Industrial flow in mgd. | ($R_{WWTP}$) | Removal efficiency across WWTP as a percent. | (SGF) | Safety and growth factor as a percent. |
| ($Q_{WWTP}$) | WWTP's average flow in mgd. | ($C_{NPDES}$) | NPDES monthly average permit limit in mg/L. | 8.34 | Unit conversion factor. |
| ($Q_{DOM}$) | Domestic/commercial background flow in mgd. | ($AHL_{NPDES}$) | Allowable headworks pollutant loading to the WWTP in lb/day. | ($Q_{NPDES}$) | WWTP's permitted flow in mgd. |
| ($Q_{HW}$) | Septic/hauled waste flow in mgd. | ($L_{UNC}$) | Domestic/commercial loading in lb/day. | | |
| ($C_{DOM}$) | Domestic/commercial background concentrations in mg/L. | ($L_{HW}$) | Septic/hauled waste loading in lb/day. | | |
| ($C_{HW}$) | Septic/hauled waste concentrations in mg/L. | ($AIL_{NPDES}$) | Allowable industrial loading to the WWTP in lb/day. | | |
| ($C_{INFL}$) | Influent pollutant conconcentration in mg/L. | ($C_{LIM-NPDES}$) | Local limits for industrial users in mg/L. | | |

**Table E4. Local Limits Determination Based on Activated Sludge Inhibition Threshold Levels for Pleasant Grove Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Septic/Hauled Waste Conc.[a] (mg/L) ($C_{HW}$) | Removal Efficiency[a] (%) ($R_{PRIM}$) | Activated SLudge Inhibition Level (mg/L) ($C_{INHIB1}$) | Allowable Headworks Loading (lb/day) ($AHL_{INHIB1}$) | Domestic & Commercial Loading (lb/day) ($L_{UNC}$) | Septic/Hauled Waste Loading (lb/day) ($L_{HW}$) | Allowable Industrial Loading (lb/day) ($AIL_{INHIB1}$) | Industrial Local Limit (mg/L) ($C_{LIM-INHIB1}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.5 | 9.3 | 8.9 | 261.7143 | 0 | | | | ----- | 19,393.893 | 0 | ---- | ---- | 20 |
| Suspended Solids, Total (TSS) | 0.5 | 9.3 | 8.9 | 177.1429 | 0 | | | | ----- | 13,126.871 | 0 | ----- | ----- | 20 |
| Ammonia (as N) | 0.5 | 9.3 | 8.9 | 48.8286 | 0 | | | 480 | 37,408 | 3,618.358 | 0 | 26,308 | 6,869 | 20 |
| Nitrate + Nitrate | 0.5 | 9.3 | 8.9 | 0.0354 | 0 | | | | ----- | 2.625 | 0 | ----- | ----- | 20 |
| Arsenic | 0.5 | 9.3 | 8.9 | 0.0004 | 0 | | | 0.1 | 8 | 0.031 | 0 | 6 | 2 | 20 |
| Beryllium | 0.5 | 9.3 | 8.9 | *0.00004* | 0 | | | | ----- | 0.003 | 0 | ----- | ----- | 20 |
| Cadmium | 0.5 | 9.3 | 8.9 | 0.0001 | 0 | | 15 | 5.5 | 504 | 0.006 | 0 | 403 | 105 | 20 |
| Chromium | 0.5 | 9.3 | 8.9 | 0.0012 | 0 | | 27 | 50.5 | 5,391 | 0.092 | 0 | 4,313 | 1,126 | 20 |
| Copper | 0.5 | 9.3 | 8.9 | 0.0202 | 0 | | 22 | 1 | 100 | 1.494 | 0 | 78 | 20 | 20 |
| Cyanide | 0.5 | 9.3 | 8.9 | 0.0012 | 0 | | 27 | 2.55 | 272 | 0.087 | 0 | 218 | 57 | 20 |
| Fluoride | 0.5 | 9.3 | 8.9 | 0.7643 | 0 | | | | ----- | 56.636 | 0 | ----- | ----- | 10 |
| Iron | 0.5 | 9.3 | 8.9 | 0.2953 | 0 | | | | ----- | 21.882 | 0 | ----- | ----- | 20 |
| Lead | 0.5 | 9.3 | 8.9 | 0.0005 | 0 | | 57 | 2.55 | 462 | 0.038 | 0 | 370 | 97 | 20 |
| Manganese | 0.5 | 9.3 | 8.9 | 0.0300 | 0 | | | | ----- | 2.223 | 0 | ----- | ----- | 20 |
| Mercury | 0.5 | 9.3 | 8.9 | 0.0000 | 0 | | 10 | 0.55 | 48 | 0.002 | 0 | 38 | 10 | 20 |
| Molybdenum | 0.5 | 9.3 | 8.9 | 0.0009 | 0 | | | | ----- | 0.064 | 0 | ----- | ----- | 20 |
| Nickel | 0.5 | 9.3 | 8.9 | 0.0020 | 0 | | 14 | 1.75 | 159 | 0.150 | 0 | 127 | 33 | 20 |
| Selenium | 0.5 | 9.3 | 8.9 | 0.0005 | 0 | | | | ----- | 0.036 | 0 | ----- | ----- | 20 |
| Silver | 0.5 | 9.3 | 8.9 | 0.0001 | 0 | | 20 | 2.625 | 256 | 0.008 | 0 | 205 | 53 | 20 |
| Zinc | 0.5 | 9.3 | 8.9 | 0.1106 | 0 | | 27 | 2.54 | 271 | 8.196 | 0 | 209 | 55 | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

| | | | |
|---|---|---|---|
| ($Q_{IND}$) | Industrial flow in mgd. | ($AHL_{INHIB1}$) | Allowable headworks pollutant loading to the WWTP in lb/day. |
| ($Q_{WWTP}$) | WWTP's average flow in mgd. | ($L_{UNC}$) | Domestic/commercial loading in lb/day. |
| ($Q_{DOM}$) | Domestic/commercial background flow in mgd. | ($L_{HW}$) | Septic/hauled waste loading in lb/day. |
| ($Q_{HW}$) | Septic/hauled waste flow in mgd. | ($AIL_{INHIB1}$) | Allowable industrial loading to the WWTP in lb/day. |
| ($C_{DOM}$) | Domestic/commercial background concentrations in mg/L. | ($C_{LIM-INHIB1}$) | Local limits for industrial users in mg/L. |
| ($C_{HW}$) | Septic/hauled waste concentrations in mg/L. | (SGF) | Safety and growth factor as a percent. |
| ($R_{PRIM}$) | Removal efficiency after primary treatment as a percent. | 8.34 | Unit conversion factor. |
| ($C_{INHIB1}$) | Activated sludge treatment inhibition threshold level for a particular pollutant in mg/L. | | |

**Table E5. Local Limits Determination Based on Nitrification Inhibition Threshold Levels for Pleasant Grove Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Septic/Hauled Waste Conc.[a] (mg/L) ($C_{HW}$) | Removal Efficiency[a] (%) ($R_{PRIM}$) | Nitrification Inhibition Level (mg/L) ($C_{INHIB2}$) | Allowable Headworks Loading (lb/day) ($AHL_{INHIB2}$) | Domestic & Commercial Loading (lb/day) ($L_{UNC}$) | Septic/Hauled Waste Loading (lb/day) ($L_{HW}$) | Allowable Industrial Loading (lb/day) ($AIL_{INHIB2}$) | Industrial Local Limit (mg/L) ($C_{LIM\text{-}INHIB2}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.5 | 9.3 | 8.9 | 261.7143 | 0 | | | | ----- | ---- | 0 | ----- | ----- | 20 |
| Suspended Solids, Total (TSS) | 0.5 | 9.3 | 8.9 | 177.1429 | 0 | | | | ----- | ---- | 0 | ----- | ----- | 20 |
| Ammonia (as N) | 0.5 | 9.3 | 8.9 | 48.8286 | 0 | | | | ----- | ---- | 0 | ----- | ----- | 20 |
| Nitrate + Nitrate | 0.5 | 9.3 | 8.9 | 0.0354 | 0 | | | | ----- | 3 | 0 | ----- | ----- | 20 |
| Arsenic | 0.5 | 9.3 | 8.9 | 0.0004 | 0 | | | 1.5 | 117 | 0.03 | 0 | 93 | 24 | 20 |
| Beryllium | 0.5 | 9.3 | 8.9 | *0.0000* | 0 | | | | ----- | 0.00 | 0 | ----- | ----- | 20 |
| Cadmium | 0.5 | 9.3 | 8.9 | 0.0001 | 0 | | 15 | 5.2 | 477 | 0.01 | 0 | 381 | 100 | 20 |
| Chromium | 0.5 | 9.3 | 8.9 | 0.0012 | 0 | | 27 | 1.075 | 115 | 0.09 | 0 | 92 | 24 | 20 |
| Copper | 0.5 | 9.3 | 8.9 | 0.0202 | 0 | | 22 | 0.265 | 26 | 1.49 | 0 | 20 | 5 | 20 |
| Cyanide | 0.5 | 9.3 | 8.9 | 0.0012 | 0 | | 27 | 0.42 | 45 | 0.09 | 0 | 36 | 9 | 20 |
| Fluoride | 0.5 | 9.3 | 8.9 | 0.7643 | 0 | | | | ----- | 56.64 | 0 | ----- | ----- | 10 |
| Iron | 0.5 | 9.3 | 8.9 | 0.2953 | 0 | | | | ----- | 21.88 | 0 | ----- | ----- | 20 |
| Lead | 0.5 | 9.3 | 8.9 | 0.0005 | 0 | | 57 | 0.5 | 91 | 0.04 | 0 | 72 | 19 | 20 |
| Manganese | 0.5 | 9.3 | 8.9 | 0.0300 | 0 | | | | ----- | 2.22 | 0 | ----- | ----- | 20 |
| Mercury | 0.5 | 9.3 | 8.9 | 0.0000 | 0 | | 10 | | ----- | 0.00 | 0 | ----- | ----- | 20 |
| Molybdenum | 0.5 | 9.3 | 8.9 | 0.0009 | 0 | | | | ----- | 0.06 | 0 | ----- | ----- | 20 |
| Nickel | 0.5 | 9.3 | 8.9 | 0.0020 | 0 | | 14 | 0.375 | 34 | 0.15 | 0 | 27 | 7 | 20 |
| Selenium | 0.5 | 9.3 | 8.9 | 0.0005 | 0 | | | | ----- | 0.04 | 0 | ----- | ----- | 20 |
| Silver | 0.5 | 9.3 | 8.9 | 0.0001 | 0 | | 20 | | ----- | 0.01 | 0 | ----- | ----- | 20 |
| Zinc | 0.5 | 9.3 | 8.9 | 0.1106 | 0 | | 27 | 0.29 | 31 | 8.20 | 0 | 16.57 | 4.33 | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

($Q_{IND}$) Industrial flow in mgd.
($Q_{WWTP}$) WWTP's average flow in mgd.
($Q_{DOM}$) Domestic/commercial background flow in mgd.
($Q_{HW}$) Septic/hauled waste flow in mgd.
($C_{DOM}$) Domestic/commercial background concentrations in mg/L.
($C_{HW}$) Septic/hauled waste concentrations in mg/L.
($R_{PRIM}$) Removal efficiency after primary treatment as a percent.
($C_{INHIB2}$) Nitrification inhibition threshold level for a particular pollutant in mg/L.

($AHL_{INHIB2}$) Allowable headworks pollutant loading to the WWTP in lb/da
($L_{UNC}$) Domestic/commercial loading in lb/day.
($L_{HW}$) Septic/hauled waste loading in lb/day.
($AIL_{INHIB2}$) Allowable industrial loading to the WWTP in lb/day.
($C_{LIM\text{-}INHIB2}$) Local limits for industrial users in mg/L.
(SGF) Safety and growth factor as a percent.
8.34 Unit conversion factor.

**Table E6. Local Limits Determination Based on Anaerobic Digestion Inhibition Threshold Levels for Pleasant Grove Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Septic/Hauled Waste Conc.[a] (mg/L) ($C_{HW}$) | Sludge to Digester (mgd) ($Q_{DIG}$) | Removal Efficiency[a] (%) ($R_{WWTP}$) | Anaerobic Digestion Inhibition Level ($C_{INHIB3}$) | Allowable Headworks Loading (lb/day) ($AHL_{INHIB3}$) | Domestic & Commercial Loading (lb/day) ($L_{UNC}$) | Septic/Hauled Waste Loading (lb/day) ($L_{HW}$) | Allowable Industrial Loading (lb/day) ($AIL_{INHIB3}$) | Industrial Local Limit (mg/L) ($C_{LIM\text{-}INHIB3}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.5 | 9.3 | 8.9 | 261.7143 | 0 | | 0.03 | 99.66% | | ----- | 19,394 | 0 | ---- | ---- | 20 |
| Suspended Solids, Total (TSS) | 0.5 | 9.3 | 8.9 | 177.1429 | 0 | | 0.03 | 99.30% | | ----- | 13,127 | 0 | ----- | ----- | 20 |
| Ammonia (as N) | 0.5 | 9.3 | 8.9 | 48.8286 | 0 | | 0.03 | 99.47% | | ----- | 3,618 | 0 | ----- | ----- | 20 |
| Nitrate + Nitrate | 0.5 | 9.3 | 8.9 | 0.0354 | 0 | | 0.03 | 0.00% | | ----- | 3 | 0 | ----- | ----- | 20 |
| Arsenic | 0.5 | 9.3 | 8.9 | 0.0004 | 0 | | 0.03 | 60.47% | 1.6 | 0.72 | 0.031 | 0 | 0.55 | 0.143 | 20 |
| Beryllium | 0.5 | 9.3 | 8.9 | *0.0000* | 0 | | 0.03 | 0.00% | | ----- | 0.003 | 0 | ----- | ----- | 20 |
| Cadmium | 0.5 | 9.3 | 8.9 | 0.0001 | 0 | | 0.03 | 70.34% | 110 | 42.83 | 0.006 | 0 | 34.26 | 8.945 | 20 |
| Chromium | 0.5 | 9.3 | 8.9 | 0.0012 | 0 | | 0.03 | 81.40% | | ----- | 0.092 | 0 | ----- | ----- | 20 |
| Copper | 0.5 | 9.3 | 8.9 | 0.0202 | 0 | | 0.03 | 96.28% | 40 | 11.38 | 1.494 | 0 | 7.61 | 1.987 | 20 |
| Cyanide | 0.5 | 9.3 | 8.9 | 0.0012 | 0 | | 0.03 | 100.00% | 50.5 | 13.83 | 0.087 | 0 | 10.98 | 2.866 | 20 |
| Fluoride | 0.5 | 9.3 | 8.9 | 0.7643 | 0 | | 0.03 | 0.00% | | ----- | 56.636 | 0 | ----- | ----- | 10 |
| Iron | 0.5 | 9.3 | 8.9 | 0.2953 | 0 | | 0.03 | 83.39% | | ----- | 21.882 | 0 | ----- | ----- | 20 |
| Lead | 0.5 | 9.3 | 8.9 | 0.0005 | 0 | | 0.03 | 93.54% | 340 | 99.56 | 0.038 | 0 | 79.61 | 20.786 | 20 |
| Manganese | 0.5 | 9.3 | 8.9 | 0.0300 | 0 | | 0.03 | 68.97% | | ----- | 2.223 | 0 | ----- | ----- | 20 |
| Mercury | 0.5 | 9.3 | 8.9 | 0.0000 | 0 | | 0.03 | 99.45% | | ----- | 0.002 | 0 | ----- | ----- | 20 |
| Molybdenum | 0.5 | 9.3 | 8.9 | 0.0009 | 0 | | 0.03 | 78.78% | | ----- | 0.064 | 0 | ----- | ----- | 20 |
| Nickel | 0.5 | 9.3 | 8.9 | 0.0020 | 0 | | 0.03 | 48.79% | 73 | 40.98 | 0.150 | 0 | 32.63 | 8.520 | 20 |
| Selenium | 0.5 | 9.3 | 8.9 | 0.0005 | 0 | | 0.03 | 69.39% | | ----- | 0.036 | 0 | ----- | ----- | 20 |
| Silver | 0.5 | 9.3 | 8.9 | 0.0001 | 0 | | 0.03 | 83.70% | 39 | 12.76 | 0.008 | 0 | 10.20 | 2.664 | 20 |
| Zinc | 0.5 | 9.3 | 8.9 | 0.1106 | 0 | | 0.03 | 77.60% | 400 | 141.18 | 8.196 | 0 | 104.75 | 27.349 | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

| | | | |
|---|---|---|---|
| ($Q_{IND}$) | Industrial flow in mgd. | ($AHL_{INHIB2}$) | Allowable headworks pollutant loading to the WWTP in lb/da |
| ($Q_{WWTP}$) | WWTP's average flow in mgd. | ($L_{UNC}$) | Domestic/commercial loading in lb/day. |
| ($Q_{DOM}$) | Domestic/commercial background flow in mgd. | ($L_{HW}$) | Septic/hauled waste loading in lb/day. |
| ($Q_{HW}$) | Septic/hauled waste flow in mgd. | ($AIL_{INHIB3}$) | Allowable industrial loading to the WWTP in lb/day. |
| ($C_{DOM}$) | Domestic/commercial background concentrations in mg/L. | ($C_{LIM\text{-}INHIB3}$) | Local limits for industrial users in mg/L. |
| ($C_{HW}$) | Septic/hauled waste concentrations in mg/L. | (SGF) | Safety and growth factor as a percent. |
| ($R_{WWTP}$) | Removal efficiency across WWTP as a percent. | 8.34 | Unit conversion factor. |
| ($C_{INHIB3}$) | Anaerobic digestion inhibition threshold level for a particular pollutant in mg/L. | | |

**Table E7. Local Limits Determination Based on Sludge Disposal for Pleasant Grove Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Septic/Hauled Waste Conc.[a] (mg/L) ($C_{HW}$) | Sludge to Disposal (dry metric tons/day) ($Q_{SLUDGE}$) | Removal Efficiency[a] (%) ($R_{WWTP}$) | Sludge Criteria (mg/kg) ($C_{SLUDGE}$) | Allowable Headworks Loading (lbs/day) ($AHL_{SLUDGE}$) | Domestic & Commercial Loading (lbs/day) ($L_{UNC}$) | Septic/Hauled Waste Loading (lbs/day) ($L_{HW}$) | Allowable Industrial Loading (lbs/day) ($AIL_{SLUDGE}$) | Industrial Local Limit (mg/L) ($C_{LIM\text{-}SLUDGE}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.5 | 9.3 | 8.9 | 261.7 | 0 | | 7.475 | 99.7% | | ----- | 19,393.893 | 0 | ----- | ----- | 20 |
| Suspended Solids, Total (TSS) | 0.5 | 9.3 | 8.9 | 177.1 | 0 | | 7.475 | 99.3% | | ----- | 13,126.871 | 0 | ----- | ----- | 20 |
| Ammonia (as N) | 0.5 | 9.3 | 8.9 | 48.8 | 0 | | 7.475 | 99.5% | | ----- | 3,618.358 | 0 | ----- | ----- | 20 |
| Nitrate + Nitrate | 0.5 | 9.3 | 8.9 | 0.0 | 0 | | 7.475 | 0.0% | | ----- | 2.625 | 0 | ----- | ----- | 20 |
| Arsenic | 0.5 | 9.3 | 8.9 | 0.0004 | 0 | | 7.475 | 60.5% | 41 | 1.11 | 0.031 | 0 | 0.86 | 0.225 | 20 |
| Beryllium | 0.5 | 9.3 | 8.9 | *0.00004* | 0 | | 7.475 | 0.0% | | ----- | 0.003 | 0 | ----- | ----- | 20 |
| Cadmium | 0.5 | 9.3 | 8.9 | 0.0001 | 0 | | 7.475 | 70.3% | 39 | 0.91 | 0.006 | 0 | 0.72 | 0.189 | 20 |
| Chromium | 0.5 | 9.3 | 8.9 | 0.0012 | 0 | | 7.475 | 81.4% | | ----- | 0.092 | 0 | ----- | ----- | 20 |
| Copper | 0.5 | 9.3 | 8.9 | 0.0202 | 0 | | 7.475 | 96.3% | 1500 | 25.62 | 1.494 | 0 | 19.00 | 4.961 | 20 |
| Cyanide | 0.5 | 9.3 | 8.9 | 0.0012 | 0 | | 7.475 | 0.0% | | ----- | 0.087 | 0 | ----- | ----- | 20 |
| Fluoride | 0.5 | 9.3 | 8.9 | 0.7643 | 0 | | 7.475 | 0.0% | | ----- | 56.636 | 0 | ----- | ----- | 10 |
| Iron | 0.5 | 9.3 | 8.9 | 0.2953 | 0 | | 7.475 | 83.4% | | ----- | 21.882 | 0 | ----- | ----- | 20 |
| Lead | 0.5 | 9.3 | 8.9 | 0.0005 | 0 | | 7.475 | 93.5% | 300 | 5.27 | 0.038 | 0 | 4.18 | 1.092 | 20 |
| Manganese | 0.5 | 9.3 | 8.9 | 0.0300 | 0 | | 7.475 | 69.0% | | ----- | 2.223 | 0 | ----- | ----- | 20 |
| Mercury | 0.5 | 9.3 | 8.9 | 0.0000 | 0 | | 7.475 | 99.4% | 17 | 0.28 | 0.002 | 0 | 0.22 | 0.058 | 20 |
| Molybdenum | 0.5 | 9.3 | 8.9 | 0.0009 | 0 | | 7.475 | 78.8% | 75 | 1.57 | 0.064 | 0 | 1.19 | 0.310 | 20 |
| Nickel | 0.5 | 9.3 | 8.9 | 0.0020 | 0 | | 7.475 | 48.8% | 420 | 14.16 | 0.150 | 0 | 11.17 | 2.918 | 20 |
| Selenium | 0.5 | 9.3 | 8.9 | 0.0005 | 0 | | 7.475 | 69.4% | 100 | 2.37 | 0.036 | 0 | 1.86 | 0.486 | 20 |
| Silver | 0.5 | 9.3 | 8.9 | 0.0001 | 0 | | 7.475 | 83.7% | | ----- | 0.008 | 0 | ----- | ----- | 20 |
| Zinc | 0.5 | 9.3 | 8.9 | 0.1106 | 0 | | 7.475 | 77.6% | 2800 | 59.33 | 8.196 | 0 | 39.27 | 10.254 | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

| | | | |
|---|---|---|---|
| ($Q_{IND}$) | Industrial flow in mgd. | ($Q_{SLUDGE}$) | Dry sludge to disposal in dry metric tons/day. |
| ($Q_{WWTP}$) | WWTP's average flow in mgd. | ($AHL_{SLUDGE}$) | Allowable headworks pollutant loading to the WWTP in lbs/day. |
| ($Q_{DOM}$) | Domestic/commercial background flow in mgd. | ($L_{UNC}$) | Domestic/commercial loading in lbs/day. |
| ($Q_{HW}$) | Septic/hauled waste flow in mgd. | ($L_{HW}$) | Septic/hauled waste loading in lbs/day. |
| ($C_{DOM}$) | Domestic/commercial background concentrations in mg/L. | ($AIL_{SLUDGE}$) | Allowable industrial loading to the WWTP in lbs/day. |
| ($C_{HW}$) | Septic/hauled waste concentrations in mg/L. | ($C_{LIM\text{-}SLUDGE}$) | Local limits for industrial users in mg/L. |
| ($R_{WWTP}$) | Removal efficiency across WWTP as a percent. | (SGF) | Safety and growth factor as a percent. |
| ($C_{SLUDGE}$) | Sludge criteria for a particular pollutant in mg/kg. | 8.34 | Unit conversion factor. |

**Table E8. Local Limits Determination Based on Water Quality Standards for Pleasant Grove Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | IU Flow (mgd) ($Q_{IND}$) | WWTP Flow (mgd) ($Q_{WWTP}$) | Domestic & Commercial Flow (mgd) ($Q_{DOM}$) | Domestic & Commercial Bkgd Conc.[a] (mg/L) ($C_{DOM}$) | Septic/Hauled Waste Flow (mgd) ($Q_{HW}$) | Septic/Hauled Waste Conc. (mg/L) ($C_{HW}$) | Removal Efficiency (%) ($R_{WWTP}$) | Stream Flow (mgd) ($Q_{STR}$) | Upstream Conc. (mg/L) ($C_{STR}$) | WQS (mg/L) ($C_{WQS}$) | Allowable Headworks (lb/day) ($AHL_{WQS}$) | Domestic & Commercial Loading (lb/day) ($L_{UNC}$) | Septic/Hauled Waste Loading (lb/day) ($L_{HW}$) | Allowable Industrial Loading (lb/day) ($AIL_{WQS}$) | Industrial Local Limit (mg/L) ($C_{LIM\text{-}WQS}$) | Safety and Growth Factor (%) (SGF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand (BOD) | 0.5 | 9.3 | 8.9 | 261.714 | 0 | | 99.7% | 0 | | | ----- | ---- | 0 | ----- | ----- | 20 |
| Suspended Solids, Total (TSS) | 0.5 | 9.3 | 8.9 | 177.143 | 0 | | 99.3% | 0 | | | ----- | ---- | 0 | ----- | ----- | 20 |
| Ammonia (as N) | 0.5 | 9.3 | 8.9 | 48.829 | 0 | | 99.5% | 0 | | | ----- | ---- | 0 | ----- | ----- | 20 |
| Nitrate + Nitrate | 0.5 | 9.3 | 8.9 | 0.035 | 0 | | 0.0% | 0 | | | ----- | 3 | 0 | ----- | ----- | 20 |
| Arsenic | 0.5 | 9.3 | 8.9 | 0.000 | 0 | | 60.5% | 0 | | 0.0100 | 1.97 | 0.03 | 0 | 1.55 | 0.40 | 20 |
| Beryllium | 0.5 | 9.3 | 8.9 | 0.000 | 0 | | 0.0% | 0 | | 0.0040 | 0.31 | 0.00 | 0 | 0.25 | 0.06 | 20 |
| Cadmium | 0.5 | 9.3 | 8.9 | 0.000 | 0 | | 70.3% | 0 | | 0.0020 | 0.52 | 0.01 | 0 | 0.41 | 0.11 | 20 |
| Chromium | 0.5 | 9.3 | 8.9 | 0.001 | 0 | | 81.4% | 0 | | 0.0114 | 4.79 | 0.09 | 0 | 3.74 | 0.98 | 20 |
| Copper | 0.5 | 9.3 | 8.9 | 0.020 | 0 | | 96.3% | 0 | | 0.0073 | 15.33 | 1.49 | 0 | 10.77 | 2.81 | 20 |
| Cyanide | 0.5 | 9.3 | 8.9 | 0.001 | 0 | | 0.0% | 0 | | 0.0052 | 0.41 | 0.09 | 0 | 0.24 | 0.06 | 20 |
| Fluoride | 0.5 | 9.3 | 8.9 | 0.7643 | 0 | | 0.0% | 0 | | 2.0000 | 155.87 | 56.636095 | 0 | 83.64 | 21.84 | 10 |
| Iron | 0.5 | 9.3 | 8.9 | 0.295 | 0 | | 83.4% | 0 | | | ----- | 21.88 | 0 | ----- | ----- | 20 |
| Lead | 0.5 | 9.3 | 8.9 | 0.0005 | 0 | | 93.5% | 0 | | 0.0022 | 2.67 | 0.04 | 0 | 2.10 | 0.55 | 20 |
| Manganese | 0.5 | 9.3 | 8.9 | 0.030 | 0 | | 69.0% | 0 | | | ----- | 2.22 | 0 | ----- | ----- | 20 |
| Mercury | 0.5 | 9.3 | 8.9 | 0.000 | 0 | | 99.4% | 0 | | 0.00005 | 0.71 | 0.00 | 0 | 0.56 | 0.15 | 20 |
| Molybdenum | 0.5 | 9.3 | 8.9 | 0.001 | 0 | | 78.8% | 0 | | | ----- | 0.06 | 0 | ----- | ----- | 20 |
| Nickel | 0.5 | 9.3 | 8.9 | 0.002 | 0 | | 48.8% | 0 | | 0.0410 | 6.23 | 0.15 | 0 | 4.84 | 1.26 | 20 |
| Selenium | 0.5 | 9.3 | 8.9 | 0.0005 | 0 | | 69.4% | 0 | | 0.0050 | 1.27 | 0.036 | 0 | 0.98 | 0.26 | 20 |
| Silver | 0.5 | 9.3 | 8.9 | 0.0001 | 0 | | 83.7% | 0 | | 0.0025 | 1.19 | 0.01 | 0 | 0.94 | 0.25 | 20 |
| Zinc | 0.5 | 9.3 | 8.9 | 0.111 | 0 | | 77.6% | 0 | | 0.0941 | 32.73 | 8.20 | 0 | 17.99 | 4.70 | 20 |

[a] Pollutant concentrations in italics are non-detect (reported as 1/2 reporting or detection limit as available). Values in red are literature values.

| | |
|---|---|
| ($Q_{IND}$) | Industrial flow in mgd. |
| ($Q_{WWTP}$) | WWTP's average flow in mgd. |
| ($Q_{DOM}$) | Domestic/commercial background flow in mgd. |
| ($Q_{HW}$) | Septic/hauled waste flow in mgd. |
| ($C_{DOM}$) | Domestic/commercial background concentrations in mg/L. |
| ($C_{HW}$) | Septic/hauled waste concentrations in mg/L. |
| ($Q_{STR}$) | Receiving stream flow in mgd. |
| ($R_{WWTP}$) | Removal efficiency across WWTP as a percent. |
| ($C_{STR}$) | Receiving stream background level, where available, in mg/L. |
| ($C_{WQS}$) | Water quality standard for a particular pollutant in mg/L. |
| ($AHL_{WQS}$) | Allowable headworks pollutant loading to the WWTP in lb/day. |
| ($L_{UNC}$) | Domestic/commercial loading in lb/day. |
| ($L_{HW}$) | Septic/hauled waste loading in lb/day. |
| ($AIL_{WQS}$) | Allowable industrial loading to the WWTP in lb/day. |
| ($C_{LIM\text{-}WQS}$) | Local limits for industrial users in mg/L. |
| (SGF) | Safety and growth factor as a percent. |
| 8.34 | Unit conversion factor. |

| Table E9. Summary of Allowable Headworks Loadings (AHLs) for Pleasant Grove Wastewater Treatment Plant<br>Industrial Pretreatment Program: Local Limits Evaluation<br>Roseville, CA | | | | | | | |
|---|---|---|---|---|---|---|---|
| Pollutant | Allowable Headworks Loadings (lb/day) | | | | | | |
| | Design Criteria ($AHL_{DC}$) | Discharge Permit Limits ($AHL_{NPDES}$) | Activated Sludge Treatment Inhibition ($AHL_{INHIB1}$) | Nitrification Inhibition ($AHL_{INHIB2}$) | Anaerobic Digestion Inhibition ($AHL_{INHIB3}$) | Sludge Disposal ($AHL_{SLUDGE}$) | Water Quality Standards ($AHL_{WQS}$) |
| Biochemical Oxygen Demand (BOD) | 27,277 | 230,835 | ----- | ----- | ----- | ----- | ----- |
| Suspended Solids, Total (TSS) | 24,939 | 111,663 | ----- | ----- | ----- | ----- | ----- |
| Ammonia (as N) | 2,806 | 45,309 | 37,408 | ----- | ----- | ----- | ----- |
| Nitrate + Nitrate | ---- | 779 | ----- | ----- | ----- | ----- | ----- |
| Arsenic | ---- | ----- | 7.8 | 117 | 0.7 | 1.11 | 2 |
| Beryllium | ---- | ----- | ----- | ----- | ----- | ----- | 0.3 |
| Cadmium | ---- | ----- | 504 | 477 | 43 | 1 | 0.5 |
| Chromium | ---- | ----- | 5,391 | 114.8 | ----- | ----- | 5 |
| Copper | ---- | ----- | 100 | 26 | 11 | 26 | 15.3 |
| Cyanide | ---- | ----- | 272 | 45 | 14 | ----- | 0 |
| Fluoride | ---- | ----- | ----- | ----- | ----- | ----- | 155.867 |
| Iron | ---- | ----- | ----- | ----- | ----- | ----- | ----- |
| Lead | ---- | ----- | 462 | 90.6 | 100 | 5.3 | 3 |
| Manganese | ---- | ----- | ----- | ----- | ----- | ----- | ----- |
| Mercury | ---- | ----- | 48 | ----- | ----- | 0 | 0.7 |
| Molybdenum | ---- | ----- | ----- | ----- | ----- | 2 | ----- |

**Table E10. Summary of Allowable Industrial Loadings (AILs) for Pleasant Grove Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | Allowable Industrial Loadings (lb/day) | | | | | | |
|---|---|---|---|---|---|---|---|
| | Design Criteria | Discharge Permit Limits | Activated Sludge Treatment Inhibition | Nitrification Inhibition | Anaerobic Digestion Inhibition | Sludge Disposal | Water Quality Standards |
| | ($AIL_{DC}$) | ($AIL_{NPDES}$) | ($AIL_{INHIB1}$) | ($AIL_{INHIB2}$) | ($AIL_{INHIB3}$) | ($AIL_{SLUDGE}$) | ($AIL_{WQS}$) |
| Biochemical Oxygen Demand (BOD) | 2,427 | 165,275 | ---- | ----- | ---- | ----- | ----- |
| Suspended Solids, Total (TSS) | 6,824 | 76,203 | ----- | ----- | ----- | ----- | ----- |
| Ammonia (as N) | -1,374 | 32,629 | 26,308 | ----- | ----- | ----- | ----- |
| Nitrate + Nitrate | ----- | 621 | ----- | ----- | ----- | ----- | ----- |
| Arsenic | ----- | ----- | 6 | 93 | 0.55 | 0.86 | 2 |
| Beryllium | ----- | ----- | ----- | ----- | ----- | ----- | 0 |
| Cadmium | ----- | ----- | 403 | 381 | 34 | 1 | 0 |
| Chromium | ----- | ----- | 4,313 | 92 | ----- | ----- | 4 |
| Copper | ----- | ----- | 78 | 20 | 8 | 19 | 11 |
| Cyanide | ----- | ----- | 218 | 36 | 11 | ----- | 0 |
| Fluoride | ----- | ----- | ----- | ----- | ----- | ----- | 83.64 |
| Iron | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Lead | ----- | ----- | 370 | 72 | 80 | 4.182 | 2 |
| Manganese | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Mercury | ----- | ----- | 38 | ----- | ----- | 0 | 1 |
| Molybdenum | ----- | ----- | ----- | ----- | ----- | 1 | ----- |

**Table E11. Maximum Allowable Headworks Loadings and Local Limits for Pleasant Grove Wastewater Treatment Plant**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | Most Stringent Criterion | Maximum Allowable Headworks Loadings | | | Maximum Allowable Industrial Loadings | | Local Limit Calculation Needed? | Calculated Industrial Local Limit (mg/L) | Worker Protection Screening Level[b] (mg/L) | Domestic/ Commercial Background Levels[c] (mg/L) | Existing Local Limits (mg/L) | Final Industrial Local Limit[d] (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated MAHL (lbs/day) | Average Influent Loading[a] (lb/day) | Percent of MAHL Currently in Use (%) | Calculated MAIL (lbs/day) | Existing MAIL (lbs/day) | | | | | | |
| Biochemical Oxygen Demand (BOD) | Design Criteria | 27,277 | 33,343 | 122.24% | 2,427.44 | 80,985 | yes | 633.792 | ----- | 261.71429 | 240 | 634 |
| Suspended Solids, Total (TSS) | Design Criteria | 24,939 | 23,185 | 92.97% | 6,824.06 | 152,622 | yes | 1,781.730 | ----- | 177.14286 | 250 | 1782 |
| Ammonia (as N) | Design Criteria | 2,806 | 3,192 | 113.79% | -1,373.88 | 26,156 | yes | -358.713 | ----- | 48.82857 | 20 | -359 |
| Nitrate + Nitrate | Permit Limits | 779 | 1 | 0.18% | 620.84 | | no | | ----- | 0.03543 | ----- | ----- |
| Arsenic | Anaerobic Digestion Inhibition | 0.72 | 0.0292 | 4.03% | 0.55 | 5.6 | yes | 0.143 | ----- | 0.00042 | 0.1 | 0.1432 |
| Beryllium | Water Quality Standards | 0.31 | *0.0031* | 0.99% | 0.25 | | no | | ----- | *0.000040* | 0.01 | ----- |
| Cadmium | Water Quality Standards | 0.5 | 0.0066 | 1.27% | 0.41 | 0.2 | yes | 0.107 | ----- | 0.00007 | 0.01 | 0.11 |
| Chromium | Water Quality Standards | 4.8 | 0.1113 | 2.32% | 3.74 | 40.3 | yes | 0.977 | ----- | 0.0012 | 0.56 | 0.98 |
| Copper | Anaerobic Digestion Inhibition | 11.4 | 2.1599 | 18.98% | 7.61 | 2.4 | yes | 1.987 | ----- | 0.02017 | 0.13 | 1.99 |
| Cyanide | Water Quality Standards | 0.41 | 0.0629 | 15.52% | 0.24 | 0.23 | yes | 0.062 | ----- | 0.00118 | 0.01 | 0.062 |
| Fluoride | Water Quality Standards | 155.867 | 22.1553 | 14.21% | 83.64 | 101 | yes | 21.839 | ----- | 0.7642857 | 5.5 | 21.8390 |
| Iron | | | 32.8433 | | | 337 | no | | ----- | 0.29529 | 18 | ----- |
| Lead | Water Quality Standards | 2.7 | 0.0422 | 1.58% | 2.10 | 0.74 | yes | 0.547 | ----- | 0.00051 | 0.04 | 0.55 |
| Manganese | | | 4.3531 | | | 21 | no | | ----- | 0.0300 | 1.1 | ----- |
| Mercury | Sludge Disposal | 0.3 | 0.0052 | 1.86% | 0.22 | 0.35 | yes | 0.058 | ----- | 0.000028 | 0.020 | 0.06 |
| Molybdenum | Sludge Disposal | 1.6 | 0.0965 | 6.17% | 1.19 | | yes | 0.310 | ----- | 0.0009 | ----- | 0.31 |
| Nickel | Water Quality Standards | 6.2 | 0.2305 | 3.70% | 4.84 | | yes | 1.263 | ----- | 0.0020 | 0.31 | 1.26 |
| Selenium | Water Quality Standards | 1.3 | 0.0471 | 3.70% | 0.98 | 0.5 | yes | 0.257 | ----- | 0.0005 | 0.006 | 0.26 |
| Silver | Water Quality Standards | 1.2 | 0.0146 | 1.23% | 0.94 | 14 | yes | 0.246 | ----- | 0.0001 | 0.04 | 0.25 |
| Zinc | Nitrification Treatment Inhibition | 31.0 | 11.2335 | 36.28% | 16.57 | 2.8 | yes | 4.327 | ----- | 0.111 | 0.16 | 4.33 |

[a] Influent loadings in italics were calculated using influent pollutant concentrations that were all non-detect (reported as 1/2 reporting or detection limit as available).

[b] Worker Protection Screening Levels are the most stringent of discharge screening levels based on fume toxicity and explosivity. Refer to Table B8.

[c] Domestic/commercial background levels in italics are non-detect (reported as 1/2 reporting or detection limit as available).

[d] Industrial local limits are the more stringent of the calculated industrial local limits and Worker Protection Screening Levels.

# Appendix G: MAHL and MAIL Comparison for Pleasant Grove and Dry Creek WWTPs

**Table G1. Maximum Allowable Headworks Loadings and Local Limits for City of Roseville, CA**
**Industrial Pretreatment Program: Local Limits Evaluation**
**Roseville, CA**

| Pollutant | Maximum Allowable Headworks Loadings | | | | Local Limits | | | | Final Technical Basis | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Dry Creek | | Pleasant Grove | | | | | | | |
| | Calculated MAHL (lbs/day) | Percent of MAHL Currently in Use[a] (%) | Calculated MAHL (lbs/day) | Percent of MAHL Currently in Use[a] (%) | Existing Local Limits (mg/L) | Dry Creek Calculated Industrial Local Limit (mg/L) | Pleasant Grove Calculated Industrial Local Limit (mg/L) | Most Stringent Calculated Limits | Facility | Most Stringent Criterion |
| Biochemical Oxygen Demand (BOD) | 33,900.0 | 106.42% | 27,276.7 | 122.24% | 240 | 4,257 | 634 | 634 | Pleasant Grove | Design Criteria |
| Suspended Solids, Total (TSS) | 42,800.0 | 81.73% | 24,938.7 | 92.97% | 250 | 20,387 | 1,782 | 1,782 | Pleasant Grove | Design Criteria |
| Ammonia (as N) | 3,052.2 | 84.83% | 2,805.6 | 113.79% | 20 | -2,091 | -359 | -2,091 | Dry Creek | Design Criteria |
| Arsenic | 1.3 | 3.64% | 0.7 | 4.03% | 0.1 | 1.10 | 0.14 | 0.14 | Pleasant Grove | Anaerobic Digestion Inhibition |
| Cadmium | 0.8 | 1.22% | 0.5 | 1.27% | 0.01 | 0.69 | 0.11 | 0.11 | Pleasant Grove | Water Quality Standards |
| Chromium | 4.4 | 3.62% | 4.8 | 2.32% | 0.56 | 3.76 | 0.98 | 0.98 | Pleasant Grove | Water Quality Standards |
| Copper | 9.2 | 36.71% | 11.4 | 18.98% | 0.13 | 6.14 | 1.99 | 1.99 | Pleasant Grove | Anaerobic Digestion Inhibition |
| Cyanide | 0.5 | 16.23% | 0.4 | 15.52% | 0.01 | 0.30 | 0.06 | 0.06 | Pleasant Grove | Water Quality Standards |
| Fluoride | 179.5 | 17.53% | 155.9 | 14.21% | 5.5 | 103.23 | 21.84 | 21.84 | Pleasant Grove | Water Quality Standards |
| Lead | 1.9 | 4.24% | 2.7 | 1.58% | 0.04 | 1.65 | 0.55 | 0.55 | Pleasant Grove | Water Quality Standards |
| Mercury | 0.3 | 2.44% | 0.3 | 1.86% | 0.02 | 0.24 | 0.06 | 0.06 | Pleasant Grove | Sludge Disposal |
| Molybdenum | 1.6 | 6.47% | 1.6 | 6.17% | ----- | 1.30 | 0.31 | 0.31 | Pleasant Grove | Sludge Disposal |
| Nickel | 9.7 | 2.71% | 6.2 | 3.70% | 0.31 | 8.36 | 1.26 | 1.26 | Pleasant Grove | Water Quality Standards |
| Selenium | 1.2 | 5.41% | 1.3 | 3.70% | 0.006 | 1.05 | 0.26 | 0.26 | Pleasant Grove | Water Quality Standards |
| Silver | 2.0 | 1.13% | 1.2 | 1.23% | 0.04 | 1.74 | 0.25 | 0.25 | Pleasant Grove | Water Quality Standards |
| Zinc | 35.7 | 33.49% | 31.0 | 36.28% | 0.16 | 20.61 | 4.33 | 4.33 | Pleasant Grove | Nitrification Treatment Inhibition |

[a] Italics indicate all influent results for a parameter were non-detect. Influent loadings were calculated using 1/2 the reporting or detection limit as available.