

**2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT
FOR THE NOVATO SANITARY DISTRICT**



**2024 ANNUAL OPERATIONS AND MAINTENANCE
REPORT FOR THE NOVATO SANITARY DISTRICT**



**Veolia Water West Operating Services, Inc.
500 Davidson Street
Novato, CA 94945**

February 4, 2025

2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

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Overview

The continued priorities for 2024 were to maintain a safe working environment with zero lost time accidents, zero Occupational Safety Health Act (OSHA) recordable incidents, and zero treatment plant effluent violations. The 2024 calendar year was Veolia’s twelfth consecutive year of zero effluent violations and thirteenth year of zero recordable incidents. We continue to celebrate this success with the Novato Sanitary District on its vision and commitment to the protection of water quality and the environment.

Key areas of focus throughout the year included:

- Safety Training
- No Safety Incidents (recordable, lost time, or medical)
- Participation in Veolia *Near Miss and Leading Indicator* Reporting Program
- Regulatory Compliance
- Odor Monitoring
- Reporting (internal and external)
- Records Keeping and Data Base Management
- Facility Energy Management Program
- Employee Education and Certification / Professional Advancement
- Community Outreach and Participation
- Effective Asset Management by using Veolia Asset Management System (VAMS) for Maintenance Tracking, Scheduling, Inventory, and Purchasing
- Operation, Management, and Maintenance
- Oversight of Laboratory and Pretreatment Program

Treatment Plant Design Criteria

Wastewater is collected throughout the Novato Sanitary District service area and conveyed by gravity as well as mechanical means (pump stations) to the Novato Treatment Plant (NTP). Table 1.0 describes each of the processes influent flow design criteria.

Table 1.0

| DESIGN CRITERIA | | |
|---------------------------------|--------|-------|
| Condition | Value | Unit |
| Average Dry Weather Flow | 7.0 | MGD |
| Peak Wet Weather Flow (Max Day) | 30.7 | MGD |
| Max Peak Wet Weather (1-3 Hour) | 47.0 | MGD |
| Average BOD Loading | 14,600 | lbs/D |
| Average TSS Loading | 17,600 | lbs/D |

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Preliminary Treatment - Influent Pump Station and Headworks

When the wastewater arrives at the NTP, it is pumped from the influent pump station to the headworks. The headworks provides screening of coarse materials and removal of grit which consists of heavy matter such as sand, silt, eggshells, and gravel.

Flow and Loading Measurement

Flow at the NTP is measured using a Parshall flume and HydroRanger™ ultra-sonic flow meter in combination. Composite samples for biochemical oxygen demand (BOD) and total suspended solids (TSS) are collected downstream of screening and grit removal. Composite samples are flow proportioned throughout the sampling period (normally 24 hours).

Primary Treatment – Primary Clarifiers

An efficient primary clarifier typically removes approximately 60 – 70% of the solids from the raw wastewater. Clarifiers are large tanks that slow the flow of water and allow by force of gravity to remove solids. Heavier solids referred to as “sludge” settle to the bottom. Lighter material such as fat, oil, grease and plastic, referred to as “scum” rises to the surface. Both sludge and scum are removed from the waste stream and pumped to a digester for additional treatment. The NTP primary clarifiers are covered to contain air/odor that is associated with raw sewage. Air/odor removal is discharged to odor scrubbing biofilters.

Secondary Treatment – Aeration Basins & Secondary Clarifiers

After screening, grit, and primary solids removal, all wastewater receives full secondary treatment. Large rectangular tanks with baffled walls, mechanical mixers, air diffusers, and recirculation pumps make up the aeration basins system. The four aeration basins, each with a capacity of more than 850,000 gallons, provides complete secondary treatment under all flow conditions. Each aeration basin has three anoxic (no dissolved oxygen) zones accounting for almost 25% of the tank’s volume. The anoxic zones convert nitrate and nitrite to nitrogen gas to reduce the level of total nitrogen in the effluent. Secondary clarifiers allow for the separation of the biomass that was created in the aeration basins to settle and allow the wastewater to clarify. The clarified wastewater flows to the ultraviolet disinfection process and the settled biomass is returned to the influent of the aeration basins.

Ultra Violet (UV) Disinfection

Prior to discharging wastewater it must be disinfected. Ultraviolet light disrupts the DNA of pathogens and other life forms leaving them incapable of reproduction.

Effluent Disposal – Bay Discharge / Reclamation / Storage

The District’s NPDES Permit (National Pollutant Discharge Elimination System) effective September 1st, 2020 allows for year-round discharge to San Pablo Bay with stringent effluent limits from May 1st through October 31st. However, throughout the historical non-discharge season (May 1st through October 31st), effluent may be stored for future use, primarily for pasture irrigation.

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Effluent Reuse – Recycled Water

Tertiary recycled water was produced in 2024 for irrigation of parks, landscaping, and golf courses. Additionally, a portion of the recycled water was provided to a car wash facility. Recycled water receives added treatment (tertiary filtration & chlorine disinfection) in order to comply with stringent Title 22 regulations.

Treatment Plant Performance Tables

The tables that follow provide the summary of the plant’s performance, maintenance program, consumables, and energy results for the period of January 1, 2024 through December 31, 2024. The Annual Waste Characteristics & Loading Summaries are provided below in Tables 2.0 – 9.0 and in the attachment section of this report.

Table 2.0

| 2024 Influent Flows and Loading Summary | | |
|--|--------|---------|
| Condition | Value | Unit |
| Average Daily Flow Rate | 5.31 | MGD |
| Average Dry Weather Flow (Jul/Aug/Sept) | 3.49 | MGD |
| Peak Wet Weather Flow (Max Day) | 30.05 | MGD |
| Max Peak Wet Weather (1-3 Hour) | 46.7 | MGD |
| Average Biochemical Oxygen Demand (BOD) | 284 | mg/L |
| Average BOD Loading | 11,297 | lbs/Day |
| Average Total Suspended Solids (TSS) | 337 | mg/L |
| Average TSS Loading | 14,133 | lbs/Day |

Table 3.0

| 2024 Plant Performance | | |
|---|------------|-----------------|
| Parameter | Value | Unit |
| Total Volume of Wastewater | 1,944.35 | Million Gallons |
| Total Volume of Reclaimed Water (Reclamation and California State Coastal Conservancy) | 301.01 | Million Gallons |
| Recycled – Title 22 (Novato Sanitary District, North Marin Water District Deer Island) | 191.31 | Million Gallons |
| Flow Discharged to San Pablo Bay | 1,743.44 | Million Gallons |
| Average BOD Effluent | 5.5 | mg/L |
| Total Pounds of BOD Treated | 4,134,702 | Lbs |
| Average TSS Effluent | 3.4 | mg/L |
| Total Pounds of TSS Treated | 5,172,678 | Lbs |
| Total Pounds of Biosolids Treated | 3,246,000 | Lbs |
| Total Cubic Feet of Biogas Produced | 27,229,818 | Cu Ft |

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Table 4.0

| 2024 Violations / Excursions | |
|---|---|
| Total Number | 0 |
| NPDES (Bay Discharge) | 0 |
| Waste Discharge Reporting (WDR) (Reclamation) | 0 |

Table 5.0

| 2024 Plant Effluent | | |
|----------------------------|-------|------|
| Parameter | Value | Unit |
| BOD Removal | 98 | % |
| TSS Removal | 99 | % |

Table 6.0

| 2024 Consumables and Energy Summary | |
|--|-----------|
| Total Million Gallons | 1,944.35 |
| *Electricity – kWh / Year | 3,328,028 |
| Electricity – kWh / MG | 1711.64 |
| *Natural Gas – Therms / Year | 44,573 |
| Diesel Fuel – Gallons / Year | 786 |

*Excludes Administration Building and Recycled Water Plant

Table 7.0

| NPDES Wet Season Limits – When Discharging to San Pablo Bay Discharge - November – April (January 1st – April 24th)* and (November 1st – December 31st)* | | | |
|---|-------|------------|--------------------|
| Parameter | Limit | Units | 2024 Violations |
| BOD Weekly | 40 | mg/L | 0 |
| BOD Monthly | 25 | mg/L | 0 |
| TSS Weekly | 40 | mg/L | 0 |
| TSS Monthly | 25 | mg/L | 0 |
| BOD Removal (minimum) | 85 | % | 0 |
| TSS Removal (minimum) | 85 | % | 0 |
| Enterococcus – 6 Week Rolling Geometric Mean | 30 | Col/100 ml | 0 |
| Enterococcus – No More than 10 Percent All Samples | 110 | CFU/100mL | 0 |
| Fecal Coliform - Median | 140 | mpn/100 ml | 0 |
| Fecal Coliform - 90 th Percentile | 430 | mpn/100 ml | 0 |
| Ammonia – Daily Maximum | 21 | mg/L | 0 |

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| Table 7.0 – Wet Season Limits - Continued | | | |
|--|-----|------|---|
| Ammonia - Monthly Average | 5.9 | mg/L | 0 |
| pH – High | 8.5 | s.u. | 0 |
| pH – Low | 6.5 | s.u. | 0 |
| Oil & Grease - Daily Maximum | 20 | mg/L | 0 |
| Oil & Grease - Monthly Average | 10 | mg/L | 0 |

*Parentheses () provides the dates of discharge to San Pablo Bay.

| Table 8.0 NPDES Dry Season Limits – When Discharging to San Pablo Bay - May through October (October 3rd – October 31st)* | | | |
|--|-------|------------|-----------------|
| Parameter | Limit | Units | 2024 Violations |
| BOD Weekly | 30 | mg/L | 0 |
| BOD Monthly | 15 | mg/L | 0 |
| TSS Weekly | 20 | mg/L | 0 |
| TSS Monthly | 10 | mg/L | 0 |
| BOD Removal (minimum) | 85 | % | 0 |
| TSS Removal (minimum) | 85 | % | 0 |
| Enterococcus – 6 Week Rolling Geometric Mean | 30 | Col/100 ml | 0 |
| Enterococcus – No More than 10 Percent All Samples | 110 | CFU/100mL | 0 |
| Fecal Coliform - Median | 140 | mpn/100 ml | 0 |
| Fecal Coliform - 90th Percentile | 430 | mpn/100 ml | 0 |
| Ammonia – Daily Maximum | 21 | mg/L | 0 |
| Ammonia - Monthly Average | 5.9 | mg/L | 0 |
| pH – High | 8.5 | s.u. | 0 |
| pH – Low | 6.5 | s.u. | 0 |
| Oil & Grease - Daily Maximum | 15 | mg/L | 0 |
| Oil & Grease - Monthly Average | 5 | mg/L | 0 |

*Parentheses () provides the dates of discharge to San Pablo Bay.

| Table 9.0 Waste Discharge Limits / Typical Reclamation Season April-October (April 25th - October 2nd)* | | | | |
|--|--------|------------|-----------------|-----------------|
| Parameter | Limit | Units | 2023 Violations | 2024 Violations |
| BOD Monthly Average | 40 | mg/L | 0 | 0 |
| Total Coliform – 5 Sample Median | 240 | mpn/100 ml | 0 | 0 |
| Total Coliform - Maximum | 10,000 | mpn/100 ml | 0 | 0 |

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| Table 9.0 – Waste Discharge Limits - Continued | | | | |
|--|-----|------|---|---|
| pH – High | 9.0 | s.u. | 0 | 0 |
| pH – Low | 6.0 | s.u. | 0 | 0 |

*Parentheses () provides the dates for the Reclamation Season.

Operational Program

Throughout 2024, the majority of the treatment plant equipment operated full time with the exception of the equipment listed below:

Novato Treatment Plant - Equipment Out of Service – Due to Planned Servicing, Maintenance, or Replacement

- Aeration Basin #1 & #3 (standby)
- Secondary Clarifier #1 (standby) – Rotated in service for 2 months

Environmental Services Program and Public Education Activities

Enterococcus

When effluent is discharged to San Pablo Bay, the bacteriological requirement is for *Enterococcus*. A total of 74 samples were taken from January – December 2024. All results were below the regulatory Limits.

Total Coliforms

When effluent is discharged to Reclamation, the bacteriological requirement is for Total Coliform. A total of 55 samples were collected and analyzed. All results were below the regulatory limits.

Retrospective Screening for SARS-CoV-2 in the Bay Area – January-December 2024

During 2024 we continued sending three influent composite samples per week to Verily. The website to see data from all participating sites is http://publichealth.verily.com/?v=SC2_N&l=Novato%2C+CA . All Marin County COVID and information can be found at <https://coronavirus.marinhhs.org/surveillance#keyindicators> (scroll down for the wastewater information). A dashboard specifically for Novato information is here [Novato Sanitary District](#) .

Drug Substances in Wastewater

At the request of Marin County Public Health, we sent two influent composite samples per week to Biobot Analytics from April through December 2024. Biobot Analytics tested the wastewater for Fentanyl, Cocaine and Methamphetamine. The data is not currently publicly available.

Pretreatment Program

All significant industrial and industrial users were inspected and sampled in 2024 as required by the program. All quarterly and self-monitoring reports were received. All Class I through Class III

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discharge permits were current as of December 31, 2024. Pretreatment reports were submitted to SFRWQCB as required by the District's NPDES Permit.

Fats, Oils and Grease (FOG) Program

In 2024, the FOG Program continued to focus on inspection of food service establishments and receiving support documentation confirming compliance with the District's regulations.

Public Education and Training

Liz Falejczyk, Veolia Water Environmental Services Supervisor, attended in person Marin County Wastewater Agency Public Education Committee Meetings in 2024. Website: <https://savrbay.org/>. The coordinated effort helps send a unified message across the County.

Mack McKenzie was elected a member of the California Water Boards Wastewater Needs Assessment Advisory Group to serve a 3 year term in the group which meets quarterly. Mack attended the first ever advisory group meeting in Sacramento on July 26.

Bay Area Clean Water Agencies (BACWA) - 2024

Liz Falejczyk, Veolia Water Environmental Services Supervisor, continued to attend the following virtual meetings; BACWA Laboratory Committee, BACWA Permits Committee, BACWA Pretreatment Committee and the Bay Area Pollution Prevention Group (BAPPG).

Whole Effluent Toxicity Testing

Quarterly Acute Toxicity using fathead minnow (*Pimephales promelas*) is required during Bay discharge, and was performed in January, April and October with survival results of 100%, 100% and 98% respectively. The No Observed Effect Concentration (NOEC) for all tests was 100%. Chronic Toxicity, using Inland Silverside (*Menidia beryllina*), is also required during Bay discharge and was performed in January, May and October. Test results for survival and growth were very good at <1.0 (Toxicity Unit-chronic) TUc each. See the 2024 Chronic Toxicity results below.

| Test Date | 1/24 | | 5/24 | | 10/24 | |
|----------------------------|------------------|----------------|------------------|----------------|------------------|----------------|
| EC ₂₅ (%) | Survival >100 | Growth >100 | Survival >100 | Growth >100 | Survival >100 | Growth >100 |
| NOEC (%) | 100 | 100 | 100 | 100 | 100 | 100 |
| TUc(100/EC ₂₅) | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |

Pollution Prevention

The 2024 Annual Pollution Prevention and Minimization Report was submitted as required through the California Integrated Water Quality System (CIWQS).

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Recycled Water Reporting

The Annual Recycled Water Report was submitted as required by the new Water Quality Order 2016-0068-DDW. The volumetric reporting of Influent volumes through the final destination (San Pablo Bay, Reclamation, and Recycled Water) of the treated wastewater, including the level of treatment, was uploaded into the GeoTracker® software program.

Biosolids

The Annual Biosolids Report was submitted electronically as required by the EPA 40 CFR Part 503 Regulations.

Discharge Monitoring Report-Quality Assurance (DMR-QA) Study

The DMR-QA Study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits. The results include those of NSD and the contract laboratories utilized by the on-site laboratory. The Veolia laboratory employees successfully completed the study with the results being forwarded to the State of California coordinator as required. The 2024 Certificate is provided below for some of the tests performed. The laboratory uses a different provider for bacteriological testing which does not provide a certificate of excellence. The results of all parameters tested were acceptable, which is excellent.

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NACWA Platinum 12 Award

The National Association of Clean Water Agencies (NACWA) recognized the Novato Sanitary District with a Peak Performance Award. This award constitutes 12 consecutive years of complete and consistent compliance of the National Pollutant Discharge Elimination System (NPDES) permit.



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CERTIFICATE OF EXCELLENCE

In recognition of the quality of your laboratory in proficiency testing for

WP-354

Novato Sanitary District Laboratory

is issued this certificate of achievement by ERA. This laboratory has been recognized as a Laboratory of Excellence for achieving 100% acceptable data in this study which included 1143 participating laboratories. This achievement is a demonstration of the superior quality of the laboratory in evaluation of the standards listed below.

Demand
Hardness
pH
Total Residual Chlorine
Turbidity



Craig Huff
Senior Technical Manager

N583601

California Environmental Laboratory Accreditation Program (ELAP)

The laboratory at the Novato Sanitary District wastewater facility is certified under the 2016 TNI-2 standards. All certified environmental laboratories were required to make the appropriate changes implemented by the 2016 TNI-2 Standards by January 1, 2024 and to the new analytical methods by February 1, 2024.

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| | | |
|--|---|---|
|  <p>CALIFORNIA Water Boards STATE WATER RESOURCES CONTROL BOARD REGIONAL WATER QUALITY CONTROL BOARDS</p> | <p>CALIFORNIA STATE</p> |  |
| <p>ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM</p> | | |
| <p>CERTIFICATE OF ENVIRONMENTAL LABORATORY ACCREDITATION</p> | | |
| <p>Is hereby granted to</p> | | |
| <p>Novato Sanitary District Laboratory</p> | | |
| <p>500 Davidson Street Novato, CA 94945</p> | | |
| <p>Scope of the certificate is limited to the "Fields of Accreditation" which accompany this Certificate.</p> | | |
| <p>Continued accredited status depends on compliance with applicable laws and regulations, proficiency testing studies, and payment of applicable fees.</p> | | |
| <p>This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.</p> | | |
| <p>Certificate No.: 1092</p> | | |
| <p>Effective Date: 2/1/2024</p> | | |
| <p>Expiration Date: 1/31/2026</p> | | |
| <p>Sacramento, California subject to forfeiture or revocation</p> |  Christine Sotelo, Program Manager Environmental Laboratory Accreditation Program | |

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2024 Public Outreach & Education

The 2024 Public Outreach & Education efforts involved several key activities and events focused on educating the community about wastewater management and environmental topics. These efforts aimed to enhance public understanding of wastewater processes, environmental careers, and sustainability practices:

- **March:**
 - Liz Falejczyk, Mack McKenzie, and Alexandra Romanini staffed a booth at the North Bay Science Discovery Day, engaging approximately 1000 attendees with wastewater education and demonstrations.
 - Liz also met with a senior housing manager to address issues with wipes and grease in the Hamilton area. The manager distributed door hanger bags to 129 apartments with “No wipes or grease” messaging information. Bags were assembled by Liz Falejczyk and delivered March 27, 2024.
 - Approximately 55 students from San Marin High School toured the treatment plant.
- **April:**
 - Mack McKenzie led a tour at the Novato WWTP for Leadership Novato attendees.
 - Liz Falejczyk attended the North Bay Watershed Association conference.
 - A 5th-grade class from Good Shepard Lutheran School toured the treatment plant and participated in interactive learning about non-flushable items.
 - Liz and Michael Brewer also attended the Marin County Public Education Committee Meeting.
- **October:**
 - Veolia staff participated in the Kermes Festival at Lynwood Elementary, educating attendees on wastewater topics in both English and Spanish.
 - Veolia also attended the Novato Empowerment Tomorrow Career Fair, speaking with over 500 middle school students about careers in the environmental and wastewater sectors.
- **November:**
 - Mikael Amar from Veolia led a carbon reduction workshop at the Novato WWTP and presented climate change discussions to 5 classes of Novato High School students.
 - Liz Falejczyk and Michael Brewer hosted the Marin County Public Education Committee Meeting.
 - Liz mentored a San Marin High School engineering team for their Senior Project.

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Asset Management Program

Computerized Maintenance Management System (CMMS)

Veolia implemented a new computerized maintenance management system (CMMS) in March 2024, moving from Oracle (OWAM) to Veolia Asset Management System (VAMS) software. Key components of the program include:

- VAMS is a paperless asset management system which provides modules for preventive, predictive, and corrective maintenance, inventory control, asset life cycle cost, as well as scheduling and maintenance tracking tools.
- Work orders can be completed digitally via mobile devices including tablets and mobile phones. Real time uploads of completed items instead of data entry from paper forms.
- Preventive maintenance (PM) is a scheduled maintenance activity generally tied to equipment runtime, time periods, site specific conditions. Frequencies can be set for; daily, weekly, monthly, quarterly, semiannual, and annual.
- Equipment inventory is crucial to all phases of asset management. Equipment at the NTP has been entered into the VAMS data base which is obtained from operation and maintenance manuals, equipment specifications, and worker experience.
- Criticality Assessment is typically performed every 5 years. A new assessment was conducted 2023. The next assessment is scheduled for June 2028.

District Funded Capital Improvements

| Maintenance Repair/Replacement Requests - Year 2024 – Over \$10,000 | | | |
|---|--|------------|----------------|
| Vendor | Repair/Replacement Description | Date | Invoice Amount |
| Calcon | Influent Pump #2 VFD | 1/30/2024 | \$19,891 |
| Netzsch | Final Digested Sludge Pump #2 - Rotor and Stator | 4/9/2024 | \$14,214 |
| Frank Olsen | RAS Actuator - Rotork | 7/23/2024 | \$10,012 |
| Netzsch | Final Digested Sludge Pump #1- Mechanical Seal | 7/24/2024 | \$13,078 |
| United Rentals | Temporary Odor Scrubbers | 10/4/2024 | \$52,108 |
| Myers & Sons | JB-4 Gate Repair | 10/4/2024 | \$32,692 |
| Veolia Water Technology Svcs. | UV Channel (3) Rehabilitation | 12/24/2024 | \$43,796 |
| | Total Cost | | \$185,792 |

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Novato Wastewater Treatment Plant (NTP), Recycled Water Plant, Sludge Lagoons, and Ignacio Transfer Pump Station:

Daily, Weekly, Monthly, Semi-annual and Annual Tasks: Routine rounds, readings, adjustments, and preventative, predictive and corrective maintenance.

| 2024 MAINTENANCE ACTIVITIES | | |
|-----------------------------|---|---|
| 2024 | | Annual Total = 1,840 WOs Completed |
| January | Equipment | Activity |
| | Work Orders Completed | A total of 133 work orders were completed in January 2024. |
| | Voltus, Inc. /Demand Response Auction Mechanism | Participated in January 2024 standby generators operation. |
| | Influent Pump #2 – VFD | VFD removed and cleaned |
| | Primary Clarifier #1 foul odor sensor | Replaced |
| | Ferric Chloride Dosing Pumps | Programmed for optimal efficiency and chemical savings |
| | Distribution Pump | PLC was repaired and reprogrammed |
| | UV Channel #3 | Air scour solenoid repaired, replaced 80 bulbs, 16 ballasts, 2 DCAs |
| | Ignacio Transfer Pump Station | |
| | Site Inspections | Conducted routine checks and management of the feed sludge and decant piping. |
| | | |
| February | Equipment | Activity |
| | Work Orders Completed | A total of 156 work orders were completed in February 2024. |
| | Voltus, Inc. /Demand Response Auction Mechanism | Participated in February 2024 standby generators operation. |
| | Secondary Clarifier Sludge Pump | Replaced Bearings & Seals |
| | Wet Weather Drive Engines | Inspected by Contractor |
| | Distribution Pump #3 | Settings Reprogrammed. |
| | UV Channel #2 | Replaced 46 bulbs, 2 ballasts, 1 Local Control Assembly (LCA) |
| | Blower #1 | I/O Board Module Replaced |

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| | Sludge Lagoons (and Reclamation Area) | |
|--------------|---|---|
| | Site Inspections | Conducted routine checks and management of the feed sludge and decant piping. |
| March | Equipment | Activity |
| | Work Orders Completed | A total of 162 work orders were completed in March 2024. |
| | Voltus, Inc. /Demand Response Auction Mechanism | Participated in March 2024 standby generators operation. |
| | Secondary Clarifier #1 & #2 | Sludge/Scum Pit – Contractor Cleaned via Vac Truck |
| | Primary Clarifier #2 | Sludge/Scum Pit – Contractor Cleaned via Vac Truck |
| | Utility Water Pump #1 | Removed for rebuild by maintenance staff |
| | UV Channel #1 | Replaced 32 bulbs, UV Channel #2 - Replaced 26 bulbs |
| | Digested Sludge Transfer Pump | Replaced Rotor/Stator |
| | Sludge Lagoons (and Reclamation Area) | |
| | Site Inspections | Conducted routine checks and management of the feed sludge and decant piping. |
| | | |
| April | Equipment | Activity |
| | Work Orders Completed | A total of 167 work orders were completed in April 2024. |
| | Primary Clarifier #1 | Replaced Sludge/Scum Flow Meter |
| | Voltus, Inc. /Demand Response Auction Mechanism | Participated in April 2024 standby generators operation. |
| | Primary Sludge and Scum Pump # 2 | Drive unit rebuilt in-house. |
| | Primary Clarifier #1 Sludge Pump | Replaced bearings, mechanical seal, end shaft |
| | Utility Water Pump #1 | Rebuilt, awaiting install with crane |
| | Sodium Hypochlorite Pump #4 | Replaced wiring terminations in junction box |
| | UV Channel #3 | Replaced 12 bulbs & 1 relay for lamp controls |
| | Ignacio Transfer Pump Station | |
| | PG&E completed a planned outage | On April 6th for 9.5 hours |

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| | | |
|-------------|---|---|
| | Sludge Lagoons (and Reclamation Area) | |
| | Site Inspections | Conducted routine checks and management of the feed sludge and decant piping. |
| May | Equipment | Activity |
| | Work Orders Completed | A total of 238 work orders were completed in May 2024. |
| | UV Channel #1 | In progress - full rehabilitation of lamps, ballasts, communication boards |
| | Voltus, Inc. /Demand Response Auction Mechanism | Participated in May 2024 standby generators operation. |
| | Dry Weather Pumps | Seal water solenoid replaced. |
| | Wet Weather Pumps | Replaced coolant system cap |
| | Sludge Lagoons (and Reclamation Area) | |
| | Site Inspections | Conducted routine checks and management of the feed sludge and decant piping. |
| | Sludge Lagoon Wet Well | Decant pump repaired and installed |
| June | Equipment | Activity |
| | VAMS Work Orders Completed | A total of 236 work orders were completed in June 2024. |
| | Voltus, Inc./Demand Response Auction Mechanism | Participated in June 7, 2024 standby generator operation. |
| | UV Channel #1 | In progress - full rehabilitation of lamps, ballasts, communication boards |
| | Primary Clarifier #2 Sludge/Scum | Replaced flow meter |
| | Thickened Waste Activated Sludge Sump | Replaced level controller |
| | Influent & Submersible Pump | Annual pump inspections |
| | Aeration Basin #4 | Repair utility water piping |
| | Utility Water Pump #1 | Rebuilt & Installed |
| | Recycled Water Plant | |
| | Sand filter #3 | Repaired air lift tubing |
| | Air compressor #1 | Rebuilt air valve heads |
| | Sludge Lagoons (and Reclamation Area) | |
| | Site Inspections | Conducted routine checks and management of the feed sludge and decant piping. |
| July | Equipment | Activity |
| | Work Orders Completed | A total of 155 work orders were completed in July 2024. |
| | Voltus, Inc. /Demand Response Auction Mechanism | Participated in July 7, 2024 standby generators operation. |

2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

| | | |
|------------------|---|---|
| | UV Channel #1 | In progress - full rehabilitation of lamps, ballasts, communication boards |
| | Primary Clarifier #1 Scum/Sludge Pump | Replaced soft start |
| | Odor Blower #1 | Replaced motor |
| | Ignacio IPS | |
| | Ignacio EQ Pump | Removed and inspected |
| | Recycled Water Plant | |
| | Backwash Actuator #1 | Replaced Valve Stem |
| | Sludge Lagoons (and Reclamation Area) | |
| | Site Inspections | Conducted routine checks and management of the feed sludge and decant piping. |
| | Decant Return Line | Contractor hydro jetted and plumbing snaked line |
| August | Equipment | Activity |
| | Work Orders Completed | A total of 111 work orders were completed in August 2024. |
| | Voltus, Inc. /Demand Response Auction Mechanism | Participated in August 16, 2024 standby generators operation. |
| | UV Channel #1 | In progress - full rehabilitation of lamps, ballasts, communication boards. |
| | Sodium Hypochlorite Tubing | Replaced from tanks to all feed locations. |
| | Influent Pump #1 | Replaced 24v transformer for VFD. |
| | Digester #2 Mixing Pump | Replaced pump & mechanical seal. |
| | Ignacio IPS | |
| | Ignacio EQ Pump | Installed with new retrieval chain, tested flow capacity. |
| | Ignacio Conveyance Pumps 1 & 2 | Replaced MAS memory chips in the pumps. |
| | Sludge Lagoons (and Reclamation Area) | |
| | Site Inspections | Conducted routine checks and management of the feed sludge and decant piping. |
| September | Equipment | Activity |
| | Work Orders Completed | A total of 155 work orders were completed in September 2024. |
| | Voltus, Inc. /Demand Response Auction Mechanism | Participated in September 2024 standby generators operation. |
| | UV Channel #3 | Replaced 40 lamps, 6 ballasts, 3 communication boards. |
| | Hypo pump #2 | Replaced control board. |
| | UV Transmittance Meter | Replaced sampling pump. |
| | Primary Clarifiers #1 & #2 | Sludge/scum piping and pumps fully repainted. |
| | Blower Building | Replaced UPS in local control panel. |

2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

| | | |
|-----------------|---|---|
| | Sludge Lagoons (and Reclamation Area) | |
| | Site Inspections | Conducted routine checks and management of the feed sludge and decant piping. |
| | Piers | Replaced 12 wood planks on lagoon piers. |
| October | Equipment | Activity |
| | Work Orders Completed | A total of 108 work orders were completed in October 2024. |
| | Voltus, Inc. /Demand Response Auction Mechanism | Participated in October 2024 standby generators operation. |
| | 12kV electromechanical switch | Replacement of switch |
| | Aeration Basin #2D | Replaced Rotork actuator and electrical connections. |
| | JB-4 | Slide gate operator replacement. |
| | Hypo Tank #1 | Installed new tank and plumbing. |
| | Sludge Lagoons (and Reclamation Area) | |
| | Site Inspections | Conducted routine checks and management of the feed sludge and decant piping. |
| | Piers | Replaced 20 wood planks on lagoon piers |
| November | Equipment | Activity |
| | Work Orders Completed | A total of 68 work orders were completed in November 2024. |
| | Large Odor Bed | Temporary odor scrubber in service |
| | Effluent Outfall Piping (54") | Emergency Repair - Supporting Role |
| | Headworks Washer/Compactor | Auger Replacement, Screen Repair |
| | Sludge Lagoons (and Reclamation Area) | |
| | Site Inspections | Conducted routine checks and management of the feed sludge and decant piping. |
| December | Equipment | Activity |
| | Work Orders Completed | A total of 151 work orders were completed in December 2024 |
| | Voltus, Inc. /Demand Response Auction Mechanism | Participated in December 2024 standby generators operation. |
| | Large Odor Bed | Temporary odor scrubber in service |
| | Influent Wet Well Gate #1 | Electrical Relay and Fuse Replacements |
| | Primary Clarifier Sludge/Scum Pump #3 | Motor Refurbished |
| | Sludge Lagoons (and Reclamation Area) | |
| | Site Inspections | Conducted routine checks and management of the feed sludge and decant piping. |
| | Lagoon decant return common channel | Contractor repaired break |

2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

Safety and Training 2024

OCCUPATIONAL HEALTH AND SAFETY COMMITMENT

Our most valuable resource, and therefore our prime asset, consists of the men and women who make up our company. The ongoing preservation of the health and safety of each and every one of our employees, while protecting our customers and the communities we serve, is our absolute priority: this applies to everyone, without exception.

Our goal is to perform our activities with the lowest possible number of accidents, and without any fatal accident.

Veolia's approach is thus structured around 5 pillars:

1. Involving all our managers, by establishing fundamental prevention rules, applying them and ensuring they are applied;
2. Training and involving all our employees - in order to raise their awareness of the risks associated with each work assignment;
3. Improving communication and dialogue, in order to promote experience sharing and increase synergies between our business lines and geographical areas;
4. Improving the management of risks, by identifying them, assessing and documenting them, in order to avert those which are specific to our activities, with the help of our occupational health and safety management system;
5. Tracking our health and safety performance, through specific indicators and by reinforcing our audits and self-assessments.

In matters of occupational risks, health and safety, we are targeting excellence. This goal requires everyone's full commitment to the values we uphold:

1. This applies to managers at all levels. They are all responsible for putting in place the required measures to ensure the health and safety of their teams.
2. This also applies to all company employees. They are responsible for respecting all safety measures at all times.

Their behavior must prevent hazardous situations, for themselves and for the people around them.

The implementation of this prevention policy and the use of the required equipment to ensure our employees' physical and mental safety is essential, irrespective of the organizational changes or

2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

cost-saving plans underway. No deviation from these rules will be tolerated: Veolia's ethics and its corporate and managerial responsibility are at stake.

Veolia Water has had no incidents from June 1, 2010 to present at the Novato Treatment Plant. 2024 was an incident free year. Each employee continued to receive a cash incentive reward from Veolia Water for the past 14 years with no lost time.

2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

Life Saving Rules – 2024

The Veolia Environmental Health and Safety team has identified and tracked employee activities that are most likely to result in injury or death across the globe. Using this information the EHS team has created a set of 12 Life Saving Rules that are to always be followed by employees engaging in operational and maintenance activities. All Veolia sites are required to complete training, tailgate meetings and sign safety commitments for each one of these rules. Veolia has also established a series of High Risk Management Standards that go into great detail about the dangers and procedures of activities that have been identified as high risk to personnel. These new safety protocols supplement the current monthly individual safety trainings throughout the year to ensure a strong commitment to safety culture. Below is the list of Life Saving Rules that are required to be adhered to by all staff.

VEOLIA

LIFE SAVING RULES

Before starting a task, I always perform a mental safety assessment and stop if it's unsafe.

| | |
|---|--|
| TRAFFIC MANAGEMENT I stay out of the path of moving vehicles or energised equipment. | TRAFFIC MANAGEMENT I always drive free from drugs and alcohol. I fasten my seat belt and I do not handle any communication device when driving. |
| TRAFFIC MANAGEMENT I signal, slow down and check surroundings, before turning and reversing. | WORK AT HEIGHT I keep my harness attached at all times when working at height and I protect others from falling objects. |
| EXCAVATION & TRENCHING I enter excavations or trenches only if they are protected against collapse. | CONFINED SPACES I test the atmosphere and always have an attendant outside before entering & while working in a confined space. |
| CONTROL OF HAZARDOUS ENERGY I lock, tag and ensure zero state (mechanical, chemical, electrical, hydraulic, etc...) before any operation. | ELECTRICITY I identify electricity networks and check that electrical equipment or circuits are de-energized/isolated before any operation. |
| HOT WORKS I perform hot work only if the fire and explosion risks have been eliminated. | LIFTING OPERATIONS I never work or walk under suspended loads. |
| HAZARDOUS MATERIALS I only handle hazardous material if I understand the hazards and apply proper control measures. | HIGH PRESSURE WATER, HYDROBLASTING, JETTING I ensure the integrity and compatibility of all equipment for the pressure used, and verify the operation of the emergency stop. |

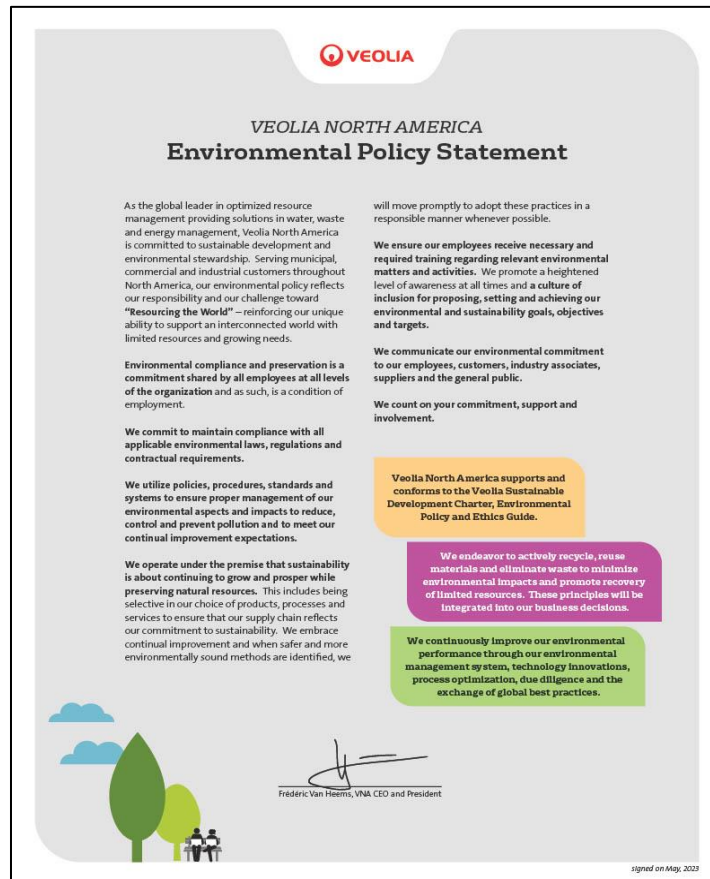
alwayssafe

2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

Veolia Environmental & Compliance

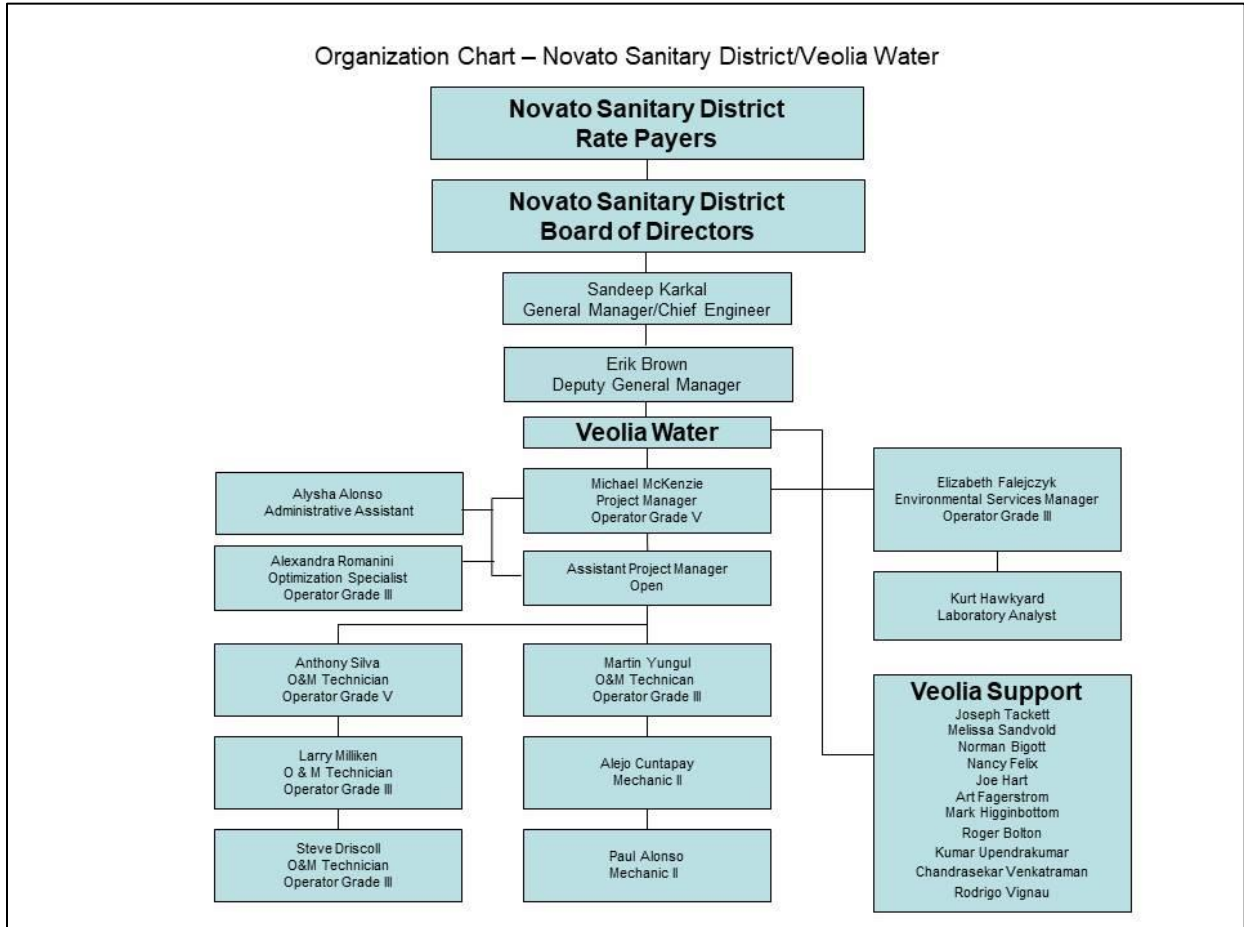
The Veolia Environmental & Compliance Corporate Team provides technical support and guidance on environmental matters and compliance issues for improving regulatory performance at each of our facilities. The team's objectives are; reduce/mitigate risks, improve environmental performance, and enhance employee awareness of environmental issues. Veolia has developed an Environmental Management System (EMS) to focus on our company's environmental goals and objectives. The corporate criteria down to the project level criteria are listed below.

- Establishing policies and procedures
- Monitoring and tracking environmental issues
- Measuring and controlling environmental impacts
- Conducting assessments and reviewing performance
- Identifying environmental interactions and risks
- Informed on legal requirements
- Addressing compliance issues and system non-conformances
- Setting targets for environmental performance improvement.



2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

Staffing and Organization



Certification Status (Details)

Michael “Mack” Mckenzie – Project Manger

Grade V, SWRCB - California Wastewater Treatment Plant Operator, #42519, November 17, 2025

Grade II, SWRCB - Water Distribution Operator, #50348 October 1, 2027

Grade II, CA SWRCB - Water Treatment Operator, #35767 January 1, 2026

Alexandra Romanini - Optimization Specialist

Grade III, SWRCB - California Wastewater Treatment Plant Operator, #76269, November 22, 2025

Grade I, SWRCB - Water Treatment Operator, #44994 March 1, 2025

Grade I, CWEA Laboratory Analyst, CWEA #1308233107, March 31, 2025

Anthony M. Silva – Operator III

Grade V, SWRCB - California Wastewater Treatment Plant Operator #10973, December 31, 2026

2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

Grade II, CWEA Collection System Maintenance Technician, CWEA #354, January 31, 2025

Larry Milliken – O&M Technician III

Grade III, CA SWRCB - California Wastewater Treatment Plant Operator #41483, August 12, 2026

Martin Yungul – O&M Technician III

Grade III, CA SWRCB - California Wastewater Treatment Plant Operator #43219, July 17, 2026

Grade II, CA SWRCB - Water Distribution Operator, #48543 January 1, 2026

Grade II, CA SWRCB - Water Treatment Operator, #38976 Sept. 1, 2025

Steve Driscoll – O&M Technician III

Grade III, CA SWRCB - California Wastewater Treatment Plant Operator #27905, Dec. 31, 2026

Elizabeth G. Falejczyk – Environmental Services Supervisor

Grade III, CA SWRCB - California Wastewater Treatment Plant Operator #6334, August 17, 2027

Kurt Hawkyard – Laboratory Technician/Pretreatment Programs Inspector

Grade II, CWEA Laboratory Analyst, CWEA #1308212134, June 30, 2025

Grade II, CWEA Industrial Waste, CWEA #1308211129, June 30, 2025

Grade II, CWEA Environmental Compliance Inspector, CWEA#130821437, March 31, 2025

Summary of Shifts - 2024

The facility continued to be manned 8 hours per day, 7 days per week with an on call operator available nights and the weekend.

Additional Veolia Support

- **Veolia Support Staff Onsite/Remote (Various Times)**
- Melissa Sandvold, Veolia West Region, VP of Operations (Remote)
- Michael McKenzie, Veolia Project Manager, Novato, CA (On-Site)
- Norman Bigott, Veolia Water West Technical Director (Remote)
- Art Fagerström, PE, BCEE, Veolia Technical Manager, Corporate Technical Support (Remote)
- Mark Higginbottom, Veolia Energy Efficiency Manager- Rotating Equipment (Remote)
- Nancy Felix, Veolia West Health & Safety Manager (Remote)
- Joe Hart, Veolia, Regional Asset Manager (Remote)
- Roger Bolton, Veolia Regional Asset Manager (Remote)
- Kumar Upendrakumar, Veolia Business Operations Center, Director of Engineering • Technical / Studies / Engineering (Remote)

2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

- Chandrasekar Venkatraman, Veolia Director, Capital Program Management (West) •
General Management (Remote)
- Rodrigo Vignau, Veolia Capital Project Construction Manager (Remote)
- Jordan Hamil, Veolia Lead Talent Advisor – West Region (Remote)
- Calvin Carnegie, Veolia Sr. Director, Technical & Performance West Region (Remote/In-person)

Contract Adjustments

The Amended and Restated Novato Operations and Maintenance Service Agreement was renegotiated and adopted May 10, 2021 based on a fixed fee price contract. Included in the base contract fee are management, operation, and maintenance. Exceptions to the fixed price include:

Schedule 13 – Pass through Costs

Section 5.6 – Performance Bond

Schedule 8 – Cost Adjustment and Escalation Indices

Schedule 8 – Flow and Loading Adjustments

Schedule 5 – Operation of Recycled Water Facility

Equipment Repair in excess of \$10,000

Fiscal Year 2023/24 service fee adjustment was 4.2%.

2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

Title 22 – Recycled Water Production Report for 2024

Tertiary Recycled Water produced by the Novato Sanitary District (NSD) Recycled Water Facility was distributed by the North Marin Water District (NMWD).

In 2024, compliance testing for coliform was performed at the NMWD laboratory, which is a State of California Environmental Laboratory Accreditation Program certified facility.

Recycled Water Table 6.0 below provides a summary of the quantity and quality of recycled water produced by NSD.

Table 6.0 Recycled Water Plant

| Novato Sanitary District 2024 Recycled Water Production Data | | | | | | | |
|---|-------------------------------|-----------------------------------|-----|------------------------------|------|--------------------------------|-------|
| Month | Water Delivered (Million Gal) | Effluent Turbidity (NTU) | | Effluent CT Value (mg min/L) | | Effluent Coliform (mpn/100 ml) | |
| Criteria | | <2 | | >450 | | <2.2 | |
| | | Max | Ave | Min | Ave | Max | 7 Med |
| January | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| February | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| March | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| April | 1.607 | 1.3 | 0.8 | >450 | >450 | <1 | <1 |
| May | 19.654 | 1.9 | 0.7 | >450 | >450 | <1 | <1 |
| June | 26.324 | 1.9 | 1.0 | >450 | >450 | <1 | <1 |
| July | 45.188 | 1.9 | 0.7 | >450 | >450 | 258 | <1 |
| August | 40.603 | 1.6 | 0.6 | >450 | >450 | <1 | <1 |
| September | 32.343 | 1.5 | 0.7 | >450 | >450 | <1 | <1 |
| October | 19.536 | 1.8 | 0.6 | >450 | >450 | 10.2 | <1 |
| November | 6.058 | 1.6 | 0.9 | >450 | >450 | <1 | <1 |
| December | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| TOTAL | 191.313 | No Deer Island Production in 2024 | | | | | |

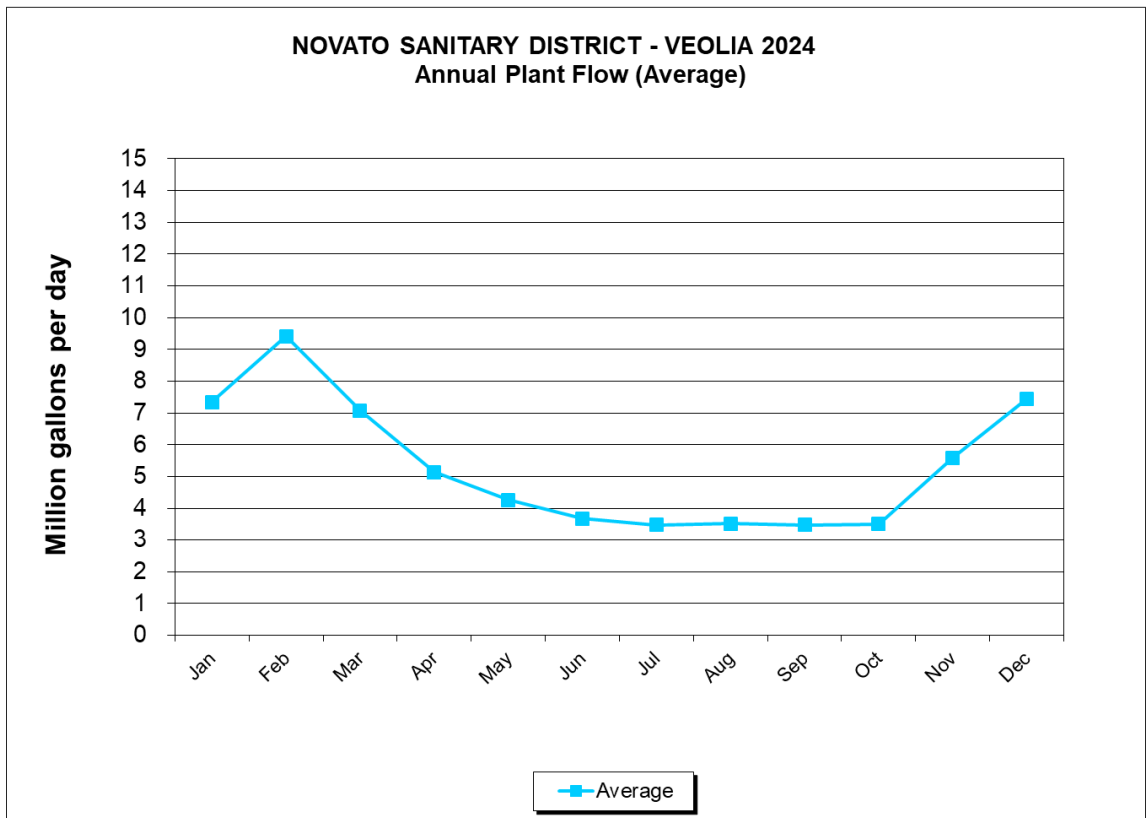
2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

Attachments

Annual Waste Characteristics & Loading Summary

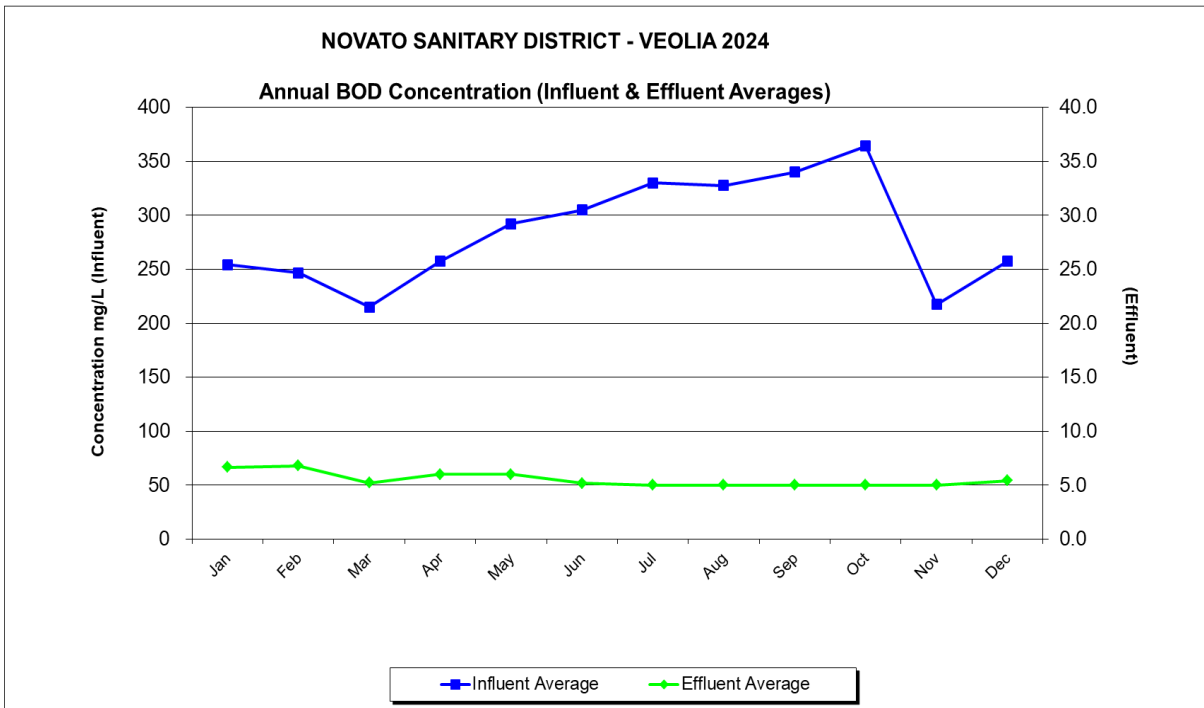
2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

| NOVATO SANITARY DISTRICT - VEOLIA | | | | | | | |
|--|------------|-------|------|---------|---|-------|-------------------------|
| PLANT FLOW | | | | | | | |
| Annual Waste Characteristics & Loading Summary | | | | | | | |
| (IN GALLONS TIMES 1,000,000) | | | | | | | |
| YEAR: 2024 | | | | | | | PRINT DATE: 31-Jan-2025 |
| | Total Flow | High | Low | Average | | | |
| January | 227.70 | 16.53 | 4.78 | 7.35 | Peak Wet Weather Flow (MAX Day) | 30.05 | |
| February | 273.01 | 30.05 | 3.91 | 9.41 | Max Peak Wet Weather (1-3 Hour) | 46.70 | |
| March | 219.42 | 12.04 | 4.14 | 7.08 | | | |
| April | 153.98 | 6.92 | 4.12 | 5.13 | | | |
| May | 132.06 | 6.74 | 3.27 | 4.26 | | | |
| June | 110.35 | 4.16 | 3.25 | 3.68 | | | |
| July | 107.55 | 3.92 | 3.07 | 3.47 | | | |
| August | 108.80 | 4.02 | 3.26 | 3.51 | Three month dry weather averages: (July, August September) | 3.49 | |
| September | 104.35 | 3.96 | 3.13 | 3.48 | | | |
| October | 108.56 | 3.78 | 3.22 | 3.50 | | | |
| November | 167.70 | 16.28 | 3.51 | 5.59 | | | |
| December | 230.87 | 14.10 | 3.98 | 7.45 | | | |
| ANNUAL TOTAL | 1944.35 | | | | | | |
| ANNUAL MAX. | 273.01 | 30.05 | | | | | |
| ANNUAL MIN. | 104.35 | | 3.07 | | | | |
| ANNUAL AVG. | 162.03 | | | 5.33 | Avg. Dry Weather Flow | 3.49 | |



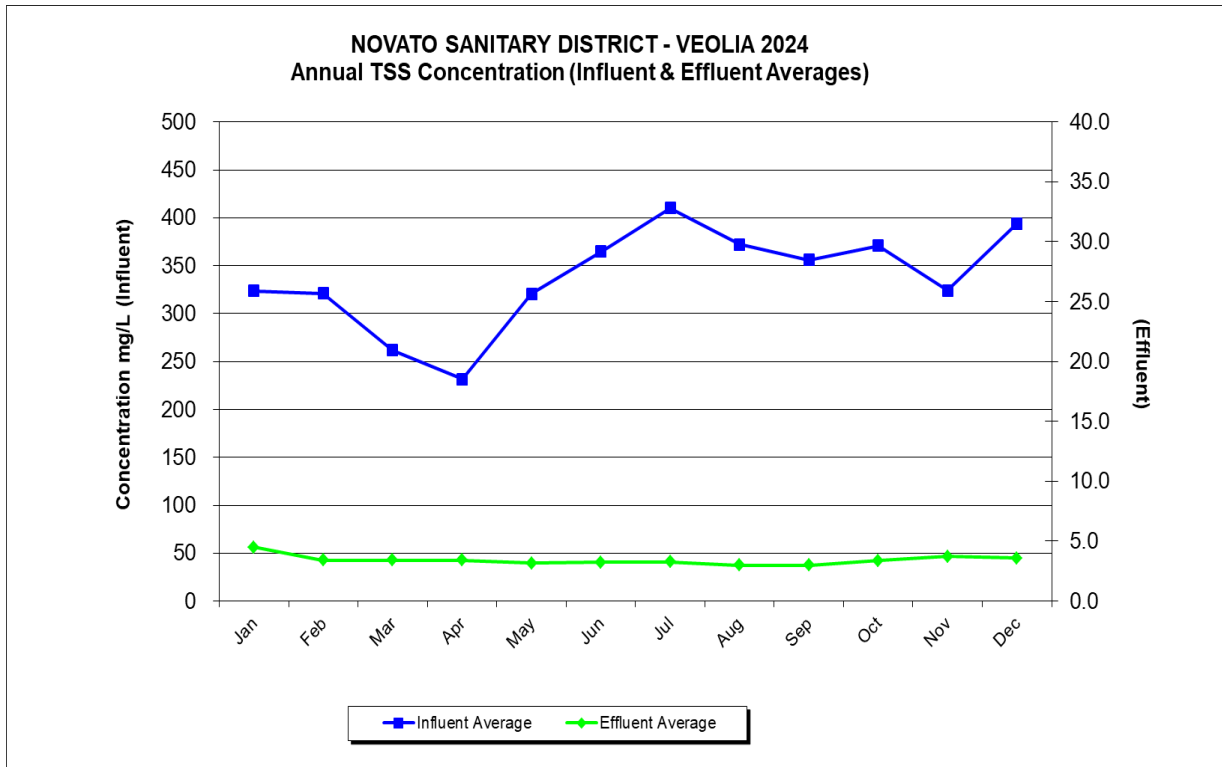
2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

| NOVATO SANITARY DISTRICT - VEOLIA | | | | | | | | | | | | | | |
|--|-------------------------|-----|---------|----------------|------------------|------|---------|----------------------|-----|---------|----------------|------------------|-----|---------|
| BOD (Influent & Effluent) | | | | | | | | | | | | | | |
| Annual Waste Characteristics & Loading Summary | | | | | | | | | | | | | | |
| YEAR: 2024 | PRINT DATE: 31-Jan-2025 | | | | | | | | | | | | | |
| | INFLUENT | | | | | | | EFFLUENT | | | | | | |
| | Concentration (mg/L) | | | No. of Samples | Loading (lb/day) | | | Concentration (mg/L) | | | No. of Samples | Loading (lb/day) | | |
| | High | Low | Average | | High | Low | Average | High | Low | Average | | High | Low | Average |
| January | 370 | 210 | 254 | 5 | 18649 | 9380 | 13626 | 10.0 | 5.0 | 6.7 | 6 | 527 | 204 | 353 |
| February | 490 | 87 | 247 | 4 | 28565 | 7495 | 13785 | 9.0 | 5.0 | 6.8 | 5 | 517 | 245 | 391 |
| March | 320 | 160 | 215 | 4 | 14111 | 6710 | 11444 | 6.0 | 5.0 | 5.2 | 5 | 423 | 186 | 310 |
| April | 310 | 258 | 258 | 4 | 12487 | 9649 | 11078 | 8.0 | 5.2 | 6.0 | 5 | 376 | 192 | 259 |
| May | 340 | 170 | 292 | 5 | 13327 | 6252 | 10165 | 8.0 | 5.0 | 6.0 | 6 | 294 | 154 | 211 |
| June | 370 | 220 | 305 | 4 | 10862 | 7229 | 9603 | 6.0 | 5.0 | 5.2 | 12 | 182 | 146 | 158 |
| July | 370 | 260 | 330 | 5 | 10985 | 7004 | 9337 | 5.0 | 5.0 | 5.0 | 14 | 163 | 128 | 144 |
| August | 350 | 320 | 328 | 4 | 10246 | 8994 | 9560 | 5.0 | 5.0 | 5.0 | 13 | 162 | 137 | 146 |
| September | 360 | 320 | 340 | 4 | 10217 | 8353 | 9521 | 5.0 | 5.0 | 5.0 | 13 | 165 | 131 | 145 |
| October | 500 | 270 | 364 | 5 | 14512 | 8106 | 10573 | 5.0 | 5.0 | 5.0 | 8 | 151 | 143 | 146 |
| November | 320 | 150 | 218 | 4 | 23082 | 7519 | 12783 | 5.0 | 5.0 | 5.0 | 7 | 679 | 151 | 261 |
| December | 400 | 100 | 258 | 4 | 21966 | 7331 | 14091 | 6.0 | 5.0 | 5.4 | 5 | 507 | 168 | 304 |
| ANNUAL HIGH | 500 | 320 | 364 | 5 | 28565 | 9649 | 14091 | 10.0 | 5.2 | 6.8 | 14 | 679 | 245 | 391 |
| ANNUAL LOW | 310 | 87 | 215 | 4 | 10217 | 6252 | 9337 | 5.0 | 5.0 | 5.0 | 5 | 151 | 128 | 144 |
| ANNUAL AVG. | 375 | 210 | 284 | 4 | 15751 | 7835 | 11297 | 6.5 | 5.0 | 5.5 | 8 | 346 | 165 | 236 |



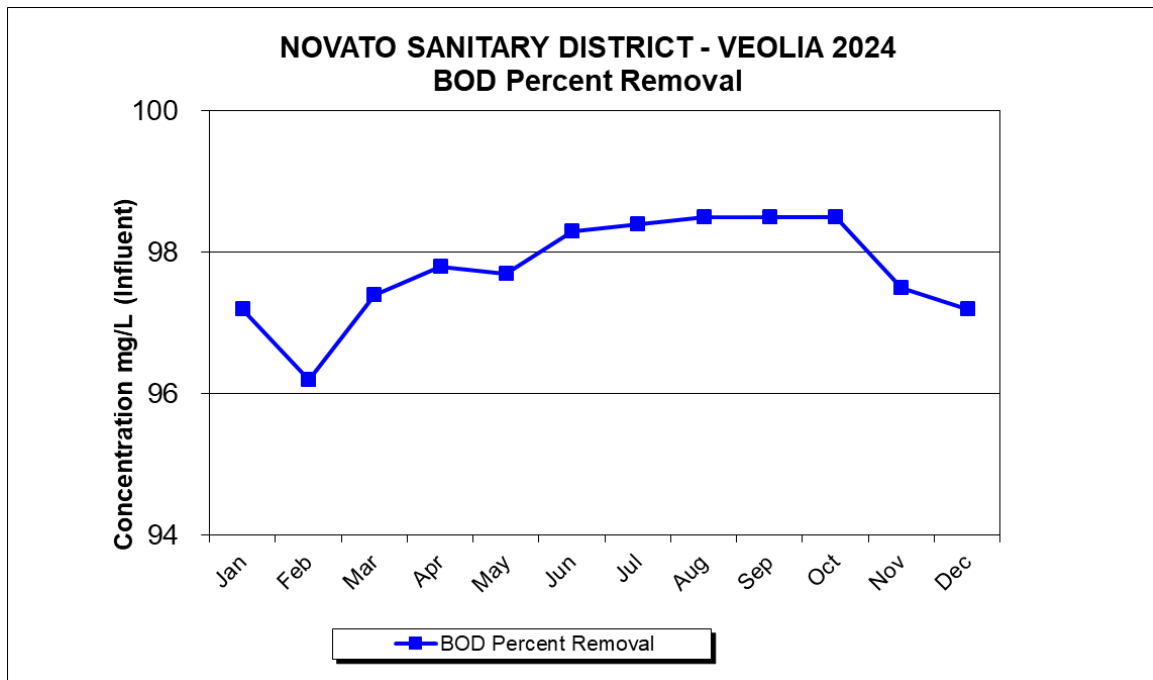
2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

| NOVATO SANITARY DISTRICT - VEOLIA | | | | | | | | | | | | | | |
|--|-------------------------|-----|---------|----------------|------------------|-------|---------|----------------------|-----|---------|----------------|------------------|-----|---------|
| SUSPENDED SOLIDS (Influent & Effluent) | | | | | | | | | | | | | | |
| Annual Waste Characteristics & Loading Summary | | | | | | | | | | | | | | |
| YEAR: 2024 | PRINT DATE: 31-Jan-2025 | | | | | | | | | | | | | |
| | INFLUENT | | | | | | | EFFLUENT | | | | | | |
| | Concentration (mg/L) | | | No. of Samples | Loading (lb/day) | | | Concentration (mg/L) | | | No. of Samples | Loading (lb/day) | | |
| | High | Low | Average | | High | Low | Average | High | Low | Average | | High | Low | Average |
| January | 622 | 201 | 324 | 5 | 26716 | 8197 | 16861 | 7.0 | 3.0 | 4.5 | 5 | 369 | 122 | 228 |
| February | 801 | 98 | 321 | 4 | 46696 | 5431 | 18325 | 4.0 | 3.0 | 3.4 | 4 | 345 | 147 | 202 |
| March | 333 | 212 | 262 | 4 | 15418 | 10587 | 13794 | 4.0 | 3.0 | 3.4 | 4 | 296 | 112 | 207 |
| April | 264 | 150 | 232 | 4 | 10697 | 8056 | 9822 | 3.0 | 3.0 | 3.4 | 4 | 215 | 119 | 147 |
| May | 462 | 205 | 320 | 5 | 14218 | 7557 | 11028 | 4.0 | 3.0 | 3.2 | 5 | 147 | 92 | 111 |
| June | 482 | 273 | 365 | 4 | 15838 | 8697 | 11567 | 5.0 | 3.0 | 3.3 | 4 | 147 | 88 | 100 |
| July | 612 | 324 | 410 | 5 | 17660 | 8728 | 11575 | 5.0 | 2.0 | 3.3 | 5 | 135 | 56 | 95 |
| August | 408 | 342 | 372 | 4 | 11944 | 9612 | 10864 | 3.0 | 3.0 | 3.0 | 4 | 97 | 82 | 87 |
| September | 389 | 335 | 356 | 4 | 11290 | 8875 | 9964 | 3.0 | 3.0 | 3.0 | 4 | 99 | 78 | 87 |
| October | 432 | 293 | 371 | 5 | 12430 | 8797 | 10768 | 5.0 | 3.0 | 3.4 | 5 | 145 | 86 | 99 |
| November | 393 | 300 | 324 | 4 | 40733 | 9939 | 20963 | 6.0 | 3.0 | 3.7 | 4 | 815 | 90 | 225 |
| December | 634 | 143 | 394 | 4 | 53563 | 10483 | 24067 | 4.0 | 3.0 | 3.6 | 4 | 338 | 101 | 204 |
| ANNUAL HIGH | 801 | 342 | 410 | 5 | 53563 | 10587 | 24067 | 7.0 | 3.0 | 4.5 | 5 | 815 | 147 | 228 |
| ANNUAL LOW | 264 | 98 | 232 | 4 | 10697 | 5431 | 9822 | 3.0 | 2.0 | 3.0 | 4 | 97 | 56 | 87 |
| ANNUAL AVG. | 486 | 240 | 337 | 4 | 23100 | 8747 | 14133 | 4.4 | 2.9 | 3.4 | 4 | 262 | 98 | 149 |



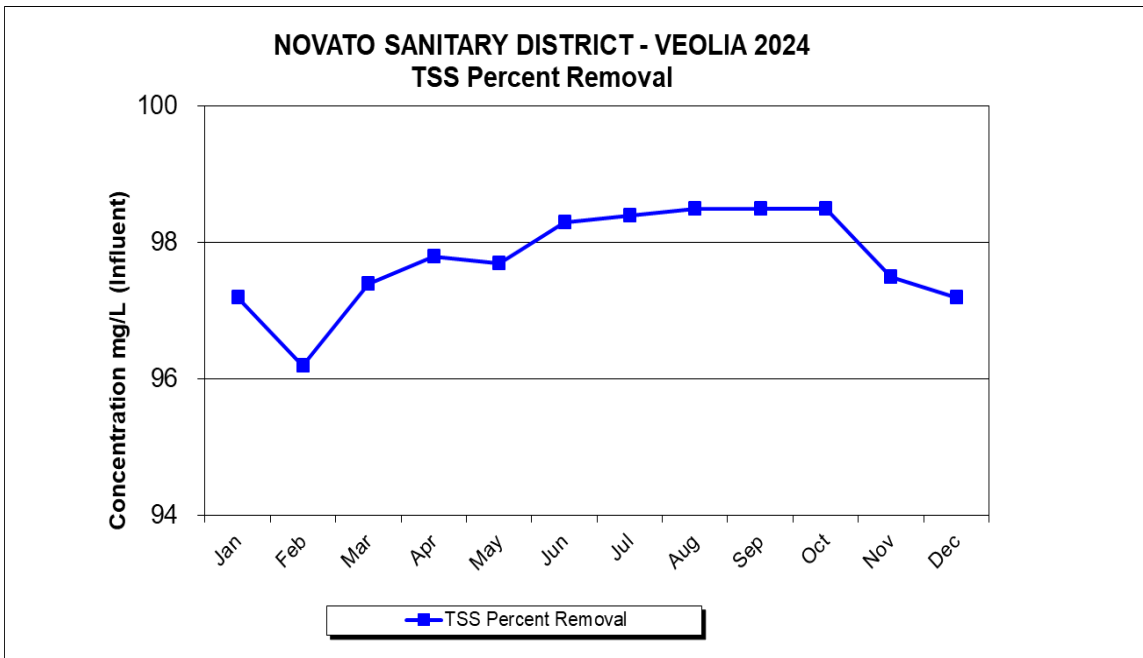
2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

| NOVATO SANITARY DISTRICT - VEOLIA | | | | | |
|--|-------------------------|------|---------|------------------------------|-------------|
| BOD Removal Percentage (Effluent) | | | | | |
| Annual Waste Characteristics & Loading Summary | | | | | |
| YEAR: 2024 | PRINT DATE: 31-Jan-2025 | | | | |
| | High | Low | Average | Number of Samples | |
| January | 98.4 | 95.2 | 97.2 | 5 | |
| February | 99.0 | 93.1 | 96.2 | 4 | |
| March | 98.4 | 96.9 | 97.4 | 4 | |
| April | 96.8 | 98.4 | 97.8 | 4 | |
| May | 98.5 | 95.3 | 97.7 | 5 | |
| June | 98.6 | 97.7 | 98.3 | 4 | |
| July | 98.6 | 98.1 | 98.4 | 5 | |
| August | 98.6 | 98.4 | 98.5 | 4 | |
| September | 98.6 | 98.4 | 98.5 | 4 | |
| October | 99.0 | 98.1 | 98.5 | 5 | |
| November | 98.4 | 96.7 | 97.5 | 4 | |
| December | 98.8 | 94.0 | 97.2 | 4 | |
| | | | | Number of Samples Total = 52 | |
| ANNUAL MAX. | 99.0 | 98.4 | 98.5 | | |
| ANNUAL MIN. | 96.8 | 93.1 | 96.2 | 1st QTR. 13 | 3rd QTR. 13 |
| ANNUAL AVG. | 98.5 | 96.7 | 97.8 | 2nd QTR. 13 | 4th QTR. 13 |



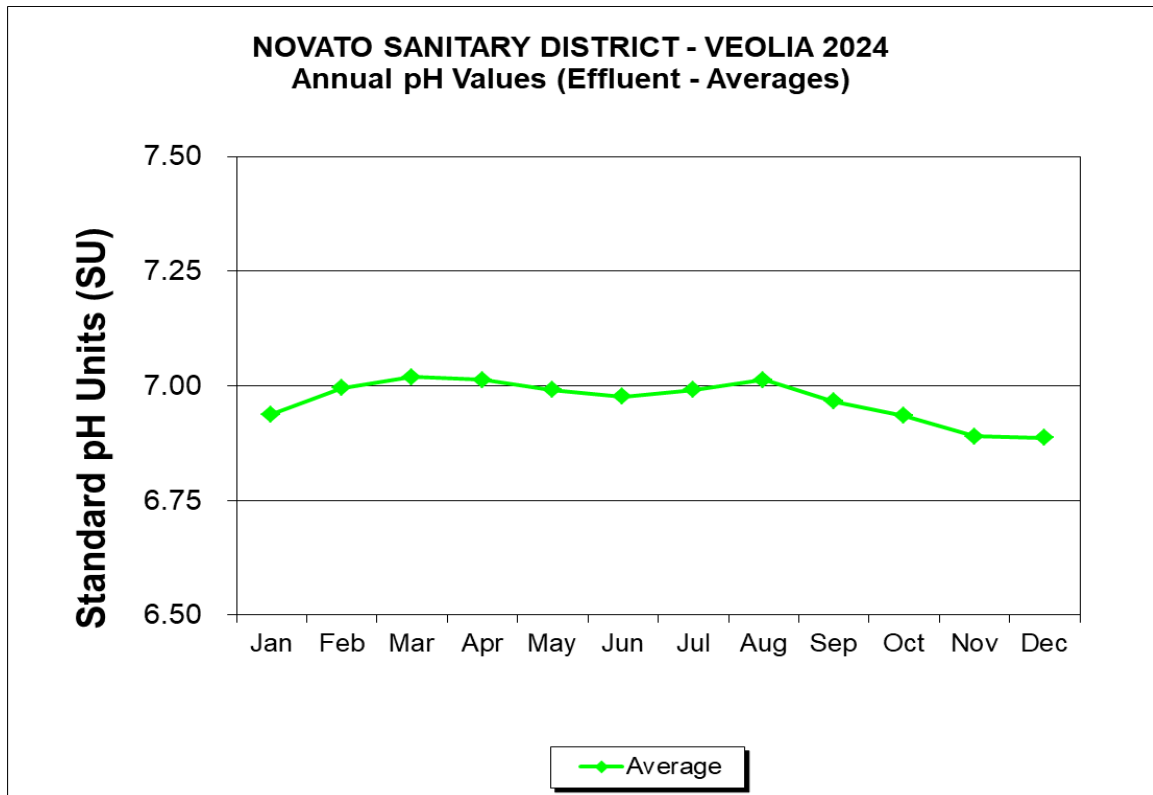
2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

| NOVATO SANITARY DISTRICT - VEOLIA | | | | | | | | | | |
|--|-------------------------|------|---------|-------------------|------|------|---------------------------|----|----------|----|
| TSS Removal Percentage (Effluent) | | | | | | | | | | |
| Annual Waste Characteristics & Loading Summary | | | | | | | | | | |
| YEAR: 2024 | PRINT DATE: 31-Jan-2025 | | | | | | | | | |
| | High | Low | Average | Number of Samples | | | | | | |
| January | 99.0 | 97.6 | 98.5 | 5 | | | | | | |
| February | 99.6 | 95.9 | 97.8 | 4 | | | | | | |
| March | 99.1 | 98.1 | 98.7 | 4 | | | | | | |
| April | 98.9 | 97.3 | 98.4 | 4 | | | | | | |
| May | 99.4 | 98.5 | 98.9 | 5 | | | | | | |
| June | 99.4 | 98.9 | 99.2 | 4 | | | | | | |
| July | 99.5 | 98.5 | 99.1 | 5 | | | | | | |
| August | 99.3 | 99.1 | 99.2 | 4 | | | | | | |
| September | 99.2 | 99.1 | 99.2 | 4 | | | | | | |
| October | 99.3 | 98.6 | 99.0 | 5 | | | | | | |
| November | 99.2 | 98.0 | 98.7 | 4 | | | | | | |
| December | 99.4 | 97.2 | 98.7 | 4 | | | | | | |
| ANNUAL MAX. | | | | 99.6 | 99.1 | 99.2 | Number of Samples Total = | | 52 | |
| ANNUAL MIN. | | | | 98.9 | 95.9 | 97.8 | 1st QTR. | 13 | 3rd QTR. | 13 |
| ANNUAL AVG. | | | | 99.3 | 98.1 | 98.8 | 2nd QTR. | 13 | 4th QTR. | 13 |



2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

| NOVATO SANITARY DISTRICT - VEOLIA | | | | | | | |
|--|-------------------------|------|---------|-------------------------------|----|----------|----|
| pH (Effluent) | | | | | | | |
| Annual Waste Characteristics & Loading Summary | | | | | | | |
| YEAR: 2024 | PRINT DATE: 31-Jan-2025 | | | | | | |
| | High | Low | Average | Number of Samples | | | |
| January | 7.0 | 6.8 | 6.9 | 24 | | | |
| February | 7.1 | 6.9 | 7.0 | 20 | | | |
| March | 7.2 | 6.9 | 7.0 | 21 | | | |
| April | 7.2 | 6.9 | 7.0 | 22 | | | |
| May | 7.1 | 6.9 | 7.0 | 23 | | | |
| June | 7.1 | 6.9 | 7.0 | 21 | | | |
| July | 7.0 | 6.9 | 7.0 | 22 | | | |
| August | 7.1 | 7.0 | 7.0 | 22 | | | |
| September | 7.1 | 6.9 | 7.0 | 21 | | | |
| October | 7.0 | 6.9 | 6.9 | 23 | | | |
| November | 7.0 | 6.7 | 6.9 | 21 | | | |
| December | 7.0 | 6.8 | 6.9 | 23 | | | |
| | | | | Number of Samples Total = 263 | | | |
| ANNUAL MAX. | 7.20 | 7.00 | 7.02 | | | | |
| ANNUAL MIN. | 7.00 | 6.70 | 6.89 | 1st Qtr. | 65 | 2nd Qtr. | 66 |
| ANNUAL AVG. | 7.08 | 6.88 | 6.97 | 3rd Qtr. | 65 | 4th Qtr. | 67 |



2024 ANNUAL OPERATIONS AND MAINTENANCE REPORT FOR THE NOVATO SANITARY DISTRICT

| NOVATO SANITARY DISTRICT - VEOLIA | | | | | | | |
|--|-------------------------|------|---------|-------------------|------|---|--|
| TEMPERATURE (Effluent) | | | | | | | |
| Annual Waste Characteristics & Loading Summary | | | | | | | |
| YEAR: 2024 | PRINT DATE: 31-Jan-2025 | | | | | | |
| | High | Low | Average | Number of Samples | | | |
| January | 19.2 | 16.6 | 18.1 | 24.0 | | | |
| February | 18.2 | 16.1 | 17.0 | 20.0 | | | |
| March | 19.2 | 16.7 | 18.1 | 21.0 | | | |
| April | 21.1 | 17.9 | 19.7 | 22.0 | | | |
| May | 23.0 | 19.1 | 21.4 | 23.0 | | | |
| June | 24.2 | 22.0 | 23.2 | 21.0 | | | |
| July | 26.1 | 23.4 | 24.5 | 22.0 | | | |
| August | 26.2 | 24.3 | 25.0 | 22.0 | | | |
| September | 25.6 | 23.8 | 24.7 | 21.0 | | | |
| October | 25.8 | 22.5 | 24.1 | 23.0 | | | |
| November | 23.2 | 18.8 | 21.1 | 21.0 | | | |
| December | 20.5 | 17.0 | 18.7 | 23.0 | | | |
| ANNUAL MAX. | | | 26.2 | 24.3 | 25.0 | Number of Samples Total = 263 1st Qtr. 65 2nd Qtr. 66 3rd Qtr. 65 4th Qtr. 67 | |
| ANNUAL MIN. | | | 18.2 | 16.1 | 17.0 | | |
| ANNUAL AVG. | | | 22.7 | 19.9 | 21.3 | | |

