

NOVATO SANITARY DISTRICT

Meeting Date: September 9, 2019

The Board of Directors of Novato Sanitary District will hold a **special meeting at 4:00 p.m.**, followed by a **regular meeting at 5:30 p.m.** Monday, September 9, 2019, at the District Offices, 500 Davidson Street, Novato.

Materials related to items on this agenda that are public records, are available for public inspection at the District Office, 500 Davidson Street, Novato, during normal business hours. They are also available on the District's website: www.novatosan.com. Note: All times and order of consideration for agenda items are for reference only. The Board of Directors may consider item(s) in a different order than set forth herein.

SPECIAL MEETING AGENDA

1. **PLEDGE OF ALLEGIANCE:**
2. **AGENDA APPROVAL:**
3. **PUBLIC COMMENT (PLEASE OBSERVE A THREE-MINUTE TIME LIMIT):**

This item is to allow anyone present to comment on any subject not on the agenda. Each individual will be limited to a three-minute presentation, and comments must be spoken into the microphone set up to receive public comment.

4. **COLLECTION SYSTEM MASTER PLAN (DRAFT):**
 - a. Receive presentation on the Draft 2019 Collection System Master Plan (CSMP) from the District's Consultant Woodard and Curran.
5. **ADJOURN:**

(BREAK)

REGULAR MEETING AGENDA

1. **PLEDGE OF ALLEGIANCE:**
2. **AGENDA APPROVAL:**
3. **PUBLIC COMMENT (PLEASE OBSERVE A THREE-MINUTE TIME LIMIT):**

This item is to allow anyone present to comment on any subject not on the agenda, or to request consideration to place an item on a future agenda. Each individual will be limited to a three-minute presentation, and comments must be spoken into the microphone set up to receive public comment. No action will be taken by the Board at this time as a result of any discussion or any public comments made.

4. **REVIEW OF MINUTES:**
 - a. Approve minutes of the August 12, 2019 regular meeting.
5. **CONSENT CALENDAR:**

The General Manager-Chief Engineer has reviewed the following item(s). To his knowledge, there is no opposition to the consent action. The item(s) can be acted on in one consolidated motion as recommended or may be removed from the Consent Calendar and separately considered at the request of any person.

- a. Approve regular disbursements, August 12 – September 9, 2019.
 - b. Ratify payroll and payroll related disbursements, August 2019.
 - c. Receive deposit summary, August 2019.
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- d. Approve Agreement For Reclaimed Water Use Between Novato Sanitary District and California State Conservancy, and authorize the General Manager-Chief Engineer to execute it.
- e. Cancel the regular Board meeting of Monday, November 11, 2019 (Veterans Day holiday) and schedule a special meeting at 5:30 p.m., Monday, November 18, 2019.

6. SOLID WASTE OPERATIONS:

- a. Receive verbal report on status of Calendar Year (CY) 2020 solid waste rate adjustment request from Recology Sonoma-Marin (RSM), (information only – no action at this time).
- b. Review proposed Schedule, and draft Notice of Intent and Public Hearing, and set public hearing date of November 18, 2019, to consider modifications and establish maximum solid waste service charges for Calendar Year (CY) 2020.

7. WASTEWATER OPERATIONS:

- a. Receive Wastewater Operations Report, August 2019:
 - i. Collection Systems
 - ii. Treatment Facilities
 - iii. Reclamation Facilities

8. CAPITAL PROJECTS:

- a. *Cogeneration/Alt. Energy, Account No. 72708:* Approve a contract with Woodard & Curran, Inc. in the not-to-exceed amount of \$125,000 for professional engineering services related to a cogeneration system, and authorize the General Manager-Chief Engineer to execute it.
- b. *Collection System Improvements, Account No. 72706:* Approve a contract with GHD, Inc. in the not-to-exceed amount of \$158,000 for professional engineering services related to the Del Mar Avenue Sewer Improvements project, and authorize the General Manager-Chief Engineer to execute it.
- c. *Vehicle Replacement, Account No.73090:* Authorize purchase of a combination vacuum/flusher truck, and authorize the General Manager-Chief Engineer to execute a purchase order with Owen Equipment, Inc. in the amount of \$444,517.87 (including estimated sales tax and fees).
- d. Receive Capital Projects Update, August 2019.

9. BOARD MEMBER REPORTS AND REQUESTS:

- a. North Bay Watershed Association (NBWA) meeting, September 6, 2019.

10. GENERAL MANAGER'S REPORT AND ANNOUNCEMENTS:

11. ADJOURN:

Next Resolution No. 3140.

Next regular meeting date: Monday, October 14, 2019, 5:30 p.m. at the Novato Sanitary District office, 500 Davidson Street, Novato, CA.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the District at (415) 892-1694 at least 24 hours prior to the meeting. Notification prior to the meeting will enable the District to make reasonable accommodation to help ensure accessibility to this meeting.

NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

TITLE: Collection System Improvements, Account No. 72706 – Collection System Master Plan.	<u>SPECIAL MEETING DATE:</u> September 9, 2019 SPECIAL MEETING AGENDA ITEM NO.: 4.a.
RECOMMENDED ACTION: Receive presentation on the draft Collection System Master Plan (CSMP) from the District’s Consultant, Woodard and Curran.	
SUMMARY AND DISCUSSION: <p>In July 2016, the District contracted with RMC Water and Environment (RMC) to develop a Collection System Master Plan (CSMP). RMC (now Woodward and Curran) completed the majority of its work and prepared a draft CSMP by July 2019.</p> <p>Hard copies of the draft CSMP document were presented to each Board member at the August 12, 2019 Board meeting. The Board also set a special meeting for 4:00 p.m., September 9, 2019, for a workshop presentation on the CSMP, where Woodard and Curran staff would be present along with District staff, to address any questions or comments from the Board.</p> <p>An electronic copy is of the document is also available until further notice at the District’s website at: www.novatosan.com/newsletters-press-documents/documents/#planning-and-facilities</p> <p>The purpose of the presentation is to address any questions or comments from the Board on the draft CSMP. It is recommended that the Board receive the presentation and provide questions or comments (if any), at this meeting. If the Board desires review time beyond this meeting, it is recommended that any additional comments be provided no later than September 30, 2019, to facilitate a timely completion and preparation of the final CSMP document.</p>	
STRATEGIC PLAN INFORMATION: This item addresses Goal 2 (Reliable, Environmental and Efficient Facilities) of the latest Strategic Plan Update.	
DEPT. MGR.: eb	GENERAL MANAGER: SSK

DRAFT

NOVATO SANITARY DISTRICT

Board Meeting Minutes

Meeting Date: August 12, 2019

A regular meeting of the Board of Directors of the Novato Sanitary District was held at 5:30 p.m., Monday, August 12, 2019, at the District Office, 500 Davidson Street, Novato.

BOARD MEMBERS PRESENT: Directors William Long, Tim Fuelle, Jean Mariani, and Jerry Peters. President Carole Dillon-Knutson arrived at 5:52 p.m.

STAFF PRESENT: General Manager-Secretary Sandeep Karkal and Administrative Secretary Julie Hoover.

ALSO PRESENT: Erik Brown, Deputy General Manager, Novato Sanitary District
John O'Hare, Project Manager, Veolia
Dale Thrasher, Administrative Services Officer, Novato Sanitary District
Jeff Boheim, Field Services Manager, Novato Sanitary District
Dee Johnson, Solid & Household Hazardous Waste Program Coordinator
Laura Creamer, Finance Officer, Novato Sanitary District
Steven Gortler, Registered Municipal Advisor
Garen Kazanjian, Waste Zero Specialist, Recology Sonoma/Marin
Fred Stemmler, General Manager, Recology Sonoma/Marin

In the absence of President Dillon-Knutson, President Pro-tem William Long began the meeting.

PLEDGE OF ALLEGIANCE:

AGENDA APPROVAL: The agenda was approved as presented.

PUBLIC COMMENT: None.

REVIEW OF MINUTES:

- Consider approval of minutes of the August 8, 2019 regular meeting.

On motion of Director Peters, seconded by Director Mariani, and carried by the following vote, the August 8, 2019 Board meeting minutes were approved. Ayes: Long, Mariani, Peters. Abstain: Director Fuelle. Absent: President Dillon-Knutson.

CONSENT CALENDAR:

President Pro-tem Long called for a motion on the Consent Calendar items as follows:

- a. Approve disbursements as follows:
 - 1. Board fees, June 2019: \$1,847.53
 - 2. Board fees, July 2019: \$1,431.93
 - 3. Safety Recognition FY 18-19: \$926.38
 - 4. Operating expenditures, June 24: \$117,191.21
 - 5. Operating expenditures, July 8: \$457,176.96
 - 6. Operating expenditures, July 22: \$559,819.23
 - 7. Operating expenditures, Aug. 8-12: \$578,899.09

8. Capital project expenditures, June 24: \$93,930.68
 9. Capital project expenditures, July 8: \$128,593.46
 10. Capital project expenditures, July 22: \$334,955.50
 11. Capital project expenditures, July 30-Aug. 12: \$843,974.31
- b. Ratify payroll and payroll related disbursements for June 2019 in the amount of \$259,398.39, and July 2019 in the amount of \$290,879.70.
 - c. Receive deposit summary, June and July 2019.
 - d. Receive 4th Quarter Investment Report, Fiscal Year (FY) 18-19.
 - e. Receive 4th Quarter Financial Report, FY 18-19.
 - f. Receive Accounts Receivable (A/R) Summary Report as of June 30, 2019.
 - g. Approve transfer of \$93,757 from unspent funds in the "Salaries and Benefits" categories of the FY 18-19 Operating Budget as of June 30, 2019, to the District's Public Agency Retirement Services (PARS) Trust account.
 - h. Approve transfer of \$25,990 from the Capital Fund to the Operating Fund for staff time spent on Capital Fund projects in FY 18-19.
 - i. Approve Subordination Request from the Successor Agency to the Dissolved Redevelopment Agency of the City of Novato.
 - j. Authorize the General Manager-Chief Engineer to renew the District issued Class I Non-Domestic Temporary Discharge Permit No. ExxonMobil-031.

On motion of Director Mariani, seconded by Director Peters, and carried unanimously by those Directors present, the Board approved the above listed Consent Calendar items.

CLEAN WATER STATE REVOLVING FUND (CWSRF) LOAN REFINANCING:

-Receive update on refinancing process from financing team. The General Manager stated that at the June 10th meeting, the Board directed staff to proceed with the refinancing process for the balance of the CWSRF loan with no extension of the repayment period. He stated that Mr. Steven Gortler was present to provide an update as well as the final results of the bond refinancing process.

Mr. Steven Gortler addressed the Board. He stated that on July 24th, eleven favorable bids were received, and that the District subsequently awarded the bid to J.P. Morgan Securities LLC, for a low bid rate of 1.405070%. Mr. Gortler stated that the favorable refinancing outcome could have been due in part to the S&P Global Rating increase, declared on July 9th, upgrading the District's debt from a 'AA+' to 'AAA' rating. He discussed the debt service savings due to the refinancing, stating that the net present value (NPV) savings/refunded par amount was 5.36% which translated to a NPV savings to the District of approximately \$2,976,527 over the remainder of the life of the CWSRF loan. He continued, and provided a breakdown of the estimated refinancing costs, which were in the amount of \$291,583.13.

The Board thanked Mr. Gortler for his hard work, and for achieving this beneficial outcome to the CWSRF loan refinancing.

-Receive Standard and Poor's Global Ratings Letter and Report on its "AAA" rating for the District's Series 2019 Revenue Refunding Bonds, and raising its rating on the District's 2017 outstanding Series 2017 Revenue Refunding Bonds to "AAA" from "AA+." The General Manager stated that as discussed in the previous agenda item, S&P Global Ratings issued a letter on July 9, 2019, raising the District's credit rating on the Series 2019 Revenue Refunding Bonds from a "AA+" rating to a "AAA" rating. He stated that the rating reflects the combination

of an extremely strong enterprise risk profile and an extremely strong financial risk profile. He stated that these comments reflect very positively on the District's current and future stability.

ANNUAL BUDGET: FINAL FISCAL YEAR (FY) 19-20 BUDGET:

- Receive and adopt the Final FY 19-20 District Annual Budget. The General Manager stated that this Final Budget was similar to the draft budget that was presented at the June 10th Board meeting. He reviewed details of the budget, outlining operating expenditures and anticipated capital revenues.

On motion of Director Peters, seconded by Director Mariani, and approved by those Directors present, the Final Budget for Fiscal Year 2019-20, and Preliminary Budget for Fiscal Year 2020-21, was adopted.

- Adopt Resolution No. 3139 establishing appropriations limit for FY 19-20. The General Manager stated that under the Gann Spending-Limitation Initiative, the District is required to annually adopt a resolution setting an appropriations limit for the upcoming year. He stated that based on growth factors provided by the State Department of Finance, staff recommends the appropriations limit be set at \$6,804,989.

On motion of Director Peters, seconded by Director Mariani, and approved by those Directors present, Resolution No. 3139: A Resolution of the Novato Sanitary District Correcting and Amending Prior Calculations and Making Determination and Establishing the 2019-20 Appropriation Limit.

SOLID WASTE OPERATIONS:

The General Manager stated that the Solid Waste Operation reports would be addressed by Dee Johnson, Garen Kazanjian, and Fred Stemmler.

- Receive Recology 1st and 2nd Quarter 2019 reports. Garen Kazanjian, Waste Zero Specialist, began an overview of Recology's 1st and 2nd quarter reports for 2019. He discussed the composting/green waste collection program, stating that some of the newly established compost collection accounts included Trader Joes, Marriott Hotel, and I-Hop restaurant. He outlined Recology's Waste Zero outreach events, discussed highlights of the activities, and stated that 60 commercial accounts were contacted for site audits and presentations during the first and second quarter. Garen Kazanjian and Fred Stemmler responded to questions from the Board.

President Dillon Knutson arrived at 5:52 p.m. She stated that she was delayed due to an accident in Santa Rosa.

- Receive verbal report on Marin County JPA and Local Task Force. Dee Johnson, Household Hazardous Waste Coordinator, discussed her attendance at the Marin County JPA Board meeting held on May 23rd where discussion took place regarding the FY 19-20 Zero Waste Grant Program and the FY 19-20 budget for the Marin County Hazardous & Solid Waste Management JPA. Ms. Johnson also discussed her attendance at the Marin County AB939 Local Task Force meeting which was held on August 7th. She stated that there are several new members, and that Delynn Keis, Environmental Representative, has resigned.

- Receive verbal report on SB 1383 (Lara) regulations. Ms. Johnson stated that the regulations for SB 1383 have not been finalized, and therefore she did not have any additional information. She anticipates that final regulations will be issued by the end of 2019, and she will bring updates to the Board as they are available.

- Receive Annual 2018, and 1st Quarter 2019 AB 939 Disposal/Diversion reports; and 1st & 2nd Quarter 2019 Recology Disposal/Diversion reports. Ms. Johnson provided a verbal report of the City of Novato and the District's AB939 Disposal and Diversion Monitoring activities, stating that the annual diversion rate was 49.71%. She reviewed Recology's 2019 disposal/diversion calculations, and was pleased to state that in the first quarter of 2019, a diversion rate of 50.24% was obtained. Ms. Johnson and Mr. Stemmler discussed the continued issue of contaminated recycling materials and the efforts to increase recycling compliance for both residential and commercial accounts.

- Receive Per Capita Diversion Calculation report for 2018. Ms. Johnson stated that in 2009, the state adopted SB 1016 which changed the reporting requirements of waste goal measurements from a diversion-based system to a disposal-based indicator – the 'per capita disposal rate'. She stated that the system uses only 2 factors: a jurisdiction's population and its disposal, as reported by disposal facilities. She stated that, based on these calculations, Novato's disposal target rate is 7.04 pounds per person per day. Ms. Johnson stated that in 2018, Novato's actual disposal rate was 4.04 pounds per person per day, which was well under the target rate.

- Receive 2019 Household Hazardous Waste (HHW) and E-Waste reports. Ms. Johnson provided an overview of participation at the HHW facility, stating that July was a very busy month, and that overall participation continues to increase. She stated that approximately 23% of participants are bringing only electronics to the facility. She stated that the North Bay Conservation Corp (NBCC) continues to offer free e-waste pickup services to Novato residents, and discussed current outreach and upcoming e-waste events sponsored by NBCC.

At 6:34 p.m., President Dillon-Knutson declared a short recess.

The following individuals left the meeting: Dee Johnson, Laura Creamer, Steven Gortler, Garen Kazanjian, and Fred Stemmler.

At 6:45 p.m., President Dillon-Knutson reconvened the meeting.

WASTEWATER OPERATIONS:

- Receive draft Collection System Master Plan (CSMP) document, and set a special meeting at 4:00 p.m., September 9, 2019, for a workshop presentation on the CSMP. The General Manager stated that in July 2016, the District contracted with RMC Water and Environment (RMC) to develop a Collection System Master Plan (CSMP). He stated that RMC (now Woodard and Curran) had completed the majority of its work and had prepared a draft CSMP. He stated that for review, hard copies of the draft report were available if any Director would like a copy. He also stated that the electronic version was posted on the District website. All Directors requested and were presented with a hard copy of the document.

The General Manager recommended that the Board receive the draft document and set a Special Board meeting at 4:00 p.m., September 9, 2019, for a workshop presentation on the

CSMP, at which time Woodard and Curran staff would be present, along with District staff, to address any questions or comments from the Board.

On motion of Director Long, seconded by Director Peters, and carried unanimously, the Board received the draft Collection System Master Plan (CSMP) document, and set a special meeting at 4:00 p.m., September 9, 2019, for a workshop presentation on the CSMP.

- Receive Wastewater Operations Reports, June and July 2019.

Collection System Report: The General Manager stated that the Collection System Superintendent was on vacation, and therefore Deputy General Manager Erik Brown would provide the Collection System Reports for June and July.

The Deputy General Manager began with the Collections System Report for June 2019. He stated that 70,717 lineal feet of sewer pipelines were cleaned by staff, and that 34,577 feet of sewer pipelines were root treated (foamed) by an outside contractor. He stated that staff completed 368 maintenance work orders, leaving zero (0) work orders outstanding. Further, he noted that staff conducted 154 lift station inspections and completed maintenance inspections on five (5) air relief/vacuum valves. The Deputy General Manager then outlined the training provided in June, stating that Collection Department staff attended four (4) safety tailgate meetings, and participated in one specialized training event: Lock-out/Tag-out. He stated that there were no lost time accidents in the month, and concluded the June report, noting that there were no sanitary sewer overflows (zero SSOs).

The Deputy General Manager continued with the July 2019 report, stating that 51,424 lineal feet of sewer pipelines were cleaned by staff, and that 17,861 feet of sewer pipelines were root treated (foamed) by an outside contractor. He stated that 7,742 feet of sewer main were televised, and that the CCTV (closed circuit TV) work did not identify any areas that required follow-up maintenance. He stated that staff completed 288 maintenance work orders, conducted 171 lift station inspections, and completed maintenance inspections on thirteen (13) air relief/vacuum valves. The Deputy General Manager then outlined the training provided in July, noting that the Collection Department staff attended five (5) safety tailgate meetings, and participated in two (2) specialized training events. He concluded his report, stating that there were no lost time accidents, and no sanitary sewer overflows (zero SSOs) in July.

Treatment Facilities Report: Veolia Project Manager John O'Hare provided the June and July 2019 Treatment Facilities Monthly Operations Reports (MOR). Beginning with the June report, the Project Manager reviewed the treatment plant performance, stating that the average flow was 3.90 MGD (million gallons per day). He stated that there were no discharge violations in the month, and that the Recycled Water Facility (RWF) produced 24.399 million gallons of recycled water. The Project Manager stated that Veolia staff participated in weekly tailgates, and that all employees participated in annual hearing tests. He reviewed the monthly routine inspections, maintenance activities, and key events for the Novato treatment facility, the Ignacio transfer pump station, and the recycled water facility. The Project Manager discussed pretreatment and pollution prevention activities, and concluded the June report, stating that no odor contacts were received in June.

The Project Manager continued with the July report, stating that it was another light month and that the average flow was 3.57 MGD (million gallons per day). He stated that there were no discharge violations in the month, and that the Recycled Water Facility (RWF) produced 27.042

million gallons of recycled water. The Project Manager stated that Veolia staff participated in weekly tailgates, and that all employees participated in crane safety training. He reviewed the monthly routine inspections, maintenance activities, and key events for the Novato treatment facility, the Ignacio transfer pump station, and the recycled water facility. The Project Manager discussed pretreatment and pollution prevention activities, and concluded the July report, stating that no odor contacts were received.

Reclamation Facilities Report: Field Services Manager Jeff Boheim summarized the Reclamation Facilities reports for June and July. Beginning with the June report, he stated that drainage pump stations No. 3 and 7 pumped approximately 600,000 gallons and 900,000 gallons, respectively. He stated that District staff continued to work with staff at Auburn Ravine Ranch, Inc. to complete the Ranch Lease agreement. The Field Services Manager stated that Fahy Tree Service completed the removal of over sixty (60) fallen eucalyptus trees at Site 2, removing the wood chips off site to a cogeneration plant for energy production. He stated that no irrigation took place in any of the parcels in June.

The Field Services Manager continued with the July report, stating that Auburn Ravine Ranch moved in tractors, mowers, and several staff to mow the areas in between the sprinkler heads in preparation for cattle stocking and irrigation this season. He stated that by the end of July, all of Site 7 and portions of Site 3 were mowed. The Field Services Manager stated that Marin Sonoma Mosquito and Vector Control sprayed various areas of District reclamation land. He concluded his report, stating that no irrigation of any parcels occurred in July.

RECLAMATION: SLUDGE DISPOSAL, ACCOUNT NO. 63115:

- Approve contract with Custom Tractor Services (CTS) for biosolids disposal and sludge lagoons cleaning in a not-to-exceed amount of \$211,450, and authorize the General Manager-Chief Engineer to execute it. The General Manager stated that for the past several years, the District has contracted with Custom Tractor Service (CTS) of Petaluma to perform biosolid disposal to the District's dedicated land disposal (DLD) site off Highway 37. He stated that staff requested and received a proposal from CTS to perform these services for 2019 for a lump sum amount of \$142,200. The General Manager stated that additionally, the District requested a proposal from CTS to excavate and spread accumulated biosolids from the bottom of the lagoons to the DLD using a manure spreader. He stated that CTS had performed this work the previous three years for \$62,250, and has agreed to perform the work this year for the same amount.

On motion of Director Peters, seconded by Director Long, and carried unanimously, the Board approved a contract with Custom Tractor Services for biosolids disposal and sludge lagoons cleaning in a not-to-exceed amount of \$211,450, and authorized the General Manager-Chief Engineer to execute it.

CAPITAL PROJECTS:

- Annual Treatment Plant Improvements, Account No. 72805: Approve a proposal from Veolia Water in the amount of \$175,256 to perform the cleaning of Digester No. 1 at the Novato Treatment Plant, as "Additional Services" under Section 8 of the 2014 Amended and Restated Contract Service Agreement (Agreement), and authorize the General Manager-Chief Engineer to execute an Addendum to the Agreement in the not-to-exceed amount of \$175,256. The General Manager stated that digester No. 1 is in need of recommended maintenance, which requires the digester be taken out of service, cleaned, and its contents disposed in accordance

with regulations. Veolia has provided a proposal, and will assume the responsibility to clean and appropriately dispose of the contents of digester No. 1. He stated that additionally, Veolia's proposal was explicit in that Veolia shall be solely responsible for the means and methods employed for accomplishing the cleaning and sludge disposal. The General Manager stated that to prepare their proposal, Veolia developed specifications and solicited bids from five companies, and ultimately negotiated a contract with Wastewater Solids Management Co. (WSM) for the required cleaning and disposal services. The General Manager provided a break-down of the total costs, and recommended that the Board approve the Veolia proposal.

On motion of Director Peters seconded by Director Mariani, and carried unanimously, the Board approved a proposal from Veolia Water in the amount of \$175,256 to perform the cleaning of Digester No. 1 at the Novato Treatment Plant, as "Additional Services" under Section 8 of the 2014 Amended and Restated Contract Service Agreement (Agreement), and authorized the General Manager-Chief Engineer to execute an Addendum to the Agreement in the not-to-exceed amount of \$175,256.

- Collection System Improvements, Account No. 72706 - Golden Gate Rush Creek Sewer Phase II Project: Review bids received, and authorize the General Manager-Chief Engineer to award the construction contract to JMB Construction, Inc., and to execute it in the bid amount of \$618,281. The General Manager stated that at its June 10, 2019 meeting, the District Board authorized him to accept plans and specifications and to advertise for bids for the Golden Gate Rush Creek Sewer Project. He stated that on July 23rd, seven (7) bids were received, and initially, W.R. Forde Associates had the apparent lowest bid of \$438,646. On July 30th however, the District received a formal request from W.R. Forde to retract their bid due to a clerical error. He stated that after consulting with District Counsel, the District allowed W.R. Forde to retract their bid and the resultant apparent lowest bidder was JMB Construction Inc. with a bid amount of \$618,281. The General Manager stated that JMB's bid documents were reviewed and he recommended the Board award the construction contract to JMB Construction Inc.

On motion of Director Mariani, seconded by Director Peters, and carried unanimously, the Board authorized the General Manager-Chief Engineer to award the construction contract for the Golden Gate Rush Creek Sewer Phase II Project to JMB Construction, Inc., and to execute it in the bid amount of \$618,281.

- Collection System Improvements, Account No. 72706 - Redwood Blvd. Sewer Rehab. Project: Review bids received, and authorize the General Manager-Chief Engineer to award the construction contract to KJ Woods Construction, Inc., and to execute it in the bid amount of \$888,000. The General Manager stated that at its June 10, 2019 meeting, the District Board authorized him to accept plans and specifications and to advertise for bids for the Redwood Blvd. Sewer Rehabilitation Project. He stated that on July 31st, three (3) bids were received, and KJ Woods Construction submitted the apparent lowest bid of \$888,000. The General Manager stated that KJ Wood's bid documents were reviewed and he recommended the Board award the construction contract to KJ Woods Construction, Inc.

On motion of Director Peters, seconded by Director Long, and carried unanimously, the Board authorized the General Manager-Chief Engineer to award the construction contract for the Redwood Blvd. Sewer Rehabilitation Project to KJ Woods Construction, Inc., and to execute it in the bid amount of \$888,000.

- Receive Capital Projects Update, June and July 2019. The Deputy General Manager provided an update of the Capital Improvement Program capital projects.

STAFF REPORTS: (INFORMATION ONLY)

- Receive report on CalPERS Health Plan Premium Rates for 2019. The General Manager stated that the District has received notification of its health plan premiums for calendar year 2020 from CalPERS. He stated that the rates for regular health coverage increased slightly at 0.03%, and that Medicare rates increased by 4.85%. He stated that the District's preliminary FY 19-20 budget had projected an increase of 8% across both sets of rates, and stated that the final FY 19-20 budget had been revised to reflect these actual rates.

- Receive report on Fiscal Year (FY) 18-19 Capacity Charges, California Government Code (CGC) §66013. The General Manager stated that this report was prepared to comply with California Government Code 66013, detailing the amount of capacity charges received by the District in FY 18-19, and how those charges were used to fund wastewater facilities capital-related projects.

- Receive report on Uniform Public Construction Cost Accounting Act (UPCCAA) implementation for Fiscal Year (FY) 18-19. The General Manager stated that the District has utilized the relevant provisions of the Act to allow the District to complete projects with less administrative effort while maintaining work quality. He noted that the District has been utilizing provisions of the Act for nearly 13 years. He stated that the total amount of work performed under the Act provisions in FY 18-19 was \$663,085.

BOARD OF DIRECTORS:

- Presidential appointment of Board members to Board Committees, FY 19-20. President Dillon-Knutson stated that the Board committee assignments would remain unchanged, except that all positions held by former Director Brant Miller would be filled by Director Tim Fuelle. Director Fuelle accepted the positions as follows:

Standing Committees:

- Joint City/District Solid Waste Committee: Alternate
- Wastewater Operations Committee: Member
- Capital Improvements Committee: Alternate

Regular Committees:

- California Association of Sanitation Agencies: Member
- California Sanitation Risk Management Authority: Alternate

BOARD MEMBER REPORTS AND REQUESTS:

- North Bay Watershed Association (NBWA) meeting, July 12, 2019. Director Mariani discussed her attendance at the NBWA meeting held on July 12th at the Petaluma Community Center. She stated that Ken Schwarz and Patrick Donaldson provided a presentation on One Water Strategy. She encouraged Board members to visit the NBWA website and download the presentation for further information.

Director Long proposed that a future agenda item and staff report be prepared to address the District's preparedness for future PG&E power outage events. The General Manager stated that he would provide a report and presentation for a future Board meeting.

GENERAL MANAGER'S REPORTS AND ANNOUNCEMENTS:

- Reports:
 - The General Manager discussed his attendance at the National Association of Clean Water Agencies (NACWA) Annual Utility Leadership Conference held in Minneapolis, MN, July 16 -19, 2019. He stated that the District received the Platinum 7 Peak Performance Award, for seven (7) consecutive years of 100% NPDES permit compliance.
- Announcements:
 - Bob Stiles, Collection System Worker II, was recognized by California Water and Environment Association (CWEA) as a 2019 Emerging Leader in the wastewater field. The Board expressed their appreciation and congratulations of Mr. Stiles achievement.
 - California Association of Sanitation Agencies (CASA) will host their 64th Annual Conference August 14-16th. All Directors are scheduled to attend.
 - The next Board meeting will be held on Monday, September 9th, at 5:30 p.m., preceded by a Special meeting at 4:00 p.m. to receive a presentation regarding the Collection System Master Plan.

ADJOURNMENT: There being no further business to come before the Board, President Dillon-Knutson adjourned the meeting at 7:48 p.m.

Respectfully submitted,

Sandeep Karkal
Secretary

Julie Hoover, Recording

Novato Sanitary District Board Fees Check Register

For August 2019

Date	Num	Name	Credit
Sep 6, 19			
09/06/2019	Tsfr		
09/06/2019	6241	Fuette, Timothy G	207.79
09/06/2019	6242	Long, William C	729.37
09/06/2019	6243	Mariani, Jean M	687.37
09/06/2019	6244	Peters, Arthur Gerald	587.36
09/06/2019	6245	Dillon-Knutson-, Carole	822.36
Sep 6, 19			<u>3,034.25</u>

Novato Sanitary District Operating Check Register

August 26, 2019

	Date	Num	Name	Credit
Aug 26, 19	08/26/2019	63280	Pacific, Gas & Electric	70,407.86
	08/26/2019	63289	Veolia Water North America, Inc.	67,305.00
	08/26/2019	63293	Bay Area Air Quality	23,500.00
	08/26/2019	63290	Vince Sigal Electric	18,487.50
	08/26/2019	63282	Rauch Communication Consultants. Inc.	9,478.81
	08/26/2019	63252	Central Marin Sanitation District	8,513.35
	08/26/2019	63279	Optic Fuel Clean of CA, Inc.	6,487.00
	08/26/2019	63286	Shape Incorporated	6,451.41
	08/26/2019	63269	Maze & Associates	4,854.00
	08/26/2019	63248	Cagwin & Dorward Inc.	4,625.00
	08/26/2019	63270	MCC Building Maintenance	2,550.00
	08/26/2019	63288	U.S. Bank	2,475.00
	08/26/2019	63258	ERA	1,811.81
	08/26/2019	63275	North Marin Water District	1,631.14
	08/26/2019	63276	North Marin Water District Payroll	1,514.25
	08/26/2019	63249	Caltest Analytical Lab Inc.	1,424.20
	08/26/2019	63262	Grainger	1,413.61
	08/26/2019	63267	Jim-n-i Rentals Inc.	1,383.44
	08/26/2019	63274	NASSCO PAC Program	1,300.00
	08/26/2019	63264	IEDA, INC	1,268.00
	08/26/2019	63277	Novato Chamber of Commerce	1,250.00
	08/26/2019	63271	McCrometer, Inc	1,216.71
	08/26/2019	63272	Meyers, Nave, Riback, Silver & Wilson	1,053.50
	08/26/2019	63251	CDW Government, Inc.	933.75
	08/26/2019	63281	Randall Bros. Auto Inc.	884.29
	08/26/2019	63266	Irvine Consulting Services Inc.	807.50
	08/26/2019	63263	IDEXX Distributing Corp.	598.34
	08/26/2019	63250	CASA	595.00
	08/26/2019	63292	Bay Area Air Quality	483.00
	08/26/2019	63291	VWR International Inc.	472.34
	08/26/2019	63246	BoundTree Medical, LLC	427.17
	08/26/2019	63268	Marin Independent Journal	422.22
	08/26/2019	DD	Brown, Erik.	406.30
	08/26/2019	63244	B.W.S. Distributors, Inc.	375.19
	08/26/2019	63255	Eco Promotional Products, Inc	332.33
	08/26/2019	63256	EEC	313.58
	08/26/2019	63254	CWEAmembers	291.00
	08/26/2019	63284	Recology Sonoma Marin	276.21
	08/26/2019	63253	Claremont EAP, Inc.	250.00
	08/26/2019	63257	Environmental Dynamics	214.44
	08/26/2019	63259	Evoqua Water Technologies - Lab	207.20
	08/26/2019	63283	Ray Morgan LLC	174.53
	08/26/2019	63285	Red Wing Shoe Store	171.39
	08/26/2019	63261	Fisher-Scientific	131.90
	08/26/2019	63278	O'Reilly Auto Parts	125.00
	08/26/2019	63243	Alliant Insurance Services, Inc	86.00
	08/26/2019	63265	Integrity Shred LLC	50.00
	08/26/2019	63260	First Alarm	42.34
	08/26/2019	63247	Buck's Saw Service, Inc.	34.08
	08/26/2019	63273	NAPA Auto Parts	30.67
	08/26/2019	63287	Staples Advantage	14.09
	08/26/2019	63245	Bay Area Air Quality---VOIDED	0.00
Aug 26, 19				249,551.45

Novato Sanitary District Operating Check Register

September 9, 2019

Date	Num	Name	Credit
Sep 9, 19			
09/09/2019	63318	Veolia Water North America, Inc.	184,474.08
09/09/2019	63319	Veolia Water North America, Lab	30,403.96
09/09/2019	63320	Veolia Water Recycled Water ...	19,783.96
09/09/2019	63313	PARS-PSRP-Post Employment...	15,056.63
09/09/2019	63301	Citi Visa (Costco)	12,645.63
09/09/2019	63312	PARS-OPEB-Post Employment...	8,370.51
09/09/2019	63307	Johnson, Dee	8,100.00
09/09/2019	63322	WaterSavers Irrigation Inc.	4,840.40
09/09/2019	63303	Custom Tractor Service	4,300.00
09/09/2019	63304	Dearborn National	2,981.22
09/09/2019	63323	WECO	2,230.34
09/09/2019	63309	North Bay Petroleum	1,499.48
09/09/2019	63302	Comcast Business	1,300.00
09/09/2019	63305	Grainger	1,276.93
09/09/2019	63306	Johnson Controls, Inc.	1,250.00
09/09/2019	DD	CalPers Health2	1,050.00
09/09/2019	DD	Fuette, Timothy	1,027.79
09/09/2019	63300	Central Marin Sanitation District	811.36
09/09/2019	63317	UniFirst Corporation	717.95
09/09/2019	63315	Rice Lake, formerly Heusser N...	700.00
09/09/2019	63294	Able Tire & Brake Inc.	580.54
09/09/2019	63299	Buckles-Smith1	531.52
09/09/2019	63321	Vision Service Plan	511.65
09/09/2019	63314	Pini Hardware	494.66
09/09/2019	63311	Onspot Welding & Design Inc	430.00
09/09/2019	63316	Telstar Instruments Inc	430.00
09/09/2019	63296	Batteries Plus Inc	370.50
09/09/2019	63297	BoundTree Medical, LLC	272.55
09/09/2019	DD	Thrasher, Dale-	261.37
09/09/2019	DD	Dillon-Knutson, Carole.	167.10
09/09/2019	63295	Barnett Medical LLC	135.00
09/09/2019	DD	Peters, Jerry Brd Member	103.46
09/09/2019	DD	Mariani, Jean	102.76
09/09/2019	63308	NAPA Auto Parts	45.09
09/09/2019	63324	Zenith Instant Printing, Inc.	34.72
09/09/2019	63310	North Marin Water District	34.15
09/09/2019	63298	Buck's Saw Service, Inc.	21.41
Sep 9, 19			<u>307,346.72</u>

Novato Sanitary District Capital Projects Check Register

August 26, 2019

Date	Num	Name	Credit
Aug 26, 19			
08/26/2019	3491	Woodard & Curran formerl...	27,684.88
08/26/2019	3490	RedHawk Glass, Inc.	20,500.00
08/26/2019	3489	Miller Pacific Engineering, I...	5,435.50
08/26/2019	3484	Cagwin & Dorward Inc.	5,350.00
08/26/2019	3486	Coastside Concrete and C...	4,680.15
08/26/2019	3487	Lateral-Reed	2,000.00
08/26/2019	3488	Marin Independent Journal	818.12
08/26/2019	3485	CDW Government, Inc.	172.52
Aug 26, 19			<u>66,641.17</u>

Novato Sanitary District Capital Projects Check Register

September 9, 2019

Date	Num	Name	Credit
Sep 9, 19			
09/09/2019	3493	Design Space Modular Buil...	25,948.54
09/09/2019	3497	GHD Inc.	22,594.50
09/09/2019	3494	Maggiora & Ghilotti Inc.	8,695.18
09/09/2019	3495	Nute Engineering Inc.	1,741.50
09/09/2019	3496	Veolia Water North Americ...	1,650.00
09/09/2019	3492	Custom Tractor Service	1,400.00
Sep 9, 19			<u>62,029.72</u>

**Novato Sanitary District
Payroll and Payroll Related Disbursements
August - 2019**

Date	Description	Amount
08/30/2019	August Payroll	131,218.37
08/30/2019	United States Treasury	26,183.86
08/30/2019	EDD	9,046.09
08/22/2019	CalPERS Health	29,690.79
08/22/2019	August Retiree Health Benefits	14,071.79
08/22/2019	CALPERS Retirement	12,281.46
08/22/2019	CALPERS Retirement	15,372.00
08/22/2019	CalPers Supplemental Income Plan	3,433.33
08/22/2019	Lincoln Financial Group 457	8,645.91
08/22/2019	Lincoln Financial Group Roth 457	100.00
08/22/2019	Lincoln Financial Group-401a Plan	9,043.05
08/22/2019	PARS-OPEB Contribution	8,370.51
08/22/2019	PARS-Pension Contribution	15,056.63
08/22/2019	PARS-Pension Contribution-add'l contribution	93,757.00
08/22/2019	Local Union 315	540.00
08/22/2019	California State Disbursement Unit	571.00
08/22/2019	Delta Dental	2,710.75
08/22/2019	ICMA-RC Retiree Health Program	1,593.34
Total for August 2019		381,685.88

Novato Sanitary District
Deposit Detail
August 2019

Item 5.c.

Type	Date	Name	Account	Amount
Deposit	08/02/2019		11113 · Westamerica - Operations	
		Gallagher, James	41040 · Permit & Inspection Fee	60.00
		Hardiman Construction	41040 · Permit & Inspection Fee	40.00
		Gagne Brothers	41040 · Permit & Inspection Fee	40.00
		Gagne Brothers	41040 · Permit & Inspection Fee	40.00
		Gagne Brothers	41040 · Permit & Inspection Fee	40.00
		County of Marin	51015 · Property Taxes	26.80
		Marin Biologic Lab, Inc.	11200 - Accounts Receivable	250.00
		County of Marin	11200 - Accounts Receivable	2,904.75
TOTAL				3,401.55
Deposit	08/09/2019			
		CSRMA	41140 · Other Revenue	(1) 2,000.00
		Marin H2O Inc	41040 · Permit & Inspection Fee	40.00
		Veolia Water	11200 - Accounts Receivable	(2) 4,052.88
TOTAL				6,092.88
Deposit	08/14/2019			
		USCG-Finance Center	11200 - Accounts Receivable	16,431.20
TOTAL				16,431.20
Deposit	08/20/2019			
		Peter Levi Plumbing	41040 · Permit & Inspection Fee	40.00
		Ghany, Hassan	41040 · Permit & Inspection Fee	60.00
		Cunningham, Kim	41040 · Permit & Inspection Fee	40.00
		Cunningham, Kim	51020 · Connection Charges	7,375.50
TOTAL				7,515.50
Deposit	08/27/2019			
		Northside Construction	41040 · Permit & Inspection Fee	40.00
		North Marin Water District-	11200 - Accounts Receivable	(3) 17,450.67
TOTAL				17,490.67
Deposit	08/29/2019			
		Ross, Steven Paul	41040 · Permit & Inspection Fee	40.00
		Sewer Connection	41040 · Permit & Inspection Fee	15.00
		Zaragoza Plumbing	41040 · Permit & Inspection Fee	40.00
		Peter Levi Plumbing	41040 · Permit & Inspection Fee	20.00
		Gagne Brothers	41040 · Permit & Inspection Fee	40.00
		Gagne Brothers	41040 · Permit & Inspection Fee	40.00
		RHCA Investment	41030 · Plan Check & Inspection Fee	3,646.00
		RHCA Investment	51020 · Connection Charges	20,754.00
TOTAL				24,595.00
			Total Deposits for August 2019	75,526.80
(1)	Received reimbursements for Safety expenditures through CSRMA Safety Grant program and Health & Wellness.			
(2)	Collection of Veolia Water fourth quarter invoice for reimburseable expenses.			
(3)	Collection of Recycled Water Facility billing for May 2019 from North Marin Water District.			

NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

TITLE: Administration: Agreement with California State Coastal Conservancy.	MEETING DATE: September 9, 2019 AGENDA ITEM NO.: 5.d.
RECOMMENDED ACTION: Approve Agreement For Reclaimed Water Use Between Novato Sanitary District and California State Coastal Conservancy, and authorize the General Manager-Chief Engineer to execute it.	
SUMMARY AND DISCUSSION: <p>The California State Coastal Conservancy (Conservancy) is implementing the Bel Marin Keys Unit V Wetland Restoration Project (Project) to restore diked agricultural baylands to tidal marsh and non-tidal seasonal wetland habitats on the Bel Marin Keys Unit V (BMKV) parcel. The restoration project will be implemented in phases. Phase 1 activities that will occur on the BMKV parcel include the construction of a flood control levee and the creation and enhancement of wetland habitats.</p> <p>Phase 1 of the Project will require an estimated 221,000 gallons of water per day for soil moisture conditioning and compaction, dust control, and plant irrigation. Water demands for future phases have not been determined. Phase 1 Project construction is planned to occur during two construction periods over two years, the first is anticipated to begin during fall 2019 and the second during the dry season of 2020. The District's 54-inch diameter outfall pipeline is located parallel to and along an existing levee located on the southern border of the BMKV property and conveys disinfected secondary-treated effluent to San Pablo Bay.</p> <p>The attached Draft Agreement (Agreement) authorizes the Conservancy to install a reclaimed water service connection on the District's outfall to enable the use of District secondary-treated effluent for Project-related soil moisture conditioning and compaction, dust control, and plant irrigation. The Agreement outlines the Conservancy and District responsibilities for supply and use of the reclaimed water for the Project in accordance with the Conditions of Approval outlined in the <i>Review of Report of Waste Discharge for Discharges to Land and Uses of Reclaimed Water at the Bel Marin Keys Unit V Restoration Project</i> issued by the San Francisco Regional Water Quality Control Board (SFRWQCB) on August 1, 2019, and incorporated into the Agreement as Exhibit A. The term of the Agreement will be on an annual basis, to be reinstated each year until July 1, 2022, or earlier if terminated by either party.</p> <p>District Counsel and staff have reviewed the Draft Agreement, and recommend that the Board approve the Agreement (subject to minor changes and revisions that do not alter the substance of the Agreement), and authorize the General Manager-Chief Engineer to execute it on behalf of the District.</p>	
ATTACHMENTS: <ol style="list-style-type: none"> 1. Draft Agreement between the California State Coastal Conservancy and Novato Sanitary District. 2. Review of Report of waste Discharge for Discharges to Land and Uses of Reclaimed Water at the Bel Marin Keys Unit V Restoration Project issued by the SFBRWQCB on August 1, 2019 	
STRATEGIC PLAN INFORMATION: This item addresses Goal 3 (Board District and Community, Alignment and Communications) of the latest Strategic Plan Update.	
BUDGET INFORMATION: The Agreement is intended to be budget neutral to the District. The Conservancy will reimburse the District for water quality sampling costs.	
DEPT. MGR.: EB, SSK	GENERAL MANAGER: SSK

DRAFT

**AGREEMENT
FOR RECLAIMED WATER USE
BETWEEN
NOVATO SANITARY DISTRICT
AND
CALIFORNIA STATE COASTAL CONSERVANCY**

This Agreement is made and entered into this ____ day of _____, 2019, between the Novato Sanitary District (“District”) and the California State Coastal Conservancy (“Conservancy”).

RECITALS

- A. The Conservancy is an agency of the State of California and owns certain property known as the Bel Marin Keys Unit V property, in unincorporated Marin County. The property is located between 820 and 893 Bel Marin Keys Boulevard, west of San Pablo Bay and is comprised of approximately 1,600 acres.
- B. The District is a sanitary district organized and existing under the Sanitary District Act of 1923 (Health & Safety Code § 6400, et seq.) and serving the City of Novato and portions of unincorporated Marin County. The District owns and operates the Novato Sanitary District Wastewater Treatment Plant (Plant), which discharges secondary-treated municipal wastewater to San Pablo Bay under NPDES Permit No. CA0037958, most recently issued by the San Francisco Bay Regional Water Quality Control Board (RWQCB) as Order No. R2-2015-0034. The discharges occur through an easement and outfall through the Bel Marin Keys Unit V property.
- C. The Conservancy is implementing the Bel Marin Keys Unit V Wetland Restoration Project (Project) to restore diked agricultural baylands to tidal marsh and non-tidal seasonal wetland habitats on the Bel Marin Keys Unit V (BMKV) parcel. The restoration project will be implemented in phases. Phase 1 activities that will occur on the BMKV parcel include the construction of a flood control levee and the creation and enhancement of wetland habitats.
- D. Phase 1 of the Project will require an estimated 221,000 gallons of water per day for soil moisture conditioning and compaction, dust control, and plant irrigation. Water demands for future phases have not been determined. Phase 1 Project construction is planned to occur during two construction periods over two years, the first is anticipated to begin during fall 2019 and the second during the dry season of 2020. The project drawings for Phase 1 are entitled the *Hamilton Wetlands Restoration Project Bel Marin Keys Unit V Phase 1 Levee & Seasonal Wetland* (Moffatt & Nichol, June 26, 2019, SCC Project No. 99-108-44, issued July 11, 2019). The Agreement also covers future project phases for which drawings have not been issued.
- E. The District’s 54-inch diameter outfall pipeline is located parallel to and along an existing levee located on the southern border of the BMKV property and conveys disinfected secondary-treated effluent to San Pablo Bay. The Conservancy and the District have executed an amendment to outfall easement (Marin County Recorder’s Document No. 2019-002895) relocating the easement to allow the abandonment of approximately 900 feet of the District’s existing outfall pipe and installation of a new bypass pipe to convey effluent up and over the new levee.

- F. The Conservancy's Project Contractor will also install a reclaimed water service connection to enable the use of District secondary-treated effluent for Project-related soil moisture condition and compaction, dust control, and plant irrigation.
- G. The purpose of this Agreement is to set forth terms whereby the District agrees to supply the Conservancy with secondary-treated effluent for use on the Project site.

AGREEMENT PROVISIONS

1. Incorporation of Recitals. The Recitals set forth above are incorporated into and are part of this Agreement.
2. District Services. The District agrees to provide the Conservancy with secondary-treated effluent at the Service Point for water uses allowed by the San Francisco Bay Regional Water Quality Control (RWQCB) as set forth in the August 1, 2019 correspondence from Executive Officer Michael Montgomery to the Conservancy and the District (**Exhibit A**), as further qualified below.
3. Acknowledgement of Existing Operations. The Conservancy acknowledges and agrees:
 - a. that the District is charged with the responsibility to operate its sewerage systems in a manner which it reasonably determines to be most beneficial to the users thereof. The rights of the Conservancy to reclaimed water under this Agreement pertain only to that which is produced at the Plant. Nothing contained herein will be construed to qualify in any manner the District's right to operate the sewerage system and Plant at such rates of flow as the District reasonably determines to be appropriate to comply with the District's NPDES Permit. The District's reclaimed water system and facilities are not equipped to detect, treat, or remove harmful chemical or toxic materials except as required to meet such federal, state, and local regulatory agency standards.
 - b. that the District in no way guarantees the supply and availability of reclaimed water and that regulatory or operational conditions may affect such availability. In the event of unplanned or emergency outages resulting from pipeline breaks, leaks, or reclaimed water quality concerns, the District will notify the Conservancy if and when reclaimed water may be unavailable for a sustained period. The District will update the Conservancy on a weekly frequency regarding status of restoration of normal operation.
 - c. that the pressure of reclaimed water delivery at the Service Point may vary. The District does not, in any way, guarantee service pressure.
4. District Responsibilities. The District agrees to provide the following:
 - a. ordinary operations and routine maintenance for the 54-inch outfall pipeline from the Plant to San Pablo Bay, except the 900-foot section of pipe that is located on the Project site which will be managed by the Conservancy's contractor per the bid specification, section 2600 during construction. Ordinary operations and routine maintenance includes, but is not limited to, regular and periodic inspections, repair or replacement of the pipeline, and repair or replacement of pipeline appurtenances.
 - b. supply disinfected secondary-treated effluent ("reclaimed water") that the District has reason to believe meets the effluent limitation for Enterococcus contained in the District's NPDES Permit No. CA0037958. The District will convey reclaimed water to the Service Point via the District's existing outfall pipeline.

- c. immediately notify the Conservancy if the District has reason to believe that reclaimed water exceeds the Enterococcus limit set by the RWQCB. Such notice will be given by email (Jeff.Melby@scc.ca.gov) and telephone (510-286-4088). The District will continue daily noticing to the Conservancy via email and telephone until receiving acknowledgement from the Conservancy that reclaimed water use is suspended. The Enterococcus limit in the current NPDES permit (Order No. R2-2015-0034) is a geometric mean of 35 Most Probable Number per 100 milliliters (35 MPN/100 mL) for all samples in a calendar month. The NPDES permit is expected to be re-issued by the RWQCB in 2020 with a six-week rolling geometric mean of 30 Colony-Forming Units per 100 milliliters (CFU/100 mL) and a 90th percentile in a calendar month of 110 CFU/100 mL. Upon receipt of RWQCB concurrence, the District's re-issued NPDES Permit No. CA0037958 will take precedence over the Enterococcus limits in Exhibit A if there is a difference.
 - d. perform compliance monitoring for Enterococcus specified in Exhibit A at a frequency of three times per week. A week is defined as Sunday through Saturday, for consistency with Order No. R2-2015-0034. The Conservancy will notify the District three business days before routine Enterococcus sampling is to begin, and three business days before the routine Enterococcus sampling is to cease.
 - e. provide Enterococcus monitoring results to the Conservancy within two business days of sample collection via electronic format (i.e., via email). If there is an exceedance of the District's NPDES permit limit for Enterococcus, the District will notify the Conservancy per Paragraph 4.c., and the Conservancy will immediately discontinue the use of reclaimed water.
5. Conservancy Responsibilities. The Conservancy agrees to provide the following:
- a. make connection at the Service Point as indicated in the Phase 1 Project Drawings, Sheet C41, and section 2600 of the Project Specifications, or at a location mutually agreeable to the District and the Conservancy.
 - b. install a reduced-pressure-principle backflow prevention device at the Service Point.
 - c. ensure no discharges to San Pablo Bay occur via installation of plugs, valves or other means acceptable to the District when the District must discharge to its reclamation ponds. The San Pablo Bay discharge prohibition period is from June 1st through August 31st. The District may extend or shorten the period it discharges to its reclamation ponds. The District will notify Conservancy when transitioning to Bay discharge from reclamation discharge, and vice/versa.
 - d. install a flow meter to measure the volume of reclaimed water usage (in gallons) drawn from the Service Point. The Conservancy will test the accuracy of the flow meter before beginning reclaimed water use and will subsequently test the accuracy of the flow meter not less frequently than annually. Flowmeter calibration test results will be provided to the District upon request. If the flow meter is found to be inaccurately measuring the flow by five percent or more, the Conservancy or its contractor will recalibrate, repair, or replace the meter to bring it within five percent accuracy.
 - e. maintain an operation log for the operation of the flow meter and Service Point. The operation log will identify the daily volume of reclaimed water delivered to the Conservancy

through the Service Point. The Conservancy will provide daily flow meter readings when requested by the District. The Conservancy will provide estimates of the monthly volume used for (1) landscape irrigation and for (2) the sum of all other uses (dust control, soil moisture conditioning and compaction).

- f. fulfill all monitoring and reporting requirements listed in Exhibit A, except for Enterococcus monitoring as described in Paragraph 4.d.. The Conservancy will provide the District a courtesy copy of monitoring reports submitted to the RWQCB.
 - g. remain responsible for supplemental disinfection as provided in paragraph 6.
 - h. promptly pay invoices as provided in the paragraph 9.
6. Supplemental Disinfection. The Conservancy is solely responsible for operation of any supplemental on-site disinfection system, which may be required per Exhibit A. The District laboratory does not perform Total Coliform analysis. The Conservancy will be responsible for obtaining contract laboratory services for daily and weekly Total Coliform analysis.
 7. Demand Management. The maximum expected water usage is approximately 221,000 gallons per day. Should the Conservancy's usage exceed 300,000 gallons per day, the Conservancy will notify the District within twenty-four hours.
 8. Quantity Reduction. The District may reduce the Conservancy's maximum flow rate to meet the operational needs of the District's other reclaimed water and recycled water delivery systems. Such needs may be addressed through limits, restrictions, or special usage conditions deemed necessary by the District. The District will provide the Conservancy with five business days' written notice in case of such operational need. This provision does not apply to unplanned or emergency outages resulting from pipeline leaks, breaks, or Plant operational issues as described in Paragraph 3.
 9. Invoicing and Fees.
 - a. The District will invoice the Conservancy \$60 per sample for any Enterococcus sample analysis requested by the Conservancy that is not already required by the District's NPDES permit.
 - b. Invoices will be submitted no more frequently than monthly nor less frequently than annually by the District on a "Request for Disbursement Form" to be provided by the Conservancy. Invoices are sent to Jeff Melby, Project Manager, 1515 Clay St., Suite 1000, Oakland, CA 94612.
 10. Coordination. The Conservancy and the District will meet and confer in good faith before each construction season to discuss the construction schedule and review protocols for communication, monitoring, operations, and site access. The Conservancy and the District agree to assist each other in compliance with the provisions of Exhibit A. In the case of any conflict between Title 22 of the California Code of Regulations and Exhibit A, Exhibit A will take precedence.
 11. Hold Harmless and Indemnification. The Conservancy will defend, indemnify, save and hold harmless the District, its officers, agents and employees from any and all claims, demands, suits, costs, liability, and expenses, including reasonable attorneys' fees, for any damages, injury, sickness or death to the extent arising out of Conservancy's performance and/or obligations under this Agreement whether or not due to its negligence, except for liability arising through active negligence or willful misconduct of the District, its officers, agents, or employees.

The District will defend, indemnify, save and hold harmless the Conservancy, its officers, agents and employees from any and all claims, demands, suits, costs, liability, and expenses, including reasonable attorneys' fees, for any damages, injury, sickness or death to the extent arising out of District's performance and/or obligations under this Agreement whether or not due to its negligence, except for liability arising through active negligence or willful misconduct of the Conservancy, its officers, agents, or employees.

District, however, is in no way liable to the Conservancy for any direct, indirect, or consequential costs, losses or damages, including any costs related to securing alternate water sources or impacts to the construction schedule or construction costs resulting from loss of service.

This Section 11 shall survive the termination of this Agreement.

12. Contacts and Notices. All notices under this Agreement will be in writing (unless otherwise specified), delivered to the parties by hand, by commercial courier service, or by United States mail, postage prepaid, addressed to the parties at the addresses set forth below or such other addresses as the parties may designate by notice.

For DISTRICT:

Sandeep Karkal, General Manager-Chief Engineer
Novato Sanitary District
500 Davidson Street
Novato, California 94945
Phone: (415) 892-1694
Sandeepk@novatosan.com

For CONSERVANCY:

Jeff Melby, Project Manager
California State Coastal Conservancy
1515 Clay Street, 10th Floor
Oakland, CA 94612
Office: (510) 286-1015
Direct: (510) 286-4088
Jeff.Melby@scc.ca.gov

13. Duration and Termination: The terms of this Agreement will remain in full force and effect on an annual basis beginning with the date of execution of this agreement and reinstated each year until July 1, 2022 or earlier if terminated by one of the parties. Either party may terminate this Agreement by notifying the other party in writing.
14. Execution in Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which together shall be deemed the same instrument.

STATE OF CALIFORNIA
STATE COASTAL CONSERVANCY

By _____
SAMUEL SCHUCHAT
Executive Officer

NOVATO SANITARY DISTRICT

By _____
SANDEEP KARKAL
General Manager-Chief Engineer



Item 5.d.
Attachment 2
(Pages 27 to 64)



GAVIN NEWSOM
GOVERNOR



JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

San Francisco Bay Regional Water Quality Control Board

August 1, 2019
CIWQS Place No. 829343

California State Coastal Conservancy
Attn: Jeff Melby
1515 Clay Street, 10th Floor
Oakland, CA 94612
Sent electronically to Jeff.Melby@scc.ca.gov

Novato Sanitary District
Attn: Erik Brown
500 Davidson Street
Novato, CA 94945
Sent electronically to erikb@novatosan.com

Subject: Review of Report of Waste Discharge for Discharges to Land and Uses of Reclaimed Water at the Bel Marin Keys Unit V Wetland Restoration Project

Dear Messrs. Melby and Brown:

We received a Report of Waste Discharge and Supplemental Information document (Report), prepared by Environmental Science Associates (ESA) on behalf of the California State Coastal Conservancy (Conservancy), on May 28, 2019, for discharges to land and uses of reclaimed water from the Novato Sanitary District (District) associated with the Bel Marin Keys Unit V Wetland Restoration Project (Project). ESA also submitted a Project Description Supplement – Water Use report dated May 7, 2019. Based upon our review of the Report and the additional information provided, we do not object to the Conservancy proceeding with the use of secondary-treated effluent (reclaimed water) from the District's Wastewater Treatment Plant (Facility) for Project-related soil moisture conditioning and compaction, dust control, and plant irrigation.

In support of the Project, the Water Board adopted *Waste Discharge Requirements and Water Quality Certification* Order No. [R2-2018-0007](#) (Order) for the Project's Phase 1 activities on February 15, 2018. The Conservancy and the District may proceed with the discharges to land, provided that the reclaimed water is used for the stated purposes and in accordance with the Order, Report, Best Management Practices (Attachment 2), and the conditions contained herein.

Project Description

The Project is located between 820 and 893 Bel Marin Keys Boulevard, west of San Pablo Bay in an unincorporated area near Novato in Marin County. The Project goal is to restore 1,146

MICHAEL MONTGOMERY, EXECUTIVE OFFICER

acres of diked agricultural baylands to tidal marsh and non-tidal seasonal wetland habitats. This area includes the 906-acre Bel Marin Keys Unit V (BMKV) parcel that is owned by the Conservancy. Phase 1 activities will occur on the BMKV parcel and include the construction of a flood control levee to facilitate dredged sediment placement and future outboard levee breaching and the creation and enhancement of wetland habitats.

The Project will require an estimated 221,000 gallons of water per day for soil moisture conditioning and compaction, dust control, and plant irrigation. Project construction is planned to occur during two construction periods over two years, the first is anticipated to begin during August 2019 and extend through November 2019 and the second during the dry season of 2020.

The Facility's 54-inch diameter outfall pipeline is located parallel to and along an existing levee located on the southern border of the BMKV property and conveys disinfected secondary-treated effluent to San Pablo Bay (site maps attached). The Conservancy will abandon approximately 900 feet of the Facility's existing outfall pipe within the new levee footprint, and install a new 1,120-foot, 63-inch high density polyethylene (HDPE) bypass pipe to convey effluent up and over the new levee. This work is authorized under the Order. A 6-inch HDPE lateral service connection, or secondary diversion pipe, will be installed on the outfall pipe to enable reclaimed water use as described in the Order. The service connection will extend to a filling station within the Project's staging area. The pipe will have valves to prevent backflow. The reclaimed water will be conveyed between the filling station and end-use locations by 5,000- to 12,000-gallon-capacity water trucks. The water trucks will likely be fitted with a broad-pattern spray nozzle in the rear and sides, which will be operated from inside the cab.

Additional Project information is provided in the attached Order and site maps.

Regulatory Approach

The District operates the Facility, which provides secondary treatment and disinfection. Treated effluent is discharged to San Pablo Bay in accordance with the District's National Pollutant Discharge Elimination System (NPDES) Order No. [R2-2015-0034](#), No. CA0037958 (NPDES Order). During the dry weather season (June 1 through August 31), discharge to San Pablo Bay is prohibited, and the effluent is reclaimed for pasture irrigation under Water Reclamation Requirements Order No. [R2-1992-0065](#). The District also has regulatory coverage for tertiary treated recycled water at the Novato Recycled Water Facility (located onsite) via General Water Reuse Requirements Order No. [R2-1996-0011](#).

NPDES Order section IV.C. requires that the effluent is treated to meet the U.S. Environmental Protection Agency's (U.S. EPA's) recreational contact criteria, and includes the following bacteria limitations:

1. Monthly geometric mean Enterococcus bacteria concentration of a maximum of 35 most probable number per 100 milliliters (MPN/100 mL),
2. Section IV.D of the NPDES Order also contains fecal coliform limits intended to protect the shellfish beneficial use.

U.S. EPA's recreational water quality criteria were developed for the protection of human health in coastal and noncoastal waters designated for primary contact recreation use where a high degree of bodily contact with the water, immersion, and ingestion are likely. The Facility's ultraviolet light disinfection system was designed to meet an Enterococcus standard of 35 MPN/100 mL. The District has been fully compliant with its Enterococcus and fecal coliform

limits throughout the entirety of its effective NPDES Permit period (from September 2015 to now).

Pursuant to California Water Code section 13523, the Regional Water Board, after consulting with the State Water Resources Control Board's Division of Drinking Water, may prescribe water reclamation requirements for water that is used or proposed to be used as recycled water if it is necessary to protect the public health, safety, or welfare. We are not prescribing additional water reclamation requirements based on the following:

1. The District's disinfected secondary-treated effluent compliance with the recreational contact water quality criteria prescribed in the NPDES Order.
2. The previously described existing regulatory coverage of (a) the District's water reclamation requirements for pasture irrigation and their recycled water program, (b) the District's surface water discharge NPDES Order, and (c) the Project's Order.
3. The reclaimed water will be used on a restricted access site that will not be accessible by the general public.
4. The reclaimed water use is temporary, planned to occur during two construction periods in 2019 and 2020.
5. The Conservancy's effective implementation of the conditions of approval listed below and the attached Best Management Practices.

Conditions of Approval

The Conservancy may use the reclaimed water onsite provided that the following conditions are ensured:

1. The District, the producer of reclaimed water, and the Conservancy, the user of reclaimed water, shall enter a written agreement that establishes responsibilities for treatment, distribution, and monitoring of the reclaimed water.
2. The District shall discontinue delivery of reclaimed water to the Project during any period in which it has reason to believe that the quality of the water exceeds the NPDES Order's Enterococcus limit of a maximum geometric mean concentration of all samples in each calendar month of 35 MPN/100 mL. An exceedance of the Enterococcus limit in the reclaimed water sent to the Project does not constitute a violation of the District's NPDES Order. The delivery of recycled water shall not be resumed until conditions have been corrected.
3. In the event we require that the supplemental disinfection system is installed and monitored for total coliform, the Conservancy shall discontinue use of reclaimed water at the Project during any period in which it has reason to believe that the quality of the onsite disinfected water exceeds the California Code of Regulations Title 22 (Title 22) total coliform limits for secondary-23 recycled water as follows:
 - a. 23 MPN/100 mL 7-day median concentration, and
 - b. 240 MPN/100 ML 30-day maximum concentration.

An exceedance of the total coliform limits in the reclaimed water disinfected at the Project does not constitute a violation of the District's Order No. 92-062 or Title 22 requirements. The use of recycled water shall not be resumed until conditions have been corrected.

4. The attached site-specific control measures or Best Management Practices (BMPs) stated in Report Attachment 2, as modified herein (see Supplemental Disinfection, below), are implemented upon commencement of reclaimed water use.
5. Monitoring and reporting are conducted as stated in the Monitoring and Reporting Requirements section of this letter.
6. The reclaimed water is used as described in the Report and supplemental information and in accordance with the requirements contained in the Order.
7. Discharge of the reclaimed water at a location or in a manner different from that described in the Report is prohibited.
8. The discharge of reclaimed water shall not create a condition of pollution, contamination, or nuisance as defined by California Water Code Section 13050.
9. Reclaimed water shall not be discharged to land at any time while it is raining or while the ground is saturated such that the discharge could run off.

Supplemental Disinfection Option

To ensure the protection of worker safety when using the reclaimed water at the Project, Best Management Practices were included in Attachment 2 of the Report. With the exception of those concerning supplemental disinfection system operations and reporting (i.e., Site Use Supervisor responsibilities), all Best Management Practices shall be implemented (attached). The Conservancy and the District proposed the option of providing additional end of pipe disinfection at the Project prior to land application of the reclaimed water. Report Attachment 1 addresses the basis of design for the chlorine disinfection system, which if installed, would utilize storage tanks and chlorine tablets.

We are not recommending additional chlorination prior to use **at this time** based on the following:

1. The reclaimed water meets U.S. EPA's and the NPDES Order's recreational water quality criterion for Enterococcus intended to protect public health.
2. The introduction of the chlorine into the Project environment should be minimized to protect the reclaimed water's intended use of plant propagation and irrigation and the beneficial uses of the adjacent San Pablo Bay.
3. The Best Management Practices in the Report Attachment 2 (attached), as modified herein, shall be effectively implemented, which includes training the workers about reclaimed water.

Enterococcus sampling of the reclaimed water used for the Project shall be conducted in accordance with the requirements stated in Table 1. Following our review of the data, we may require that the supplemental disinfection system is installed and monitored in accordance with the requirements in Table 2. Thus, we recommend that the Conservancy include the supplemental disinfection system in the Project bid package as a potential option, but not for immediate installation. In the event that we require supplemental disinfection in the future, submittal of acceptable best management practices concerning operation of such a system prior to its operation will also be required.

Monitoring and Reporting Requirements

This requirement for monitoring is a formal requirement to submit a technical report pursuant to California Water Code section 13267. The technical reports required are necessary to assure

compliance and protection of human health. The burden imposed by the requirement, including costs, bears a reasonable relationship to the need for the information and the benefits to be gained.

Bacteria monitoring is already required by the NPDES Order and Water Reclamation Requirements Order No. 92-065. The NPDES Order requires Enterococcus sampling three times per week and fecal coliform bacteria sampling quarterly when discharge may occur. Order No. 92-065 for pasture irrigation requires total coliform sampling three times per week.

The following monitoring and reporting requirements shall be conducted for reclaimed water use at the Project:

1. If supplemental onsite disinfection is not utilized, reclaimed water shall be collected at a point in the Facility at which all treatment phases are complete and analyzed for the parameters in Table 1, at the specified sampling frequencies, when the reclaimed water is being used at the Project. Flow shall be measured at a point that is representative of the reclaimed water use provided to the Project.

Table 1: Monitoring and Reporting Requirements without Supplemental On-site Disinfection

Parameter	Units	Sampling Frequency	Reporting Frequency
Enterococcus	MPN/100 mL	3 times / week	Monthly
Flow	gallons / day	Estimated Daily	Monthly

2. If supplemental on-site disinfection system is utilized, the reclaimed water shall be collected following the on-site chlorination system and analyzed for the parameters in Table 2, at the specified sampling frequencies, when the reclaimed water is being used at the Project. Flow shall be measured at a point that is representative of the reclaimed water use at the Project.

Table 2: Monitoring and Reporting Requirements with Supplemental Onsite Disinfection (if needed)

Parameter	Units	Sampling Frequency	Reporting Frequency
Total coliform	MPN/100 mL	<ul style="list-style-type: none"> • Daily for 1st week • Monthly thereafter 	<ul style="list-style-type: none"> • Upon receipt of 1st week results • Monthly thereafter
Flow	gallons / day	Estimated Daily	Monthly

3. The water quality monitoring results for the first week of discharge shall be submitted to the Water Board upon receipt of the week's results. The results shall be submitted monthly thereafter.
4. Conduct visual observations of the reclaimed use areas and equipment integrity for proper operation and maintenance during and following discharges.
5. Monthly discharge reports shall be prepared and submitted to the Water Board within 30 days of the close of the previous month in accordance with the schedule in Table 1 and Table 2 if applicable. Each monthly discharge report shall include the following information:
 - a. Project name

- b. Approximate daily discharge volume
- c. Date of sampling event
- d. Date(s) analyses were performed
- e. Results of water quality analyses
- f. Results of visual observations
- g. Proposed and/or completed remedial actions in the event of an exceedance of Enterococcus or, as appropriate, total coliform limits.
- h. The following statement, signed by the District, Conservancy, or authorized agent:
"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

The monitoring reports shall be submitted electronically via the following email addresses:

- a. WDR.Monitoring@waterboards.ca.gov
- b. Melissa.Gunter@waterboards.ca.gov

The email content should include at least the (a) monitoring report, (b) project name, and, (c) reporting period.

If any changes related to the use of reclaimed water for the Project occur in the course of design, construction, or operation, the Report shall be updated accordingly with relevant additional information and submitted to us for review.

If you have any questions, please contact Melissa Gunter of my staff at (510) 622-2390 or via email to melissa.gunter@waterboards.ca.gov.

Sincerely,

for Michael Montgomery
Executive Officer

Attachments: Site Maps
Best Management Practices
Order No. R2-2018-0007

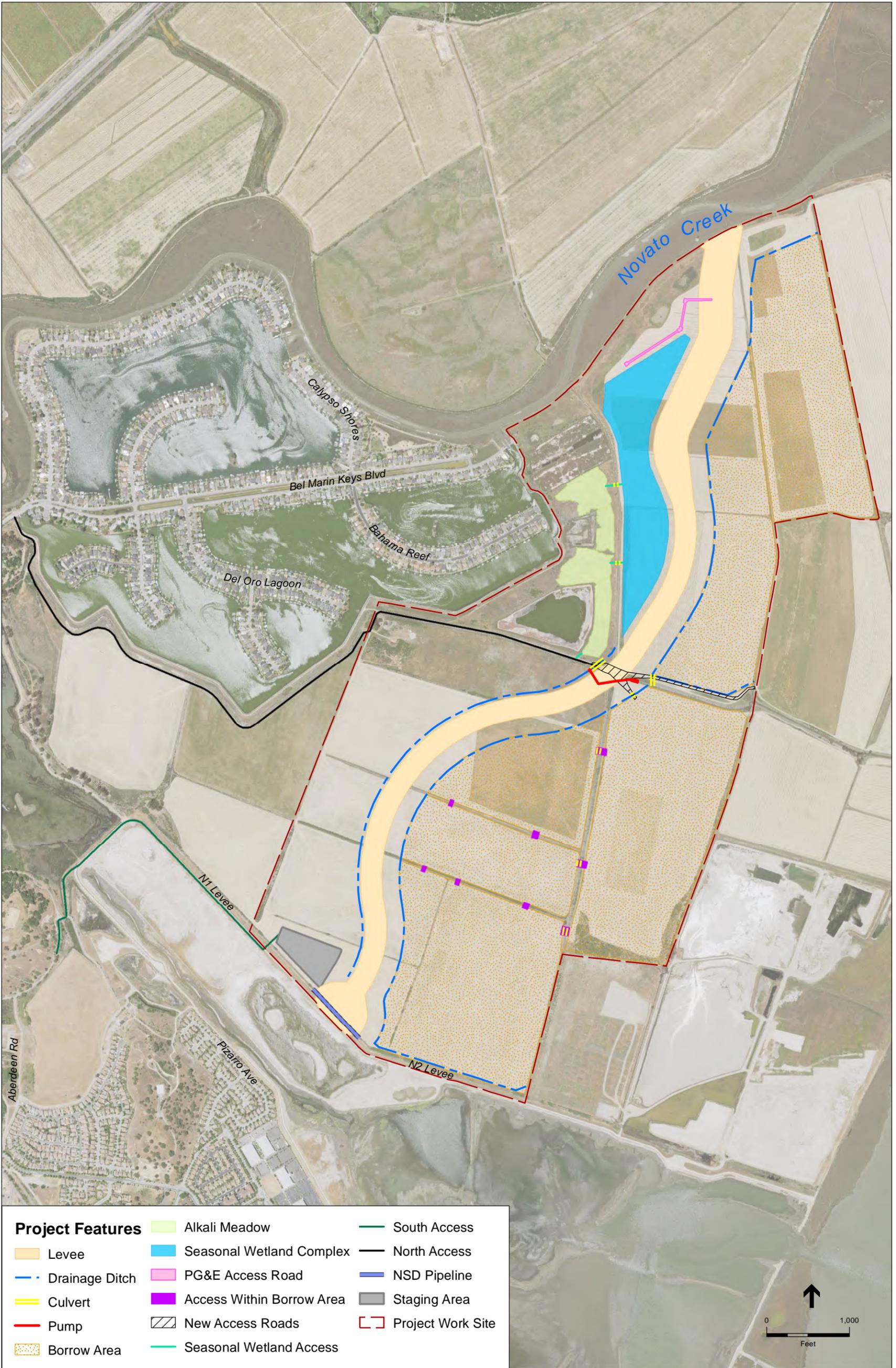
Cc (via email): ESA
Elijah Davidian, EDavidian@esassoc.com
Water Board
Margaret Monahan, Margaret.Monahan@waterboards.ca.gov
Christina Toms, Christina.Toms@waterboards.ca.gov
James Parrish, James.Parrish@waterboards.ca.gov



SOURCE: Moffatt & Nichol 2016, Google Earth 2016

Bel Marin Keys Wetland Restoration Project – Phase 1. D171276.01

Figure 1
Regional Location



SOURCE: USDA, 2014; ESA, 2016

Bel Marin Keys Wetland Restoration Project - Phase 1 . 150011.00

Figure 2
Proposed Project

ATTACHMENT 2

Best Management Practices

The following requirements will be included in the Project's construction, planting, and maintenance agreements.

- Contractor shall identify a Site Use Supervisor responsible for implementing worker health / public health protection measures at each site.
 - The Site Use Supervisor will be responsible for implementing the BMPs for treatment (i.e., adding chlorine tablets to the Baker tanks on a flow-paced basis; collecting grab samples to confirm treatment standards are being met and conveying the samples to Novato Sanitary District);
 - The Site Use Supervisor must be trained in BMPs for protecting worker safety while using reclaimed water (i.e., for making sure checklist items are met – see below for checklist).
 - The Site Use Supervisor will be responsible for retaining records of disinfection system operation, including use volumes and chlorine usage, and furnishing them upon request.

Best Management Practices Checklist:

- A. Workers should be informed that although reclaimed water has been treated to lower health risks, bacterial and viral contamination is still present and potentially may cause illness or infection. Contact with reclaimed water by ingestion, inhalation of mist, or on cuts or abrasions should be avoided, and the precautionary measures listed below should be carefully reviewed and followed.
- B. Precautionary measures should be taken to minimize worker contact with constituents of reclaimed water.
 1. Workers should not be subjected to reclaimed water sprays, mists, or aerosols.
 2. Workers should be protected with protective clothing when there will be more than casual contact with the reclaimed water.
- C. Safe drinking water should be supplied for workers. Where bottled water is provided, the water should be in contamination-proof containers and protected from reclaimed water and dust.
- D. Hand washing facilities should be provided consisting of potable water supply, hand washing soap, and single use sanitary paper towels. The importance of hand washing should be stressed when working with reclaimed water, especially before eating or smoking.

- E. Workers should not apply reclaimed water by hand held nozzles or other hand held devices that can produce sprays, mists, or aerosols.
- F. Precautions should be taken to avoid contamination of food taken into reclaimed water use areas. Food should not be taken into areas still wet with reclaimed water.
- G. Workers should be notified that reclaimed water is in use. Notification should include the posting of conspicuous warning signs with proper wording of sufficient size to be clearly read. In those locations where English is not the primary language of the workers, the signs should be in the appropriate language as well as in English.
- H. An adequate first aid kit should be available on location. Cuts or abrasions should be promptly washed, disinfected, and bandaged.
- I. Public contact with reclaimed water shall be avoided, to the extent practical, under the normal use at the reclaimed water site.
- J. In all areas where reclaimed water is used that are accessible to the public, warning signs shall be installed at adequate intervals around the use area as required by the District.
- K. reclaimed water shall not be applied where it could contact walkways, passing vehicles, buildings, drinking water facilities, storm drains, or enter areas where food is handled or eaten.
- L. Adequate measures shall be taken to prevent ponding, and to prevent run off of reclaimed water from the authorized water use area.
- M. Spray of reclaimed water shall not be allowed to contact an external drinking water fountain.
- N. There shall be no irrigation or impoundment of reclaimed water within a minimum of 50 feet of any water well.
- O. Distributor's vehicles used for transportation and distribution of reclaimed water must have water tight valves and fittings, and must not leak, and tanks must be cleaned of contaminants prior to use. A truck or tank that has contained material from a septic tank or cesspool shall not be used to convey reclaimed water.
- P. Distributor's vehicles that convey reclaimed water shall be clearly labeled in a prominent location with language stating in English "Reclaimed Water, Do Not Drink".
- Q. Reclaimed water shall not be put into piping or a storage facility without specific written authorization from the Conservancy.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

ORDER No. R2-2018-0007

**WASTE DISCHARGE REQUIREMENTS AND WATER QUALITY CERTIFICATION for:
CALIFORNIA STATE COASTAL CONSERVANCY
BEL MARIN KEYS UNIT V WETLAND RESTORATION PROJECT – PHASE 1
MARIN COUNTY**

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter the Regional Water Board, finds that:

- 1. Purpose:** The Bel Marin Keys Unit V Wetland Restoration Project (Project) will restore 1,146 acres in northern Marin County. The Project's property is composed of two parcels: the 906-acre Bel Marin Keys Unit V (BMKV) parcel, owned by the California State Coastal Conservancy (Conservancy), and the 240-acre North Antenna Field (NAF), owned by the State Lands Commission (SLC) (Figure 1). These two parcels and the former Hamilton Army Air Field (Hamilton Field) parcel are officially part of the larger Hamilton Wetlands Restoration Project (HWRP). The Regional Water Board permitted restoration at the Hamilton Field as the HWRP in 2005 (Order No. R2-2005-0034).

Project activities are limited to Phase 1 activities at the BMKV parcel only; future phases will be implemented on both the BMKV and NAF parcels. This Order serves as waste discharge requirements (WDRs) and a federal Clean Water Act section 401 water quality certification (WQC) for Phase 1 activities.

- 2. Site Location:** The Project's property is bounded to the north by Novato Creek and the Bel Marin Keys housing development, to the east by San Pablo Bay, to the south by the Hamilton Field portion of the HWRP, and to the west by Pacheco Pond and associated flood control basins. The receiving waters for the Project site are Novato Creek and San Pablo Bay. The property is composed primarily of agricultural lands that were reclaimed in the late 19th and early 20th century from historic tidal marshes as well as "centennial" tidal marshes that accreted outboard of levees on Gold Rush sediments. With the exception of the federal flood control levee that separates the property and Hamilton Field, the levees that surround the property are largely unengineered; drainage ditches separate the NAF parcel from the BMKV parcel. Flood protection for the Bel Marin Keys housing development is currently provided by the BMKV levee along San Pablo Bay.
- 3. Discharger.** This Order only applies to the named Discharger, the Conservancy. However, it is likely that the U.S. Army Corps of Engineers (the Corps) will be involved in future phases of the Project, especially if those efforts involve the procurement and beneficial reuse of dredged sediment. Therefore, amendments to this Order to address future phases of the Project may also name the Corps as a Discharger. In the alternative, since the Corps and the Conservancy are both named as Dischargers in the HWRP Order, that Order may be amended.
- 4. Permit Application.** On October 24, 2016, the Regional Water Board received an application from the Discharger that serves as an application for WDRs and a WQC. In its application, the Discharger proposes to excavate borrow soils, construct a new flood control levee, and create

approximately 25 acres of seasonal wetlands on a 650-acre portion of the BMKV parcel (Figure 2).

- 5. Relation to the Other Similar Projects in the Vicinity.** The adjacent Hamilton Field project aimed to restore tidal habitats in subsided baylands through the beneficial reuse of clean sediment dredged from the Port of Oakland. Future phases of the BMKV Project also propose to use dredged sediment to raise substrate elevations to intertidal elevations suitable to support vegetated intertidal marsh and then breach the outboard levee along San Pablo Bay to restore tidal flows. The Discharger serves as the local sponsor for the Corps' 644-acre Hamilton Field restoration, which was completed and breached to tidal action in 2014. The Discharger acquired the BMKV parcel in 2001 with the intent of expanding the HWRP to include BMKV. Restoration planning documents developed by the Corps, including a General Reevaluation Report (GRR), a 1998 Final Environmental Impact Report/Environmental Impact Statement, and subsequent supplemental documents to address HWRP project changes and remediation, propose a long-term vision for the HWRP, including the BMKV properties, that includes a mosaic of seasonal wetlands, tidal marshes, and terrestrial-estuarine transitional habitats.

The lands that comprise the Hamilton Field restoration were formerly part of the Hamilton Air Force Base/Army Air Field, a military installation that was active through the 1980s. Hamilton Field facilities included the NAF, which was used by the Army for the incineration of unexpended small arms, fire suppression practice, shooting practice, and waste disposal. These activities resulted in the pollution of NAF soils with metals, fuels, PAHs, pesticides, dioxins/furans, solvents, and volatile organics, which are currently being remediated under the Corps's Formerly Used Defense Sites program. Soil contamination and cleanup activities are limited to the NAF parcel and do not affect the BMKV parcel. Due to the contamination, the NAF was not included in the existing HWRP permitted by the Regional Water Board in 2005. Future phases of the Project propose to restore the NAF to tidal action once site cleanup activities are complete.

- 6. Project Overview.** The Project proposes to restore tidal marsh and non-tidal seasonal wetland habitats to support a broad range of plants, fish and wildlife, including special-status, resident, and migratory species. The specific objectives of Phase 1 are to construct the flood control levee that will be necessary in order to facilitate dredged sediment placement and future outboard levee breaching and create and enhance seasonal wetland habitats on the site. The construction elements of Phase 1 of the Project are illustrated in Figure 2. Phase 1 of the Project will:
- Excavate borrow soils from approximately 434 acres of the BMKV site to a depth of roughly 2 to 3 feet (Table 1);
 - Use the borrow soils to construct a new 11,800-foot-long, 95-acre levee to protect landward areas of the BMKV project site and the Bel Marin Keys housing development from tidal flooding in future Project phases (Table 1);
 - Modify the BMKV property's existing drainage network such that surface water and groundwater from areas landward of the new flood control levee can be transmitted seaward of the levee and eventually to San Pablo Bay;
 - Modify a portion of the Novato Sanitary District's effluent pipeline where it crosses the new flood control levee alignment;

- Create 9 acres of new seasonal alkali meadow habitat;
 - Create 16 acres of new seasonal wetlands (ponds); and
 - Construct a 1,500-foot-long, 20- to 40-foot-wide permanent access road within an existing Pacific Gas and Electric (PG&E) easement along the northern end of the BMKV property west of the new Bayfront levee and south of Novato Creek.
7. The Corps initiated informal Endangered Species Act consultation with the U.S. Fish and Wildlife Service (USFWS) for Phase 1 of the Project on March 14, 2017. USFWS concurred with the Corps on December 28, 2017, that Phase 1 of the Project may affect, but is not likely to adversely affect, the federally endangered salt marsh harvest mouse (*Reithrodontomys raviventris*), federally endangered Ridgway's rail (*Rallus obsoletus*)¹, and federally threatened western snowy plover (*Charadrius alexandrinus nivosus*). This concurrence is based on: (1) the lack of suitable habitat currently available at the site; (2) the low likelihood for foraging individuals to be present in the area prior to the completion of Phase 1 construction; and (3) the implementation of the proposed conservation measures, which are included in Attachment A of this Order.
8. **Existing Conditions and Projected Habitat Changes.** The Project site is predominantly undeveloped, diked agricultural baylands crisscrossed by a grid of drainage ditches. The agricultural fields are used to grow oat hay and are regularly disced and kept dry via the drainage ditch network and a pump station at the site's eastern terminus that discharges to San Pablo Bay. Most of the agricultural fields are subsided to roughly between -1 and -4 ft NAVD88², well below local Mean Lower Low Water (MLLW, approximately +0.11 ft NAVD88). Future phases of the Project intend to import clean dredged material to raise substrate levels in the fields to intertidal elevations suitable for the establishment of tidal wetland vegetation (at least to Mean Tide Level, or +3.38 ft NAVD88). Portions of the site's northwestern corner (near Novato Creek and the Bel Marin Keys housing development) support seasonal wetlands in borrow depressions formed by past levee repair activities; these areas are outside the footprint of agricultural operations.

The permit application described in Finding 4 states that construction of the Project as proposed would disturb approximately 4.32 acres of jurisdictional waters of the U.S. and State, including 2.30 acres of existing wetlands and 2.02 acres (17,619 linear feet) of other waters such as ponds and drainage channels. Of this amount, 1.47 acres (3,000 linear feet) would be temporary and 2.85 acres (14,419 linear feet) would be permanent. The Project will result in a net loss of -0.79 acres of saline emergent wetland, a net gain of 24.10 acres of seasonal wetlands, and a net gain of 0.80 acres of drainage channel. 227 acres of agricultural fields west of a proposed flood control levee would remain in agriculture after completion of Phase 1. Table 2 summarizes pre-versus post-Phase 1 conditions and jurisdictional waters; Table 3 displays the Project site's projected net change in wetlands and other waters.

9. **Benefits of Wetland Restoration.** Upon completion of future phases, the Project will make a significant and valuable contribution to tidal wetland restoration and seasonal wetland restoration in the San Francisco Bay Estuary, which was recommended by the *Baylands*

¹ Note that the USFWS informal consult letter uses the older taxonomic classification of Ridgway's rail, the California clapper rail (*Rallus longirostris obsoletus*).

² North American Vertical Datum of 1988.

Ecosystem Habitat Goals Report (1999; updated 2015), the *Comprehensive Conservation and Management Plan* (CCMP - 1993, updated 2016), the *San Francisco Bay Joint Venture Implementation Strategy* (2001), and the *Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California* (2013). Agricultural baylands reclaimed from tidal wetlands often support seasonal wetlands that provide important habitat for resident and migratory shorebirds and waterfowl. These reports encourage the return of diked agricultural baylands to tidal marsh where feasible, while preserving and restoring adequate seasonal wetlands and ponds for birds. The Project will provide valuable tidal wetland habitats while preserving and enhancing seasonal wetlands where feasible.

10. Other Related Restoration Projects in the North Bay. To the north, the Marin County Flood Control and Water Conservation District is in the initial stages of planning for the tidal restoration of diked baylands north of Novato Creek. Approximately 4 miles to the north and northeast are a series of tidal restoration and enhancement projects spanning the Sonoma Baylands between the Petaluma River and Sonoma Creek, including Carl's Marsh, Sonoma Baylands, Sears Point, Tolay Creek, Lower Tubbs Island, Tubbs Island Levee Setback, and Sonoma Creek Marsh. Implementation of the overall Project will result in an almost continuous band of tidal wetland habitat along the entire western, northern, and eastern shoreline of San Pablo Bay.

Project Description

11. Overview of the Restoration Activities. Phase 1 of the Project is divided into seven primary elements, described below: Earthwork volumes for these elements are presented in Table 1; the locations of these elements are displayed in Figure 2.

- **Construction of a New Flood Control Levee.** Phase 1 of the Project would construct a new flood control levee landward of the site's existing bayfront levee. The new levee would be approximately 11,800 feet long, extending in a north-south alignment from the existing levee along Novato Creek's southwestern bank in the north to the N1/N2 levees separating the HWRP parcel and BMKV parcel in the south (Figure 2). The new levee alignment would be a minimum of 2,300 feet and a maximum of 6,700 feet from the existing bayfront levee and cover 95 acres within the BMKV property. The levee crest would have a design height of +12 ft NAVD88 but would initially be overbuilt to a crest elevation of +13 ft NAVD88 to account for post-construction settlement. The levee would have a crest width of 10 feet and "core" side slopes of 3:1 (H:V) on both sides. Wide, flat stability berms on either side of the levee core would provide counter-balancing weight beyond the toe of the levee's main core. The levee will generally have two typical cross-sections, one for the southern portion (approximately 74% of the overall levee length) and one for the northern portion (approximately 26% of the overall levee length). The southern portion will have a bayside stability berm with a 10:1 slope from elevation +10 down to +3 ft NAVD88. The landside stability berm would have a 10:1 slope from elevation +7 down to +3 ft NAVD88. Both stability berms will have 3:1 slopes below +3 ft NAVD88.

The northern portion will have a bayside stability berm with a 15:1 slope from elevation +10 down to +3 ft NAVD88. The landside stability berm would have a 29:1 slope from elevation +8 down to +3 ft NAVD88. Both stability berms will have 3:1 slopes below +3 ft NAVD88.

- ***Onsite Borrow for Levee Construction.*** The new flood control levee would be constructed from approximately 1.8 million cubic yards (cy) of soil borrowed from roughly 434 acres of agricultural fields east of the proposed flood control levee (Table 1). These fields would be excavated to depths of 2 to 3 feet. To access the borrow areas, between 8 to 16 crossings would be constructed across the fields' existing drainage ditches. Culverts within the crossings would range from 50 to 200 feet in length, and from 30 to 48 inches in diameter. Most of these ditch crossings would remain until the Project's future phases to provide the site's farmer access to the fields for continued agricultural operations after Phase 1. Excavation in the proposed borrow areas may result in creation of temporary wetland habitat; these areas would be restored to tidal wetland habitat upon breaching of the site to tidal action in future Project phases.
- ***Novato Sanitary District Pipeline Modification.*** The Novato Sanitary District (NSD) discharges secondary-treated effluent to San Pablo Bay via a 54-inch diameter reinforced concrete pipe operating under pressure. This pipeline modification would not change the discharge point of the outfall. Within the Phase 1 Project limits, the pipeline alignment runs generally parallel to and along the north side of the HWRP's N1/N2 levees (located on the southern border of the BMKV property) and extends east to a submerged outfall in San Pablo Bay. The new flood control levee would tie in to the north-facing slope of the N1 levee, passing over the existing NSD pipe. To accommodate the new levee tie-in, the Conservancy would abandon 900 feet of the existing outfall pipe within the levee footprint and install a new 63-inch High Density Polyethylene bypass pipe to convey NSD effluent up and over the new flood control levee (Figure 3). The new pipeline would follow a new alignment to the north of the existing alignment, passing through the new flood control levee approximately 300-feet north of the existing pipe. This would require revisions to the location of the NSD easement within the Project's property. A lateral service connection, or secondary diversion pipe, would be installed in the NSD pipeline, on the landward side of levee tie-in, to provide water for moisture conditioning of the levee fill material, dust control during project construction, and potential use as a source of irrigation water for plant establishment.
- ***Site Drainage Modifications.*** The proposed new flood control levee would bisect several existing agricultural ditches and obstruct the flow of surface runoff from the landside of the proposed levee. To facilitate post-construction drainage, two new drainage ditches would be constructed: a 5,700-foot-long ditch west of the new levee and a 16,500-foot-long ditch east of the new levee (Figure 4). Similar to existing conditions, the new drainage ditches would route runoff towards the collector channel at the center of the site. A new pump station would be installed in the collector channel on the west side of the new levee to convey runoff over the levee and into the collector channel on the bayside of the new levee. North of the new pump station, a drainage ditch would not be constructed. Instead, runoff from the new flood control levee would drain to the newly created seasonal wetlands west of the levee (see below).
- ***Seasonal Wetland Complex Creation.*** The Phase 1 Project would create shallow depressions (seasonal ponds) and associated high ground to provide a seasonal wetland complex in the northwest portion of the Project site, west of the new flood control levee. Approximately 16 acres of seasonal ponds would be created over roughly 36 acres of land (Figure 2). The shallow depressions would be approximately 0.5 to 1 acre in size

with a maximum depth that would vary between 1 to 2 feet and 2 to 4 ft below the existing ground surface, respectively, in the northern and southern portions of the complex. The seasonal ponds would be fed by a combination of surface water and shallow groundwater; water levels would be managed using hand-operated weirs to facilitate ponding, vector control, and weed management. The ponds would be vegetated with appropriate native seasonal wetland species such as saltgrass (*Distichlis spicata*), field sedge (*Carex praegracilis*), common spikerush (*Eleocharis macrostachya*), and/or dwarf spikerush (*Eleocharis parvula*).

- **Alkali Meadow Creation.** The Phase 1 Project would use grading and planting to expand and enhance the existing saline wetland/open water area immediately east of the Bel Marin Keys South Lagoon by 9 acres (Figure 2). Vegetation community types in the newly created alkali meadow would mostly consist of salt grass (*Distichlis spicata*) meadow but also may include creeping wild rye (*Elymus triticoides*) meadow, nontidal saltmarsh plant species, and other alkali wetland species such as field sedge (*Carex praegracilis*), fat-hen (*Atriplex prostrata*), alkali heath (*Frankenia salina*), pickleweed (*Sarcocornia pacifica*), and jaumea (*Jaumea carnosa*).
- **Re-Alignment of the Pacific Gas & Electric Access Road.** To provide continued access to two power transmission towers owned and operated by PG&E, a permanent access road would be constructed within the existing PG&E easement on the northern end of the Project site, west of the new flood control levee and south of Novato Creek (Figure 2). The access road would be 1,500 ft long and approximately 20 to 40 ft wide. A 30-ft-long, 18-in-diameter culvert may be located under the new access road adjacent to the landside levee toe. This culvert would divert stormwater north of the PG&E access road into the newly created seasonal wetland complex.

12. Project Schedule and Time Frame. Project construction would be completed over two years. Construction would progress from south to north, with an anticipated construction start date of spring 2018 and completion date of December 2020. The levee construction would span two years, with approximately half the final levee height and/or volume constructed in the first year and the final height and volume achieved in the second year. During the first construction year, the new flood control levee would be constructed to an estimated elevation of +8 feet NAVD. The new levee's tie-in to the Novato Creek levee would also be constructed during the first construction year. Concurrent with the progression of levee construction and as existing drainage ditches within the levee alignment are filled, the new drainage ditches would be constructed on the east and west sides of the new flood control levee. During the second year, the levee would be constructed to an elevation of +13 feet NAVD. To minimize potential for disturbance to seasonal wetlands and species that will be attracted to the wetlands for habitat once constructed, the seasonal wetlands and associated access roads would also be constructed in year two. Subsequent levee height adjustments would be made over the next 20 years to address anticipated settlement of the levee crest.

13. Mitigation Incorporated into the Project Design as Conservation Measures. The USFWS concurrence letter provides measures to minimize environmental harm and protect biological species and waters of the State potentially affected by the Project. These conservation measures are incorporated into this Order and are included in Attachment A.

14. Sources of Sediment. Phase 1 of the Project will largely balance cut and fill onsite; the only

material that may be imported to the site would be sediment placed as a “cap” (wetland substrate) in the seasonal wetland restoration/enhancement areas. The anticipated volume of wetland substrate to be imported is approximately 13,000 cubic yards. No material will be exported from the site during Phase 1. During future Project phases, the Discharger intends to import clean dredged material suitable for beneficial re-use to the site, to raise the elevations of fields east of the new flood control levee to intertidal elevations. The target elevation for material placement will likely be at least Mean Tide Level (MTL, +3.38 ft NAVD88), so that low marsh vegetation such as native cordgrass (*Spartina foliosa*) can begin to establish. For high marsh vegetation such as pickleweed (*Sarcocornia pacifica*) to establish on imported sediments, substrate elevations must be higher, up to the Mean Higher High Water (MHHW, +6.21 ft NAVD88). Potential sources of sediment include maintenance dredging activities throughout central and northern San Francisco Bay. The Discharger has not yet determined the amount of dredged material proposed to be imported to the site, nor has it secured commitments from potential dredging projects to deliver their material to the BMKV site. During Phase 1 and future Project phases, the Discharger will be required to submit data characterizing the quality of all imported dredged material (Bay sediments) proposed for use as fill before placement at the Project site in accordance with Specification B of this Order.

- 15. Monitoring.** The Discharger developed a Draft Conceptual Monitoring and Adaptive Management Plan for the Project, which is cited in the Final Supplemental Environmental Impact Report/Environmental Impact Statement (FSEIR/EIS, see Finding 22 below). This draft plan proposes a framework to evaluate the overall Project and does not describe specific monitoring methods, locations, or performance criteria to evaluate the execution of Phase 1. Finding 22 and Provision 1 below describe how the Discharger must develop a stand-alone plan to monitor and adaptively manage the Project features to be constructed in Phase 1, primarily the new flood control levee and seasonal/alkali wetlands.

The Regional Water Board is a lead agency in the development and implementation of a San Francisco Bay Regional Wetland Monitoring Program (Wetlands RMP), a proposed coordinated and comprehensive long-term monitoring program with the goal of monitoring bayland wetlands to ensure their on-going management, restoration, and protection. Development and implementation of a San Francisco Bay Regional Wetland Monitoring Plan is also called for in the CCMP, updated as the Estuary Blueprint in 2016. Phase 1 monitoring and monitoring for future Project phases may be conducted collaboratively through a Wetlands RMP.

- 16. Basin Plan.** The San Francisco Bay Basin (Basin Plan) is the Regional Water Board’s master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes implementation programs to achieve water quality objectives. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Resources Control Board (State Water Board), the Office of Administrative Law, and U.S. EPA, where required.
- 17.** The Basin Plan includes the following beneficial uses for San Pablo Bay and its tributaries: Ocean, Commercial and Sport Fishing; Estuarine Habitat; Wildlife Habitat; Fish Spawning and Migration; Preservation of Rare and Endangered Species; Shellfish Harvesting; Industrial Service Supply; Navigation; Water Contact Recreation; and Non-contact Water Recreation.
- 18.** The Project is consistent with the goals of the State Wetlands Policy and California Wetlands Conservation Policy (Executive Order W-59-93, signed August 23, 1993), which is

incorporated in the Basin Plan, that includes ensuring “no overall loss” and achieving a “...long-term net gain in the quantity, quality, and permanence of wetland acreages and values...”. Senate Concurrent Resolution No. 28 states that “it is the intent of the legislature to preserve, protect, restore, and enhance California’s wetlands and the multiple resources which depend on them for benefit of the people of the State.” Section 13142.5 of the Water Code requires that the “[h]ighest priority shall be given to improving or eliminating discharges that adversely affect ...wetlands, estuaries, and other biologically sensitive areas.”

19. The Project is consistent with State Water Board Resolution No. 68-16, “Statement of Policy with Respect to Maintaining High Quality of Waters in California” (Antidegradation Policy). The Antidegradation Policy states that discharges to existing high quality waters will be required to meet WDRs that will result in the best practicable treatment or control of the discharge necessary to assure that (a) a condition of pollution or nuisance will not occur, and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained. Implementation of the Project is not expected to adversely affect existing or potential beneficial uses of the water, and existing water quality will be maintained or improved. Any potential impacts to beneficial uses are addressed under this Order.
20. This Order does not allow for the take, or incidental take, of any special status species. The Discharger shall use the appropriate protocols, as approved by the California Department of Fish and Wildlife (CDFW) and USFWS, to ensure that the Project not impact the beneficial use of the Preservation of Rare and Endangered Species.
21. **California Environmental Quality Act (CEQA).** CEQA requires that all projects approved by State agencies be in full compliance with CEQA. As lead agency, the Discharger certified the Final Supplemental Environmental Impact Report/Environmental Impact Statement (FSEIR/EIS) for the Bel Marin Keys Unit V Expansion of the Hamilton Wetland Restoration Project (April 2003). The FSEIR/EIS analyzed a concept-level schematic of BMKV restoration. In August 2017, the Discharger published an Addendum to the Final Supplemental Environmental Impact Report/Environmental Impact Statement (AFSEIR/EIS) for the Bel Marin Keys Unit V Expansion of the Hamilton Wetland Restoration Project, which certified that the Phase 1 Project would not result in any new impacts not previously disclosed in the certified FSEIR/EIS; nor would it result in a substantial increase in the magnitude of any significant environmental impact previously identified. Accordingly, the AFSEIR/EIS did not identify any new mitigation measures. The FSEIR/EIS and AFSEIR/EIS have been considered and relied upon in preparation of this Order.

The Regional Water Board, as a responsible agency under CEQA, finds that all environmental effects have been identified for Project activities that it is required to approve and that the Project will not have significant adverse impacts on the environment provided the Discharger: 1) finalize and implement the Draft Conceptual Monitoring and Adaptive Management Plan (Appendix K of the FSEIR/EIS), and 2) implement the CEQA mitigation described in Chapter 4 of the FSEIR/EIS.

22. **Water Quality Issues under CEQA for the Project.** The FSEIR/EIS found the following potentially significant or significant and unavoidable impacts to water quality from the Project:
 - Impact WQ-1: Potential for Degradation of Surface Water and Sediment Quality due to Increased Methylmercury Formation Potential

- Impact WQ-6: Potential Diesel Pump Spills into San Pablo Bay
- Impact WQ-8: Potential Changes to Circulation in Pacheco Pond
- Impact WQ-9: Potential for Degradation of Receiving Water Quality due to Dredged Material Placement
- Impact WQ-10: Potential for Spills from Fueling of Pump(s) at Pump Station

All of these impacts are associated with future phases of the Project, not Phase 1 activities. Nonetheless, the FSEIS/EIR describes mitigation measures for each of these impacts that reduce their impact to less than significant. The Regional Water Board concurs that impacts to water quality from Phase 1 activities will be less than significant provided the Discharger adheres to the water quality monitoring and protective measures identified in the Order.

The FSEIS/EIR found that construction-related activities during all Project phases, including Phase 1, would expose bare soil to erosion by water and wind and could increase erosion and sedimentation rates above pre-construction levels (Impact G-4). The Discharger is therefore required to develop and implement necessary water quality control measures in a Storm Water Pollution Prevention Plan (SWPPP) that prescribes temporary and permanent measures to control accelerated erosion and sedimentation in disturbed areas during and after construction.

23. The Regional Water Board notified the Discharger and interested agencies and persons of its intent to adopt WDRs for the Project and provided them with an opportunity to submit their written views and recommendations. The Regional Water Board heard and considered all comments pertaining to the WDRs for the Project in a public meeting.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations, and guidelines adopted thereunder, that the Discharger, its agents, successors, and assigns shall comply with the following:

A. PROHIBITIONS

1. Discharges of water, material, or wastes not otherwise authorized by the Order are prohibited.
2. The direct discharge of wastes to surface waters or surface drainage courses is prohibited, except as authorized by this Order.
3. It is prohibited to import dredged materials without first following the testing and screening protocols described in Specifications B.1 and 2. Movement of onsite material within the Project site is allowed.
4. The activities subject to these requirements shall not cause a condition of pollution or nuisance as defined in sections 13050(i) and (m), respectively, of the Water Code.

B. SPECIFICATIONS

Dredged Material Screening Procedures - Data characterizing the quality of all imported dredged materials (Bay sediments) proposed for use as fill shall be submitted for Regional Water Board staff review and approval before placement at the Project site. The review shall be coordinated through the multi-agency Dredge Materials Management Office (DMMO), of which the Regional Water Board is a member.

Sediment characterization and placement shall follow the protocols specified in:

1. The DMMO guidance document, "Guidelines for Implementing the Inland Testing Manual in the San Francisco Bay Region" (Corps Public Notice 01-01, or most current version), with the exception that the water column bioassay simulating in-bay unconfined aquatic disposal shall be replaced with the modified effluent elutriate test, as described in Attachment B of the Inland Testing Manual, for both water column toxicity and chemistry (DMMO suite of metals only); and,
2. Regional Water Board May 2000 staff summary report, "Beneficial Reuse of Dredged Materials: Sediment Screening and Testing Guidelines," or most current revised version. These levels are shown in Table 4, which are approved for the wetland surface criteria within the top three feet of the Project.

Modifications to these procedures may be approved on a case-by-case basis, using guidance from the two reports mentioned above, pending the Discharger's ability to demonstrate that the dredged materials are unlikely to adversely impact beneficial uses.

C. RECEIVING WATER LIMITATIONS

1. Project activities shall not cause:
 - i. Floating, suspended, or deposited macroscopic particulate matter or foam in quantities sufficient to cause deleterious bottom deposits, turbidity, or discoloration in receiving waters, or to unreasonably affect beneficial uses;
 - ii. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;
 - iii. The temperature of any cold or warm freshwater habitat to be increased by more than 5 degrees Fahrenheit above natural receiving water temperature, unless a qualified biologist can demonstrate that such alteration in temperature does not adversely affect beneficial uses;
 - iv. Visible, floating, suspended, or deposited oil or other products of petroleum origin; and
 - v. Toxic or other deleterious substances to be present in concentrations or quantities that will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or that render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waters shall not cause violations of the following limits to be exceeded in receiving waters at any one place within 1 foot of the water surface:
 - i. Dissolved Oxygen: 5.0 mg/L, minimum
When natural factors cause lesser concentrations, then these activities shall not cause further reduction in the concentration of dissolved oxygen
 - ii. Dissolved Sulfide: 0.1 mg/L, maximum
 - iii. pH: Variation from normal ambient pH by more than 0.5 pH units
 - iv. Un-ionized Ammonia: 0.025 mg/L as N, annual median; and
0.16 mg/L as N, maximum
 - v. Nutrients: Receiving waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause

nuisance or adversely affect beneficial uses.

3. Turbidity of the receiving waters shall not increase by more than the following to the extent practicable:

Receiving Waters Background	Incremental Increase
< 50 NTU	5 NTU maximum
≥ 50 NTU	10% of background, maximum

4. The discharge shall not cause a violation of any water quality standard for receiving waters adopted by the Regional Water Board or the State Water Board as required by both the State’s Porter-Cologne Water Quality Control Act and the federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the Clean Water Act, or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.

D. PROVISIONS

1. **Project Monitoring and Reporting.** The Discharger shall submit a Monitoring and Adaptive Management Plan (MAMP) for Phase 1 of the Project. This MAMP can be a final version of the conceptual draft MAMP for the entire Project presented in the FSEIS/EIR or a stand-alone document focused on Phase 1 activities. The MAMP shall include monitoring methods, locations, performance criteria, and a reporting schedule for Phase 1 activities for a minimum of five years. The MAMP shall address all Phase 1 design elements, including (but not limited to):
 - i. Geotechnical condition and settlement of the new flood control levee (including an as-built survey)
 - ii. Erosion control measures on the new flood control levee
 - iii. Presence/absence of temporary seasonal wetlands within levee soil borrow areas
 - iv. Hydrologic performance (depth and duration of flooding) of the seasonal wetlands and alkali meadows
 - v. Vegetation communities in the seasonal wetlands and alkali meadows, including native and non-native/invasive species
 - vi. Bird use of the seasonal wetlands and alkali meadows
 - vii. Condition and operation of water control structures in the seasonal wetlands
 - viii. Condition of culverts under new road crossings

The MAMP shall be consistent with the monitoring framework discussed in the Phase 1 Biological Assessment (ESA, 2016) and include measures to collect appropriate baseline data to illustrate physical and ecological change between existing and future (post-breach) conditions. The Discharger shall submit the MAMP to the Regional Water Board for acceptance by the Executive Officer. All monitoring data shall be posted to EcoAtlas (<http://ptrack.ecoatlas.org>) according to the schedule described in the MAMP.

It is expected that the Discharger may choose to implement the MAMP and comply with any requirement of this Provision through a collaborative effort (i.e., Wetlands RMP, see finding 16 above) to conduct or cause to be conducted the required monitoring.

Due Date for the MAMP: at least 90 days before construction starts.

2. **TAC.** The Discharger shall continue to utilize the existing HWRP Technical Advisory Committee (TAC) to assess Project progress and inform the development of future Project phases.
3. **EcoAtlas.** It has been determined through regional, State, and national studies that tracking mitigation/restoration projects must be improved to better assess the performance of these projects, following monitoring periods that last several years. In addition, to effectively carry out the State's No Net Loss Policy for wetlands, the State needs to closely track wetland losses, gains, and mitigation/restoration project success. Therefore, the Discharger will use the California Wetlands Standard Form to provide project information related to impacts and mitigation/restoration measures. Project Tracker online data entry forms and instructions are available at <http://ptrack.ecoatlas.org>. Project information concerning impacts and mitigation/restoration will be made available on EcoAtlas (<http://www.ecoatlas.org>) and on the California Wetlands Portal at the web link: <http://www.californiawetlands.net>.

Due Date for California Wetlands Standard Form: 60 days after adoption of this Order.

4. **Submitting Monitoring Reports.** Monitoring reports shall be submitted either by uploading them to the Project's Files & Links library on EcoAtlas (<http://ecoatlas.org/regions/ecoregion/bay-delta/projects>) or via email. The Regional Water Board project manager shall be notified if monitoring reports are uploaded to EcoAtlas. In addition to uploading the Project to Project Tracker (<http://ptrack.ecoatlas.org/>) and monitoring reports to EcoAtlas (<http://ecoatlas.org/regions/ecoregion/bay-delta/projects>), the Discharger shall also send monitoring data and reports to the Regional Water Board as one hard copy and one electronic copy. In the case of large files, the electronic copy shall be sent on a CD or DVD or placed on an FTP site.
5. **Invasive Plant Species.** The Discharger is required to minimize invasive³ plant species on the Project's property, especially those that threaten sensitive native seasonal wetland and tidal marsh communities and functions. The MAMP described in Provision 1 shall describe monitoring methods, performance criteria, and potential corrective actions to minimize the establishment and spread of invasive species on the Project site. Some of these species, such as yellow star-thistle (*Centaurea solstitialis*), already occur onsite; others, including perennial pepperweed (*Lepidium latifolium*), Australian bentgrass (*Agrostis avenacea*), Russian thistle (*Salsola soda*), and stinkwort (*Dittrichia graveolens*) are present on adjacent properties and are known to colonize perennial and seasonal wetlands in bayland habitats.
6. **Erosion and Sediment Control Plan.** The Discharger shall, before construction begins, submit a Storm Water Pollution Prevention Plan (SWPPP), acceptable to the Executive Officer, and shall implement required Best Management Practices (BMPs) to prevent water pollution from restoration activities. Emergency response, routine maintenance, and preventative activities should be included in the SWPPP.

Due Date for SWPPP: at least 45 days before construction starts and updated annually prior to October 15.

³ "Invasive" includes plant species listed by the California Invasive Plant Council at <http://www.cal-ipc.org/ip/inventory/>

7. **Start-up and As-Built Reports.** The Discharger shall notify the Regional Water Board by email when construction starts and ends and submit an as-built report to note any changes that have occurred from the original design.

Due Date for Notification: when construction begins, and ends.

Due Date for As-Built Report: no more than 60 days after construction is complete.

Due Date for As-Built Report: 90 days after construction is completed.

8. **Construction Operations.** Construction shall last no longer than two years and will occur between April and December. The Discharger must obtain prior approval from the Executive Officer to extend the construction period or alter the construction window with appropriate SWPPP BMPs.

During construction, the Discharger will adhere to conservation measures to protect water quality and species as set forth in this Order. The Project covers protective measures for special status species including the endangered Ridgway rail, salt marsh harvest mouse, soft bird's beak, and others, which are listed in the FSEIS/EIR. To the extent feasible, the Discharger shall avoid construction activities in or near marsh habitat suitable for the salt marsh harvest mouse, Ridgway rail, or other protected species.

The Discharger shall minimize in-water construction during periods when listed species may be present. Construction activities shall be scheduled to avoid the local nesting periods of the special status wildlife species, to the extent practical. When construction is conducted during the nesting period of a special status species known to be present, the activities shall be restricted to maintain a 700-foot buffer between heavy equipment and the nesting sites. Construction activities shall be scheduled in such a way so as to limit the period of disturbance in a particular area to as brief a time window as is practical.

9. **Mosquito Abatement Provision.** The site is in the jurisdiction of the Marin-Sonoma Mosquito and Vector Control District. The Discharger shall coordinate with the district during design, implementation, and operation phases of the Project to mitigate for any increases in potential mosquito breeding habitat.
10. **General Provisions.** The Discharger shall comply with all the Prohibitions, Specifications, Limitations, and Provisions of this Order immediately upon adoption of this Order, unless otherwise provided.
11. The Discharger shall notify the Regional Water Board immediately whenever violations of this Order occur.
12. The Discharger shall remove and relocate any wastes that are discharged at any sites in violation of this Order.
13. The Discharger shall implement and comply with appropriate BMPs to prevent and control erosion and sedimentation.
14. No debris, soil, silt, sand, cement, concrete, or washings thereof, or other construction related materials or wastes, oil or petroleum products or other organic or earthen material shall be allowed to enter into or be placed where it may be washed or pumped from the site by rainfall

or runoff into Novato Creek or San Pablo Bay. When operations are completed, any excess material shall be removed from the work area and any adjacent area where such material may be washed into Novato Creek or San Pablo Bay.

15. Construction contractors working on the Project shall be required to provide their employees with spill prevention and response training and shall be required to have spill response equipment available at the job site, as directed by the Discharger. Contractors shall provide double containment for any hazardous materials or wastes at the job site. Contractors shall be prepared to respond to any spill immediately and to fully contain spills in the area, including any open-water areas.
16. The Discharger shall maintain a copy of this Order at its headquarters at 1515 Clay Street, Suite 1000, Oakland, CA 94612. The Order shall be available at all times to site personnel. The Discharger shall ensure that all individuals working on the site, including all contractors and sub-contractors, are familiar with the contents and requirements of this Order and with all relevant plans and BMPs.
17. The Discharger shall permit the Regional Water Board or its authorized representative, upon presentation of credentials:
 - i. Entry onto premises on which wastes are located and/or in which records are kept.
 - ii. Access to copy any records required to be kept under the terms and conditions of this Order.
 - iii. Inspection of any monitoring equipment, construction area(s), or monitoring method completed as part of the Project.
 - iv. Sampling of any discharge or surface water covered by this Order.
18. This Order does not authorize commission of any act causing injury to the property of another or of the public; does not convey any property rights; does not remove liability under federal, State, or local laws, regulations or rules of other programs and agencies; nor does this Order authorize the discharge of wastes without appropriate permits from this agency or other agencies or organizations.
19. The Discharger shall immediately notify the Regional Water Board by telephone or email whenever an adverse condition occurs as a result of the proposed discharge or construction activities. An adverse condition includes, but is not limited to, a violation or threatened violation of the conditions of this Order, significant spill of petroleum products or toxic chemicals, or other events that could affect compliance. Pursuant to Water Code section 13267(b), a written notification of the adverse condition shall be submitted to the Regional Water Board within two weeks of occurrence. The written notification shall identify the adverse condition, describe the action(s) necessary to remedy the condition, and specify a time schedule for performance, subject to modification by the Regional Water Board.
20. The Discharger shall halt work activities if dead or dying fish, or fish exhibiting stress, are observed within 1,000 feet of work activity or discharge. The Discharger shall immediately assign a qualified biologist to investigate the cause of the problem, and to identify an acceptable response, if the cause is determined to be the work activity or discharge. The Discharger shall immediately report all incidents of dead, dying, or stressed fish, as well as prescribed action plans, to the Regional Water Board by calling (510) 622-2369 and to the

California Office of Emergency Services at (800) 852-7550.

21. All reports pursuant to this Order shall be prepared under the supervision of a suitable professional in the State of California.
22. This Order is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the Water Code and section 3867 of Title 23 of the California Code of Regulations.
23. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to Title 23, section 3855(b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
24. The Discharger has paid in full the application fee for the Project of \$200.00, which was received by the Regional Water Board on October 24, 2016. An annual fee for WDRs pursuant to section 13260 of the Water Code is required.
25. The Regional Water Board may modify, or revoke and reissue, this Order if present or future investigations demonstrate that the discharge(s) governed by this Order shall cause, have the potential to cause, or shall contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters. The Regional Water Board may reopen this Order to review results of the Discharger's and Regional Water Board staff's studies and new data on section 303(d)-listed contaminants and decide whether effluent limits should be revised.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 14, 2018.

Bruce H. Wolfe
Executive Officer

References

Tables: 1-4

Figures: 1-4

Attachment A

References

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TABLES

Table 1. Summary of Cut (Excavation) and Fill for Phase 1 of the Bel Marin Keys Wetland Restoration Project

Project Element	Acres	Square feet	Total Excavation Amount (cubic yards)	Total Fill Amount (cubic yards)
Total Project Area	906	39,465,360	1.8 million (net)	1.4 million
New Bayfront Levee	85.95 – Total footprint	3,702,600	None	1.4 million – permanent fill material from Borrow Areas, excavated seasonal ponds, excavated alkali wetlands, excavated new levee drainage ditches (levee fill would be compacted)
Borrow Areas	146 – North Borrow Area 288 – South Borrow Area	6,372,000 12,557,000	1.7 million – excavation to construct New Bayfront Levee	None
Seasonal Wetland Complex Creation	16	696,960	60,000 – excavation to create seasonal wetlands	None
Alkali Meadow Creation	9	392,040	20,000 – excavated to create alkali wetlands	None
Novato Sanitary District Effluent Pipeline	0.10 – new HDPE pipe 0.003 – new outfall connection	4,250 120	4,000	3,000 (backfill around new pipe) 450 (fill existing pipe to abandon)
Site Drainage Modifications	0.53 – new drainage ditch west of new levee 1.43 – new drainage ditches east of new levee 0.05 – new levee pump station and pipe connection 0.001 – culvert at PG&E Access Road 0.02 – culvert at Borrow Area Access, mid-levee	23,160 62,400 2,000 50 800	16,000 – new west drainage ditch 10,000 – new east drainage ditches	0 (no net/permanent fill for culvert at Borrow Area Access, mid-levee)
Access Roads	0.75 – PG&E Access Road (permanent) 0.59 – total area of fill for access crossings within Borrow Areas (8-16 temporary or permanent ditch crossings) 0.04 – total area of fill for access crossings to alkali meadow creation area (2 temporary or permanent ditch crossings)	32,500 27,450	None	600 – permanent fill (gravel) for PG&E access Road 10,200 – fill for all culverts in Borrow Areas 1,275 – fill for crossings to alkali meadow

Table 2. Summary of Pre- and Post-Phase 1 Conditions and Jurisdictional Waters at the Bel Marin Keys Unit V Wetland Restoration Project

Feature Type	Existing Condition		Post-Project Conditions		Net Change	
	Extent		Extent		Extent	
	Linear feet	Area (acres)	Linear feet	Area (acres)	Linear feet	Area (acres)
Wetlands						
Saline emergent wetland		26.12		25.33		-0.79
Seasonal wetland		12.29		36.39		+24.10
Farmed wetland		0.11		0.11		0
<i>SubTotal</i>		38.52		61.83		+23.31
Other Waters of the U.S.						
Pond		13.01		13.01		0
Drainage channel	37,732	4.98	42,903	5.78	6,771	+0.80
<i>SubTotal</i>	37,732	17.99	42,903	18.79	6,771	+0.80
Non-Jurisdictional Features						
Transitional Habitat/ Uplands/Farmland/ Roads/Minor Built Structures		849.11		825.00		-24.11
<i>SubTotal</i>		849.11		825.00		-24.11
PROJECT TOTALS						
Non-jurisdictional Features		849.11		825.00		-24.11
Wetlands and Other Waters (Jurisdictional) Features		56.51		80.62		+24.11
Total Acreage		905.62		905.62		0

SOURCE: ESA, 2016. Area subtotals subject to rounding.

Table 3. Net Change in Waters and Wetlands for Phase 1 of the Bel Marin Keys Unit V Wetland Restoration Project (includes wetlands and waters)

	Temporarily Impacted		Permanently Impacted		Created		Net Change	
	Linear Feet	Area (Acres)	Linear feet	Area (acres)	Linear feet	Area (acres)	Linear feet	Area (acres)
Wetlands								
Saline emergent wetland		0.61		0.79		0		-0.79
Seasonal wetland		0		0.90		25.00		24.10
Farmed wetland		0		0		0		0
<i>SubTotal</i>		0.61		1.69		25.00		23.31
Other Waters of the U.S.								
Pond		0		0		0		0
Drainage channel	3,000	0.86	14,619	1.16	21,390	1.96	6,771	0.80
<i>SubTotal</i>	3,000	0.86	14,619	1.16	21,390	1.96	6,771	0.80
Total		1.47		2.85		26.96		24.11

Table 4. Dredged Material Screening Criteria (RWQCB 2000) Proposed for Use at the Bel Marin Keys Unit V Wetland Restoration Project*

Constituent	Wetland Surface	Wetland Foundation
Inorganics	(mg/kg)	(mg/kg)
Arsenic	15.3	70
Cadmium	0.33	9.6
Chromium	112	370
Copper	68.1	270
Lead	43.2	218
Mercury	0.43	0.7
Nickel	112	120
Selenium	0.64	
Silver	0.58	3.7
Zinc	158	410
Organics	(µg/kg)	(µg/kg)
PAHs, total	3,390	44,792
Chlordanes, total	2.3	4.8
DDTs, total	7	46.1
Dieldrin	0.72	4.3
PCBs, total	22.7	180
**Dioxins (total	0.02	0.02

*Note that burial of wetland foundation material under 3 feet of surface material is not approved, and depends on Executive Officer approval of a plan to isolate the material and prevent channel incision.

** Not required by the Regional Water Board; may be required by USFWS

FIGURES

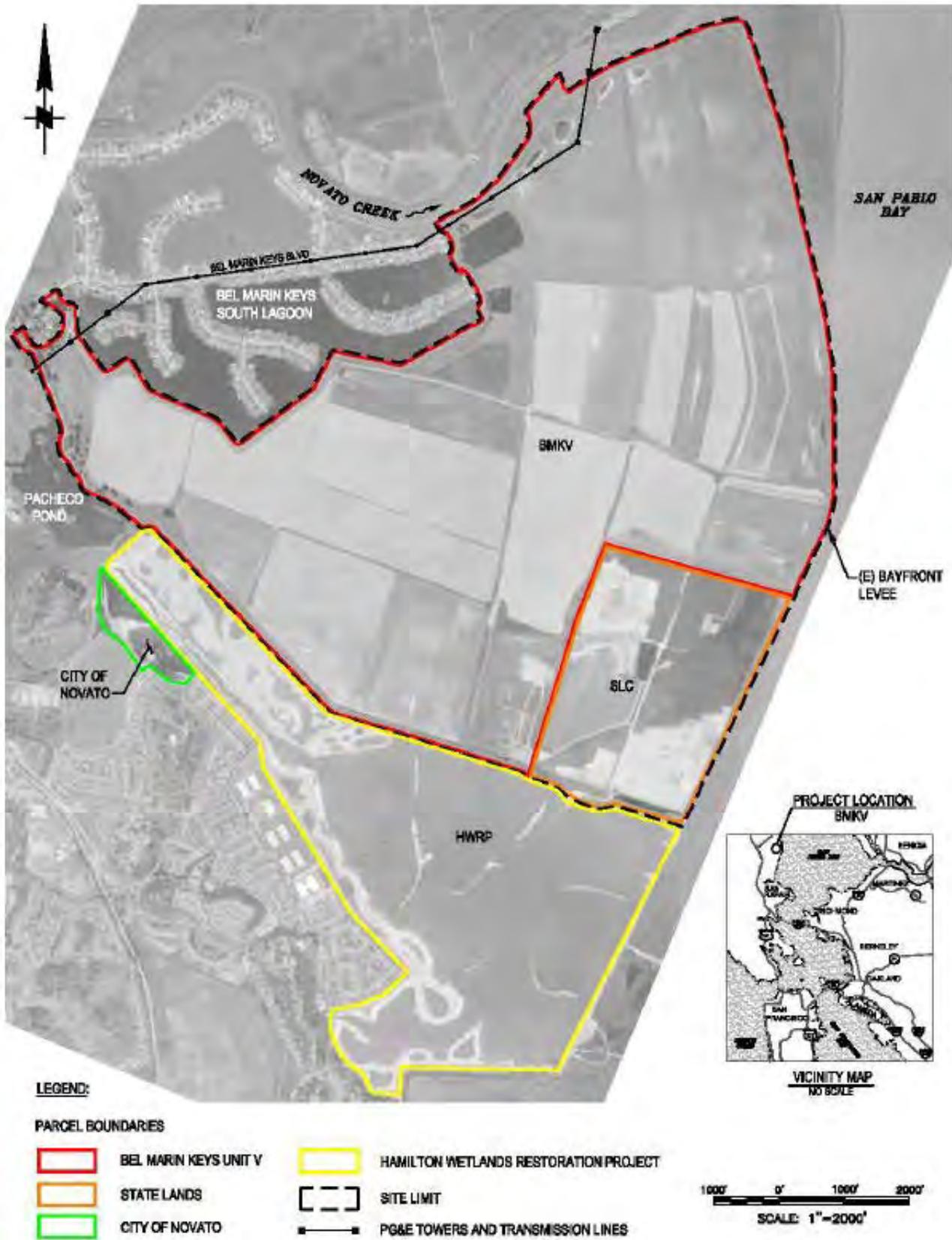


Figure 1. Project Location

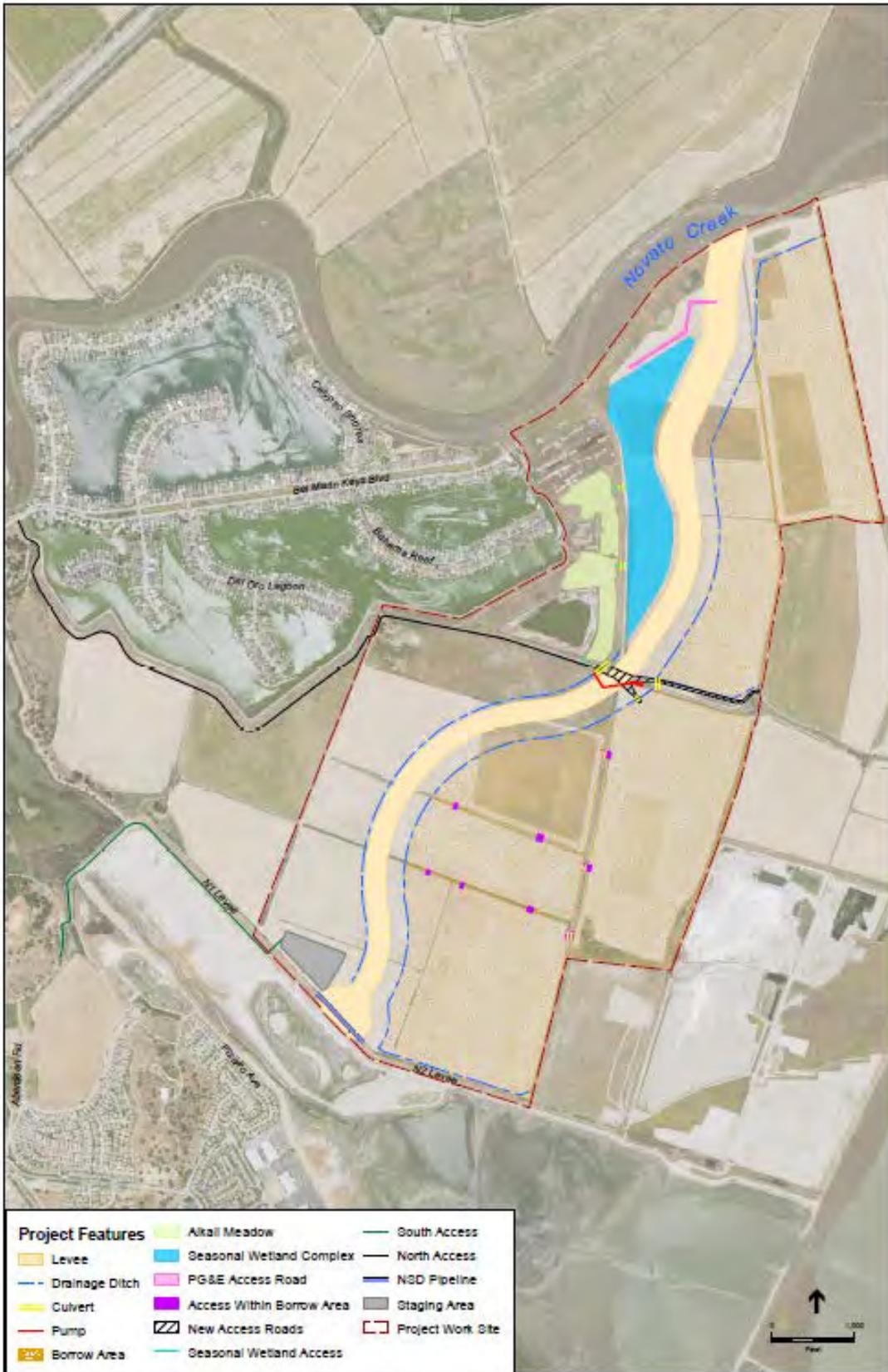


Figure 2. Project Elements

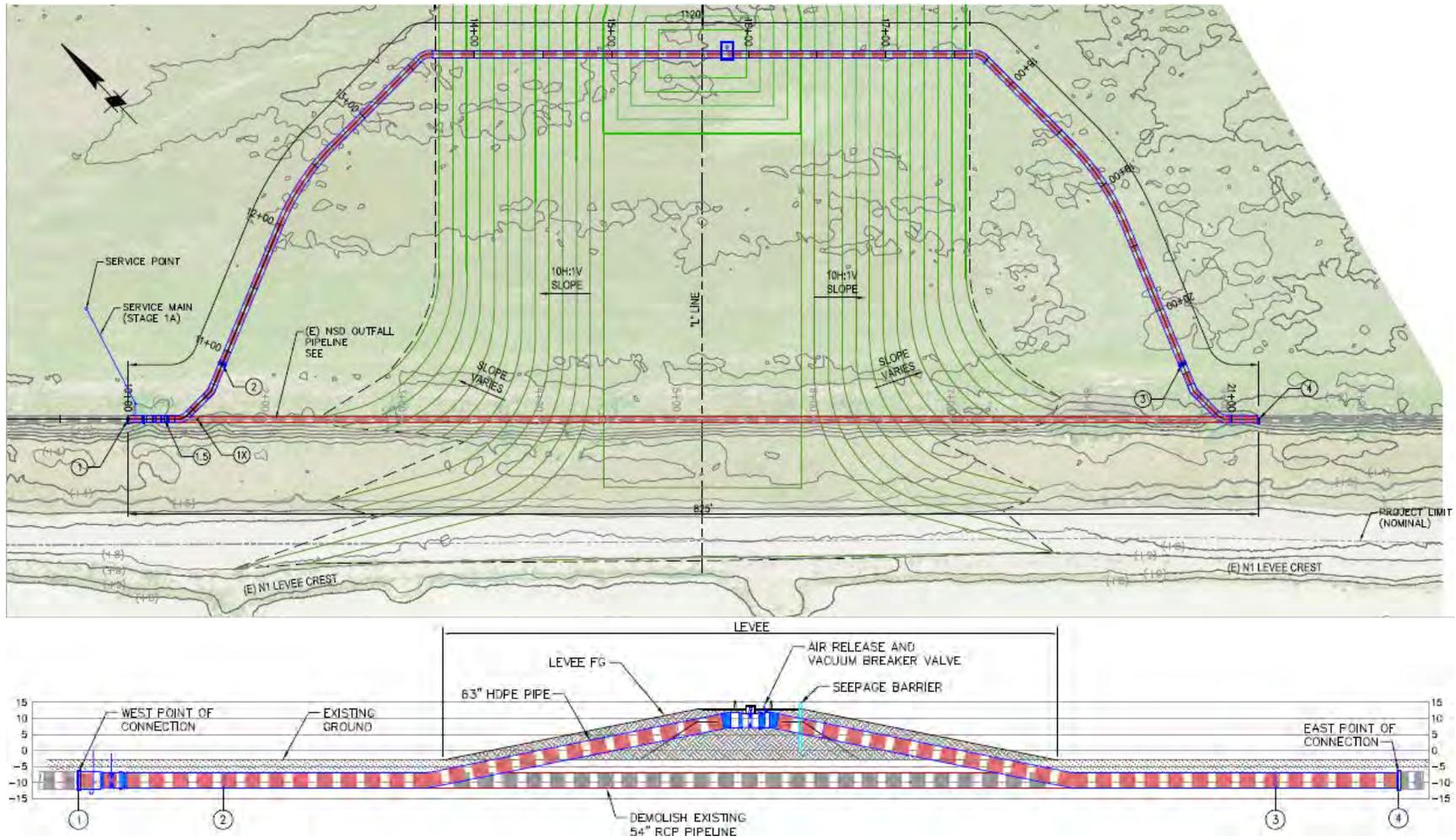


Figure 3. South Levee Tie-In & Future Novato Sanitary District Outfall

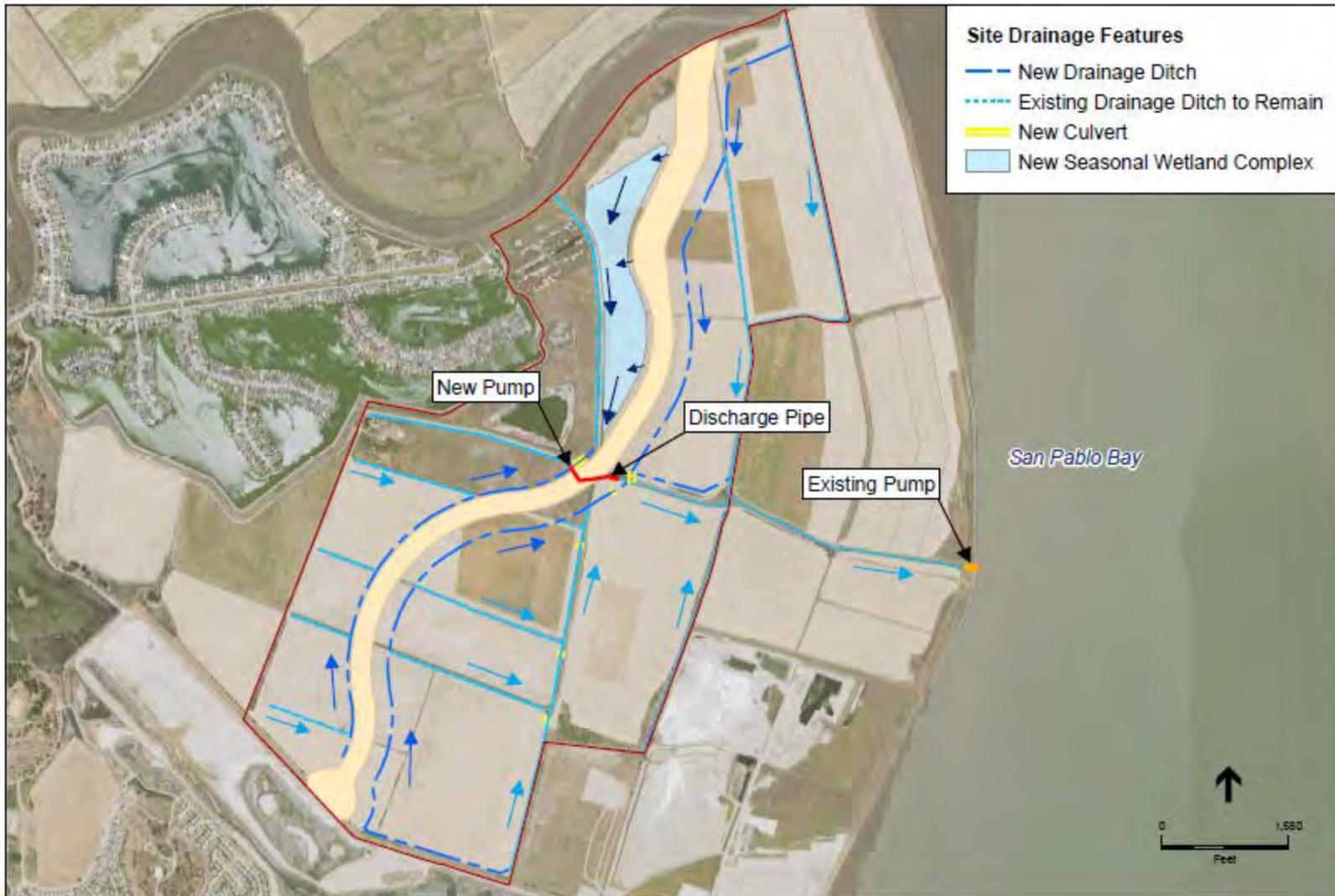


Figure 4. Site Drainage Modifications

ATTACHMENT A:
Conservation Measures to
Protect Water Quality and Other Environmental Features
From the 2017 U.S. Fish and Wildlife Service Concurrence Letter

The Applicant and their contractors will implement the following conservation measures to minimize adverse effects to all potential special-status species in the area, including western snowy plover:

1. Field and construction personnel involved with the Project will attend environmental resources training program developed by a Service-approved biologist. Material covered will include environmental rules and regulations applicable to the specific Project and requirements for avoiding sensitive resource areas.
2. If new personnel area added to the Project, the contractor will ensure new personnel receive the mandatory training before starting work. A representative will be appointed during the employee education program to be the point of contact for communicating with regulatory agencies for reporting or incidents.
3. Any special-status species observations during surveys will be reported to the appropriate agencies and added to the California Natural Diversity Database (CNDDB).

Salt Marsh Harvest Mouse

The Applicant and their contractors will implement the following conservation measures to minimize adverse effects to the salt marsh harvest mouse:

1. A Service-approved biologist will be onsite during all ground-disturbing activities within suitable wetland habitat and will be responsible for informing the construction crews of the need to halt work if sensitive species observations are made, documenting compliance with the conservation measures, and contacting the Service within one day if any work stoppage results from species observation at the work site.
2. Vegetation within salt marsh harvest mouse habitat will be removed to bare ground using hand tools and/or another method approved by the Service and California Department of Fish and wildlife.
3. Exclusion fencing will be installed around project work areas and immediately following vegetation removal. Fencing will consist of a material that does not allow salt marsh harvest mouse to pass through or over, and the bottom will be buried to a depth of at least six inches. Any supports for the exclusion fence (e.g., t-posts) will be installed on the interior of the Project Area.
4. Prior to the start of any daily ground disturbance activities, the Service-approved biologist will inspect the exclusion fence boundary and insure it has not been compromised. If any salt marsh harvest mice are discovered, construction activities will stop in the area, the Service will be contacted, and the individual mice will be monitored until they leave of their own volition.
5. All equipment will be staged on existing roadways, away from suitable wetland habitats,

when not in use. No project activities will occur within 50 feet of suitable habitat during extreme high tide events or when adjacent tidal marsh is flooded unless salt marsh harvest mouse exclusion fencing has been installed around the work area and the fence is not compromised by the flooding nor precluding the only refuge for the species.

California Clapper Rail

The Applicant and their contractors will implement the following conservation measures to minimize adverse effects to the California clapper rail:

1. Project activities occurring within 700 feet of tidal marsh areas containing suitable habitat for California clapper rails, will be avoided during the breeding season (February 1 through August 31).

NOVATO SANITARY DISTRICT

PROPOSED SCHEDULE TO CONSIDER MODIFICATIONS AND ESTABLISH MAXIMUM SOLID WASTE SERVICE CHARGES FOR CALENDAR YEAR (CY) 2020

September 9, 2019	Regular Board meeting - set Public Hearing date for November 18, 2019.
September 26, 2019 Or October 3, 2019	Solid Waste Committee meeting to consider rate review report and make recommendation to Board of Directors.
October 14, 2019	Regular Board meeting. Board receives report and recommendation from Solid Waste Committee.
October 17, 2019	1st Public Hearing legal notice published in Marin Independent Journal.
October 31, 2019	2nd Public Hearing legal notice published in Marin Independent Journal.
November 18, 2019	Special Board meeting (as November 11, 2019 is Veterans Day, a District holiday). Public Hearing to hear public comments and consider adoption of Resolution Setting Maximum Refuse Charges for Recology Sonoma Marin (RSM).
November 20, 2019 (or first available publication date).	Publication of Resolution and Refuse Disposal Charges in Marin Independent Journal, to be effective January 1, 2020.

Public Hearing Noticing Procedures:

- Hearing Notice published once a week for two successive weeks with at least 5 days intervening between the respective publication dates. First publication to be at least 14 days prior to the date set for hearing. (Publish in Marin IJ).
- Resolution with new rates to be published once in the IJ to be effective on January 1, 2020.

NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

TITLE: Wastewater Operations Report, August 2019.

MEETING DATE: September 9, 2019

AGENDA ITEM NO.: 7.a.

RECOMMENDED ACTIONS: Receive Wastewater Operations Report for August 2019:

- Collection System
- Treatment Facilities
- Reclamation Facilities

SUMMARY AND DISCUSSION:

The August 2019 Wastewater Operations Report incorporating operations reports for collections system, wastewater treatment facilities, and the reclamation facilities is attached. District and Veolia staff will be present at the meeting to provide overviews of the reports for their operational areas, and be available to discuss the reports or respond to any questions.

ATTACHMENTS: 1. Wastewater Operations Reports for the month of August 2019.

STRATEGIC PLAN INFORMATION: This item addresses Goal 1 (Operational Excellence) and Goal 2 (Reliable and Efficient Facilities) of the latest Strategic Plan Update.

DEPT. MGR.: JO (Veolia), JA, JJB

GENERAL MANAGER: SSK

**Novato Sanitary District
Wastewater Operations - Collection System Operations Report
August 2019**

1.0 General:

The equivalent of about seven (7) full time employees (FTEs) worked on collection system maintenance activities during the month. The breakdown of staff time for the month in terms of equivalent FTE hours utilized, works out approximately as follows:

- 1.5 FTE field workers for Sewer Maintenance (main line cleaning)
- 1.6 FTE field workers for Pump Station Maintenance
- 1.0 FTE field workers for Closed Circuit Television (CCTV) work
- 0.0 FTE field workers for Underground Service Alert Mark and Locate (USA)
- 2.1 FTE field workers for time spent on data input, training, service calls, overflow response, or any other activity that does not directly relate to the activities listed above, or special activities (for e.g. smoke testing of mainlines), and
- 0.9 FTE field workers for vacation, holiday or sick leave.

2.0 Collection System Maintenance:

Performance metrics are presented in the attached graphs showing the length of line cleaned/month, footage cleaned/hour worked, overflows/month, and the CCTV footage achieved. A brief discussion is also provided below.

Line Cleaning Performance:

The sewer system ICOM3 Computerized Maintenance Management System (CMMS) generated 255 work orders for the month. Collections staff completed 255 work orders, leaving zero (0) work orders outstanding. The completed work orders resulted in 45,702 feet of sewer pipelines cleaned by staff. Approximately 6,402 feet of that total was performed by CCTV inspection in lieu of physical cleaning.

Closed Circuit Television (CCTV) Performance:

The District's CCTV equipment was in the field for seventeen (17) working days and televised a total of 27,451 feet of sewer main.

CCTV Findings:

- Infrastructure-related: CCTV work did not identify any new issue related to infrastructure.
- O&M related: CCTV work did not identify any area that would require a change in sewer line maintenance operations.

3.0 Pump Station Maintenance:

Collections staff conducted 173 lift station inspections this month. 41 of the inspections were generated through the District's JobsCal Plus CMMS system. There are no outstanding work orders for the month.

A Pump Stations' Work Order Statistics summary is attached.

4.0 Air Relief/Vacuum Valves (ARVs):

Staff completed maintenance inspections on four (4) air relief/vacuum valves this month.

**Novato Sanitary District
Wastewater Operations - Collection System Operations Report
August 2019**

5.0 Safety and Training:

General:

Collections staff attended four (4) safety tailgate meetings in August.

Specialized Training:

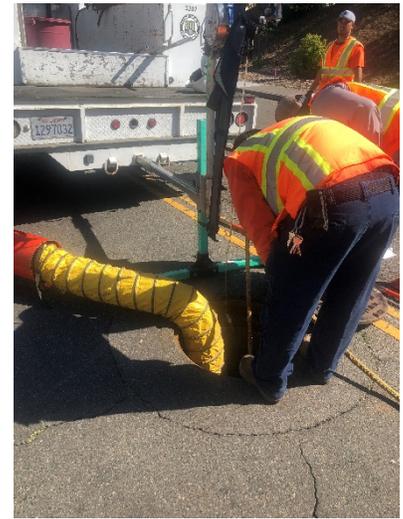
No specialized training this month.

Safety performance:

There were no lost time accidents for the month of August.

6.0 Miscellaneous Projects:

- The HMCP (motor circuit protector) @ Canyon pump station was replaced.
- Two Vac-Truck Demonstrations
- 1 spot repair - 12 feet of 6" pipe on Pivato Court to repair two holes in the clay pipe.
- Made a confined space entry to retrieve a CCTV Camera stuck in a 6" line.



Collections Crew conducting a confined space entry to retrieve a lodged CCTV camera.

7.0 Sanitary Sewer Overflows (SSOs):

There were no (zero) sanitary sewer overflows in August. The No Spills certification IID#2551236.

Novato Sanitary District
Collection System Monthly Report For August 2019 (as of August 31, 2019)

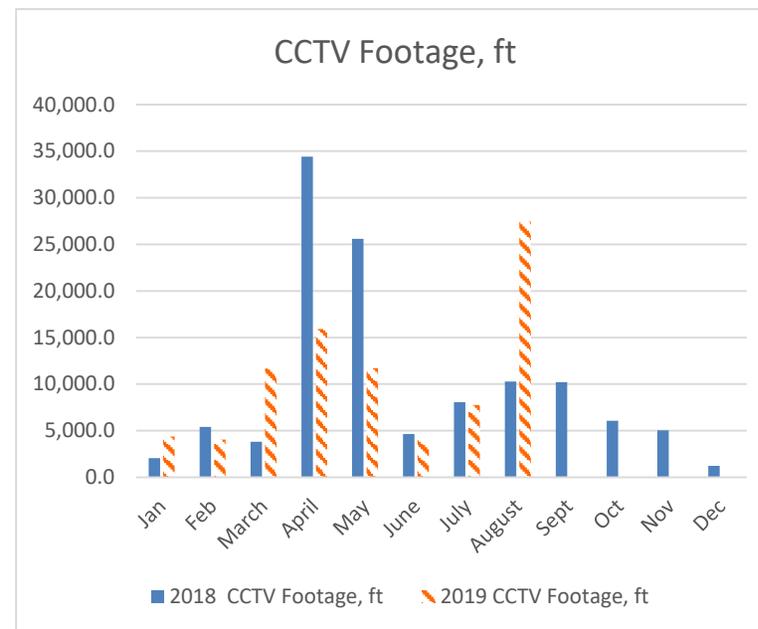
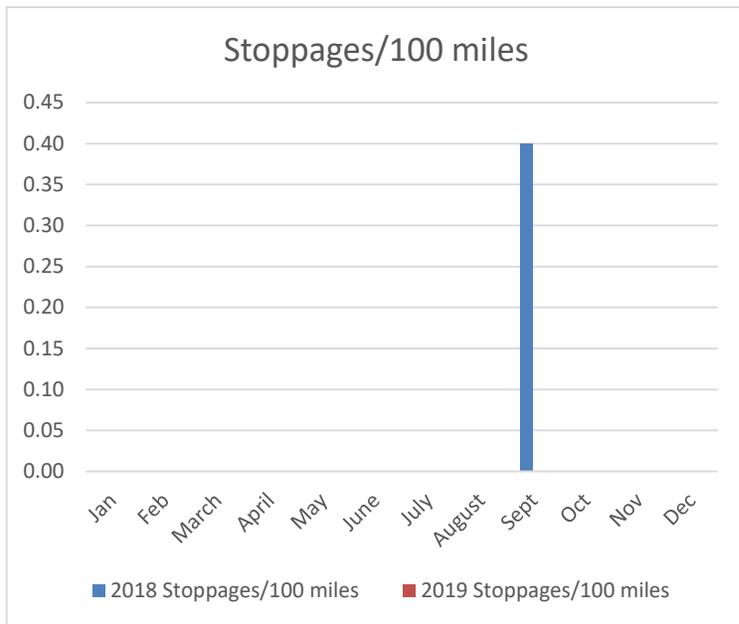
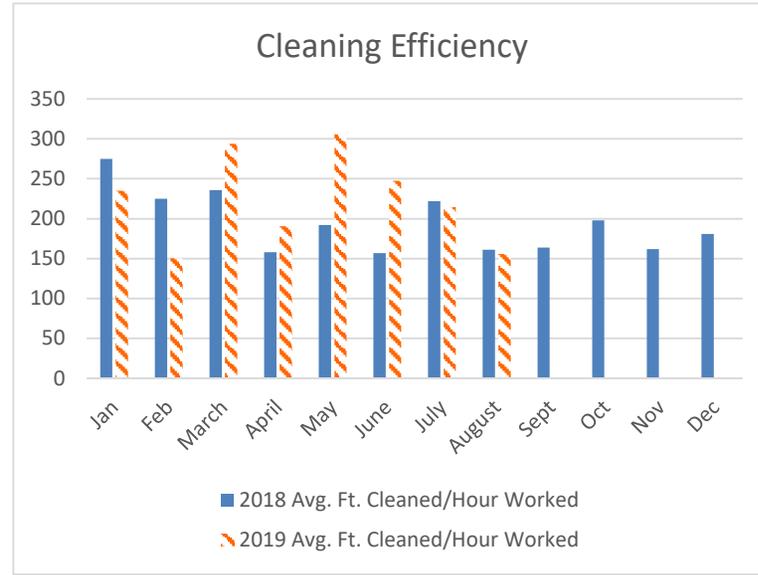
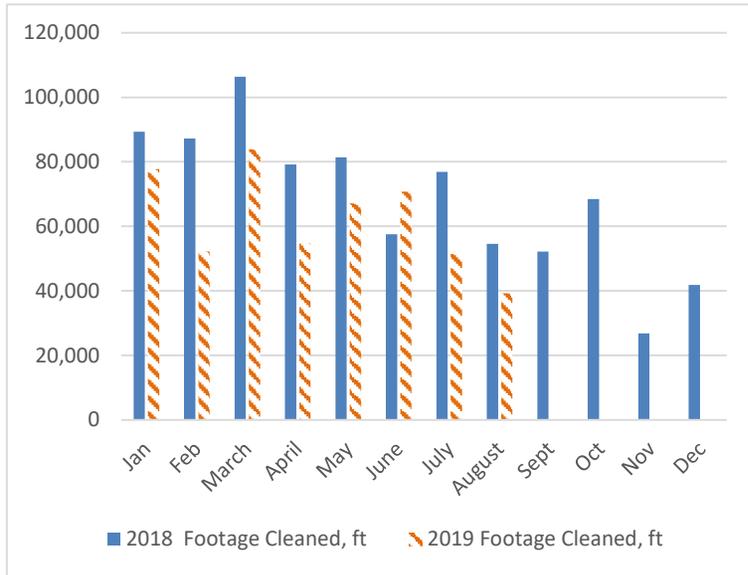
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	Total Year to Date	Average Year to Date
A. Employee Hours Worked														
Number of FTEs (main line cleaning)	1.8	2.2	1.7	1.9	1.2	1.8	1.3	1.5	0.0	0.0	0.0	0.0	NA	1.1
Number of FTEs (other)	1.9	2.7	3.0	3.0	3.2	3.4	1.7	2.1	0.0	0.0	0.0	0.0	NA	1.7
Number of FTEs (USAs)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0
Number of FTEs (CCTV)	0.1	0.2	0.2	0.1	0.1	0.1	0.5	1.0	0.0	0.0	0.0	0.0	NA	0.2
Total, FTEs	3.8	5.1	4.9	5.0	4.6	5.3	3.5	4.5	0.0	0.0	0.0	0.0	NA	3.1
Regular Time Worked, (main line cleaning), hrs	331	348	286	288	220	286	240	253	0	0	0	0	2,249	187
Regular Time Worked on Other, hrs (1)	355	421	489	458	575	545	311	356	0	0	0	0	3,508	292
Regular Time Worked on USAs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Regular Time Worked on CCTV (2)	22	32	33	21	21	15	98	166	0	0	0	0	406	34
Total Regular time, worked, hrs	707	800	807	766	816	846	648	774	0	0	0	0	6,162	514
Total Vacation/Sick Leave/Holiday, hrs	197	164	175	129	238	79	403	159	0	0	0	0	1,543	129
Vacation/Sick Leave/Holiday, FTEs	1.1	1.0	1.1	0.8	1.3	0.5	2.2	0.9	0.0	0.0	0.0	0.0	9.0	0.7
Overtime Worked on Coll. Sys., hrs	24	42	11	4	4	18	5	8	0	0	0	0	115	10
Overtime Worked on Other, hrs (1)	2	2	0	14	9	4	10	3	0	0	0	0	43	4
Overtime Worked on USAs, hrs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overtime Worked on CCTV (2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Overtime, hrs	26	44	11	18	13	21	15	11	NA	NA	NA	NA	158	20
B. Productivity														
1. Line Cleaning														
Rodder Work Orders generated	43	33	61	24	23	57	29	59	0	0	0	0	329	27
Rodder 3208 ft. cleaned	1,453	681	5,520	4,872	6,711	9,624	5,408	3,157	0	0	0	0	37,426	3,119
Rodder - outside services, ft cleaned	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flusher Work Orders generated	338	240	390	366	354	311	347	196	0	0	0	0	2,542	212
Truck 3205V ft. cleaned	0	1,314	352	0	4,154	0	0	1,854	0	0	0	0	7,674	640
Truck 3206V ft. cleaned	14,940	5,330	15,040	13,499	28,015	12,282	5,711	0	0	0	0	0	94,817	7,901
Truck 3209F ft. cleaned	61,343	44,888	62,994	36,430	28,238	48,810	40,305	34,289	0	0	0	0	357,297	29,775
Flusher - outside services, ft. cleaned	0	405	0	0	0	34,577	17,861	0	0	0	0	0	52,843	0
Total Footage cleaned(3)	77,736	52,213	83,906	54,801	67,118	70,716	51,424	39,300	NA	NA	NA	NA	497,214	62,152
Work Orders completed	381	306	451	390	377	543	376	0	0	0	0	0	2,824	235
Work Orders backlog	0	0	0	0	0	0	0	255	0	0	0	0	255	85
2. Closed Circuit Television (CCTV)														
Camera Work Orders generated	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CCTV Truck 3126T, ft. videoed	3,405	3,465	7,839	2,345	3,183	2,063	5,760	24,295	0	0	0	0	52,355	4,363
CCTV (hand cam), ft. videoed	979	596	3,839	13,582	8,529	1,927	1,982	3,156	0	0	0	0	34,590	2,883
CCTV Inspection - outside services, ft. videoed	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total CCTV footage(3)	4,384	4,061	11,678	15,927	11,712	3,990	7,742	27,451	NA	NA	NA	NA	86,945	10,868
C. Sanitary Sewer Overflows (SSOs)														
Minor (Category III)	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Major (Category II)	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Major (Category I)	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Overflow Gallons	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Volume Recovered	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Percent Recovered	NA	NA	NA	NA	NA	NA	NA							
D. Service Calls (non-SSO related)														
Service calls, normal hours, #	7	4	6	2	5	0	5	2	0		0	0	31	3
Normal hours S.C. response time, mins (avg.)	26.4	18.25	19.83	10	30	0	12.6	8	0	0	0	0	125	10
Service Callouts, after hours, #	0	0	0	4	0	0	1	0	0	0	0	0	5	0
After Hours S.C. response time, mins (avg.)	NA	NA	NA	33	NA	NA	19	NA	NA	NA	NA	NA	52	26
E. Benchmarks														
Average Ft. Cleaned/Hour Worked	235	150	294	191	306	247	215	156	NA	NA	NA	NA	NA	224
Total Stoppages/100 Miles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
Average spill response time (mins)	0	0	0	NA	NA	NA	0	NA	NA	NA	0	NA	NA	0
Callouts/100 Miles	0.0	0.0	0.0	1.8	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	2.2	0.2
Overtime hours/100 Miles	11	19	5	2	2	8	2	3	0	0	0	0	51.11	4
Overflow Gallons/100 Miles	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(1) This category includes time spent on: Data input, Training, Service Calls, Overflow Response, as well as any other activity that does not directly relate to main line cleaning or CCTV work.

(2) This category separates time spent on CCTV from other Collection System maintenance activities.

(3) Does not include outside services (tracked separately)

Collection System: 2018 & 2019 Graphs



Novato Sanitary District

Pump Station Monthly Report For August 2019 (as of August 31, 2019)

	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	Total Year to Date	Average Year to Date
Employee Hours Worked	262	188	203	202	224	236	283	318	0	0	0	0	1,913	
Number of Employees (FTEs)	1.1	0.9	1.1	1.1	1.1	1.2	1.4	1.6	0.0	0.0	0.0	0.0		0.8
Regular Time Worked on Pump Sta	200	149	174	173	199	196	255	274	0	0	0	0	1,619	
Overtime Worked on Pump Sta	62	39	30	29	25	40	28	44	0	0	0	0	294	
After Hours Callouts	0	0	0	0	0	0	0	0	0	0	0	0	0	
Average Callout response time (mins)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Work Orders														
Number generated in month	50	46	42	48	38	38	46	41	0	0	0	0	349	29
Number closed in month	50	46	42	48	38	38	46	41	0	0	0	0	349	29
Backlog	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**PUMP STATIONS
WORK ORDER STATISTICS
August 1, 2019-August 31, 2019**

	Open Work Orders Due Prior to 8/1/2019	Open Work Orders 8/1/2019-8/31/2019	Total Open Work Orders
Preventive	0	41	41
Corrective	0	0	0
Total	0	41	41

	Closed Work Orders 8/1/2019 -8/31/2019
Preventive	41
Corrective	0
Total	41

Total Outstanding Work Orders as of 8/31/2019	0
--	----------



August 4, 2019

Mr. Sandeep Karkal
General Manager – Chief Engineer
Novato Sanitary District
500 Davidson Street
Novato, CA 94545

Subject: Veolia Water Operations Report – August 2019

Dear Mr. Karkal:

I am pleased to provide the Monthly Operations report for August 2019.

As always, please give me a call at 707-292-3022 should you have any questions.

Best regards,

A handwritten signature in blue ink that reads "John P. O'Hare".

John P. O'Hare
Project Manager, Veolia



MONTHLY OPERATIONS REPORT
August 2019

Prepared for

NOVATO SANITARY DISTRICT (NSD)
WASTEWATER TREATMENT PLANT
500 Davidson Street
Novato, CA 94945

Prepared by

Veolia Water West Operating Services, Inc. (VWWOS)

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 - 2) Laboratory Data
 - 3) Recycled Water Report
 - 4) Annual Performance Summary - Graphs
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 - 7) Jerome Meter Readings and Locations
-

A: TREATMENT PLANT PERFORMANCE SUMMARY – August 2019

National Pollution Discharge Elimination System Permit – Table 1.0

Parameter	Value		Limits	
	Ave	Max		
Flow, MGD (monthly ave/max)	3.49	4.03	N/A	
Influent				
BOD ₅ , lb/day (month ave/max)	9,434	10,734	N/A	
TSS, lb/day (monthly ave/max)	9,098	10,327	N/A	
Effluent				
BOD ₅ , mg/L (monthly ave/max weekly ave)	<5	<5	15	30
TSS, mg/L (monthly ave/max weekly ave)	<3	4	10	20
BOD ₅ - % Removal, Average	98		85 minimum	
TSS - % Removal, Average	99		85 minimum	
Ammonia, mg/L – (monthly ave/daily max)	N/A	N/A	5.9	21
pH, su (min / max)	6.7	7.2	6.5	8.5
Enterococcus, MPN/100 ml (30 day geo mean)	N/A		35	
Fecal Coliform, MPN/100 ml (monthly median)	N/A		140	
Fecal Coliform, MPN/100 ml (90 th PCTL)	N/A		430	
Total Coliform, MPN/100 ml (5 sample median)	64		240	
Total Coliform, MPN/100 ml (monthly maximum)	1,213		10,000	

Title 22 - Recycled Water Production and Quality – Table 2.0

Description	Units	Value	Limit
Volume Produced	Million Gallons	20.838	N/A
Average Turbidity	NTU	0.5	2.0
Turbidity > 5 NTU (in 24 hour)	Minutes	14	72
Minimum CT (disinfection)	mg-min/L	>450	450 minimum
Minimum Dissolved Oxygen (DO)	mg/L	7.6	2 mg/L minimum
Maximum Total Coliform	MPN/100 ml	<1	240
Maximum Total Coliform 2 Samples 30 days	MPN/100 ml	<1	23
Total Coliform 7 Sample Median	MPN/100 ml	<1	2.2

Discussion of Violations / Excursions

- National Pollution Discharge Elimination System Permit (NPDES) Limits - None
- Recycled Water Permit – None
- Bay Area Air Quality Management District - None

B: SAFETY AND TRAINING:

- Monthly plant safety inspections for Novato Wastewater Treatment Plant and Ignacio Transfer Pump Station completed
- Tailgate training held during weekly meetings
- No safety incidents for the month of August 2019
- Monthly Safety Topics and Training: Fall Protection



C: OPERATIONS & MAINTENANCE STATUS / REVIEW:**Key events for the period:****Novato Wastewater Treatment Plant**

- Transferred from San Pablo Bay discharge to Reclamation on August 1, 2019
- Annual service on wet weather pumps
- Annual thermography and electrical inspection
- Thermocouples replaced on digester flare stack
- Repaired heating ventilation and air conditioning unit located in the aeration tank blower room.
- Replaced batteries on ultraviolet (UV) disinfection emergency generator
- Replaced the electronic computer unit on the UV emergency generator
- Replaced the collector arm scum box flushing sensor on primary clarifier #1

Equipment Out of Service – Due to Planned Servicing, Maintenance, Replacement, Standby

- Aeration Basin #1 & #3 (standby)
- Primary Clarifier #2 (standby)

Ignacio Transfer Pump Station

- Routine rounds, readings and preventative maintenance
- Annual thermography and electrical inspection

Equipment Out of Service – Due to Planned Servicing, Maintenance, or Replacement

- None

Recycled Water Plant (RWP)

- Routine rounds and maintenance

Equipment Out of Service – Due to Planned Servicing, Maintenance, or Replacement

- None

Sludge Lagoons (and Reclamation Area)

- Routine maintenance – managing decant and sludge levels

D: ENVIRONMENTAL SERVICES ACTIVITIES SUMMARY**Discharge to Reclamation – August 1 - 31, 2019****Regulatory Programs:****Total Coliforms**

Discharge to Reclamation requires sampling for Total Coliform. Three samples were analyzed by North Marin Water District each week during August 2019. All samples were in compliance.

Regional Monitoring Program (RMP)

Submitted the 2018 mass discharge loads for Chromium, Copper, Nickel, and Selenium to the San Francisco Estuary Institute as requested by the San Francisco Regional Water Quality Control Board to calculate the annual RMP fee.

Environmental Laboratory Accreditation Program

Liz Falejczk attended a workshop regarding the proposed changes to accreditation regulations by the California State Water Resources Control Board. Liz also attended a workshop to discuss the proposed changes to the First Revised Toxicity Provisions and Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

Bay Area Clean Water Agencies

Liz Falejczyk, Veolia Water Environmental Services Supervisor attended the BACWA Laboratory and Permits Committee meetings.

Public Education

Liz Falejczyk, and Julie Hoover, Novato Sanitary District Administrative Secretary attended the Wastewater Treatment Agencies of Marin County Public Education Program meeting.

Pretreatment Program**Pretreatment Compliance Inspection (PCI)**

- Submitted the PCI response to the San Francisco Regional Water Board Pretreatment Coordinator.

Discharge Permits

- Reissued three Significant Industrial User Discharge Permits based on the PCI required changes.
- Renewed one Groundwater Temporary Discharge Permit.

Inspections and Sampling

- Inspected 8 Food Services Establishments (FSEs).
- Received support documentation confirming compliance from 4 FSEs.

E: ADMINISTRATION:

- July 2019 Electronic Discharge Monitoring Report (EDMR-US EPA) and July 2019 Self-Monitoring Report (SMR-State of California). Notified by the Regional Water Quality Control Board that the submission of the July report would be delayed due to a database problem.

F: ODORS & LANDSCAPING:

- Jerome meter (H₂S) parts per million (ppm) readings performed in neighborhood
- All readings in neighborhood were 0 ppm

G: MISCELLANEOUS

- Process Control Management Plan (PCMP) meetings held weekly with the Veolia staff

Veolia Support Staff On/Off Site (Various Times)

Art Fagerström, PE, BCEE, Technical Manager, Corporate Technical Support
Bill Hanley, West Region Capital Projects Director
Paul Savage, West Region VP of Operations
Aaron Winer, Area Manager Northern California
James Loven, West Technical Director

1) PHOTOS

PLANT OPERATION AND MAINTENANCE AUGUST 2019



Above left – Jeff Hendricks - Veolia mechanic performing preventative maintenance on a cyclone separator
Above right – Contractor performing annual evaluation of the aeration tank main electrical system
Below left and right – Alejo Cuntapay – Veolia mechanic servicing secondary clarifier #2 scum pump

2) LABORATORY DATA

Novato Sanitary District
BOD/TSS Report



August, 2019

Date	Flow MGD	Influent				Effluent				BOD % Removal PERCENT	TSS % Removal PERCENT
		BOD		TSS		BOD		TSS			
		mg/l	lb/d	mg/l	lb/d	mg/l	lb/d	mg/l	lb/d		
08/01/19	3.50					<5	<109	<3	<65		
08/02/19	3.38					<5	<92	<3	<55		
08/03/19	3.40										
08/04/19	3.51										
08/05/19	3.38										
08/06/19	3.30	390	10,734	325	8,945	<5	<113	<3	<68	98.7	99.1
08/07/19	3.96					<5	<148	<3	<89		
08/08/19	3.37					<5	<128	<3	<77		
08/09/19	3.66										
08/10/19	3.43										
08/11/19	3.43										
08/12/19	3.34										
08/13/19	3.55					<5	<128	3	77		
08/14/19	3.46	260	7,503	266	7,676	<5	<131	<3	<79	98.1	98.9
08/15/19	3.26					<5	<121	<3	<72		
08/16/19	3.54										
08/17/19	3.51										
08/18/19	3.37										
08/19/19	4.03										
08/20/19	3.83					<5	<154	3	93		
08/21/19	3.65					<5	<123	<3	<74		
08/22/19	3.55	340	10,066	319	9,445	<5	<127	<3	<76	98.5	99.1
08/23/19	3.26										
08/24/19	3.58										
08/25/19	3.47										
08/26/19	3.16										
08/27/19	3.43			361	10,327			4	97		98.9
08/28/19	4.03							<3	<80		
08/29/19	3.50							3	74		
08/30/19	3.04										
08/31/19	3.18										
Weekly Averages											
08/03/19	Week 1					5	100	3	60		
08/10/19	Week 2	390	10,734	325	8,945	5	130	3	78		
08/17/19	Week 3	260	7,503	266	7,676	5	127	3	76		
08/24/19	Week 4	340	10,066	319	9,445	5	135	3	81		
08/31/19	Week 5			361	10,327			3	84		
Monthly											
Minimum	3.04	260	7,503	266	7,676	<5	<92	<3	<55	98	99
Maximum	4.03	390	10,734	361	10,327	<5	<154	4	97	99	99
Total	108.06										
Average	3.49	330	9,434	318	9,098	<5	<125	<3	<77	98	99

Novato Sanitary District
Conventional Pollutants Report



August, 2019

Date	INFLUENT - A001			Effluent - E002							
	Flow	pH	Ammonia	Coliform / Bacteria			pH	Ammonia	Oil & Grease	Temp	Rainfall
	Total			Fecal	Entero	Total					
	MGD	su	mg/L	MPN/100 mL			su	mg/L	mg/L	Deg C	Inches
08/01/19	3.50					15	6.9			24.5	0.00
08/02/19	3.38	7.0				16	6.9			24.5	0.00
08/03/19	3.40					28					0.00
08/04/19	3.51										0.00
08/05/19	3.38					46	7.0			23.6	0.00
08/06/19	3.30					33	7.0			24.8	0.00
08/07/19	3.96					5	6.9			23.7	0.00
08/08/19	3.37						6.9			24.2	0.00
08/09/19	3.66	7.4					6.8			24.6	0.00
08/10/19	3.43										0.00
08/11/19	3.43										0.00
08/12/19	3.34					46	6.9			25.1	0.00
08/13/19	3.55					43	6.9			24.8	0.00
08/14/19	3.46					64	6.9			24.9	0.00
08/15/19	3.26						6.7			25.7	0.00
08/16/19	3.54	7.2					6.8			25.5	0.00
08/17/19	3.51										0.00
08/18/19	3.37										0.00
08/19/19	4.03					70	7.0			24.4	0.00
08/20/19	3.83					60	7.1			24.1	0.00
08/21/19	3.65					62	7.2			25.0	0.00
08/22/19	3.55						7.1			25.3	0.00
08/23/19	3.26	7.2					7.0			26.6	0.00
08/24/19	3.58										0.00
08/25/19	3.47										0.00
08/26/19	3.16					110	7.1			25.0	0.00
08/27/19	3.43					7	7.2			25.0	0.00
08/28/19	4.03					1,213	7.1			24.8	0.00
08/29/19	3.50						7.0			25.6	0.00
08/30/19	3.04						7.0			25.1	0.00
08/31/19	3.18										0.00
Monthly											
Minimum	3.04	7.0				5	6.7			23.6	0.00
Maximum	4.03	7.4				1,213	7.2			26.6	0.00
Total	108.06										0.00
Average	3.49	7.2					7.0			24.9	0.00
Geomean											

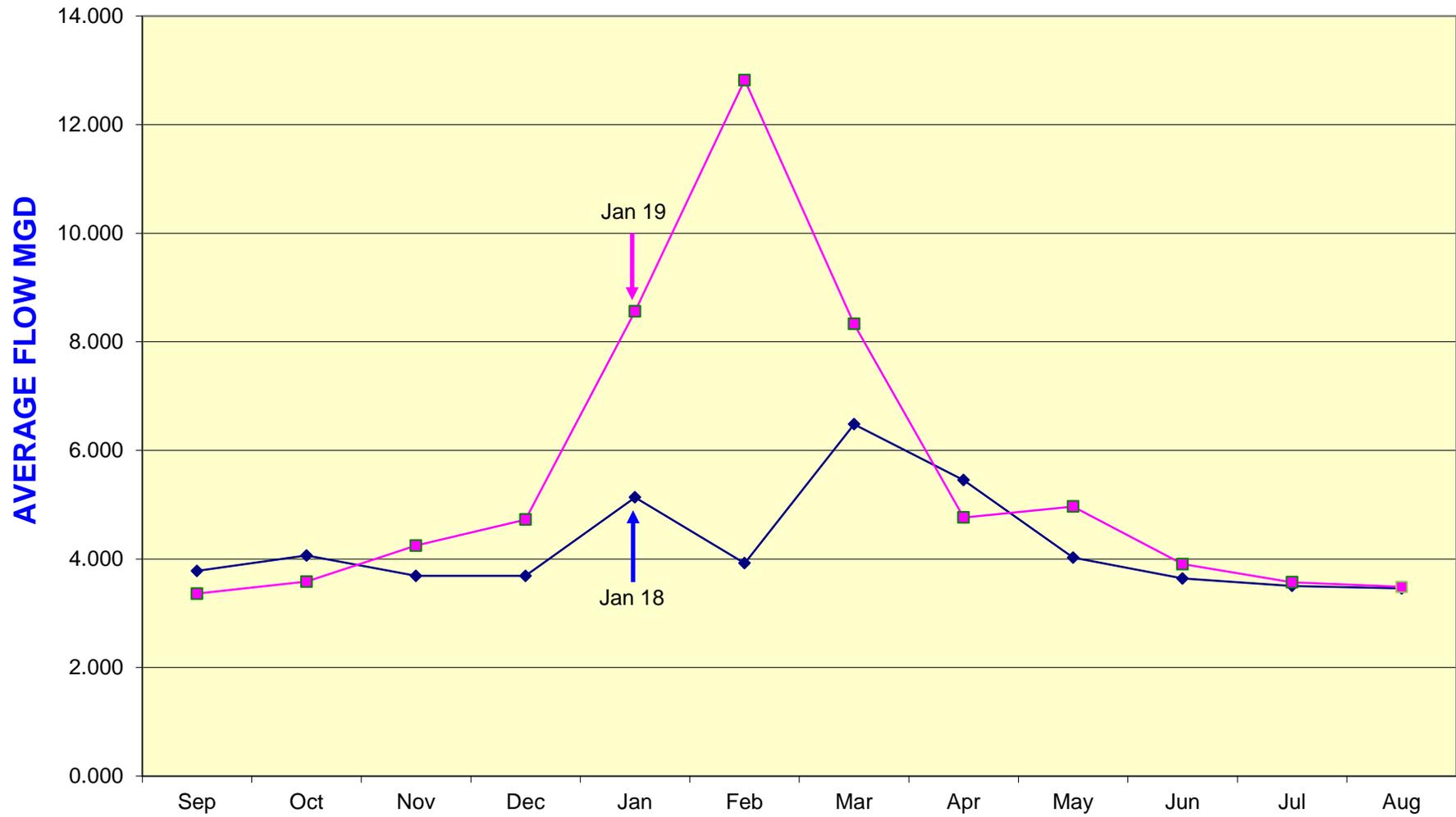
3) *RECYCLED WATER REPORT*

NOVATO SANITARY DISTRICT
 RECYCLED WATER
 COMPLIANCE SUMMARY REPORT

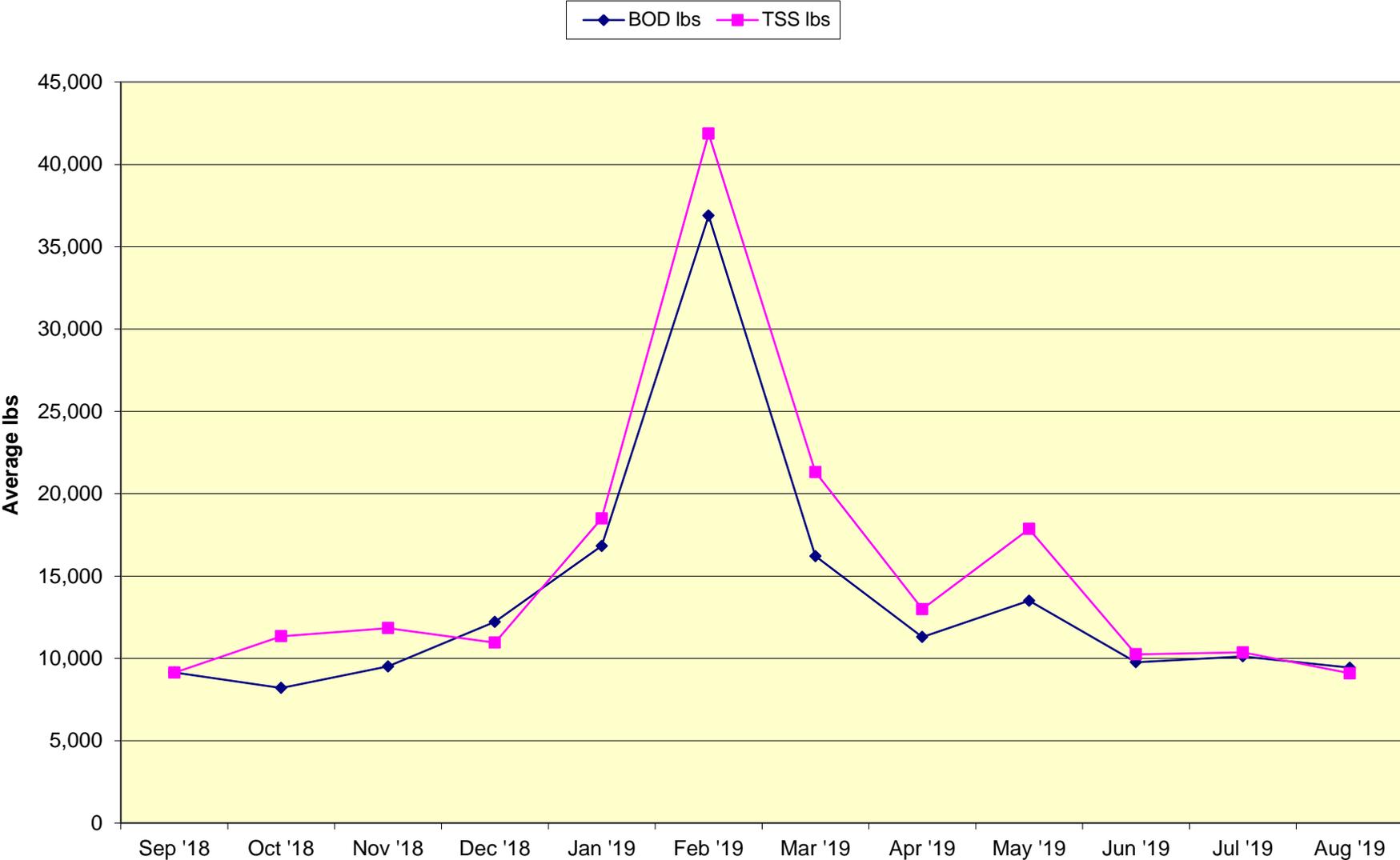
Date	Filter Influent Flow MGD	Recycled Water Flow to Plum St. MGD	Potable Water To Plum St Tank MGD	Recycled Water Influent Turbidity Ave. NTU	Minutes Over 5 NTU Turbidity (m)	Filter Effluent 24 Hr Average Turbidity NTU	Filter Effluent Dissolved Oxygen (mg/l)	Filter Effluent Total Coliform MPN/100ml	Disinfection CT Value mg-min/l
8/1/2019	0.960	0.897		2.1	0	0.8		<1	>450.000
8/2/2019	1.230	1.169		2.2	0	0.8		<1	>450.000
8/3/2019	0.890	0.804		1.0	0	0.6		<1	>450.000
8/4/2019	0.910	0.882		1.4	0	0.6	7.6	<1	>450.000
8/5/2019	1.000	0.944		1.6	0	0.5	8.2	<1	>450.000
8/6/2019	0.740	0.581		1.1	0	0.3	8.1	<1	>450.000
8/7/2019	0.790	0.402		1.0	0	0.4		<1	>450.000
8/8/2019	0.730	0.308		0.7	0	0.6		<1	>450.000
8/9/2019	1.090	0.997		1.5	0	0.7		<1	>450.000
8/10/2019	0.730	0.667		2.3	0	1.0		<1	>450.000
8/11/2019	1.030	0.886		3.0	0	1.0	7.9	<1	>450.000
8/12/2019	0.760	0.501		3.0	0	0.9	7.7	<1	>450.000
8/13/2019	0.860	0.476		1.9	0	0.3	8.0	<1	>450.000
8/14/2019	0.860	0.322		3.7	0	0.2		<1	>450.000
8/15/2019	0.660	0.364		2.4	14	0.6		<1	>450.000
8/16/2019	1.040	0.952		2.2	4	0.8		<1	>450.000
8/17/2019	1.030	0.988		2.2	0	0.5		<1	>450.000
8/18/2019	0.790	0.749		1.3	0	0.4	8.8	<1	>450.000
8/19/2019	1.020	0.741		0.9	0	0.4	7.9	<1	>450.000
8/20/2019	0.890	0.127		1.0	0	0.1	8.2	<1	>450.000
8/21/2019	0.890	0.707		0.9	0	0.1		<1	>450.000
8/22/2019	0.740	0.501		1.3	0	0.1		<1	>450.000
8/23/2019	0.860	0.690		1.0	0	0.2		<1	>450.000
8/24/2019	1.110	0.986		2.1	0	0.6		<1	>450.000
8/25/2019	0.970	0.899		1.4	0	0.6	7.8	<1	>450.000
8/26/2019	0.880	0.688		1.2	0	0.7	7.6	<1	>450.000
8/27/2019	0.790	0.519		1.1	0	0.5	7.6	<1	>450.000
8/28/2019	1.030	0.832		1.2	0	0.5		<1	>450.000
8/29/2019	0.720	0.525		1.0	0	0.6		<1	>450.000
8/30/2019	0.680	0.421		1.2	0	0.6		<1	>450.000
8/31/2019	0.640	0.313		1.3	1	0.6		<1	>450.000
Total	27.320	20.838							
Minimum	0.640	0.127		0.7	0	0.1	7.6	<1	>450.0
Maximum	1.230	1.169		3.7	14	1.0	8.8	<1	>450.0
Average	0.881	0.672		1.6	1	0.5	8.0	<1	>450.0

4) ANNUAL PERFORMANCE SUMMARY – GRAPHS

WASTEWATER INFLUENT FLOW COMPARISON

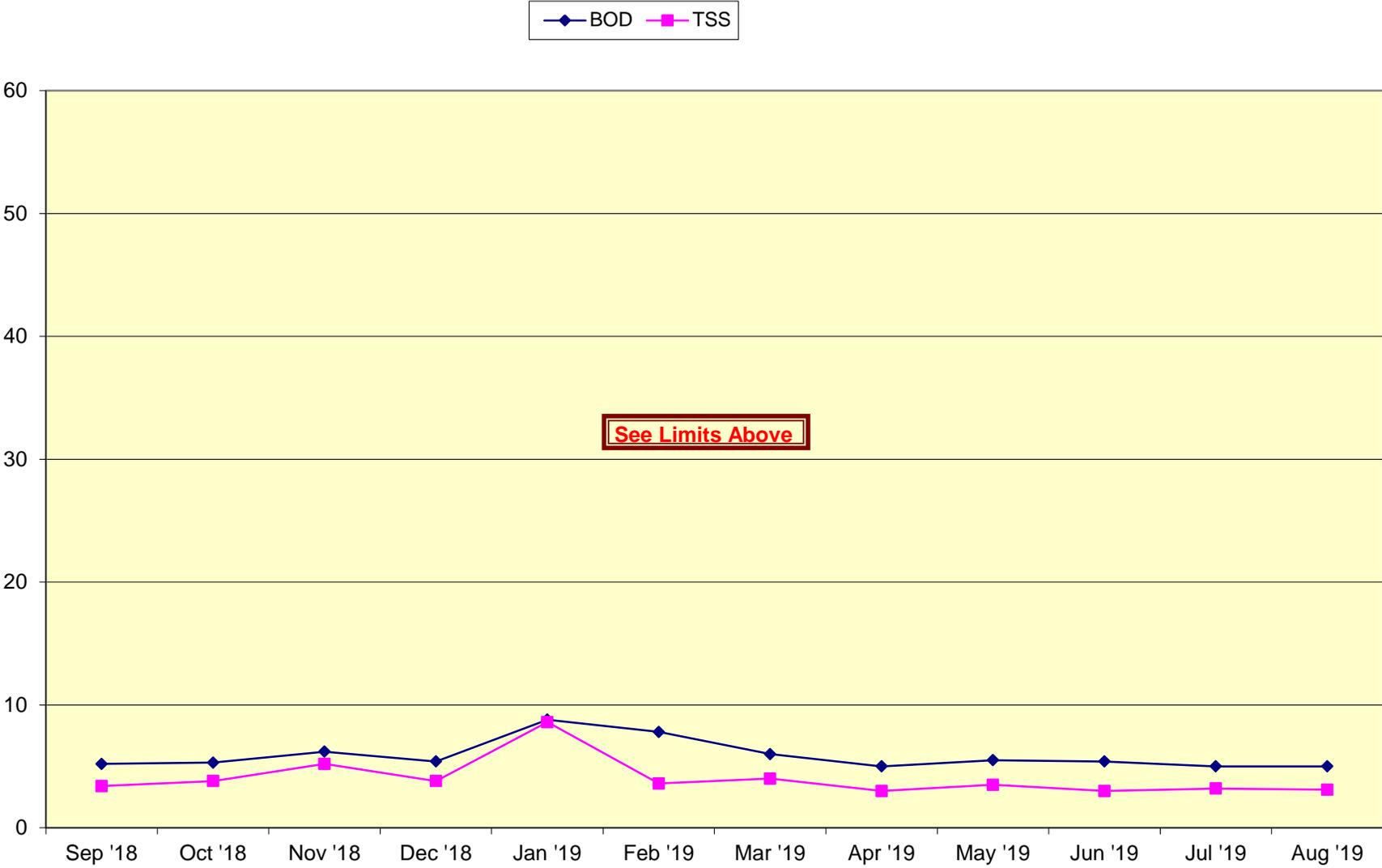


Influent Load BOD / TSS lbs

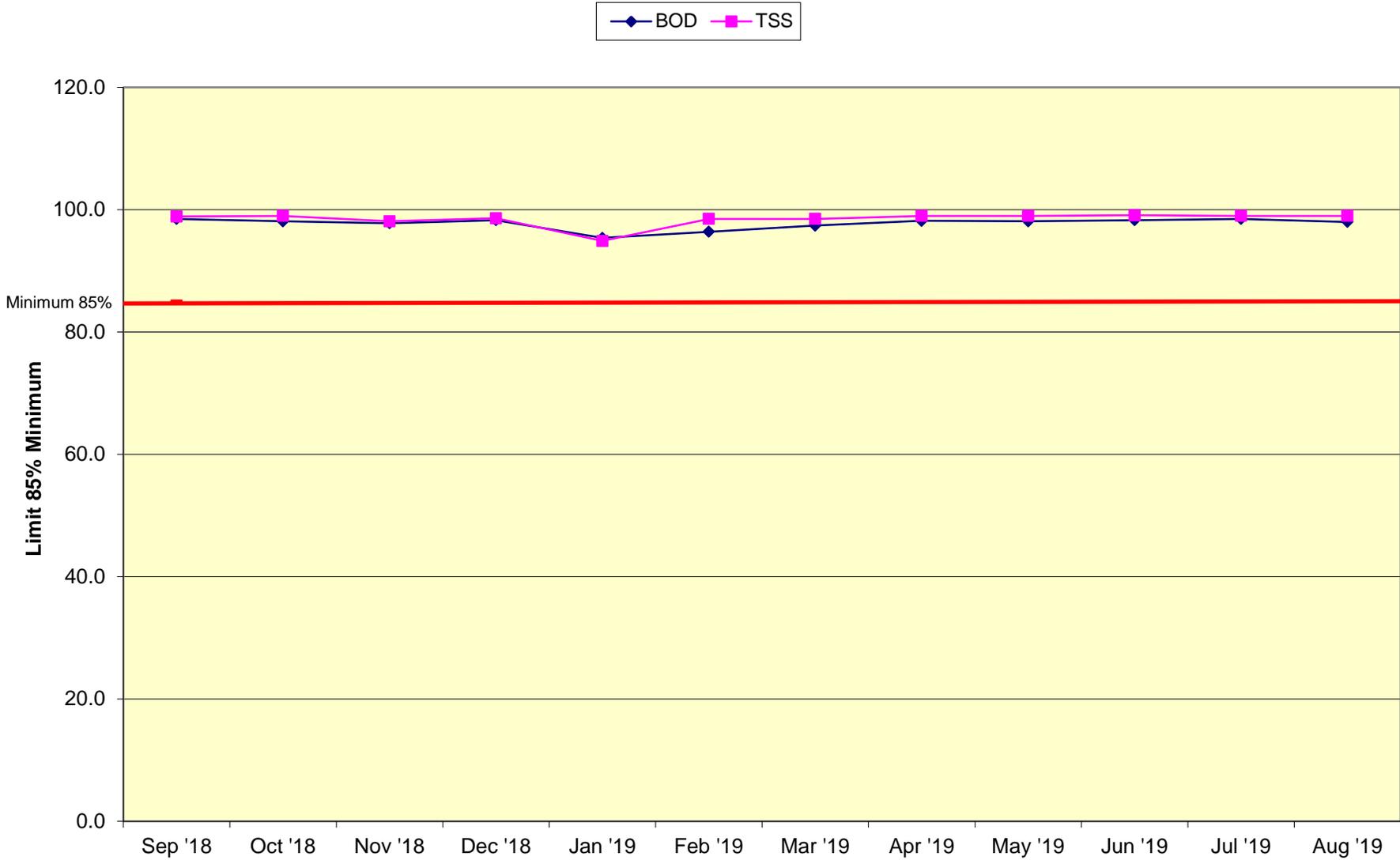


Effluent BOD / TSS Concentration

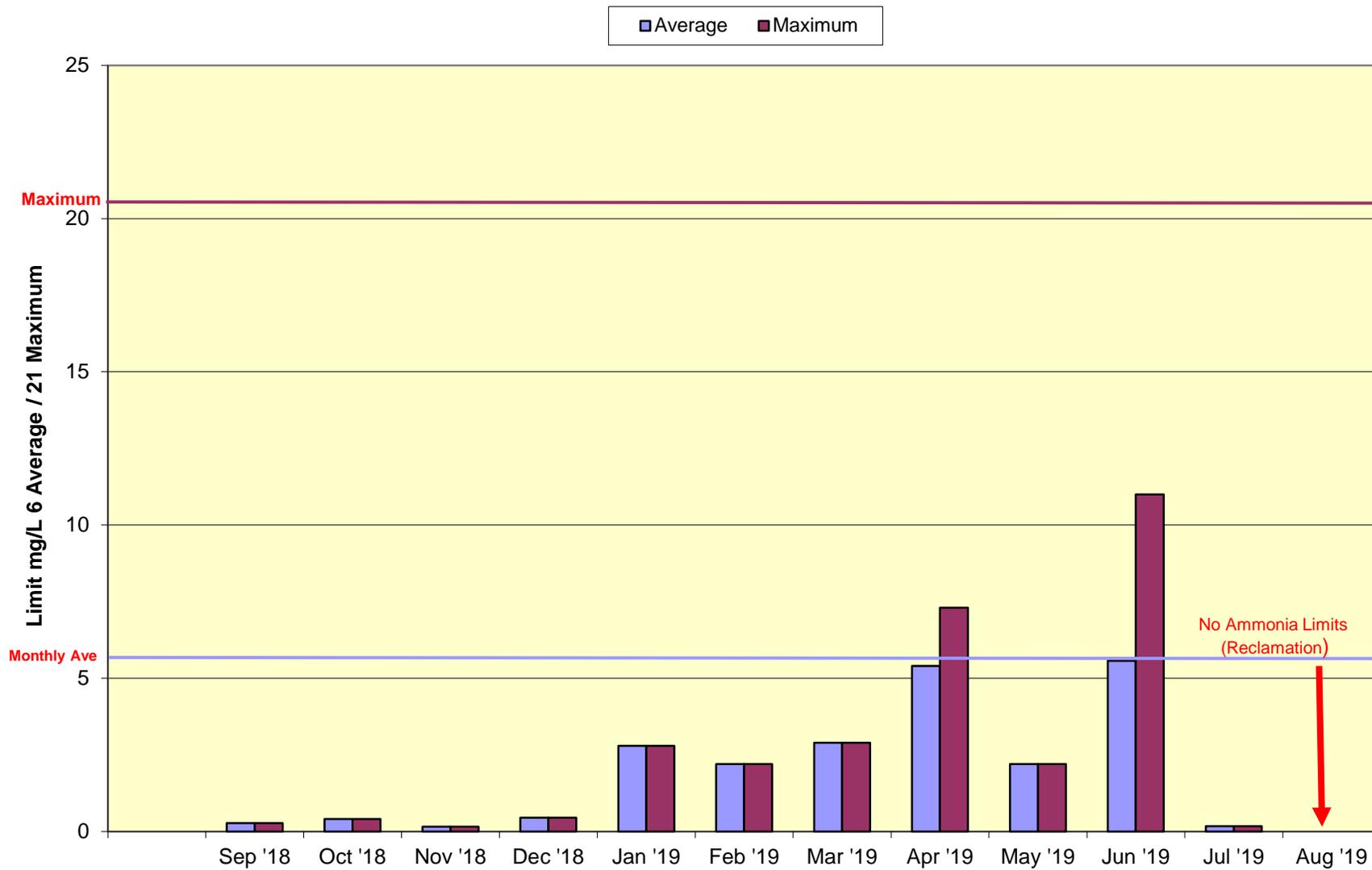
WDR (Waste Discharge Requirements) RECLAMATION
BOD - 40 mg/L



BOD / TSS Percent Removal

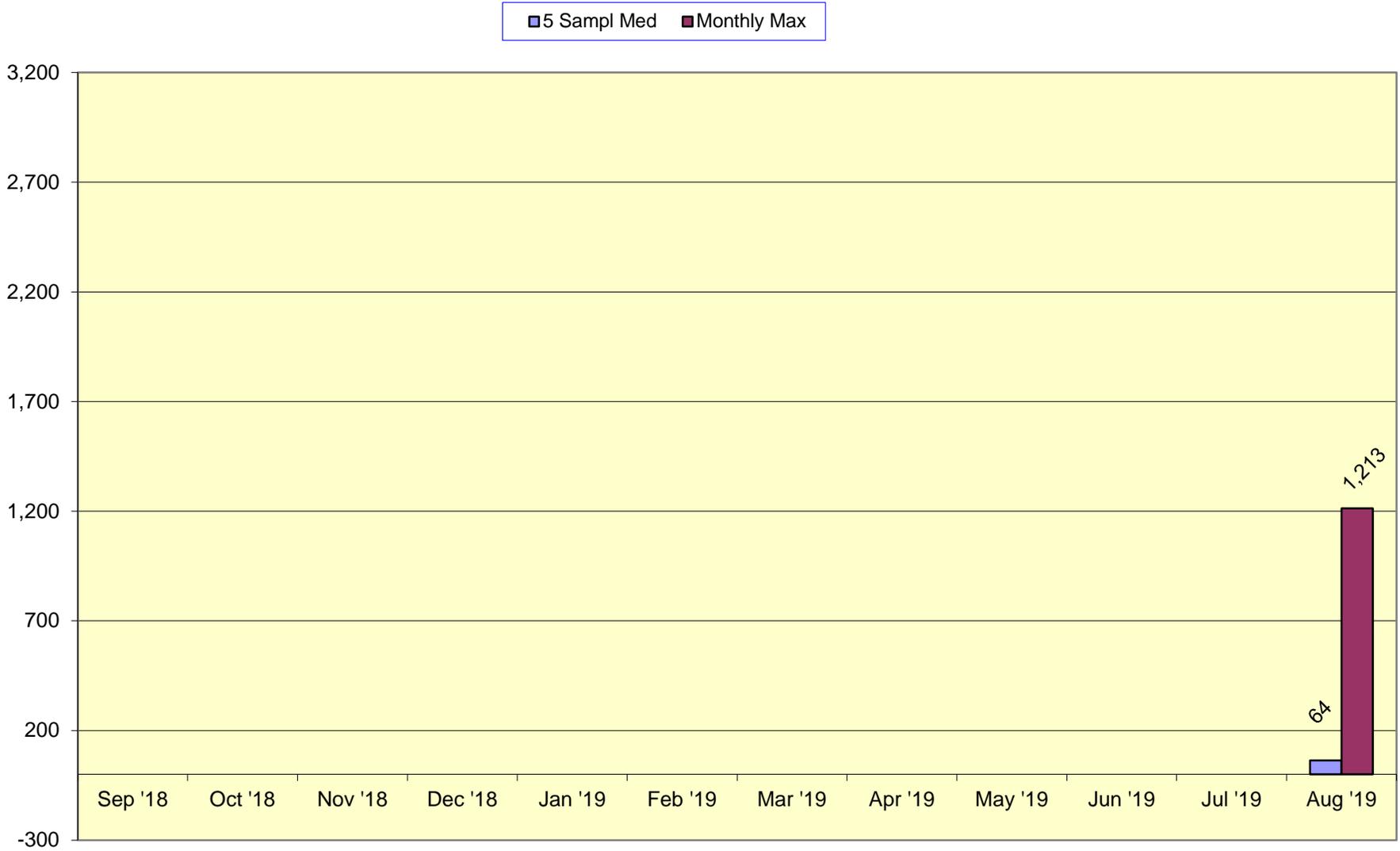


Effluent Ammonia

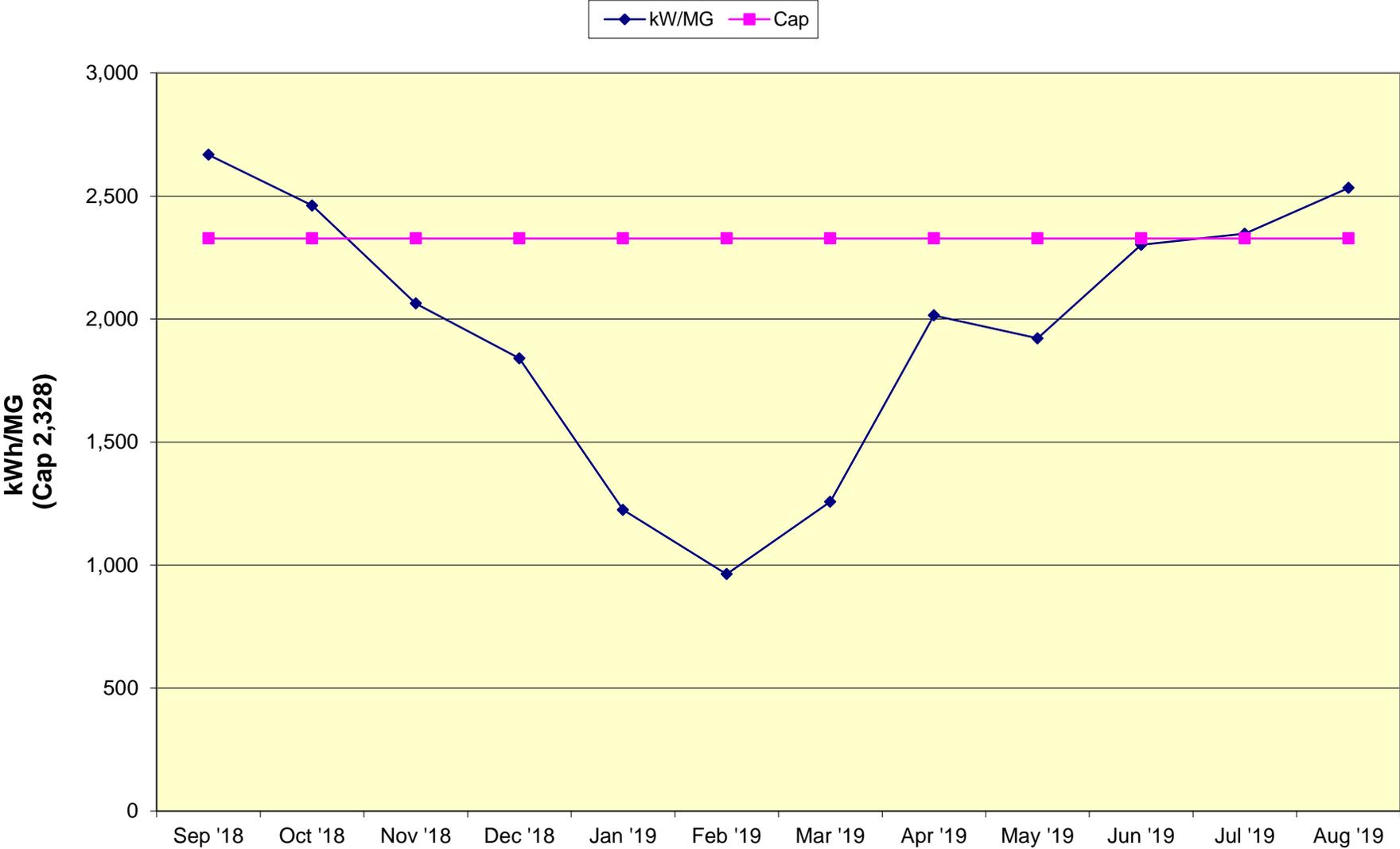


Disinfection - Total Coliform

TOTAL COLIFORM LIMITS - WDR
5 Sample Median - 240 mpn /100 ml
Maximum - 10,000 mpn/100 ml

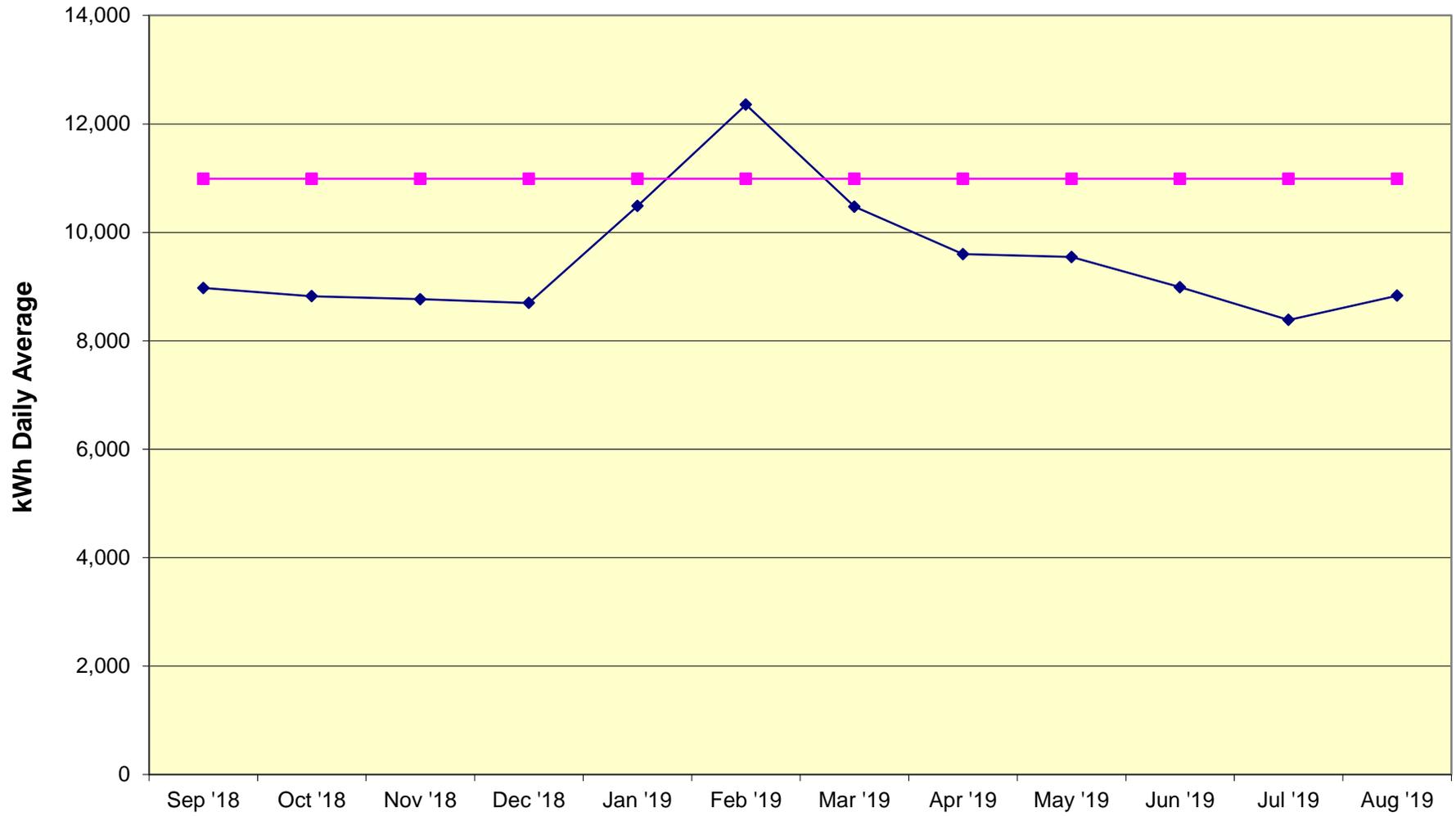


Energy kWh/MG



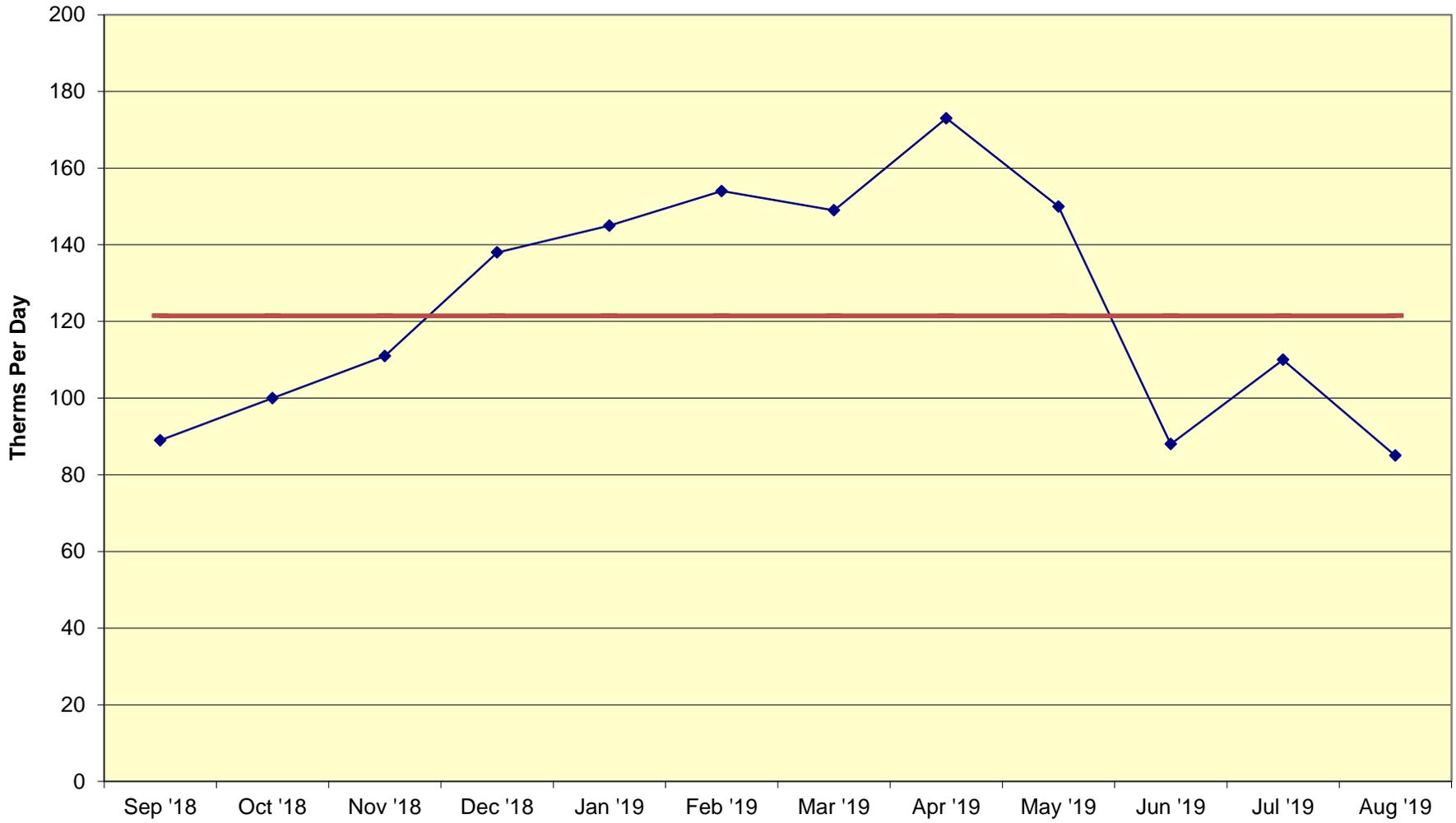
Energy kWh

◆ kWh ■ Cap



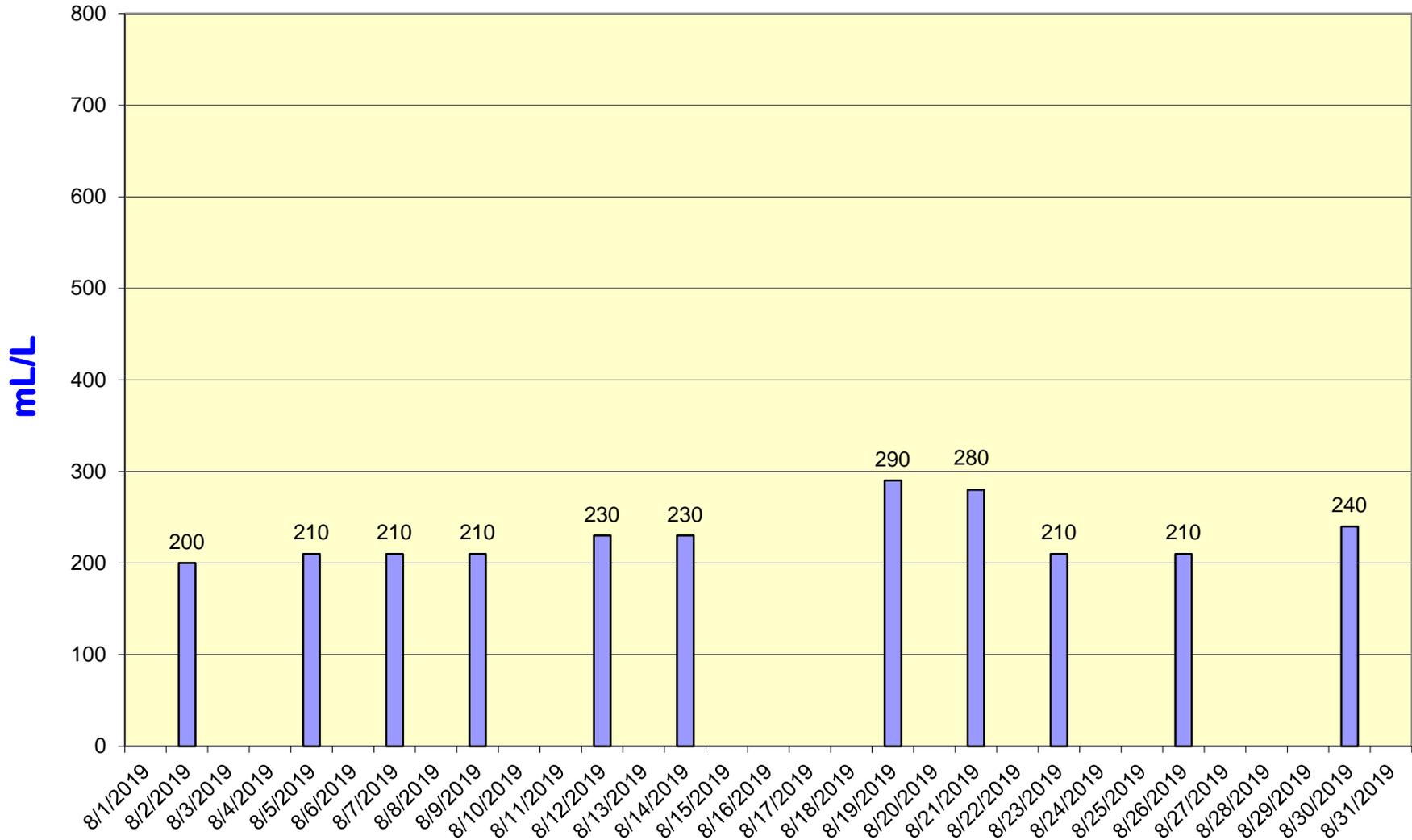
Natural Gas Use

◆ Natural Gas — Cap

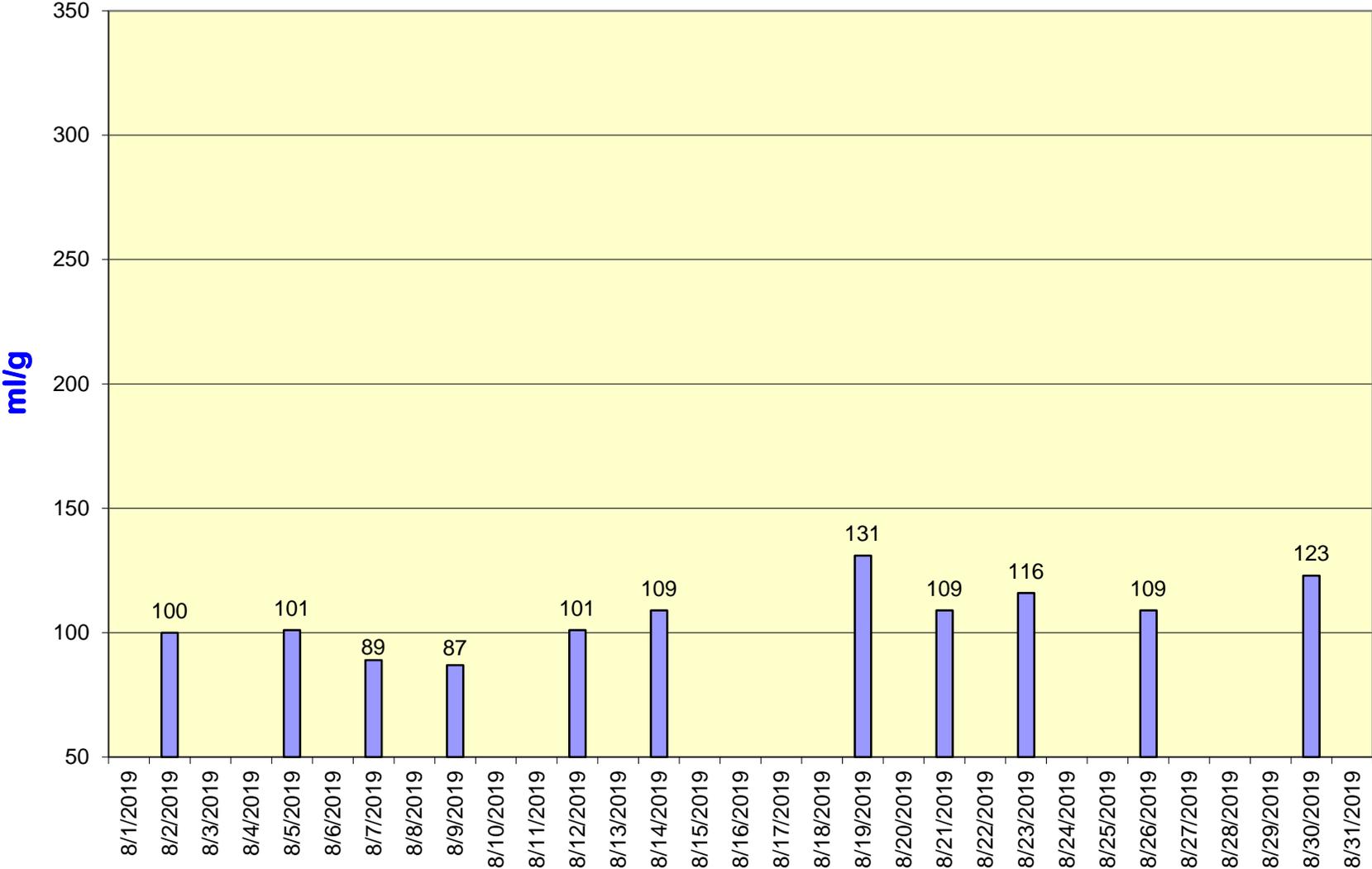


5) PROCESS CONTROL DATA / GRAPHS

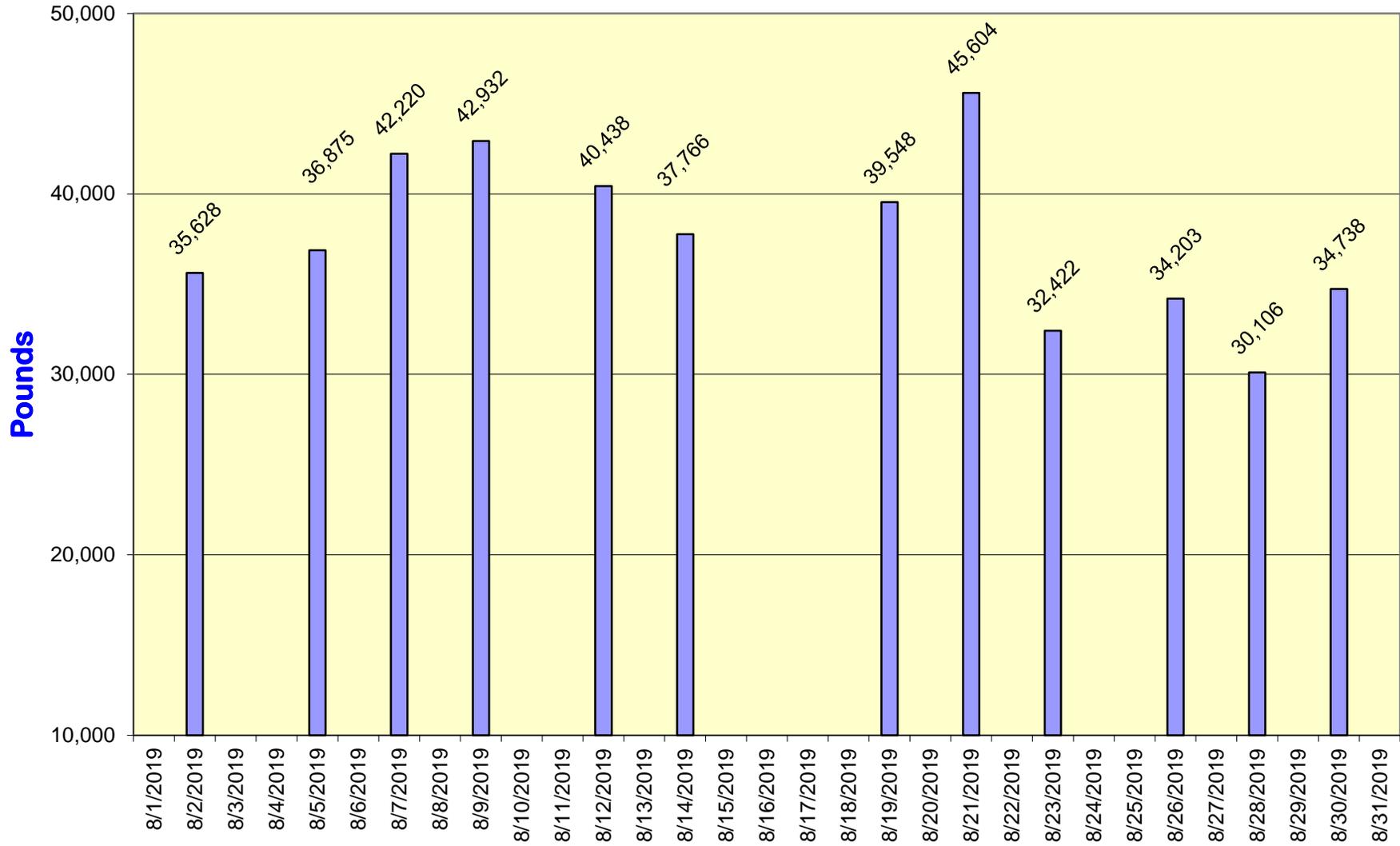
Settleability



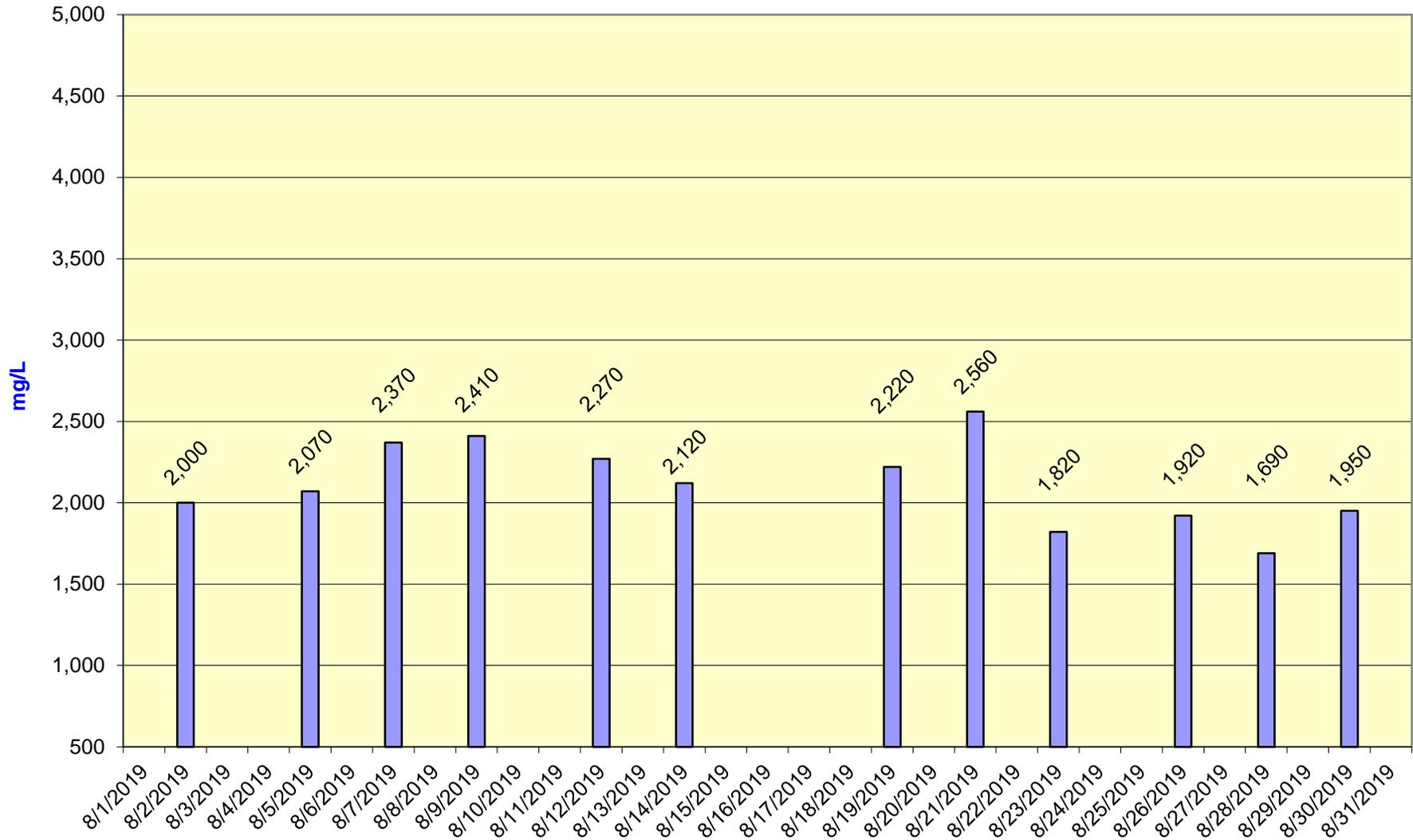
Sludge Volume Index



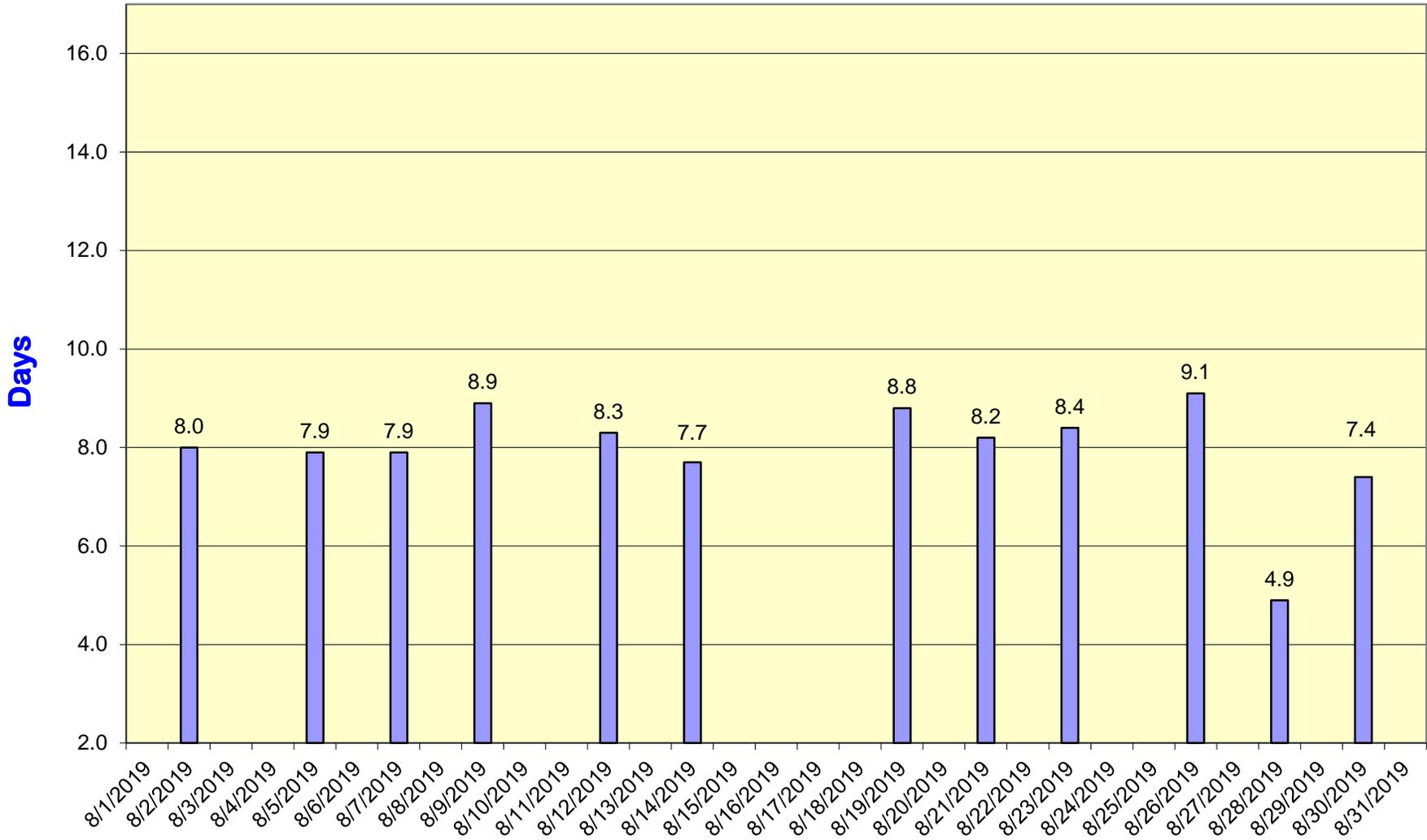
MLSS Inventory



MLSS Concentration



Mean Cell Residence Time

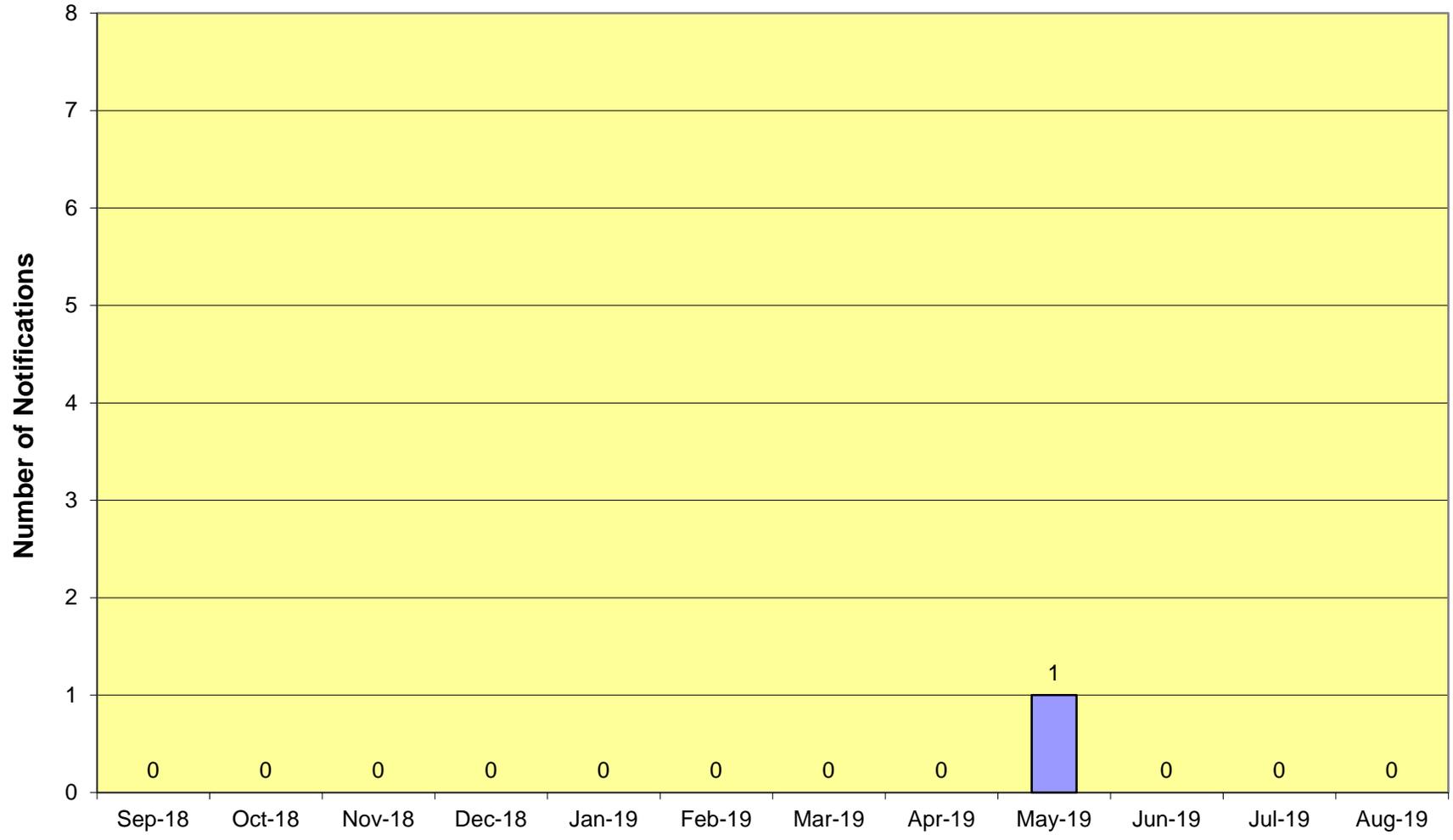


Process Control Data

	Influent Flow	Settleability	MLSS Concentration	MLSS Inventory	MCRT	SVI
8/1/2019	3.50					
8/2/2019	3.38	200	2,000	35,628	8.0	100
8/3/2019	3.40					
8/4/2019	3.51					
8/5/2019	3.38	210	2,070	36,875	7.9	101
8/6/2019	3.30					
8/7/2019	3.96	210	2,370	42,220	7.9	89
8/8/2019	3.37					
8/9/2019	3.66	210	2,410	42,932	8.9	87
8/10/2019	3.43					
8/11/2019	3.43					
8/12/2019	3.34	230	2,270	40,438	8.3	101
8/13/2019	3.55					
8/14/2019	3.46	230	2,120	37,766	7.7	109
8/15/2019	3.26					
8/16/2019	3.54					
8/17/2019	3.51					
8/18/2019	3.37					
8/19/2019	4.03	290	2,220	39,548	8.8	131
8/20/2019	3.83					
8/21/2019	3.65	280	2,560	45,604	8.2	109
8/22/2019	3.55					
8/23/2019	3.26	210	1,820	32,422	8.4	116
8/24/2019	3.58					
8/25/2019	3.47					
8/26/2019	3.16	210	1,920	34,203	9.1	109
8/27/2019	3.43					
8/28/2019	4.03		1,690	30,106	4.9	
8/29/2019	3.50					
8/30/2019	3.04	240	1,950	34,738	7.4	123
8/31/2019	3.18					
Minimum	3.04	200	1,690	30,106	4.9	87
Maximum	4.03	290	2,560	45,604	9.1	131
Total	108.06					
Average	3.49	229	2,117	37,707	8.0	107

6) NEIGHBORHOOD COMPLAINTS RECEIVED

Neighborhood Complaints Received

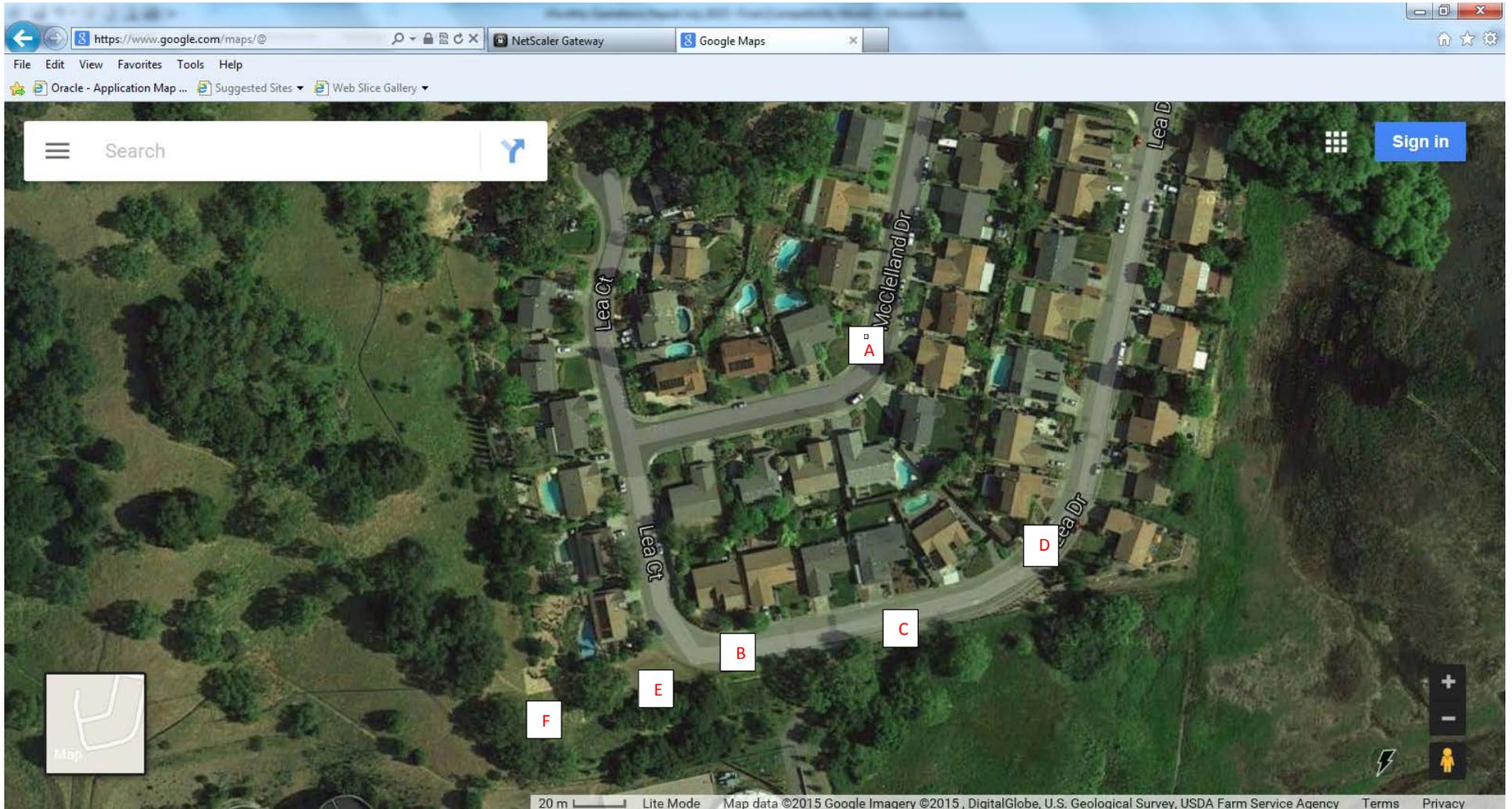


7) JEROME METER READINGS & LOCATIONS

JEROME METER READINGS - AUGUST 2019

Sample Location	Min	Max	Ave	NOTES / COMMENTS
A: McLelland	0.000	0.000	0.0000	Neighborhood
B: Lea 1	0.000	0.000	0.0000	Neighborhood
C: Lea 2	0.000	0.007	0.0035	Neighborhood
D: Lea 3	0.000	0.001	0.0005	Neighborhood
E: Lea 4	0.000	0.000	0.0000	Neighborhood
F: Lea 5				Neighborhood

NEIGHBORHOOD JEROME METER LOCATIONS – LEA AND McCLELLAND



NOVATO SANITARY DISTRICT
Wastewater Operations - Reclamation Facilities Report
August 2019

1.0 Summary:

1.1 During August 2019:

- The treatment plant was in Reclamation mode (i.e. plant effluent was discharged to the storage ponds 1 and 2).
- The rancher finished mowing the pastures at Sites 3 and 7 in preparation for cattle, which began arriving on August 17, 2019.

2.0 Ranch Operations:

2.1 Drainage Pump Stations No. 3 and 7 did not pump any drainage water in August.

2.2 Throughout August 2019, the rancher continued to mow the pasture areas and stock cattle.



Cattle Grazing at Site 7 pastures

3.0 Irrigation Parcels:

3.1 Parcel irrigation began on August 22, and the irrigation pumps are operating for 8 hours each morning resulting in a total of 28.4 MG irrigated in August.

3.2 The irrigation piping manifold flow meter was repaired on August 21, 2019.

4.0 Irrigation Pump Station:

4.1 The Wildlife Pond level was maintained at 6.0 feet.

4.2 Storage pond Nos. 1 and 2 levels rose from 3.8 feet to 6.2 feet before dropping to 5.5 feet at the end of August as irrigation occurred.

5.0 Biosolids (sludge) Handling & Disposal:

5.1 No biosolids handling or disposal was performed this month.

5.2 A new submersible pump which was installed in June 2019 in the Dedicated Land Disposal (DLD) continued pumping storm water from the DLD to the sludge decant return system throughout August.

NOVATO SANITARY DISTRICT														
Reclamation Facility - Monthly Statistics for Calendar Year 2019, as of August 31, 2019 *														
	January	February	March	April	May	June	July	August *	September	October	November	December	Total Year to Date	Annualized Monthly Average
Irrigation Pump Station														
Plant flow to ponds (MG)	0	0	0	0	0	0	0	69.6						
Irrigation (MG)	0	0	0	0	0	0	0	28.4						
Irrigation Pump 1 Hours	0	0	0	0	0	0	0	48						
Irrigation Pump 2 Hours	0	0	0	0	0	0	0	48						
Irrigation Pump 3 Hours	0	0	0	0	0	0	0	48						
Washdown Water Pump Hours	0	0	0	0	0	0	0	0						
Wildlife Feed Pump Hours	0	0	0	168	744	720	744	744						
Water Circulated through Wildlife Pond (MG)	0	0	0	10.6	46.9	45.4	46.9	46.9						
Strainer No. 1 Hours	0	0	0	0	0	0	0	18.7						
Strainer No. 2 Hours	0	0	0	0	0	0	0	18.7						
Pond 1 Gauge @ Beginning of Month (feet)	3	4	5.8	5.8	5.6	5	4.7	3.8						
Pond 1 Gauge @ End of Month (feet)	4	5.8	5.8	5.6	5	4.7	3.8	5.5						
Pond 1 Gallons Stored @ End of Month(MG)	28	43	43	41	36	34	26	40						
Pond 2 Gauge @ Beginning of Month (feet)	3	4	5.8	5.8	5.6	5	4.7	3.8						
Pond 2 Gauge @ End of Month (feet)	4	5.8	5.8	5.6	5	4.7	3.8	5.5						
Pond 2 Gallons Stored @ End of Month(MG)	36	55	55	53	47	44	34	52						
Total Irrigation Water Stored (MG)	64	98	98	94	83	78	60	92						
* Estimated through end of August as of Aug. 29														
Drainage Pump Station No. 3														
Drainage Pump No. 1 Hours	411.3	639.2	302.1	0	0	0.4	0	0						
Drainage Pump No. 2 Hours	555.8	666.8	692	359.6	0	1.6	0	0						
Drainage Pump No. 3 Hours	192.9	478.6	655.3	0	68.8	0	0	0						
Total Gallons Stormwater Pumped (MG)	348	535.38	494.82	107.88	20.64	0.6	NA	0	--	--	--	--	1507.32	251.22
Drainage Pump Station No. 7														
Drainage Pump No. 1 Hours	39.2	305.1	72.6	0	0	0	0	0						--
Drainage Pump No. 2 Hours	249.3	276.8	319.6	72.5	41.8	0	0	0						--
Drainage Pump No. 3 Hours	23.4	1.9	0	0	0	2	0	0						--
Total Gallons Stormwater Pumped (MG)	140.36	262.71	176.49	32.63	18.81	0.90	NA	0.00	--	--	--	--	631.89	105.32

NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

TITLE: Capital Projects: Cogeneration/Alt. Energy, Account No. 72708.	MEETING DATE: September 9, 2019 AGENDA ITEM NO.: 8.a.
RECOMMENDED ACTION: Approve a contract with Woodard & Curran, Inc. in the not-to – exceed amount of \$125,000 for engineering services related to a cogeneration system, and authorize the General Manager-Chief Engineer to execute it.	
SUMMARY AND DISCUSSION: <p>At its May 13, 2019 meeting, the District Board of Directors received a presentation on Cogeneration System implementation alternatives from the District’s consultant Woodard & Curran and gave direction to continue investigation with Woodard and Curran, Inc. (W&C) for a cogeneration design-bid-build project at the District, utilizing microturbines to convert digester gas to electrical power.</p> <p>To that end, staff requested that W&C provide a proposal for a Basis of Design for a Cogeneration System. W&C has submitted a proposal to provide 50% design documents and additional engineering services for the Project for \$125,000. The design effort will consist of the following tasks:</p> <ol style="list-style-type: none"> 1. Detailed Design Basis Development 2. Evaluation of Environmental, Permitting and Grant Funding 3. Analysis of Cogeneration Equipment Layout Options 4. Electrical and Controls Design (to 50% level) 5. Cost Analysis <p>Staff has reviewed the proposal and finds the proposed fee amount to be commensurate with the level of effort required.</p> <p>Therefore, it is recommended that the Board approve the contract with W&C, and authorize the General Manager-Chief Engineer to execute it on a time and expense reimbursement basis in the not-to-exceed amount of \$125,000.</p>	
STRATEGIC PLAN INFORMATION: This item addresses Goal 1 (Operational Excellence) and Goal 2 (Build and Maintain Safe, Reliable, and Efficient Facilities) of the latest Strategic Plan Update.	
BUDGET INFORMATION: This work will be funded from Account No. 72708 - Cogeneration/Alt. Energy of the FY 19-20 Budget, which includes \$400,000 for this Account.	
DEPT. MGR.: EB	GENERAL MANAGER: SSK

NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

TITLE: Capital Projects: Collection System Improvements (Del Mar Avenue Sewer Improvements), Account No. 72706.	MEETING DATE: September 9, 2019 AGENDA ITEM NO.: 8.b.
RECOMMENDED ACTION: Approve a contract with GHD, Inc. in the not-to-exceed amount of \$158,000 for professional engineering services related to the Del Mar Avenue Sewer Improvements project, and authorize the General Manager-Chief Engineer to execute it.	
SUMMARY AND DISCUSSION: <p>The FY19-20 Capital Improvement Program (CIP) Budget, Account No. 72706 includes provisions to complete the design of upsizing the 8” sanitary sewer main on Del Mar Avenue to a 10” sewer main as recommended in the recently completed Draft Collection System Master Plan (CSMP). The Work will extend a 10” sewer main on Diablo Avenue from Center Road to Hotchkin Drive, continue on Hotchkin Drive to Del Mar Avenue and on Del Mar Avenue to Hill Road. The Work will include:</p> <ul style="list-style-type: none"> • 1400 lineal feet of 10” PVC sewer main, • 200 lineal feet of 8” PVC sewer main, • Nine new manholes, • Modify one existing manhole, • Abandon 1590 lineal feet of 8” VCP sewer main – abandon by removing or fill with grout, • Abandon 441 lineal feet of 6” VCP sewer main – abandon by removing, • Abandon six manholes – abandon, remove cone or remove entirely. <p>District staff requested a proposal from GHD, Inc. (Santa Rosa, CA) to provide professional engineering services for the design of the Del Mar Avenue Sewer Improvements. GHD has been providing excellent service to the District on past projects and is currently finishing up the construction phase of the Bel Marin Keys Blvd. Pipeline Rehabilitation Project. GHD submitted a proposal in the amount of about \$158,000 to complete the design engineering work. Based on the milestone schedule submitted with the Proposal, GHD will have the project ready to bid in May, 2020 with an estimated construction start in June, 2020. Staff has reviewed GHD’s Proposal and schedule and believes they are reasonable and accurate.</p> <p>The FY 19-20 Final Budget includes \$2,910,000 in Account No. 72706 - Collection System Improvements. Therefore, at this time, it is recommended that the Board authorize the General Manager – Chief Engineer to approve a contract with GHD for professional engineering services on a time and materials basis in the not to exceed amount of \$158,000, and execute it.</p>	
STRATEGIC PLAN INFORMATION: This item addresses Goal 1 (Operational Excellence) and Goal 2 (Build and Maintain Safe, Reliable, and Efficient Facilities) of the latest Strategic Plan Update.	
BUDGET INFORMATION: This work will be funded under Account No. 72706 - Collection System Improvements of the FY 19-20 proposed Final Budget, which includes \$2,910,000 for this Account.	
DEPT. MGR.: EB	GENERAL MANAGER: SSK

NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

TITLE: Collection System Operations: Purchase of Combination Sewer Cleaner	MEETING DATE: September 9, 2019 AGENDA ITEM NO.: 8.c.
RECOMMENDED ACTION: Approve purchase of a combination sewer cleaner, and authorize the General Manager-Chief Engineer to execute a purchase order with Owen Equipment, Inc. in the amount of \$444,517.87 (including estimated sales tax and fees).	
SUMMARY AND DISCUSSION: <p>The FY19-20 budget for Account No. 73090 - Vehicle Replacement, includes funds for the purchase of a combination sewer cleaner truck (combo unit). District Collection System staff worked as a team to identify their needs as a combination jetter/vacuum sewer cleaner truck including a 5 yard debris body, 1,000 gallon water tank, 800 feet of 2,500 PSI sewer hose reel, and appurtenances, mounted on a single axle 46,000 lb. GVWR (gross vehicle weight rating) chassis. Over about a four month period, staff evaluated combo units from four different vendors and reached consensus that the Vactor Model 2100i best met the evaluation criteria including technical requirements, ease of operation and maintenance, and reliability.</p> <p>Similar to a prior purchases, staff worked with Sourcewell (formerly National Joint Powers Alliance (NJPA)), a public agency serving its members as a municipal contracting agency, (similar to the California Department of General Services (DGS) or the Federal General Services Administration (GSA)). Sourcewell contracts are nationally solicited, competitively bid, and awarded on behalf of their current and potential government and education member agencies.</p> <p>Staff contacted Owen Equipment, Inc., (Fairfield, CA), a Sourcewell vendor (Sourcewell contract # 022014-FSC) for vehicles of this nature, and requested a proposal to supply the District with a combo unit that met District specifications. The District has received a quote from Owen Equipment, Inc. of \$444,517.87 for the combo unit, including estimated sales tax and fees.</p> <p>The FY19-20 budget includes a budget amount of \$580,000 with no encumbrances to date. Staff recommends approving the purchase of a combo unit and authorizing the General Manager-Chief Engineer to execute a purchase order with Owen Equipment, Inc. in the amount of \$444,517.87 (including estimated sales tax and fees).</p>	
STRATEGIC PLAN INFORMATION: This item addresses Goal 1 (Operational Excellence), and Goal 2 (Reliable and Efficient Facilities) of the latest Strategic Plan Update.	
BUDGET INFORMATION: The FY 19-20 budget amount for Account No. 73090 - Vehicle Replacement is \$580,000 with no encumbrances to date.	
DEPT. MGR. eb, dd	GENERAL MANAGER: SSK

NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

TITLE: Capital Projects Update, August 2019.	MEETING DATE: September 9, 2019 AGENDA ITEM NO.: 8.d.
RECOMMENDED ACTIONS: Receive Capital Projects Update for August 2019.	
SUMMARY AND DISCUSSION: The August 2019 Capital Projects Update is attached. District staff will be present at the meeting to provide an overview of the memo, and be available to discuss the status of the various projects or respond to any questions.	
ATTACHMENTS: 1. Capital Projects Update, August 2019.	
STRATEGIC PLAN INFORMATION: This item addresses Goal 1 (Operational Excellence) and Goal 2 (Reliable and Efficient Facilities) of the latest Strategic Plan Update.	
DEPT. MGR.: EB	GENERAL MANAGER: SSK

**Novato Sanitary District
Capital Improvement Program (CIP)
Capital Projects Update
August 2019**

Account No. 72403: Pump Station Improvements

This ongoing, long-term account provides for replacing the District's underground-type pump stations with submersible pump-type pump stations.

- No update this period.

Account No. 72508: North Bay Water Reuse Authority (NBWRA)

The District is a member agency of the North Bay Water Reuse Authority (NBWRA). FY18-19 is the fifth year of the multi-year Phase 2 program, including continuing environmental work for currently over \$75 million in recycled water projects across all NBWRA agencies for funding under the US Bureau of Reclamation Title XVI (WaterSMART) program.

- No update this period.

Account No. 72706: Collection System Improvements

1. Redwood Blvd. Sewer Rehab Project: Rehabilitation of about 1,850 feet of 12-inch sewer main along Redwood Blvd. between Lamont Avenue and Diablo Avenue.
 - Project awarded to KJ Woods Construction at August 12, 2019 Board meeting.
 - Estimated issuance of Notice to Proceed, September 2019.
2. Bel Marin Keys Blvd. Sewer Rehab Project: Rehabilitation of about 900 feet of 10-inch and about 1,410 feet of 8-inch sewer main in Bel Marin Keys Blvd.
 - A repair to a segment of 10-inch pipe that was required before lining operations could commence was not successful. The approximately 311 foot segment of pipe will be eliminated from lining operations and will be replaced by conventional cut and cover methods next construction season. A portion of the pipe will be replaced in the near term to stabilize the pipe for the upcoming wet weather season.
 - Lining operations are complete, manhole rehabilitation continues.
 - Substantial completion expected September 2019.
3. Golden Gate Place Phase II: Realignment/replacement of approximately 940 feet of 8-inch sewer with new 8-inch and 10-inch PVC sewer.
 - Project awarded to JMB Construction at August 12, 2019 Board meeting.
 - Estimated issuance of Notice to Proceed, September 2019.
4. Collection System Master Plan (CSMP): Continuing work associated with the CSMP currently underway by the District's consultant Woodard and Curran (W&C):
 - The final draft CSMP document is being presented by the consultant under a separate agenda item.
5. ARV Replacement Project: Replacement of Air Relief Valves (ARV) and modifications of their maintenance vaults at 11 separate locations throughout the system.

- Design near completion.
 - Caltrans encroachment permit will need to be issued prior to construction.
6. Vineyard Creek at Angelica Court Bank Repair:
- Project is currently in the design phase.
 - District staff negotiated a change order for \$29,212 with Michels Construction, the pipe lining contractor working on BMK Sewer Rehab, to line the exposed 268 foot section of pipe as a contingency measure. The lining was completed resulting in a significant reduction of risk of pipe leaks should the bank continue to erode.
 - Design is to the level to take to the permitting agencies for approval. Estimated construction Summer 2020.

Account No. 72706-1: Lateral Replacement Program

The District established this program as a sub-account within Account No. 72706, as part of a long-term approach to reducing infiltration and inflow from private residential laterals into the District's collection system.

- The FY 19-20 final budget for this account is \$60,000. No grants have been distributed this FY. Seventeen (17) grants totaling \$34,000 were distributed in FY 18-19.

Account No. 72707: Hamilton Wetlands/Outfall Integration

As noted in prior years, the State Coastal Conservancy's (SCC) goal for their project is to utilize the District's effluent as a reliable, long-term fresh water source to establish and maintain a brackish marsh habitat at the SCC's Wetlands project.

- SCC issued a notice inviting bids for its BMK V Wetland Restoration Project Phase 1 and received bids on August 29, 2019.
- An Interagency Agreement between the District and SCC for use of reclaimed water for the project is being presented under a separate agenda item.

Account No. 72708: Cogeneration/Alt. Energy

- Consideration of approval of a contract with Woodard & Curran to develop a basis of design for a cogeneration project will be presented under a separate agenda item.
- As reported at previous meetings, District and Veolia staff are working with Enovity, Inc. (Consultant) to refine which energy efficiency measures to implement by way of PG&E's on bill financing (OBF) program. However, at the June 10, 2019 Board meeting, staff reported that the District is benefiting from a California Energy Commission (CEC) grant being administered by MCE ("MCE grant"). Under the terms of the MCE grant, MCE's consultant TerraVerde Energy, LLC, is also evaluating energy efficiency measures in addition to solar/battery storage options for the District. Staff will present the results of TerraVerde's evaluation in the coming months. Upon receiving results from that evaluation, staff expects to be able to make a recommendation for implementation of energy efficiency measures, solar/battery storage or a combination thereof.

Account No. 72803: Annual Collection System Repairs

Collection system repairs are generally reported monthly as part of the Collection System Operations report, and reported annually in the Uniform Public Construction Cost Accounting Act (UPCAA) staff report.

Account 72804: Annual Reclamation Facilities Improvements

Reclamation facilities improvements are generally reported monthly as part of the Reclamation Facilities Operations report and reported annually in the UPCA report.

Account No. 72805: Annual Treatment Plant Improvements

Treatment Plant Improvements are generally reported monthly as part of the Wastewater Operations report and reported annually in the UPCA report.

- Digester No. 1 Cleaning – At its regular meeting of August 12, 2019, the Board approved a contract with Veolia for cleaning of Digester No. 1. Veolia is working with their contractor to schedule the work.

Account No. 72806: Annual Pump Station Improvements

Pump station repairs are generally reported monthly as part of the Collection System Operations report, and reported annually in the UPCA report.

Account No. 72807: Annual Ignacio Facility Improvements

This budget account was established in FY 17-18 to fund small projects to maintain the Ignacio facility (excluding the Ignacio Transfer Pump Station), or perform demolition/site clean-up work related to the treatment units of the decommissioned Ignacio Treatment Plant (ITP).

Account No. 72808: Strategic Plan Update:

- No update this month.

Account No. 72809: Novato Creek Watershed

This account and its budget was established as a result of an agreement with the Marin County Flood Control District.

Under this agreement, the District participates in a program with the County of Marin, the City of Novato, and the North Marin Water District to explore alternatives to reduce flooding potential in the lower Novato Creek portion where all of these agencies have facilities that are prone to flood damage.

- No update this period.

Account No. 73003: Administration Building Upgrades/Maintenance Building

This account includes allowances for minor improvements to the Administration Building and work associated with providing a new temporary Maintenance Building.

- Work to install electrical equipment and a power connection from the new modular building to the existing electrical service will commence in September, 2019.
- Occupancy expected December 2019.

Account No. 73004: Odor and Landscaping Improvements

This account budgets for further work by District and operations staff and the District's Odor Specialist consultant(s) to address and manage any odor issues raised by the District's neighbors. It also includes an allowance to address any landscaping items.

- No update this period.

Account No. 73005: RWF Expansion

This account funds the design and construction of an incremental capacity expansion to the existing Recycled Water Facility (RWF) at the Novato Treatment Plant site. This first expansion was necessitated by the planned expansion by the North Marin Water District (NMWD) of its Central Area Project, which will push NMWD's recycled water distribution pipelines into the Central Novato/Ignacio geographic areas.

- The Notice of Completion (NoC) has been filed, and the Project is in the warranty period.

Account No. 73006: NTP Corrosion Control

This account includes funds for corrosion control projects at the Novato Treatment Plant site. As the recently constructed facilities age, the effects of the aggressive nature of wastewater corrosion start to appear and need to be addressed.

- The Headworks Protective Coating Project is at the 90% design level. Completion of design and advertisement for bids is expected Spring 2020, with the work to be conducted during the time of lowest influent flows in the late summer/early fall of 2020.
- District staff are working with Veolia and their vendor to coat the UV channels.
- A coatings engineer will perform a condition assessment of Primary Clarifier No. 2 in September.

Account No. 73090: Vehicle Replacement

This account includes a FY 19-20 budget amount of \$580,000 for the purchase of a combination jetter/vacuum truck (combo unit), up to two 45kw portable generators, and an allotment of \$40,000 to overhaul one of the District's existing combo units.

- A request for authorization to issue a purchase order for a new combo unit will be presented under a separate agenda item.
