



November 30, 2020

(Via electronic mail)

To:  
City of Richmond  
Yader A. Bermudez  
Director of Public Works  
450 Civic Center Plaza  
City of Richmond, CA 94804

Subject: October-2020 Monthly Operations Report

From:  
Brian K. Bruce  
General Manager, Veolia-Richmond  
Municipal Water  
VEOLIA NORTH AMERICA  
601 Canal Boulevard, Richmond, CA 94804

Mr. Bermudez,

Section 5.11 of the 2002 CITY OF RICHMOND WASTEWATER TREATMENT FACILITY CAPITAL IMPROVEMENTS, OPERATIONS, MAINTENANCE AND MANAGEMENT AGREEMENT BY AND BETWEEN THE CITY OF RICHMOND, CALIFORNIA AND VEOLIA NORTH AMERICA (as amended, the "Agreement") states (in part), "*The Company shall submit to the City a monthly progress report detailing work accomplished and an updated schedule. The monthly progress report shall include a summary of work activities during the reporting month, a listing of upcoming work activities, a listing of submittals delivered during the reporting month, a listing of submittals scheduled for delivery the following month, a listing of any permit violations, and an updated schedule which reflects critical path activities. The updated schedule shall set forth major activities and reflect any change in the Company's estimated construction progress schedule from the schedule submitted the prior month.*"

Therefore, the following Monthly Operations Report is being submitted pursuant to Section 5.11 of the Agreement.

# Monthly Operations Report: October-2020

---

- I. Summary of work activities during the reporting month October 2020
  - a. Safety
    - i. There were no OSHA Recordable Incidents or Lost Time Accidents
  - b. Capital Projects Management
    - i. Baykeeper Settlement Agreement Projects
      1. Year-2 Sewer Pipe Rehabilitation project – Risk Assessment Analysis (RAA) project
        - a. The City decided to stop construction work on this project and utilize O&M emergency pipe segment repairs to fulfill the remaining mileage required under the Baykeeper Order. All initial work authorized by the City under the 2019 RAA project was completed by June 30, 2020.
        - b. Status of project:
          - i. PCO #7 (segment repair at 23<sup>rd</sup> and Garvin) was approved by the City on June 29, 2020; PCO #34 (segment repair at Barrett/34<sup>th</sup> Street) was approved by the City on July 22, 2020.
          - ii. All work is complete; a Task Authorization (TA) was submitted to the City for Change Order 1 on 6/24/20; a second TA (for Change Order 2) for the above change order work is ready for the City's review once Change Order 1 is executed.
      2. Year 3 – Sewer Pipe Rehabilitation project – Risk Assessment Analysis (RAA) Project
        - a. Veolia received the Scope of Work and Fee Proposal from Vivian Housen & Associates on October 6, 2020. This proposal is to complete the City of Richmond 2021 Risk Assessment Analysis. Veolia reviewed the proposal and will submit a Task Authorization in early November for execution.
        - b. Veolia received various emails and directives from Nicole Granquist throughout October and will proceed to document these directions and scope requirements in a Task Authorization in early November.
      3. Capacity-related sewer projects
        - a. Cutting/Carlson & Hoffman
          - i. The project was substantially complete by the revised completion date of March 15, 2020 provided to Baykeeper.
          - ii. Updated CCTV indicated Plan Line Q required complete replacement and additional work on Plan Lines R&T; Line Q work was completed and work is commencing on Plan Lines R&T; Staff is awaiting completion and acceptance of final post-construction CCTV.
          - iii. CCTV work was completed on July 24, 2020; video files were delivered to Veolia for review.
          - iv. All work is complete; a Task Authorization (CO6) for the above change order work was submitted for the City's review on September 25, 2020.
          - v. Project CCTV rework was conducted in October and resubmitted to Veolia; it is currently under QA/QC review by Veolia.

# Monthly Operations Report: October-2020

---

- b. Macdonald & Virginia
    - i. By the end of October 2020, the Contractor had installed approximately 17,030 linear feet (13,230 lf Macdonald; 3,800 lf Virginia) of main pipe and laterals.
    - ii. The Project is on schedule and is anticipated to be complete by January or February 2021.
  - c. First Street Design
    - i. V. W. Housen & Associates delivered its 100% design drawings of the First Street sewer relief in August. Veolia transmitted copies of the 100% submittal to the City for review.
      - 1. Pursuant to City direction, two pipe segments have been identified as problematic due to operational concerns that they could contribute to SSOs (First and Bissell);
      - 2. Bid documents for this segment project were delivered to Veolia in August; preliminary construction documents are anticipated to address the two pipe segments prior to the entire original project bidding and award.
      - 3. CCTV footage of the First and Bissell segment was delivered to the City in August.
      - 4. The First & Bissell project was posted for advertisement on PlanetBids on September 14, 2020.
      - 5. The City requested CCTV confirmation of all of the First Street pipelines, which was submitted in September.
      - 6. First & Bissell bids were opened on October 5, 2020; five bids were received. The apparent low bidder is W.R. Forde. This project will go to Council for approval in November.
  - d. Bush & Hayes Sag
    - i. The City authorized W.R. Forde to complete the work.
    - ii. All work was completed on July 17, 2020.
    - iii. A change order TA was submitted on June 24, 2020; City TA approval is still pending.
- ii. Manhole Rehabilitation Program
    - 1. The FY19/20 Manhole Rehabilitation Project opened bids on January 30, 2020; the project was awarded to W.R. Forde.
    - 2. A Task Authorization was prepared and submitted to the City in early March. The project was approved at the May 19, 2020 Council Meeting.
    - 3. Veolia received the executed TA from the City on June 22, 2020.
    - 4. Subcontracting was completed on July 16, 2020, and the Notice to Proceed was issued July 21, 2020 effective July 27, 2020.

## Monthly Operations Report: October-2020

---

5. On August 5, 2020, the Contractor was given a notification of suspension of work.
6. On August 28, 2020, the W.R. Forde notified Veolia that its listed subcontractor, Nor-Cal Pipeline, refused to enter into a contract with W.R. Forde and that W.R. Forde would like to substitute H&R Plumbing for Nor-Cal Pipeline.
7. The City notified Veolia on October 21, 2020 that the Task Authorization was null and void.

### iii. Wastewater Treatment Plant Projects

1. The Grit/Screening and Aeration Upgrade Projects (as part of the High Priority Project) was advertised for bidding on PlanetBids on September 15, 2020.
  - a. A mandatory prebid site walk was conducted on September 25, 2020, and approximately 25 potential bidders attended.
  - b. The City issued Addendum #1 on 10/1/20 revising the bid RFI response date to 11/9/20 and the bid opening date to 11/23/30.
  - c. Addendum #2 was issued on 10/2/20, which addressed questions re payment applications, payment conditions, prevailing wage rates, among other things.
2. The Cogen Project Phase I was ongoing in October, with remote meetings continuing due the COVID-19 constraints.
  - a. A draft Basis of Design Report (BODR) was submitted to the City in early June; the City provided initial comments, and Veolia continued its technical review in July.
  - b. The Design Build Entity (DBE, C. Overaa Co.) and Veolia continued review of the subcontract in August.
  - c. Veolia provided the City with their review comments on July 14, 2020. Overaa (DBE) submitted draft BODR responses to Veolia's comments on July 27, 2020; those responses are under review. Veolia transmitted comments to Overaa the week of August 10, 2020.
  - d. Veolia confirmed that Overaa's calculations and assumptions included the revisions requested by Ramboll's (the City's Engineer) for Greenhouse Gas (GHG) reduction during October.
3. The SCADA (Supervisory Control and Data Acquisition) Phase I Project, which replaces the existing SCADA system and maintains the upgrade, was ongoing in July. The Phase I portion is expected to be complete by December 2021.
  - a. A No Cost Change Order #1 TA was submitted to the City in June to switch out Task 5 (Remote telemetry network audit for Plant Ethernet audit); that TA was approved on 9/23/20.
  - b. Calcon (Subcontractor) continued server integration into the SCADA system, screen construction, rollout of the ignition system usage, functionality test, reports, charts, etc.

# Monthly Operations Report: October-2020

---

- c. Calcon submitted another no cost proposed change to reallocate task items within the approved authority; Veolia submitted No Cost Change Order #2 TA on August 3, 2020, and that TA was approved on 9/23/20.
    - d. Calcon continued to work on remote site P&IDs in October; they also began work on the Managed Network System, including system design.
  4. Seismic Evaluation – The City selected ZFA Structural Engineers. A kick off meeting was held on June 30, 2020. July was spent gathering documentation for the project (i.e., past Plant project documentation, record drawings, etc.);
    - a. ZFA continued to present the facility assessment during August and submitted a Basis of Design Report (BODR) on August 26, 2020.
    - b. ZFA began facility seismic evaluation/investigations on 9/2/20.
    - c. ZFA presented the preliminary seismic analysis of the Influent Pump Station at the 10/13/20 Progress Meeting.
  5. Sludge Thickener Project (Design/Build) – RFQs were received on January 10, 2020, and evaluated on January 21, 2020.
    - a. A final RFP was submitted to the City in June with the updated sample design-build contract.
    - b. The City provided comments on June 24, 2020; Veolia submitted a revised RFP in August 2020 and received comments back in August.
    - c. Veolia incorporated additional City comments into the RFP; Veolia resubmitted it on 9/25/20 to the City.
    - d. The City returned the RFP on 10/2/20 with additional comments, which Veolia incorporated and resubmitted to the City on 10/7/20. The City provided further comments on the RFP on 10/12/20, which were subsequently incorporated by Veolia and returned to the City that same day.
    - e. The RFP was issued to the Prequalified Contractors on 10/19/20.

#### iv. Storm Water Projects

##### 1. Trash Capture Device –

- a. A new Trash Capture Device project was decided on for a Bayview location. This item was initially presented to the City Council for review and approved in May.
- b. A Task Authorization (TA) for the new installation was submitted to the City by Veolia on July 14, 2020, and it was approved by the City Council on July 28, 2020. The fully executed TA was returned to Veolia by July 30, 2020.
- c. A site visit with all participating entities (City, Veolia, designer, equipment manufacturer and Construction contractor) was completed on July 28, 2020
- d. Targeted date for draft design is the week of 8/17 and final design is end of August; Targeted start of construction is late November/mid December 2020.

# Monthly Operations Report: October-2020

---

- e. A project topographical survey, which is a critical path item, was completed on August 14, 2020.
  - f. Another site visit was conducted on 9/16/20.
  - g. A site survey was completed on 10/5/20 and 10/6/20; another onsite meeting was conducted on 10/13/20. An alternate location is being considered.
- v. Other Projects
- 1. Sewer Master Plan Update
    - a. The Final System Evaluation and Capacity Assurance Plan (SECAP) was submitted to the City on November 15, 2019.
    - b. The City is planning to have the City Council adopt report once Baykeeper comments have been submitted.
    - c. A meeting to discuss Baykeeper comments with Nicole Granquist of Downey Brand was held on July 27, 2020. No update for October.
- c. Collections Systems and Wastewater Treatment Plant Operations and Maintenance
- i. Collection Systems Operations and Maintenance
    - 1. Baykeeper Settlement Agreement Projects
      - a. The 2020 RAA was re-submitted to Baykeeper on 5/28/2020
        - i. Inclusive to Veolia's submission of the 2020 RAA to the City of Richmond, the City of Richmond, in its submission of the 2020 RAA to Baykeeper, requested relief for one year in the requirement to repair an average of 2-miles/year of pipe segments having PACP Grade-5/4 defects such that the funds required for this work could be used instead to address the remaining inaccessible pipe segments reporting in the 2020 RAA as requiring repairs so that the CCTV condition assessment of the entire wastewater collection system can be completed. At present, Veolia-CPM is completing the preparations for a project to address the reported 2020 RAA inaccessible pipe segments; though it has not been determined at this time if whether or not the entire list of inaccessible pipe segments are to be repaired under a single project
    - 2. 4-year-out wastewater system cleaning progress
      - a. Actual miles of system cleaned in 2020 = 131.99
        - i. 2020 miles planned for cleaning = 50.8
        - ii. 2004 Service Agreement annual cleaning miles objective = 49.8
        - iii. 2020 hotspot cleanings (altered by the BKSA) and pre-CCTV cleaning = 54.43
        - iv. Various cleaning I.E. service calls, unplanned post construction CCTV = 27.76
    - 3. 10-year-out wastewater system CCTV condition assessment progress
      - a. Actual miles of system CCTVd in 2020 = 50.46

# Monthly Operations Report: October-2020

---

- i. 2020 miles planned for cleaning = 19.7
      - ii. 2004 Service Agreement annual CCTV miles objective = 19.7
      - iii. Grade 4 and 5 annual condition assessments (altered by BKSA) and 70 % or less = 20.91
      - iv. Post Construction CCTV = 1.5
    - b. Total gravity pipe segments in system reporting in InfoNet = 3649
      - i. Pipe segments with CCTV < 10-years and > 70% complete = 3461
      - ii. Pipe segments with CCTV > 10-years = 188
        - 1. (43) are greater than 10 years
          - a. (26) Pipe segments have been attempted but are currently inaccessible due to various reasons. (Cars parked on manholes, private property, etc.)
          - b. (7) are completed and pending data upload
          - c. (10) Segments scheduled but completed as of Sept 30
        - 2. (123) Have surveys within 10 years but are less < 70% complete
        - 3. (0) pipe segments needing point repairs before CCTV can be completed
        - 4. (22) are Inaccessible due to submerged pipes - Keller Beach
        - 5. (1) Segment was abandoned, changing the total number of pipes from 3650 to 3649
  - 4. Sanitary Sewer Overflows
    - a. Actual SSO's in October = 1
    - b. Actual SSO's YTD, 2020 = 7
      - i. Permissible by Baykeeper Settlement Agreement = 24 for 2020
  - 5. Customer Service Calls = 9
  - 6. Emergency & Miscellaneous Repairs
    - a. (0) wastewater point repairs
    - b. (2) manhole cover repair
    - c. (0) storm water point repairs
  - 7. Storm water collection system progress
    - a. Customer service calls = 0
    - b. City service calls = 0
    - c. Catch basins cleaned = 0
    - d. Trash capture devices cleaned = 0
    - e. Pipe segment cleaned = 0
    - f. V-ditched cleaned = 0-Ft
    - g. CCTV = 3 segments/582.2 ft
- ii. Wastewater Treatment Plant Operations
    - 1. Permit Violations – Yes, See explanation at V below.
      - a. Average daily flow = 4.79 MGD

# Monthly Operations Report: October-2020

---

- b. Peak daily flow = 10.35 MGD
- c. Effluent BOD/TSS mg/L = **48.6/48.9**
  - i. Permit Limits for Effluent BOD/TSS mg/L = 30/30
- d. Plant Odor complaints = 32

These were reported from BAAQMD and phone calls to the plant.

- 2. Non-standard operating conditions – DAFT unit is still out of service. Continuing to use gravity belt sludge thickener. Repair parts scheduled to be delivered first two weeks of December. Installation and testing will follow as soon as possible after delivery.
- 3. Regulatory agency reporting – All standard monthly reports submitted in a timely manner with no exceptions reported back from the regulator

### iii. Collection System Pump Station and Wastewater Treatment Plant Equipment/Facility Maintenance

- 1. Total preventive maintenance work orders completed = 303
- 2. Total corrective maintenance work orders completed = 24
- 3. All wastewater treatment plant mission-critical and redundant systems and equipment were observed and/or maintained and/or repaired as scheduled and/or required
- 4. All Storm and wastewater collection system pump stations were routinely checked and maintained as scheduled
  - a. Storm water pumps stations monitored = 8
  - b. Wastewater pump stations monitored = 15
- 5. Special projects
  - a. Overhauled Secondary Clarifier Aerator 2C and return to operation.
  - b. Overhaul Secondary Clarifier Aerator 2A and return to operation.
  - c. Replace Influent Pump # 4 Mechanical seal and return to operation.

### II. List of upcoming activities

- a. Continue discussions with City staff regarding prioritization and procurement delivery method for various maintenance and construction projects noted previously
- b. Continue planned CPM and O&M activities previously described in section I.b and I.c, respectively, above

### III. List of submittals delivered during the month

- a. CPM
  - i. 2019-20 Sewer Segment Rehab Project, RAA Year Two Change Order 1 TA – submitted 6/24/20.
  - ii. Cutting, Carlson & Hoffman TA Change Order 6 – submitted on 9/25/20.
  - iii. First & Bissell Sewer Repair – submitted on 10/21/20.
- b. O&M
  - i. RAA/SECAP/Master Plan TA – Submitted March 27<sup>th</sup>, COR responded It is with the Attorney's

## Monthly Operations Report: October-2020

---

- ii. Boiler Burner #2 TA – Submitted May 20<sup>th</sup>, COR responded June 3<sup>rd</sup>, It is with the Attorney's
  - iii. NASSCO upgrade from 6.0 to 7 TA – Submitted May 19<sup>th</sup>, Rejected by the COR on 9/23/20
  - iv. Collection Camera Cable Replacement TA – Submitted on 5/22, COR requested detail on 7/15, we provided on 7/21, Rejected by the City on 9/23/20
  - v. Collection Gas Detectors TA – Submitted 6/23/2020, COR asked further detail on 6/24, we provided requested detail on 6/26, COR asked further detail on 7/21, we provided on 8/10, Rejected by the COR on 9/23/20
  - vi. Portable Sludge Thickener TA – Submitted 8/25/20 – Received written approval by email from Yader on 8/25/20 to order the unit from Synagro while the TA is processed
- IV. List of submittal scheduled for the following month
- a. To be determined
- V. Listing of Permit Violations
- a. As you are aware, the Richmond Water Pollution Control Plant (the “Plant”) experienced operating issues in late September 2020 due to some operational startup problems with the gravity belt sludge thickening unit and intermittent mechanical issues with the aerators, which further delayed the Plant’s recovery due to the lack of dissolved oxygen (DO) generation. The Plant then experienced total failures of both aerator 2C and 2A in the first two weeks of October. This was followed by receipt of a heavy black fluid from the influent into the primary basin on October 14. In response to this influent, Plant staff isolated one half of the primary basins and started diverting the flow to diversion basins for approximately 5 to 6 hours until the primary basins started returning to a normal gray color. Veolia promptly notified the City of this influent, and City staff began checking all of the trunk line areas, as did the Veolia Water collection crews, but they were unable to discern the source of the black fluid. Plant staff ended up filling the diversion basins to approximately 12+ feet, after which they slowly drained the black fluid from the diversion basins back to headworks of the treatment plant for approximately 4 days. The Plant received another flow of the unknown black influent on October 19, which lasted for approximately 3 hours. Plant staff diverted as much as they could to the diversion basins once they visually detected the black flow in the primary basins. Plant staff then drained the diversion basins again back to the headworks of the treatment plant over the next few days. Due to these back-to-back incidents, the Plant lost biomass and most microbial activity was suppressed. This was promptly reported to the SWRCB.

## Monthly Operations Report: October-2020

---

| Date          | BOD (mg/L) | TSS (mg/L) |
|---------------|------------|------------|
| 9/27 - 10/3   | 49.00      | 39.43      |
| 10/4 - 10/10  | 57.57      | 56.29      |
| 10/11 - 10/17 | 67.83      | 64.29      |
| 10/18 - 10/24 | 44.00      | 47.86      |
| 10/25 - 10/31 | 26.80      | 28.28      |
| 10/1 - 10/31  | 48.6       | 48.9       |

- b. The biochemical oxygen demand (BOD) monthly average of 48.6 mg/l exceeded the limit of 30 mg/l and the total suspended solids (TSS) monthly average of 48.9 exceeded the limit of 30 mg/l.

The BOD weekly average for September 27th – October 3rd of 49 mg/l exceeded the limit of 45 mg/l. The BOD weekly average for October 4th – October 10th of 57.57 exceeded the limit of 45 mg/l. The TSS weekly average for October 4th – October 10th of 56.29 exceeded the limit of 45 mg/l. The BOD weekly average for October 11th – October 17th of 67.83 exceeded the limit of 45 mg/l. The TSS weekly average for October 11th – October 17th of 64.29 exceeded the limit of 45 mg/l. The TSS weekly average for October 18th – October 24th of 47.86 exceeded the weekly limit of 45 mg/l. Contact was made to the SWRCB in recognition of these exceedances.

- c. Corrective Actions:

Replacement parts were located, repairs were completed, and both mechanical aerators 2A and 2C were returned to service as soon as possible. While repairs were underway, Plant staff installed two temporary floating mixers and removed the failed components of the mechanical aerators. Plant staff then continued to operate the floating mixers along with repaired aerators with electric power from other sources. Staff also added the operation of a diesel pump during daytime hours to assist with mixing and DO generation as well. On a temporary basis, Plant staff also added polymer and ferric chloride to the secondary clarifiers to assist with coagulation and settling, and they introduced additional sodium hypochlorite to the headworks and diversion basins to assist with odor control while dealing with the unknown black material found in the influent. Plant staff sent samples of the black material to the contracted laboratory for analysis, which showed high levels of carbon containing compounds. Plant staff mitigated the higher flows during the day by diverting flow to the Plant's diversion basins and then draining the basins to the Plant headworks during the night when influent flows are at the lowest. Plant staff continued working with Veolia's Subject Matter Expert's (SME's) in order to regain complete compliance with the permit parameters using the above strategies. As you can see by the above BOD and TSS table, while the Plant did regain compliance during the last week of October and has continued that compliance into November, the Plant will not have the Dissolved Air Flow Thickener (DAFT) equipment back in service until late in December. Plant staff will continue to operate the Temporary Gravity Belt Thickener until the new parts are installed and tested and the DAFT unit is operating effectively.

## Monthly Operations Report: October-2020

---

- VI. Updated critical path schedule
  - a. There are no current projects operating under a critical path method of delivery
- VII. Other Project Discussion
  - a. CPM
    - i. None
  - b. O&M
    - i. The Veolia Richmond Plant Lab received a Certificate of Excellence in recognition of its proficiency testing. This was for achieving 100% acceptable data in a study which included 570 participating laboratories. This achievement is a demonstration of the superior quality of the laboratory in the evaluation of the standards listed below:
      - a. Demand
      - b. Low-Level Total Residual
      - c. Chlorine
      - d. pH
      - e. Solids Concentrate
      - f. WasteWatR™ Coliform MicrobeE™ – SM 9221
    - ii. Rolling Stock Inventory
      - a. Audit completed and provided to the City on May 19, 2020. Review and recommendations provided to the City on August 24, 2020.
      - b. Veolia is renting and/ or leasing any rolling stock inventory that is needed to perform the daily operations of the system and will continue to bill the City until the City can provide the necessary Vehicles as per the contract for Veolia to perform the work.