



October 31, 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: September-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.

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- I. Summary of work activities during the reporting month September-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 23rd and Garvin) was approved by the City on June 29, 2020.
 - ii. PCO #34 (segment repair at Barrett/34th Street) was approved by the City on July 22, 2020.
 - iii. 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 being prepared for the City's review.
 2. 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.
 - b. Macdonald & Virginia
 - i. By the end of September 2020, the Contractor had installed approximately 17,000 linear feet (13,230 lf Macdonald; 3,770 lf Virginia) of main pipe and laterals.
 - ii. The Project is on schedule and is anticipated to be complete by January or February 2021.

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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.

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 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.
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. All work is on hold at the direction of the City.

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 mandatory prebid site walk was conducted on September 25, 2020, and approximately 25 potential bidders

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attended. 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.

2. The Cogen Project Phase I was ongoing in September, with remote meetings continuing due to 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 independently reviewed Overaa's calculations and assumptions for Greenhouse Gas (GHG) reduction during September.
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.
 - 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 September.
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.) ZFA continued to present the facility assessment during August and submitted a Basis of Design Report (BODR) on August 26, 2020. ZFA began facility seismic evaluation/investigations on 9/2/20.
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.

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- c. Veolia incorporated additional City comments into the RFP; Veolia resubmitted it on 9/25/20 to the City.
 - 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.
 - 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.
 - 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 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 September.
- 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

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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 = 122.92
 - 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
3. 10-year-out wastewater system CCTV condition assessment progress
 - a. Actual miles of system CCTVd in 2020 = 39.5
 - 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 = 16.91
 - iv. Post Construction CCTV = 1.5
 - b. Total gravity pipe segments in system reporting in InfoNet = 3650
 - i. Pipe segments with CCTV < 10-years and > 70% complete = 3451
 - ii. Pipe segments with CCTV > 10-years = 199
 1. (44) 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. (6) are completed and pending data upload
 - c. (12) Segments scheduled but completed as of Sept 30
 2. (133) 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
4. Sanitary Sewer Overflows
 - a. Actual SSO's in September = 0
 - b. Actual SSO's YTD, 2020 = 6
 - i. Permissible by Baykeeper Settlement Agreement = 24 for 2020
5. Customer Service Calls = 6
6. Emergency & Miscellaneous Repairs
 - a. (1) wastewater point repairs
 - b. (1) manhole cover repair
 - c. (0) storm water point repairs
7. Storm water collection system progress
 - a. Customer service calls = 1
 - b. City service calls = 0

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- c. Catch basins cleaned = 0
 - d. Trash capture devices cleaned = 25
 - e. Pipe segment cleaned = 0
 - f. V-ditched cleaned = 0-Ft
- ii. Wastewater Treatment Plant Operations
- 1. Permit Violations – Yes, See explanation at V below.
 - a. Average daily flow = 4.71 MGD
 - b. Peak daily flow = 8.69 MGD
 - c. Effluent BOD/TSS mg/L = 31.6/28.2
 - i. Permit Limits for Effluent BOD/TSS mg/L = 30/30
 - d. Plant Odor complaints = 18

These were reported from BAAQMD and phone calls to the plant.
 - 2. Non-standard operating conditions - DAF unit still out of service. Recirculating waste sludge back to headworks for the first three weeks of the month. Continuing to add Polymer and Ferric to assist with settling and odor control while recirculating waste to headworks.
 - 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 = 259
 - 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. Installed Synagro's gravity belt thickener
 - b. Replaced Waste Activated Sludge Pump #1 VFD
 - c. Installed T-Bypass Line at Waste Activated Sludge Pump #2 discharge line to feed the Sludge Thickener and the Headworks
 - d. Boiler #2 New Burner installation was completed and put into service on 9/8/2020 and the annual boiler maintenance on both boilers completed.

II. List of upcoming activities

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- 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. On-Call Engineering Services on City Development Projects TA – sent 3/27/20 (in legal review); was rejected on 9/23/20.
- ii. SCADA Project No Cost Change Order #1 TA – submitted to the City on June 22, 2020; approved on 9/23/20.
- iii. 2019-20 Sewer Segment Rehab Project, RAA Year Two Change Order 1 TA – submitted June 24, 2020.
- iv. SCADA Project No Cost Change Order #2 TA – submitted on 8/3/20; was approved on 9/23/20.
- v. Ferry Point Force Main Assessment TA – Dornan Drive – submitted on 8/3/20; was approved on 9/23/20.
- vi. Marina Bay Parkway FM Extension Project TA – submitted on 8/12/20; was approved on 9/23/20.
- vii. Cutting, Carlson & Hoffman TA Change Order 6 – submitted on 9/25/20.

b. O&M

- i. RAA/SECAP/Master Plan TA – Submitted March 27th, COR responded It is with the Attorney's
- ii. Boiler Burner #2 TA – Submitted May 20th, COR responded June 3rd, It is with the Attorney's
- iii. NASSCO upgrade from 6.0 to 7 TA – Submitted May 19th, 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

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V. Listing of Permit Violations

	Lab Results for Sept 2020 @ EFF-002		
	BOD (mg/L)	TSS (mg/L)	NH3 (mg/L) - for EFF001
Week of 08/30 - 09/05	16.0	16.3	
Week of 09/06 - 09/12	16.0	23.6	
Week of 09/13 - 09/19	33.0	32.8	
Week of 09/20 - 09/26	34.7	33.0	
Week of 09/27 - 10/03	49.0	39.4	
September 2020 Monthly Average	31.6	28.2	34.6

- a. As you are aware, in July, we experienced a large increase and variance in composition of our loading to the Richmond WPCP. We were managing the process shift when we then experienced a catastrophic failure in August of the one remaining dissolved air floatation thickener (DAFT) unit, which necessitated recycling the solids to the head of the plant which contributed to not meeting compliance for all parameters. To further complicate the full recovery of our process, the portable gravity belt thickener unit added to the site to compensate for the downed DAFT, has changed the piping and operation in and around this process. The sludge thickener began operational testing on September 16th, which required us to switch the recycling of the waste to the head of the plant and send it to the portable gravity belt thickener. We began using the unit fully the week of the 21st. An operator, not taking some of these changes into account, overfed one of the digesters back to the headworks on September 16th and into the 17th, contributing more loading to the already upset system.
- b. Our monthly ammonia average results of 34.6 mg/l, exceed the permitted average of 32 mg/l and our monthly September results for biochemical oxygen demand (BOD) of 31.6 mg/l, exceeded the limit of 30 mg/l. The BOD weekly results from September 27th to October 3rd of 49 mg/l, which exceeded the weekly limit of 45 mg/l. This value will be included in October's monthly report.
- c. We also observed additional high foaming events in different areas of the plant. We collected samples and sent them off for surfactant analysis. We notified the City staff of previous sample results of higher than normal phenol coming into the plant. Results of the foam testing were inconclusive. We also had multiple days, on September 21st and the 25th, of aerator failures which only furthered the Dissolved oxygen issues.
- d. We have been working with Company SME's on the BOD issue as this seems to be related to the inability to run the site aerators in auto without issues and even in manual are having issues achieving our needed set point of oxygen on a continual basis. Many changes including employee training, additional internal process testing, review of the treatment equipment and capabilities, and utilization of enhanced chemical treatment were implemented as soon as this was identified. We will continue to do everything

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possible with the operating equipment we have to regain complete compliance with the permit parameters using the above strategies.

- 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