

Monthly Operating Report

Veolia Richmond CPM, WPCP and Collection System

June 2019

Executive Summary

- The monthly acute aquatic bioassay test passed with 100% survival of the test organisms. The chronic toxicity test was also conducted in June and the test organisms met both the growth and survival criteria indicating a successful test.
- There were no violations of the treatment plant NPDES permit during the period
- Planning and preparations (proposals, air permitting and technical design documents) are underway for several major construction projects planned for the treatment plant in 2019. Those include SCADA upgrades, the new grit-headworks system, aeration system upgrades and electrical cogeneration system among others.
- In respect to capital construction projects, there have been procedural changes required by the City resulting in delay of starting several critical construction projects. City and Veolia staff is working through these changes.

Wastewater Treatment Plant

- On June 6/9/19 several fence line alerts were sent from the Sonoma Technologies monitoring website. Veolia staff responded and investigated but did not determine they were due to operational issues at the treatment plant. This was the first time in over a year that H₂S was measured by the on-line, fence line monitors.
- 6/10/19 BAAQMD called in notification of complaint # 240232 and again on 6/17/19 called in notification of complaint # 240303. On 6/22 a complaint was called in by a resident. Follow up investigations did not determine the plant as the source of the odors.
- There were no blending events in June

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Table 2	Parameter	Monthly Performance Indicators	Limit/Target
Treatment Plant Operations:			
	Influent Flow, daily average (MGD)	5.13	N/A
	Effluent Flow, daily average (MGD)	5.72	N/A
	Influent BOD ₅ , avg. mg/L	345	N/A
	Influent TSS, avg. mg/L	388	N/A
	Effluent TSS, monthly average mg/L	20	30 or less
	Effluent BOD, monthly average mg/L	23	30 or less
	% BOD Removal	93	> 85
	% TSS Removal	94	> 85
	NPDES Effluent Limit Violations	0	0
	Blending events	0	0
	Total volume blended, MG	0	0
	Odor complaints	3	0
	Digested sludge pumped to drying beds, MG	1.67	N/A
	Leachate received, GAL	405,163	N/A
	Leachate received/treated YTD, MG	2.553	N/A

Maintenance

Asset Management Work Orders

Table 3

Work Order Type	# Completed
Storm Water Pump Stations	58
Sewer Pump/Lift Stations	73
Treatment Plant	39
Corrective	27
Total	197

Completed Projects - June

- Installed new Endress Hauser secondary process RAS flow meter.

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- Install new self-priming combined effluent 001 sample pump

Look Ahead; July - August 2019

- Complete the 23rd Street Storm Water Pump Station Motor Control Panel Project.
- Relocate both air compressors to new functional location at plant facility.
- Replace wet-weather pump station bio filter cedar odor bed.
- Rebuild back-up bar-screen carrier unit.
- Replace generator ATS at I.C.I. sewer sanitary lift station.
- Rebuild Flygt NP 3153.090 pump.

Collection System Monthly Report

Sanitary Sewer System Highlights

During the month of June-2019, there was (1) sanitary sewer overflow events. Year-to-Date Wet-weather/Dry-weather YTD SSO totals are as follows:

- Wet-weather (rain event) = 22-YTD
- Dry-weather (non-rain event) SSOs = 1-YTD
- Total SSO's = 23-YTD

Relative to Baykeeper and Contractual CCTV 10-year cycle condition assessment production and 4-year cleaning production:

1. Status Update of 2019 Hot Spot List
 - a. An email was submitted to the City on 6/27/2019/2019 noting the following (4) key talking points:
 - i. Additional information requested by Baykeeper incorporated into updated Hot Spot List spreadsheet
 - ii. Updated Hot Spot List spreadsheet pipe segment count reduced from (944) to (942) pipe segments
 - iii. (29) pipe segments on updated Hot Spot List had condition assessments greater than 10-years and CCTV condition assessments for these (29) pipe segments would be brought current by 7/12/2019
 - iv. (63) additional pipe segments on the updated Hot Spot List, due to having condition assessment dates ranging from 5/29/2009-7/31/2009, would have condition assessments greater than 10-years by the time the updated Hot Spot List was submitted to Baykeeper on 7/31/2019 and Veolia had a plan in place to bring these (63) pipe segment condition assessments current by 7/31/2019
2. Contract Status of 10-year CCTV cycle production
 - a. Veolia is in the 10th year of a 10-year CCTV cycle. Cycle start date was January 1, 2010

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- b. Number of pipe segments having CCTV greater than 10-years
 - i. (761) pipe segments due in 2019, approximately 31.3-miles and 17.5% of total gravity system
 - ii. (54) pipe segments overdue for June-2019
 - iii. (242) pipe segments overdue by 6/30/2019
 - c. General production rates of pipe segments CCTV Planned vs. Completed in 2019
 - i. Pipe Segments CCTV Planned through 6/30/2019 = (536)
 - ii. Pipe Segments CCTV Completed through 6/30/2019 = (443)
3. Contract Status of 4-year Cleaning production
- a. Veolia is in the 2nd year of a 4-year cleaning cycle. Cycle start date was January 1, 2018
 - b. Number of pipe segments having cleaning greater than 4-years
 - i. (438) pipe segments due in 2019, approximately 21.3-miles and 11.9% of the total gravity system
 - ii. (28) pipe segments overdue for June-2019
 - iii. (312) pipe segments overdue by 6/30/2019

There were a total of (10) sanitary system calls; see Table 2 for Wastewater Collection System Performance Indicators and the Table-3 for Storm Water Collection System Activity Summary for performance indicators.

Sanitary Sewer Point Repair:

(0) Sanitary system repairs performed during the month

Storm Water System Highlights

- Cleaned (5) Catch Basins
- Cleaned (0) V-ditches

Storm Water System Point Repairs

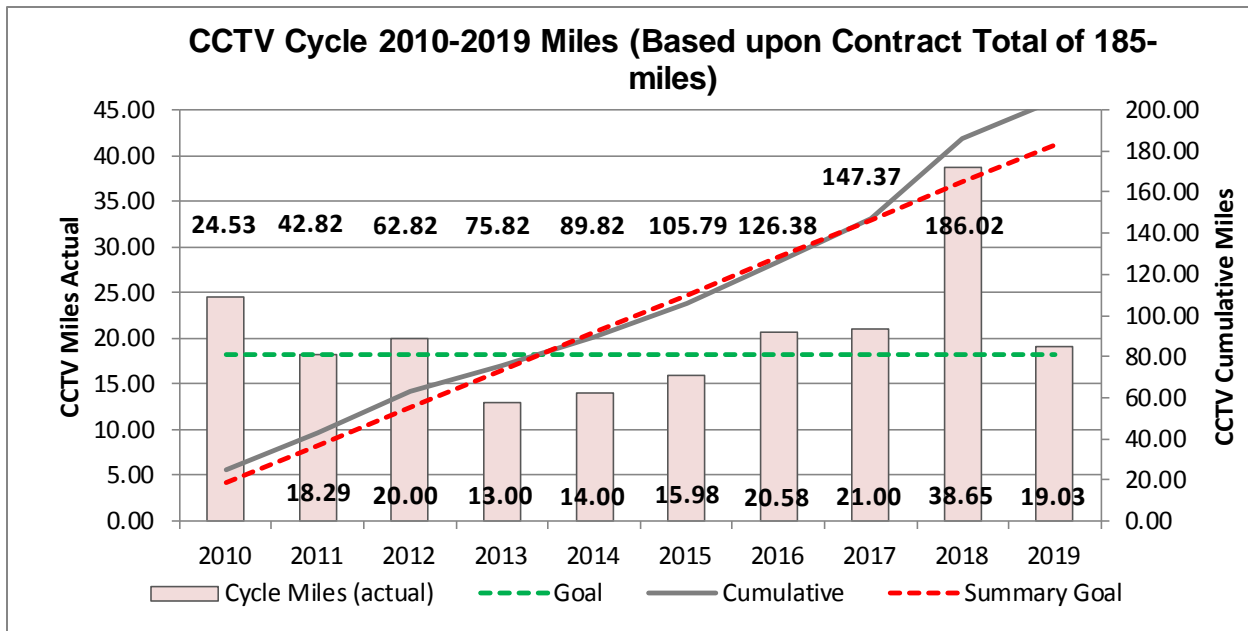
(4) Storm system repairs performed during the month

Collection Systems Monthly Performance Indicators

Veolia is in the 10th year of a 10-year CCTV cycle. Cycle start date was January 1, 2010. *

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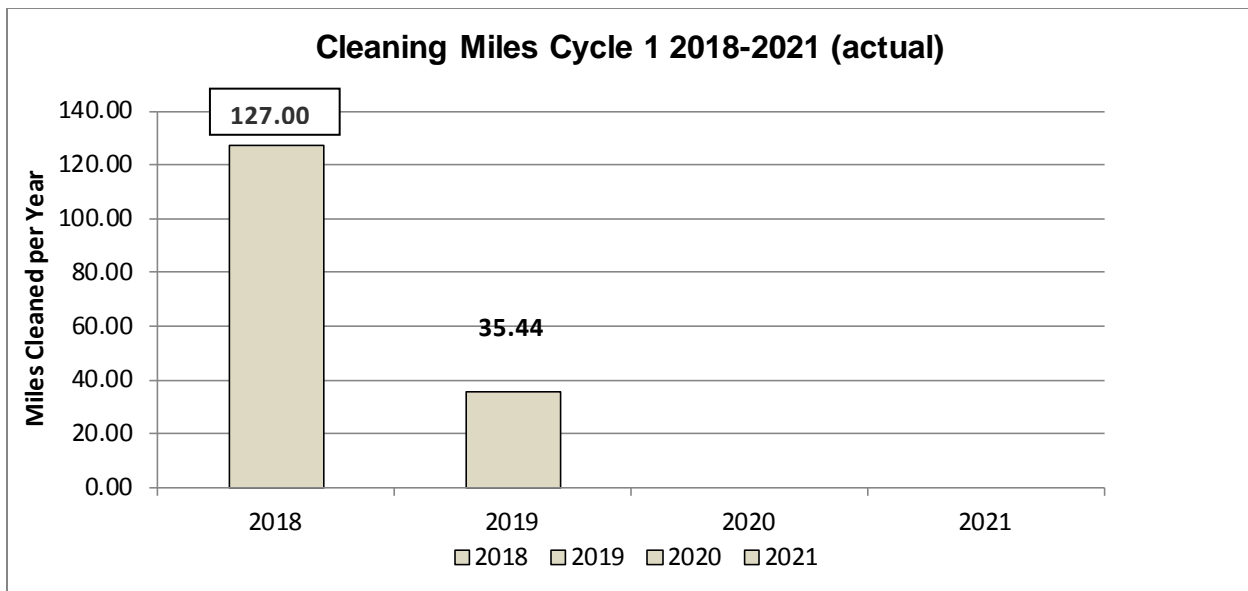


*Notes:

- 1) Goal mileage is based upon 18.5-miles/year to correspond with Contract Amendment #1 system mileage of 185-miles and recently reported City GIS mileage of 183-miles
- 2) CCTV work completed the week of 6/24/2019 was not captured in InfoNet due to video/data uploading technical problems. The technical problems are being corrected and updated information will be captured in the July-2019 MOR Report totals for the month of June-2019

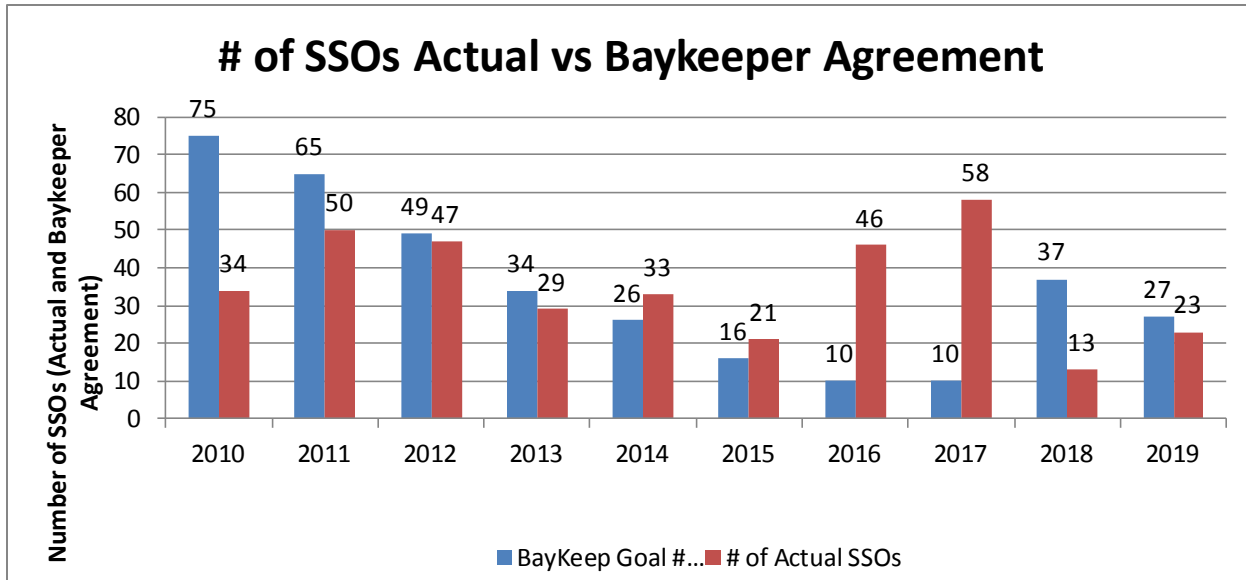
Veolia is in the 2nd year of a 4-year sewer cleaning cycle. Cycle start date was January 1, 2018.

- 35.4-miles of target 46-miles/year completed
- Percentage of annual target miles completed = 76.9%
 - Percentage of year elapsed = 50%



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SSO performance compliance with past and current 2018 Baykeeper Settlement Agreement



Sanitary System Performance Indicators

Table 2

Performance Indicator	Monthly Actual	Target/Limit
Service Calls (Public Facilities/Assets)	10	N/A
Service Call Response Time (minutes)	<30	<30
Private Lateral Service Calls; Regular/After Hours	1/0	N/A
Regular/OT Hours Spent on Private Lateral Calls	2/0	N/A
Point Repairs Completed	0	N/A
Manhole Inspections	0	N/A
Manhole Repairs	0	N/A
CCTV (Closed Circuit TV) (ft.)	11,768	7,000
GPS Surveys	0	As needed
Cleaning (ft.)	24,566	20,130
Cleaning QA/QC Events	8	8
SSOs for current month – Mainline	1	3.1/Mth
Total Mainline SSO Volume (gallons)	10	0
Total Mainline SSO Volume Recovered (gallons)	0	100%
% Mainline SSO Volume Recovered	0%	100%
# SSOs – Wet Weather (localized capacity issue)	22	0

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# SSOs – Engineered Overflow Structure	0	0
Total SSO Volume from Engineered Overflow Structure	0	N/A
SSOs – Private Laterals	0	N/A
General Maintenance	0	N/A
Potential SSOs Eliminated due to Smart Cover Monitors	0	N/A
SSOs – Mainline – Resulting in Property Damage	0	0
Total Wet Weather SSOs Year to Date	22	27 Combined Wet Weather/Dry Weather Annual - Baykeeper
Total Dry Weather SSOs Year to Date	1	
Number and Percentage of SSOs During 2019 with Discharge Reaching Storm Water Conveyance	23 of 23 = 100%	N/A

Storm Water System Performance Indicators

Table 3

Performance Indicator	Monthly Actual	Target/Limit
Storm Point Repairs	4	N/A
Storm Manhole Repairs	0	N/A
Storm Manhole Inspections	0	N/A
Storm Service Calls	3	N/A
Storm CCTV (ft)	1-segments (560- ft.)	N/A
Storm GPS Surveys	0	N/A
Storm Pipe Cleaning (ft)	970	N/A
Storm General Maintenance Cleaning (Linear feet of V-Ditches, Culverts or Creeks)	0-segments (0-LF)	N/A
Pump Stations/Inlet/Outlet Channels Cleaned	0	N/A
Catch Basins/Inlets/Storm Drains Cleaned	5	N/A
Storm Vaults Cleaned/Inspected	0	N/A
GSRD (trash capture device) Cleaning/Inspections	1	4/year
Flap Gate/Duck Bill Inspections	0	4/year

*Richmond CPM, WPCP and Collection System***CAPITAL IMPROVEMENT PROGRAM****2019 Risk Model Update and Risk Assessment Analysis (RAA).** *V.W. Housen & Associates (VWHA)*

- Veolia Capital Program Management (CPM) has started vetting Year One priority line segments listed in the 2019 RAA and will be establishing a Year 2 Sewer Repair list.

Baykeeper (BK) Sewer Pipe Rehabilitation – Year I & II. *Bay Hawk and W.R. Forde (Year I)*

- Year 1 of this project is 100% complete as of May 2019.
- Year 2 – First Rehabilitation and Replacement (R&R) RFP package for City Paving Conflicts to go out first.
- Development of Year 2 Repairs underway from 2019 RAA.

Cutting/Carlson & Hoffman Boulevard Projects. *V. W. Housen & Associates (VWHA). These projects replace pipelines which have NASSCO Pipeline Assessment Certification Program (PACP) Structural Grade 4 and 5 level defects in the sewer sheds that flow to Cutting Boulevard. The intention is the reduction of inflow and infiltration which will reduce the need to upsize the Cutting Boulevard interceptor, thereby reducing overall cost and construction impact to the City. Construction W.R. Forde, \$7,674,491 for both projects.*

- Approximately 23,260 LF has been installed through June 2019.
- The Contractor had one crew working periodically in June.
- Post CCTV is complete; manhole testing and final paving was completed in June, striping to follow in July.
- Approximately 1,500 linear feet of easement remains; on hold until the City recognized easement with the County

Emergency Repair at Valley View. *A significant sinkhole was detected by the City of Richmond in the area near 4807 Valley View Road in the City of Richmond. Emergency repair was required for the 60-inch CMP storm drain. Since this repair required an emergency response, the City, per Engineering Projects Director Yader Bermudez, has determined that competitive bidding is not required. The City contacted Bay Hawk, Inc. and Veolia to set the repair in motion.*

- Bay Hawk hand excavated and removed (initially) approximately six yards of debris out of the storm drain that runs from the manhole in the street at 4807 Valley View. The next day they opened the road to expose the sinkhole to begin evaluating the extent of the void. They continued removal of debris from the pipe and patch any additional deteriorated pipe as the debris removal continued.
- The City also contacted Nichols Consulting Engineers (NCE) who provided engineering consulting services. NCE has provided a scope of work for the repair work, including hydraulic analysis, investigations of voids outside the pipe, and evaluation of environmental concerns.

MacDonald and Virginia Project. *V. W. Housen & Associates. These projects replace pipelines which have NASSCO Pipeline Assessment Certification Program (PACP) Structural Grade 4 and 5 level defects in the vicinity of MacDonald and Virginia. The intention is the reduction of inflow and infiltration which will reduce the need to upsize the Cutting Boulevard interceptor, thereby reducing overall cost and construction impact to the City.*

- VWHA led the pre-bid meeting on June 18, 2019; eight companies attended. Gina Baker from the City of Richmond provided information on the City's ordinances.

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- Four bids were received on June 27, 2019. Three of these bids were from 5 to 11 percent lower than the Engineer's estimate. The fourth bid was substantially higher than the Engineer's estimate. All bids are currently under review.
- Council approval is anticipated on July 23, 2019.
- Construction is anticipated to begin in the fall of 2019.
- Baykeeper construction deadline is June 30, 2021.

Manhole Rehabilitation Project FY18/19. *Bay Hawk. In-house design continued to replace manholes within the City's collection system.*

- Bay Hawk installed two new manholes in June – one at 41st Street and the one on Target Path
- City budget for this effort was reduced to \$250K for this fiscal year, which will also be the annual amount moving forward.
- Project is approximately 60% complete as of June 2019.

Sewer Master Plan Update. *V.W. Housen & Associates. The purpose of this project is to update the City's wastewater collection system hydraulic model to a full-pipe model. This effort includes system-wide flow monitoring during the 2017-18 wet weather season; update the City's Risk Management Model to reflect current CCTV inspection and O&M data; develop recommendations to address pipeline capacity issues and rehabilitation and replacement (R&R) needs; develop an updated Capital Improvement Program (CIP) that builds upon the existing CIP; develop an updated Master Plan report that incorporates the work described above. Project is 70% complete.*

- Flow monitors were installed on November 30, 2018; flow monitoring continued through March 31, 2019. VWHA received data on April 29th
- Parcel flows have been assigned to modeled manholes, and dry weather calibration has been completed. The basis for dry weather flow calibration is data collected through early February 2019.
- A map showing initial capacity needs and associated narrative were provided on June 18th. The draft SECAP report was provided to the Richmond/Veolia team on July 3rd.
- The due date for an updated capacity plan is July 15, 2019 as required by SF Baykeeper.

Trash Capture Device Meeker Ditch Installation Project. *Harris & Associates/Contech Engineering. In March 2017, CalTrans and the City of Richmond entered into a Cooperative Implementation Agreement (CIA) for improvement to the State Highway System as a watershed stakeholder with the City's jurisdiction. Pursuant to Attachment IV of the CalTrans NPDES Permit, CalTrans and the City of Richmond are to collaboratively implement the Water Capture Facility, hereinafter referred to as a Trash Capture Project.*

- Comcast cutover for their customers completed on June 21, 2019.
- Demo of unforeseen concrete overpour at the existing box culvert took place as well as the demo/removal of a 60" abandoned RCP pipe in the work zone.
- Shoring for both trash capture device installations completed.
- Installation of the Contech trash capture devices is underway

WWTP High Priority Projects. *Engineers: Carollo Engineers; this project is a result of the WWTP Critical Improvements Project Design. The purpose of this project is to replace aging infrastructure and to improve treatment reliability and operating efficiency. Secondary Clarifiers Construction is 100% complete. Grit/Aeration/Blower Building design is going through Carollo's internal QA/QC check before getting released for bidding purposes.*

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- As-Needed SRF Application Assistance
 - Attended regular SRF conference calls and provided updates on the status of the application review.
 - Provided edits to the Financial Application Package regarding changes to project cost.
 - Conducted SRF calls with Veolia and the State on as-needed basis.
- WWTP Critical Improvements – Bid Documents
 - Continued preparation of bid documents.
 - Developed alternative for reducing the cost of the new electrical building (i.e., by utilizing the 15 kV Switchgear Building).
 - Prepared and submitted testing results from hazardous materials survey. Began preparation of hazardous materials survey report.
- ESDC - Secondary Clarifier
 - Continued preparation of record drawings.
- Cogeneration CEQA Environmental Analysis
 - Submitted Draft CEQA Addendum for Cogeneration Project for Veolia/City review.