

Monthly Operating Report

Richmond WWTP and Collection System

July, 2017

Executive Summary

- There were no permit violations in the month of July 2017
- The monthly acute aquatic bioassay test passed with 100% survival of the fathead minnows.
- The BAAQMD Air Quality Inspector, Simon Winer, gave a talk to the plant operators and to the City staff on the regulations and the history of air monitoring in our area.
- There were a number of odor complaints during the month. An arrangement was made to involve a City employee in the response to the residents, and to be accompanied by a Veolia employee for any home site visits.
- Held cleanup event at Keller Beach on July 19 as part of Veolia/Richmond's Adopt a Beach program
- Management attended the East Bay Leadership Council's Water Task Force meeting on July 18
- Attended State Revolving Fund Policy and Prioritization Workshop in Oakland on July 13
- Held kick-off meeting on July 11 with engineering consultant to develop a Biosolids and Energy Plan for the Richmond Water Pollution Control Plant (WPCP)
- Made substantial progress, coordinating with City staff and consultants, responding to Baykeeper's Public Records Act request

Wastewater Treatment Plant

- Odor issues were of more than usual prominence during the month of July. Air District Inspector Simon Winer came to the plant and gave a talk to staff that was well received. There were an unusually high number of 8 odor complaints.
- During the month of July, only 4 days were at 80F or above and those days did not coincide with when the odor complaints were received. Further, Peroxide was being dosed for most but not all the days.
- Veolia's protocol is to acknowledge the receipt of the call and then to investigate the plant using a Jerome H₂S detector, followed by a visit to the home/site. Normally, no odors are

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detected – either because by the time a team can reach the site/the house, the odor has abated or for a number of reasons such as the wind direction has changed.

- In order to lend further credibility to the investigation, the protocol has been changed, initially for a short time: So, now, after a call is received, a City employee will respond by a phone call and then a site visit is to take place by the City employee together with a Veolia employee. The plant site will also be investigated along with the City employee. These site visits have started to take place. No odors have been detected on the site visits, and the residents have been informed of the investigations and the results. It would appear that the odors drift in and out at homes/sites.
- The details of all the 8 reports are given below:
 - 1. On 7/4/17, 2100 hours; 226E Scenic Ave. No odors detected.
 - 2. On 7/5/17, 1741 hours; 226 E Scenic Ave. No odors detected.
 - 3. On 7/9/17, 0140 hours; West Richmond Ave, reporting frequent odors near the Washington School. No odors detected next day.
 - 4. On 7/10/17, 0900 hours; 107 West Richmond Ave, reported frequent odors near Washington School. No odors detected.
 - 5. On 7/11/17, 1115 hours; sewer odors in the morning were the complaint. Staff visited the site (Angels Bay Ct in Brickyard Cove area) on 3 consecutive days. No odor noted but did detect bay smell.
 - 6. On 7/21/17, 1230 hours; Air Quality Inspector Simon Winer stopped by to report having received a complaint about odor on Canal Boulevard (caller was driving by the plant). No unusual odors detected at the plant.
 - 7. On 7/22/17, 1750 hours; 1 Crest Ave. City and Veolia staff visited the site. No odors detected.
 - 8. 7/26/17, 1758 hours; City and Veolia staff visited the site. No odors detected.
- During the month of July, there were no H2S alerts from the fence line monitors
- ZAPS influent monitoring system is on-line
- There were no blending events in July.

Table 1	Parameter	Monthly Performance Indicators	Limit/Target
Treatment Plant Operations:			

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Influent Flow, daily average (MGD)	5.26	N/A
Effluent Flow, daily average (MGD)	4.83	N/A
Influent BOD ₅ , avg. mg/L	352	N/A
Influent TSS, avg. mg/L	358	N/A
Effluent TSS, monthly average mg/L	12.9	30 or less
Effluent BOD, monthly average mg/L	17.7	30 or less
% BOD Removal	95.0	> 85
% TSS Removal	96.3	> 85
NPDES Effluent Limit Violations	0	0
Blending events	0	0
Total volume blended, MG	0	0
Odor complaints	4	0
Digested sludge pumped to drying beds, MG	1.839	N/A
Leachate received, GAL	389,115	N/A
Leachate received YTD, MG	3.16	N/A

Maintenance

Staff completed 240 total maintenance work orders during the month; preventative; 95 at sewer lift stations, 87 for storm water pump stations and 46 work orders at the treatment plant. 15 corrective work orders were also completed.

Completed Projects; July

- Completed rebuild of primary clarifier skimmers #1 & #2
- Install aerator blade on 2B. Remove floating aerators
- Ordered replacement grinders for digester sludge recirculation system, completed

Look Ahead; July - August

- The cog rake electrical panel upgrade was scheduled for installation in July however Central Sierra has pushed that to August or September.
- New Ferry Point lift station pump and check valve replacement project began in May and is still ongoing. A fractured suction pipe on one of the pumps was discovered in June and Overaa Construction has placed a temporary patch on the line until a permanent solution is available.
- Evaluating landscape maintenance providers and contract
- Have Synagro tentatively scheduled for influent wet well and grit/storm basin cleaning in August

July, 2017

- Continue work in support of plant electrical upgrade project. Central Sierra continues with the installation of the plant's perimeter lighting.
- Executed contract with Bay Alarm to redo existing plant security and smoke/fire alarm monitoring. Awaiting installation of equipment.
- Beginning demolition of mechanical components of Secondary Clarifier #1

Collection Systems

Sanitary Sewer System Highlights

During the month of July there were 3 dry weather sanitary sewer overflow events.

- 401 S 19th St.
- 28th St. and Cutting Blvd.
- 506 Tremont Ave

There were a total of nineteen sanitary sewer service calls in July, seven of which were private lateral issues. (See table 2).

Sanitary Sewer Point Repair:

There were two sanitary sewer repairs performed during the month of July 2017.

- 525 17th set and Roosevelt Ave.
- 1402 Dunn Ave.

Storm Water System

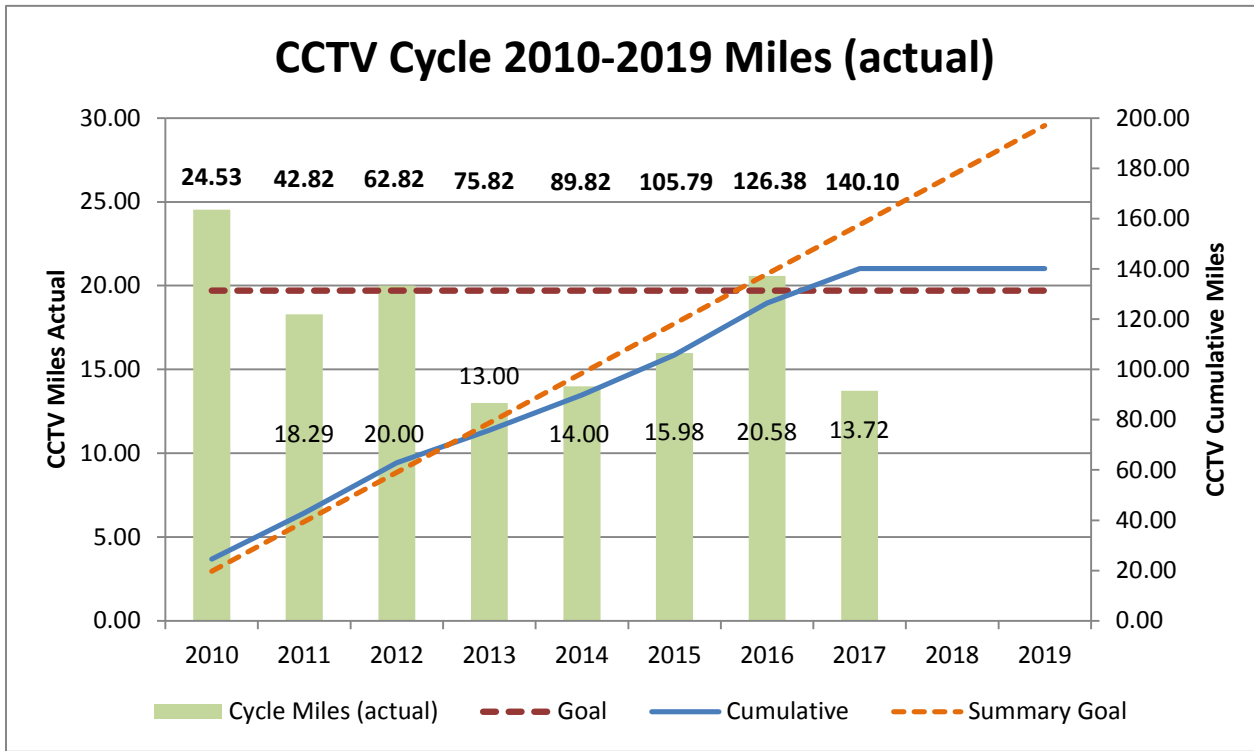
There was one storm-water related service calls in July. (see table 3).

Storm Water Highlights

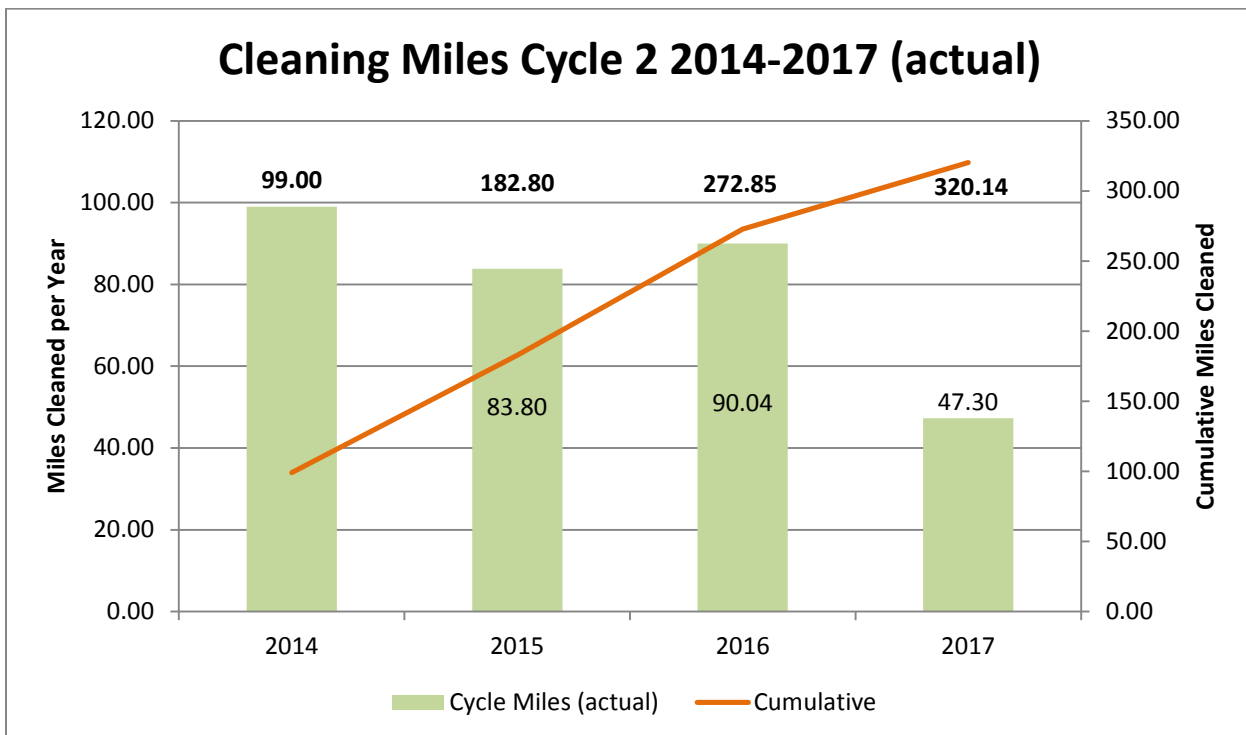
- Staff with contractors and City efforts, started the installation project for 2 new trash capture devices at 8th st near Potrero Ave and at 27th st and Pierson Ave near the Moody Underpass. The estimated completion of this project is September 2017.
- Staff is currently working on connectivity gaps #8 project for the City of Richmond in an effort to understand where the pipes are coming from and/or where they discharge. There are areas remaining within the City where the layout of the storm water system is not well understood. Connectivity is the term for evaluating the storm water system with the objective of identifying where the different features (pipes, V ditches, culverts etc.) are located and how they convey storm water.

Collection Systems Monthly Performance Indicators

Veolia is in the 8th year of a 10-year CCTV cycle. Cycle start date was January 1, 2010.



Veolia is in the final year of a 4-year sewer cleaning cycle. Cycle start date was January 1, 2014. Cumulative footage exceeds the goal to-date.



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Sanitary System Performance Indicators

Table 2

Performance Indicator	Monthly Actual	Target/Limit
Service Calls (Public Facilities/Assets)	19	N/A
Service Call Response Time (minutes)	<30	<30
Private Lateral Service Calls; Regular/After Hours	7/1	N/A
Regular/OT Hours Spent on Private Lateral Calls	14/2	N/A
Point Repairs Completed	2	N/A
Manhole Inspections	0	N/A
Manhole Repairs	0	N/A
CCTV (Closed Circuit TV) (ft.)	8,626	7,000
GPS Surveys	0	As needed
Cleaning (ft.)	33,232	25,000
Cleaning QA/QC Events	2	4
SSOs for current month – Mainline	3	10/yr.
Total Mainline SSO Volume (gallons)	1,003	0
Total Mainline SSO Volume Recovered (gallons)	3	100%
% Mainline SSO Volume Recovered	<1%	100%
# SSOs – Wet Weather (localized capacity issue)	0	0
# SSOs – Engineered Overflow Structure	0	0
Total SSO Volume from Engineered Overflow Structure	0	N/A
SSOs – Private Laterals	0	N/A
General Maintenance	2	N/A
Sewer Lift Station PMs	95	N/A
Potential SSOs Eliminated due to SmartCover Monitors	0	N/A
SSOs – Mainline – Resulting in Property Damage	0	0
Total Wet Weather SSOs Year to Date	35	0
Total Dry Weather SSOs Year to Date	6	10 - Baykeeper
Number and Percentage of SSOs During 2017 with Discharge Reaching Storm Water Conveyance	38 of 41 - 92%	N/A

Storm Water System Performance Indicators

Table 3

Performance Indicator	Monthly Actual	Target/Limit
Storm Point Repairs	0	N/A
Storm Manhole Repairs	0	N/A
Storm Manhole Inspections	0	N/A
Storm Service Calls	1	N/A
Storm CCTV (ft)	798	N/A
Storm GPS Surveys	0	N/A
Storm Pipe Cleaning (ft)	1,655	N/A
Storm General Maintenance Cleaning (Linear feet of V-Ditches, Culverts or Creeks)	0	N/A
Pump Stations/Inlet/Outlet Channels Cleaned	0	N/A
Cash Basins/inlets/storm drains Cleaned	25	N/A
Storm Vaults Cleaned/Inspected	0	N/A
GSRD (trash capture device) Cleaning/Inspections	0	4/year
Flap Gate/Duck Bill Inspections	0	4/year
Storm Water Pump Station PMS	87	N/A

Capital Improvement Program

Electrical Upgrade Project Construction

- Central Sierra continued work on Site Security Lighting Foundations
- Continued working on other change order work, including camera installation
- Pulled wire from SB-2 to vault near existing main switchgear

13th Street & Dunn and 23rd Street Rehabilitation Projects

- The 13th Street & Dunn project has been combined with the 23rd Street Sewer Replacement and was re-bid in June 2017. The project was awarded to W.R. Forde at \$8.1M.
- The Notice to Proceed was issued July 31, 2017. Contractor and staff currently working on reviewing submittals.

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Cutting, Carlson, and Hoffman Boulevard Project Designs

- This project replaces pipelines with NASSCO PACP Structural Grade 4 and 5 defects in the sewersheds that flows to Cutting Boulevard. Reduction of inflow and infiltration will reduce the need to upsize the Cutting Boulevard interceptor, thereby reducing overall cost and construction impact to the City.
- 90 percent design documents (VWHA) for Cutting/Carlson Boulevard are in progress and require completion of the remainder of CCTV inspections; Hoffman is 100% complete. This project currently on hold for State funding; bidding for both projects will occur after the City receives approval for SRF funding.

Manhole Lining Rehabilitation Project

- Phase 1 of this project replaces 80 manholes within the City's collection system
- Carollo consultant working with Veolia staff for an RFP package to go out to bid shortly

Richmond Trash Capture Devices Project (Design & Construction)

- This project involves installing two below-ground, flow-through treatment devices that use multiple treatment processes to screen, separate and trap trash, debris, sediment, hydrocarbons and other pollutants from stormwater runoff
- Contech Engineered Solutions and designer engineers BKF met a second time with Veolia and City staff to review two specific locations targeted for these devices
- The project went out to bid August 8th; bids are due August 22nd; construction projected for late August thru September 2017; must be operational (substantial completion) by September 30th.

Richmond WWTP Biosolids to Energy Plan

- Consultant CH2M continued work on review of available background documents and data request; developed and submitted request.
- Prepared and conducted Workshop No. 1 on July 22, 2017 with the City/Veolia.
- Began work on evaluation of co-digestion and feedstock opportunities; conducted investigation into potential local feedstock sources
- Began preparation of City Council meeting , scheduled for September 26, 2017; prepared a draft presentation
- Workshop No. 2 is set for September 6, 2017

Sludge Leachate Line Condition Assessment

- Consultant V&A completed field reconnaissance
- V&A is finalizing their work plan
- Consultant is working to resolve issues re: spoils and groundwater from the excavations

Tewksbury/Marine

- Phases 1 & 2 were combined to add three new manholes and 275' of 8" pipe near the intersection of Tewksbury, Marine and Morgan in the City of Richmond (I) and to install laterals on Marine Street (II)
- Work completed by Bayhawk in July; final CCTV work being done by Collections
- As built to go to City upon completion

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WTP Critical Improvements Project Design

- Carollo continued preparation of the 100% design deliverable.
- Analyzed results of process sampling effort conducted by plant staff in March 2017
- This project will become a Design/Build project entitled WWTP High Priority Projects – Carollo to continue design; Overaa to do construction

WWTP Perimeter Site Evaluation and Topo Survey

- Completed site walk with geotechnical subcontractor and NCE staff to discuss hillside slope protection and evaluate potential biological impacts
- Began hydrologic evaluation