

Monthly Operating Report

Richmond WWTP and Collection System

January 2017

Executive Summary

Wastewater Treatment Plant

- There were no known NPDES violations during the month.
- According to the rain gauge on site, rainfall totaled 11.65 inches at the Richmond WWTP during the month of January 2017. That value represents about 43% of the annual average rainfall for the service area and is the largest single month value Veolia has on record going back to 2008. By comparison, the County rain gauge at Richmond City Hall measured 11.98 inches of rain during the period. The heaviest single daily rain event showed 1.85 inches on January 10. There were 4 blending events as follows: (1) 1/8/17 from 0410 hours through 1/11/17 at 1940 hours; (2) 1/12/17 from 0134 hours through 1/13/17 at 0558 hours; (3) 1/18/17 from 2145 hours through 1/19/17 at 2200 hours; (4) 1/20/17 from 0700 hours through 1/24/17 at 0556 hours.
- Total volume blended was 100.97 million gallons and the blending duration was roughly 223 hours (over nine days). Plant flows averaged about 14.5 million gallons per day during the period which is nearly triple the daily dry weather average. The treatment plant was staffed around the clock during these blending events. Expenditures on overtime for treatment plant and collections staff (responding to SSOs and flooding), as well as chemical use during the period were extreme.
- Planning work (leading into design) on the sodium bisulfite system rehabilitation project has expanded to include the storage and feed components of that system and will include an evaluation of the combined outfall of the West County Agency plants.
- The monthly acute aquatic bioassay test passed with 100% survival of the fathead minnows.
- There were no phoned in odor complaints, and zero fence alerts in January.
- There were 12 SSOs in January all of which were capacity related. Sewer construction projects are planned for the localized capacity issues that caused these SSOs.
- Veolia Richmond is working with City staff to replace two City owned vehicles; one fork lift and one utility service truck (with 5 ton hoist). Both were removed from service due to age, condition and operational problems.

Table 1 Parameter	Monthly Performance Indicators	Limit/Target
Treatment Plant Operations:		
Influent Flow, daily average (MGD)	14.51	N/A
Effluent Flow, daily average (MGD)	15.74	N/A
Influent BOD ₅ , avg. mg/L	196	N/A
Influent TSS, avg. mg/L	221	N/A
Effluent TSS, monthly average mg/L	15.5	30 or less
Effluent BOD, monthly average mg/L	16.5	30 or less
% BOD Removal	93	> 85
% TSS Removal	88	> 85
NPDES Effluent Limit Violations	0	0
Blending events	4	0
Total volume blended, MG	100.97	0
Odor complaints	0	0
Digested sludge pumped to drying beds, MG	1.82	N/A
Leachate received, GAL	504,456	N/A
Leachate received YTD, MG	.504	N/A

Maintenance

Staff completed 312 Preventive maintenance work orders during the month; 102 at lift stations, 102 at storm water pump stations, 13 corrective and 93 preventative work orders at the treatment plant.

- Remodel of operations room and Collections room are completed.
- Cog Rake electrical panel upgrade is scheduled for installation in February.
- New Smith and Loveless retrofit pumps and check valves have arrived for the Ferry Point Lift Station. Installation is expected in February.
- Staff is soliciting bids for a new plant wide video surveillance system
- Much of the maintenance group's focus during January was on supporting operations during the persistent rain and high flow events. Power interruptions, equipment maintenance issues and data communications disruptions were all part of those challenges.

Collection Systems

Sanitary Sewer System

During the month of January there were twelve (12) sanitary sewer overflows (SSOs) all of which were capacity related.

There were a total of 29 sanitary sewer service calls in January, 13 of which were private lateral issues (see table 2).

Sanitary Sewer Point Repair Highlights:

There were no sanitary sewer repairs performed during the month of January due mainly to the heavy rains and high flows during the period. Several small point or emergency repair projects are scheduled to start in February weather permitting.

Storm Water

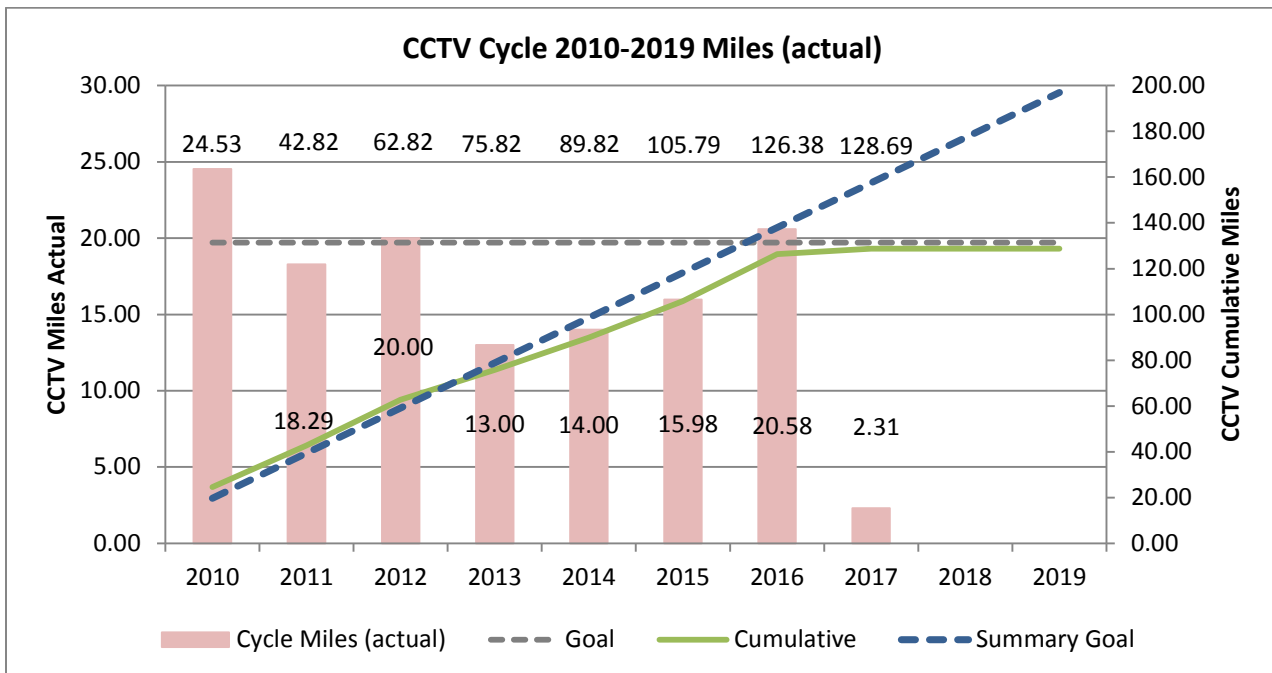
There were 37 storm-water related service calls in January (see table 3).

Storm Water Point Repair Highlights

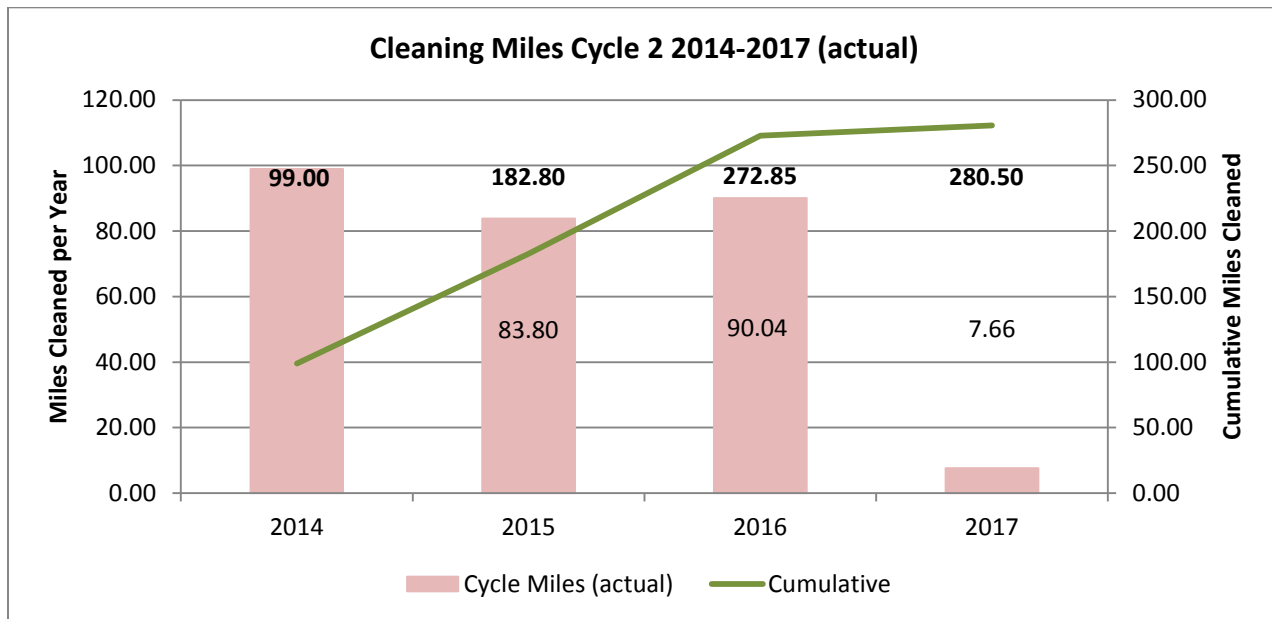
- Lincoln school which is located on 6th St and Chanslor St. has annual flooding and the collection crew located the outfall in the Greenbelt and a point repair was completed by the contractor to enable storm flows to relieve the streets and prevent flooding in the future.

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 near the end of the 4th year of a 4-year sewer cleaning cycle. Cycle start date was January 1, 2014. Cumulative footage exceeds the goal to-date.



Sanitary System Performance Indicators

Table 2

Performance Indicator	Monthly Actual	Target/Limit
Service Calls (Public Facilities/Assets)	29	N/A
Service Call Response Time (minutes)	<30	<30
Private Lateral Service Calls; Regular/After Hours	13/0	N/A
Regular/OT Hours Spent on Private Lateral Calls	0/0	N/A
Point Repairs Completed	0	N/A
Manhole Inspections	0	N/A
Manhole Repairs	0	N/A
CCTV (Closed Circuit TV) (ft.)	12,211	7,000
GPS Surveys	0	As needed
Cleaning (ft.)	40,423	25,000
Cleaning QA/QC Events	4	4
SSOs for current month – Mainline	0	10/yr
Total Mainline SSO Volume (gallons)	0	0

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Total Mainline SSO Volume Recovered (gallons)	0	100%
% Mainline SSO Volume Recovered	0	100%
# SSOs – Wet Weather (localized capacity issue)	12	0
# SSOs – Engineered Overflow Structure	1	0
Total SSO Volume from Engineered Overflow Structure	0	N/A
SSOs – Private Laterals	0	N/A
General Maintenance	7	N/A
Sewer Lift Station PMs	102	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	12	0
Total Dry Weather SSOs Year to Date	0	10 - Baykeeper
Number and Percentage of SSOs During 2016 with Discharge Reaching Storm Water Conveyance	12 of 12 - 100%	N/A

Storm Water System Performance Indicators

Table 3

Performance Indicator	Monthly Actual	Target/Limit
Storm Point Repairs	1	N/A
Storm Manhole Repairs	0	N/A
Storm Manhole Inspections	0	N/A
Storm Service Calls	37	N/A
Storm CCTV (ft)	0	N/A
Storm GPS Surveys	0	N/A
Storm Pipe Cleaning (ft)	847	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 Cleaned	2	N/A

Storm Vaults Cleaned/Inspected	0	N/A
GSRD (trash capture device) Cleaning/Inspections	2	4/year
Flap Gate/Duck Bill Inspections	1	4/year
Storm Water Pump Station PMs	0	N/A

Capital Improvement Program

Electrical Upgrade Project Construction

- Pulled wire from SB-3 Switchgear to field equipment.
- Pulled wire from SB-2 Switchgear to MCC Sludge Transfer P.S.
- Pulled wire from SB-1 to field equipment.
- Received PG&E approval on Main Switchgear and release to manufacturer to finish fabrication.

13th Street Capacity Improvement Project Design

- This project replaces pipelines with NASSCO PACP Structural Grade 4 and 5 defects in the sewershed that flows to the 13th Street interceptor, and replaces and upsizes the 13th Street interceptor from Costa to Garvin.
- Bids were opened on October 20, 2016. The project has been on hold pending approval of SRF funding.

23rd Street Sewer Replacement Project Design

- This project replaces the existing 21-inch diameter interceptor sewer and adjacent 6-inch diameter collector sewer between Ohio and Cutting Blvd.
- 100 percent design documents are complete and the project is ready to bid. Construction is anticipated for mid-2017.

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 for the Hoffman Boulevard improvements have been completed and reviewed by Veolia and City staff. 90 percent design documents for Cutting/Carlson Boulevard are in progress and require completion of the remainder of CCTV inspections. Bidding for both projects will occur after the City receives approval for SRF funding.

WWTP Facility Plan Project

- Provided as-needed support for the CWSRF loan applications.

WWTP Critical Improvements Project Design

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- Conducted internal QA/QC of 90% design deliverable.
- Reviewed and addressed Veolia/City design review comments.
- Began preparation of 100% design deliverable.