

# 2016 NPDES SELF-MONITORING PROGRAM ANNUAL REPORT

NPDES PERMIT NO. CA0037869

East Bay Dischargers Authority  
City of San Leandro  
Oro Loma Sanitary District  
Castro Valley Sanitary District  
City of Hayward  
Union Sanitary District

January 30, 2017

## Table of Contents

1.	Annual compliance summary table.....	1
2.	Treatment plant performance discussion.....	1
3.	Biosolids information .....	2
4.	Tabular and graphical summaries .....	2
5.	List of approved analyses .....	9
6.	Plan view drawings.....	10
7.	Annual facility inspections for Storm Water .....	18
8.	Facility report reviews.....	19
9.	BACWA Watershed Permitting and Monitoring .....	25

## **Section 1: Annual Compliance Summary Table of Treatment Plant Performance**

There were no permit exceedances in 2016. EBDA submits all its data electronically into CIWQS, and this information is captured electronically by the CIWQS summary violation reports.

## **Section 2. Comprehensive Discussion of Treatment Plant Performance and Compliance**

Significant construction has been completed at the Sea Leandro Plant with a formal ribbon-cutting in the spring. In the summer, the City of Hayward's Water Pollution Control Facility commissioned an additional primary clarifier. This new unit was converted from a de-commissioned Dissolved Air Flotation Unit. The goal of this new clarifier is to allow the plant to meet planning capacity with a peak hour flow of 54.3 mgd. In addition, Hayward completed structural repairs to its headworks station.

Brown and Caldwell conducted an exterior inspection, minor repairs and retrofits, and condition assessment of EBDA's treated wastewater effluent disposal pipeline and diffuser. The work included:

- Exterior diver inspections,
  - Manhole (MH) riser and cover reconnaissance (4)
  - Diffuser riser inspection (251)
- Outfall alignment bathymetric and side-scan-sonar surveys (about 30,000 linear feet),
- Retrofits: diffuser riser salt water release "stingers" and manhole cover clamp design,
- Condition assessment: risers, MH covers, and outfall alignment,
- Diffuser interior sonar and closed-circuit television (CCTV) inspection via underwater remotely operated vehicle (ROV) for 1600 ft,
- Interior diver inspection of manhole risers (3) and selected bell mouth risers (about 8),
- Manhole cover clamp installation (3), and
- Final outfall condition assessment and remaining useful life estimate

Brown and Caldwell reached the following conclusions:

- Based on the exterior inspection and lack of reports from the Authority about elevated discharge pumping pressures, the outfall and diffuser apparently are in good condition after minor repairs to the riser-and-tee assemblies.
- Based on the interior diver inspection of aluminum bronze bell mouths along the diffuser interior crown (three bell mouths upstream and three bell mouths downstream of the manhole at station 148+70) and ROV observation of all bell mouths where ROV access was feasible, the riser connections are solid.
- The one clogged riser has no significant effect on the outfall system's capacity.
- Based on interior inspection of the diffuser and results from destructive testing by other California agencies, the Authority reasonably should assume that its effluent outfall system should last 100 to 150 years, with periodic inspection and maintenance.

- Observation of the saltwater crustacean life within the ports confirm BC's suspicion that saline Bay water enters the diffuser section and flows along the pipeline invert. Owing to the pipeline's and diffuser's shallow slope, the intruded water likely penetrates a significant distance upstream of the diffuser. The system pumping characteristics—initially higher headloss at high flows followed by a sudden headloss reduction—confirms that denser salt water is present inside the outfall. At lower flows, the effluent water flows atop the denser Bay water. At higher flows, the pumping flow and head eventually purges the intruded Bay water and the pumping head decreases. Based on current system characteristics, Bay water intrusion does not pose a risk to the system.

### **Section 3. Biosolids Compliance**

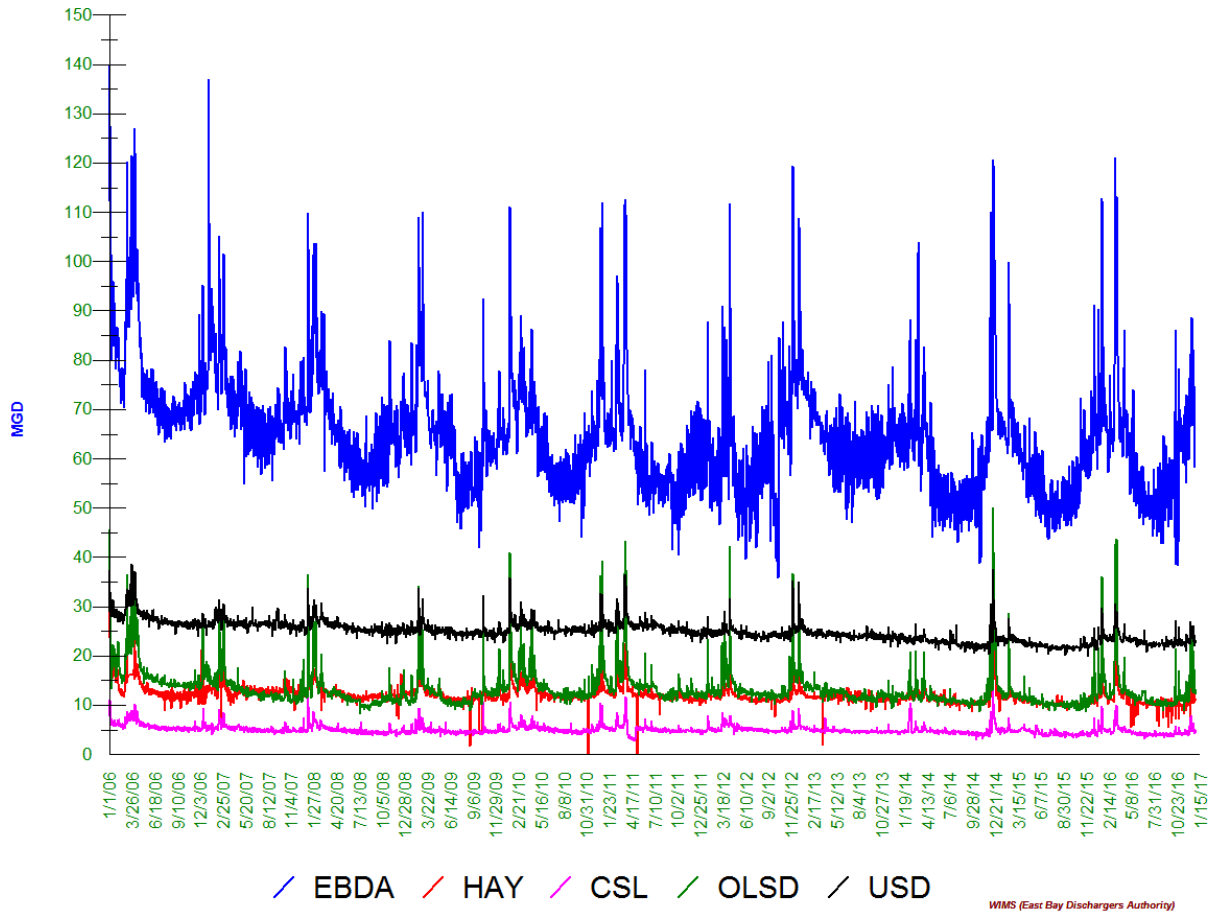
Biosolids reporting data are submitted separately to EPA. A summary of the amount and landfills to which biosolids were sent is below:

- OLSA transported 9,841 wet tons to Altamont landfill for Alternate Daily Cover (ADC) in 2016.
- USD produced a total of 20,357 US wet tons of Class B biosolids. A total of 13,395 tons were transferred to Synagro for land application, 6,400 tons of Class B biosolids were composted to Class A by Synagro, and 563 tons were transferred to Landfill.
- In 2016 CSL produced 1101 dry tons of sludge and hauled 670 dry tons for land application (Robinson Ranch – Merced)
- Hayward hauled 8,667.51 tons of biosolids to the Altamont Landfill.

### **Section 4. Tabular and Graphical Summaries**

Since EBDA submits all its data electronically into CIWQS, this section simply summarizes performance on the major contaminants for which there are permit limits. Most all other contaminants are found at concentrations below detection limits. Any evaluation of trends must consider that overall flows through the EBDA system are declining. EBDA's Member Agencies recycled approximately 1.7 billion gallons of effluent last year. Including the LAVWMA agencies, water recycling accounted for more than 10% of EBDA's total flows.

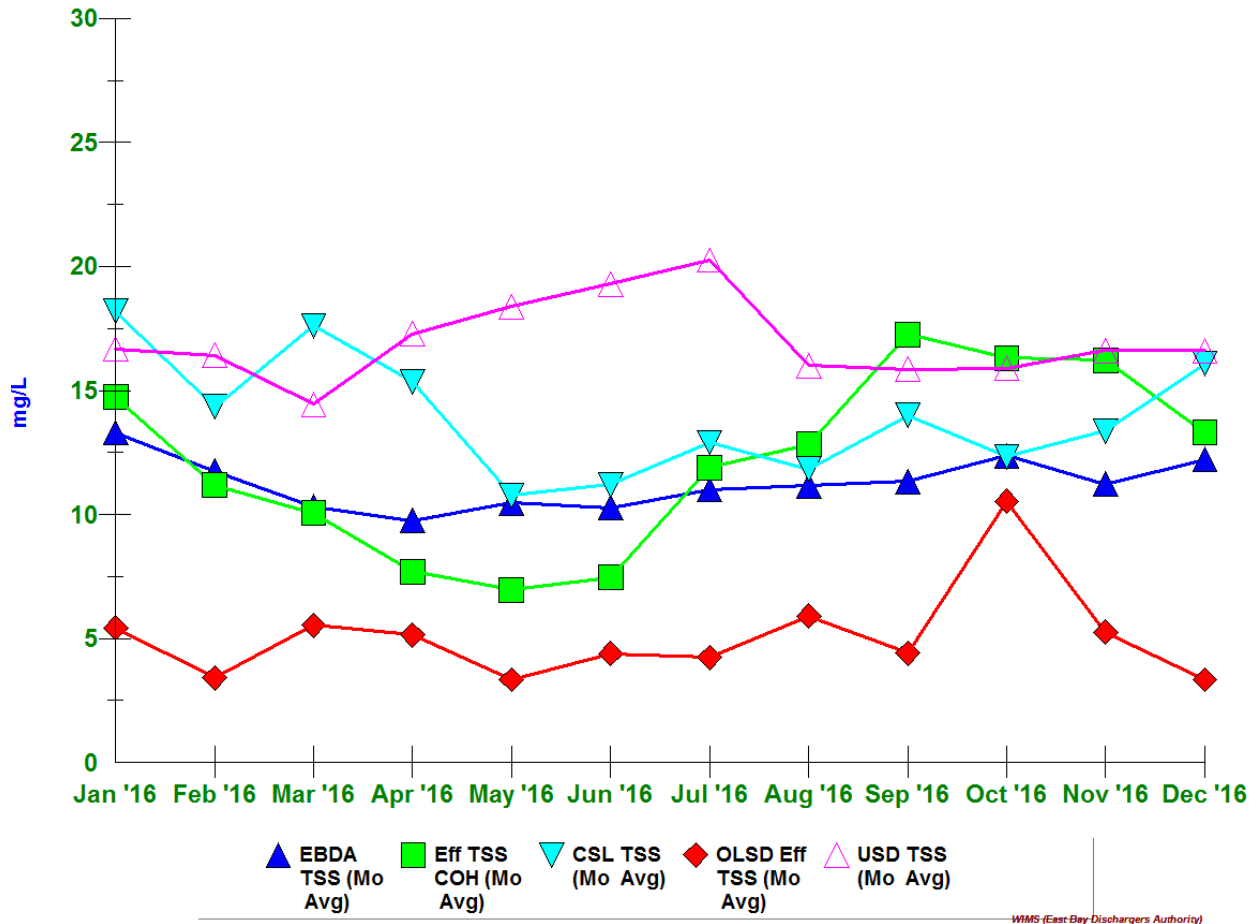
EBDA Average Daily Flows



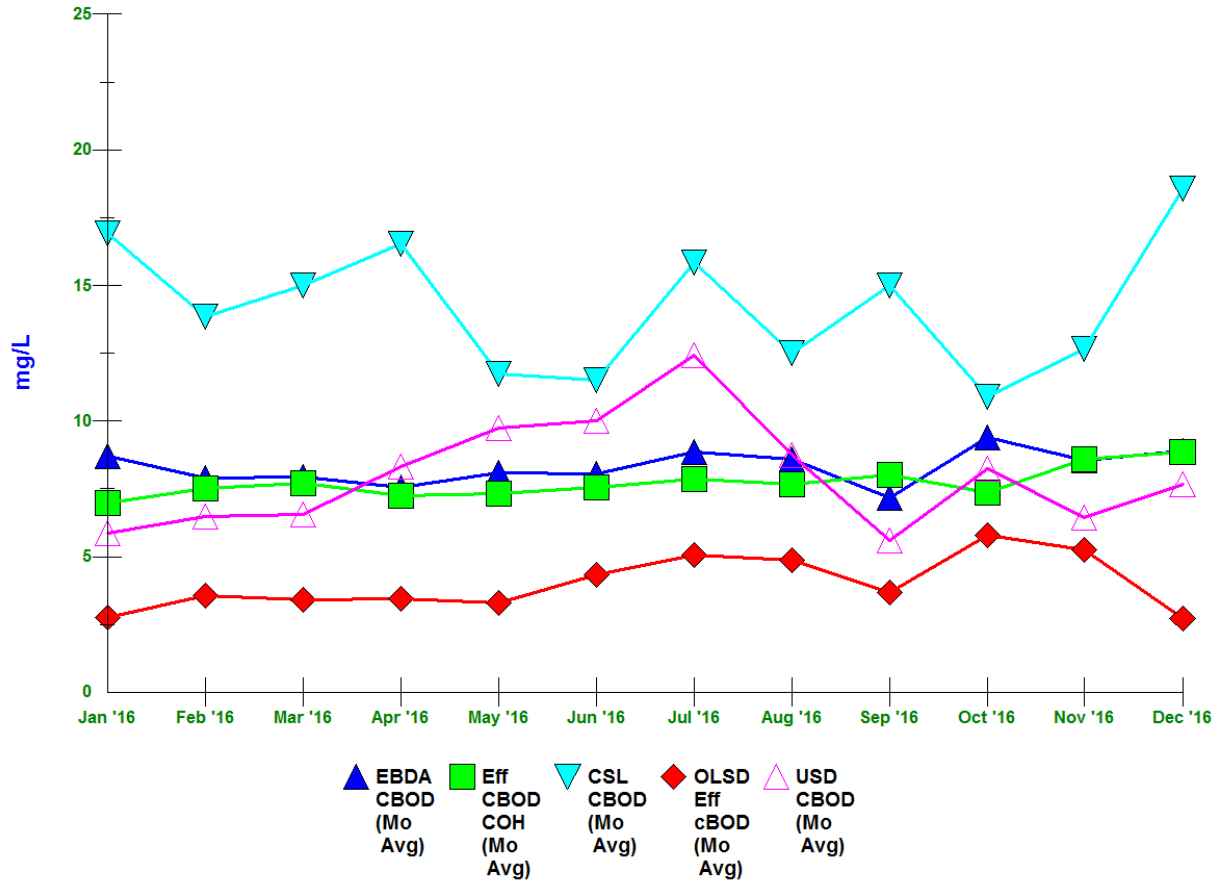
### Performance-Based Limits

All EBDA's members' treatment plants are effectively complying with secondary treatment requirements. The TSS and CBOD data show a reasonably large safety margin between monthly limits and performance. None of the plants have discharged above 21 ppm of TSS (compared to the NPDES limit of 30 ppm) nor 17 of CBOD (compared to the NPDES limit of 25 ppm). EBDA's overall effluent is about twice as "clean" as average secondary treatment.

EBDA TSS (Limit 30 ppm)



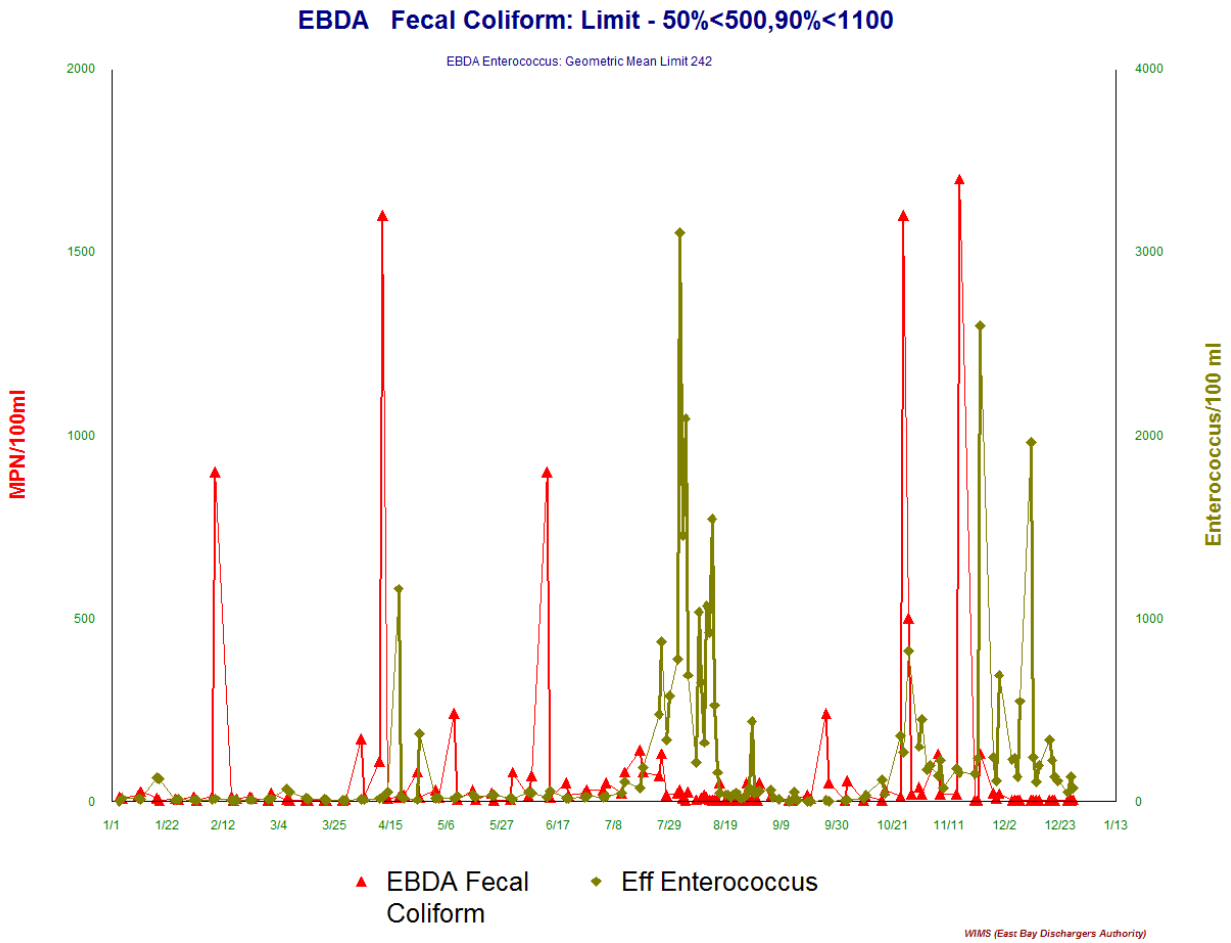
### EBDA CBOD (Limit=25 ppm)



WIMS (East Bay Dischargers Authority)

### Bacterial Limits

In previous years, EBDA has noted some summer regrowth issues with elevated fecal coliform or concentrations. As the graph for the past 3 years of fecal indicators shows below, EBDA had previously detected peaks of fecal coliform concentrations during the summer when water temperature was highest and pipe transport time longest, probably due to seasonal regrowth in the pipe that peaks in hot weather. Beginning in late July, 2016, bacterial regrowth was again detected, but associated more with Enterococcus than fecal coliforms. Testing at the individual treatment plants showed those effluents to be generally below 35 cells per 100 ml. EBDA has managed to comply with its permit limits at the outfall pipe by dramatically increasing the chlorine residual at each of the treatment plants. EBDA is investigating the use of an alternative disinfectant, peracetic acid to improve its bacterial disinfection and minimize its use of sodium bisulfite.





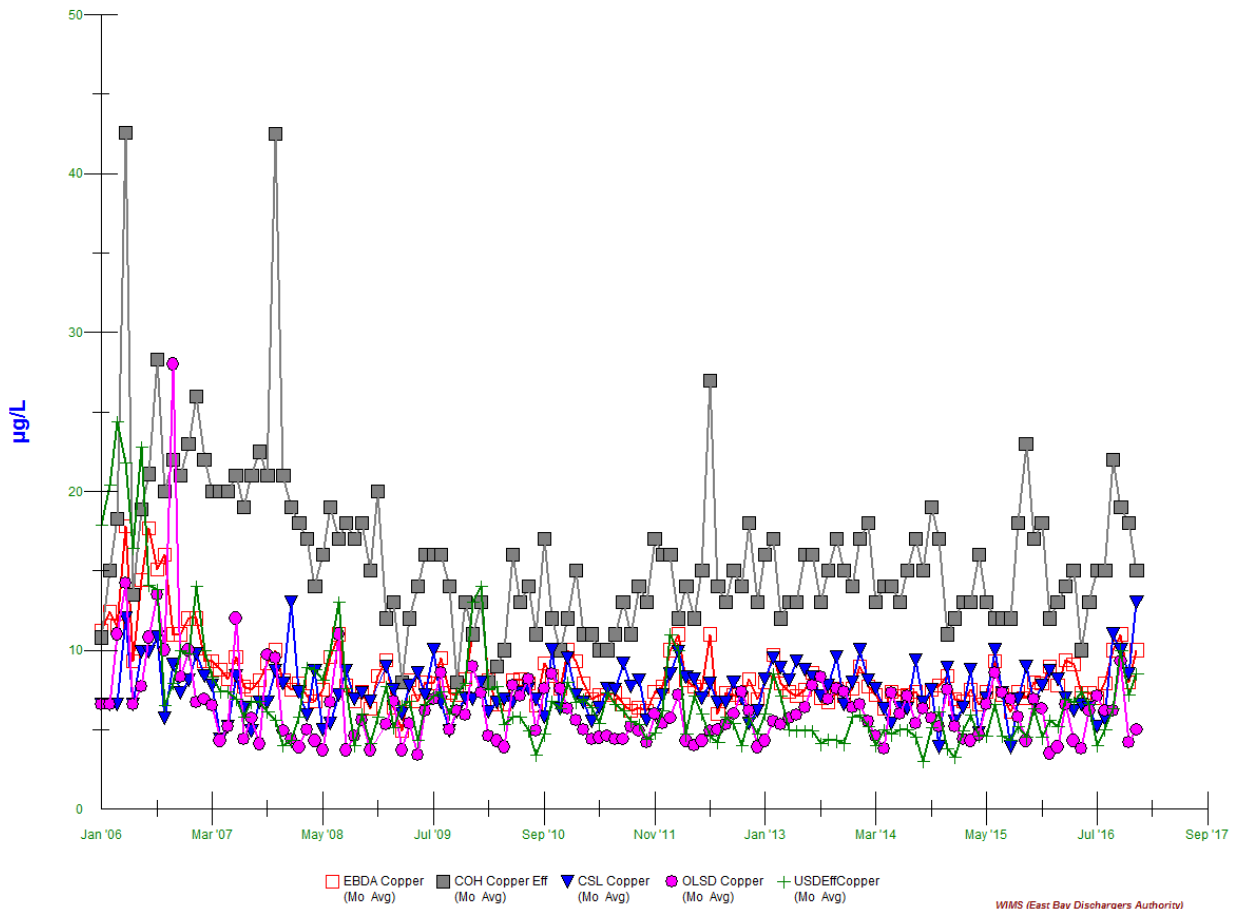
### Toxics Limits

EBDA's permit regulates toxicity through individual chemical limits for total residual chlorine, cyanide, and copper, and watershed-based permit limits for mercury and PCBs. Cyanide is rarely detected and the total residual chlorine limit is zero, so graphics are not presented for those parameters.

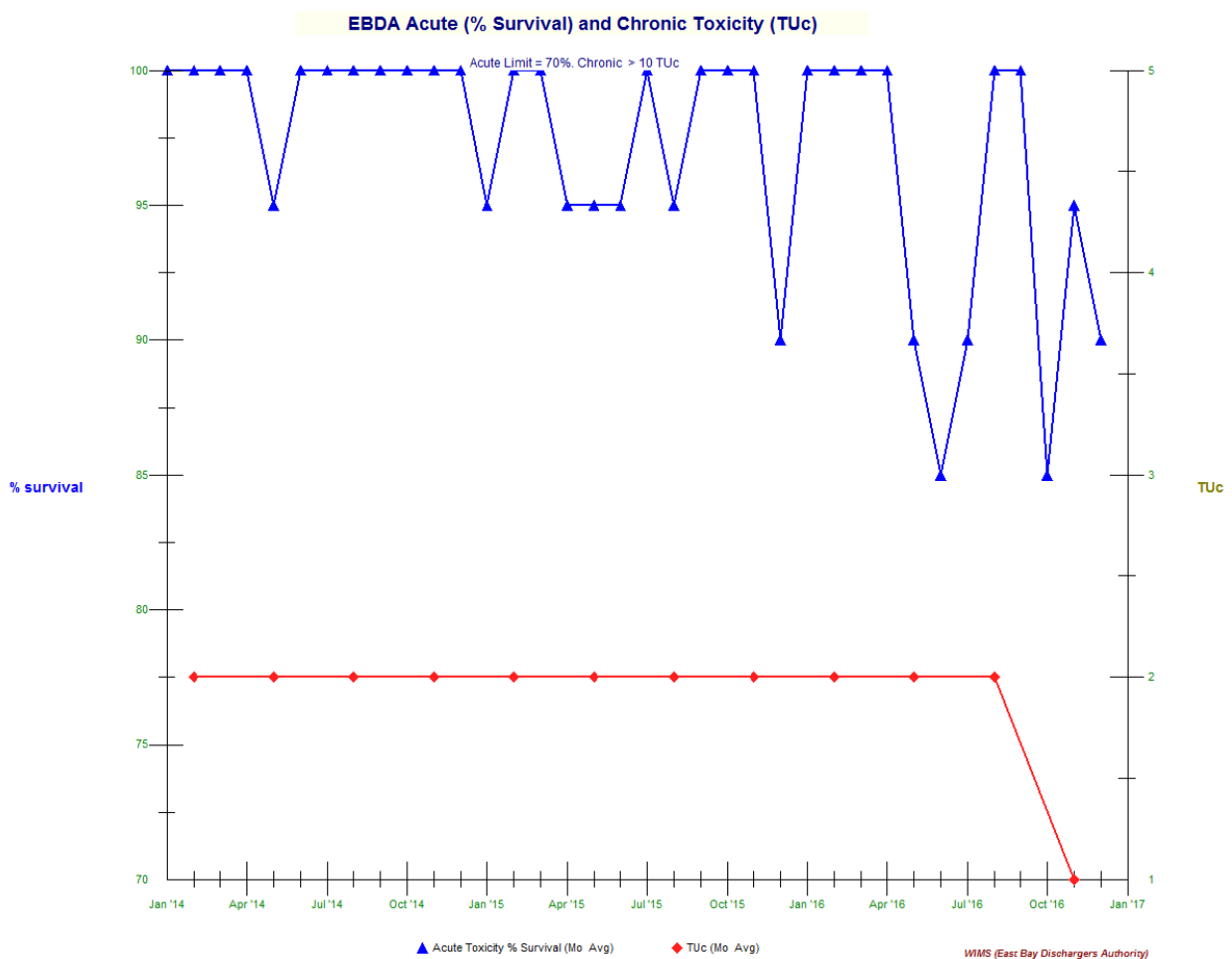
Long-term temporal trends for the other toxic contaminants continue to show that EBDA's discharge of PCB's, mercury and copper easily complies with its permit limits. In general, though, temporal trends have been flattening out. EBDA's ten year trends for copper, show that effluent concentrations have averaged <10 ppb versus a permit limit of 53 ppb (see figure below).

EBDA's mercury load (figures in Sec. 9) was 0.54 kg/yr compared to its 2020 watershed permit goal of 2.2 kg/yr with effluent concentrations consistently below 0.010 ppb compared to its permit limit of 0.066 ppb. EBDA's PCBs load (Sec. 9) averaged 0.13 kg/yr versus its goal of 0.3 kg/yr. Further information and graphics are presented below in Section 9 on watershed permitting.

**EBDA Copper (Limit - 53 ppb)**



The toxics chemistry data are supplemented by monthly toxicity tests. There does not seem to be a correlation of toxicity results with chemical measurements. Toxicity tests could be indicative of unmonitored chemicals causing problems or an artifact of the test procedures themselves. Growing fish in a treatment plant back room is not a trivial undertaking. EBDA's long-term data do not show a particular trend. All of the toxicity tests show a large safety factor between the permit limits and the effluent's acute or chronic toxicity. The permit limits allow for near-zero (acute) to ten-fold dilution (chronic). Given the 80-fold initial dilution measured in the field, these data show there is no risk from either acute nor chronic toxicity associated with EBDA's discharge.



EBDA also conducts extensive nutrient monitoring as part of its watershed nutrients permit. These data were extensively summarized in the BACWA watershed nutrient report.

## **Section 5. List of Analyses for Which the Discharger Is Certified**

The Authority conducts no analyses of its own. Each member agency is certified by the State Water Resources Control Board for standard water quality tests such as BOD, TSS, pH, DO, enterococcus, and fecal coliform. City of San Leandro staff performs these analyses on the combined effluent as well as acute toxicity testing.

All metals and organics analyses are performed by the Authority's contract laboratory, East Bay Municipal Utility District (EBMUD), Laboratory Services Division. EBMUD's lab is certified by the State Water Resources Control Board for these analyses. EBMUD subcontracts for analytical work on some items, including dioxin and furan compounds.

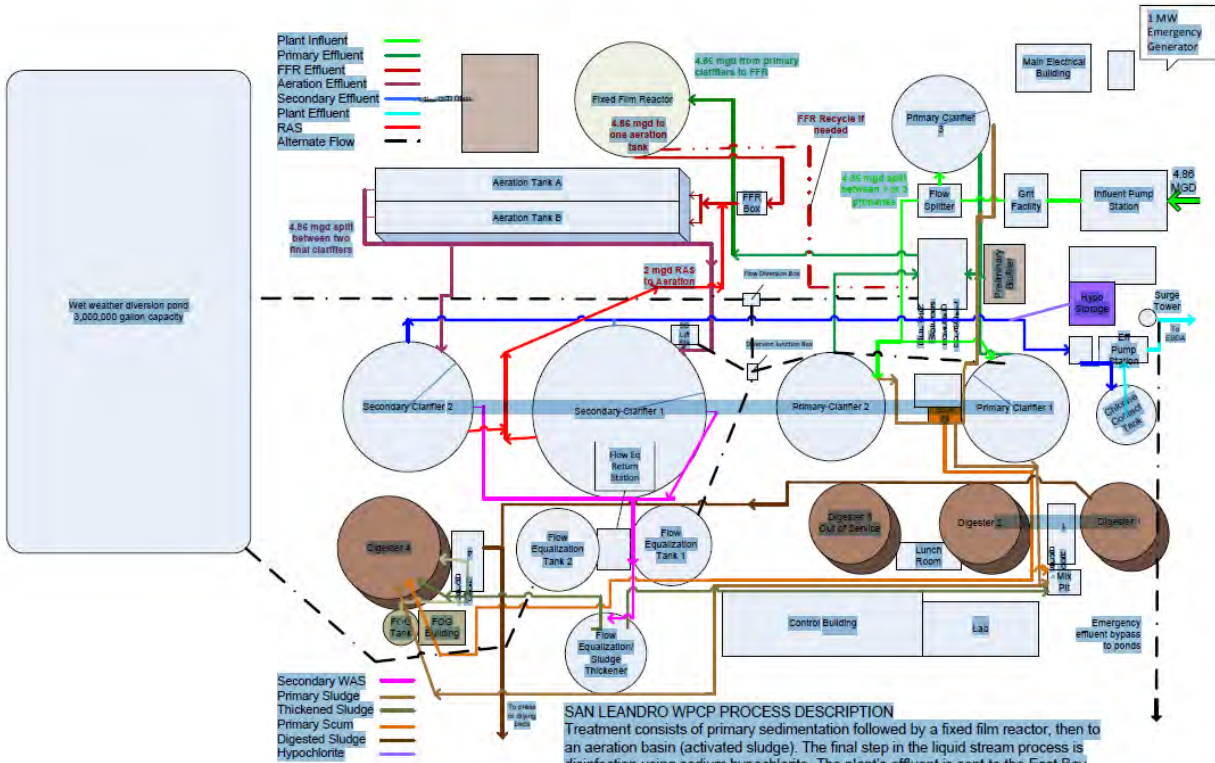
Pacific Eco-Risk Laboratory (PERL), also a certified laboratory, conducts the quarterly chronic toxicity testing for the Authority.

Each laboratory has separately submitted the required documentation to the Regional Water Board in the past. Therefore, this documentation is not resubmitted with this report. Copies of all laboratory reports are maintained on file at the Authority's office and are available for review upon request. Said reports are not included in this report.

**Section 6. Plan View Drawing or Map Showing the Discharger's Facility, Flow Routing, Sampling and Observation Station Locations**



# San Leandro Plant



**SAN LEANDRO WPCP PROCESS DESCRIPTION**  
 Treatment consists of primary sedimentation followed by a fixed film reactor, then to an aeration basin (activated sludge). The final step in the liquid stream process is disinfection using sodium hypochlorite. The plant's effluent is sent to the East Bay Dischargers facility for dechlorination.

The plant solids captured from primary clarifiers and WAS thickening are stabilized in anaerobic digesters. The remaining solids are then dewatered with a belt press and solar dried in drying beds.



Influent Sampling Point

Effluent Sampling Point

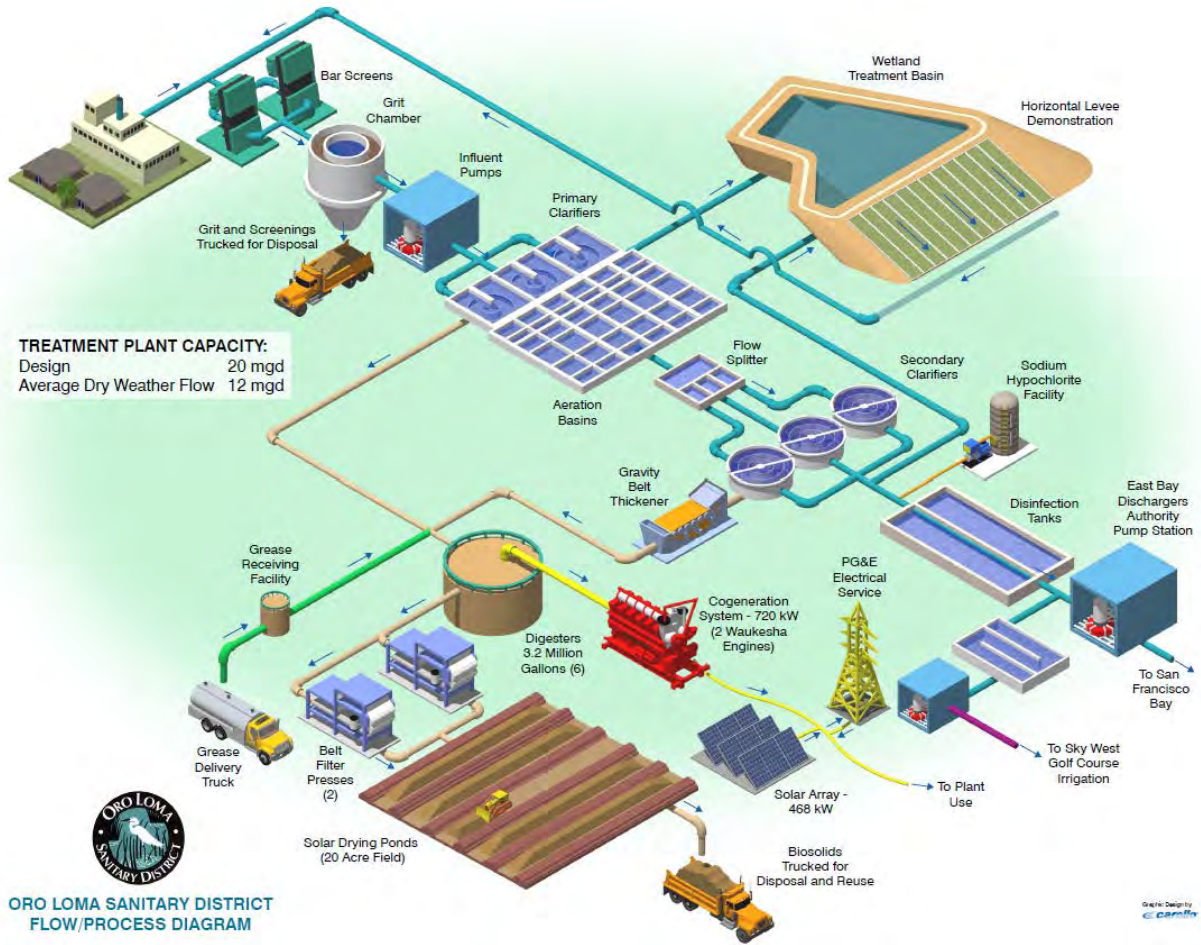
San Leandro WWTP Process Area

**Oro Loma WWTP**

**PLANT  
INFLUENT  
SAMPLE POINT**



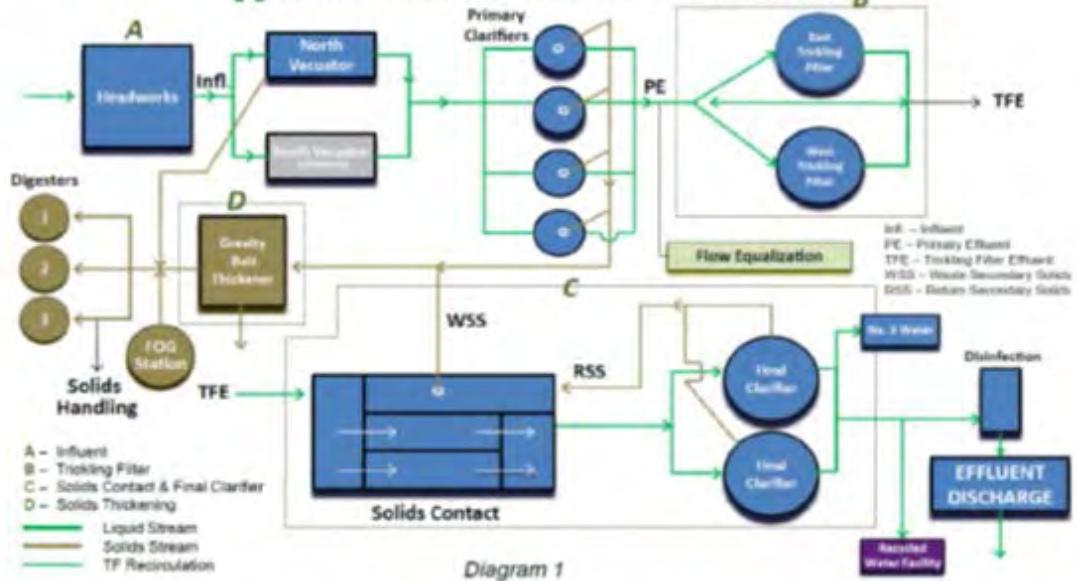
**PLANT  
EFFLUENT  
SAMPLE POINT**





# Hayward WWTP

## H HAYWARD Plant Unit Processes Flow Schematic

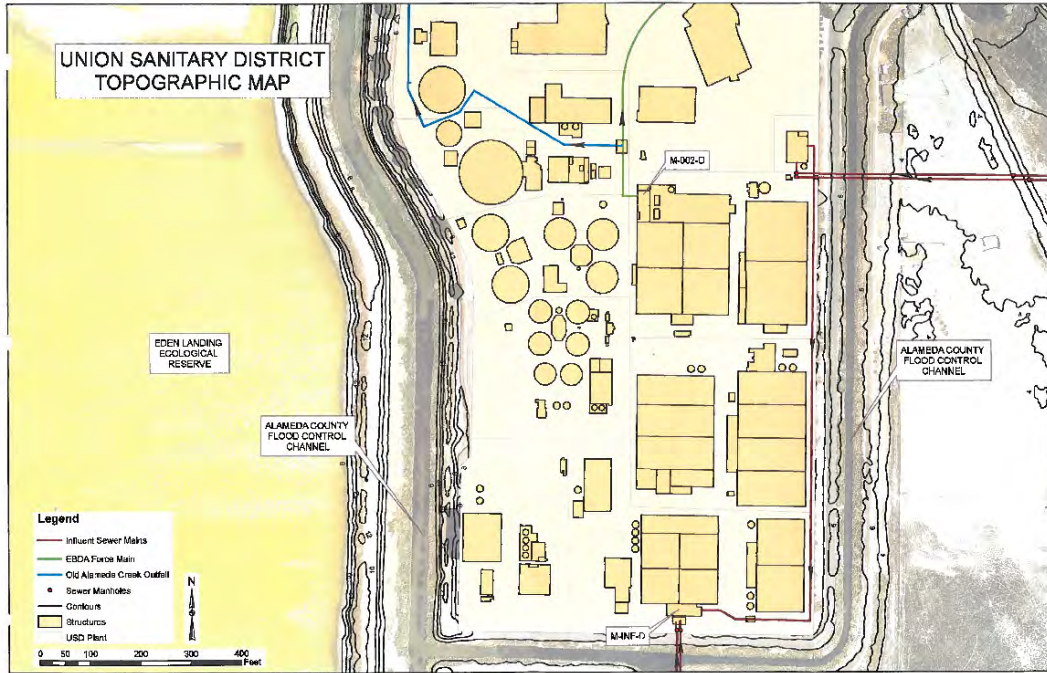


Old Oxidation ponds

Biosolids Drying Beds

New CalPine Plant

# UNION SANITARY DISTRICT



## **Section 7. Results of Annual Facility Inspection**

Given that all the member agency treatment plants treat their storm water, this section is waived.

## Section 8. Results of Facility Report Reviews

Status report for reviewing and updating the following documents: O&M Manual, Contingency Plan, Spill Prevention Plan, and Wastewater Facilities Status Report

### Union Sanitary District

Document	Review Date	Review Procedures	Planned Actions	Schedule
O&M Manual	Ongoing	Plant O&M documents are incorporated into the District's Competency-Based Training Program. USD utilizes Microsoft Sharepoint software to track document review.	Plant management reviews training documents and SOP's as changes occur (i.e., following construction) or as scheduled.	Each individual training module and SOP has a review frequency of 1-3 years.
Contingency Plan	December 2016	Plant Manager reviews and updates the Contingency Plan annually.	None. Contingency Plan was updated in December 2016.	Complete next review by December, 2017.
Spill Prevention Plan	December 2016	Spill Prevention Plan is incorporated into our Contingency Plan and is reviewed at the same time.	None. Spill Prevention Plan was reviewed in December 2016.	Complete next review by December, 2017.
Wastewater Facilities Status Report	December 2016	<p>USD's Master Plans address most of the Facilities Evaluation requirements. Our Plant Master Plan is updated every 5 years and Pump Station and Collection System Master Plans are updated as needed. Asset management data is updated on an ongoing basis. CIP and Operating plans and budgets are reviewed and revised annually.</p> <p>2016 Projects Completed/in-progress:</p> <p>Plant Thickener Control Building improvements (In Progress, Completion by 2/17)</p> <p>Plant Electrical System MCC Replacement Phase 3 (Construction Complete)</p> <p>Solids Capacity Study Phase I (Complete)</p>	<p>Complete capital improvements in accordance with 10-year CIP plan.</p> <p>Implement annual rate adjustments for Sewer Service Charges and Capacity Fees in accordance with 10-year financial plan.</p> <p>2017 Projects Planned:</p> <p>New Anaerobic Digester #7 (Design)</p> <p>Redundant Degritter system. (Construction)</p> <p>Solids Capacity Study Phase II</p> <p>Chemical Tank Replacement (Construction)</p>	<p>10-year CIP annual update in June.</p> <p>10-year financial plan annual update in June.</p> <p>Master Plans:</p> <p>Irvington Basin 2021</p> <p>Pump Stations 2021</p> <p>Alvarado Basin 2017</p> <p>Plant 2018</p>

Hayward Water Pollution Control Facility

Document	Review Date	Review Procedures	Planned Actions	Schedule
O&M Manual	Ongoing	COH WPCF electronic O&M manuals, including SOP's, are reviewed and updated annually by staff. Revisions are made to Sections and SOP's	13 New SOPs were written in 2016 Hot Sludge Flush to Scum Lines, Admin Building Air Conditioner Re-start after Power Failure, Degrag Bypass Baker Pump Guidelines, Cogen Cold Start in Manual, Heat Loop Information with Operational Considerations, NH <sub>4</sub> Analyzer Calibrate and Clean, Seal Water Bypass at Headworks and at #83, Site Waste Failures; Bypassing Site Waste, Site Waste Rotate Pumps, Standby Generator Monthly Test or Running the Genset during Cogen PM, Chlorine Analyzer at 3W, Care and Calibration, Trickling Filter: Clean Media Surface and Arm Orifices, Restarting Cogen from PGE Loss of Power (revised)	SOP's and O&M sections are reviewed periodically and updated no less than on an annual basis. Updates occurred throughout 2016.
Contingency Plan	January 2017	The entire plan is reviewed by the WPCF Manager with updates and edits made by the Senior Secretary.	The latest update was made in January 2017. Edits and/or updates were made to the following areas: <ul style="list-style-type: none"> <li>• Emergency Phone Numbers</li> <li>• WPCF Employee Phone List</li> <li>• Standby and Emergency Call Lists</li> <li>• Critical Emergency Procedures</li> <li>• Emergency Contact List</li> <li>• FOG Supplier List</li> </ul>	A thorough and comprehensive review is completed annually in January. Emergency contact & Personnel phone lists are kept up-to-date.
Spill Prevention Plan	January 2017	Plan reviewed by WPCF Mgr every Jan., changes made by Sr. Secretary.	None. Spill Prevention Plan was reviewed in January 2017.	Plan is reviewed each January.
Facilities Status	January 2017	Master Plan Update completed in October 2014. The City is implementing projects as recommended in the Master Plan. A comprehensive CIP plan was developed to address optimization, future capacity needs and potential new regulations.	Reviewed and Updated <ul style="list-style-type: none"> <li>• Construction of a fourth Primary Clarifier was completed in 2016</li> <li>• Future elements of the Phase Two WPCF Improvements have been incorporated into the Sewer Replacement &amp; Sewer Improvement CIP's.</li> <li>• Headworks concrete repair, coatings, and ventilation project completed in 2016</li> <li>• \$121,000 of miscellaneous coatings/improvements were completed</li> <li>• Construction for renovation of the Digester Improvement Project began in 2016</li> <li>• Reclaimed water design is 90% complete; preliminary construction underway.</li> <li>• Recycled water project in design phase</li> </ul>	10-year Master Plan CIP planning changes are made every year in July with mid-year adjustments made in January/February.

## Oro Loma Sanitary District Treatment Plant

	Review Date	Review Procedures	Planned Actions	Schedule
O&M Manual	January 2017	Operations Supervisor	Production of a new O&M Manual for the Equalization Basin/Horizontal Levee is in progress and scheduled for completion in May 2017.	May 2017
Contingency Plan	January 2017	Operations Supervisor	Contingency plan updated most recently in December 2016.	Performed annually
Spill Prevention Plan	January 2017	Operations Supervisor	No Changes Planned	An overhaul of the document was completed in August 2015.
Wastewater Facilities Status Report	January 2017	General Manager	<p>The District continues to execute on its planned capital program. The majority of Capital Spending in the next five years will be on renewal of collection system assets.</p> <p>The District recently performed a 5 year rate analysis and raised rates to support ongoing operations and its planned \$42M, 5-Year Capital Program. Of specific note, the District increased the pace of its Pipe Rehabilitation Program from 2 to 3 miles per year (now on pace to replace entire system in 90 years).</p> <p>A new, 8 MG Equalization Facility and Horizontal Levee demonstration will be commissioned in March 2017.</p>	New 8MG equalization facility and horizontal levee demonstration project. Final Completion scheduled for April 2017.

## San Leandro Treatment Plant

Document	Review Date	Review Procedure	Planned Actions	Schedule
O&M Manual	Jan 2017	Creation and revision of O&M manuals and SOP's are given to plant operators as short and long term goals in their performance evaluation, after completion, each draft will be reviewed by peers and approved by Operations Supervisor and plant manager.	Review O&M chapters and SOP's as needed. Continue developing new SOPs as gaps are found.  SOPs completed recently are: Mixing & pumping PC1&2 scum pit, Mixing & pumping PC3 scum pit; Safely dumping the grit and rag hoppers, <del>Spirac</del> spiral conveyor , <del>Rotamat</del> Screening wash press, Tuesday testing SOPs in progress are :Update accidental discharge SOP, Updating Safeway and coke accidental discharge SOP, Digesters start up SOP. Boiler operation SOP. Digester transfer 1,2, EBDA effluent pump station PM's to include Chemical pump test, Oxidation pond valve exercise, and Emergency outfall gate exercise with SBS pumps. calibration SOP, O&M manuals in progress are:New headworks O&M manual, New Grit facility O&M manual New electronic interactive (web based) WPCP O&M Manual was rolled out, implemented and is accessible to every employee.	O&M's and SOP's are reviewed and updated by plant operators and approved by Operation Supervisor and WPC Manager as needed throughout the year of 2016.
Contingency Plan	Jan 2017	WPCP Management reviews, edits and approves.	Plan reviewed annually and updated as needed. Updates to be made in 2016 based on process changes created by the Plant construction.	Review and update is performed annually. Updated employee list and phone numbers; verified SSO reporting requirements; updated Plant process schematic.
Spill Prevention Plan	Jan 2017	WPCP Management reviews, edits and approves.	Plan reviewed and updated.  Training and review done annually, including: new employee orientation; 8 hour on-site level 1 responder training, and tailgate review on plan and emergency spill kits.	Review and update is performed annually. In 2016, updated Emergency Contacts list, replaced facility map. Hazardous materials inspection logs were updated and new logs created.



## San Leandro Treatment Plant (2)

<p>Wastewater Facilities Status Report</p>	<p>Jan, 2017</p>	<p>The City has completed a \$48.8M rehabilitation project. All facilities are currently operational; staff has reviewed operation of new facilities and created operation and maintenance procedures. Plant staff reviews status of all facilities on a weekly basis. Maintenance, replacement and repair is scheduled via a CMMS system to provide consistency and prevent downtime. Collection System CIP is reviewed and revised annually. Wastewater Rates and Capacity Charges are reviewed and approved annually.</p>	<p>Plant rehabilitation is complete and all processes are functional: new electrical system/standby generator servicing existing plant processes, completion of diurnal flow diversion process, a odor scrubbing bio filter and new fixed film reactor. Rehab on two existing primary clarifiers. Addition of a third primary clarifier. Replacement FFR and lift station.</p> <p>Planned design/build projects:</p> <ul style="list-style-type: none"> <li>• Solar panel energy production</li> <li>• Cogeneration energy production</li> </ul> <p>Planned and currently in process in-house projects :</p> <ul style="list-style-type: none"> <li>• Installation of an emergency backup generator at our second largest sewer lift station (Neptune)</li> <li>• Replacement of WAS pumping facilities at secondary clarifiers</li> <li>• Plant piping upgrades for several drains, sludge transfer lines, plant air and #2 water.</li> <li>• Upgrade of Digester 1 &amp; 2 flare and pressure regulators</li> <li>• Upgrade of Digester 4 mixing facilities (adding new pump and retaining existing pump for redundancy)</li> <li>• Installation of Reclaimed Water residential fill station</li> <li>• Replacement of FFR bypass VT pump</li> </ul> <p>Annual CIP/R&amp;R projects for the Collection system were completed. Future CIP planning and projects are based on In-house and Master Plan assessments.</p>	<p>The San Leandro Water Pollution Control Plant has just completed a \$48.8 million rehabilitation project, with project acceptance in February 2016. New systems are: headworks and influent pump station, fixed film reactor and lift station, odor control bio filters, and new/rehabilitated primary and secondary clarifiers. The new emergency generator and electrical system are operational and handle electrical requirements for all facilities via a redundant 12kv loop. Wet weather flow diversion pond is available for use and is now filled via a new diversion/pump station greatly increasing our storage capacity.</p> <p>The following projects were completed in 2016:</p> <ul style="list-style-type: none"> <li>• Recoating of 25% of pre upgrade piping to improve appearance and longevity.</li> <li>• Replacement of existing Golf Course radio antennae to improve comm.</li> <li>• Upgrade radio facilities at two remote lift stations to improve comm.</li> <li>• Complete in-house rebuild of belt filter press, sludge conveyor and replacement of 3w feed.</li> </ul> <p>Collection System CIP projects are completed annually.</p>
--	------------------	--	---	--

## Marina Dechlorination Facility

REPORTS	REVIEW DATE	REVIEW PROCEDURES	PLANNED ACTIONS	SCHEDULE
O&M Manual	Jan 2017	Updated on an as needed basis and reviewed annually by the EBDA O&M Manager.	The Authority maintains a comprehensive O&M Manual for the joint-use facilities. Chapters of the Manual are regularly reviewed and updated. Most recent revisions were made to appropriate chapters 2010, 2012 and 2013.	The chapter for AEPS and OLEPS has been updated for replacement of electrical equipment. Process Documentation for MDF has been completed.
Contingency Plan	Jan 2017	Updated annually by EBDA O&M Manager and EBDA Administrative Assistant. EBDA is included in the Alameda County's Office of Emergency Service's Utility Unit.	The Emergency Operating Contingency Plan is supported by Operations & Maintenance Agreements between Member Agencies that are compatible with their existing plans and known to all other local and county agencies for emergency purposes. Operation and maintenance activities are contracted with the Member Agencies for routine work, emergency work and contracts with private specialty firms. Member Agencies have a mutual interest in the continuous uninterrupted use of the Authority force main and Bay Outfall system.	The contingency plan is revised by staff on both calendar year and an as needed basis. There were no significant revisions in 2016.
Spill Prevention Plan	Jan 2017	Updated annually by EBDA O&M Manager	No major changes planned for 2016	No major changes in 2015.
Wastewater Facilities Status Report	Jan 2017	EBDA continues to maintain a comprehensive Replacement and Renewal Policy covering all of EBDA's equipment above a \$3,000 value. The Authority has an asset management program that covers all critical equipment. The program is reviewed monthly by EBDA staff and is reviewed semi-annually by the EBDA General and O&M Managers	In 2016 the Authority completed several projects that provided upgrades to the EBDA system as follows: 1. Project design is at 90% for the replacement of the Motor Control Center at the Hayward Pump Station. 3. Completed the enhancement of the Programmable Automation Controller for the Oro Loma Pump Station. This was ensure redundant control for diesel engine operation. The project enhanced the reliability and redundancy in system operations. 4. Continued to upgrade SCADA data summaries and communications between agencies 6. Completed the refurbishment of two of the four effluent pumps at the SLEPS. The other two scheduled for 2017 7. Completed a detailed inspection of the Outfall Pipe. The inspection includes a bathymetric survey, Remote operate vehicle inspection and diver inspection of the diffuser section of the system. 8. Started a Project to complete a condition assessment of the Transport System (the pipes that convey the effluent to the Dechlorination Facility.	Major projects in 2016 are completion of AEPS VFDs and HEPS MCC.

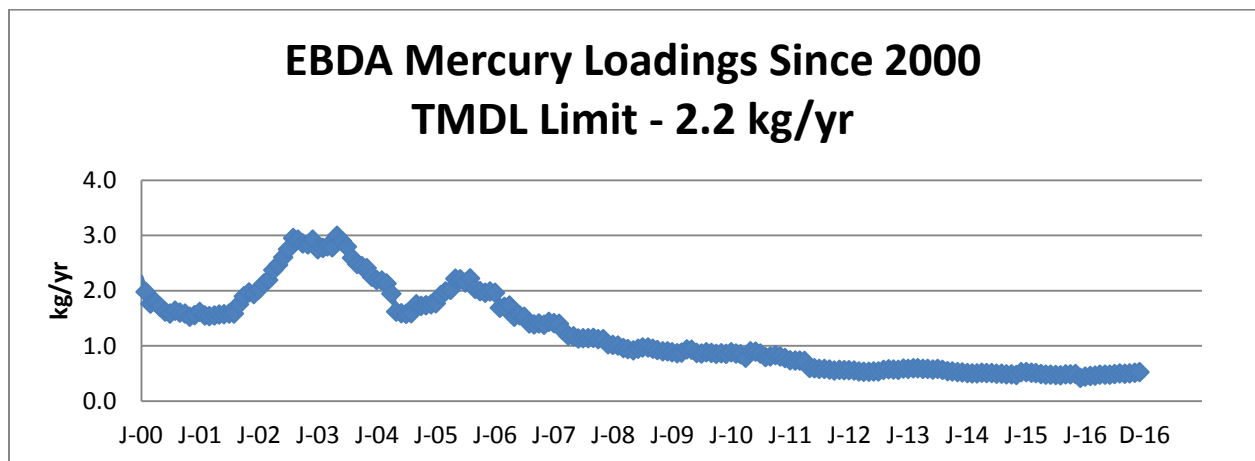
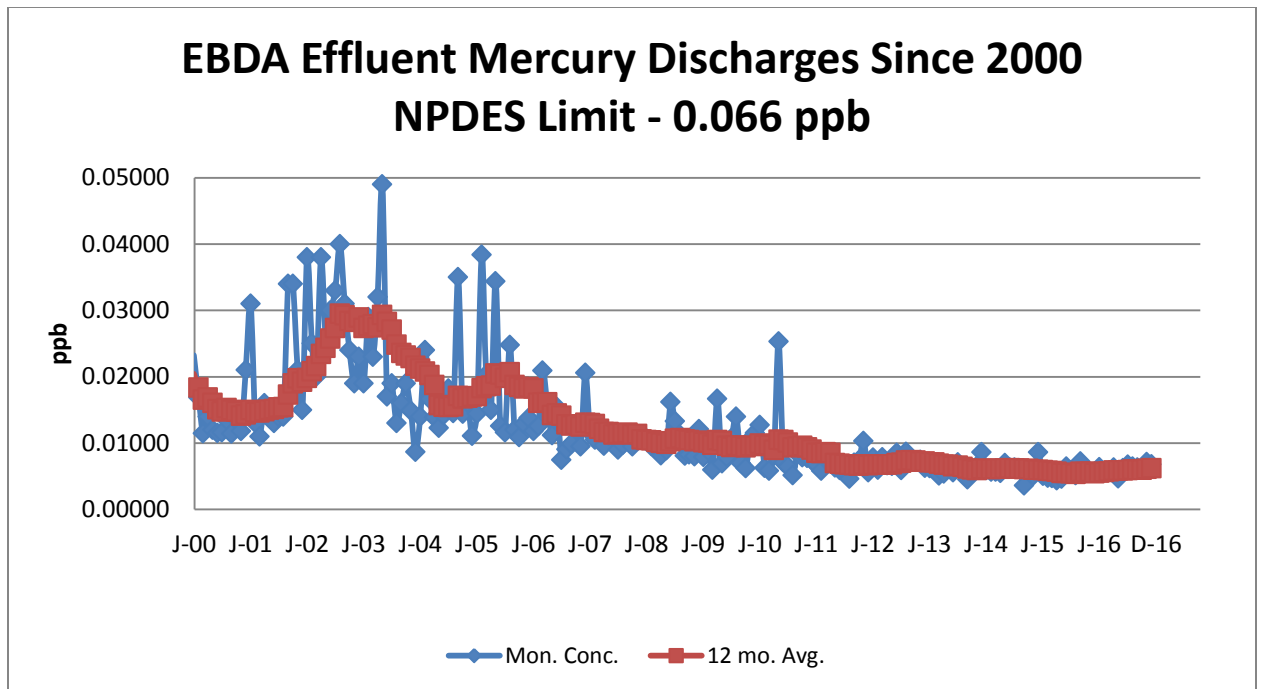
## **Section 9: BACWA Watershed Permitting and Monitoring**

EBDA participates in a number of group processes coordinated by BACWA to fulfill other permit requirements: BACWA Group Activities including Receiving Water Quality Monitoring, TMDL/SSO Support, Mercury and PCBs Watershed Permit Support, and Implementation of Copper Action. Participation in these items is described in an annual BACWA letter to Water Board (<https://bacwa.org/wp-content/uploads/2017/01/BACWA-NPDES-Permit-Letter-2017-with-SFEI-Letter-attached.pdf>).

### ***Mercury and PCB Watershed Permit (CA 0038849)***

EBDA participates in a watershed permit, CA0038849, with monthly limits of 0.066 ppb of mercury, an annual loading of 2.2 kg mercury, and annual PCB loadings of 0.3 kg. While formal permit reporting was discontinued in the renewal of the watershed permit, EBDA performance for these contaminants is summarized below:

- None of EBDA's effluent samples exceeded the mercury nor PCB limits. In fact, mercury concentrations peaked at 0.0071 ppb, about nine times less than the limit. The total mercury loading as shown in Section 4 was 0.54 kg/yr, less than one-quarter of the limit.
- Nonetheless, EBDA's member agencies continued their emphasis on mercury reduction strategies. Dental Amalgam pretreatment is a continued emphasis with full participation by dentists in Union Sanitary District and Oro Loma Sanitary District, and Hayward. San Leandro has an unique approach that regulates dentists through building permits. Mercury recycling events in the agencies' service areas continue to collect residential mercury-containing products including thermometers, thermostats, batteries and fluorescent lamps. In addition, some EBDA communities have purchasing policies that require product substitution for mercury-containing items, and a major mercury waste recycling facility that recycles several million fluorescent bulbs is located in the EBDA district in Hayward.



- EBDA's PCB loads have been estimated by using a special low-detection limit method (EPA 1668C) which has not been formally approved. Using this method (and assuming concentrations at detection limits when undetected), EBDA's PCB loads remain less than half (0.13 kg/yr) of its allocation of 0.3 kg/yr. The data for the NOAA 40 congeners for the last six years are graphed below. Total concentrations are extrapolated to an annual load based on the effluent flow on the sampling day. The data show about three-fold variability that does not correlate with any known parameters.

