

NOVATO SANITARY DISTRICT

Meeting Date: July 15, 2013

The Wastewater Operations Committee of the Novato Sanitary District will hold a meeting at 2:00 PM, Monday, July 15, 2013 at the District offices, 500 Davidson Street, Novato.

AGENDA

1. AGENDA APPROVAL:

2. PUBLIC COMMENT (PLEASE OBSERVE A THREE-MINUTE TIME LIMIT):

This item is to allow anyone present to comment on any subject not on the agenda, or to request consideration to place an item on a future agenda. Individuals will be limited to a three-minute presentation. No action will be taken by the Committee at this time as a result of any public comments made.

3. CONSIDER APPROVAL OF MINUTES OF THE JUNE 17, 2013 MEETING

4. WASTEWATER TREATMENT FACILITIES OPERATIONS AND MAINTENANCE REPORT FOR JUNE 2013:

- a. Treatment Plant Performance Report
- b. Maintenance Report
- c. Safety and training
- d. Odor control, noise, and landscaping report

5. COLLECTION SYSTEM OPERATION AND MAINTENANCE REPORT FOR JUNE 2013:

- a. Collection System Maintenance
- b. Pump Station Maintenance
- c. Collection System Performance
- d. Safety and Training

6. RECLAMATION FACILITY REPORT FOR JUNE 2013

- a. Ranch Operations
- b. Irrigation Parcels
- c. Irrigation Pump Station
- d. Sludge Handling and Disposal

7. ADJOURNMENT:

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the District at (415) 892-1694 at least 24 hours prior to the meeting. Notification prior to the meeting will enable the District to make reasonable accommodation to help ensure accessibility to this meeting.

Materials that are public records and that relate to an open session agenda item will be made available for public inspection at the District office, 500 Davidson Street, Novato, during normal business hours.

June 17, 2013

A regular meeting of the Wastewater Operations Committee of Novato Sanitary District was held at 2:00 p.m., Monday, June 17, 2013, at the District Office, 500 Davidson Street, Novato.

MEMBERS PRESENT: NSD Board Members William Long and Jerry Peters.

STAFF PRESENT: Beverly James, Manager-Engineer
Sandeep Karkal, Deputy Manager-Engineer
Steve Krautheim, Field Services Superintendent
John Bailey, Project Manager, Veolia Water
Lynda Rodefer, Veolia Water
(*Tim O'Connor, Collection Systems Supervisor was absent.*)
(*Julie Swoboda, Administrative Secretary was absent.*)

ALSO PRESENT: Bob Guinan, Novato resident
Joe Carlomango, Novato resident

AGENDA APPROVAL: The agenda was approved as presented.

PUBLIC COMMENT: None.

APPROVAL OF MEETING MINUTES FOR MAY 20, 2013: The May 20, 2013 minutes were approved as written.

WASTEWATER TREATMENT FACILITIES OPERATIONS AND MAINTENANCE REPORT FOR MAY 2013:

- Treatment Plant Performance Report, Maintenance Report and Safety & Training: John Bailey, Plant Manager, Veolia Water, reported on the treatment plant performance for the month of May. He stated that there were no permit exceedances, violations or excursions and noted that May flows remain low as a dry weather pattern continues.

Mr. Bailey reported on the key events at the Novato treatment facility, the Ignacio transfer pump station, the recycled water plant and the lagoons. He stated that the secondary clarifier #2 at the Novato facility was taken out of service and that he solicited a quote for topping off the biofilters (odor beds). Mr. Bailey stated that the headworks screening auger compactor had failed due to a broken shaft and that a replacement was ordered after an unsuccessful repair attempt. He stated that during the repair period, mal-odors have been escaped and were experienced in the Lea Drive neighborhood. Mr. Bailey stated that notifications were sent to nearby residents regarding the repairs and anticipated odors from the headworks equipment failure.

Mr. Bailey reported that Veolia employees have been accident free for a total of 1,094 days/49,886 hours. He stated that the annual fire extinguisher recharge was performed and

a demonstration on fire safety was conducted. He discussed the safety training for the month and reviewed the treatment plant performance graphs.

- Odor control: Sandeep Karkal, Deputy Manager-Engineer, stated that staff continues to work to address issues of concern relating to odor control, noise, and landscaping. In regards to odor control, he stated that staff has finalized the contract with Brown and Caldwell (B&C) and that an implementation schedule is in place.

The Deputy Manager-Engineer discussed the modular covering units for the aeration basins from Pi² Technologies and stated that delivery will take place at some time in July. He stated that B&C will perform odor sampling of the aeration basins before the modular covering units are installed and again after installation to determine the effectiveness of the covering units.

- Noise update: The Deputy Manager-Engineer provided an explanation of the process for alleviating the fan/conducting noise.

- Landscaping progress report: The Manager reported that landscaping updates were fast-tracked to provide upgrades and plant replacements for those plants that were damaged due to groundwater conditions, frost and wildlife destruction. She stated that a maintenance contract was negotiated with Cagwin & Dorward which included weed control and irrigation system maintenance.

COLLECTION SYSTEM OPERATION AND MAINTENANCE REPORT FOR MAY 2013:

Deputy Manager-Engineer Sandeep Karkal gave the report on behalf of Tim O'Connor, Collections System Superintendent, who was absent. The Deputy Manager-Engineer discussed the Collections System Monthly Report for May 2013. He reported that the Collections System crew cleaned a total of 49,276 feet of sewer pipeline and that the department completed 283 maintenance work orders which were generated in May. He stated that the department's CCTV (closed caption televised) van was in the field for 17 working days and that 27,913 feet of main sewer line was televised. The Deputy Manager-Engineer stated that the department had one Collections System worker leave District employment which resulted in a backlog of cleaning work orders and lower than expected production goals.

The Deputy Manager-Engineer stated that there was one sanitary sewer overflow during May which was a Category II event. He stated that 158 gallons were released and that 100% recovery was achieved. He stated that the overflow was determined to be the result of a debris blockage in the District main possibly due to a failed/broken lateral upstream from the discharge location. The Deputy Manager-Engineer stated that safety performance for the Collections System department was good with a total of 120 accident-free days. He reported that staff issued two Standard Operating Procedure (SOP's) on periodic pump station checks during the month.

RECLAMATION FACILITY REPORT FOR MAY 2013:

Steve Krautheim, Field Services Superintendent, presented the Reclamation Facilities report for May 2013. He stated that the rancher began harvesting hay this month and that hay was cut on most parcels on all sites. He noted that parcels in Site 2 which were seeded earlier this year with pasture grass failed to germinate due to the lack of rainfall. Mr. Krautheim stated that staff has completed compiling the data to submit to PG&E to determine if a rebate program is available for the replacement of irrigation pump No. 2.

ADJOURNMENT: There being no further business to come before the Committee, the meeting adjourned at 3:01 p.m. The next Wastewater Operations Committee meeting will be held on Monday, July 15th.

Respectfully submitted,

Beverly James
Manager-Engineer

Lynda Rodefer, Veolia Water, Recording



July 9, 2013

Ms. Beverly James
Manager - Engineer
Novato Sanitary District
500 Davidson Street
Novato, CA 94545

Subject: Veolia Water Operations Report – June 2013

Dear Ms. James:

We are pleased to provide this updated activity report for June 2013.

As always, please give me a call at 707-208-4491 should you have any questions.

Regards,

A handwritten signature in blue ink, appearing to read "John Bailey".

John Bailey
Project Manager

**MONTHLY OPERATIONS REPORT
June 2013**

Prepared for

**NOVATO SANITARY DISTRICT (NSD)
WASTEWATER TREATMENT PLANT
500 Davidson Street
Novato, CA 94545**

Prepared by

Veolia Water West Operating Services, Inc. (VWWOS)

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TREATMENT PLANT PERFORMANCE SUMMARY: June 2013:

Reclamation/Storage – Waste Discharge Requirements (WDR)

Parameter	Value		Limit	
	Ave	Max	#1	#2
Flow, MGD (monthly ave/max)	4.09	4.46	N/A	N/A
Max Peak Hour, MGD – Daily (Dry Weather)	N/A	N/A	N/A	N/A
Influent BOD ₅ , lb/day (month ave/max)	9,546	12,447	N/A	N/A
Influent TSS, lb/day (monthly ave/max)	12,362	14,180	N/A	N/A
Effluent BOD ₅ , mg/L (monthly ave/weekly max)	<6	8	40	N/A
Effluent TSS, mg/L (monthly ave/weekly max)	<3	4	N/A	N/A
Effluent BOD ₅ - % Removal, Minimum	98	N/A	N/A	N/A
Effluent TSS - % Removal, Minimum	99	N/A	N/A	N/A
Ammonia, mg/L – (monthly ave/daily max)	N/S	N/S	N/A	N/A
pH, su (min / max)	6.9	7.2	6.5	8.5
Total Coliform (5 Sample Median) / mpn/100 ml	80	N/A	240	N/A
Total Coliform (maximum) / mpn/100 ml	240	N/A	10,000	N/A
Total Permit Exceedances (WDR)	0			

NA – Not Applicable

Discussion of Violations / Excursions: NONE

Title 22 - Recycled Water Production and Quality

Description	Units	Value	Limit
Volume Produced	Million Gallons	19.52	N/A
Average Turbidity	NTU	< 2.0	< 2.0
Turbidity > 5 NTU (consecutive)	Minutes	0	< 5.0
Minimum CT (disinfection)	ml-min/L	> 450	> 450
Minimum Dissolved Oxygen	mg/L	7.8	>1.0
Maximum Total Coliform	mpn/100 ml	< 2	< 2

OPERATIONS & MAINTENANCE STATUS / REVIEW:

Key events for the period:

Novato

- Routine rounds, readings and maintenance
- Aeration Basin #4 removed from service, drained and cleaned
- #3 Waterline repair near UV generator
- Annual maintenance on Flygt Pumps
- TWAS VFD Repaired (thickened waste activated sludge)
- Blower #3 VFD repaired
- Drained and cleaned Digested Sludge Sump Transfer Box
- HVAC Repair in Blower Building
- Annual maintenance performed on Headworks Screening system
- Installed ground fault interrupter (GFI) in moisture control panel for Aeration Basin air mist system
- Replaced level transducer for TWAS Sump
- Troubleshoot and rewire motor on grinder
- Replaced Headworks Compactor control system UPS batteries

Equipment Out of Service – Due to Planned Servicing, Maintenance, or Replacement

- Aeration Blower #3 OOS – VFD fan replacement / On Order
- Headworks Compactor OOS – Auger replacement / Scheduled to ship week of July 15th
- Primary Clarifier #2 OOS – Preparation for recoating as part of Contract “C” – WWTP Upgrade Project
- GBT Odor Fan #1 OOS - replace bearings/belts

Ignacio Transfer Pump Station

- Routine rounds, readings and maintenance
- Channel Monster Grinder replacement cutter cartridge delivered
- Installed spare grinder from decommissioned Novato influent structure at Ignacio Pump Station (temporary)
- New grinder cutter cartridge on site
- De-ragged Transfer Pumps several times
- Cleaned pump station wet well (Vactor Truck)

Equipment Out of Service – Due to Planned Servicing, Maintenance, or Replacement

- Influent channel grinder (see above)

Recycled Water Plant

- Performed plant rounds and maintenance
- Produced 19.52 million gallons of recycled water in June
- Control Board replacement on air compressor

Equipment Out of Service – Due to Planned Servicing, Maintenance, or Replacement

- Polymer Pump #1 OOS – New pump on order

Sludge Lagoons

- Performed daily checks
- Unplugged telescoping valves

ADMINISTRATION:

- Electronic Self Monitoring Report May for submitted on 6/28/13
- Preston Ingram – Operator – began employment

SAFETY AND TRAINING:

- Monthly plant safety inspections for Novato WWTF completed
- Five Minute Tailgate training is held daily with the O&M staff.
- No safety incidents for the month of June 2013
- Accident Free: 6/1/10 – 6/30/13: 1,124 days / 51,254 hours
- Bloodborne Pathogens training
- Housekeeping training

ODORS:

- Jerome Meter (H2S) readings performed in neighborhood and within treatment plant.

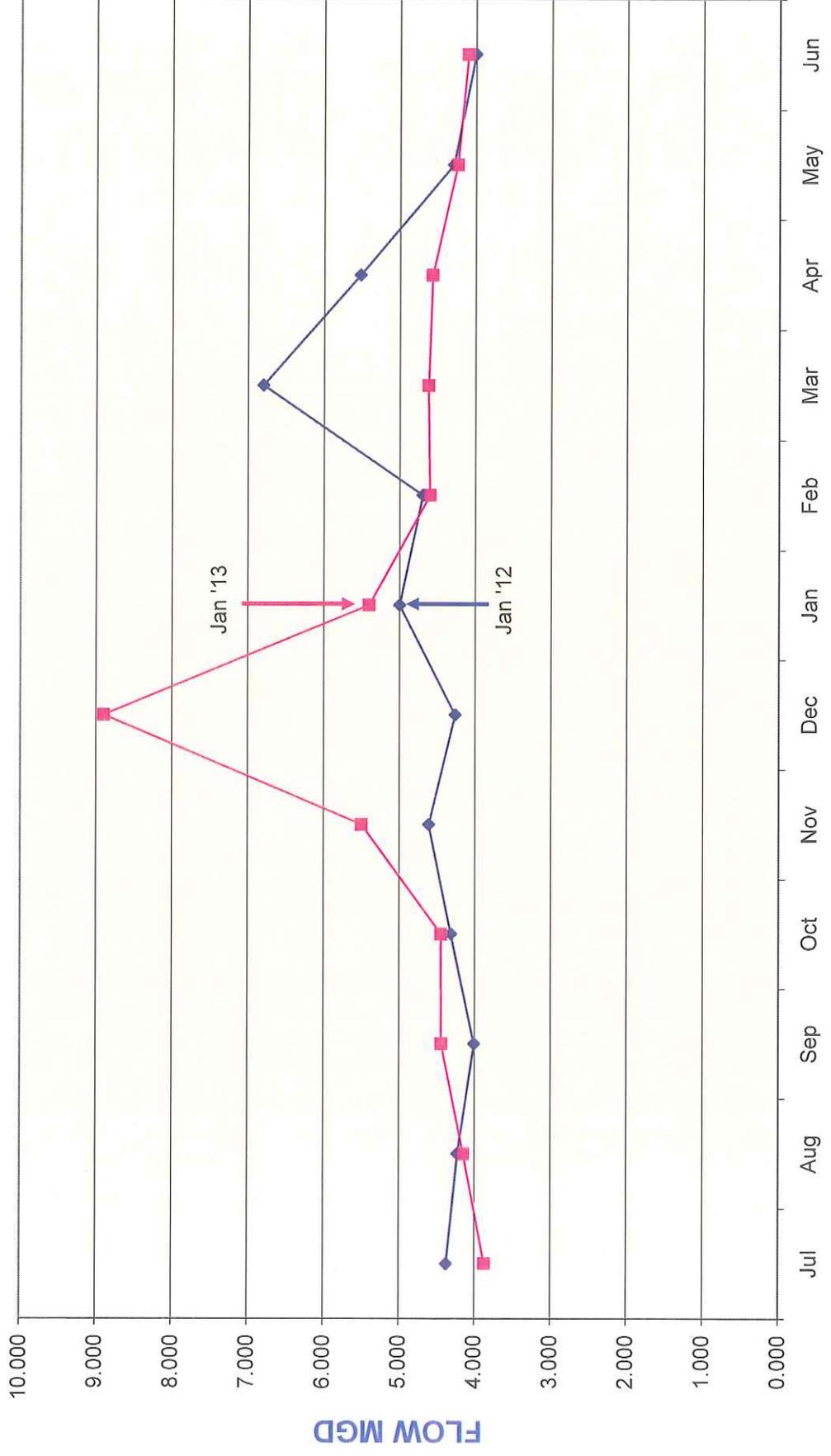
MISCELLANEOUS

- Process Control Management Plan (PCMP) meetings held regularly

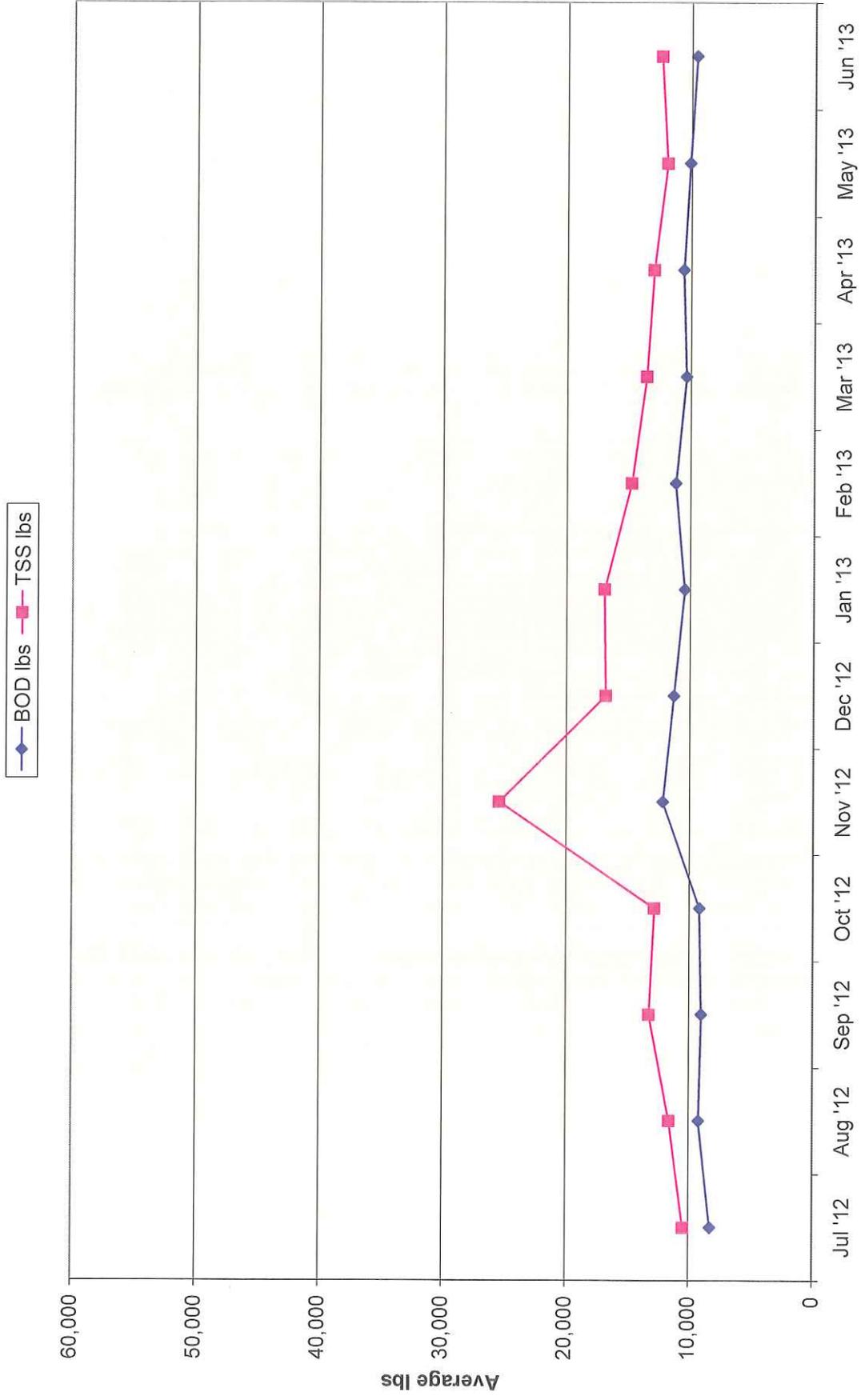
Veolia Support Staff On/Off Site (Various Times)

John O'Hare	Technical Support
Chris McAuliffe	District Manager
John Herron	Northern California Area Manager
Bryce Behnke	Technical Support via conference call & web exchange
Brian Exberger	Electronic Operations and Maintenance Manual Development
Jeremiah Danielson	Environmental, Health, and Safety
Mel Demsky	Regional Director of Asset Management
Dan Brown	Asset Manager

FLOW COMPARISON



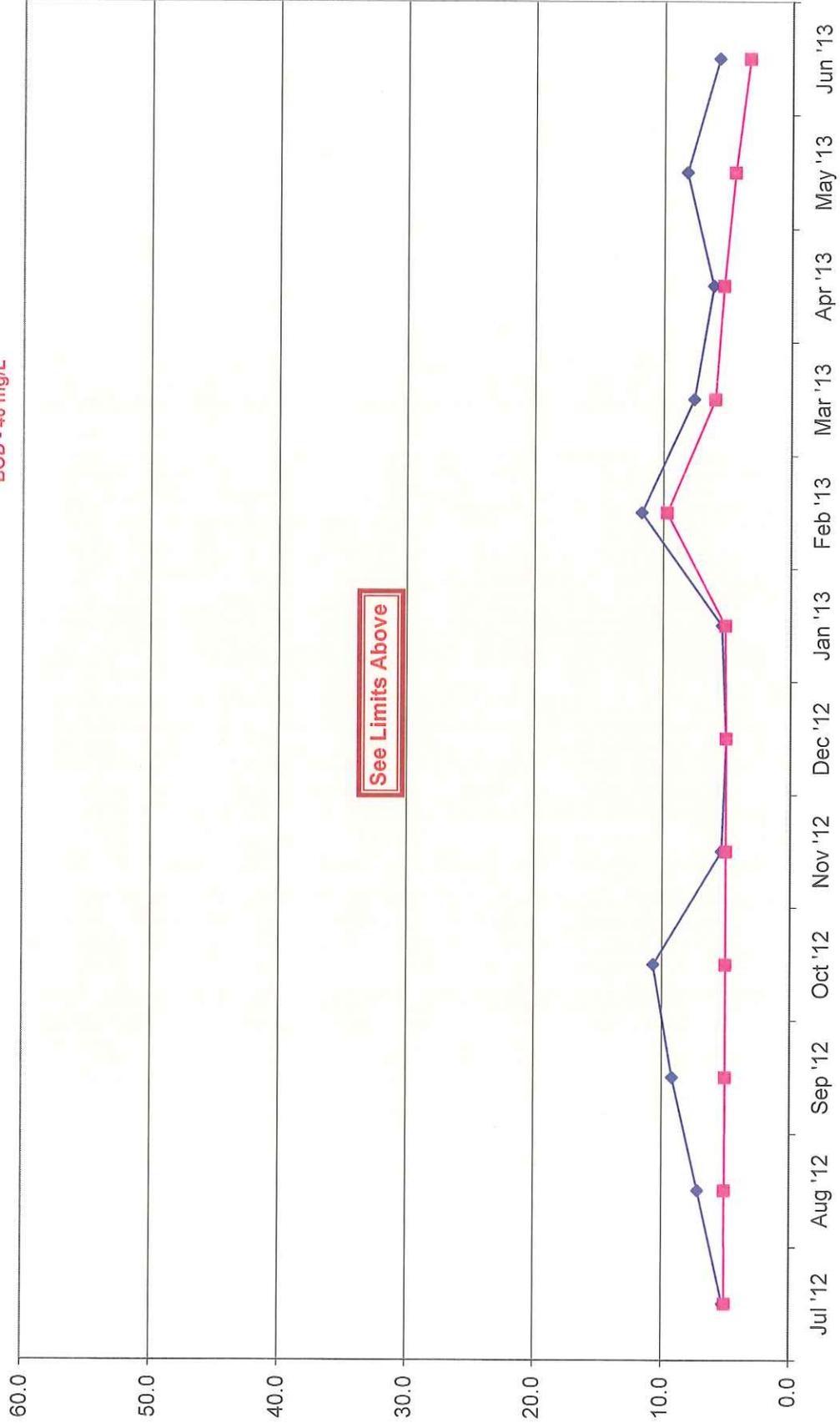
Influent Load BOD / TSS lbs



Effluent BOD / TSS Concentration

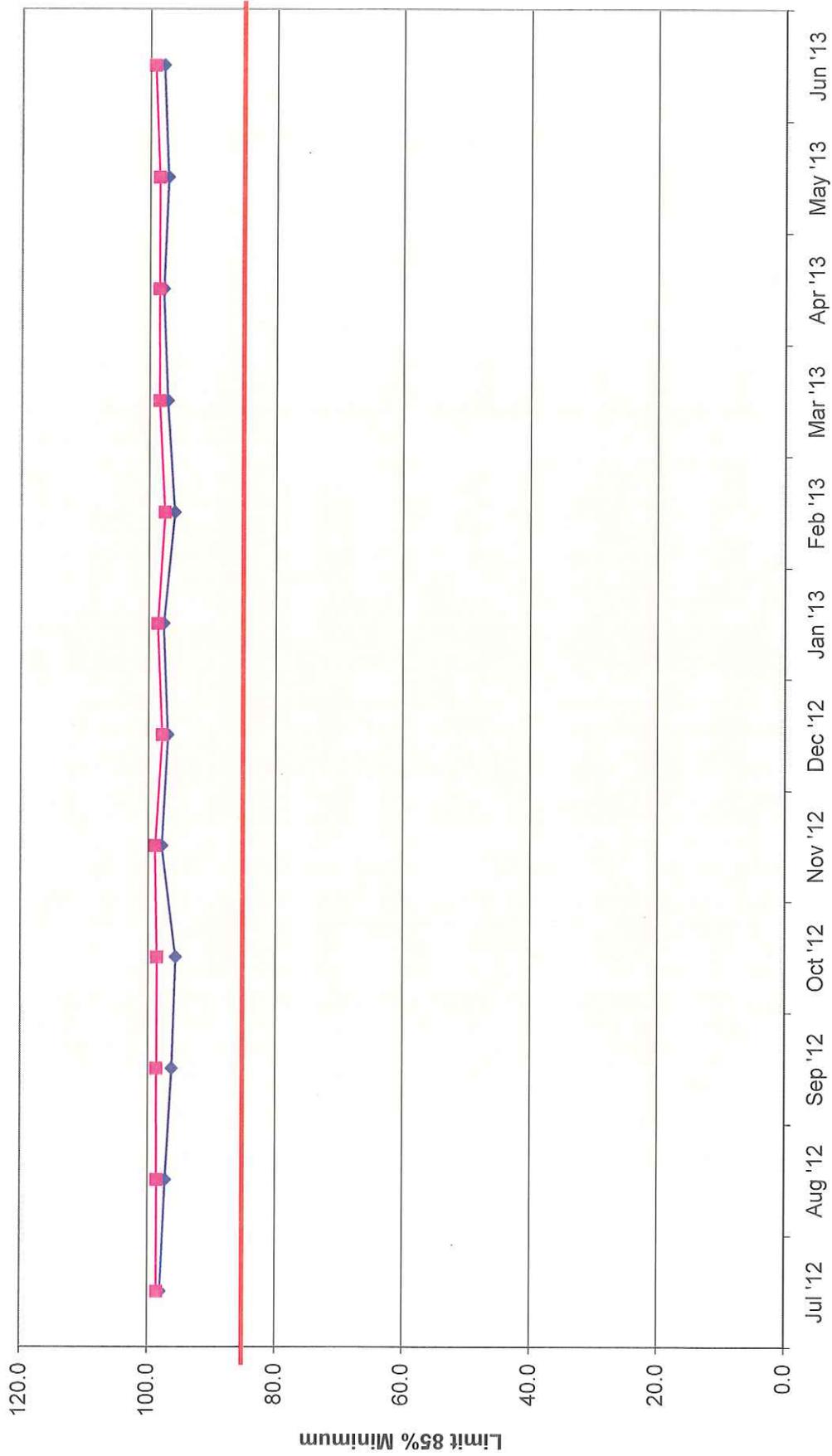
NPDES LIMITS WET SEASON
 BOD & TSS - 30 mg/L Monthly Ave, 45 mg/L Weekly Ave
 NPDES LIMITS DRY SEASON
 BOD - 15 mg/L Monthly Ave, 30 mg/L Weekly Ave
 TSS - 10 mg/L Monthly Ave, 20 mg/L Weekly Ave
 WDR (Waste Discharge Requirements) RECLAMATION
 BOD - 40 mg/L

—◆— BOD —■— TSS



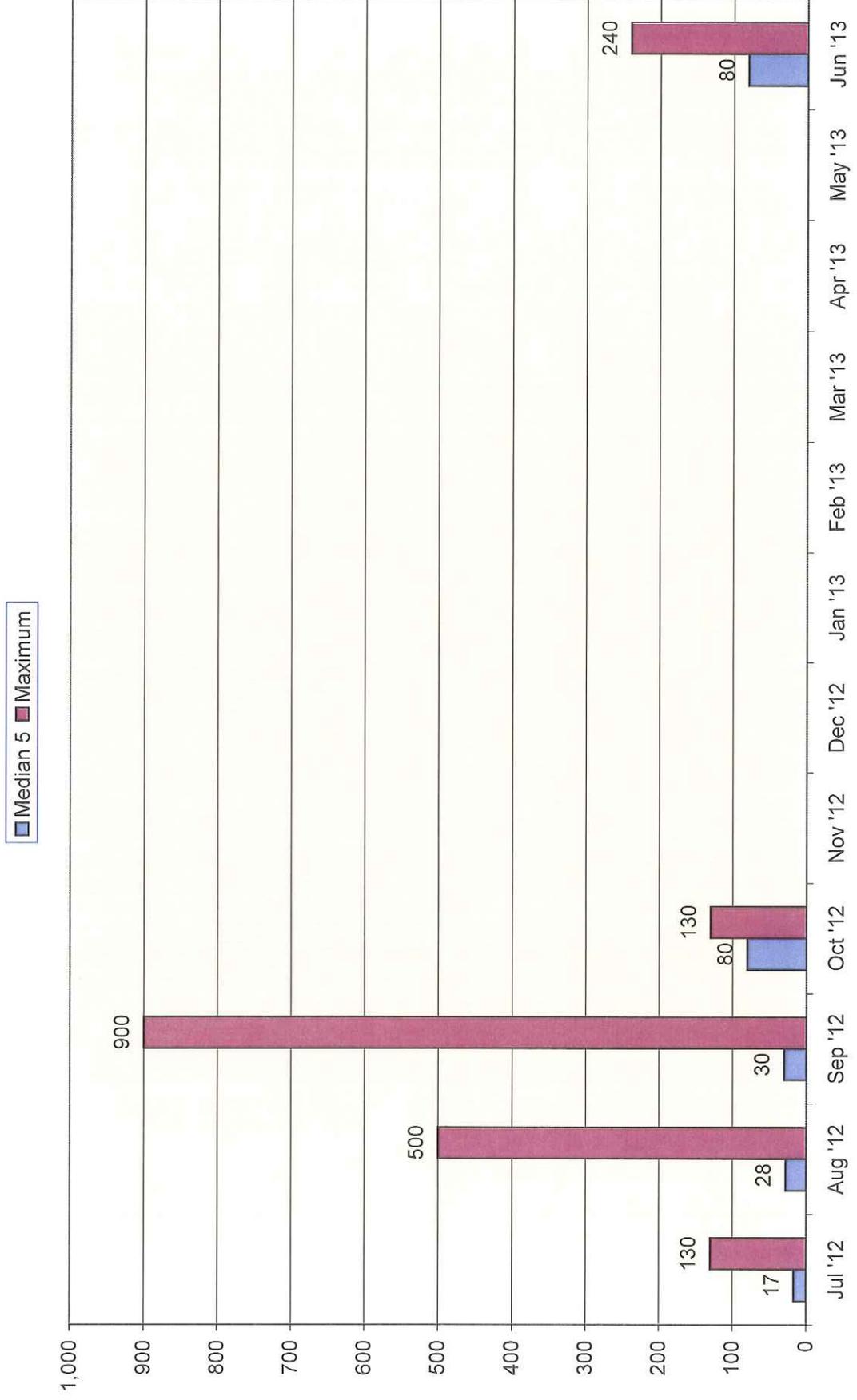
BOD / TSS Percent Removal

—◆— BOD —■— TSS



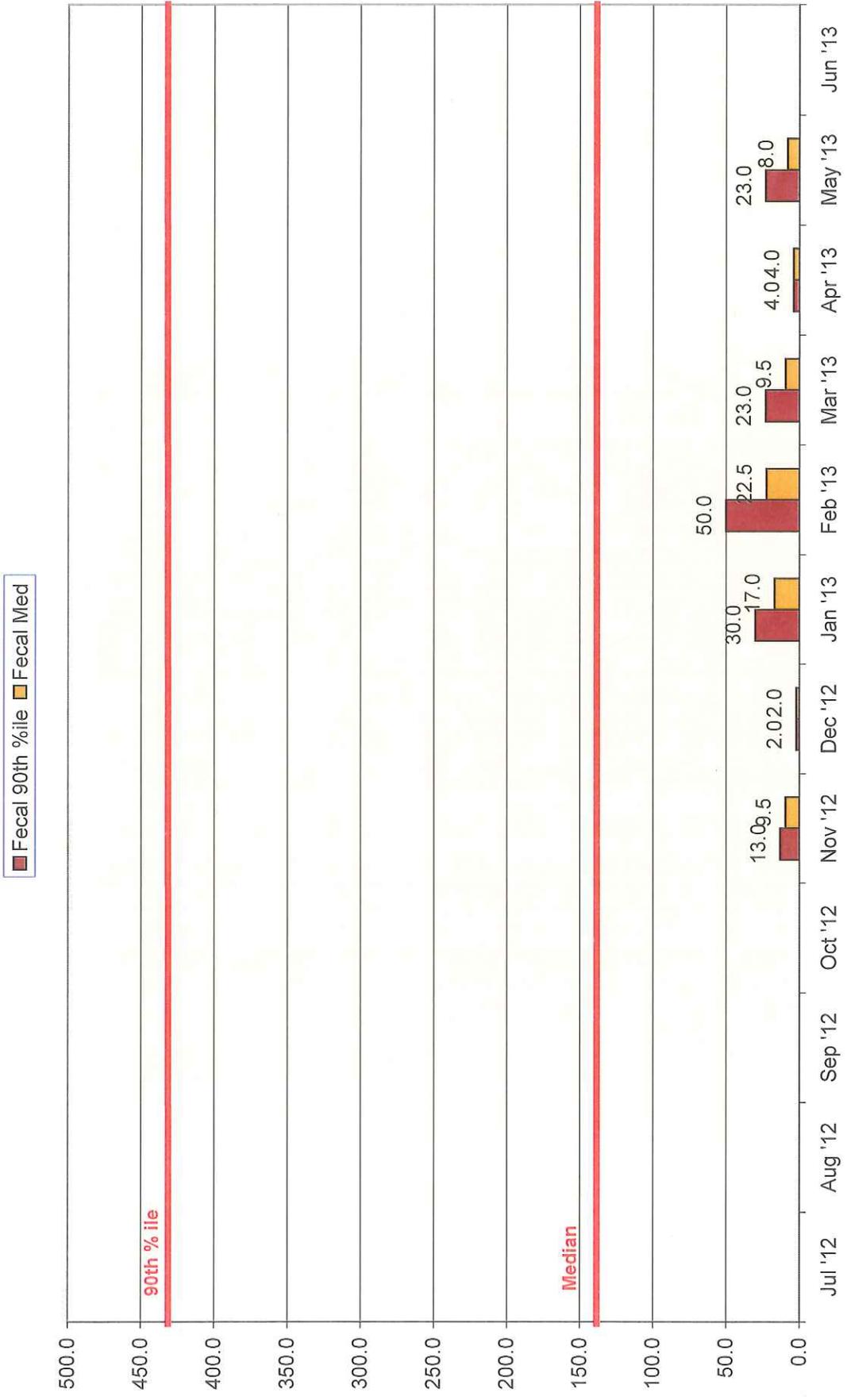
TOTAL COLIFORM LIMITS - WDR
5 Sample Median - 240 mpn /100 ml
Maximum - 10,000 mpn/100 ml

Disinfection



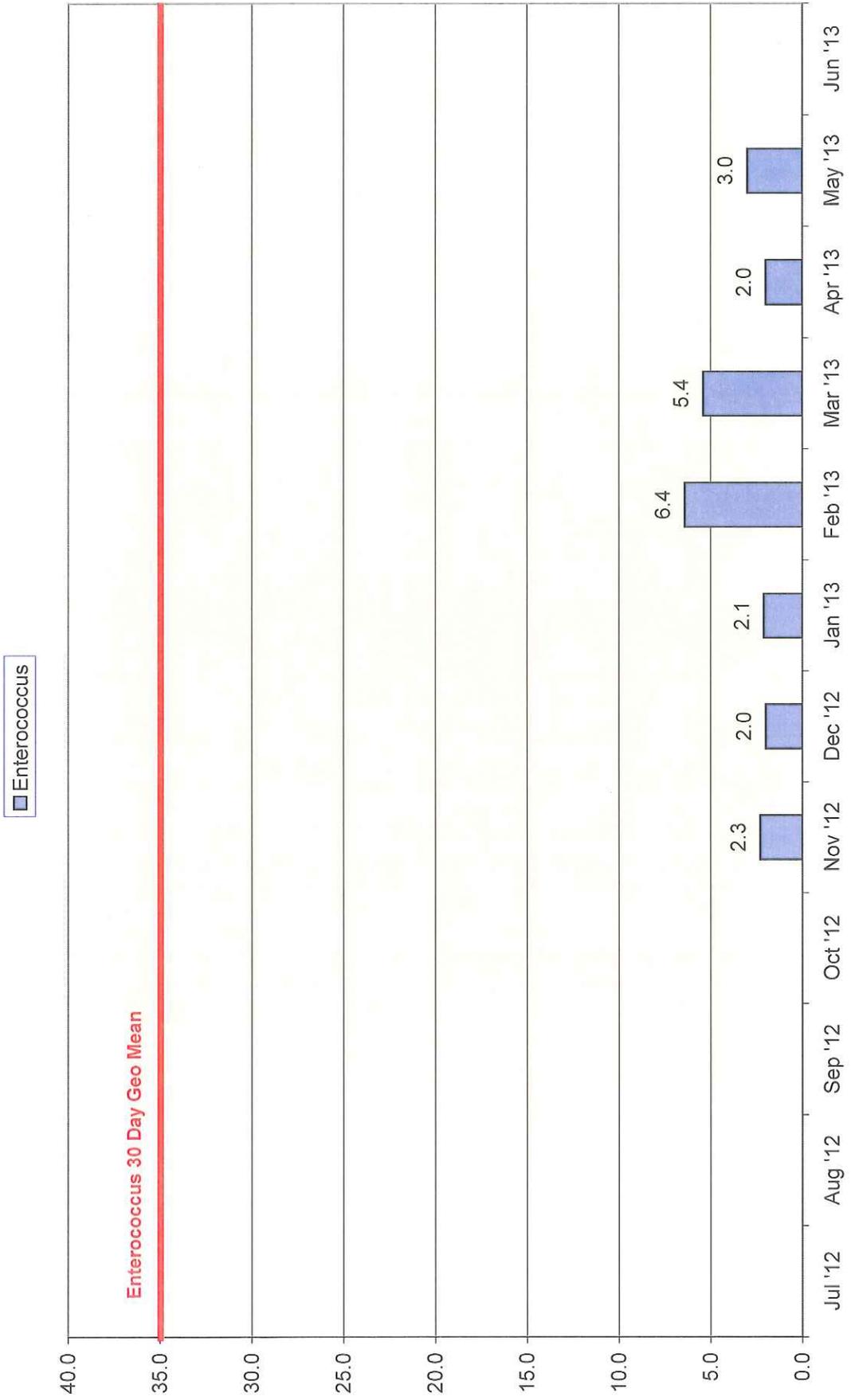
Disinfection

LIMITS - NPDES
 Fecal 140 mpn monthly median
 Fecal 430 mpn 90th percentile 30 day

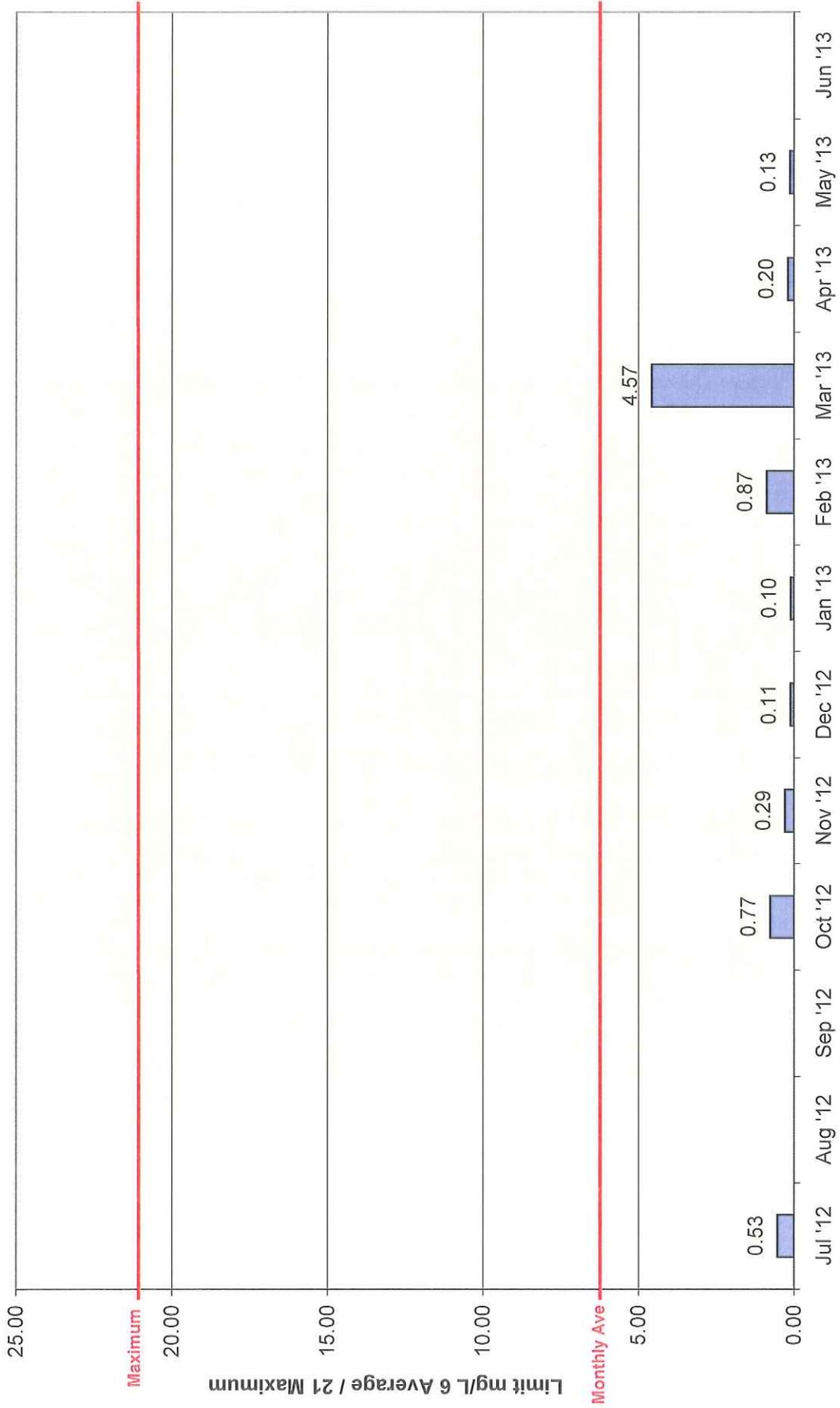


LIMITS - NPDES
Entero 30 day geo mean 35 mpn /100ml

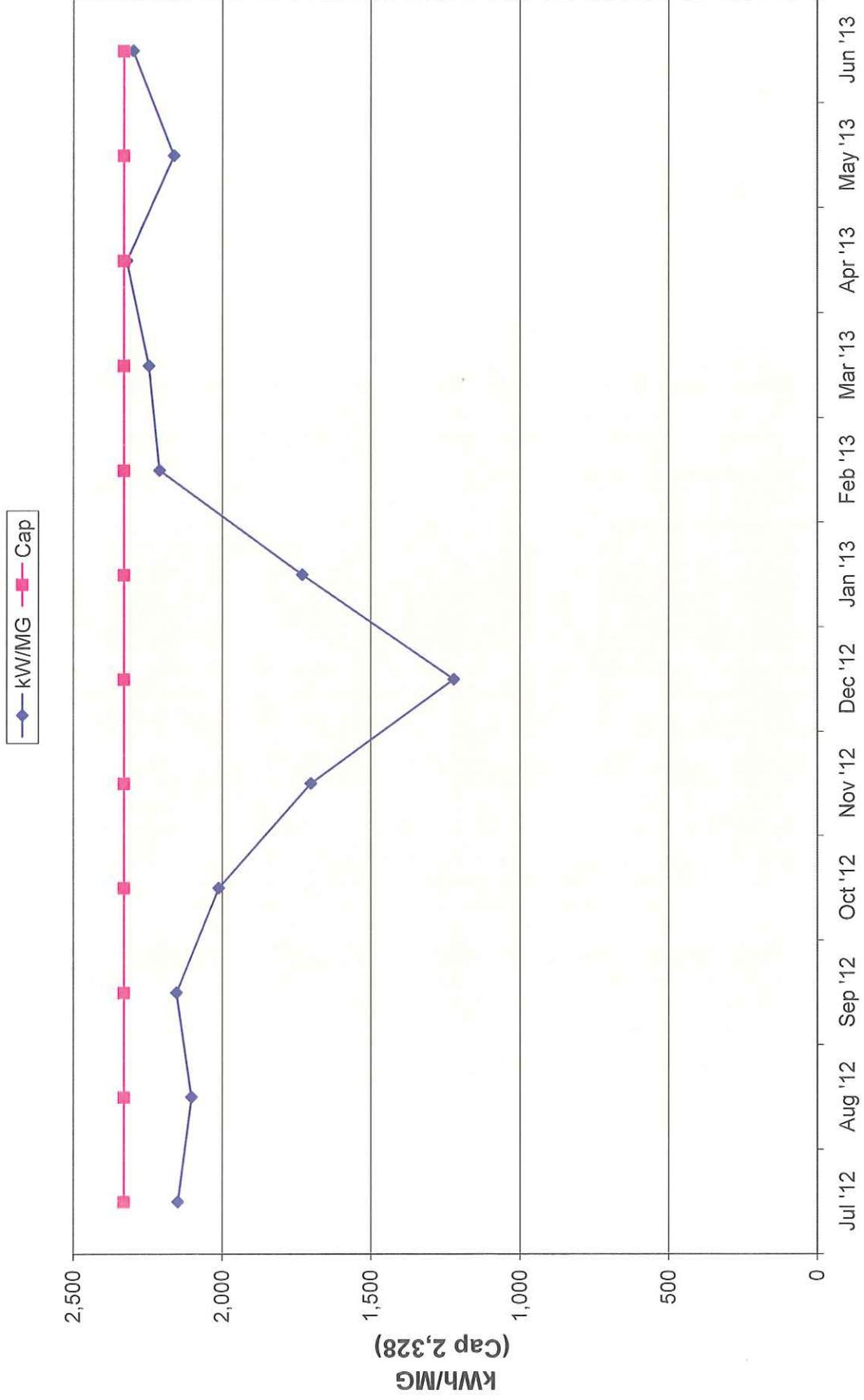
Disinfection



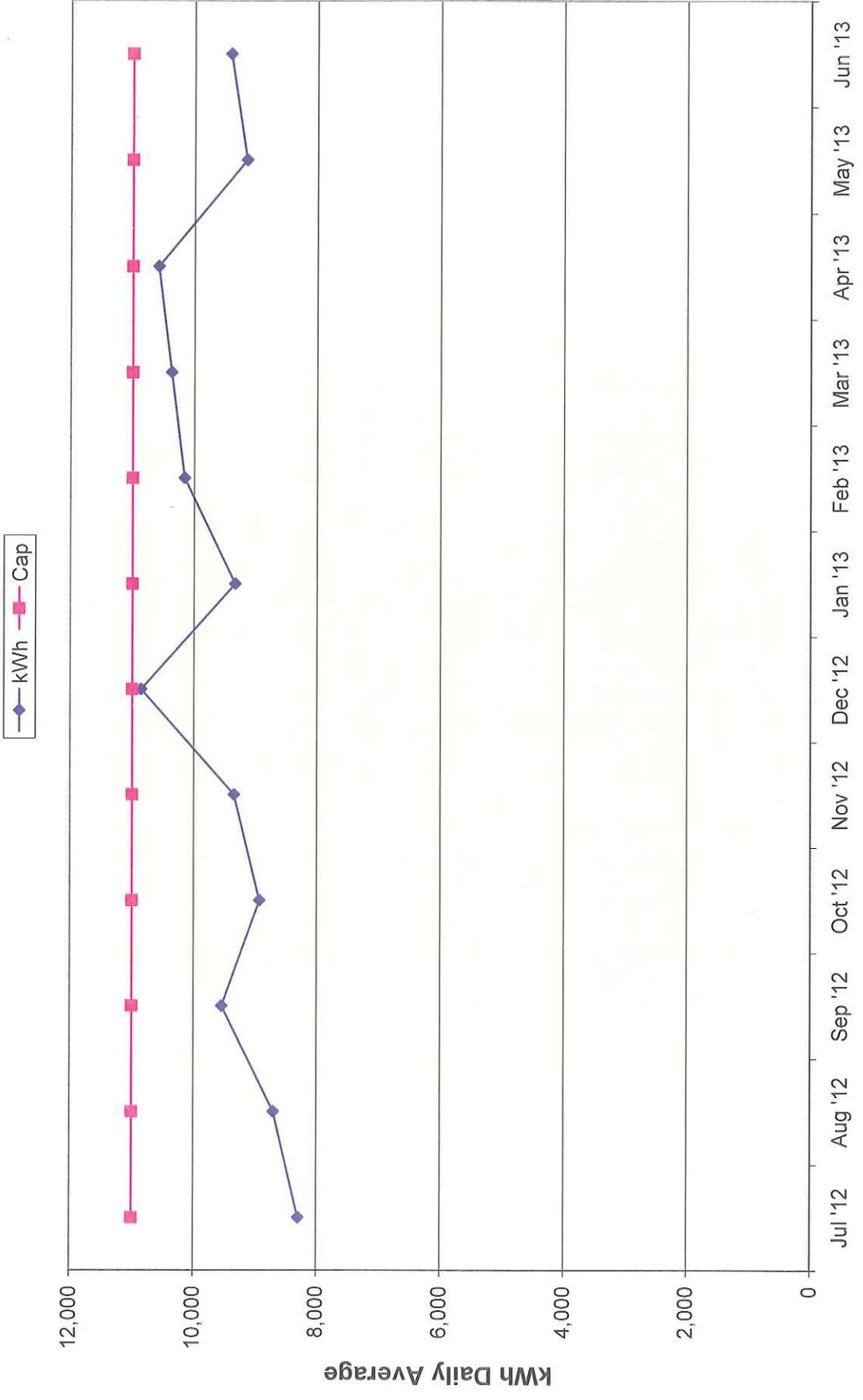
Effluent Ammonia



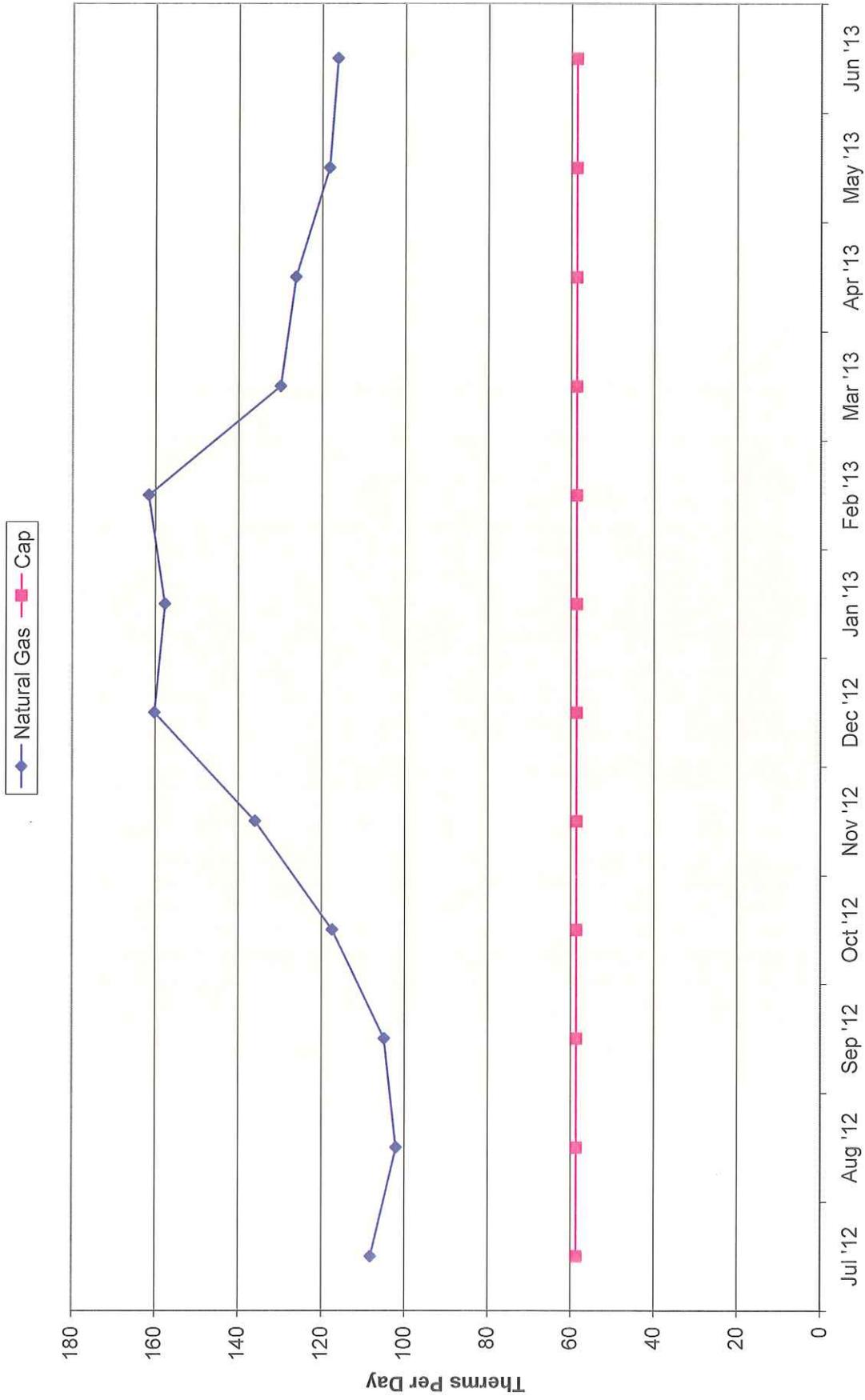
Energy kWh/MG



Energy kWh



Natural Gas Use



WORK ORDER STATISTICS

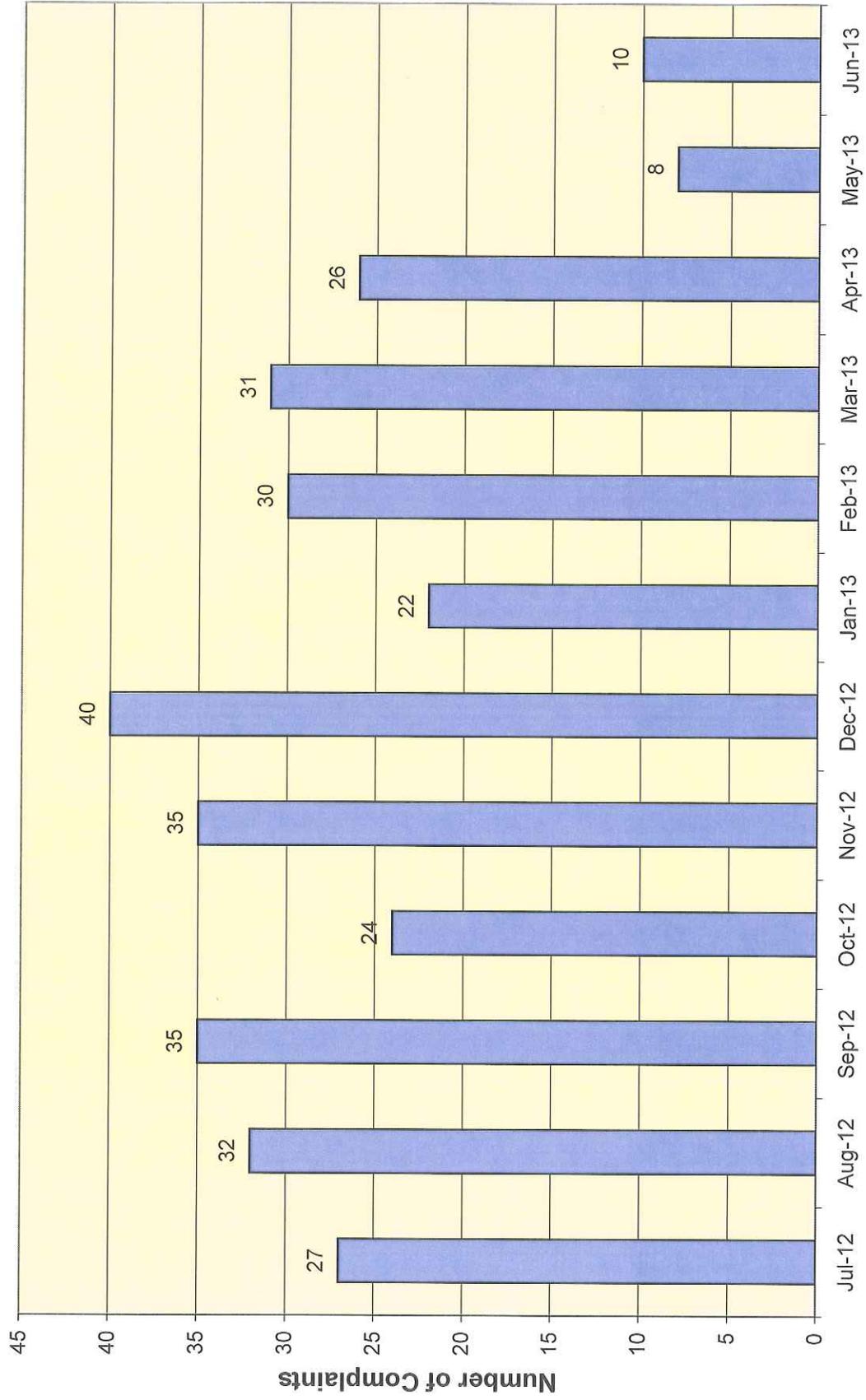
June 1, 2013 - June 30, 2013

	Open Work Orders Due Prior to 6/1/13	Open Work Orders 6/1/13 - 6/30/13	Total Open Work Orders
Preventative	13	301	314
Corrective	1	27	28
Total	14	328	342

	Closed Work Orders 6/1/13 - 6/30/13
Preventative	251
Corrective	25
Total	276

Total Outstanding Work Orders as of July 1, 2013	66
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Complaints Received



NOVATO SANITARY DISTRICT
Wastewater Operations Committee Meeting
Odor Control, Noise, and Landscaping Report
June 2013

Summary:

Staff continues to work to address issues of concern relating to odor control, noise, and landscaping, specifically from the Lea Drive neighborhood, and in the northeast corner of the Novato Treatment Plant (NTP) site.

To demonstrate its commitment, the District has already expended significant amounts beyond the substantial investment for odor control, noise, and landscaping included in the original WWTP Upgrade, Contract B - Novato Treatment Plant (NTP), Project No. 72609. These additional costs have included operational changes and measures related to further noise abatement, visual screening, wind shielding, and daily monitoring.

A summary of activities since the last Wastewater Operations Committee meeting is provided below.

Odor control:

As mentioned in the May 2013 report, the District had fast-tracked approval, of a proposed scope of services and fee estimate from Brown and Caldwell (B&C) with their proposed project manager Mr. David McEwen), for a new odor study focusing primarily on the aeration basins as a potential odor source.

In June, staff completed executing the contract (along with an implementation schedule), with B&C. Also, Mr. McEwen scheduled an initial sampling event for late June. However, due to unseasonal rains on the day of the sampling event, Mr. McEwen postponed this initial sampling and rescheduled it to July.

Also, the District developed pilot project to cover the anoxic zones of the aeration basins this summer progressed with a delivery update for mid-July from Pi2 Technologies of Montreal, Quebec. As mentioned in the May 2013 report, these covers incorporate a honeycomb design, float on the water surface, and utilize carbon filtering/scrubbing media to remove odors. Further, to investigate the effectiveness of this technology, staff included provisions in B&C's contract to include efficacy testing of this technology.

Noise:

In June 2013, staff continued to address the low level noise issues raised by some Lea Drive neighbors, related to the fans for the main odor control biofilter in the northwest corner of the Novato plant. As background, these fans are currently inside a temporary insulated enclosure, and staff has evaluated various options to provide a cost-effective permanent sound attenuating. Current sound measurements at the property line on Lea Drive indicate that the sound levels are those of an "Average Quiet Street" and well below the 60 decibels the Novato General Plan specifies for residential neighborhoods.

The District has budgeted for soundproofing of these fans in its FY2013-14 preliminary budget, and is evaluating alternative designs.

**NOVATO SANITARY DISTRICT
Wastewater Operations Committee Meeting
Odor Control, Noise, and Landscaping Report
June 2013**

Landscaping:

In June 2013, staff worked with its landscaping contractor Cagwin and Dorward (C&A), Novato, CA, to care for the attributes of the landscaping installed at the District's fence-line on Lea Drive at the northeast corner area of the NTP. As mentioned in the May 2013 report, the District completed landscaping upgrades to replace plants that to replace plants that died and augment the current visual screening on the open corridor at a cost of about \$19,000. The District also negotiated and executed a maintenance contract with C&A for C&A to provide periodic maintenance services to this landscaping, including weed control and irrigation systems.

**Novato Sanitary District
Wastewater Operations Committee meeting
Collection System Operations Report
June 2013**

General:

For June 2013, after accounting for all leaves, the breakdown of Collection System department staff time, in terms of equivalent full-time employee (FTE) hours utilized, works out approximately as follows:

- 1.9 FTE field workers for Sewer Maintenance (main line cleaning)
- 1.4 FTE field workers for Pump Station Maintenance
- 1.2 FTE field workers for CCTV work, and
- 1.2 FTE field workers for time spent on data input, training, service calls, overflow response, or any other activity that does not directly relate to main line cleaning, CCTV work or pump station maintenance.

Collection System Maintenance:

A total of 66,025 feet of sewer pipelines were cleaned for the month. District staff also assisted two (2) Duke's root abatement crews in the chemical treatment of 61,212 feet of sewer main. This process took five (5) days and took two crew members away from normal maintenance activities. Note that the footage related to chemical root abatement and the hours worked by District staff on this project are not included in the Collection System Monthly Report spreadsheet. The footage cleaned per hour, line cleaned/month, are within established parameters for the department. Graphs showing the length of line cleaned/month, footage cleaned/hour worked, along with the overflows/month are attached. Staff completed 267 maintenance work orders generated by the ICOM3 CMMS system, with 160 outstanding work orders. The CCTV van was in the field for a total of 15 working days during the month of June and the department's CCTV production of 25,938 ft for the month is below expected production goals.

Both issues, i.e. outstanding cleaning work orders being higher than normal and the lower than expected CCTV production are primarily due to: (a) one hydro-flusher being out of service due to a seal failure on the debris tank, (b) the continuous rodder being out of service due to mechanical issues, (c) the additional work-load associated with chemical root treatment, and (d) implementation of modified work practices to better integrate flushing with CCTV work as part of the department's continuous improvement practices. All these issues are being addressed and resolved, and staff anticipates catching up to its production goals in the near future.

Pump Station Maintenance:

The Collection System Department conducted 273 lift station inspections for the month with 123 of the inspection visits generated through the JobCal Plus CMMS system.

The breakdown of these inspections is as follows: 27 Flygt submersible pump stations, 1 time per month, 6 Gorman/Rupp dry well/wet well stations, 1 entry per month, and 4 main stations and the Irrigation pump station, that are visited daily.

**Novato Sanitary District
Wastewater Operations Committee meeting
Collection System Operations Report
June 2013**

A Collection Systems (Pump Stations) Work Order Statistics summary is attached.

Note: The JobCal Plus program is not only used for scheduling and tracking pump station related maintenance work orders, it is also used for ladder inspections, reclamation maintenance work orders, SCADA backup scheduling, and vehicle maintenance scheduling.

Pump Station Rehabilitation:

As part of the District's continuing multi-year Pump Station Rehabilitation Project (Capital Improvement Project No. 72403), the District accepted as substantially complete all three pump stations of Project Unit 4. Operational responsibility for these pump stations is now with District staff while punch list items continue being addressed.

Safety and Training:

General: The Collection System crew attended weekly safety tailgate meetings.

Specialized training: Collection System staff attended Trenching and Excavation training in June. Aaron Hendricks and Bob Stiles attended USA locator training

Safety performance: There were no lost time accidents this month for a total of 150 accident-free days.

Standard Operating Procedures (SOPs):

In June, Collection System staff issued two (2) SOP's (Periodic Pump Station Checks).

Sanitary Sewer Overflows (SSOs):

For the month of June, there were two (2) SSOs.

No.	Date	Location	Amount, gal	Cause
1	6/10/2013	13 Yarrow Ln.	1,110	Roots
2	6/27/2013	0 Hamilton Pkwy.	<1	Restriction in force main

1. SSO at 13 Yarrow Ln.: This SSO was a Category I event with the discharge volume of approximately 1,110 gallons entering the storm drain system and a difficult to access drainage ditch. There was partial recovery (9%) for this discharge due to the location of this event. This discharge was reported to the District by a neighborhood resident.

**Novato Sanitary District
Wastewater Operations Committee meeting
Collection System Operations Report
June 2013**

This discharge was determined to be the result of a partial root blockage in a District manhole. The duration of this discharge was determined using residential and reporting party interviews. The discharge volume was estimated, (and the estimates were verified), by using a combination of: (a) the San Diego picture method, (b) a chart from the NSD Overflow Response Plan that provides an estimate of the discharge vs. the observed height of the discharge above the pick-hole, and (c) a spreadsheet based discharge calculation that uses tributary home water usage and percentage of blockage.

California Emergency Management Agency (CalEMA), and Marin County Environmental Health Services (MCEHS) were notified of this discharge within two (2) hours of District staff being notified of the event.

In terms of cleaning history, the affected line segment was last cleaned on schedule on October 20, 2011 using a hydro-flusher, and this line segment is on a thirty-six (36) month cleaning frequency. CCTV inspection immediately after the discharge event showed no problems with the line segment. No changes to the cleaning schedule will be made as a result of this event. The roots were removed from the manhole and the manhole was chemically treated to prevent reoccurrence after the event.

This event was reported into the State's CIWQS database on June 11, 2013 as a Category I event, SSO Event ID # 795334 and was certified in CIWQS on June 20, 2013, Certification ID # 522134.

2. SSO at 0 Hamilton Pkwy: This SSO was a Category II event with a discharge volume of less than one (1) gallon which was fully contained in the street. The discharge was reported to the District by a City of Novato maintenance staff person. There was no recovery (0%) for this discharge due to its small volume and subsequent evaporation.

This discharge was determined to be a "burp" resulting from an extremely short duration, partial obstruction in the District force main that manifested and cleared itself while staff was performing wet well cleaning operations at the District's East Hamilton Pump Station. The "burp" duration was determined using reporting party interview and visual evidence. The volume of this event was visually estimated, (and the estimates were verified), by using spill comparison test i.e. water was poured onto the street simulating an equivalent spill footprint. The discharge water that escaped during this discharge manifested between the asphalt and frame of the sealed manhole.

Since the SSO did not result in triggering any reporting requirements to either CalEMA or MCEHS, these entities were not notified of this discharge.

This event was reported into the State's CIWQS database on July 3, 2013 as a Category II event, SSO Event ID # 796477 and was certified in CIWQS on July 10, 2013, Certification ID # 157796.

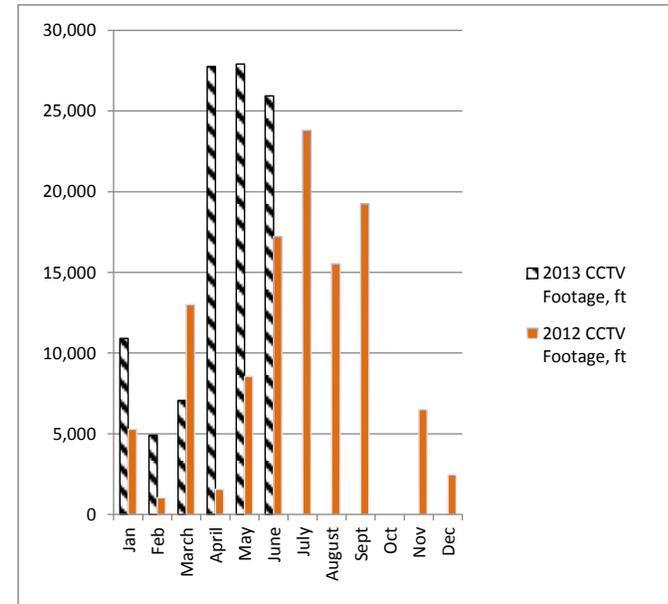
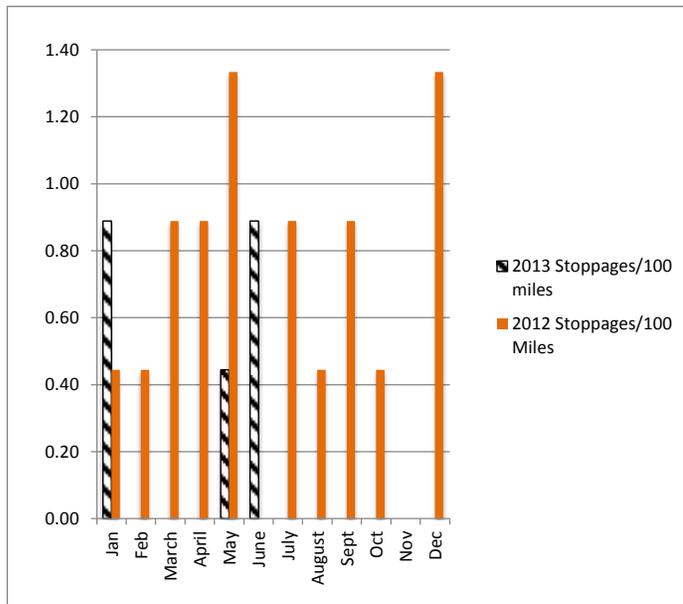
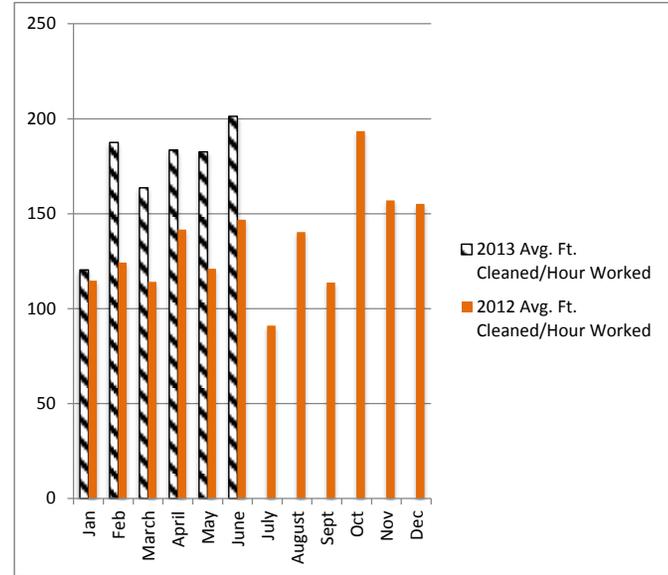
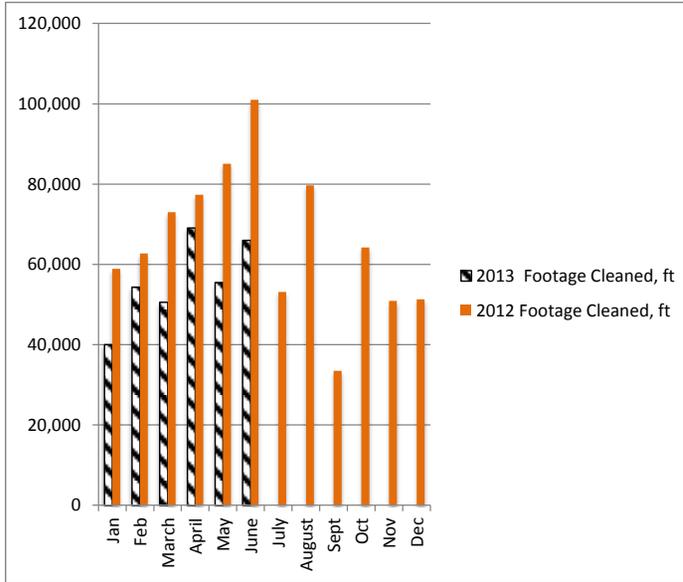
Novato Sanitary District
Collection System Monthly Report For June 2013 (as of June 30, 2013)

	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	Total Year to Date	Average Year to Date
Employee Hours Worked														
Number of FTEs (main line cleaning), hrs.	1.9	1.7	1.8	2.2	1.8	1.9							NA	1.9
Number of FTEs (other)	1.9	1.4	2.4	1.5	1.8	1.2							NA	1.7
Number of FTEs (CCTV)	0.1	0.3	0.5	1.7	1.1	1.2							NA	0.8
Total, FTEs	3.9	3.4	4.7	5.4	4.6	4.3							NA	4.4
Regular Time Worked, (main line cleaning), hrs	333	290	309	377	304	328							1,940	323
Regular Time Worked on Other, hrs ⁽¹⁾	326	249	415	259	308	216							1,772	295
Regular Time Worked on CCTV ⁽²⁾	20	46	85	300	192	200							842	140
Total Regular time, worked, hrs	678	585	809	935	804	744							4,554	759
Total Vacation/Sick Leave/Holiday, hrs	204	77	101	114	239	62							796	133
Vacation/Sick Leave/Holiday, FTEs	1.2	0.4	0.6	0.7	1.4	0.4							4.6	0.8
Overtime Worked on Coll. Sys., hrs	6	45	5	47	5	1							109	18
Overtime Worked on Other, hrs ⁽¹⁾	3	19	5	28	12	6							73	12
Overtime Worked on CCTV ⁽²⁾	1	3	0	0	0	0							4	1
Total Overtime, hrs	10	67	10	75	17	7							186	31
Productivity														
Rodder Work Orders Generated, ft	14	0	24	31	83	66							218	36
Rodder 3203 Ft. Cleaned	3,138	0	3,856	5,490	678	4,371							17,533	2,922
Flusher Work Orders Generated	187	252	290	385	438	361							1,913	319
Truck 3205V Ft. Cleaned	2,782	5,146	2,755	13,698	15,477	10,186							50,044	8,341
Truck 3206V Ft. Cleaned	34,114	49,225	43,954	49,898	39,332	51,468							267,991	44,665
Camera Work Orders Generated	0	0	0	0	0	0							0	
Camera Ft. Videoed	10,905	4,912	7,075	27,756	27,913	25,938	NA	NA	NA	NA	NA	NA	104,499	17,417
Work Orders Completed	201	252	286	374	314	267							1,694	282
Work Orders backlog	6	0	28	42	207	160							443	74
Total Footage Cleaned	40,034	54,371	50,565	69,086	55,487	66,025	NA	NA	NA	NA	NA	NA	335,568	55,928
Sanitary Sewer Overflows (SSOs)														
Minor (Category II)	0	0	0	0	1	1							2	NA
Major (Category I)	2	0	0	0	0	1							3	NA
Overflow Gallons	2,200	0	0	0	158	1,111							3,469	NA
Volume Recovered	880	0	0	0	158	100							1,138	NA
Percent Recovered	40%	NA	NA	NA	100%	9%	NA	NA	NA	NA	NA	NA	33%	NA
Service Calls (non-SSO related)														
Service calls, normal hours, #	7	5	7	12	6	6							43	7
Normal hours S.C. response time, mins (avg.)	12	15	14	18	17	22							98	16
Service Callouts, after hours, #	1	0	0	1	1	0							3	1
After Hours S.C. response time, mins (avg.)	23	NA	NA	20	30	0							73	18
Benchmarks														
Average Ft. Cleaned/Hour Worked	120	187	164	183	183	201	NA	NA	NA	NA	NA	NA	NA	173
Total Stoppages/100 Miles	0.9	0.0	0.0	0.0	0.4	0.9	NA	NA	NA	NA	NA	NA	2.2	NA
Average spill response time (mins)	18	0	0	0	15	19							NA	9
Callouts/100 Miles	0.4	0.0	0.0	0.4	0.4	0.0							1.3	0.2
Overtime hours/100 Miles	3	20	2	21	2	0							48	8
Overflow Gallons/100 Miles	978	0	0	0	70	494	NA	NA	NA	NA	NA	NA	1542	257

⁽¹⁾This category includes time spent on: Data input, Training, Service Calls, Overflow Response, as well as any other activity that does not directly relate to main line cleaning or CCTV work.

⁽²⁾This category separates time spent on CCTV from other Collection System maintenance activities.

Collection System 2012-13 Graphs



**COLLECTION SYSTEM (Pump Stations)
WORK ORDER STATISTICS
June 1, 2013 - June 30, 2013**

	Open Work Orders Due Prior to 6/1/2013	Open Work Orders 6/1/2013 -6/30/2013	Total Open Work Orders
Preventive	0	125	2
Corrective	0	0	0
Total	0	125	125

	Closed Work Orders 6/1/2013 -6/30/2013
Preventive	123
Corrective	0
Total	123

Total Outstanding Work Orders as of 6/30/2013	2
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NOVATO SANITARY DISTRICT
Wastewater Operations Committee Meeting
Reclamation Facilities Report
June 2013

Summary:

The rancher completed harvesting hay on Site 2. Cattle were moved in to Sites 3 & 7. Irrigation was enabled on all Sites. A few control actuators were replaced due to faulty actuation. Underground repairs to the irrigation system were performed in Site 2, Parcel 2. A purchase order was issued for the repair of Pump 1 at Drainage Pump Station 7. Approximately 35 MG of recycled water was used for irrigation this month. The storage ponds are storing approximately 56 MG of recycled water. Failed shear keys were replaced on both irrigation strainers. Staff submitted run-time data to PG&E so they can determine if a rebate program is available for the replacement of Irrigation Pump No. 2 motor. A leak developed at the top of Irrigation Pump No. 1 and a purchase order has been issued for the repair. All accumulated water has been removed from the DLD.

Ranch Operations:

Site 2: The cover crop on Parcels 24 & 28 was harvested this month.

Site 3: All hay was cut, baled, and stacked last month. The rancher moved his herd of cattle in to graze the parcels late this month.

Site 7: All hay was cut, baled, and stacked last month. The rancher moved his herd of cattle in to graze the parcels.

Irrigation Parcels:

Site 2: Staff tested the irrigation control valves in all Parcels. Inoperable actuators were found in Parcel 26 and 28. These actuators were replaced and the inoperable units will be analyzed by a factory representative. Irrigation was enabled for Parcels 22, 23, 26 & 27. Parcels 21, 24, 25 & 28 are scheduled for rehabilitation work this year.

Two underground repairs were completed in Parcel 2.

Site 3: Staff tested the irrigation control valves in all Parcels. Inoperable actuators were found in Parcel 31, 32 and 33. These actuators were replaced and the inoperable units will be analyzed by a factory representative. Irrigation was enabled for Parcels 31, 32, 33, 34, 35, 36 & 37. Parcel 38 is scheduled for rehabilitation work this year.

Site 7: Staff tested the irrigation control valves in all Parcels and no problems were found. New control wire was installed in the conduit passing through the chase installed across the new ditch between Parcel 77 & 78. Irrigation was enabled for Parcels 71, 72, 73, 74, 75, 76 & 77. Parcel 78 is scheduled for rehabilitation work this year.

Staff received a quote to troubleshoot the problems with Pump No. 1 at Drainage Pump Station No. 7 and a purchase order was issued. Work will be scheduled for late July. The motor is pulling high amps causing the motor starter to trip. An initial investigation by staff showed that the motor was fine so the problem may be with the pump.

NOVATO SANITARY DISTRICT
Wastewater Operations Committee Meeting
Reclamation Facilities Report
June 2013

Irrigation Pump Station:

Approximately 35.04 million gallons of recycled water was used for irrigation in June. The average storage pond staff gauge depth at the beginning of June was 2.0 feet and 5.0 feet at end of June, accumulating approximately 56 million gallons. This quantity is calculated using charts from the Reclamation Facilities O&M Manual.

Staff replaced failed shear keys on both Irrigation Strainers. The shear keys are brass and will fail when fatigued. A harder material is not recommended since it may allow damage to occur to the strainers if the backwash tube jams inside the strainer during backwash.

As previously reported, staff is re-evaluating the replacement/repair of Irrigation Pump No. 2. Staff contacted PG&E to inquire about rebate programs for replacing the pump with a more efficient motor. PG&E requested run time data and staff forwarded this information early this month.

Irrigation Pump No. 1 began leaking at the top of the pump around where the shaft comes out of the pump and up to the motor. Further investigation determined that the leak was due to a failing gasket between the top of the pump body and the flange for the mechanical seal. The leak is only a nuisance and will not harm the pump. Staff requested a quote to replace the gasket and a purchase order was issued. This work will be scheduled for late July.

Sludge Handling & Disposal:

There were no reclamation area related sludge handling and disposal activities in June. All of the surface water has been pumped off of the Dedicated Land Disposal (DLD) site and the surface will need to dry for at least a month before it can be worked to prepare it for sludge application.
