

NOVATO SANITARY DISTRICT

Meeting Date: May 20, 2013

The Wastewater Operations Committee of the Novato Sanitary District will hold a meeting at **4:00 PM**, Monday, May 20, 2013 at the District offices, 500 Davidson Street, Novato. *(Note: changed start time).*

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 APRIL 15, 2013 MEETING

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

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

6. RECLAMATION FACILITY REPORT FOR APRIL 2013

- a. Ranch Operations.
- b. Irrigation Systems.
- c. 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.

April 15, 2013

A regular meeting of the Wastewater Operations Committee of Novato Sanitary District was held at 2:00 p.m., Monday, April 15, 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
Tim O'Connor, Collection Systems Supervisor
John Bailey, Project Manager, Veolia Water
(Sandeep Karkal, Deputy Manager-Engineer, Steve Krautheim, Field Services Superintendent, and Julie Swoboda, Administrative Secretary were absent.)

ALSO PRESENT: Lynda Rodefer, Veolia Water, as Committee Recorder for Julie Swoboda.
Bob Guinan, Novato resident
Joe Carlomagno, Novato resident

AGENDA APPROVAL: The agenda was approved as presented.

PUBLIC COMMENT: None.

APPROVAL OF MEETING MINUTES FOR MARCH, 2013: The March 18, 2013 minutes were approved as written.

WASTEWATER TREATMENT FACILITIES OPERATIONS AND MAINTENANCE REPORT FOR MARCH 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 March. He stated that there were no permit exceedances, violations or excursions and noted that March flows remain low as a dry weather pattern continues. Mr. Bailey discussed the ammonia parameter, noting that although values were higher than previous months, they were well within NPDES permit limits.

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 discussed Veolia's Emergency Management Services (EMS) implementation preparation. He stated that Veolia Water earned first place in the Municipal Operational Excellence (OpEx) Awards for their operation of our facility out of a field of more than 300 water and wastewater projects and stated a press release would follow soon.

He stated that Veolia employees have been accident free for a total of 1033 days/46,485 hours. He reviewed the treatment plant performance graphs and provided a report on work order statistics.

- Odor control and landscaping progress report: Beverly James, Manager-Engineer, provided a summary of the plan for an RFP master odor plan for next fiscal year. Also discussed weed control.

COLLECTION SYSTEM OPERATION AND MAINTENANCE REPORT FOR MARCH 2013:

Tim O'Connor, Collections System Superintendent, discussed the Collections System Monthly Report for March 2013. He reported that the crew cleaned a total of 50,565 feet of sewer pipeline. Mr. O'Connor stated that the department completed 286 maintenance work orders which were generated in March. He discussed pump station maintenance and noted that approximately 240 lift station inspections were conducted.

Mr. O'Connor stated that there were no sanitary sewer overflows during March and that safety performance for his department was good with a total of 59 accident-free days. He noted that the Hangar Pump Station was returned to District staff control during the month and is now operational. Mr. O'Connor reported that staff issued 1 Standard Operating Procedures (SOP's) during the month.

RECLAMATION FACILITY REPORT FOR MARCH 2013:

Beverly James, Manager-Engineer, presented the Reclamation Facilities report in Steve Krauthem's absence. She stated that Parcels 24 and 28 were rolled and seeded last month. She noted that a portion of Parcel 21 and all of Parcel 25 were disked, rolled and seeded with the permanent crop in March.

ADJOURNMENT: There being no further business to come before the Committee, the meeting adjourned at 3:20 p.m. The next Wastewater Operations Committee meeting will be held on Monday, May 20th

Respectfully submitted,

Beverly James
Manager-Engineer

Lynda Rodefer, Recording



May 15, 2013

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

Subject: Veolia Water Operations Report – April 2013

Dear Ms. James:

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

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

Regards,

A handwritten signature in blue ink that reads "John Bailey".

John Bailey
Project Manager

MONTHLY OPERATIONS REPORT

April 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: April 2013:

Bay Discharge

Parameter	Value		Limit	
	Ave	Max	#1	#2
Flow, MGD (monthly ave/max)	4.56	6.12	N/A	N/A
Max Peak Hour, MGD – Daily (Dry Weather)	N/A	~8.00	N/A	N/A
Influent BOD ₅ , lb/day (month ave/max)	10,275	13,757	N/A	N/A
Influent TSS, lb/day (monthly ave/max)	12,955	18,896	N/A	N/A
Effluent BOD ₅ , mg/L (monthly ave/weekly max)	<6	9	30	45
Effluent TSS, mg/L (monthly ave/weekly max)	5	9	30	45
Effluent BOD ₅ - % Removal, Minimum	98	N/A	85	N/A
Effluent TSS - % Removal, Minimum	98	N/A	85	N/A
Ammonia, mg/L – (monthly ave/daily max)	<0.20	0.73	6	21
pH, su (min / max)	7.1	7.2	6.5	8.5
Enterococcus, mpn (30 day geo mean)	2.0	N/A	35	N/A
Fecal Coliform, mpn (30 day median)	4	N/A	140	N/A
Fecal Coliform, mpn (90 th percentile)	4	N/A	430	N/A
Total Permit Exceedances (NPDES)	0			

NA – Not Applicable

Discussion of Violations / Excursions: NONE

OPERATIONS & MAINTENANCE STATUS / REVIEW:

Key events for the period:

April flow remained low as a dry weather pattern continues.

Novato

- Routine rounds, readings and maintenance
- Secondary Clarifier #2 taken out of service
- Drained and Cleaned Digested Sludge Sump Transfer Box
- Aeration Basin #3 taken out of service
- Annual CUPA Inspection performed
- Outside Contractor installed relief valve on effluent / outfall line

Ignacio Transfer Pump Station

- Routine rounds, readings and maintenance
- JWC (manufacturers representative) in to verify Channel Monster Grinder replacement

Recycled Water Plant

- Performed plant rounds and maintenance
- Jar testing new flocculant
- Turbidity meter modification (install needle valve) for flow control

Sludge Lagoons

- Performed daily checks

ADMINISTRATION:

- Electronic Self Monitoring Report for February submitted on 4/26/13

SAFETY AND TRAINING:

- Monthly plant safety inspections for Novato WWTF completed on 4/24/13
- Five Minute Tailgate training is held daily with the O&M staff.
- No safety incidents for the month of April 2013
- Accident Free: 6/1/10 – 4/30/13: 1,063 days / 48,473 hours
- Safety Training:
 - Confined Space Refresher
 - Office Safety
 - Veolia Security Policy

SOP Review: Headworks Dry/Wet Weather Operation

ODORS:

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

MISCELLANEOUS

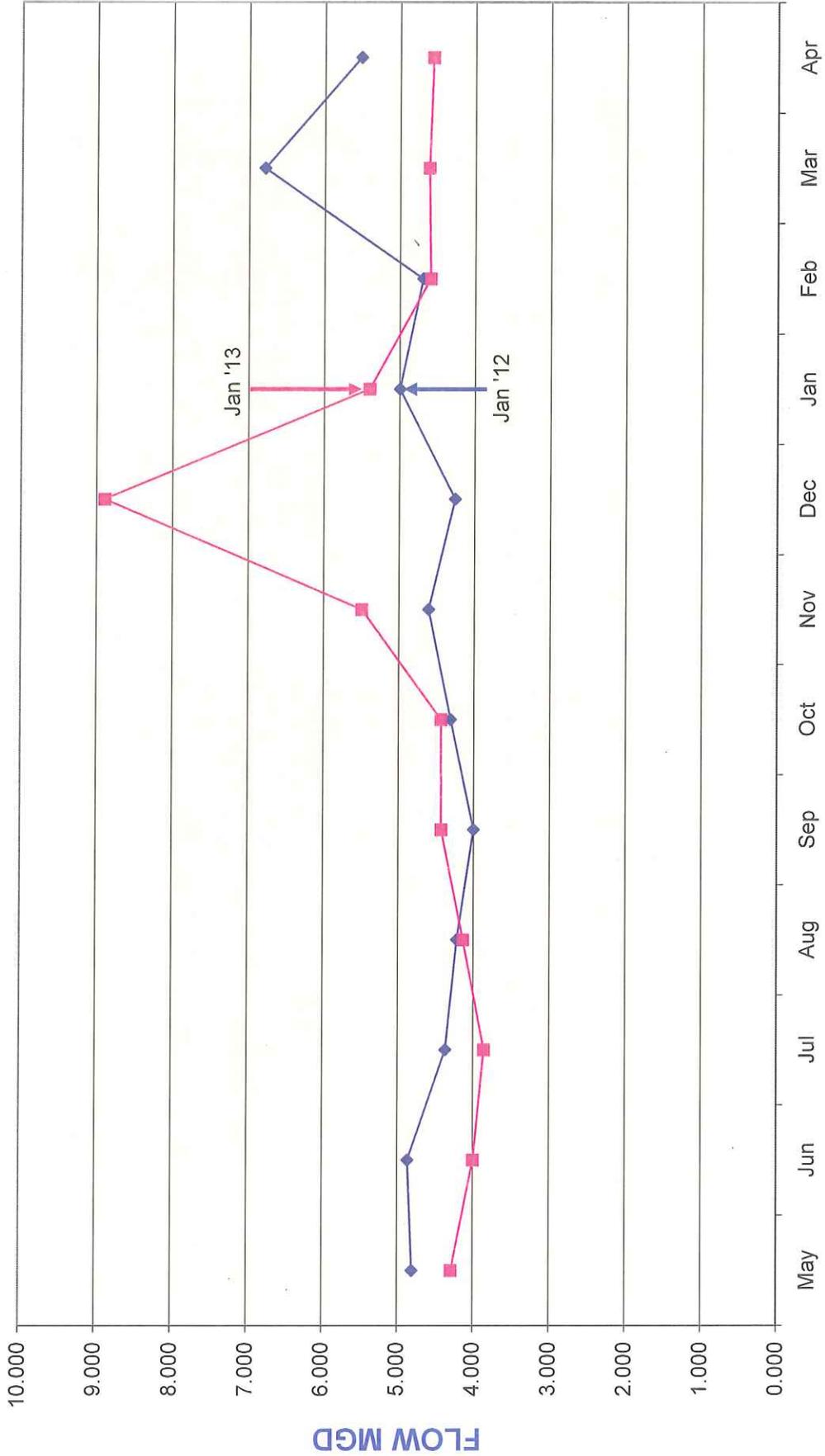
- Process Control Management Plan (PCMP) meetings held regularly

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

—◆— 2011/12 —■— 2012/13

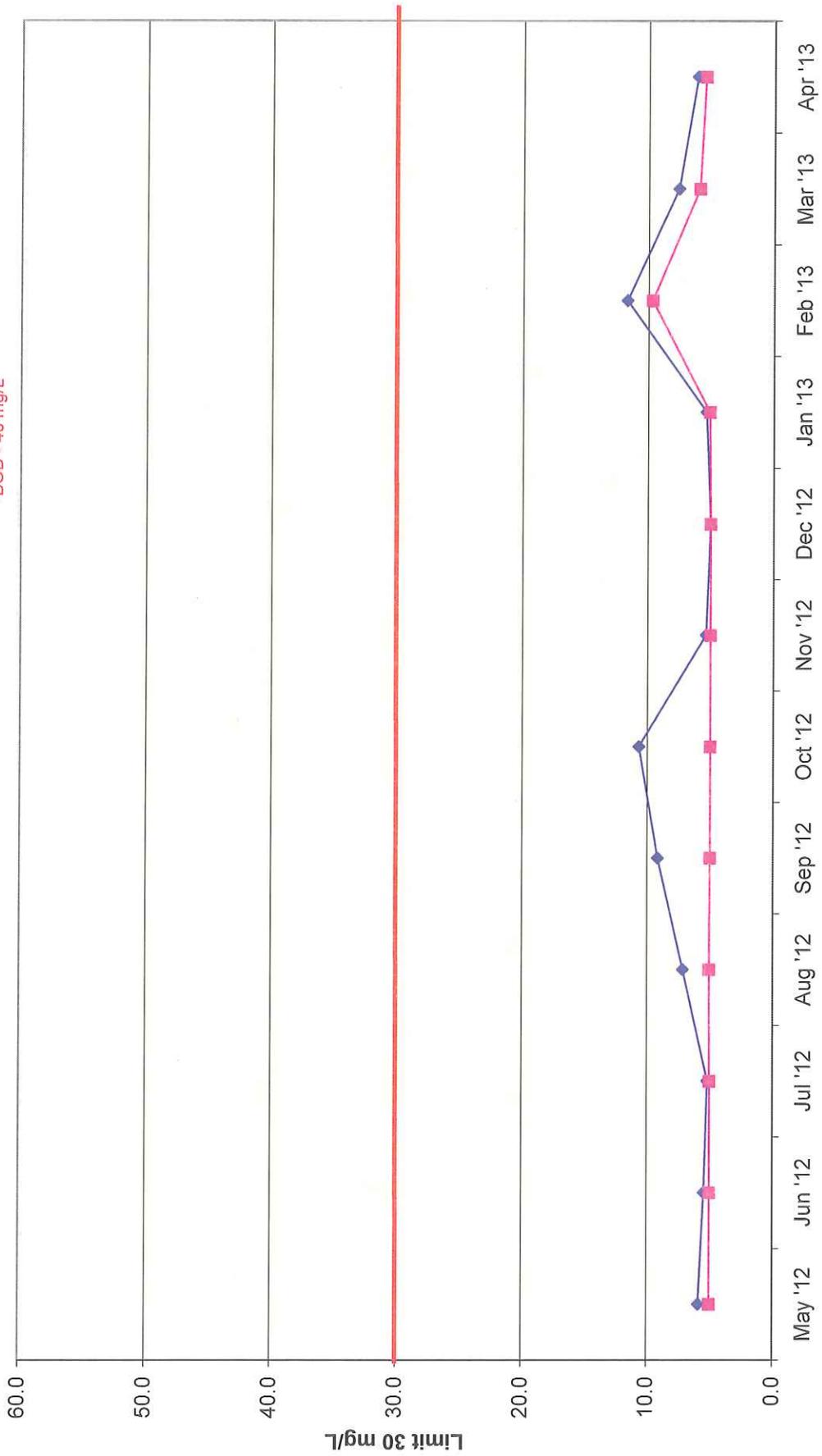


Influent Load BOD / TSS lbs



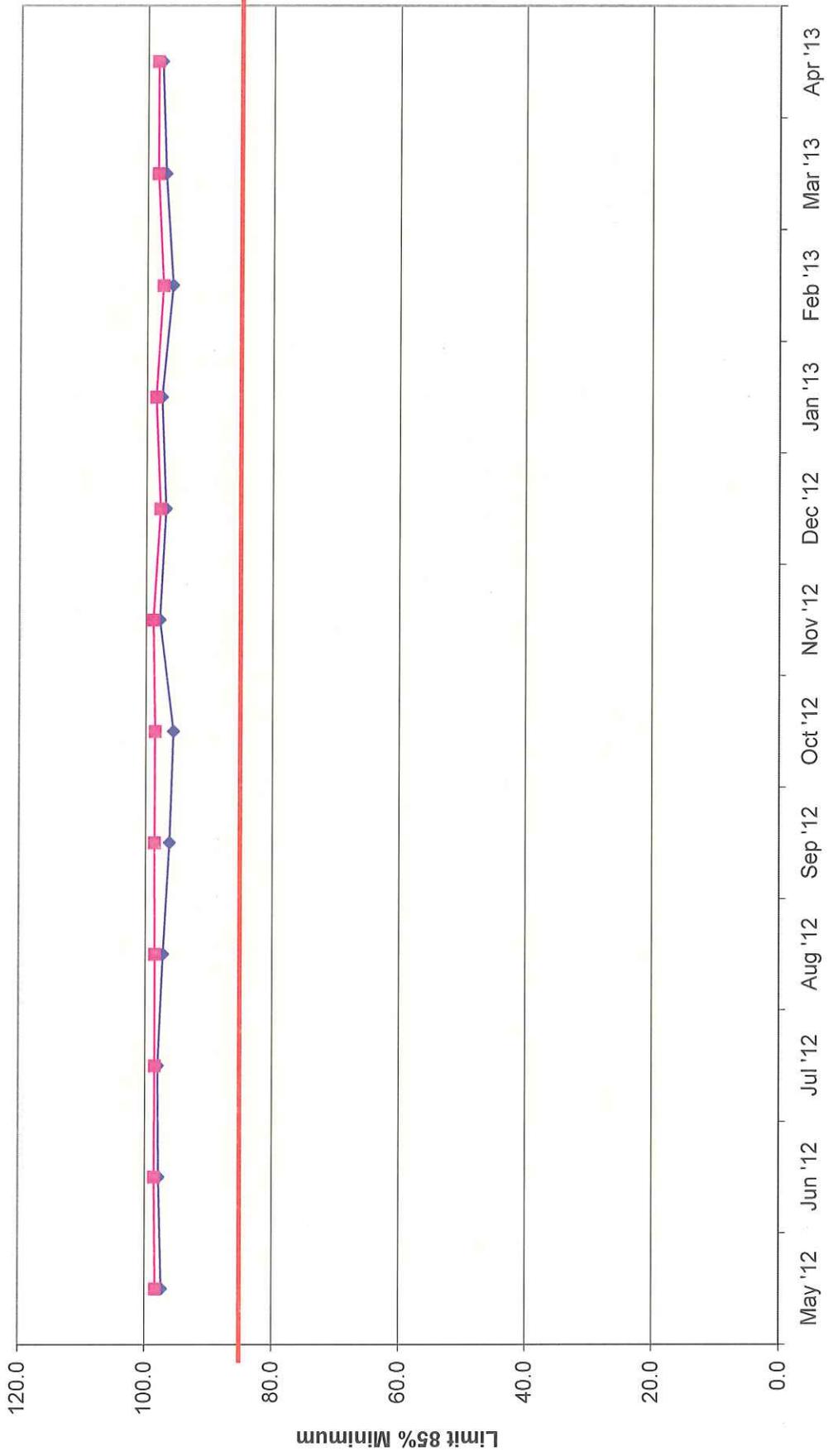
Effluent BOD / TSS Concentration

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

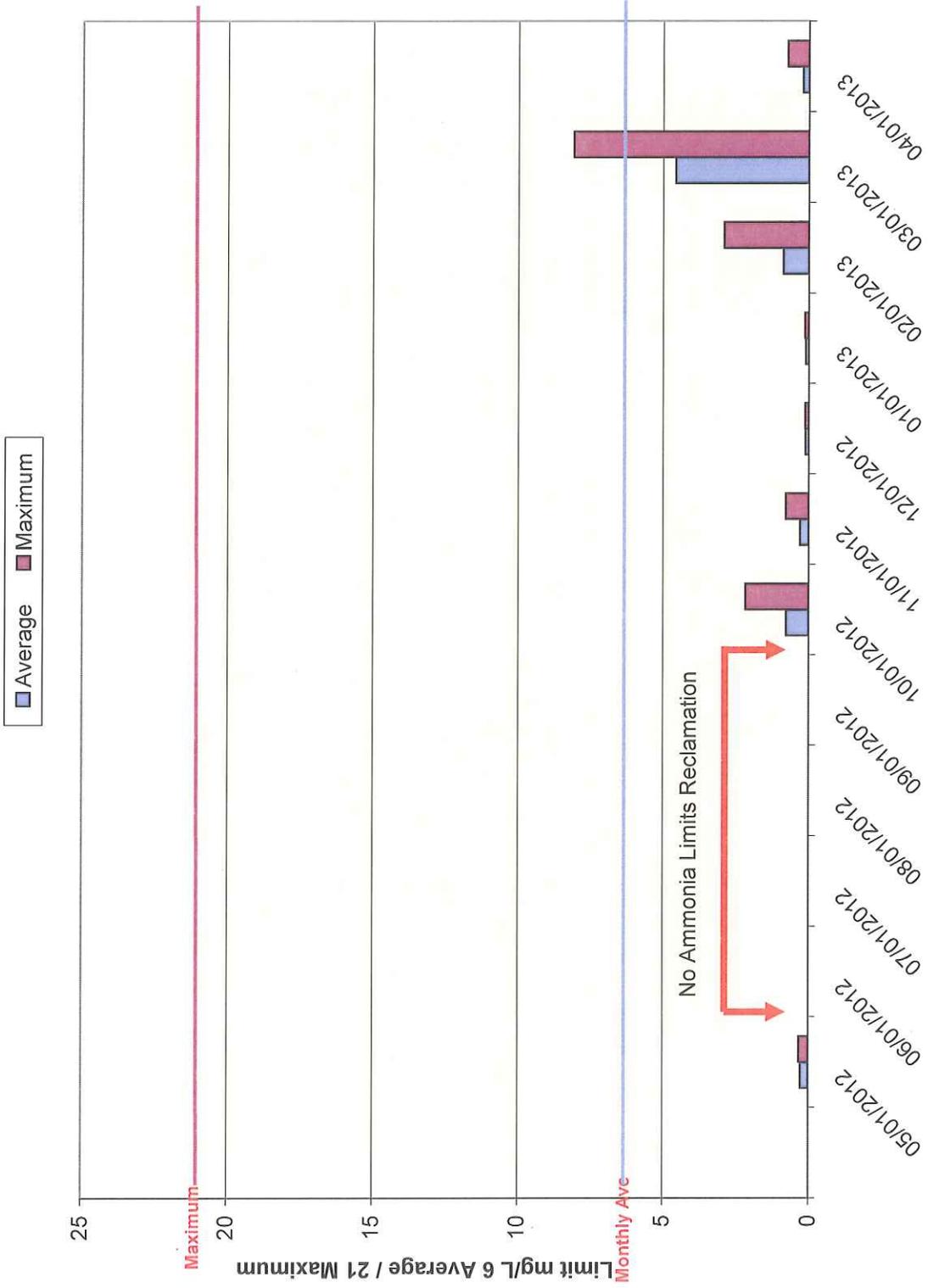


BOD / TSS Percent Removal

—◆— BOD —■— TSS



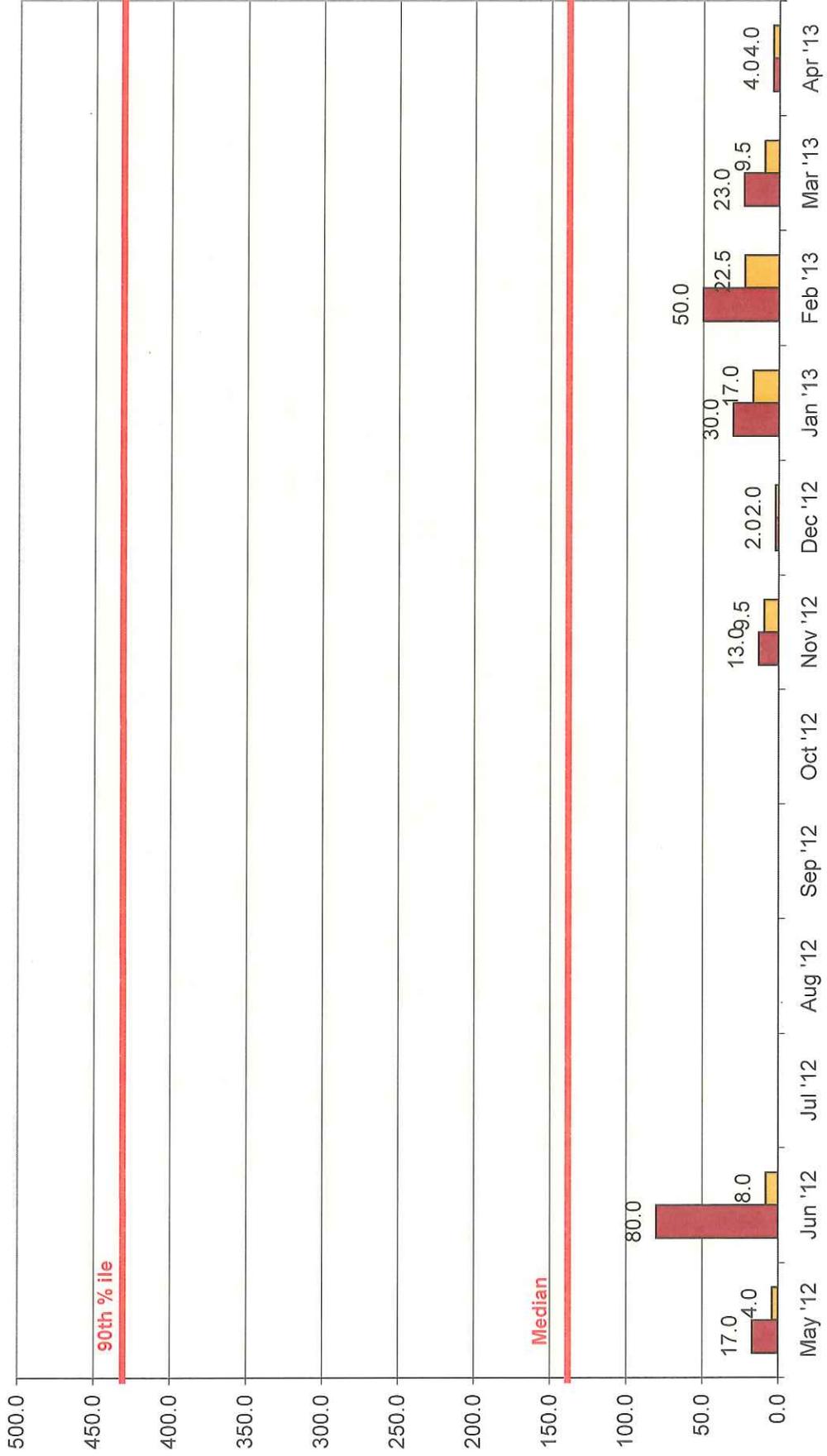
Effluent Ammonia



Disinfection

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

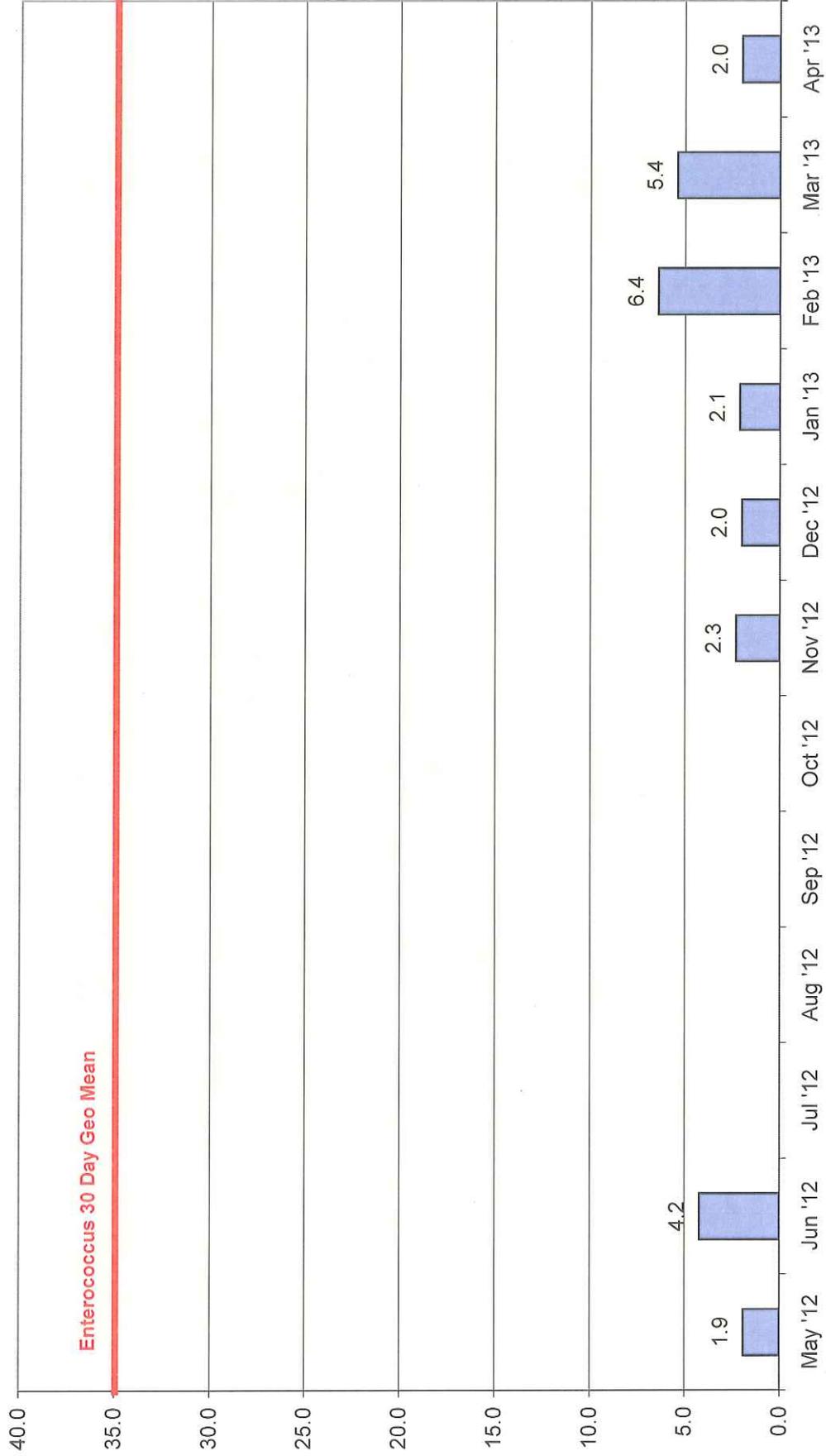
■ Fecal 90th %ile ■ Fecal Med



Disinfection

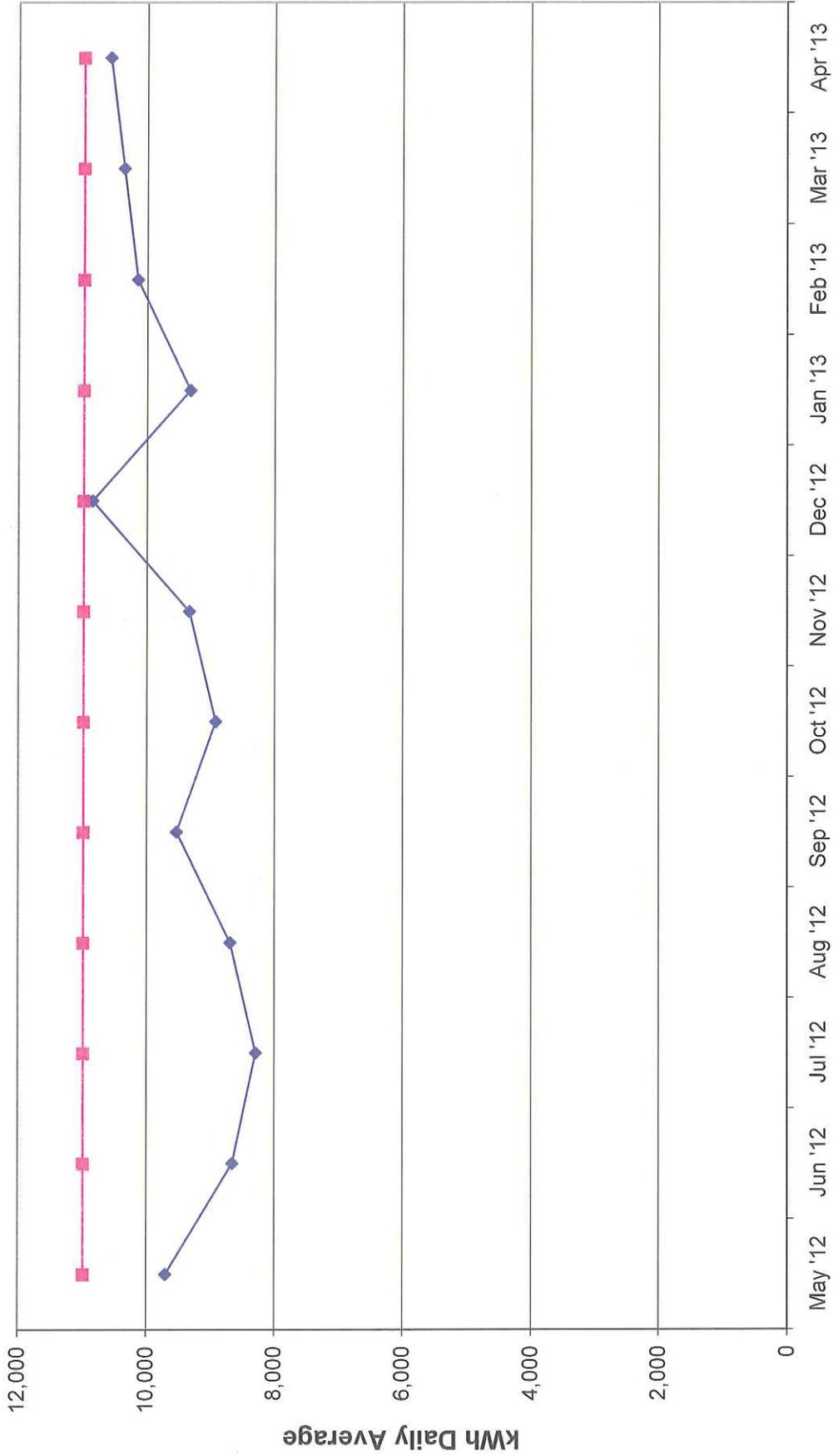
LIMITS - NPDES
Entero 30 day geo mean 35 mpn /100ml

■ Enterococcus

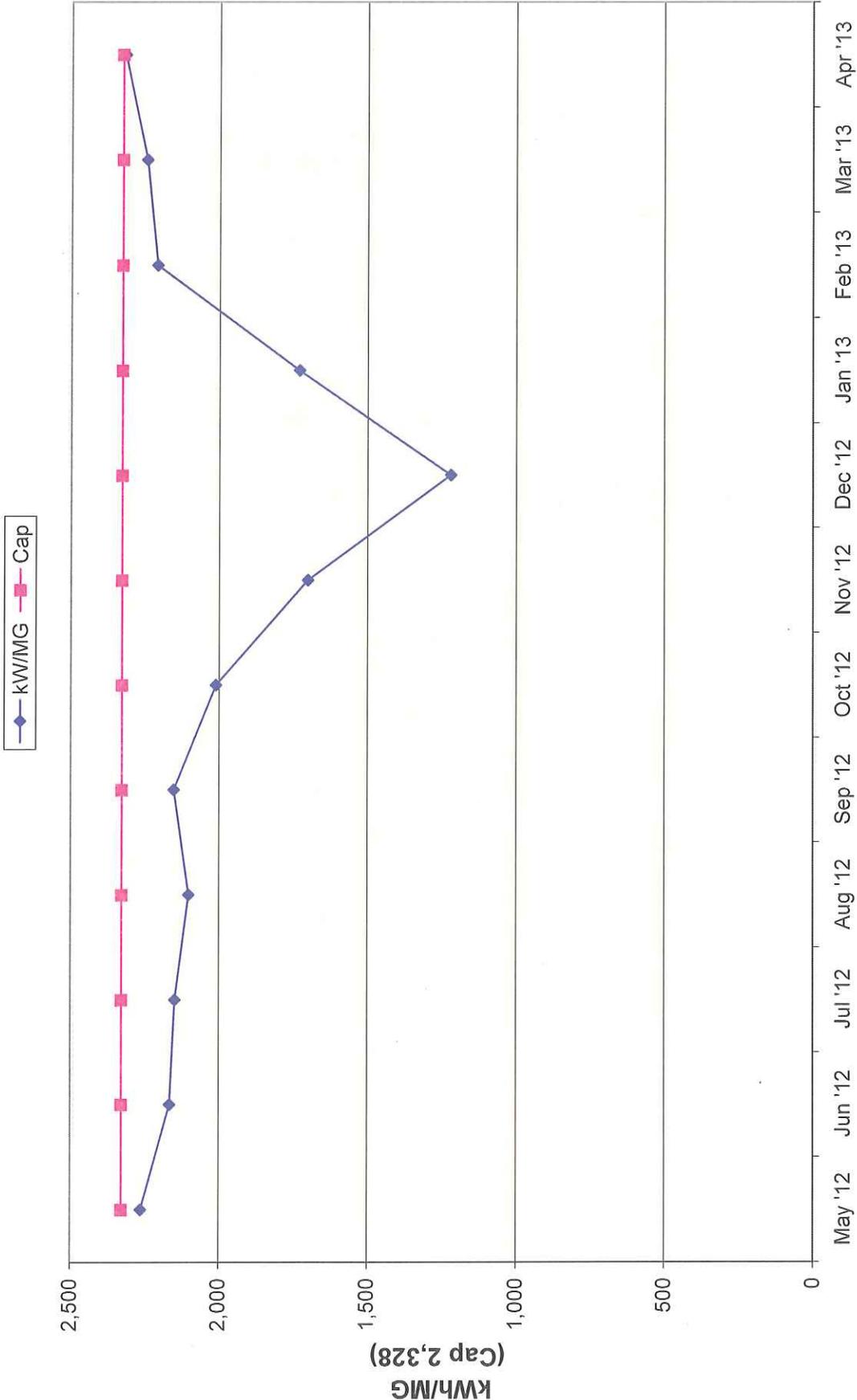


Energy kWh

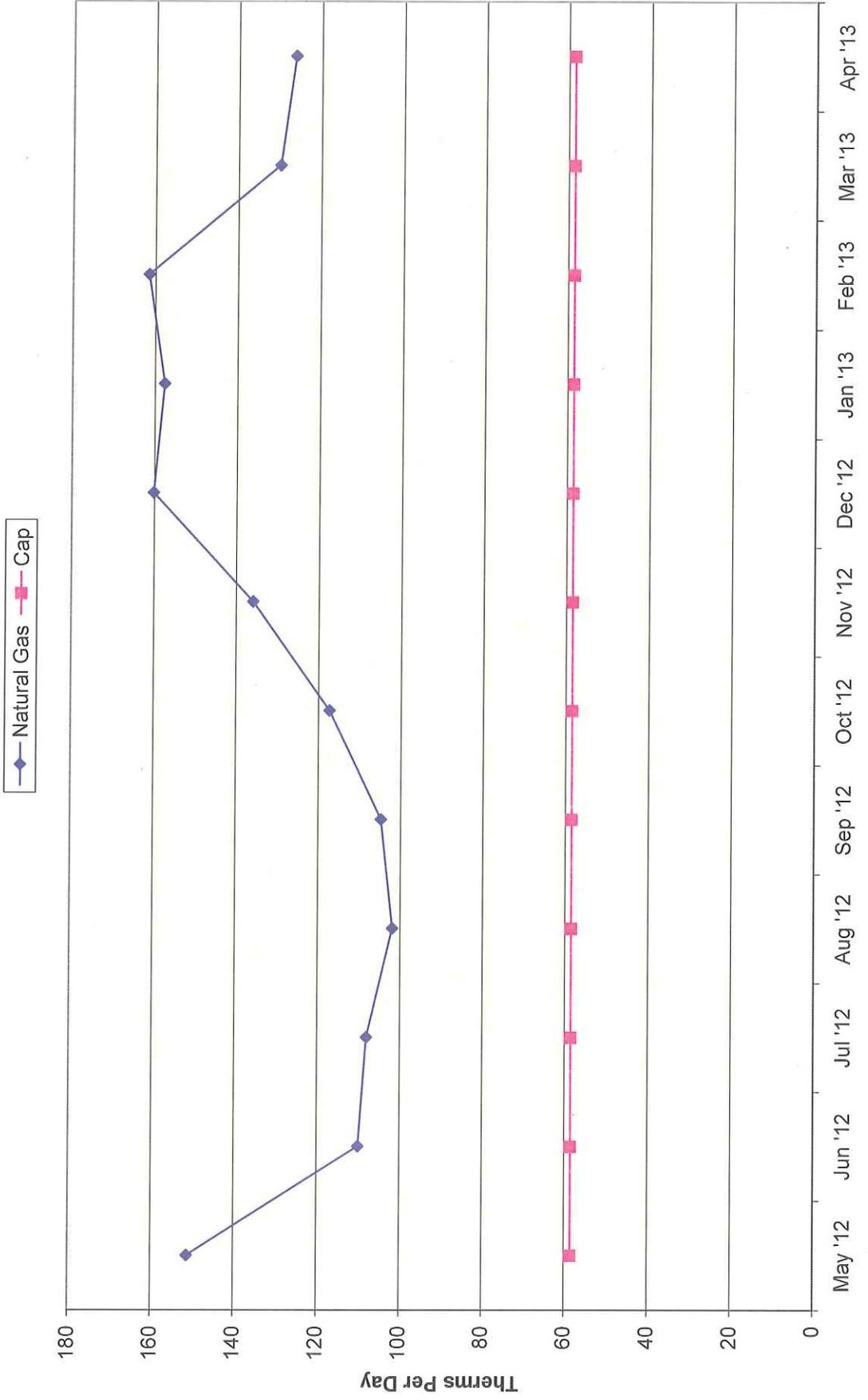
—◆— kWh —■— Cap



Energy kWh/MG



Natural Gas Use



WORK ORDER STATISTICS

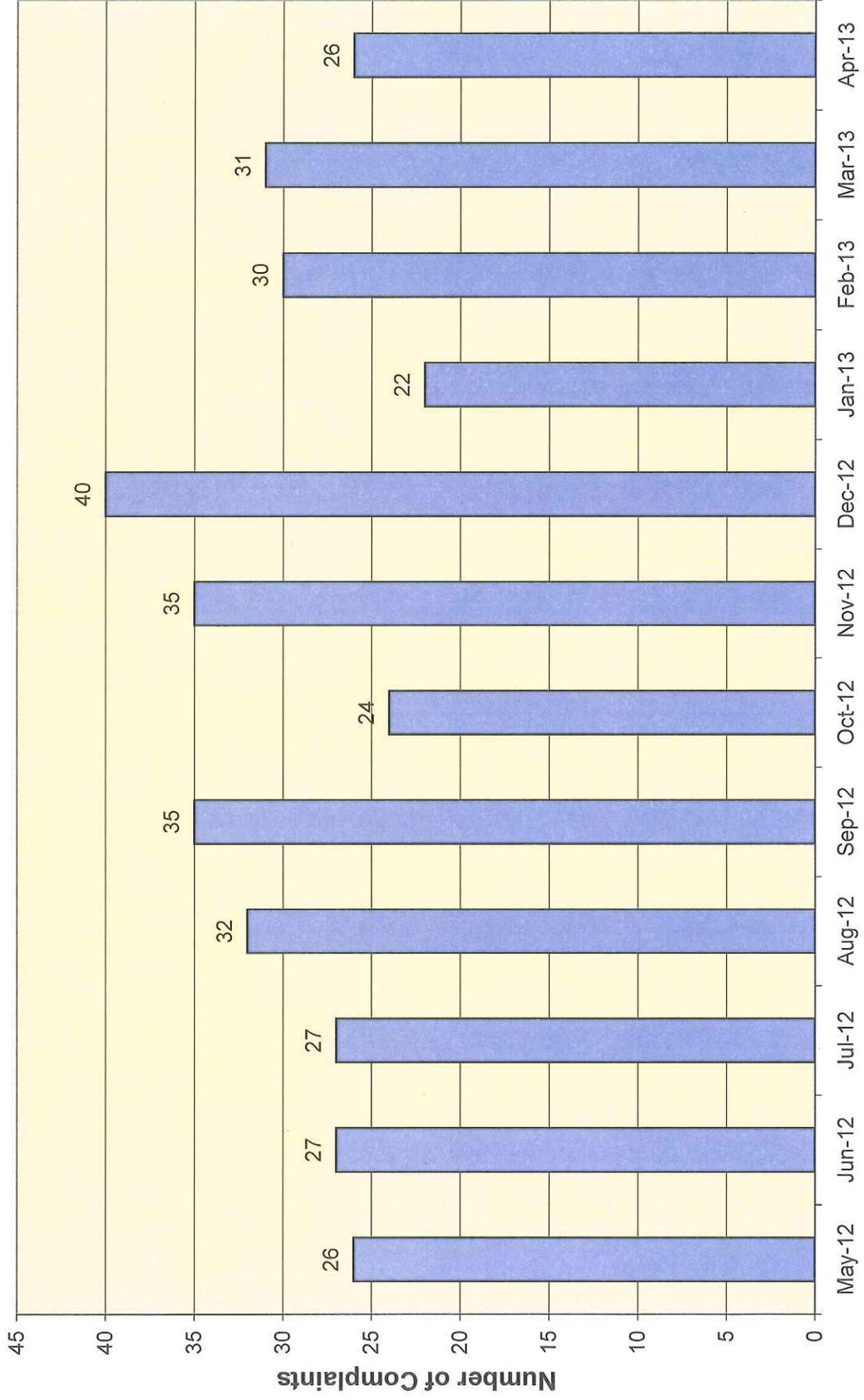
April 1, 2013 - April 30, 2013

	Open Work Orders Due Prior to 4/1/13	Open Work Orders 4/1/13 - 4/30/13	Total Open Work Orders
Preventative	1	381	382
Corrective	0	36	36
Total	1	417	418

	Closed Work Orders 4/1/13 - 4/30/13
Preventative	355
Corrective	29
Total	384

Total Outstanding Work Orders as of May 1, 2013	34
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Complaints Received



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

Summary:

Staff continues to work to address issues of concern relating to odor control, noise, and landscaping.

To demonstrate its commitment, as of April 2013, the District has already spent \$126,000 beyond the substantial investment for odor control included in the original WWTP Upgrade, Contract B - Novato Treatment Plant (NTP), Project No. 72609.

These costs have included operational changes and additional measures related to noise abatement, visual screening, wind shielding, and daily monitoring.

Odor control:

In April 2013, as an alternative to the out-of-state odor control specialist that the District had previously utilized, staff continued to research locating a more local odor control specialist that was also well-versed in wastewater treatment processes, specifically secondary treatment processes similar to the District's activated sludge process.

Staff attended the International Water Association Odors and Air Emissions Conference and the California Water Environment Association (CWEA) Annual Conference, and was able to discuss the District's issues with well-regarded experts from a number of firms with a national footprint in the odor control and wastewater industry. After these preliminary discussions, staff determined that Mr. David McEwen of the nationally recognized firm of Brown and Caldwell (B&C), Walnut Creek, CA, would be well-suited to address the District's needs at this time.

An added advantage of Mr. McEwen to the District over its previous specialist is that Mr. McEwen will have available to him the depth of resources provided by a large national firm such as B&C. The District's last batch of odor control work has generally been accepted by the Lea Drive neighbors as having substantially addressed their concerns, with the exception of the aeration basins. Therefore, Mr. McEwen and B&C will be charged specifically with the investigation of the aeration basins.

Noise:

In April 2013, staff further evaluated measures 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. These fans are currently inside a temporary insulated enclosure, and staff has been evaluating various options to provide a cost-effective permanent sound attenuating solution. 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.

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

Based on what staff learned from the installation of this temporary enclosure, and engineering judgment, one option is to enclose the blowers in an engineered building. Staff contacted engineered building manufacturers and installation experts and received quotes for a suitable structure. The lowest quote was for about \$75,000, which was significantly higher than anticipated.

Staff has also had a sound insulation specialist evaluate the blowers and is requesting a proposal from them.

Landscaping:

In April 2013 staff continued to work with its landscaping contractor Cagwin and Dorward (C&A), Novato, CA, to improve the attributes of the landscaping installed at the District's fence-line on Lea Drive at the northwest corner area of the NTP.

Staff has scheduled landscaping upgrades for May and June to replace plants that were damaged by high groundwater conditions, frost, and damage from wildlife, and to augment the current visual screening at a cost of about \$19,000. Staff will also be negotiating a maintenance contract with C&A in May or June, 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
April 2013**

General:

For April 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:

- 2.2 FTE field workers for Sewer Maintenance (main line cleaning)
- 1.3 FTE field workers for Pump Station Maintenance
- 1.7 FTE field workers for CCTV work, and
- 1.5 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 69,086 feet of sewer pipelines were cleaned for the month. Staff completed 374 maintenance work orders generated by the ICOMMM3 CMMS system, with 42 outstanding work orders. The footage cleaned per hour, line cleaned/month, are within established parameters for the department. Outstanding work orders are higher than normal this month due to line cleaning activities in conjunction with the CCTV crew. Graphs showing the length of line cleaned/month, footage cleaned/hour worked, along with the overflows/month are attached.

The CCTV van was in the field for a total of 21 working days during the month of April and the department's CCTV production of 27,756 ft. for the month is below expected production goals. The Collection Systems staff was augmented by the addition of two new employees into the Collection System Worker I (CSW I) class in March and staff anticipates catching up to its production goals in the near future.

Pump Station Maintenance:

The Collection System Department conducted 244 lift station inspections for the month with 124 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 that are visited daily.

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.

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

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 of the pump stations of Project Unit 4. Operational responsibility for these pump stations is now with District staff while punch list items are being addressed.

Safety and Training:

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

Specialized training: Aaron Hendricks and Bob Stiles attended Underground Locator Training during the month of April.

Safety performance: There were no lost time accidents this month for a total of 89 accident-free days.

Standard Operating Procedures (SOPs):

Collection System staff issued one (1) SOP (Manhole Opening Procedure) during the month of April, 2013.

Sanitary Sewer Overflows (SSOs):

For the month of April, there were **zero** (0) SSO's.

Novato Sanitary District

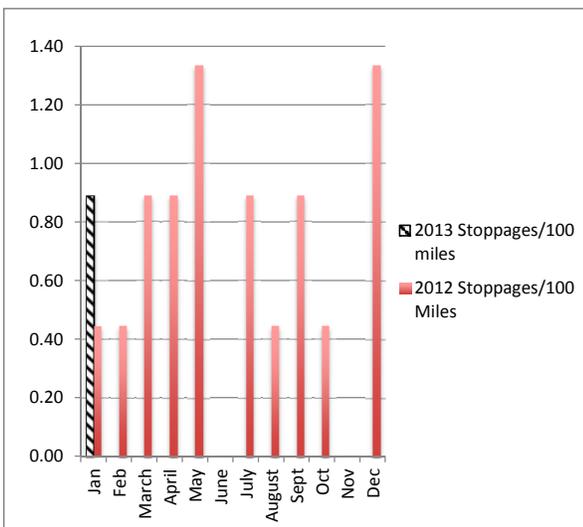
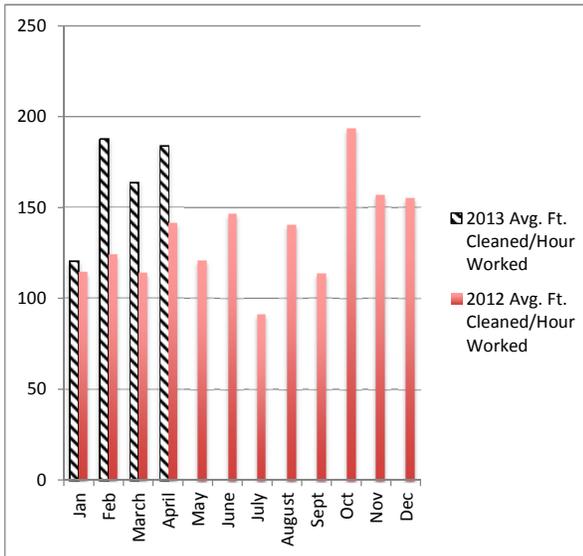
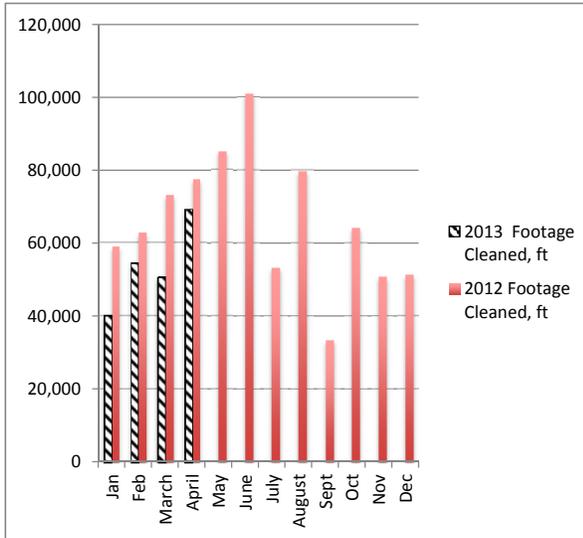
Collection System Monthly Report For 2013 (as of April 30, 2013)

	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									NA	1.9
Number of FTEs (other)	1.9	1.4	2.4	1.5									NA	1.8
Number of FTEs (CCTV)	0.1	0.3	0.5	1.7									NA	0.6
Total, FTEs	3.9	3.4	4.7	5.4									NA	4.3
Regular Time Worked, (main line cleaning), hrs	333	290	309	377									1,308	327
Regular Time Worked on Other, hrs ⁽¹⁾	326	249	415	259									1,248	312
Regular Time Worked on CCTV ⁽²⁾	20	46	85	300									450	113
Total Regular time, worked, hrs	678	585	809	935									3,006	752
Total Vacation/Sick Leave/Holiday, hrs	204	77	101	114									496	124
Vacation/Sick Leave/Holiday, FTEs	1.2	0.4	0.6	0.7									2.9	0.7
Overtime Worked on Coll. Sys., hrs	6	45	5	47									103	26
Overtime Worked on Other, hrs ⁽¹⁾	3	19	5	28									55	14
Overtime Worked on CCTV ⁽²⁾	1	3	0	0									4	1
Total Overtime, hrs	10	67	10	75									162	41
Productivity														
Rodder Work Orders Generated, ft	14	0	24	31									69	17
Rodder 3203 Ft. Cleaned	3,138	0	3,856	5,490									12,484	3,121
Flusher Work Orders Generated	187	252	290	385									1,114	279
Truck 3205V Ft. Cleaned	2,782	5,146	2,755	13,698									24,381	6,095
Truck 3206V Ft. Cleaned	34,114	49,225	43,954	49,898									177,191	44,298
Camera Work Orders Generated	0	0	0	0									0	
Camera Ft. Videoeod	10,905	4,912	7,075	27,756									50,648	12,662
Work Orders Completed	201	252	286	374									1,113	278
Work Orders backlog	6	0	28	42									76	19
Total Footage Cleaned	40,034	54,371	50,565	69,086									214,056	53,514
Sanitary Sewer Overflows (SSOs)														
Minor (Category II)	0	0	0	0									0	NA
Major (Category I)	2	0	0	0									2	NA
Overflow Gallons	2,200	0	0	0									2,200	NA
Volume Recovered	880	0	0	0									880	NA
Percent Recovered	40%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40%	NA
Service Calls (non-SSO related)														
Service calls, normal hours, #	7	5	7	12									31	8
Normal hours S.C. response time, mins (avg.)	12	15	14	18									59	15
Service Callouts, aftre hours, #	1	0	0	1									2	1
After Hours S.C. response time, mins (avg.)	23	NA	NA	20									43	22
Benchmarks														
Average Ft. Cleaned/Hour Worked	120	187	164	183	NA	NA	NA	NA	NA	NA	NA	NA	NA	164
Total Stoppages/100 Miles	0.9	0.0	0.0	0.0									0.9	NA
Average spill response time (mins)	18	0	0	0									NA	4
Callouts/100 Miles	0.4	0.0	0.0	0.4									0.9	0.2
Overtime hours/100 Miles	3	20	2	21									46	11
Overflow Gallons/100 Miles	978	0	0	0									978	244

⁽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
April 1, 2013 -April 30, 2013**

	Open Work Orders Due Prior to 4/1/2013	Open Work Orders 4/1/2013 - 4/30/2013	Total Open Work Orders
Preventive	0	124	0
Corrective	0	0	0
Total	0	124	124

	Closed Work Orders 4/1/2013 - 4/30/2013
Preventive	124
Corrective	0
Total	124

Total Outstanding Work Orders as of 4/30/2013	0
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**NOVATO SANITARY DISTRICT
Wastewater Operations Committee Meeting
Reclamation Facilities Report
April 2013**

Summary:

The rancher moved in harvesting equipment to begin haying operations next month. Staff activated the irrigation system on Site 2 to irrigate the parcels seeded earlier this year. Pump 1 at Drainage Pump Station No. 7 failed due to high amps. Staff continues to compile the data to submit to PG&E to determine if a rebate program is available from PG&E for the replacement of Irrigation Pump No. 2.

Ranch Operations:

The rancher moved in hay harvesting equipment to Site 7 late in the month in preparation for hay cutting beginning May 1st.

Irrigation Parcels:

Due to the lack of rainfall, staff activated the irrigation at Site 2 on April 15th for Parcels 21, 24, 25 & 28. These are the parcels that were seeded early this year. Pump 1 at Drainage Pump Station No. 7 shut down due to high amps. Staff determined that the motor is not the problem so staff will budget monies in the 2013/2014 budget to pull the pump in the next fiscal year to determine what the problem is.

Irrigation Pump Station:

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 is continuing to compile the data to send off to PG&E.

Sludge Handling & Disposal:

The Dedicated Land Disposal continues to hold a high water level from the December rains.
