

DATE CHANGE

NOVATO SANITARY DISTRICT

Meeting Date: February 19, 2013

The Wastewater Operations Committee of Novato Sanitary District will hold a meeting at 2:00 PM, **Tuesday, February 19, 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. APPROVAL OF MEETING MINUTES FOR JANUARY 22, 2013:**
- 4. WASTEWATER TREATMENT FACILITIES OPERATIONS AND MAINTENANCE REPORT FOR JANUARY 2013:**
 - a. Treatment Plant Operation and Maintenance Report.
 - b. Odor control and landscaping progress report.
- 5. COLLECTION SYSTEM OPERATION AND MAINTENANCE REPORT FOR JANUARY 2013:**
 - a. Collection System Operation and Maintenance.
 - b. Pump Station Operation and Maintenance.
- 6. RECLAMATION FACILITY REPORT FOR JANUARY 2013**
 - a. Reclamation Facility Operation and Maintenance Report.
- 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.

January 22, 2013

A regular meeting of the Wastewater Operations Committee of Novato Sanitary District was held at 2:20 p.m., Tuesday, January 22, 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
Tim O'Connor, Collection Systems Supervisor
Julie Swoboda, Administrative Secretary
(*Steve Krautheim, Field Services Superintendent was absent.*)
(*John Bailey, Project Manager, Veolia Water, was absent.*)

ALSO PRESENT: Bob Guinan, Novato resident
Joe Carlomagno, Novato resident
Lynda Rodefer, Veolia Water

AGENDA APPROVAL: The agenda was approved as presented.

PUBLIC COMMENT: None.

APPROVAL OF MEETING MINUTES FOR DECEMBER 18, 2012: The December 18, 2012 minutes were approved as written.

WASTEWATER TREATMENT FACILITIES OPERATIONS AND MAINTENANCE REPORT FOR DECEMBER 2012:

- **Treatment Plant Performance Report, Maintenance Report and Safety & Training:** Sandeep Karkal, Deputy Manager-Engineer, stated that he would be presenting the monthly report because John Bailey, Plant Manager, Veolia Water, was absent. The Deputy Manager-Engineer reviewed the monthly operations report for December 2012 and summarized the treatment plant performance. He stated that the treatment plant stayed within all required parameters and that there were no violations or excursions during the month. He discussed the heavy rain event on December 23rd and stated that the facility experienced a peak flow of 32 MGD at 12:30 p.m. He noted that the treatment plant operated as expected and experienced no process upsets or failures.

The Deputy Manager-Engineer reported on the key events at the Novato Treatment Facility and the Ignacio Transfer Pump Station. He reported that the digester cleaning was completed at both the Novato and Ignacio facilities and noted the Veolia had prepared a "Digester Cleaning Closeout Report" which summarized the execution, schedule and costs of the project.

Bob Guinan, Novato resident, stated that odors are still being experienced in the Lea Drive neighborhood. He stated that numerous trees have died and requested an update on the odor consultant.

The Manager stated that the trees did not survive due to a high water table at the back of the facility and that Tulip trees are planned as a replacement. She stated that she is gathering information on an odor consultant from the University of California Los Angeles. The Manager stated that she will be attending a seminar on treatment plant odors that is being offered through the International Water Association.

At 2:45 p.m. a short recess was called.

The meeting was reconvened at 2:50 p.m.

Bob Guinan and Joe Carlomango left the meeting at 2:53 p.m.

COLLECTION SYSTEM OPERATION AND MAINTENANCE REPORT FOR DECEMBER 2012:

Tim O'Connor, Collections System Superintendent, discussed the Collections System Monthly Report for December 2012. He reported that the crew cleaned a total of 51,331 feet of sewer pipeline in December and completed 257 maintenance work orders. He discussed pump station maintenance and noted that approximately 278 lift station inspections were conducted during December.

Mr. O'Connor stated that there were three sanitary sewer overflows in December, noting that a total of 3,435 gallons were released and 81 gallons were recovered. He stated that two overflows were caused by root intrusion and one by contractor error. Mr. O'Connor noted that the larger overflow event (3,150 gallons) was determined to be the result of a root blockage in the District main. He explained that there was 0% recovery for this discharge due to the severe storm event that was in progress when the discharge occurred (12-22-12).

Mr. O'Connor stated that safety performance for his department was excellent with a total of 655 accident-free days as of December 31st.

The Manager reported that thirteen (13) Lateral Replacement Grants were paid out in 2012. She discussed lateral replacement grant programs in other Districts.

RECLAMATION FACILITY REPORT FOR DECEMBER 2012:

Sandeep Karkal, Deputy Manager-Engineer, stated that he would be presenting the Reclamation Facility report because Steve Krautheim, Field Services Superintendent, was absent. The Deputy Manager-Engineer stated that there was minimal activity on ranch operations for the month. He noted that the rancher was on site carrying out weed inhibition and/or suppression activities around the sprinkler heads. He noted that heavy rains had

flooded the majority of Site 2 and that cattails had been removed out of the drainage ditch to provide better drainage.

ADJOURNMENT: There being no further business to come before the Committee, the meeting adjourned at 3:38 p.m.

Respectfully submitted,

Beverly James
Manager-Engineer

Julie Swoboda, Recording

DRAFT



February 12, 2013

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

Subject: Veolia Water Operations Report – January 2013

Dear Ms. James:

We are pleased to provide this updated activity report for January 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
January 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: January 2013:

Bay Discharge

Parameter	Value		Limit	
	Ave	Max	#1	#2
Flow, MGD (monthly ave/max)	5.39	6.51	N/A	N/A
Max Peak Hour, MGD -12/23, 12:30 pm	N/A	32.00	N/A	N/A
Influent BOD ₅ , lb/day (month ave/max)	10,409	20,021	N/A	N/A
Influent TSS, lb/day (monthly ave/max)	16,135	28,009	N/A	N/A
Effluent BOD ₅ , mg/L (monthly ave/weekly max)	5.3	6	30	45
Effluent TSS, mg/L (monthly ave/weekly max)	<5	5	30	45
Effluent BOD ₅ - % Removal, Minimum	98	N/A	85	N/A
Effluent TSS - % Removal, Minimum	99	N/A	85	N/A
pH, su (min / max)	7.1	7.2	6.5	8.5
Enterococcus, mpn (30 day geo mean)	17	N/A	35	N/A
Fecal Coliform, mpn (30 day median)	2.1	N/A	140	N/A
Fecal Coliform, mpn (90 th percentile)	30	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:

After a very wet December, January flows were at dry weather patterns.

Novato

- Routine rounds, readings and maintenance
- Bay Discharge mode
- Drained Primary Clarifier #1
- Repaired modulating motor and controller on Boiler– Outside Contractor
- Influent Pump #1 sent to Xylem / Flygt for warranty repair, damaged seal.
- Re-installed Mixed Liquor Pump 4B - returned from Xylem / Flygt, internal fault alarm.
- Replaced gear box on Digested Sludge Pump #1
- Replaced thermostat on block heater for Wet Weather Diesel Pump #1

- Replaced cracked boiler section – Outside Contractor
- Replaced condensate motor on blower building HVAC – Outside Contractor
- Replaced circuit board on electrical building HVAC – Outside Contractor
- Repaired block heater for admin. building Generator – Outside Contractor
- Sampled, filtered, polished diesel in diesel bulk tank

Ignacio Transfer Pump Station

- Routine rounds, readings, and maintenance
- Conveyance Pump #3 plugged impeller cleared by maintenance staff
- Sampled, filtered, polished fuel in bulk diesel tank

Recycled Water Plant

- Performed plant rounds

Lagoons

- Repaired valve on lagoon #4 – Outside Contractor

ADMINISTRATION:

- Electronic Self Monitoring Report for December 2012, submitted on 1/29/13
- Annual Self Monitoring Report for 2012 submitted 1/31/13
- Digester Cleaning Close Out Report submitted 1/14/13

SAFETY AND TRAINING:

- Monthly plant safety inspections for Novato WWTF completed on 1/18/13
- Five Minute Tailgate training is held daily with the O&M staff.
- No safety incidents for the month of January 2013.
- Accident Free: 6/1/10 – 1/31/13: 974 days / 43,830 hours.
- Safety Training: Hazard Communication 1/30/13
- SOP Review: Influent Pump Station Dry/Wet Weather Operation
- SOP Review: Draining Pump Station/Headwork's Force Main
- SOP Review: Novato Influent Pump Station Daily Inspection
- SOP Review: Weekly Equipment Rotation/Hour Meter Readings

ODORS:

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

MISCELLANEOUS

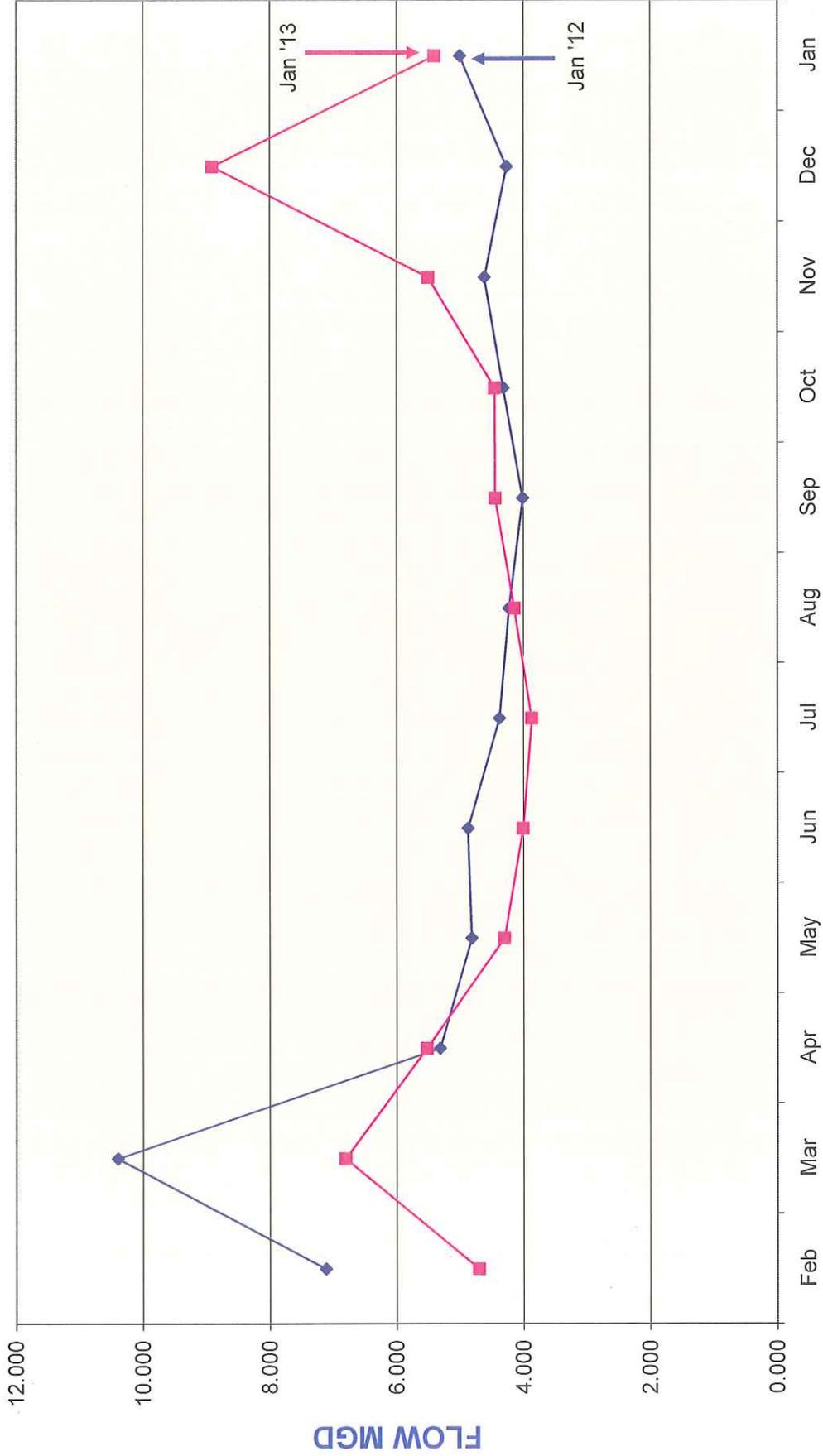
- Process Control Management Plan (PCMP) meetings held regularly

Veolia Support Staff On/Off Site (Various Times)

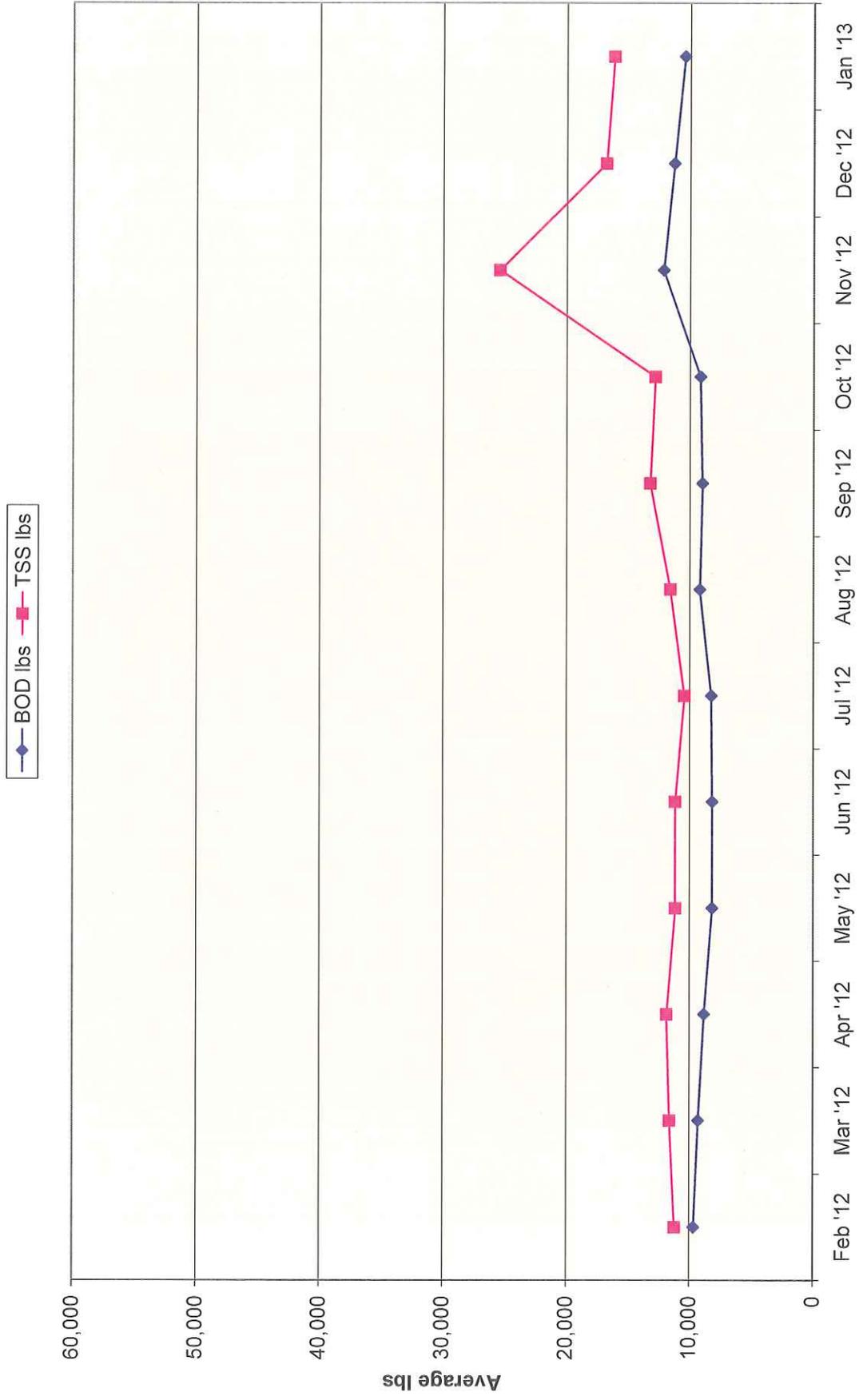
John O'Hare	Technical Support
Chris McAuliffe	District Manager
John Herron	Northern California Area Manager
Bryce Behnke	Technical Support via conference call & web exchange
Brian Exberger	Electronic Operations and Maintenance Manual Development
Jeremiah Danielson	Environmental, Health, and Safety –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

FLOW COMPARISON

—◆— 2011 —■— 2012



Influent Load BOD / TSS lbs



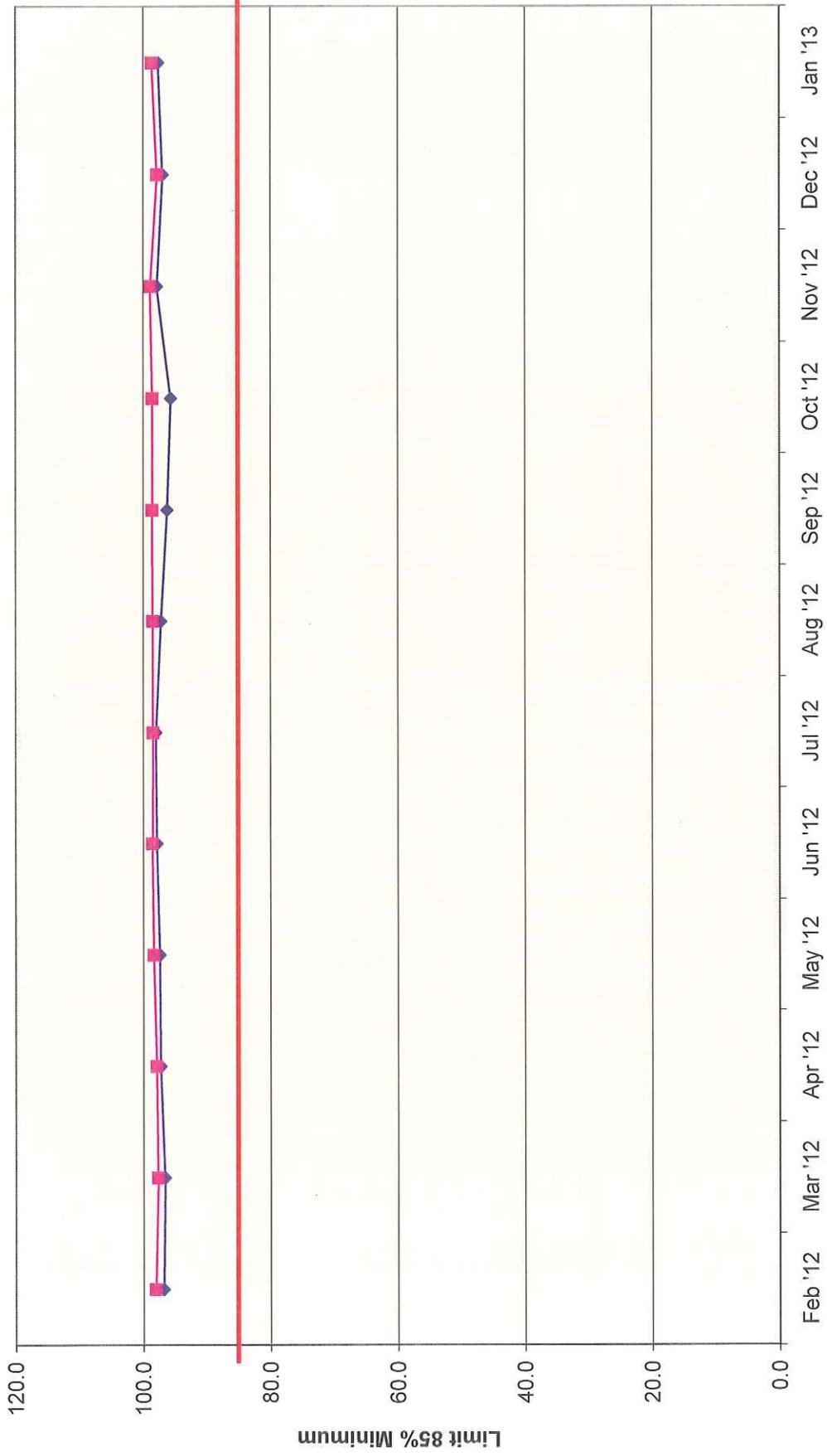
Effluent BOD / TSS Concentration

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

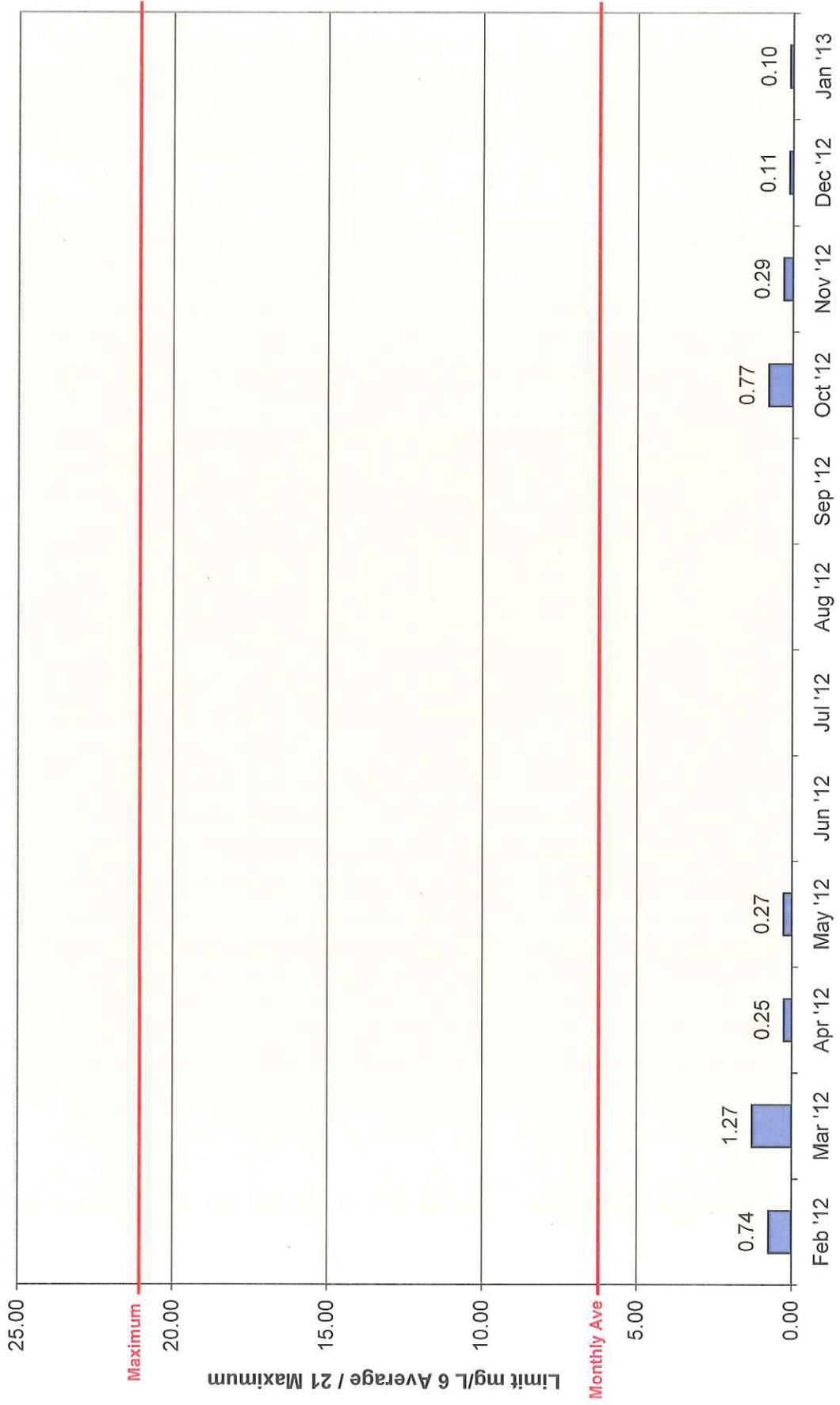


BOD / TSS Percent Removal

—◆— BOD —■— TSS

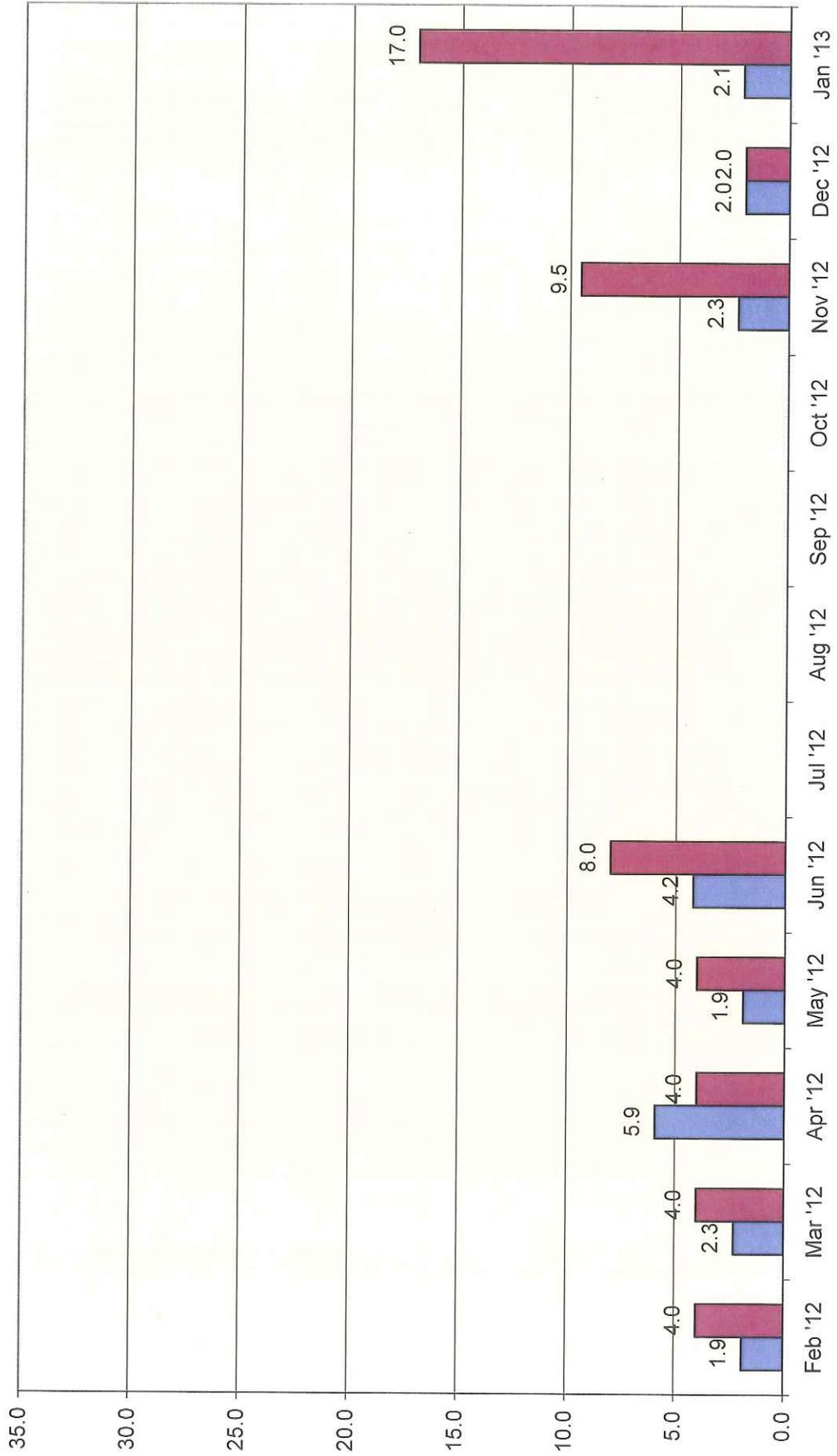


Effluent Ammonia



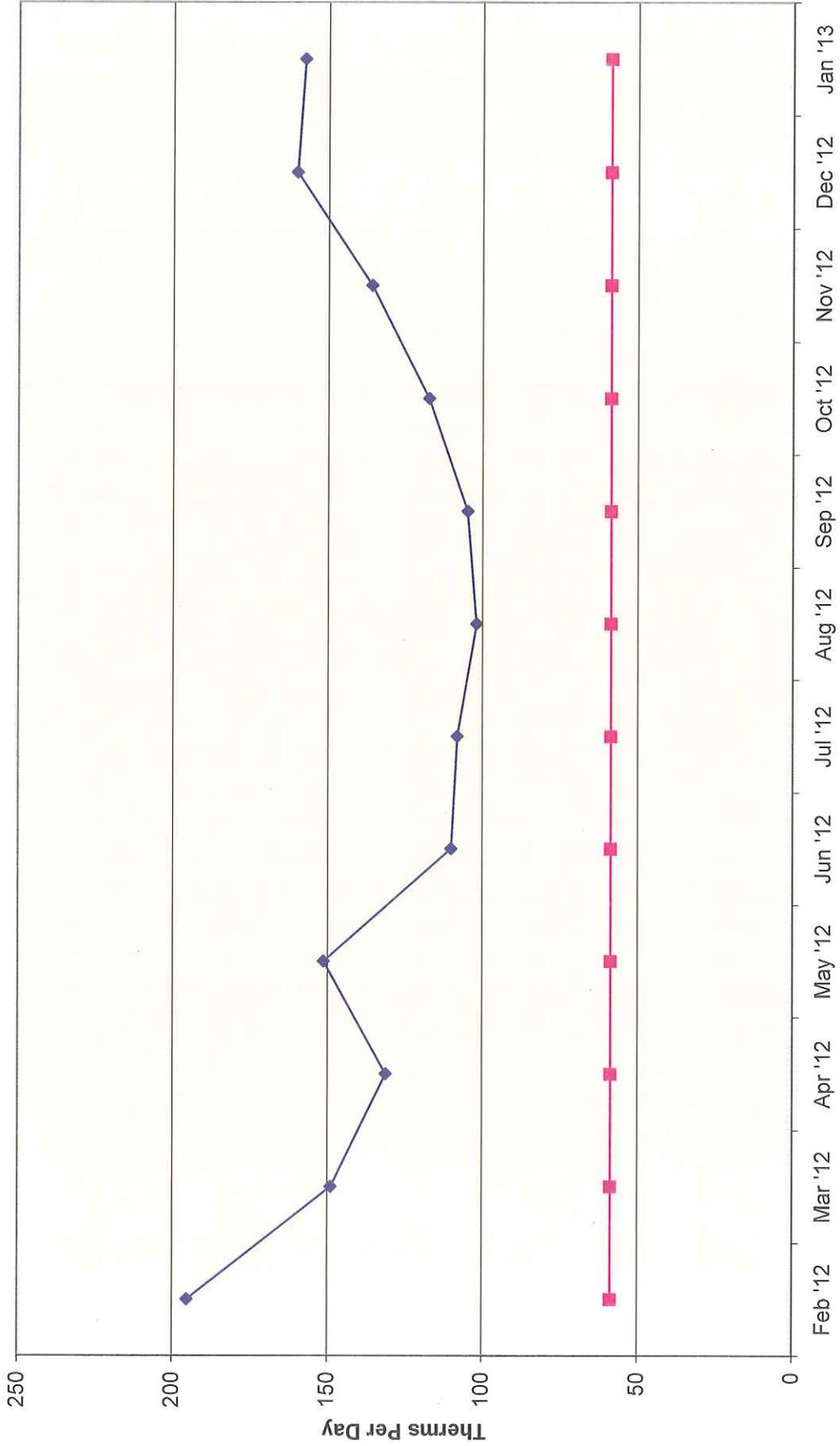
Disinfection

LIMITS - NPDES
 Entero 30 day geo mean 35 mpn /100ml
 Fecal 140 mpn monthly median
 Fecal 430 mpn 90th percentile 30 day



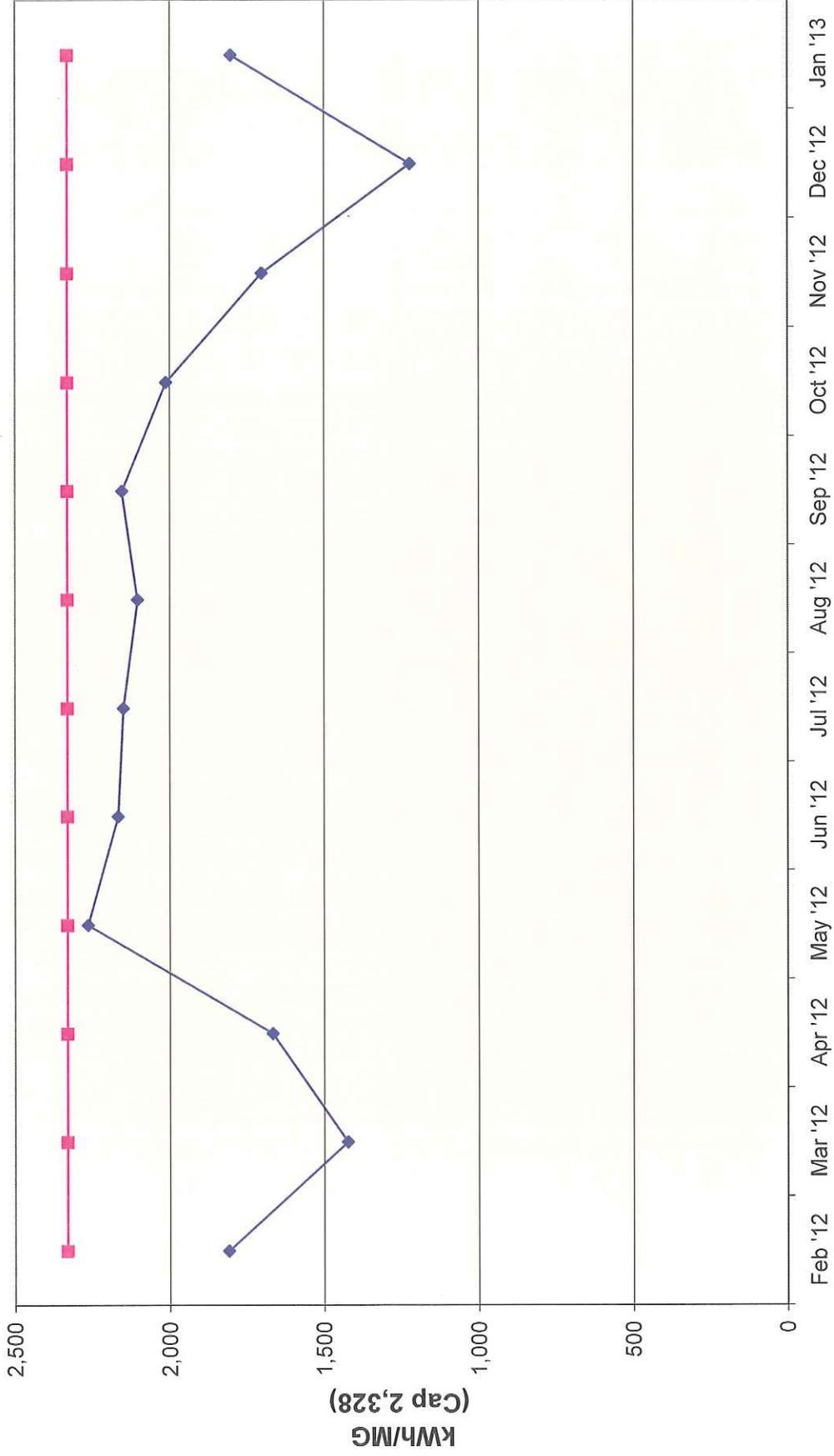
Natural Gas Use

—◆— Natural Gas —■— Cap

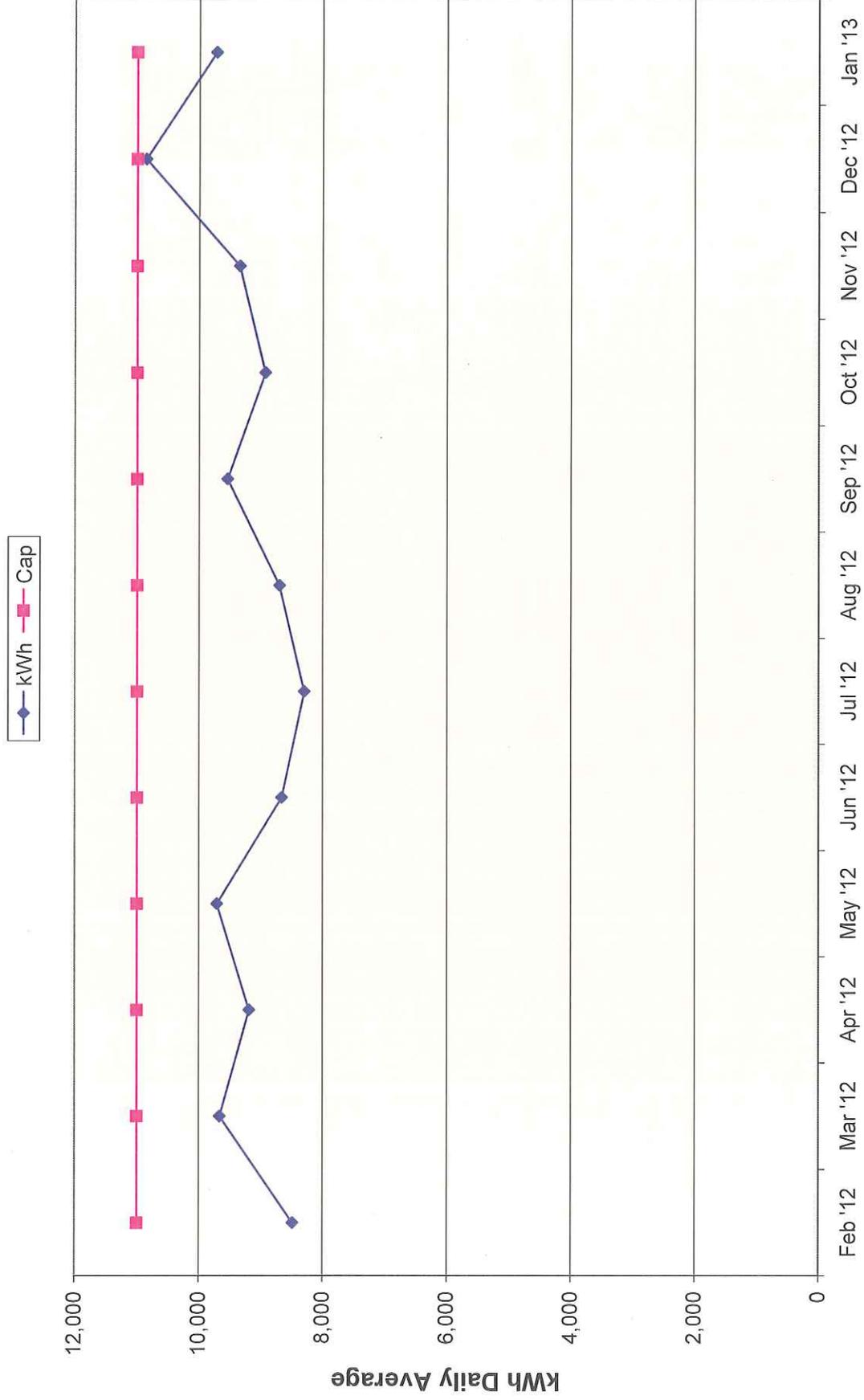


Energy kWh/MG

—◆— kW/MG —■— Cap



Energy kWh



WORK ORDER STATISTICS

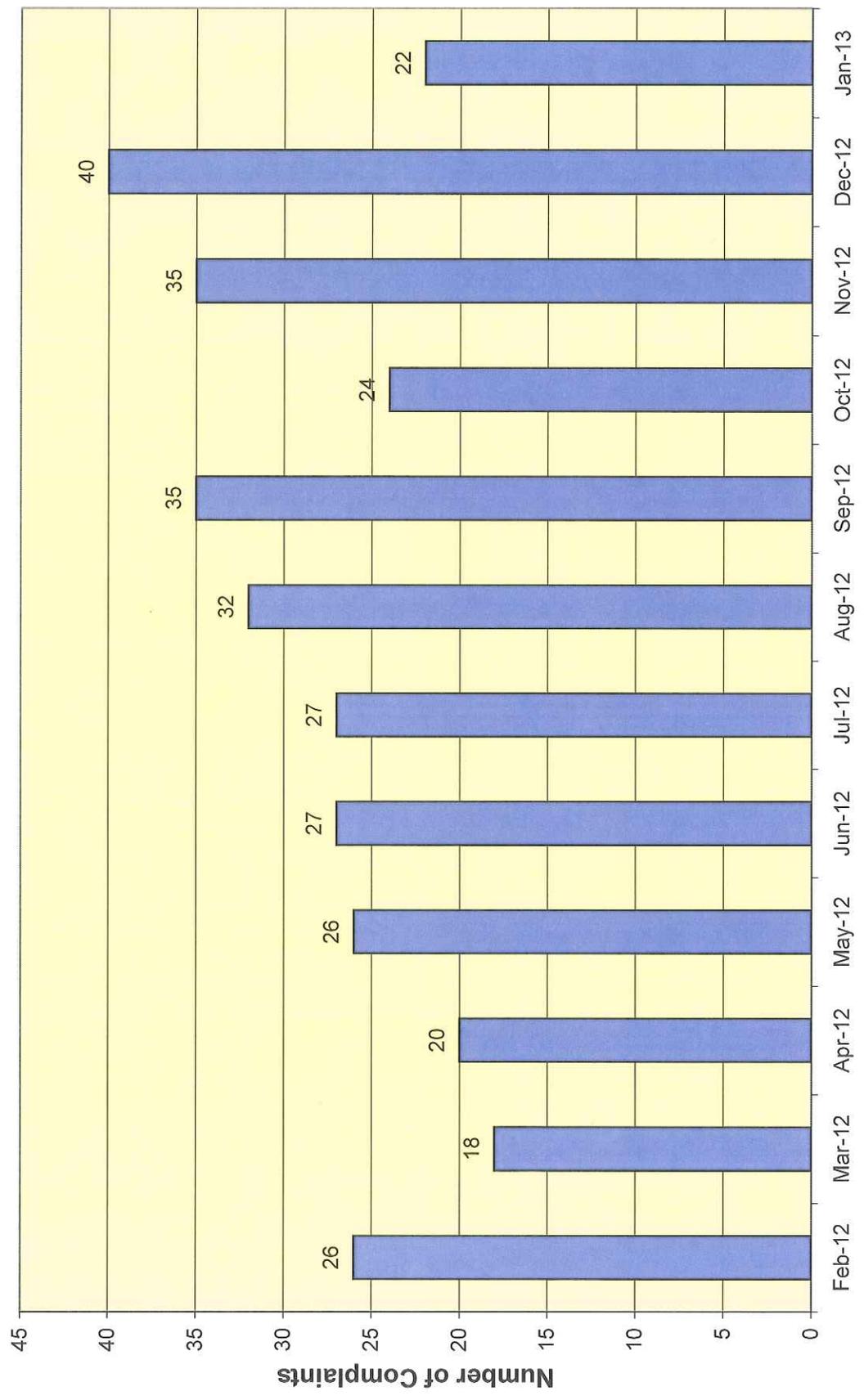
January 1, 2013 - January 31, 2013

	Open Work Orders Due Prior to 1/1/13	Open Work Orders 1/1/13 - 1/31/13	Total Open Work Orders
Preventative	4	266	270
Corrective	1	27	28
Total	5	293	298

	Closed Work Orders 1/1/13 - 1/31/13
Preventative	268
Corrective	25
Total	293

Total Outstanding Work Orders as of February 1, 2013	5
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Complaints Received



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

General:

For January 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
- 0.1 FTE field workers for CCTV work, and
- 1.9 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 40,034 feet of sewer pipelines were cleaned for the month. Staff completed 201 maintenance work orders generated by the ICOMMM3 CMMS system, with 6 outstanding work orders. The footage cleaned per hour, line cleaned/month, and outstanding work orders 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.

The CCTV van was not operational until January 15 due to electrical problems with the unit. Due to these problems, the department's CCTV production for the month (at 10,905 feet), was below normal production goals.

Pump Station Maintenance:

The Collection System Department conducted 231 lift station inspections for the month of January, 2013, with 107 of the inspection visits generated through the JobCal Plus CMMS system.

The breakdown of these inspections is as follows: 22 Flygt submersible pump stations, 1 time per month, 7 Gorman/Rupp dry well/wet well stations, 1 entry per month, and 4 main stations that are visited daily. The number 2 pump at Marin Village was removed for inspection in December and is currently being repaired by Shape Inc.

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
January 2013**

Pump Station Rehabilitation:

As part of the District's continuing multi-year Pump Station Rehabilitation Project (Capital Improvement Project No. 72403), construction started on BMK 9 pump station on January 7th, and control of that station along with the Hangar Ave and BMK 10 pump stations is the responsibility of the contractor, W.R. Forde, until the project is complete.

Safety and Training:

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

Specialized training: Arc Flash Label awareness training and accessing the District's electronic Material Safety Data Sheet (MSDS) program

Safety performance: There was no lost time accidents until 1/31/2013 for a total of 685 accident-free days with one lost time injury occurring on 1/31/2013.

Standard Operating Procedures:

Collection System staff issued 4 SOPs during the month of January, 2013.

Sanitary Sewer Overflows (SSOs):

For the month of January, there were two (2) SSO's.

No.	Date	Location	Amount, gal	Cause
1	1/14/2013	2041 Leese Ln.	1,100 0 Recovered	Root Intrusion
2	1/28/2013	335 Enfrente Rd.	1,100 880 recovered	Structural Failure

SSO at 2041 Leese Ln: This SSO was a Category I event with the discharge volume (1,100 gallons) entering the storm drain system, and from there into an unnamed creek tributary to Novato Creek. There was no significant recovery (0%) for this discharge due to the location of this discharge and lack of access to the storm drain system in this area. This discharge was reported to the District by City of Novato staff.

This discharge was determined to be the result of root intrusion in the District main; lateral roots were possibly a factor in the cause of this discharge. The duration of this discharge was determined using residential and reporting party interviews. The volume of this event was estimated using North Marin Water use records and a discharge calculation spreadsheet that computes volume based on a partial blockage.

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

Cal EMA and Marin County Environmental Health Services (MCEHS) were notified within two (2) hours of District staff being notified of the discharge. Public Notification signs were posted (10 signs) in Novato Creek at the direction of Robert Turner, MCEHS from 1/14/2013 to 1/17/2013. Water sampling was conducted for the same time period as required by MCEHS. Water sample results did not indicate any impact to the creek.

This line segment has been on 12-month cleaning frequency, and was last cleaned on schedule 5/29/2012 using the hydro-flusher. When CCTV'ed, the line segment was found to have heavy root intrusion at one location. Repair of the damaged line segment has been completed.

This SSO event was reported into the CIWQS database on 1/15/2013 as a Category I event, SSO Event ID #790359 and was certified in CIWQS on 1/25/2013, Certification ID #338259.

SSO at 335 Enfrente Rd: This SSO was a Category I event with the discharge volume (1,100 gallons) entering a dirt drainage swale immediately adjacent to the overflow site. There was partial recovery (80%) for this discharge (with the remainder soaking into the ground), due to the location of this discharge. This discharge was reported to the District by a staff member from the North Marin Water District (NMWD).

This discharge was determined to be the result of structural failure of the District main, (potentially with contribution from overburden pressure from a PG&E power pole), which was exacerbated by root intrusion, grease, and cement debris in the main line. The duration of this discharge was determined using residential and reporting party interviews. The volume of this event was estimated using a combination of: (a) the San Diego picture method, and (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.

Cal EMA and Marin County Environmental Health Services (MCEHS) were notified within two (2) hours of District staff being notified of the discharge.

This line segment had been on a 3 month cleaning frequency, and was last cleaned on schedule on 11/26/2012 using a hydro-flusher. As mentioned earlier, the line segment was found to have partially collapsed with root intrusion, grease, and cement debris contributing to the cause of the discharge.

This SSO event was reported into the CIWQS database on 1/29/2013 as a Category I event, SSO Event ID #790879 and was certified in CIWQS on 2/7/2013, Certification ID #898501.

Novato Sanitary District

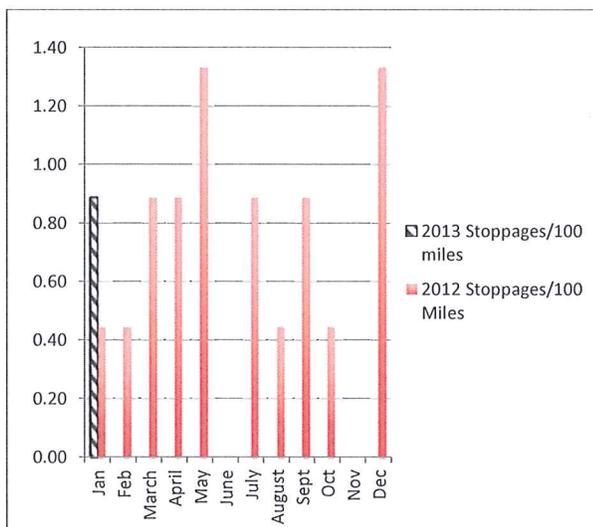
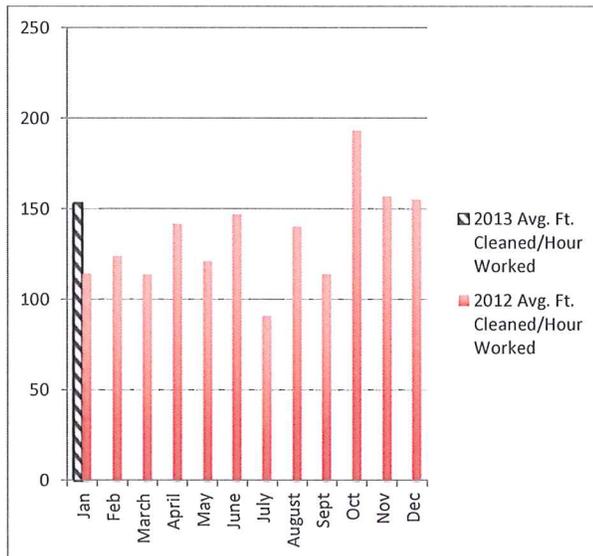
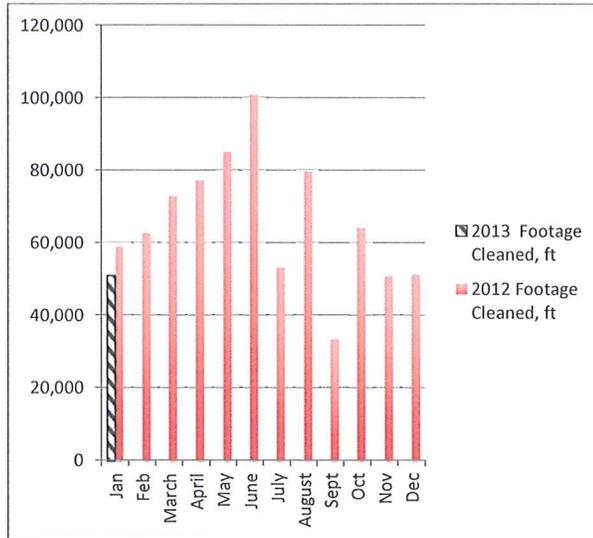
Collection System Monthly Report For 2013 (as of January 31, 2013)

	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												NA	1.9
Number of FTEs (other)	1.9												NA	1.9
Number of FTEs (CCTV)	0.1												NA	0.1
Total, FTEs	3.9												NA	3.9
Regular Time Worked, (main line cleaning), hrs	333												333	333
Regular Time Worked on Other, hrs ⁽¹⁾	326												326	326
Regular Time Worked on CCTV ⁽²⁾	20												20	20
Total Regular time, worked, hrs	678												678	678
Total Vacation/Sick Leave/Holiday, hrs	204												204	204
Vacation/Sick Leave/Holiday, FTEs	1.2												1.2	1.2
Overtime Worked on Coll. Sys., hrs	6												6	6
Overtime Worked on Other, hrs ⁽¹⁾	3												3	3
Overtime Worked on CCTV ⁽²⁾	1												1	1
Total Overtime, hrs	10												10	10
Productivity														
Rodder Work Orders Generated, ft	14												14	14
Rodder 3203 Ft. Cleaned	3,138												3,138	3,138
Flusher Work Orders Generated	187												187	187
Truck 3205V Ft. Cleaned	2,782												2,782	2,782
Truck 3206V Ft. Cleaned	34,114												34,114	34,114
Camera Work Orders Generated	0												0	0
Camera Ft. Videocd	10,905												10,905	10,905
Work Orders Completed	201												201	201
Work Orders backlog	6												6	6
Total Footage Cleaned	40,034												40,034	40,034
Sanitary Sewer Overflows (SSOs)														
Minor (Category II)	2												2	NA
Major (Category I)	0												0	NA
Overflow Gallons	2,200												2,200	NA
Volume Recovered	880												880	NA
Percent Recovered	40%												40%	NA
Service Calls (non-SSO related)														
Service calls, normal hours, #	7												7	7
Normal hours S.C. response time, mins (avg.)	12												12	12
Service Callouts, after hours, #	1												1	1
After Hours S.C. response time, mins (avg.)	23												23	23
Benchmarks														
Average Ft. Cleaned/Hour Worked	120												NA	120
Total Stoppages/100 Miles	0.9												0.9	NA
Average spill response time (mins)	18												NA	18
Callouts/100 Miles	0.4												0.4	0.4
Overtime hours/100 Miles	3												3	3
Overflow Gallons/100 Miles	978												978	978

⁽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
January 1, 2012 - January 31, 2012**

	Open Work Orders Due Prior to 1/1/2013	Open Work Orders 1/1/2013 - 1/31/2013	Total Open Work Orders
Preventive	0	107	3
Corrective	NA	0	0
Total	0	107	107

	Closed Work Orders 1/1/2013 - 1/31/2013
Preventive	104
Corrective	NA
Total	104

Total Outstanding Work Orders as of 1/31/2013	3
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**NOVATO SANITARY DISTRICT
Wastewater Operations Committee Meeting
Reclamation Facilities Report
January 2013**

Summary:

Flood waters from heavy rains in December have receded off of Site 2 Parcels. Caltrans was contacted to request they clean their ditch along Highway 37 but conditions are too wet.

Ranch Operations:

There were no ranch operation activities in January.

Irrigation Systems:

There were no irrigation activities on the Sites this month. As previously reported, heavy rains flooded Site 2 which was exacerbated by off-site drainage ditches choked with cattails. Staff contacted Caltrans and asked them to clean the ditch along Highway 37 and they stated the area was too wet. Flood waters have since receded off of the Parcels.

Irrigation Pump Station:

As previously reported, the 400 HP motor for Pump 2 failed in July and staff has issued a purchase order for the work. This work will be completed before the start of irrigation season next spring. Staff will contact the vendor in February.

Sludge Handling & Disposal:

There was no activity to report.
