

# NOVATO SANITARY DISTRICT

Meeting Date: May 26, 2015

The Board of Directors of Novato Sanitary District will hold a closed session at **5:30pm**, followed by a regular meeting at 6:00 p.m., **Tuesday, May 26, 2015\***, at the District Offices, 500 Davidson Street, Novato, CA.

**\*Note revised date from regularly scheduled date of 2<sup>nd</sup> Monday of the month - May 25<sup>th</sup>, 2015 is Memorial Day, a District holiday.**

*Materials related to items on this agenda are available for public inspection in the District Office, 500 Davidson Street, Novato, during normal business hours. They are also available on the District's website: [www.novatosan.com](http://www.novatosan.com).*

**5:30 PM CLOSED SESSION: Public Employee Evaluation: Manager- Engineer**  
(Government Code Section 54957).

## AGENDA

1. **PLEDGE OF ALLEGIANCE:**
2. **AGENDA APPROVAL:**
3. **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 Board at this time as a result of any public comments made.

4. **ANNOUNCEMENT FROM CLOSED SESSION:**
5. **REVIEW OF MINUTES:**
  - a. Consider approval of minutes of the May 11, 2015 meeting.
6. **CONSENT CALENDAR:**

The Manager-Engineer has reviewed the following items. To his knowledge, there is no opposition to the action. The items can be acted on in one consolidated motion as recommended or may be removed from the Consent Calendar and separately considered at the request of any person.

- a. Approve regular disbursements.
- b. Ratify May payroll and payroll-related disbursements.
- c. Approve extending the current contract term with Regional Government Services, (RGS), to provide the temporary Laboratory Project Advisor for

part-time, as-needed services, and authorize the Manager-Engineer to execute the extension on a month-to-month basis.

- d. Approve a contract in the not-to-exceed amount of \$80,000 with Duke's Root Control, Inc., and authorize the Manager-Engineer to execute it.

**7. WASTEWATER OPERATIONS:**

- a. Receive Wastewater Operations Committee Report.

**8. ANNUAL BUDGET WORKSHOP:**

- a. Fiscal Year FY2015-16 Budget Workshop: Outline FY15-16 strategic issues.
- b. Receive preliminary Capital Improvements Program (CIP) work plan and budget.

**9. STAFF REPORTS:**

**10. BOARD MEMBER REPORTS AND REQUESTS:**

**11. MANAGER'S ANNOUNCEMENTS:**

**12. ADJOURN:**

Next resolution no. 3086.

**Next regular meeting date: Monday, June 8, 2015, 6:00 PM at the Novato Sanitary District office, 500 Davidson Street, Novato, CA.**

***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.***

## NOVATO SANITARY DISTRICT

### Board Meeting Minutes

Meeting Date: May 11, 2015

A regular meeting of the Board of Directors of the Novato Sanitary District was held at 6:00 p.m., Monday, May 11, 2015, at the District Office, 500 Davidson Street, Novato.

BOARD MEMBERS PRESENT: President Jean Mariani, Directors Jerry Peters, Gary Butler, William Long and Brant Miller.

STAFF PRESENT: Manager-Engineer-Secretary Sandeep Karkal, and Field Services Manager Steve Krautheim.

ALSO PRESENT: June Brown, Admin. Services Specialist, Novato Sanitary District  
Laura Creamer, Finance Officer, Novato Sanitary District  
John Bailey, Project Manager, Veolia  
Brian Exberger, Assistant Project Manager, Veolia  
John O'Hare, Pretreatment Programs Manager, Veolia  
David McEwen, Supervising Engineer, Brown & Caldwell  
Bob Brown, City of Novato, and Novato resident  
Rachel Ginis, Corte Madera resident  
Ellen Nicosia, Corte Madera resident  
Bob Pendoley, San Rafael resident  
Katie Crecelius, Novato resident

PLEDGE OF ALLEGIANCE:

AGENDA APPROVAL: The agenda was approved as written.

PUBLIC COMMENT: None

REVIEW OF MINUTES:

Consider approval of minutes of the April 13, 2015 meeting.

*On motion of Director Peters, seconded by Director Miller, and carried unanimously, the April 13, 2015 Board meeting minutes were approved.*

CONSENT CALENDAR:

President Mariani called for a motion on the Consent Calendar items as follows:

- a. Approval of regular disbursements of April 27, 2015 in the amount of \$151,231.62, regular disbursements of May 11, 2015 in the amount of \$74,747.98, capital project disbursements of April 27, 2015 in the amount of \$23,386.32, capital project disbursements of May 11, 2015 in the amount of \$52,562.40, and Board Member disbursements in the amount of \$2,540.43.

- b. Ratification of April payroll and payroll-related disbursements in the amount of \$198,599.42.
- c. Receive 3<sup>rd</sup> Quarter Investment Report, Fiscal Year (FY) 14-15.
- d. Receive Summary 3<sup>rd</sup> Quarter Financial Report, FY 14-15.
- e. Appoint the Field Services Manager to administer and enforce District rules and regulations for the Marin Sports Academy development project.
- f. Approve Consent for Boundary Change – Annexation of APN 157-970-04 (801 State Access Road) to Novato Sanitary District.

*On motion of Director Miller, seconded by Director Peters and carried unanimously, the above listed Consent Calendar items were approved.*

#### FINANCE COMMITTEE:

- Receive Finance Committee Report: The Manager-Engineer reviewed the Finance Committee Report of April 30, 2015. He noted that Laura Creamer, District Finance Officer, had notified the Finance Committee of the GASB 45 mandated Actuarial Study for Other Post-Employment Benefits and the schedule for completion of the actuarial study by North Bay Pensions.

- Receive recommendation from Finance Committee, and authorize the Board President to inform City of Novato Mayor Jeanne MacLeamy of intent to waive connection fees and charge an administrative fee of \$40 for City of Novato approved Junior Accessory Dwelling Units (JADUs): The Manager-Engineer reported that Junior Accessory Dwellings will create a new class of affordable housing units by conversion of existing residential housing space to allow addition of a wet bar-type kitchen within a home without creating additional need for water or sewer services. The Finance Committee met on April 30<sup>th</sup> to consider a request from the City of Novato to consider waiving District connection fees for approved JADUs. Director Long stated that the Finance Committee report of April 24<sup>th</sup> accurately reflects the Committee's recommendation to waive District connection fees and charge an administrative fee of \$40 for City-approved JADUs.

Brief discussion followed. The Manager-Engineer affirmed that the District would not process JADU requests without demonstrated approval by the City of Novato.

All members of the public present at the meeting spoke in support of Junior Accessory Dwellings and thanked the Board for their consideration.

*On motion of Director Peters, seconded by Director Long and carried unanimously, the Board approved the Finance Committee's recommendation to waive connection fees and charge an administrative fee of \$40 for City-approved Junior Accessory Dwelling Units, and authorized the Board President to inform City of Novato Mayor Jeanne MacLeamy.*

Members of the public left the meeting at 6:12 p.m.

## WASTEWATER OPERATIONS:

- Receive Wastewater Operations Committee report, March 2015. The Manager-Engineer stated that the Wastewater Operations Committee met on April 21, 2015 at 2:30 p.m. at the District office. John Bailey, Veolia Plant Manager, provided an overview of the Monthly Operations Report for March 2015 as presented to the Wastewater Operations Committee. He stated that the monthly average flow for March was 4.05 MGD (million gallons per day) and that water quality performance was excellent. He stated that the Recycled Water Facility produced 7.34 MG (million gallons) in March. He outlined the monthly safety and training activities and stated that in March no odor or noise complaints were received.

In response to a question by Director Butler, Mr. Bailey explained how bacteriological results are calculated. The District had historically used a straight 90<sup>th</sup> percentile ranking for this data. However, since the data are tabulated in a Microsoft Excel spreadsheet, it is possible to utilize statistical functions embedded within Excel for the calculations. Veolia then contacted the District's permit officer at the Regional Water Board and received approval to use the statistical functions embedded within Microsoft Excel to calculate the 90<sup>th</sup> percentile value. Going forward, statistical calculations within Microsoft Excel (as opposed to ranking) will be used to calculate and report bacteriological results. Mr. Bailey added that for verification purposes, Veolia engineer Brian Exberger ran hand calculations for a sample data set, and his results matched the results of the spreadsheet calculations.

Director Long asked if the District is transitioning to the use of recycled water for flushing sewer lines as suggested by North Marin Water District (NMWD). The Manager-Engineer responded that the District is working with NMWD to do this where feasible. He explained that NMWD has only ten (10) recycled water hydrants (as opposed to over 2,000 potable water hydrants) in the District's service area. This means that there would be significant "windshield time" losses in filling/refilling the District's cleaning trucks with recycled water, leading to significantly lowered cleaning productivity, and thereby to increased potential for Sewer System Overflows (SSOs).

Field Services Manager Steve Krautheim presented a summary of the Collection System Operations Report, and reviewed the department's performance. 74,674 feet of sewer pipeline was cleaned in March, 397 work orders were completed, and CCTV work did not find any line segments in need of repair. The Collection Systems Department conducted 260 lift station inspections and completed a number of pump station repairs and upgrades. There were no lost time accidents in March, for a total of 1,477 accident-free days since the last lost-time incident. Three sanitary sewer overflows occurred in March, two of which were caused by root intrusion and debris, and the third possibly caused by a homeowner's metal sewer snake. Steve explained methods of notifying reporting agencies of overflows.

The Field Services Manager then presented a summary of the Reclamation Facilities report. Staff began the process to locate a leak on the Wildlife Pond Feed Pipeline;

however, it may be necessary to hire a leak detection company to find the leak with a listening device.

- Receive update, ongoing odor study – David McEwen (Brown and Caldwell): The Manager-Engineer introduced David McEwen of Brown and Caldwell. Mr. McEwen gave a detailed PowerPoint presentation on the odor control study that he conducted. He listed and discussed potential odor sources within the District treatment plant associated with offsite odors. Mr. McEwen presented a recommended four-pronged, multi-location approach for odor control going forward, and discussed each one in detail. The multi-pronged approach includes counteractant misters, aeration modulation within the aeration basins, Return Activated Sludge (RAS) chlorination, and influent junction structure pre-chlorination. Counteractant misters are currently being used intermittently within the treatment plant. They are placed near the odor source and broadcast a non-toxic neutralizer into the air as a fog to reduce the concentration of any odorous compounds. Also, Veolia Project Manager John Bailey is currently researching alternative units due to noise complaints from neighbors. Director Miller asked if the units could be moved around, and Mr. Bailey responded that they could.

Mr. McEwen stated that it will be an ongoing effort, manipulating different methods to resolve odor issues. He noted that the District plant is possibly one of the least odorous wastewater facilities in the Bay Area. However, odors are subjective and noticeable due to the proximity to a residential development. Mr. Bailey added that, as additional perspective, the number of odor complaints from neighbors has reduced dramatically over time, and it now seems to be consistently affecting only three households.

Mr. McEwen's PowerPoint presentation will be available and provided to the District for future reference. The Board thanked Mr. McEwen and he left the meeting at 7:23 p.m.

7:23 p.m. President Mariani stated that the Board would take a short break. The Board meeting reconvened at 7:30 p.m.

#### ADMINISTRATION:

- Adopt Resolution No. 3084 formalizing CalPERS Member Paid Contributions to be tax-deferred under Internal Revenue Code, IRC 414(h)(2): The Manager-Engineer presented a resolution formalizing CalPERS member paid contributions to be tax-deferred under Internal Revenue Code Section 414(h)(2). The resolution confirms current District practice of reporting pre-tax member contributions to CalPERS. Director Miller questioned certain wording in the resolution that indicates employee contributions paid on behalf of an employee "*shall be the entire contribution required of the employee...*" His concern was that a percentage of employee contributions are withheld from salary, and the remaining percentage contributed or picked up by the District. Staff explained that the IRS interpretation of "*employer pickup*" includes amounts withheld or otherwise offset from employee's salary and are excludable from gross income. At the time of retirement, the employee's pension is 100% taxable. The resolution before the Board is a CalPERS template which CalPERS declares null and void if any changes are made.

*On motion of Director Long, seconded by Director Peters and carried unanimously, Resolution No. 3084, "A Resolution to Tax Defer Member Paid Contributions – IRC 414(h)(2) – Employer Pick-Up" was adopted.*

CAPITAL PROJECTS:

- Maintenance Building Account No. 73003 – Phase 1, Site Demolition, Project No. 73003-01: Review bids received, approve contract award to West Bay Builders, and authorize Manager-Engineer to execute the contract in the bid amount of \$473,500.00.

On April 21, 2015 the following four bids were received for this project:

West Bay Builders	\$473,500.00
Maggiora & Ghilotti	\$614,614.00
Bowen Engineering	\$621,000.00
Team Ghilotti	\$874,373.00

The Manager-Engineer recommended approval of the contract to the low bidder, West Bay Builders, in the amount of \$473,500.00.

*On motion of Director Peters, seconded by Director Long and carried unanimously, the Board approved the contract award to West Bay Builders in the amount of \$473,500.00.*

Collection system Improvements, Account No. 72706 (Olive Pump Station Parallel Force Main Project): Authorize the Manager-Engineer to execute a revised Agreement in the amount of \$46,850.00 with the North Marin Water District for modifications to Water District facilities required for the Force Main Project: Field Services Manager Steve Krauthem reported that a revised agreement in the amount of \$46,850.00 has been received from North Marin Water District (NMWD) for relocation of a 6-inch water main associated with the District's Olive Pump Station Force Main Project. The original agreement with NMWD was in the amount of \$16,888.00. However, modifications to the force main alignment involved additional work and removal and modification of two 4-inch fire hydrant supply lines by the Water District.

*On recommendation of staff and by motion of Director Peters, seconded by Director Long and carried unanimously, the Board authorized the Manager-Engineer to execute the revised agreement with the North Marin Water District, as described, in the amount of \$46,850.00.*

BOARD OF DIRECTORS:

- Adopt Resolution No. 3085 Proposing an Election and Requesting the County Elections Department to Conduct Election Services: A resolution was presented for Board adoption for election services by the County of Marin Elections Department for three Board Members whose terms expire in November 2015.

*On motion of Director Long, seconded by Member Peters, and carried unanimously, Resolution No. 3085, "A Resolution of Novato Sanitary District Proposing an Election be held in its Jurisdiction; Requesting the Board of Supervisors to Consolidate with any Other Election Conducted on Said Date, and Requesting Election Services by the Marin County Elections Department" was adopted.*

#### STAFF REPORTS:

- California Water Environment Association (CWEA) Annual Conference, San Diego: Field Services Manager Steve Krauthem reported on his attendance at the recent CWEA Conference in San Diego. Steve is currently the CWEA Northern Regional Committee Vice-Chair and will be Chairperson in two years. He discussed topics that were presented at the Conference, including the drought, desalination, and training for pump station and system maintenance. Steve stated the Conference was well-attended and a worthwhile experience.

#### BOARD MEMBER REPORTS AND REQUESTS:

- California Association of Sanitation Agencies (CASA) Public Policy Forum and Conference, Sacramento: Directors Butler, Long, Mariani, and Peters attended the CASA Public Policy Forum and Conference in Sacramento. The Directors unanimously agreed that the conference was very informative and interesting and were particularly impressed with the knowledge of the legislative staff.

- North Bay Watershed Association (NBWA) May meeting: Director Miller reported on his attendance at both the recent North Bay Watershed Association meeting and the North Bay Water Reuse Authority meeting.

Director Miller attended the NBWRA meeting in lieu of Director Long. He noted that the meeting included a report by Ginger Bryant on Title XV water re-use projects. Director Miller reported that a funding request of \$30M was submitted. \$20M was approved but was later increased to \$23M. He described the process overview for project ranking objectives and sub-objectives; scoring weighting and ranking criteria for individual projects; and member agency direction. Depending on the ranking, projects will be selected for funding. However, there will not be sufficient funds for all of them.

Director Miller next reported on the NBWA meeting of May 1, 2015. He discussed the Ross Valley Watershed Program Overview, and the California Stormwater Initiative. He informed the Board that the 2016 ballot will contain a stormwater measure that will enable entities in charge of stormwater to assess a levy without a vote. Proposition 218 notice requirements will need to be met but will not require a vote.

#### INFORMATIONAL ITEMS/NEWS ARTICLES:

Director Butler commented that the recent E-Waste event was very well run, and Director Long mentioned that Drew McIntyre, North Marin Water District, had indicated interest in extension of recycled water to Ignacio.

Director Peters noted the news item related to the State audit of the Ross Valley Sanitary District (RVSD), particularly the detailed checklist of measures presented by the audit. Director Miller indicated that the audit report is available at the RVSD website.

Director Miller recommended that the Board read the Grand Jury report, "*Pension Enhancements: A Case of Government Code Violations and A Lack of Transparency*", included in the Board agenda packet. He reported that an advocacy group is requesting agencies to comment on the report. President Mariani noted that the Grand Jury report does not pertain to the District which is a CalPERS agency, and that the Grand Jury is not requiring CalPERS agencies to respond.

**MANAGER'S ANNOUNCEMENTS:** The Manager-Engineer reported he had participated in a tour of the Novato Creek Watershed conducted by staff from the Marin County Flood Control District, on Friday, May 1, 2015.

The following District meetings are planned:

- Next Board meeting, 6:00pm, Tuesday, May 26<sup>th</sup> (Budget Workshop), since Monday May 25<sup>th</sup> is Memorial Day, a District holiday,
- The Wastewater Operations Committee, Monday, May 18<sup>th</sup>, at 2:00p.m.
- A New Facilities Committee meeting will be scheduled in early-mid June, and
- An Ad Hoc Personnel Committee meeting will be scheduled for the Manager-Engineer's annual performance evaluation.

On Thursday, May 14, 2015, a meeting on Novato Flood Protection and Watershed Program will be held at the Marin Humane Society, Bel Marin Keys.

On Saturday, May 16, 2015, the Novato Sunrise Rotary will be dedicating a bench at Scottsdale Pond in the memory of former District Board President Mike DiGiorgio.

**ADJOURNMENT:** There being no further business to come before the Board, President Mariani adjourned the meeting at 8:38 p.m.

Respectfully submitted,

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Sandeep Karkal  
Secretary

June Brown, Recording

**Novato Sanitary District**  
**Operating Check Register**  
 May 26, 2015

Item 6.a.

Date	Num	Name	Credit
<b>May 26, 15</b>			
05/26/2015	58223	Veolia Water North America, Inc.	163,365.77
05/26/2015	58209	Pacific, Gas & Electric	51,137.95
05/26/2015	58224	Veolia Water North America, Lab	26,365.58
05/26/2015	58187	CSRMA-	25,000.00
05/26/2015	58213	RMC Water & Environment, Inc.	12,014.00
05/26/2015	58206	Novato, City	10,296.34
05/26/2015	58211	Regional Government Services	6,900.00
05/26/2015	58180	American Express-21007	6,401.11
05/26/2015	58189	Foster Flow Control	3,587.91
05/26/2015	58222	WECO	2,803.02
05/26/2015	58203	North Marin Water District - Lab	2,200.00
05/26/2015	58200	Meyers, Nave, Riback, Silver & Wilson	2,119.50
05/26/2015	58204	North Marin Water District Payroll	2,112.75
05/26/2015	58194	Irvine Consulting Services Inc.	1,575.00
05/26/2015	58188	CT Promotions	1,549.30
05/26/2015	58186	Cintas Corporation	1,398.45
05/26/2015	58201	MME	1,115.71
05/26/2015	58193	IEDA, INC	1,072.00
05/26/2015	58195	Jan-Pro Cleaning Systems	1,005.00
05/26/2015	58179	Alliant Insurance Services, Inc	992.00
05/26/2015	58197	Leak Detection Pros Inc	700.00
05/26/2015	58192	HP Care Pack Sales	647.00
05/26/2015	58185	CDW Government, Inc.	595.00
05/26/2015	58219	Verizon EQ	592.04
05/26/2015	58199	Marin Mechanical II, Inc.	570.70
05/26/2015	58221	VWR International Inc.	559.58
05/26/2015	58217	USA BlueBook	471.32
05/26/2015	58205	Novato Disposal-	406.22
05/26/2015	58215	Staples Business Adv Inc.	364.82
05/26/2015	58207	Occumetric Inc.	325.00
05/26/2015	58212	Ricoh USA, Inc.	297.22
05/26/2015	58190	GoTrack/RSC Communications	200.00
05/26/2015	58184	Cantarutti Electric, Inc	179.50
05/26/2015	58182	Batteries Plus Inc	163.55
05/26/2015	58202	North Marin Auto Parts	151.94
05/26/2015	58210	Pitney Bowes	145.39
05/26/2015	58208	Orkin Pest Control, Inc.	131.42
05/26/2015	58220	Verizon Wireless-	130.19
05/26/2015	58198	Marin County Ford	103.66
05/26/2015	58196	Kentfield Occupational Med Center	96.00
05/26/2015	58191	Honey Bucket	92.21
05/26/2015	58214	Santa Rosa Fire Equipment Service, Inc	83.55
05/26/2015	58181	American Messaging	69.63
05/26/2015	58216	Thomas & Associates, Inc.	64.75
05/26/2015	58183	Buchignani, Keith-	40.00
05/26/2015	58218	VOID	0.00

**May 26, 15**

**330,192.08**

# Novato Sanitary District Capital Projects Check Register

May 26, 2015

<u>Date</u>	<u>Num</u>	<u>Name</u>	<u>Credit</u>
<b>May 26, 15</b>			
05/26/2015	2866	National Coating & Lining Co.	52,314.84
05/26/2015	2871	Wedge Roofing Inc.	41,610.00
05/26/2015	2867	North Marin Water District Job...	33,572.99
05/26/2015	2869	Team Ghilotti, Inc.	12,076.68
05/26/2015	2868	RMC Water & Environment, Inc.	7,479.35
05/26/2015	2872	Control Systems West, Inc.	7,406.78
05/26/2015	2864	DB Gaya Consulting LLC	5,245.00
05/26/2015	2860	Argonaut Constructors Corp.	5,130.00
05/26/2015	2861	Control Systems West, Inc.	1,105.00
05/26/2015	2863	Daniel Macdonald AIA Archite...	840.00
05/26/2015	2870	Water Components & Building...	572.19
05/26/2015	2862	Covello Group, The	470.00
05/26/2015	2865	Leak Detection Pros Inc	350.00
<b>May 26, 15</b>			<b><u>168,172.83</u></b>

**Novato Sanitary District**  
**Payroll and Payroll Related Check Register**  
**May - 2015**

Item 6.b.

<u>Date</u>	<u>Description</u>	<u>Amount</u>
05/29/2015	May - Payroll	93,541.04
05/29/2015	May - Retirees Health Benefits	10,486.48
05/21/2015	CALPers Health	28,770.72
05/21/2015	CALPERS Retirement	5,855.63
05/29/2015	United States Treasury	18,247.06
05/21/2015	CalPers Supplemental Income Plan	2,500.00
05/29/2015	EDD	5,272.16
05/21/2015	Lincoln Financial Group	6,890.00
05/21/2015	Lincoln Financial Group-401a Plan	2,399.70
05/21/2015	Lincoln Financial Group-401a Plan	3,193.50
05/21/2015	CALPERS Retirement	16,317.34
05/21/2015	Local Union 315	360.00
05/21/2015	Delta Dental	2,563.24
05/21/2015	Operating Engineers Trust	293.29
		<b><u>196,690.16</u></b>

# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

<b>TITLE: Consent Calendar: Contract Extension, Laboratory Assistance</b>	<b>MEETING DATE: May 26, 2015</b>  <b>AGENDA ITEM NO.: 6.c.</b>
<b>RECOMMENDED ACTION:</b> Approve extending the current contract term with Regional Government Services, (RGS), to provide the temporary Laboratory Project Advisor for part-time, as-needed services, and authorize the Manager-Engineer to execute the extension on a month-to-month basis.	
<b>SUMMARY AND DISCUSSION:</b>  <p>At its May 12, 2014 meeting the Board approved a contract with Regional Government Services, (RGS), to provide temporary laboratory assistance on a part-time, as-needed basis, and authorized the Manager-Engineer to execute it.</p> <p>For informational purposes, RGS is a California Joint Powers Authority (JPA) chartered by several California cities and counties to help California governmental agencies with staffing needs. Their current clients include the County of Marin, the Marin Municipal Water District, and the Cities of San Rafael, Belvedere, Corte Madera, Larkspur, and Sausalito.</p> <p>RGS retained Mr. Robert Adamson to provide these services. Mr. Adamson is a well-qualified individual and since he had previously provided similar services to the District, brought a high level of familiarity to the District and staff. Under the terms of the RGS contract, RGS provides Mr. Adamson's services on a part-time, as-needed basis, at a non-benefitted, not-to-exceed hourly rate of \$115/hr.</p> <p>The current contract term expires on June 30, 2015. RGS has indicated that they are open to moving to either a month-to-month or a date specific extension for continuing services. Mr. Adamson's services will be required on a part-time, as-needed basis until Veolia staff have completely transitioned into managing the District's laboratory/environmental services programs. Also, it is anticipated that Mr. Adamson's assistance will be needed in a potential update to the District's Sewer Use Ordinance (SUO) in FY15-16.</p> <p>Therefore, at this time, it is recommended that the Board approve extending the current RGS contract term, and authorize the Manager-Engineer to execute the contract extension for continuing services on a month-to-month basis. Adequate funding will be provided for these services in the FY15-16 budget under Account No. 66123 – O/S Contractual Services.</p>	
<b>BUDGET INFORMATION:</b> Funding for these services will be included under Account No. 66123 – O/S Contractual Services in the FY15-16 budget.	
<b>DEPT. MGR.:</b> jb/lf (Veolia), ssk	<b>MANAGER-ENGINEER:</b> SSK

# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

<b>TITLE: Consent Calendar: Collection System Maintenance, 2015 Root Control Treatment - Account No. 60153 (Outside Services)</b>	<b>MEETING DATE: May 26, 2015</b>  <b>AGENDA ITEM NO.: 6.d.</b>
<b>RECOMMENDED ACTION: Approve a contract in the not-to-exceed amount of \$80,000 with Duke's Root Control, Inc., (Duke's), and authorize the Manager-Engineer to execute it.</b>	
<b>SUMMARY AND DISCUSSION:</b>  <p>An important part of the District's annual collection system maintenance activities is to control and abate tree roots that intrude into its sewers. If left unchecked, these roots can grow within the sewers to where they can impede or completely block flow in the sewers, either by themselves or in combination with grease, rags, and debris build-up, and potentially result in sanitary sewer overflows (SSOs).</p> <p>Based on maintenance history records, staff has identified approximately 68,000 feet of sewer mains ranging in size from 6 inch to 15 inch that will benefit from root abatement this year. Duke's can provide root abatement services using a chemical root control foaming agent to control this problem. Staff has verified that the use of this chemical will not affect the District's ability to meet its discharge permit requirements. Duke's has performed this work for the District in previous years.</p> <p>Staff has negotiated a scope of services with Duke's on a time-and-materials basis in the not-to-exceed amount of \$80,000 to accomplish this work. The unit costs negotiated are the same as those from last year. Staff therefore recommends that the Board approve a contract with Duke's in the not-to-exceed amount of \$80,000, and authorize the Manager-Engineer to execute it.</p>	
<b>BUDGET INFORMATION:</b> This work will be funded from Account No. 60153 - Outside Services. The FY14-15 budget amount for this account is \$275,000. As of April 30, 2015, the budget balance for this account is \$80,208.85. No other expenditures are expected from this account this fiscal year.	
<b>DEPT. MGR.:</b> TMO, SRK	<b>MANAGER-ENGINEER:</b> SSK

# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

<b>TITLE: Receive Wastewater Operations Committee Meeting Report, April 2015</b>	<b>MEETING DATE: May 26, 2015</b>  <b>AGENDA ITEM NO.: 7.a.</b>
<b>RECOMMENDED ACTION:</b> Information. Receive report.	
<b>SUMMARY AND DISCUSSION:</b>  <p>The April 2015 reports for wastewater treatment operations, collection system operations, and reclamation facilities are attached.</p> <p><b>Wastewater Treatment Facility</b></p> <p>Novato Treatment Plant (NTP) water quality performance was excellent with all parameters well within effluent standards, and there were no NPDES violations. The Recycled Water Facility produced 10.09 MG of recycled water in April. Safety performance was excellent with another accident-free month for a total of 1,792 accident-free days at the end of April. Routine maintenance activities were performed at the NTP and the Ignacio Transfer Pump Station (ITPS). The Discharge Monitoring Report (DMR) and the Electronic Self-Monitoring Report (e-SMR) for March 2015 were submitted on April 30, 2015.</p> <p><b>Odor Control and Landscaping</b></p> <p>Per recommendations from Dave McEwen of Brown and Caldwell (B&amp;C), the District's odor consultant, operations staff continued to perform liquid phase sulfide sampling and analysis. The media in the large odor control bed between primary clarifiers #1 &amp; #2 which was topped off in November appears to be performing well. Also, operations staff continued to add sodium hypochlorite at the influent junction structure as needed. The redwood trees replanted to the northeast corner of the plant site in late February/early March, appear to be doing well. Staff will continue to monitor the landscaping, and evaluate the potential for additional tree plantings, in this area of the plant site.</p> <p><b>Collection System and Pump Stations</b></p> <p>Staff cleaned a total of 107,261 ft of sewer lines. Staff also televised 303 ft of sewer lines with the CCTV truck, and did not hand televise any line segments with the Push Cam. CCTV production was low this month due to staff availability for this activity, and the need to prepare line segments for root treatment. Staff also conducted 246 lift station inspections. There was no outside contractor CCTV or cleaning activity on larger diameter sewers this month. Staff completed maintenance inspections on nine (9) air relief/vacuum (ARVs) valves.</p> <p><u>Safety:</u> No lost time accidents in April 2015 for a total of 1,507 accident-free days.</p> <p><u>Standard and Emergency Operating Procedures (SOPs &amp; EOPs):</u> No SOPs were generated in April, however, a draft Core Competency Checklist was prepared as discussed in the attached report.</p> <p><u>Sanitary Sewer Overflows (SSOs):</u> There were no (0) SSOs in April 2015.</p> <p><b>Reclamation Facility</b></p> <p>The rancher began harvesting pasture grass in April. Pump No. 2 at Drainage Pump Station No. 7 was installed. Accumulated silt around the two Drainage Pump Stations was removed. Staff continues to work to locate the leak on the Wildlife Pond Feed Pipeline. Thermal imaging was performed on the switchgear at the Irrigation Pump Station. Staff found a seal failure on the Wildlife Pond Drain Pump, and a seized-up Wash-down Water Pump. There were no sludge handling activities this month.</p>	
<b>DEPT.MGR.:</b> JB (Veolia), SRK, TMO	<b>MANAGER-ENGINEER:</b> SSK

## NOVATO SANITARY DISTRICT

Meeting Date: May 18, 2015

The Wastewater Operations Committee of the Novato Sanitary District will hold a meeting at 2:00 PM, Monday, May 18, 2015 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 APRIL 21, 2015 MEETING**

**4. WASTEWATER TREATMENT FACILITIES OPERATIONS AND MAINTENANCE REPORT FOR APRIL 2015:**

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

**5. COLLECTION SYSTEM OPERATIONS AND MAINTENANCE REPORT FOR APRIL 2015:**

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

**6. RECLAMATION FACILITY REPORT FOR APRIL 2015:**

- a. Ranch Operations
- b. Irrigation Parcels
- c. Irrigation Pump Station

**7. OTHER ITEMS:**

**8. 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 21, 2015

A regular meeting of the Wastewater Operations Committee of Novato Sanitary District was held at 2:30 p.m., Tuesday, April 21, 2015, at the District Office, 500 Davidson Street, Novato.

MEMBERS PRESENT: Committee Members Jerry Peters and Brant Miller.

STAFF PRESENT: Sandeep Karkal, Manager-Engineer  
Steve Krauthem, Field Services Manager  
Tim O'Connor, Collections System Superintendent  
John Bailey, Project Manager, Veolia  
Julie Swoboda, Administrative Secretary

OTHERS PRESENT: Lynda Farmery, Planner, Veolia  
John O'Hare, Pretreatment Programs Manager, Veolia

AGENDA APPROVAL: Approved as presented.

PUBLIC COMMENT: None.

APPROVAL OF MEETING MINUTES FOR MARCH 16, 2015: The March 16, 2015 meeting minutes were approved as presented.

WASTEWATER TREATMENT FACILITIES OPERATIONS AND MAINTENANCE REPORT FOR MARCH 2015:

- Treatment Plant Performance Report, Maintenance Report, and Safety & Training:

Manager-Engineer Sandeep Karkal introduced Veolia Project Manager John Bailey, who provided an overview of treatment plant operations for the month of March. He discussed key operations and maintenance events at the Novato facility, the Ignacio Transfer Pump Station, the Recycled Water Plant, and the Sludge Lagoons. He stated that the plant ran very well with no permit violations or exceedances. He stated that no odor notifications were received in March.

The Project Manager discussed training events completed in March and stated that as of March 31<sup>st</sup>, Veolia employees have been accident free for a total of 1,762 days. He discussed the training and safety meetings Veolia employees participated in during March. He reviewed the operations and maintenance report and stated that 7.34 million gallons of recycled water were produced.

Discussion followed.

- Odor control and landscaping report: The Manager-Engineer discussed odor control related activities in March. He stated that staff continues to perform liquid phase sulfide sampling and analysis, based on recommendations from Dave McEwen of Brown and Caldwell (B&C). He noted that staff continues to monitor the large odor control bed and that it appears to be performing very well. The Manager-Engineer stated that the staff continues to work with the

District's landscaping contractor Cagwin and Dorward on vegetation at the District's fence-line on Lea Drive and at the northeast corner area of the treatment facility.

#### COLLECTION SYSTEMS OPERATION AND MAINTENANCE REPORT FOR MARCH 2015:

Collections System Superintendent Tim O'Connor presented the Collection Systems Monthly Report for March 2015. He reported that the Collection Systems crew cleaned a total of 74,674 feet of sewer pipeline and that the department completed 397 maintenance work orders which were generated for March. He stated that the District's CCTV van (Closed Circuit TV) televised 9 line segments for 1,795 feet of production and he noted that no areas were identified as needing repairs or further evaluation.

He reported on the current Collection System Projects, and outlined the specialized training that the department completed. He stated that as of March 31, 2015, the Collections Department and the District have worked accident free for a total of 1,477 days.

The Collections System Superintendent stated that staff is developing a Core Competency Checklist to use for tracking/training of employees and will be used for developing Standard Operating Procedures (SOP's). The Collections System Superintendent stated that there were three sanitary sewer overflows in March and he provided an overview of each incident.

#### RECLAMATION FACILITY REPORT FOR MARCH 2015:

Field Services Manager Steve Krautheim presented the Reclamation Facilities report for March. He stated that the rancher continued to apply weed suppressant around sprinkler heads on Parcels in the pasture areas. He stated that the contractor for the Drainage Pump Station Improvement Project completed the work in March.

The Field Services Manager discussed a leak on the Wildlife Pond Feed Pipeline and noted that staff has begun the process to locate the leak. He noted that there were no irrigation or sludge handling activities this month.

#### MANAGER'S ANNOUNCEMENTS:

The next WWOC meeting will be held on Monday, May 18<sup>th</sup> at 2:00 p.m.

ADJOURNMENT: There being no further business to come before the Committee, the meeting adjourned at 3:17 p.m.

Respectfully submitted,

---

Sandeep Karkal  
Manager-Engineer

Julie Swoboda, Recording



May 13, 2015

Mr. Sandeep Karkal  
Manager - Engineer  
Novato Sanitary District  
500 Davidson Street  
Novato, CA 94545

**Subject: Veolia Water Operations Report – April 2015**

Dear Mr. Karkal:

I am pleased to provide the Monthly Operation Report for April 2015.

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

Best regards,

A handwritten signature in blue ink that reads "John Bailey". The signature is stylized and cursive.

John Bailey  
Project Manager, Veolia



**MONTHLY OPERATIONS REPORT**  
**April 2015**

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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○ Clarifier Coating Preparation	
• Laboratory Data	
• Recycled Water Report	
• Annual Performance Graphs	
• Process Control Data / Graphs	
• Customer Notifications (Odor)	

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**TREATMENT PLANT PERFORMANCE SUMMARY: April 2015:**

Parameter	Value		Limit	
	Ave	Max	#1	#2
Flow, MGD (monthly ave/max)	3.88	4.72	N/A	N/A
Max Peak Hour, MGD – 7.5 mgd, April 7 <sup>th</sup> , 0715	N/A	~ 8	N/A	N/A
<b>Influent</b>				
BOD <sub>5</sub> , lb/day (month ave/max)	9,328	11,576	N/A	N/A
TSS, lb/day (monthly ave/max)	11,214	14,957	N/A	N/A
<b>Effluent</b>				
BOD <sub>5</sub> , mg/L (monthly ave/weekly max)	<7	9	30	45
TSS, mg/L (monthly ave/weekly max)	<4	5	30	45
BOD <sub>5</sub> - % Removal, Minimum	98	N/A	85	N/A
TSS - % Removal, Minimum	99	N/A	85	N/A
Ammonia, mg/L – (monthly ave/daily max)	3.70	3.70	6	21
pH, su (min / max)	6.8	7.0	6.5	8.5
Enterococcus, MPN/100 ml (30 day geo mean)	3.2	N/A	35	N/A
Fecal Coliform, MPN/100 ml (30 day median)	11	N/A	140	N/A
Fecal Coliform, MPN/100 ml (90 <sup>th</sup> percentile)	13	N/A	430	N/A
Total Coliform, MPN/100 ml (5 Sample Median/Max)	N/A	N/A	240	10,000
<b>Total Permit Exceedances (NPDES)</b>	0			

NA – Not Applicable

Discussion of Violations / Excursions: NONE

**Title 22 - Recycled Water Production and Quality**

Description	Units	Value	Limit
Volume Produced	Million Gallons	7.34	N/A
Average Turbidity	NTU	0.89	2.0
Turbidity > 5 NTU (in 24 hour)	Minutes	0.00	72
Minimum CT (disinfection)	mg-min/L	>450	450
Minimum Dissolved Oxygen (DO)	mg/L	8.0	1.0
Maximum Total Coliform	mpn/100 ml	220	

Total Rainfall. – 1.43 inches

Daily Max 4/7/15 – 0.94 inches

Note: Rainfall data from weather station readings at 500 Davidson St (WWTP)

**SAFETY AND TRAINING:**

- Monthly plant safety inspections for Novato WWTP and Ignacio Transfer Pump Station completed
- Five Minute Tailgate training is held daily with all staff.
- No safety incidents for the month of April.
- Accident Free: 6/1/10 – 4/30/15: 1,792 days
- Monthly Safety Topics and Training:
  - Lockout/Tagout – Control of Hazardous Energy
  - Confined Space Awareness
  - Cellular Phones: Vehicle Operations
  - Hand Protection
  - Footwear Policy
  - Golf Cart & Utility Vehicle Safety

**OPERATIONS & MAINTENANCE STATUS / REVIEW:**

**Key events for the period:**

Only one significant rainfall event. April 7<sup>th</sup>, 0.94 inches. No impact on operations.

**Novato**

- Routine rounds, readings and maintenance
- Assisted Contractor in Primary Clarifier #1 recoating project
- Changed out limit switch on Gravity Belt Thickener #1
- Replaced bearing on Gravity Belt Thickener #1
- Repair to anti-siphon valve on top of diesel fuel tank
- Installed flushing line on Influent Sampler
- Repaired Primary Clarifier #1 scum piping

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

- Aeration Basin #1 & #2 (not needed at current flows)
- Secondary Clarifier #2 (not needed at current flows)
- Primary Clarifier #1 (District Coating Project)

**Ignacio Transfer Pump Station**

- Routine rounds, readings and maintenance
- Repaired/rebuilt odor bed fan #2

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

- None

**Recycled Water Plant (RWP)**

- Performed plant rounds and maintenance

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

- None

**Sludge Lagoons**

- Performed routine rounds and inspection
- Inspected Decant line

**LABORATORY ACTIVITIES SUMMARY:**

**Monitoring Wells**

Sampling of the NSD groundwater monitoring wells was conducted on April 14, 2015. See attached pictures.

**PCBs Quarterly Testing**

Effluent samples were collected for EPA method 1668C PCB on April 9, 2015.

**Pretreatment Activities:**

Visits were made to the South Novato Shell gas station which has a Temporary Discharge Permit (Groundwater). Collaboration between NSD Staff, Kevin Craig, and Veolia staff made for a safe and successful almost month long discharge event of the remediated groundwater. See attached pictures.

**ADMINISTRATION:**

- March Electronic Self Monitoring Report submitted on April 30, 2015
- March Electronic DMR Report submitted on April 30, 2015

**ODORS:**

- Jerome Meter (H<sub>2</sub>S) readings performed in neighborhood and within treatment plant.
- One odor contact in April, described as dead animal smell.

**MISCELLANEOUS**

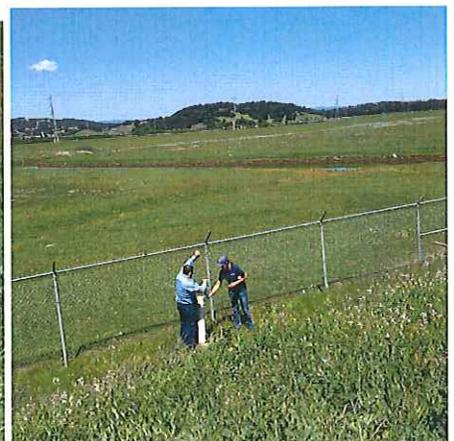
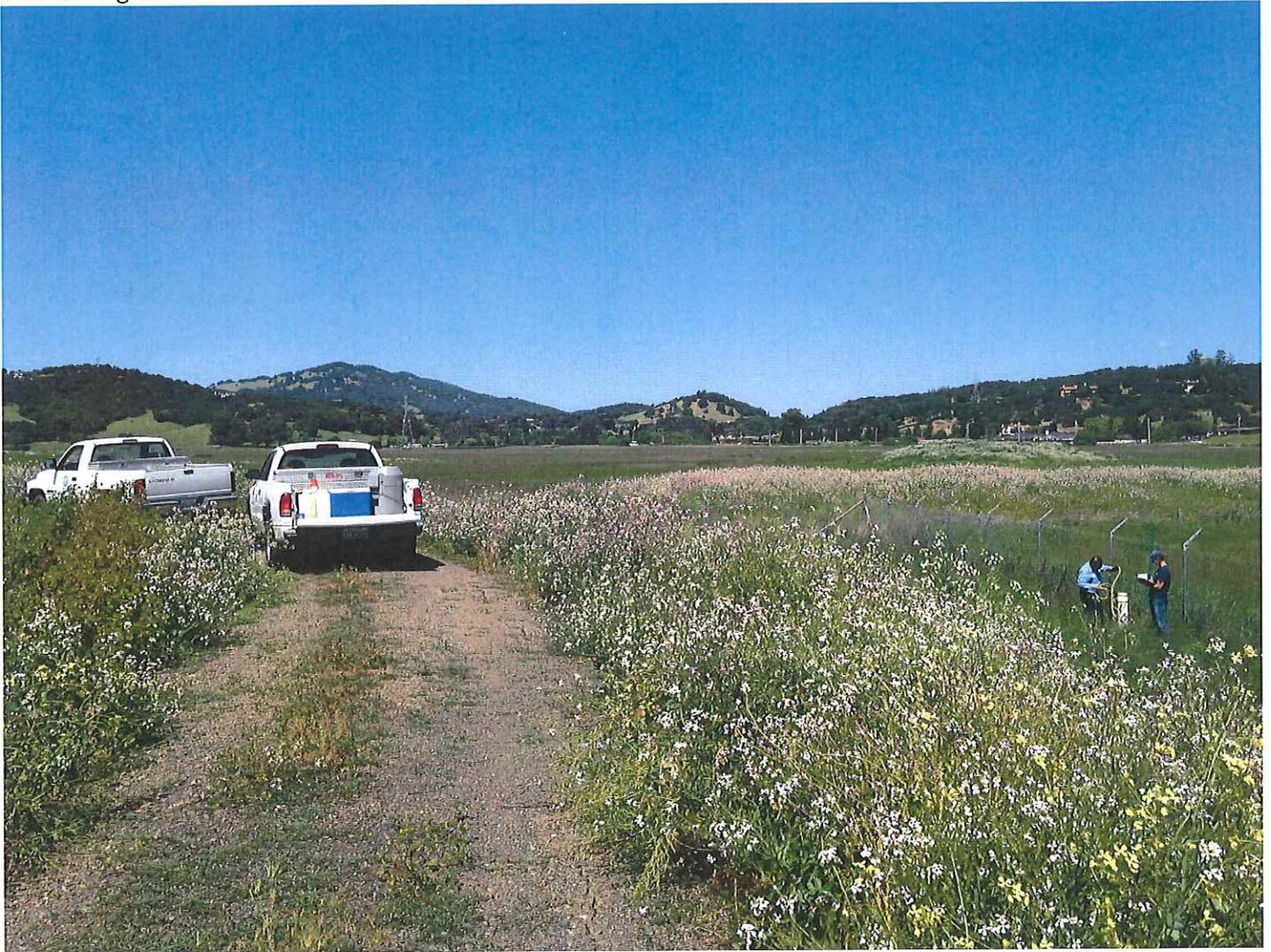
- Process Control Management Plan (PCMP) meetings held weekly.
- Teamsters Managed Trust Audit – 1 full day on site.
- Recruitment open for Operator III.

**Veolia Support Staff On/Off Site (Various Times)**

John O'Hare	Technical Support
Dave Coffman	Asset Management

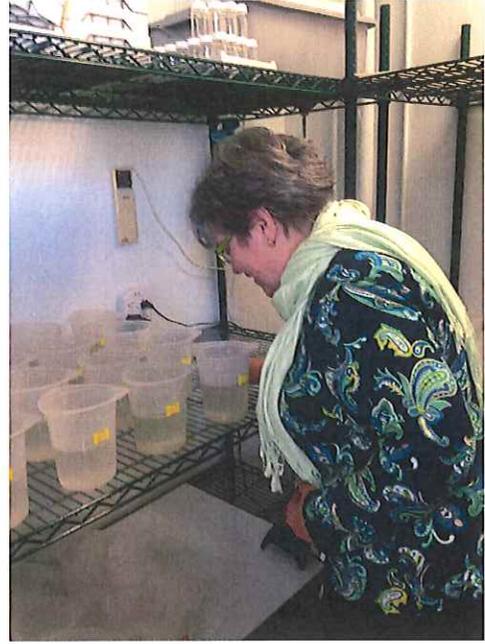


## Monitoring Wells





Visit to Aqua Science in Davis, California



### Pretreatment Activities



Kevin Craig

Before additional carbon filter and flow meter were added and after with Kurt Hawkyard.

REPAIRS AND MAINTENANCE  
TEMPORARY BACK PRESSURE REGULATOR  
ULTRA VIOLET DISINFECTION

April 2015



Top Left & Right – Testing Backpressure Regulator for Biogas Scrubber, Flare Maintenance Project  
Bottom Left – Preston Ingram Confirms Operation of Backpressure Regulator  
Bottom Right – Brian Exberger Trouble Shooting Disinfection System

REMOVAL AND INSTALLATION  
BROKEN "T" IN PRIMARY SLUDGE LINE  
April 2015



Preston Ingram Replacing Broken Sludge Line

PRIMARY CLARIFIER COATING PROJECT  
(District Project by Outside Contractor)  
April 2015



Top Left & Right – Clarifier Surface After Water Blasting, Prior to Skim Coating  
Bottom Left – Skim Coating  
Bottom Right – Skim Coating Surface Prepared for Priming and Corrosion Resistant Coating

PRIMARY CLARIFIER COATING PROJECT  
NSD STAFF CLEANING EFFLUENT BOX  
April 2015



NSD Staff Uses Vector to Clean Out Final Debris in Primary Clarifier #1 Effluent Box.

Novato Sanitary District  
BOD/TSS Report



April, 2015

Date	Flow MGD	Influent				Effluent				BOD % Removal	TSS % Removal
		BOD		TSS		BOD		TSS			
		mg/l	lb/d	mg/l	lb/d	mg/l	lb/d	mg/l	lb/d	PERCENT	PERCENT
04/01/15	4.00	347	11,576	364	12,143	6	200	<3	<100	98.3	99.2
04/02/15	3.68	307	9,422	338	10,374	5	153	4	123	98.4	98.8
04/03/15	3.74	278	8,671	309	9,638	7	218	4	125	97.5	98.7
04/04/15	3.95										
04/05/15	4.07										
04/06/15	4.28	324	11,565	317	11,315	6	214	5	178	98.1	98.4
04/07/15	4.72										
04/08/15	4.03	225	7,562	235	7,898	<5	<168	<3	<101	97.8	98.7
04/09/15	3.88	209	6,763	302	9,772	8	259	3	97	96.2	99.0
04/10/15	3.71										
04/11/15	3.79										
04/12/15	3.63										
04/13/15	3.92	321	10,494	440	14,385	11	360	8	262	96.6	98.2
04/14/15	3.83										
04/15/15	3.73										
04/16/15	3.76	301	9,439	419	13,139	6	188	<3	<94	98.0	99.3
04/17/15	3.70	308	9,504	307	9,473	8	247	<3	<93	97.4	99.0
04/18/15	3.90										
04/19/15	4.08	274	9,323	258	8,779	<5	<170	<3	<102	98.2	98.8
04/20/15	3.57										
04/21/15	3.66			340	10,378	<5	<153	5	153		98.5
04/22/15	3.51	283	8,284	508	14,871	7	205	8	234	97.5	98.4
04/23/15	3.49										
04/24/15	3.83										
04/25/15	3.96										
04/26/15	3.93										
04/27/15	3.89										
04/28/15	4.03	272	9,142	445	14,957	11	370	5	168	96.0	98.9
04/29/15	4.06	269	9,108	297	10,057	6	203	<3	<102	97.8	99.0
04/30/15	4.08	284	9,664	324	11,025	6	204	<3	<102	97.9	99.1
<b>Weekly Averages</b>											
04/04/15	Week 1	311	9,890	337	10,718	6	191	4	116		
04/11/15	Week 2	253	8,630	285	9,662	6	214	4	125		
04/18/15	Week 3	310	9,813	389	12,332	8	265	5	149		
04/25/15	Week 4	279	8,804	369	11,343	6	176	5	163		
	Week 5										
<b>Monthly</b>											
Minimum	3.49	209	6,763	235	7,898	<5	<153	<3	<93	96	98
Maximum	4.72	347	11,576	508	14,957	11	370	8	262	98	99
Total	116.41										
Average	3.88	286	9,323	347	11,214	<7	<221	<4	<136	98	99



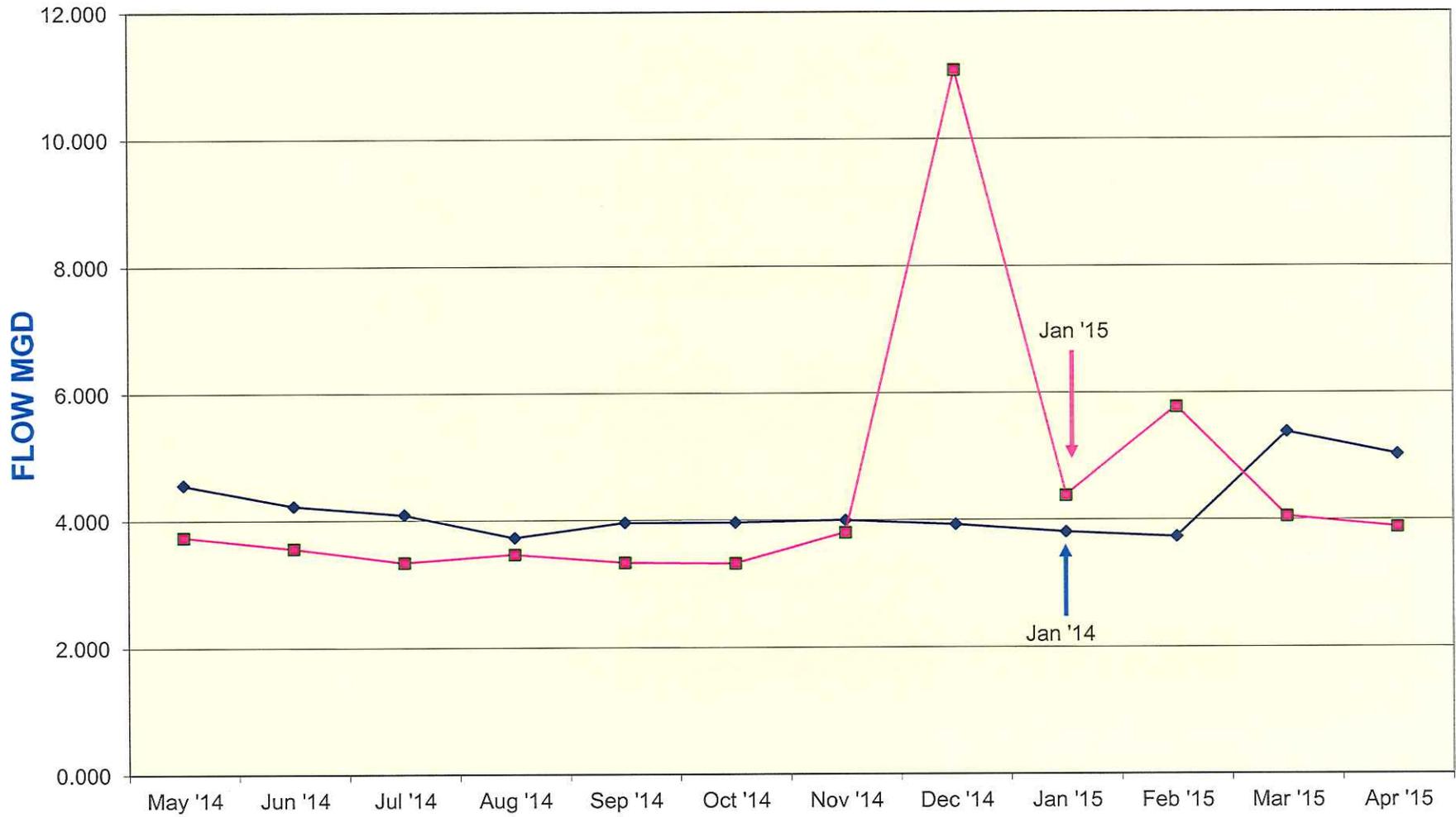


# NOVATO SANITARY DISTRICT RECYCLED WATER COMPLIANCE SUMMARY REPORT

Date	Filter Influent Flow	Recycled Water Flow to Plum St.	Recycled Water Banked	Banked Water To Plum Street Tank	Potable Water To Plum St Tank	Recycled Water Influent Turbidity Max	Recycled Water Influent Turbidity Ave.	Minutes Over 5 Turbidity	Filter Effluent 24 Hr Average Turbidity	Recycled Water Inf Chlorine Dose	Filter Effluent Dissolved Oxygen	Filter Effluent Total Coliform	Chlorint Contact Time
	MGD	MGD	MG	MGD	NTU	NTU	(m)	NTU	(mg/l)	(mg/l)	MPN/100m	Minutes	
4/1/2015	1.260			0.081				0	1.6				>450.000
4/2/2015	0.840	0.193						0	2.0				>450.000
4/3/2015				0.250									
4/4/2015				0.176							8.6		
4/5/2015													
4/6/2015													
4/7/2015	0.280							0	1.5				>450.000
4/8/2015	0.990	0.630						3.0	0	1.3	7.8		>450.000
4/9/2015	0.480	0.203						3.6	0	1.2	8.3		>450.000
4/10/2015				0.087									
4/11/2015				0.012									
4/12/2015				0.167									
4/13/2015	0.610			0.619				0	1.4		9.2		>450.000
4/14/2015	0.680	0.307						1.7	0	1.5	8.1		>450.000
4/15/2015	0.940	0.829						3.4	0	2.3	8.3		>450.000
4/16/2015	0.790	0.478						3.5	0	1.8			>450.000
4/17/2015	0.950	0.700						3.6	0	1.9			>450.000
4/18/2015	0.940	0.656						3.6	0	1.9			>450.000
4/19/2015	0.980	0.607						3.6	0	1.7	8.7		>450.000
4/20/2015	0.910	0.497						2.7	0	1.5	8.7		>450.000
4/21/2015	0.930	0.674						2.6	0	1.2	8.5		>450.000
4/22/2015	0.880	0.565						2.3	0	1.3	8.6		>450.000
4/23/2015	0.800	0.635						2.4	0	1.3			>450.000
4/24/2015	1.520	0.140						2.4	0	1.2			>450.000
4/25/2015				0.018				0	1.3				
4/26/2015													
4/27/2015				0.191							8.8		
4/28/2015	0.660	0.119						2.2	0	1.1	8.7		>450.000
4/29/2015				0.600							9.3		
4/30/2015	1.000	0.657						1.8	0	1.0			>450.000
<b>Total</b>	<b>16.440</b>	<b>7.890</b>		<b>2.201</b>				<b>42.4</b>	<b>0</b>	<b>30.0</b>	<b>111.6</b>		<b>&gt;8,550.0</b>
<b>Minimum</b>	<b>0.280</b>	<b>0.119</b>		<b>0.012</b>				<b>1.7</b>	<b>0</b>	<b>1.0</b>	<b>7.8</b>		<b>&gt;450.0</b>
<b>Maximum</b>	<b>1.520</b>	<b>0.829</b>		<b>0.619</b>				<b>3.6</b>	<b>0</b>	<b>2.3</b>	<b>9.3</b>		<b>&gt;450.0</b>
<b>Average</b>	<b>0.865</b>	<b>0.493</b>		<b>0.220</b>				<b>2.8</b>	<b>0</b>	<b>1.5</b>	<b>8.6</b>		<b>&gt;450.0</b>
<b>Average</b>	<b>0.865</b>	<b>0.493</b>		<b>0.220</b>				<b>2.8</b>	<b>0</b>	<b>1.5</b>	<b>8.6</b>		<b>&gt;450.0</b>

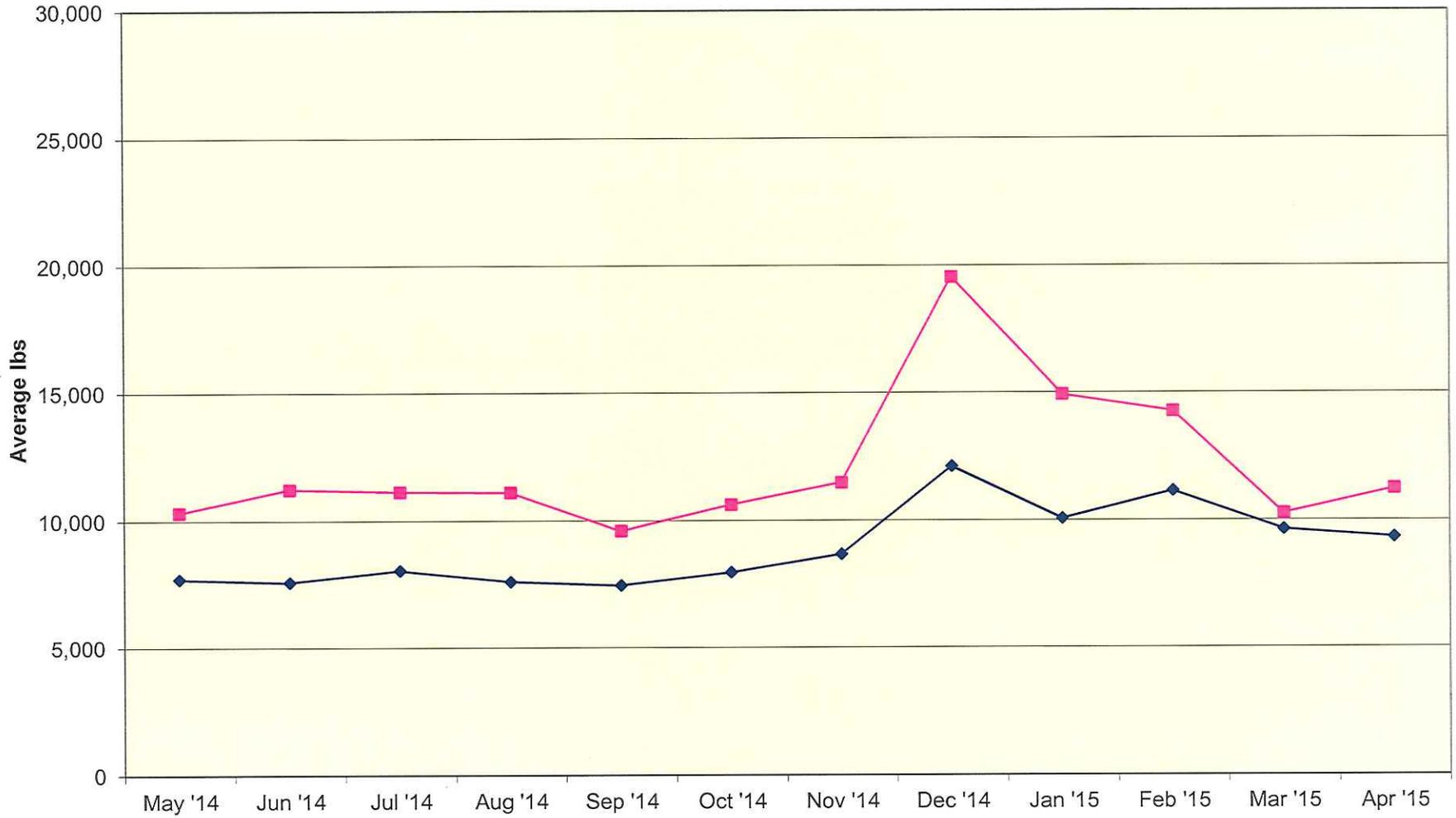
# FLOW COMPARISON

—◆— 2013 / 14    —■— 2014 / 15



### Influent Load BOD / TSS lbs

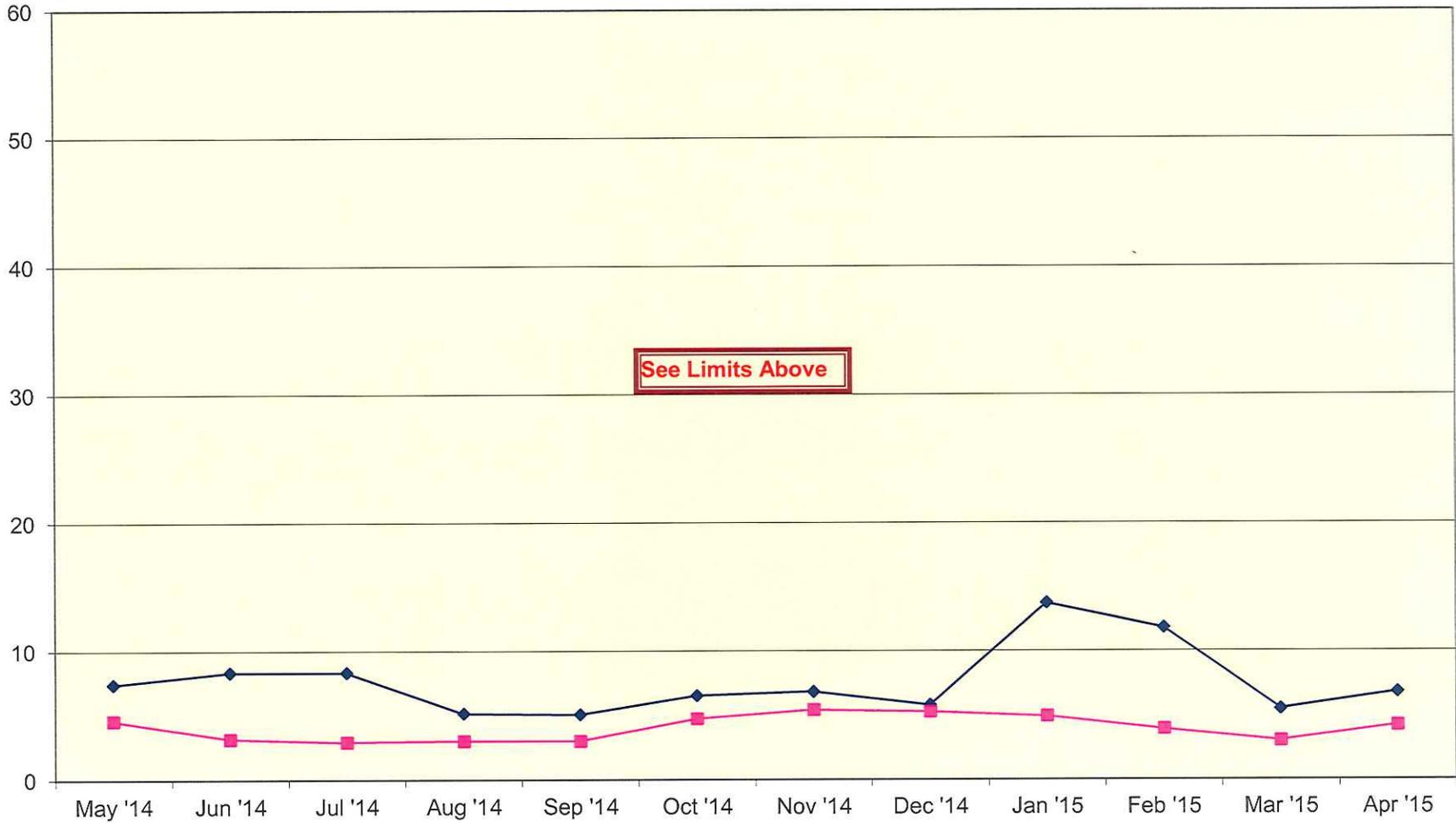
◆ BOD lbs    ■ TSS lbs



# Effluent BOD / TSS Concentration

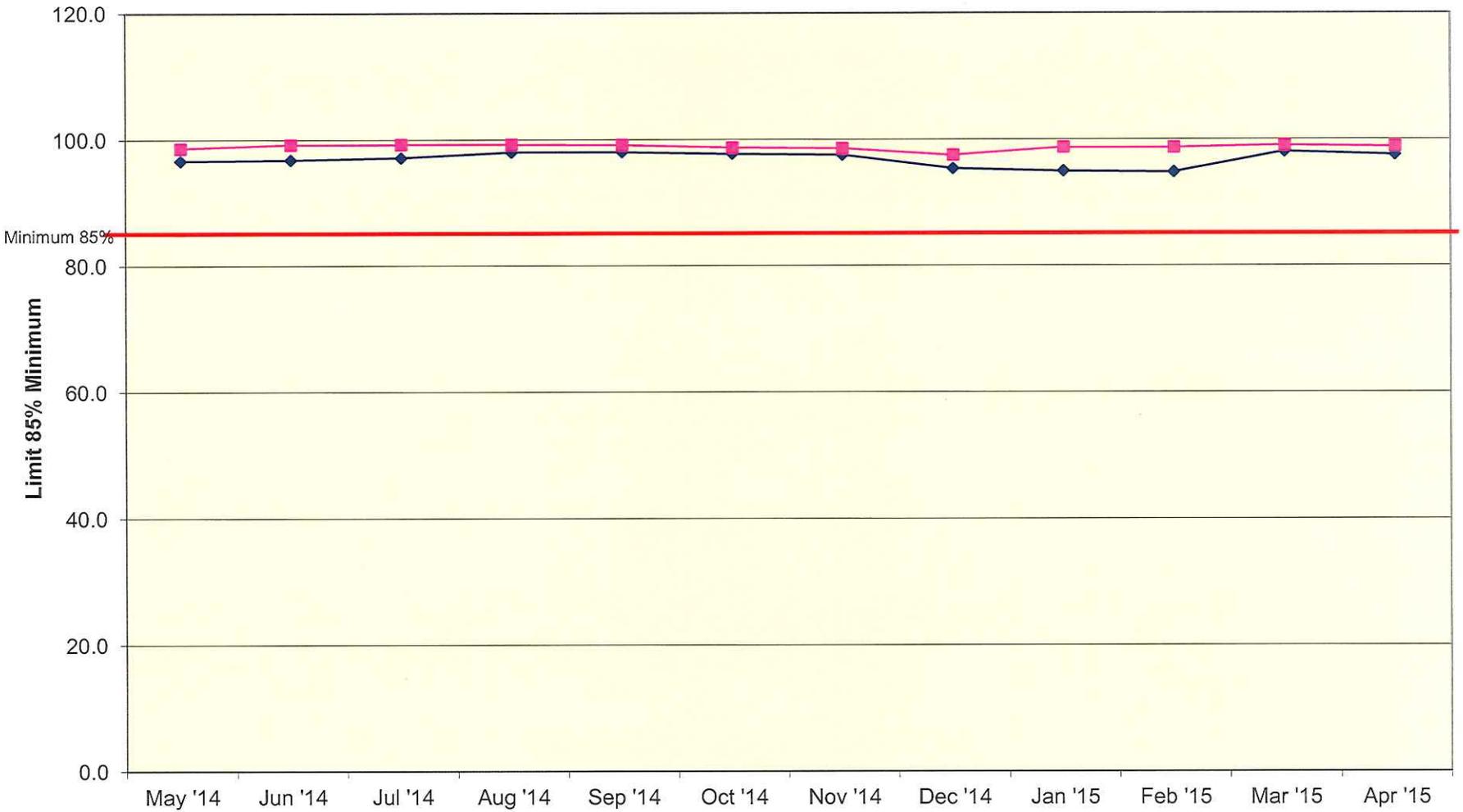
**NPDES LIMITS WET SEASON**  
BOD & TSS - 30 mg/L Monthly Ave, 45 mg/L Weekly Ave  
NPDES LIMITS DRY SEASON  
BOD - 15 mg/L Monthly Ave, 30 mg/L Weekly Ave  
TSS - 10 mg/L Monthly Ave, 20 mg/L Weekly Ave  
WDR (Waste Discharge Requirements) RECLAMATION  
BOD - 40 mg/L

◆ BOD    ■ TSS



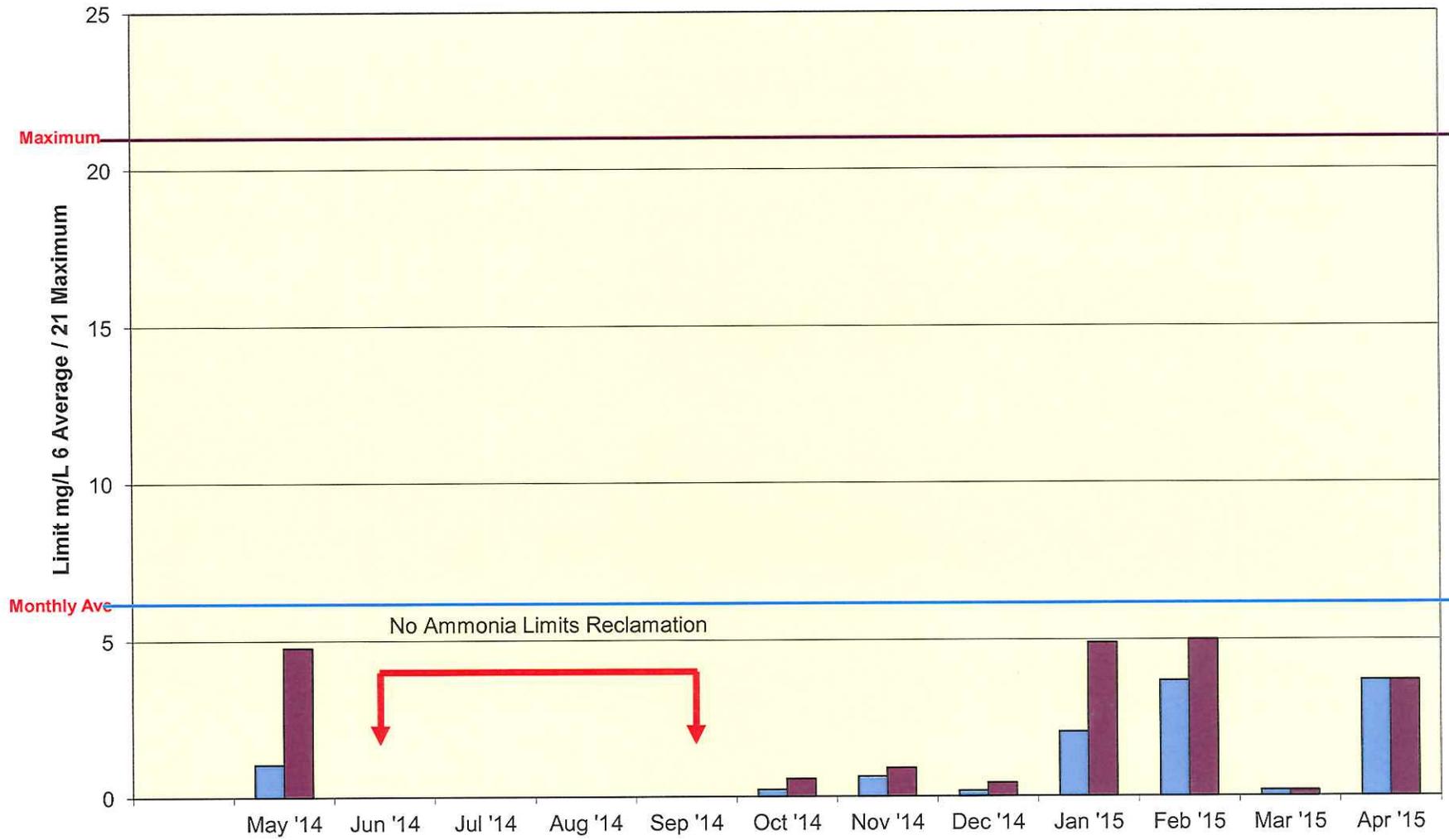
# BOD / TSS Percent Removal

—◆— BOD —■— TSS



# Effluent Ammonia

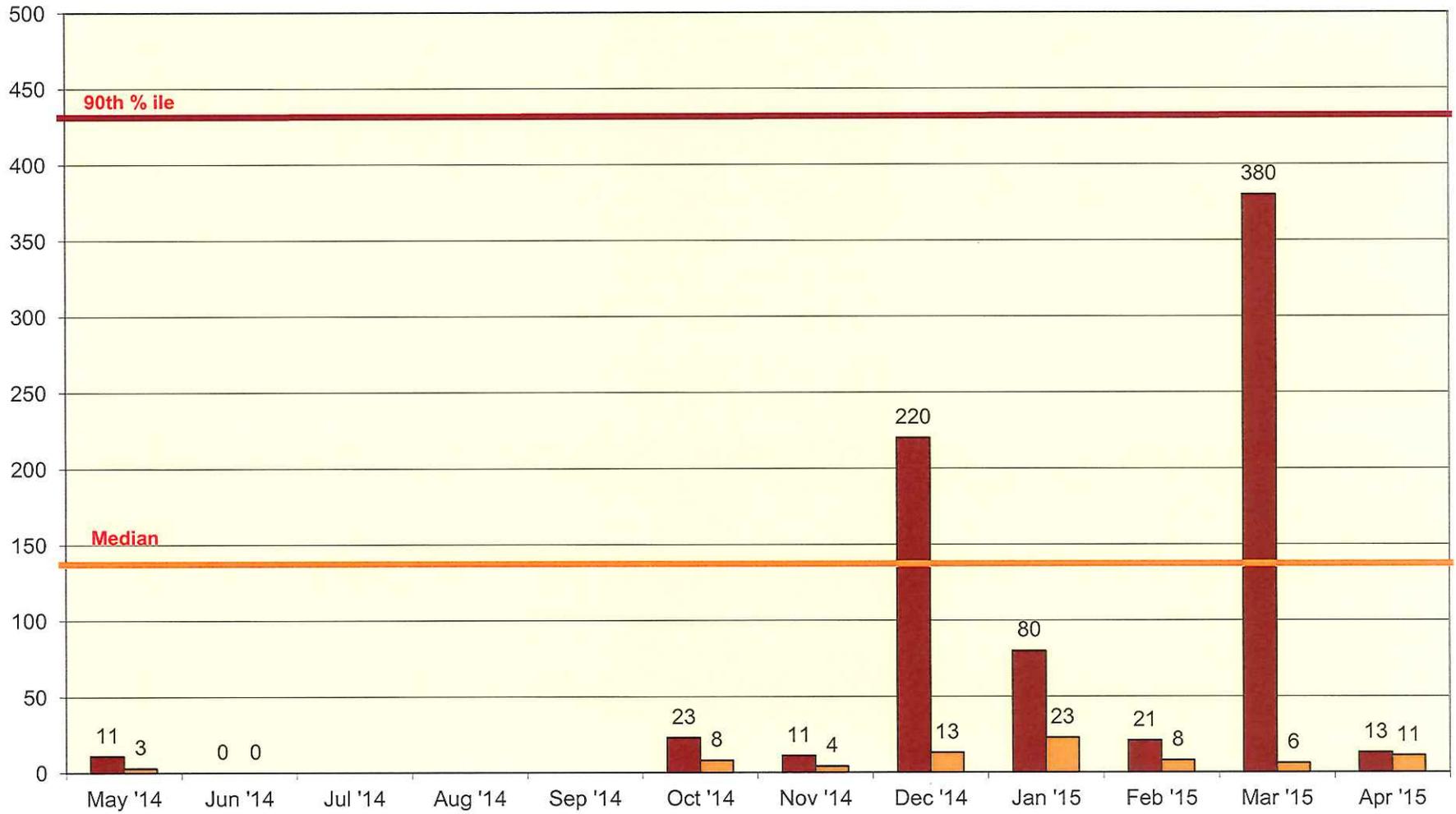
Average Maximum



# Disinfection - Fecal Coliform

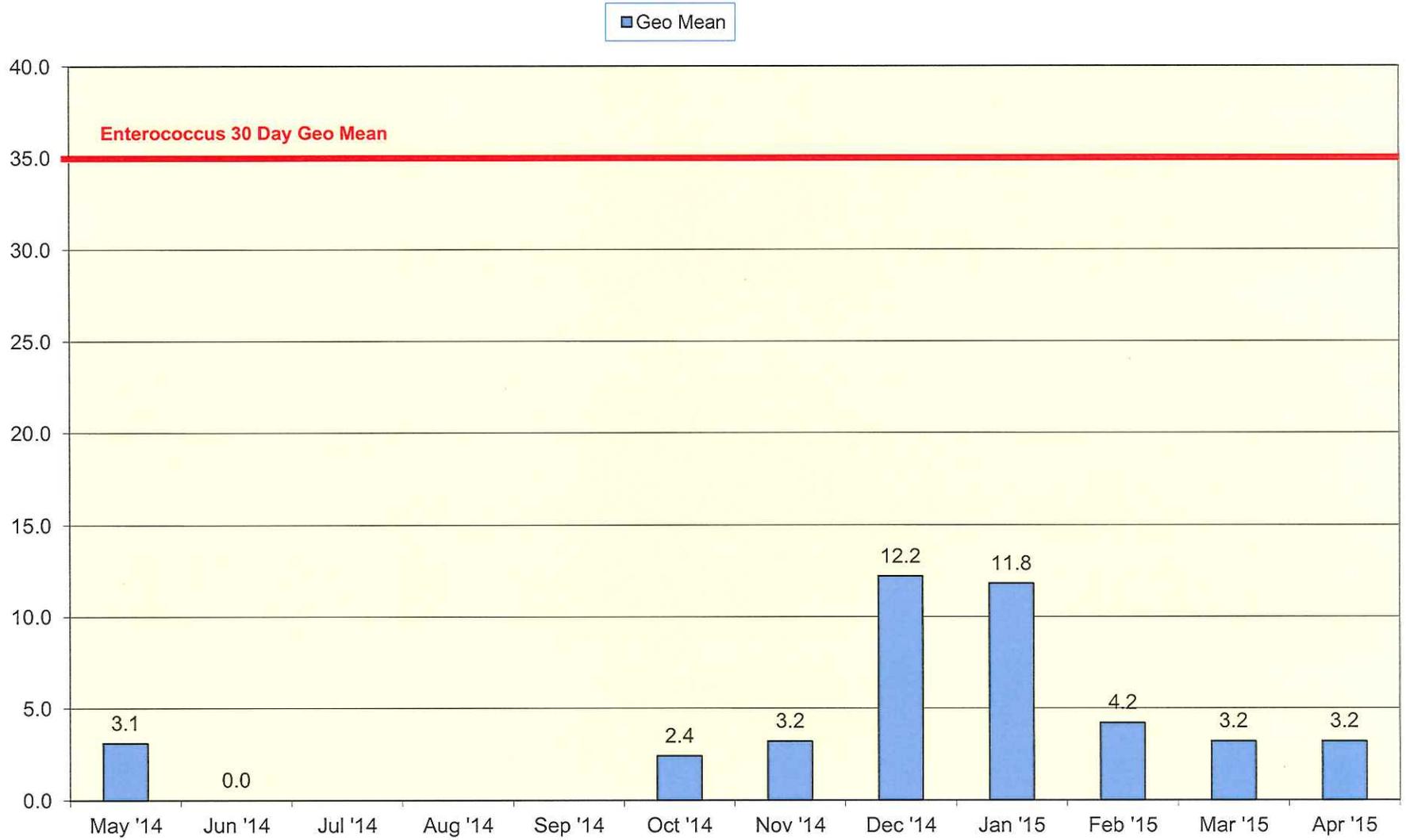
LIMITS - NPDES  
Fecal 140 mpn monthly median  
Fecal 430 mpn 90th percentile 30 day

90th % ile 30 day med



# Disinfection - Enterococcus

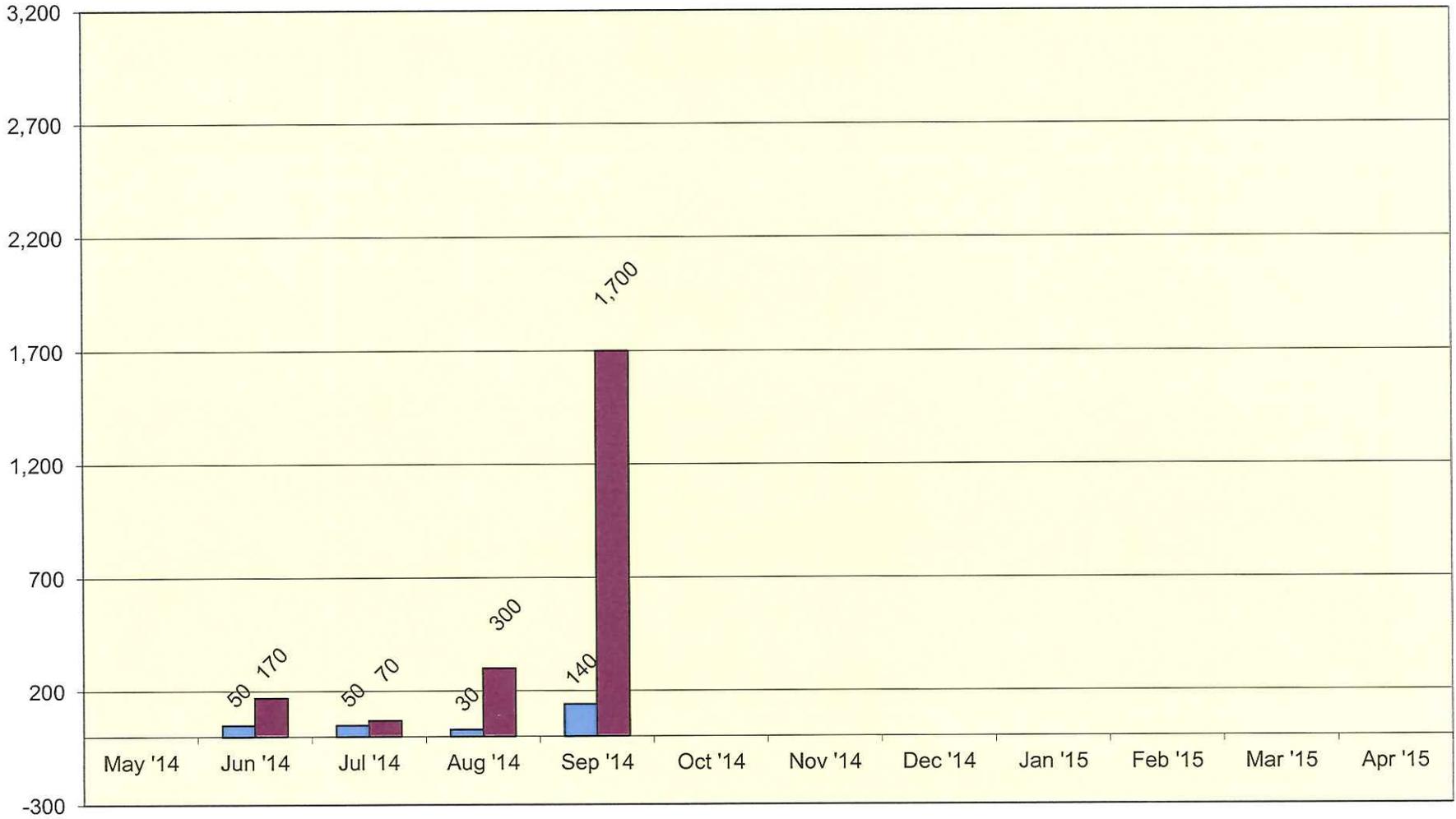
LIMITS - NPDES  
Entero 30 day geo mean 35 mpn /100ml



# Disinfection - Total Coliform

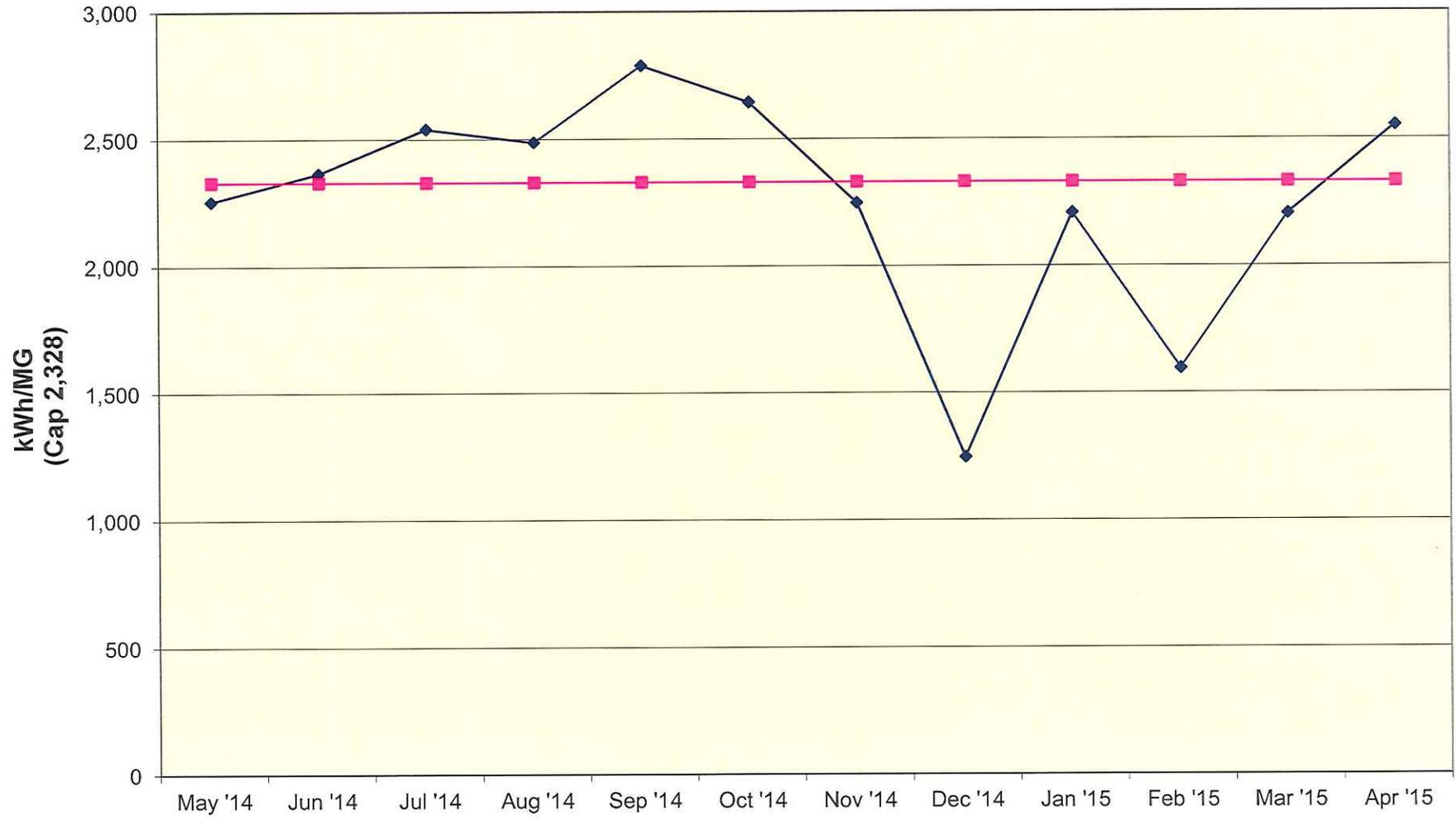
TOTAL COLIFORM LIMITS - WDR  
5 Sample Median - 240 mpn /100 ml  
Maximum - 10,000 mpn/100 ml

■ 5 Sampl Med ■ Monthly Max



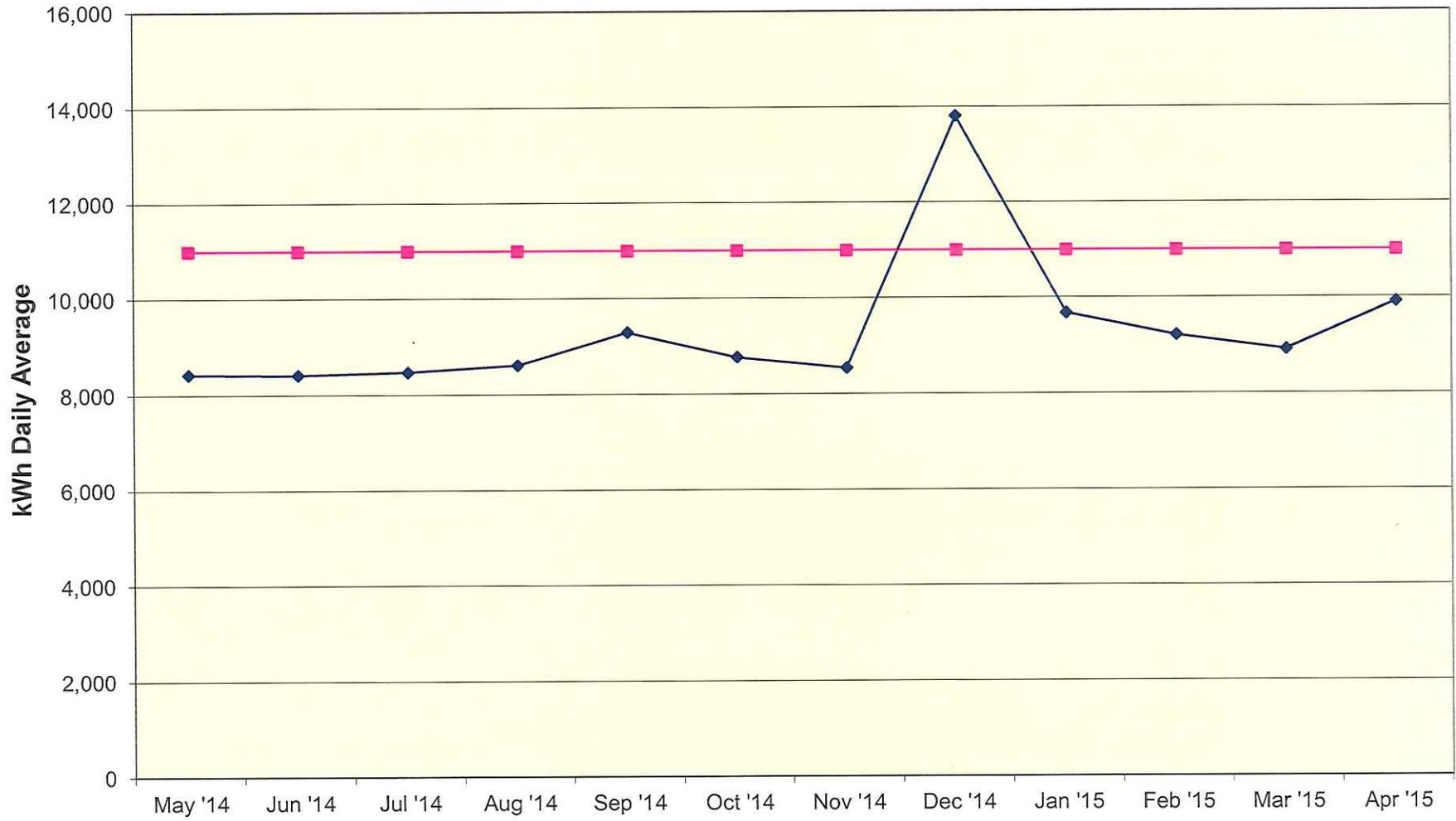
# Energy kWh/MG

◆ kW/MG    ■ Cap



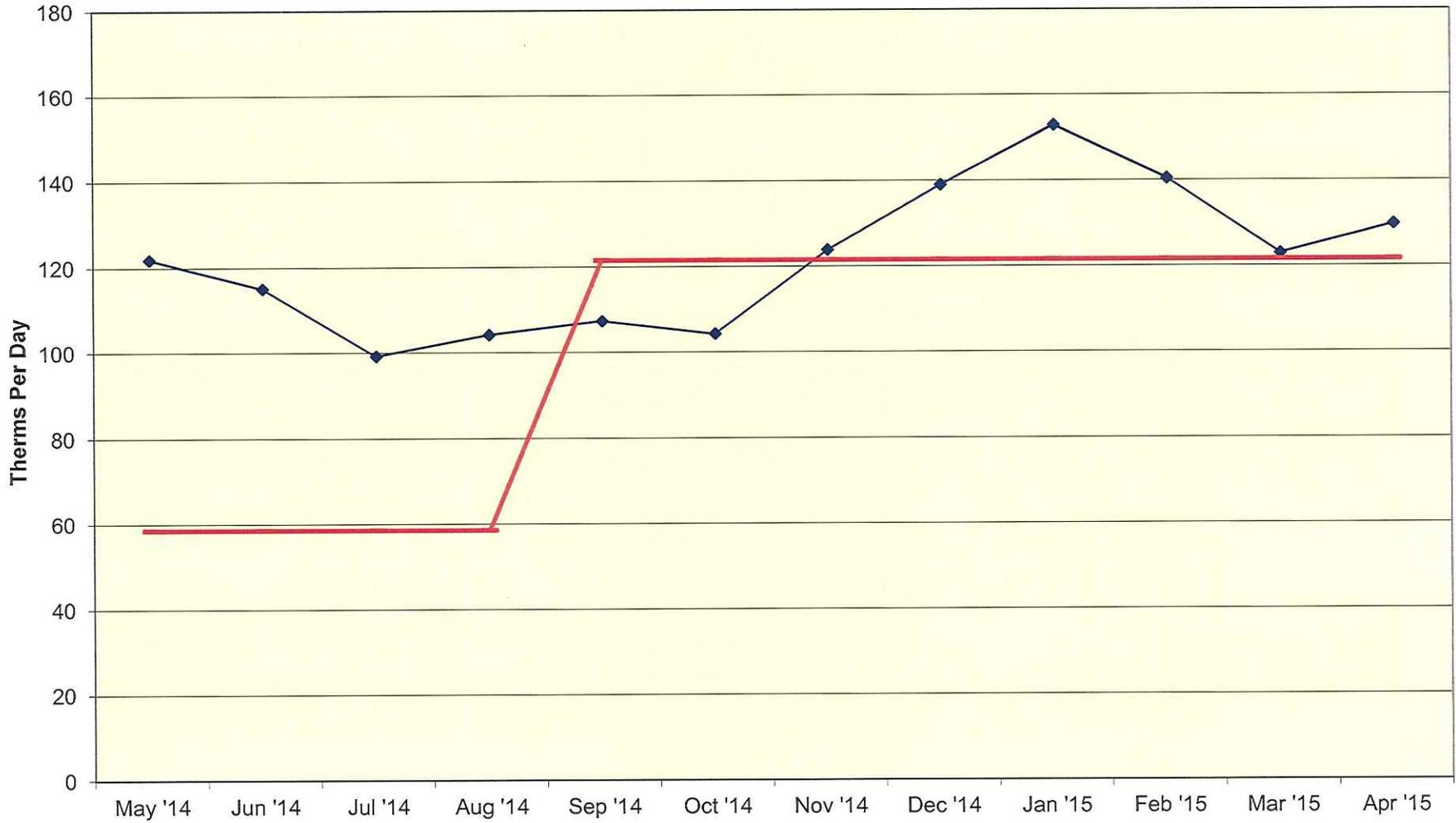
# Energy kWh

◆ kWh    ■ Cap

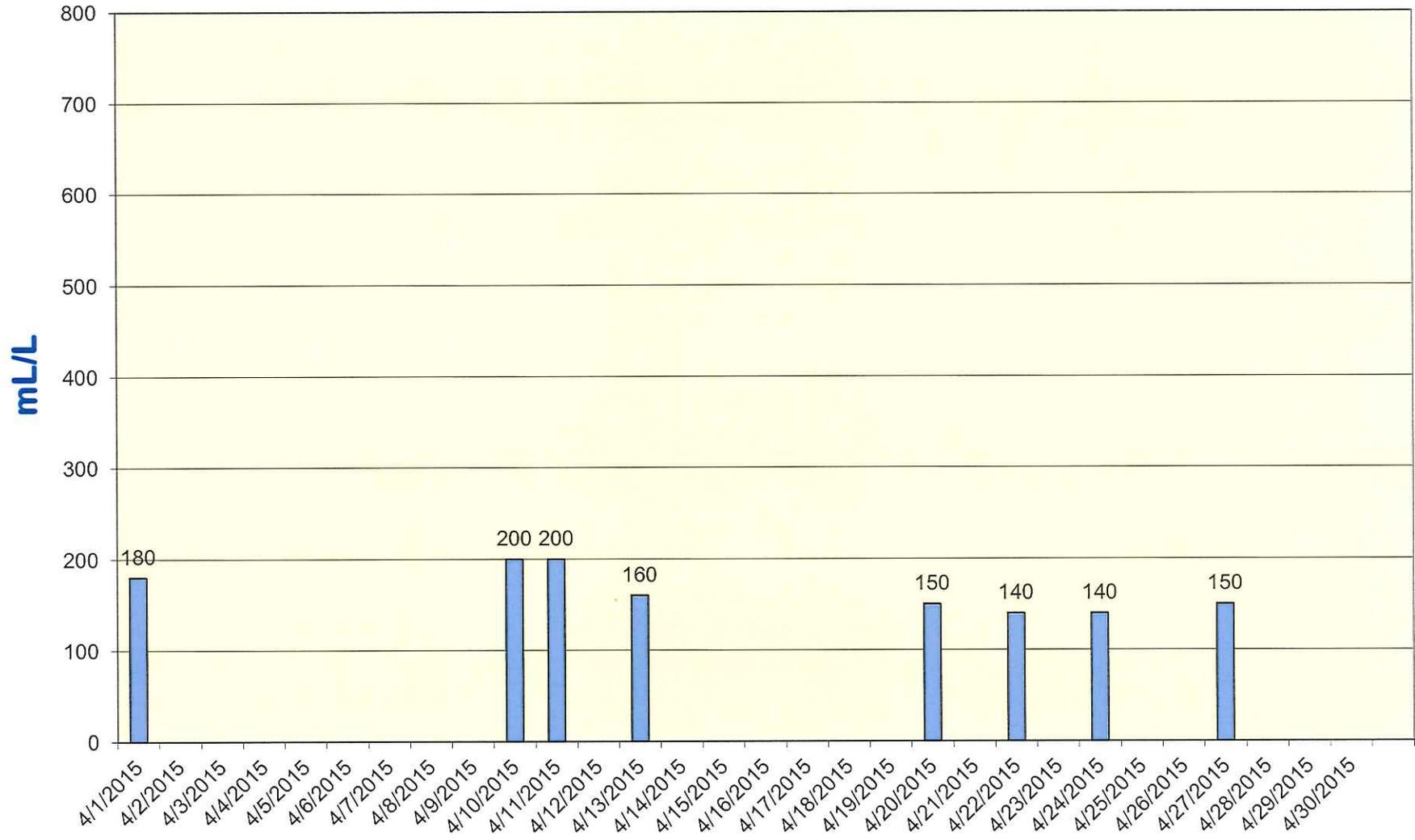


### Natural Gas Use

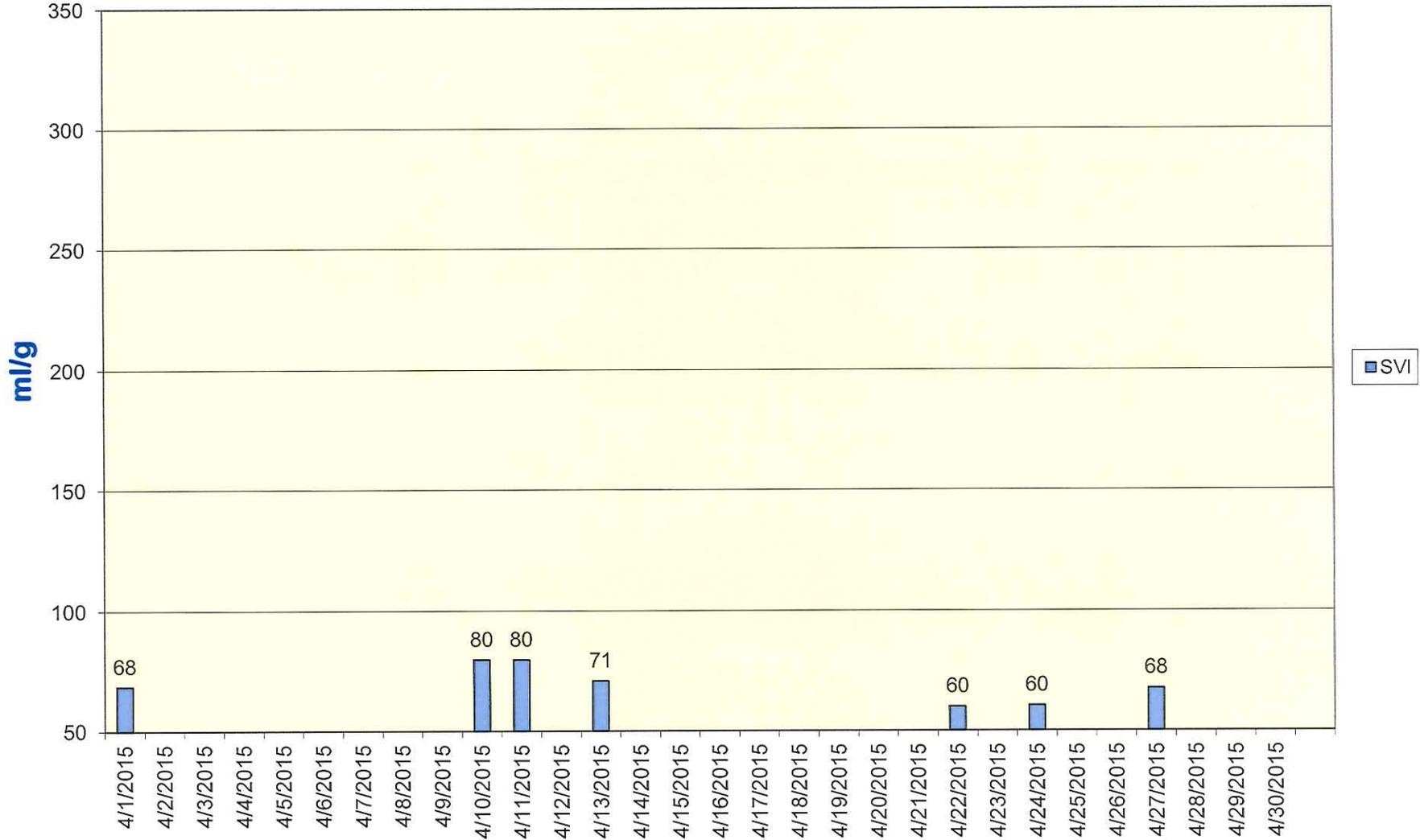
◆ Natural Gas    — Cap



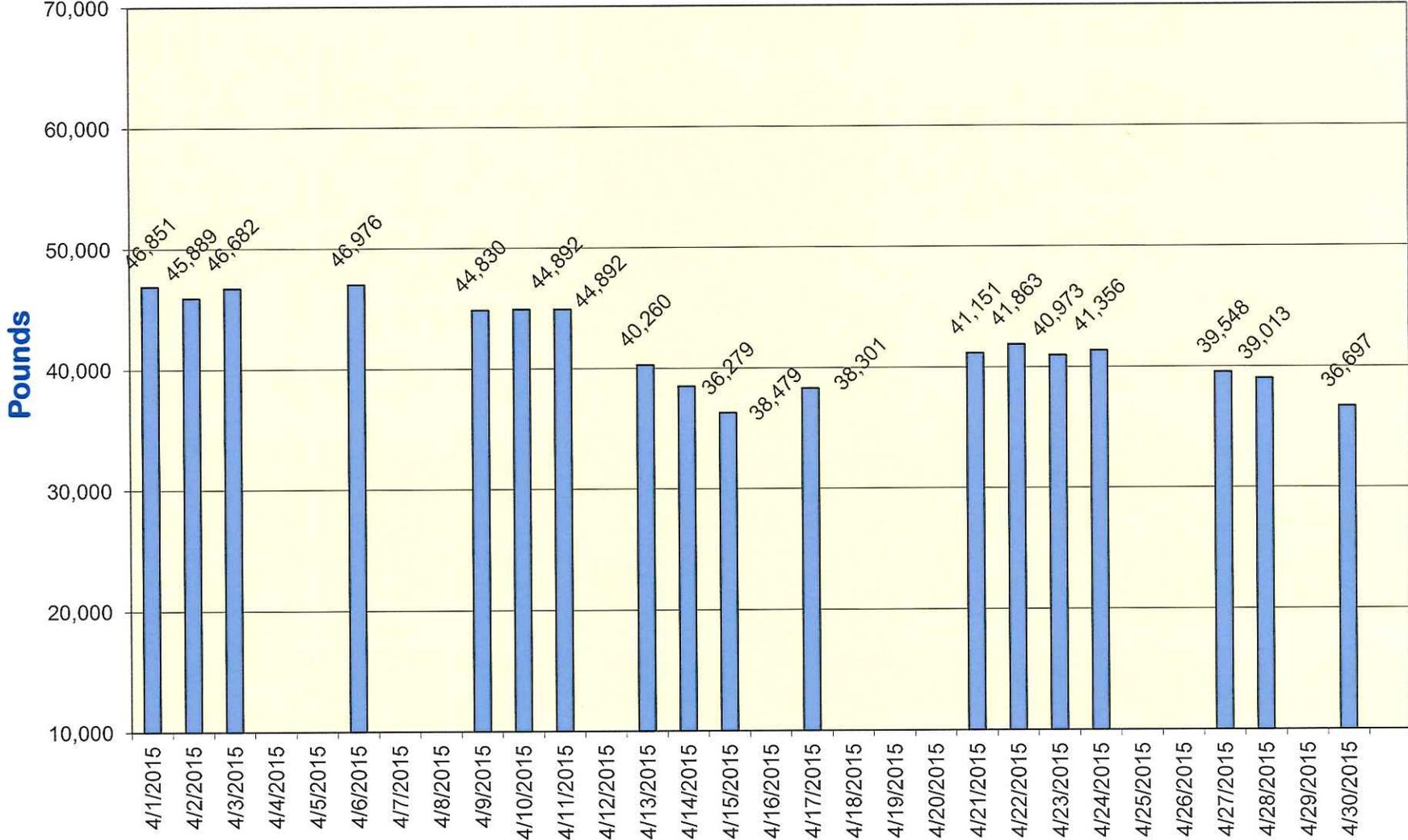
# Settleability



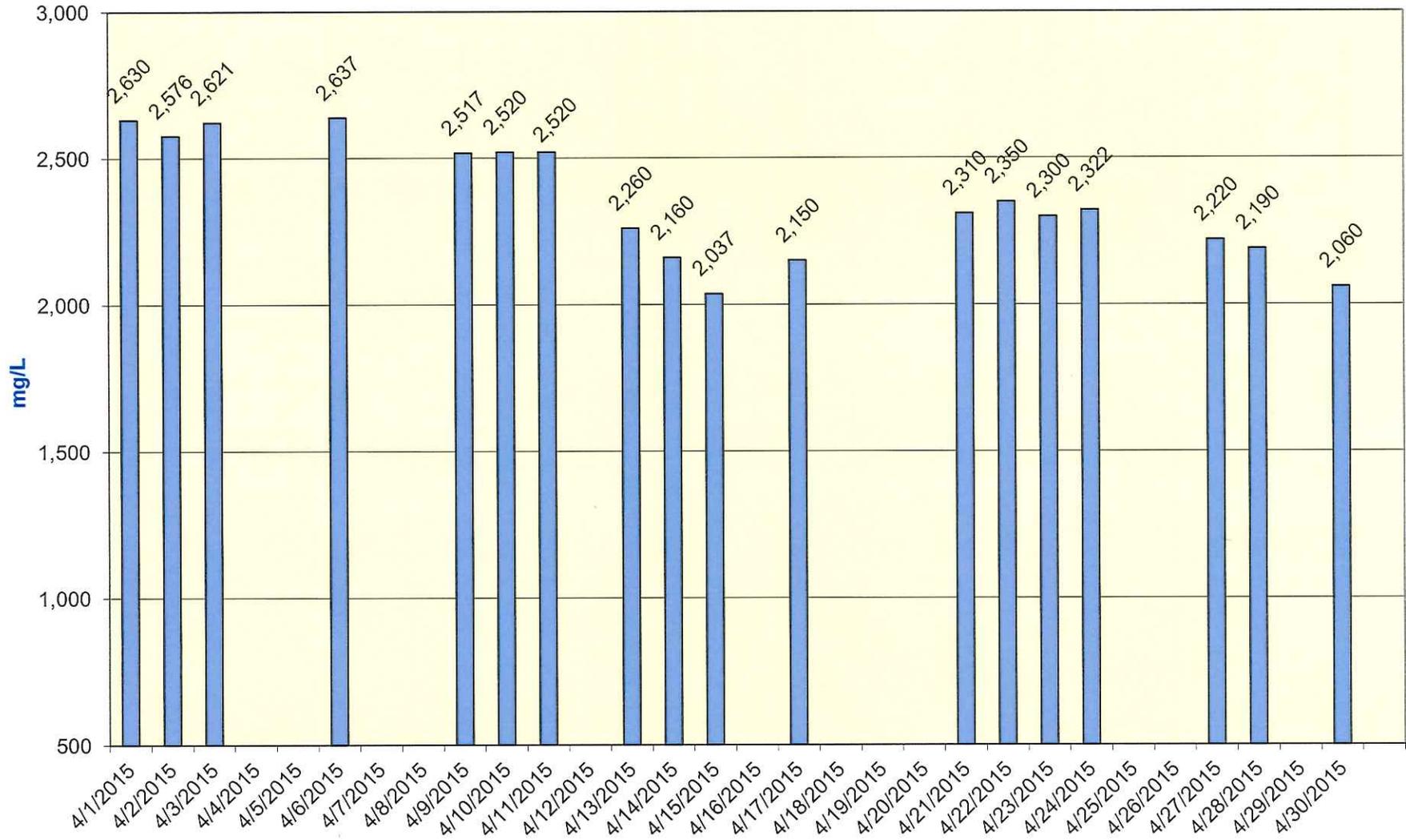
# Sludge Volume Index



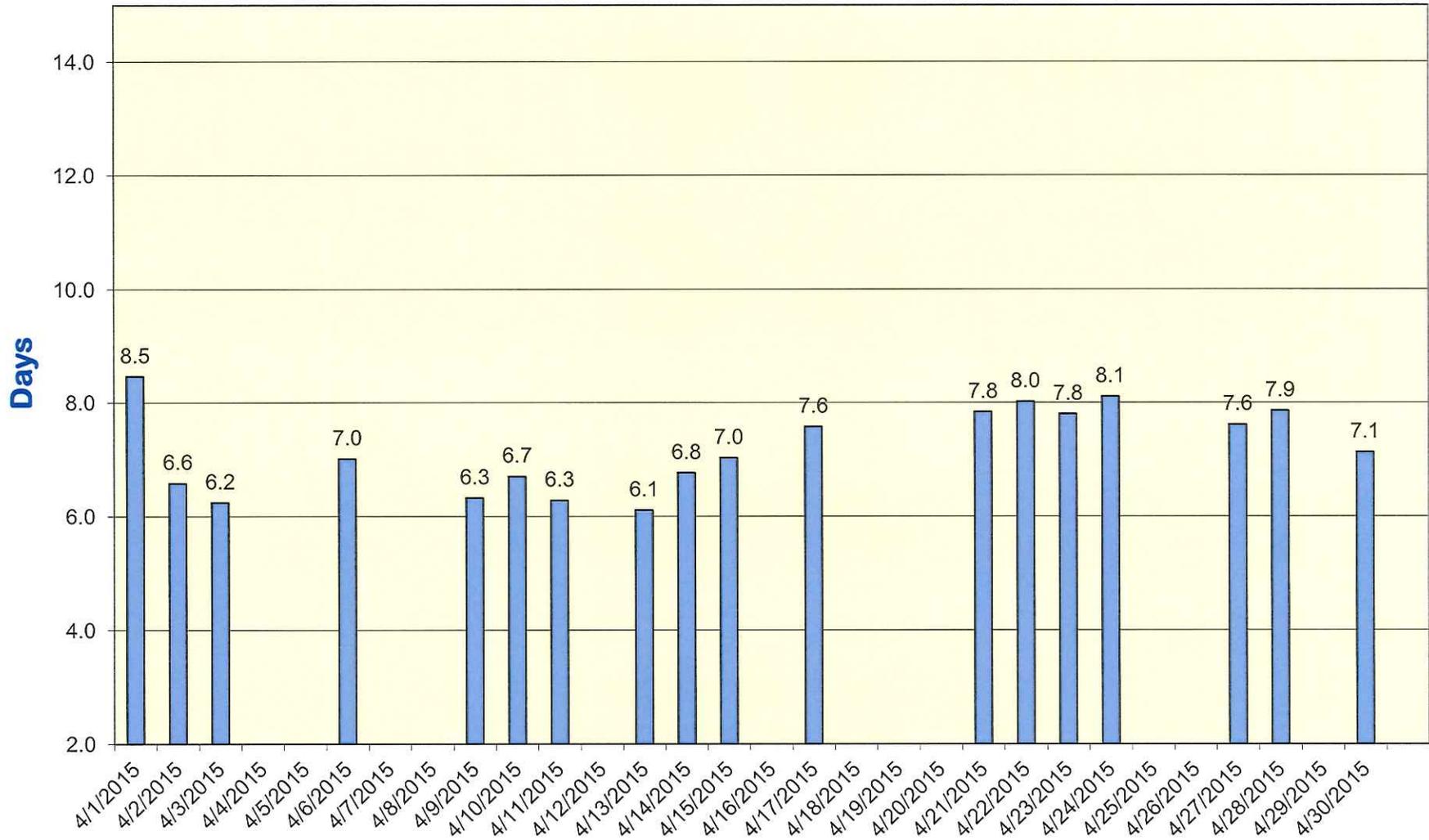
# MLSS Inventory



### MLSS Concentration



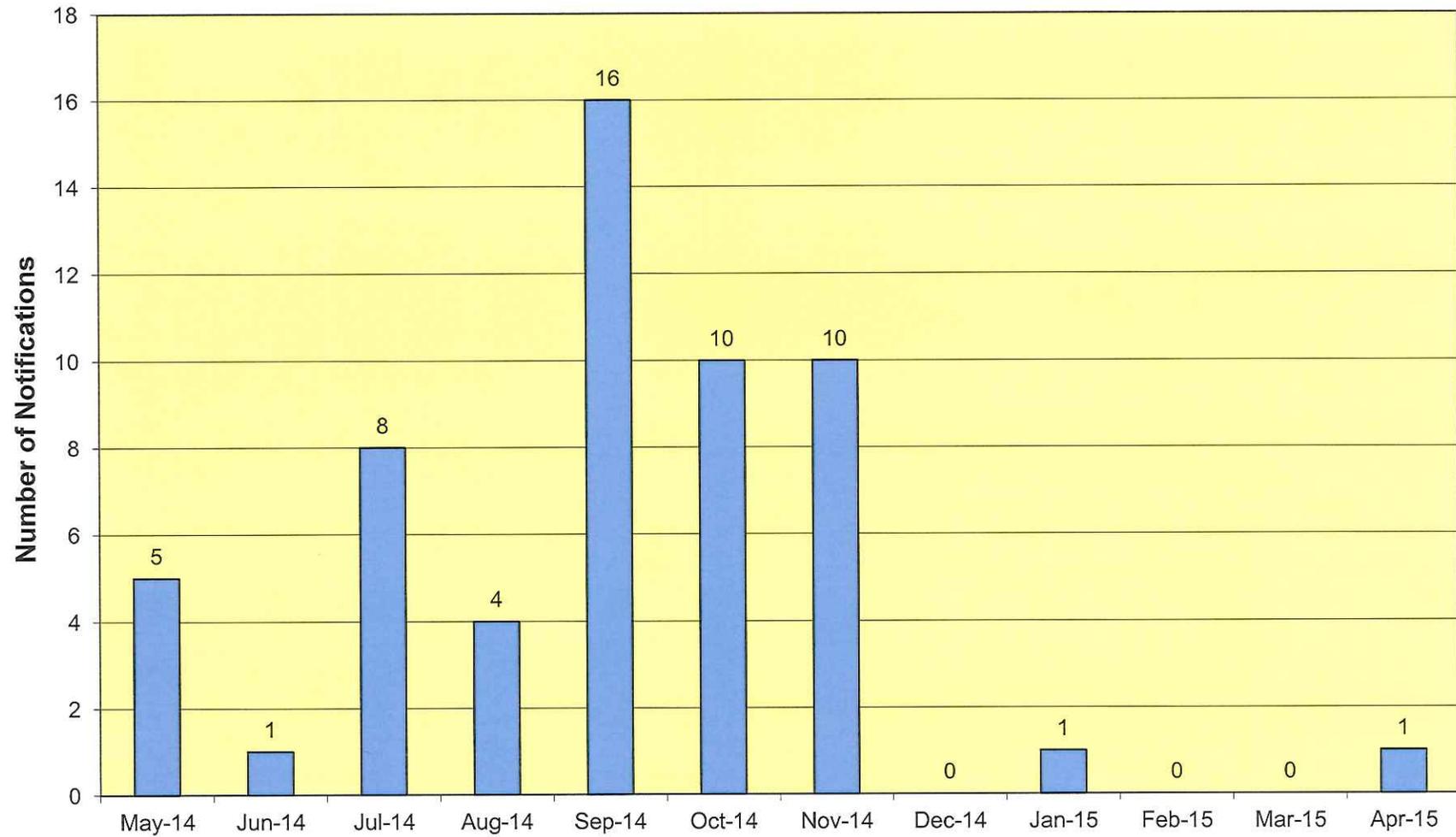
# Mean Cell Residence Time



## Process Control Data

	Influent Flow	Settleability	MLSS Concentration	MLSS Inventory	F:M Ratio	MCRT	SVI
4/1/2015	4.00	180	2,630	46,851	0.17	8.5	68
4/2/2015	3.68		2,576	45,889		6.6	
4/3/2015	3.74		2,621	46,682		6.2	
4/4/2015	3.95						
4/5/2015	4.07						
4/6/2015	4.28		2,637	46,976	0.21	7.0	
4/7/2015	4.72						
4/8/2015	4.03						
4/9/2015	3.88		2,517	44,830		6.3	
4/10/2015	3.71	200	2,520	44,892		6.7	80
4/11/2015	3.79	200	2,520	44,892		6.3	80
4/12/2015	3.63						
4/13/2015	3.92	160	2,260	40,260	0.23	6.1	71
4/14/2015	3.83		2,160	38,479		6.8	
4/15/2015	3.73		2,037	36,279		7.0	
4/16/2015	3.76						
4/17/2015	3.70		2,150	38,301		7.6	
4/18/2015	3.90						
4/19/2015	4.08						
4/20/2015	3.57	150					
4/21/2015	3.66		2,310	41,151	0.17	7.8	
4/22/2015	3.51	140	2,350	41,863		8.0	60
4/23/2015	3.49		2,300	40,973		7.8	
4/24/2015	3.83	140	2,322	41,356		8.1	60
4/25/2015	3.96						
4/26/2015	3.93						
4/27/2015	3.89	150	2,220	39,548		7.6	68
4/28/2015	4.03		2,190	39,013		7.9	
4/29/2015	4.06						
4/30/2015	4.08		2,060	36,697		7.1	
Minimum	3.49	140.00	2,036.50	36,279	0.17	6.1	60
Maximum	4.72	200	2,637	46,976	0.23	8.5	80
Total	112.33	1,320	40,318	718,235	0.78	122.3	486
Average	3.87	165	2,372	42,249	0.19	7.2	69

## Complaints / Contacts Received



**WORK ORDER STATISTICS**

**April 1, 2015 - April 30, 2015**

	<b>Open Work Orders Due Prior to 4/1/15</b>	<b>Open Work Orders 4/1/15 - 4/30/15</b>	<b>Total Open Work Orders</b>
Preventative	7	336	343
Corrective	1	22	23
<b>Total</b>	<b>8</b>	<b>358</b>	<b>366</b>
	<b>Closed Work Orders 4/1/15 - 4/30/15</b>		
Preventative	333		
Corrective	11		
<b>Total</b>	<b>344</b>		
<b>Total Outstanding Work Orders as of May 1, 2015</b>	<b>22</b>		

**NOVATO SANITARY DISTRICT**  
**Wastewater Operations Committee Meeting**  
**Odor Control and Landscaping Report**  
**April 2015**

**1.0 Background**

Ongoing work continues on odor control and landscaping, especially at the fence-line area next to the Lea Drive neighborhood, and at the northeast portion of the Novato Treatment Plant (NTP) site. As mentioned before, the District has already invested significant amounts beyond the substantial initial investment for odor control and landscaping from the original WWTP Upgrade Project. These additional costs have included operational changes, measures related to further odor control measures, noise abatement, visual screening, wind shielding, and daily monitoring.

**2.0 Odor control**

Odor control related activities in April included:

- Liquid phase sulfide sampling and analysis continued as per recommendations by Dave McEwen of Brown and Caldwell (B&C), the District's odor consultant. An update by Mr. McEwen is planned for the May 11, 2015 Board meeting.
- As-needed use of the new Aqua-Fog system which utilizes an odor counteractant technique to broadcast a water based non-toxic odor neutralizer in the vicinity of the aeration basins.
- Monitoring the media in the large odor control bed between primary clarifiers #1 & #2 which appears to be performing very well.
- Pre-chlorination: Sodium hypochlorite continues to be added as an oxidizer on an as-needed basis to the influent flow, with staff monitoring performance.

**3.0 Landscaping**

The District's landscaping contractor Cagwin and Dorward (C&D) continues to work on an as-needed on vegetation at the District's fence-line on Lea Drive and at the northeast corner area of the NTP. The redwood trees replanted to the northeast corner of the plant site in late February/early March, appear to be thriving. Staff will continue to monitor the landscaping, and evaluate the potential for additional tree plantings, in this area of the plant site.

\*\*\*\*\*

**Novato Sanitary District  
Wastewater Operations Committee meeting  
Collection System Operations Report  
April 2015**

**1.0 General:**

The breakdown of Collection System department staff time for April 2015, 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)
- 1.2 FTE field workers for Pump Station Maintenance
- 0.0 FTE field workers for Closed Circuit Television (CCTV) work
- 2.0 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, and
- 1.6 FTE field workers Vacation/Sick Leave/Holiday

**2.0 Collection System Maintenance:**

Performance metrics for the department are presented in the attached graphs showing the length of line cleaned/month, footage cleaned/hour worked, overflows/month, and the CCTV footage achieved. A brief discussion is also provided below.

Line Cleaning Performance:

A total of 566 work orders were generated for April by the ICOM3 Computerized Maintenance Management System (CMMS). Staff completed 551 work orders leaving 15 work orders outstanding. The 551 maintenance work orders completed in April resulted in 107,261 feet of sewer pipelines cleaned by staff. A substantial amount of the line segments cleaned were in preparation for root treatment in June, 2015. The 15 outstanding work orders are all work orders for hydro-flushing which will be completed in May. Outside contractors cleaned two (2) sections of trunk sewer main lines during the month totaling one hundred and twenty-seven (127) feet.

CCTV Performance:

The District's CCTV van was in the field for approximately two (2) hours over a one (1) day period inspecting 1 line segment totaling 303 feet. Staff did not televise any line segments using the Push Cam. Outside contractors televised two (2) sections of trunk sewer main lines during the month totaling one hundred and twenty-seven (127) feet.

CCTV production was low this month due to staff availability for this activity and the necessity for preparing line segments for root treatment.

CCTV Findings:

- Infrastructure related: The April CCTV work did not find any line segments that will require repair.

**Novato Sanitary District  
Wastewater Operations Committee meeting  
Collection System Operations Report  
April 2015**

- O&M related: The April CCTV work did not identify any areas that require a change in sewer line operations.

**3.0 Pump Station Maintenance:**

The Collection System Department conducted 246 lift station inspections this month. 144 of the inspection visits were generated through the District's JobsCal Plus CMMS system. There are 18 outstanding work orders for the month that will be completed in May.

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

**4.0 Air Relief/Vacuum Valves (ARVs):**

Staff completed maintenance inspections on nine (9) air relief/vacuum valves.

**5.0 Safety and Training:**

General:

Collection System staff attended three safety tailgate meetings.

Specialized training:

Collection System staff attended Body Mechanics Training in April.

Safety performance:

There were no lost time accidents this month for a total of 1,507 accident free days since the last lost time accident.

**6.0 Minor Projects:**

The District completed repair projects under the informal contract provisions of the Uniform Public Construction Cost Accounting Act (UPCCAA) as follows:

a. Olive Pump Station:

The existing roof was replaced at the Olive Pump Station. The existing roof was flat and would collect rainwater and leak. A roof access ladder was installed as part of the work.

b. Hamilton Wet Weather Force Main:

The Hamilton wet weather force main was repaired after City forces reported a sink hole in Hamilton Parkway. Originally it was thought that the sink hole was due to



*Figure 1- Olive P.S. Roof Replacement*

**Novato Sanitary District  
Wastewater Operations Committee meeting  
Collection System Operations Report  
April 2015**

poor compaction around a recycled water main but later it was determined to be the leaking force main. Evidently, during the construction of the recycled water line two years ago the North Marin Water District's contractor damaged the force main while completing the work. None of the leaking sewage reached the surface but collected in the trench. The Water District has taken responsibility for the work.



*Figure 2 - Hamilton Force Main Repair*

c. Hamilton Pump Station:

The District replaced the air relief valves at the East Hamilton Pump Station, one on the dry weather force main, and one on the wet weather force main.

d. Rowland Plaza Pump Station:

Two leaking check valves and an inoperable plug valve were replaced.

**7.0 Standard Operating Procedures (SOPs):**

Department staff did not generate any SOPs during the month of April. Staff recently completed a draft of a Core Competency Checklist to use to track training of Collections Department employees. The draft checklist is being used to track the initial training of a recently hired employee, and lessons learned will be incorporated in the final version. Staff will now develop a similar draft checklist to use for tracking annual checks of Collections Department employees to determine where annual training is necessary.

**8.0 Sanitary Sewer Overflows (SSOs):**

There were zero (0) SSO's in April.

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Novato Sanitary District  
Collection System Monthly Report For April 2015 (as of April 30, 2015)

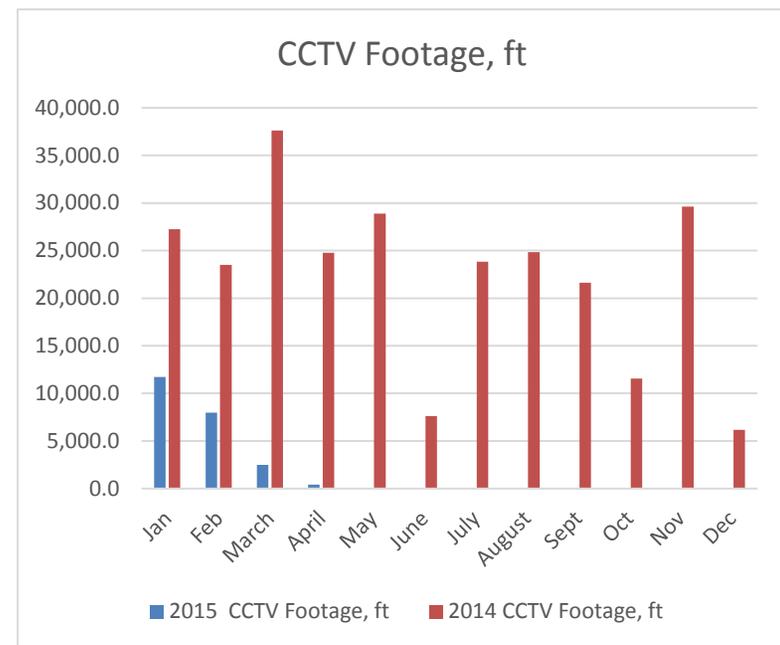
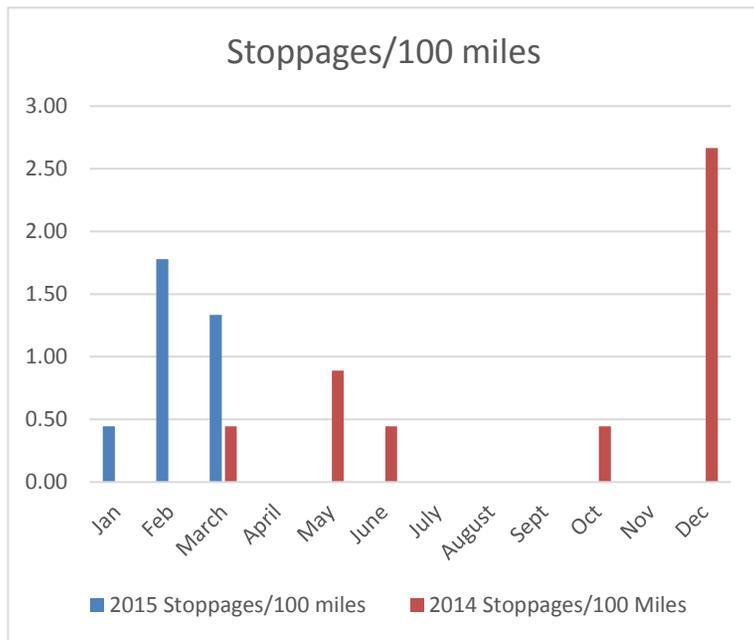
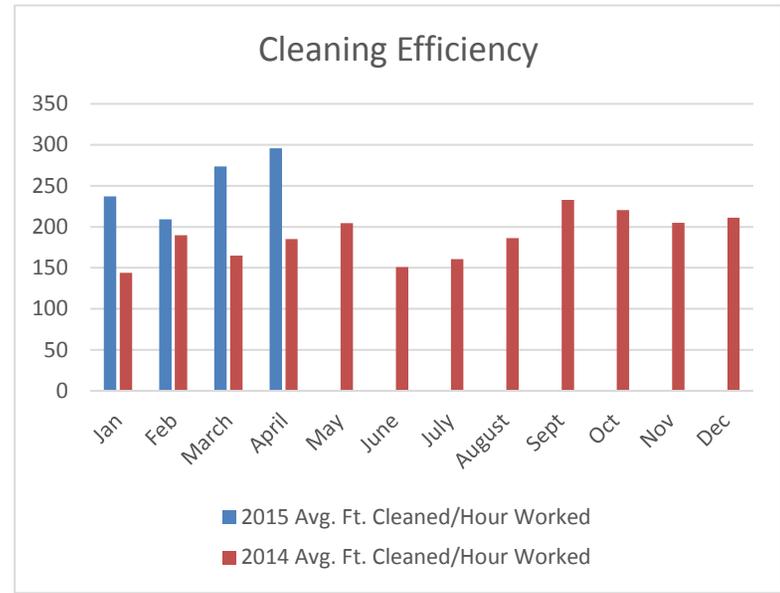
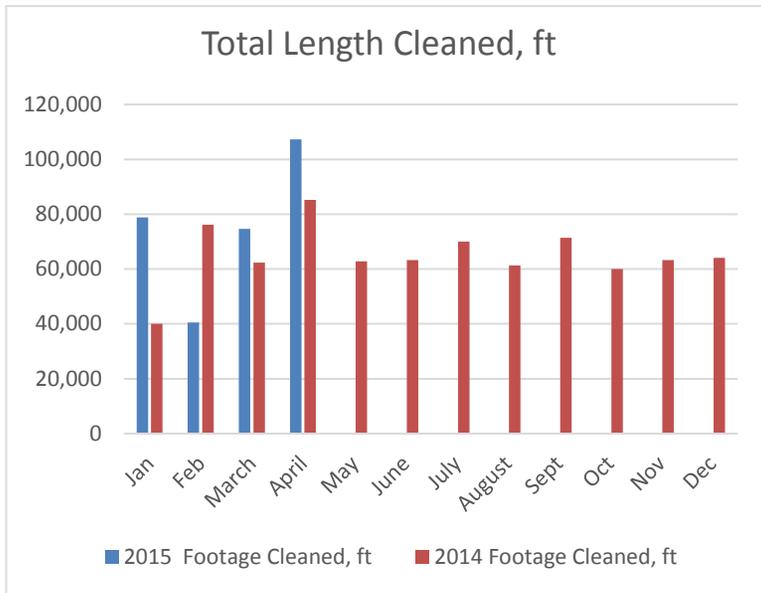
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	Total Year to Date	Average Year to Date
<b>A. Employee Hours Worked</b>														
Number of FTEs (main line cleaning), hrs.	1.9	1.2	1.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.6
Number of FTEs (other)	1.6	2.1	1.8	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.6
Number of FTEs (CCTV)	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0
Total, FTEs	3.6	3.5	3.4	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	1.2
Regular Time Worked, (main line cleaning), hrs	333	194	273	363										
Regular Time Worked on Other, hrs (1)	281	329	320	341										
Regular Time Worked on CCTV (2)	15	36	4	0										
Total Regular time, worked, hrs	628	559	597	703	0	0	0	0	0	0	0	0	2,486	207
Total Vacation/Sick Leave/Holiday, hrs	403	356	271	277									1,306	326
Vacation/Sick Leave/Holiday, FTEs	2.3	2.2	1.5	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.6
Overtime Worked on Coll. Sys., hrs	3	0	16	3									21	5
Overtime Worked on Other, hrs (1)	14	45	31	19									109	27
Overtime Worked on CCTV (2)	0	0	0	0									0	0
Total Overtime, hrs	17	45	46	22	NA	NA	NA	NA	NA	NA	NA	NA	130	32
<b>B. Productivity</b>														
<b>1. Line Cleaning</b>														
Rodder Work Orders generated	90	31	42	23									186	47
Rodder 3208 ft. cleaned	15,611	6,776	7,657	3,885									33,929	8,482
Rodder - outside services, ft cleaned	0	0	0	0									0	0
Flusher Work Orders generated	340	183	388	543									1,454	364
Truck 3205V ft. cleaned	107	4,165	2,352	22,584									29,208	7,302
Truck 3206V ft. cleaned	63,145	29,612	64,665	80,792									238,214	59,554
Flusher - outside services, ft. cleaned	1,349	553	0	127									2,029	
Total Footage cleaned(3)	78,863	40,553	74,674	107,261	NA	NA	NA	NA	NA	NA	NA	NA	301,351	75,338
Work Orders completed	416	198	397	551									1,562	391
Work Orders backlog	14	16	33	15	NA	NA	NA	NA	NA	NA	NA	NA	78	20
<b>2. Closed Circuit Television (CCTV)</b>														
Camera Work Orders generated	0	0	0	0									0	
CCTV Truck 3126T, ft. videoed	3,998	6,622	1,795	303									12,718	3,180
CCTV (hand cam), ft. videoed	6,378	806	706	0									7,890	
CCTV Inspection - outside services, ft. videoed	1,349	553	0	127									2,029	
Total CCTV footage(3)	11,725	7,981	2,501	430	NA	NA	NA	NA	NA	NA	NA	NA	22,637	
<b>C. Sanitary Sewer Overflows (SSOs)</b>														
Minor (Category III)	1	4	3	0									8	NA
Major (Category II)	1	1	1	0									3	NA
Major (Category I)	0	0	0	0									0	NA
Major (Category I)	0	3	2	0									5	NA
Overflow Gallons	126	2,419	1,603	0									4,148	NA
Volume Recovered	0	0	98	0									98	NA
Percent Recovered	0%	0%	6%	NA	NA	NA	NA	NA	NA	NA	NA	NA	2%	NA
<b>D. Service Calls (non-SSO related)</b>														
Service calls, normal hours, #	10	11	7	2									30	8
Normal hours S.C. response time, mins (avg.)	22	20	15	10									67	17
Service Callouts, after hours, #	1	1	1	1									4	1
After Hours S.C. response time, mins (avg.)	33	35	40	7									115	29
<b>E. Benchmarks</b>														
Average Ft. Cleaned/Hour Worked	237	209	274	296	NA	NA	NA	NA	NA	NA	NA	NA	NA	254
Total Stoppages/100 Miles	0.4	1.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	NA
Average spill response time (mins)	28	5	22	0									NA	14
Callouts/100 Miles	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.1
Overtime hours/100 Miles	1	0	7	1	0	0	0	0	0	0	0	0	9.33	1
Overflow Gallons/100 Miles	55	1052	697	0	0	0	0	0	0	0	0	-	1,803	150

(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.

(3) Does not include outside services (tracked separately)

# Collection System 2014-15 Graphs





**COLLECTION SYSTEM (Pump Stations)  
WORK ORDER STATISTICS  
April 1, 2015 - April 30, 2015**

	<b>Open Work Orders Due Prior to 4/1/2015</b>	<b>Open Work Orders 4/1/2015 - 4/30/2015</b>	<b>Total Open Work Orders</b>
Preventive	8	134	134
Corrective	10	10	10
Total	18	144	144

	<b>Closed Work Orders 4/1/2015 - 4/30/2015</b>
Preventive	126
Corrective	0
Total	126

<b>Total Outstanding Work Orders as of 4/30/2015</b>	<b>18</b>
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**NOVATO SANITARY DISTRICT  
Wastewater Operations Committee Meeting  
Reclamation Facilities Report  
April 2015**

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**1.0 Summary:**

The rancher began harvesting pasture grass this month. Pump No. 2 at Drainage Pump Station No. 7 was installed. Accumulated silt around the two Drainage Pump Stations was removed. Staff continues to work to locate the leak on the Wildlife Pond Feed Pipeline. Thermal imaging was performed on the switchgear at the Irrigation Pump Station. Staff found a seal failure on the Wildlife Pond Drain Pump, and a seized-up Wash-down Water Pump. There were no sludge handling activities this month.

**2.0 Ranch Operations:**

The rancher's hay farmer began cutting hay on Site 7 on April 16<sup>th</sup> and completed cutting all of the hay on Site 7 by April 24<sup>th</sup>. The hay cutter moved to Site 3 and completed cutting hay on Parcels 31, 32, 33, 34, 35, 36 and a portion of Parcel 37 by the end of the month. The hay farmer baled hay on Parcel 78 and a portion of Parcel 76 & 74 by the end of the month (see photo at right). Bales on Parcel 78 were removed and stacked in the hay storage yard as well. The rancher removed sprinklers in Parcel 77 in preparation for flushing after the hay is baled and removed. The control system in Site 7 has a short in the system and staff will troubleshoot it in early May.



**3.0 Irrigation Parcels:**

The District issued a Work Order to remove accumulated silt from around the Drainage Pump Stations that was discovered during the completion of the Drainage Pump Station Improvement Project, and work was completed this month (see photo at left).



Drainage Pump No. 2 was installed at Drainage Pump Station No. 7 after the accumulated silt around the pump wells was removed. The pump was not put into service because the anchor bolt holes for anchoring the pump to the floor of the pump station did not match up exactly so the contractor has to return to the site and re-auger the holes for the bolts.

The Drainage Pump Stations pumped approximately 4.66 MG of rainwater in April.

**NOVATO SANITARY DISTRICT  
Wastewater Operations Committee Meeting  
Reclamation Facilities Report  
April 2015**

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**4.0 Irrigation Pump Station:**

There was no irrigation activity this month. Staff issued a purchase order to have the switchgear in the Irrigation Pump Station inspected by a thermo-imaging camera while equipment was running, looking for hotspots. The contractor identified a couple of hotspots that were corrected while the contractor was on site. During this work the contractor discovered that the seal failed on the Wildlife Pond Drain Pump and the Washdown Water Pump was seized. Later in the month the seal was removed for repair and the Washdown Water Pump was removed and taken to the repair shop (see photo at right).



As previously reported, the feed line for the Wildlife Pond generated a leak. Staff issued a purchase order for a leak detection company to come to the site and try to locate the leak. The leak could not be located with their equipment, most likely due to the depth of the leak. Staff issued a Work Order to install a valve near the end of the pipeline at the Wildlife Pond so the line can be pressurized with gas or air which will make a louder sound when the gas or air leaves the pipe through the leak in the pipeline. This work has not commenced.

**5.0 Sludge Handling & Disposal:**

There was no sludge handling activity this month.

\*\*\*

**NOVATO SANITARY DISTRICT**  
**Reclamation Facility - Monthly Statistics for Calendar Year 2015, as of April, 2015**

	January	February	March	April	May	June	July	August	September	October	November	December	Total Year to Date	Annualized Monthly Average
<b>Irrigation Pump Station</b>														
Plant flow to ponds (MG)		0	0	0	0								-	0.00
Irrigation (MG)		0	0	0.0	0.09								0.1	0.01
Irrigation Pump 1 Hours				0.3									0.3	0.03
Irrigation Pump 2 Hours				0.1									0.1	0.01
Irrigation Pump 3 Hours				0.1									0.1	0.01
Washdown Water Pump Hours				0									-	0.00
Wildlife Feed Pump Hours			331.5	51.6									383.1	31.93
Water Circulated through Wildlife Pond (MG)	0	0	20.88	3.25	0	0	0	0	0	0	0	0	24.1	2.01
Strainer No. 1 Hours				0.2									0.2	0.02
Strainer No. 2 Hours				0									-	0.00
Pond 1 Gauge @ Beginning of Month	5.4	5.4	5.6	5.4										
Pond 1 Gauge @ End of Month	5.4	5.6	5.4	5.4										
Pond 1 Gallons Stored @ End of Month(MG)	39.2	41	39.2	39.2										
Pond 2 Gauge @ Beginning of Month	5.5	5.5	5.7	5.5										
Pond 2 Gauge @ End of Month	5.5	5.7	5.5	5.5										
Pond 2 Gallons Stored @ End of Month(MG)	52	54	52	52										
Total Irrigation Water Stored	91.2	95	91.2	91.2	0	0	0	0	0	0	0	0		
<b>Drainage Pump Station No. 3</b>														
Drainage Pump No. 1 Hours	0	133.1	2.4	1.2										
Drainage Pump No. 2 Hours	0	0	2.1	0.1										
Drainage Pump No. 3 Hours	100.3	127.1	0.6	2.7										
Total Gallons Stormwater Pumped (MG)	30.09	78.06	1.53	1.2	0	0	0	0	0	0	0	0	110.88	9.24
<b>Drainage Pump Station No. 7</b>														
Drainage Pump No. 1 Hours	331.6	46.2	13.3	0.2										
Drainage Pump No. 2 Hours	0	0	0	0										
Drainage Pump No. 3 Hours	0	1.5	2.7	7.5										
Total Gallons Stormwater Pumped (MG)	149.22	21	7	3.47	0	0	0	0	0	0	0	0	181.35	15.11

## Novato Sanitary District

### MEMORANDUM

**TO:** District Board of Directors

**FROM:** Sandeep Karkal, Manager-Engineer  
Steve Krautheim, Field Services Manager

**DATE:** May 20, 2015

**SUBJECT:** FY15-17 Preliminary Capital Improvement Program (CIP) Budget –  
Summary of Anticipated Project Work

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#### **Introduction**

This memo presents a summary of the potential or anticipated scope of work for projects and project work included within the various Accounts of the Capital Improvements Program (CIP) budget for FY15-17.

A copy of the table which provides the FY15-16 Preliminary CIP Expenditure Projection for the 5-year period encompassing the 2011-16 period is attached as Table 1. This table was initially set-up to help track CIP disbursements funded through the 2011 Certificates of Participation (COPs). The COPs covenants required that the District spend all of the COP generated funds by FY15-16.

Note that with the drawdown of available funds from the 2011 COPs in FY15-16, the need for maintaining the 5-year projection for the 2011-16 period will also end, and future CIP budgets will revert back to the District's standard two year format. A copy of the 2-year format is also included herein as Table 2, and provides preliminary information for proposed CIP expenditures for FY15-16 and FY16-17.

#### **Account No. 72110: Drainage Pump Station No. 3 & 7 Outfall Rehabilitation**

Work under this account was completed during the last fiscal year and additional major expenses are not anticipated. A "placeholder" amount of \$5,000 is included to account for any incidental expenses that may arise in FY15-16.

#### **Account No. 72403: Pump Station Rehabilitation**

This ongoing, long term account provides for replacing the District's underground type pump stations with submersible pump type pump stations. With the completion of the reconstruction of the Los Robles and Digital Drive Pump Stations, the lift stations that remain to be rehabilitated include the two Vintage Oaks Pump Stations and the Rowland Plaza Pump Station. The rehabilitation schedule for these pump stations will be impacted by potential development in the Hanna Ranch and Vintage Oaks area, and work is being deferred until the development plans for the area become clearer.

Therefore, construction work is not anticipated during FY15-16. However further design work on the remaining pump stations may be initiated depending on how development plans for these areas evolve, and a placeholder amount is included in the account to initiate any needed design work.

### **Account No. 72508: North Bay Water Reuse Authority**

The District is a member agency of the North Bay Water Reuse Authority (NBWRA). FY15-16 will be the second year of a 3-year Phase 2 Feasibility Study for over \$136 million in recycled water projects across all NBWRA agencies.

In the scoping study leading into the Phase 2 feasibility work, the District had identified three projects with a total estimated cost of about \$36 million. The feasibility study is estimated to cost the NBWRA agencies a total of about \$5 million over three years. The District's corresponding share is estimated at \$1.14 million over these three years under a pre-determined formula. It is anticipated that up to \$430,000 of these costs would be recovered under a grant from the US Bureau of Reclamation (USBR) Title XVI program.

If the projects move out into the design and construction phases, it is anticipated that further grant funding from USBR could pay for up to 50% of design and construction costs for recycled water storage projects, and up to 25% of other recycled water projects (tertiary treatment, pipelines, pumping, etc.). The District would be required to come up with its share (local share) of the project costs, i.e. 50% of design and construction costs for storage projects and 75% of the design and construction costs for additional tertiary treatment facilities, etc.

### **Project 72609: Waste Water Treatment Plant Upgrade – Contract B**

This account will be “zeroed out”. In previous years, the budget in this account has included provisions for upgrades including further odor control testing, validation, and improvements, and landscaping upgrades at the Novato Treatment Plant (NTP) site. As discussed below, a new account (Account No. 73004) is being set up to more appropriately track expenditures for these items.

### **Account No. 72706: Collection System Improvements**

This account includes budget amounts for continuing work on rehabilitating the District's collection system.

This fiscal year's project work includes rehabilitating 900 feet of the Hamilton Trunk Sewer, and installing a short relief sewer on Simmons Lane.

It also includes an allowance for improvements to the Scown Lane sewer between Machin Ave and Redwood Blvd., in the neighborhood of the Downtown Novato Theater restoration project, if the restoration project and its attendant utilities improvement component were to proceed to construction in FY15-16.

An allowance is also included for a scoping study level effort to identify either an update or a new Collection System Master Plan for the District, along with a potential scope of work for generating the updated or new Master Plan.

**Account No. 72706-1: Lateral Replacement Program**

This account was established as a grant program to incentivize homeowners, and assist them financially to replace the entire sewer lateral between their residence and the sewer main, as a long term approach to reducing infiltration and inflow from laterals into the District's collection system. Currently, the program pays half of the replacement cost up to a \$1,500 for replacing a residential sewer lateral in the District's service area.

**Account No. 72707: Hamilton Wetlands/Outfall**

The project work for FY15-16 in this account includes continuing work on a joint study funded 50-50 by the District and the California State Coastal Conservancy (SCC) to examine alternatives for long term integration of the District's outfall into the SCC's Hamilton Wetlands project.

The project work also provides for further study to utilize the District's effluent as a reliable, long term fresh water source to establish and maintain a brackish marsh habitat at the Wetlands project, including identifying and resolving water quality related regulatory issues identified during the study process.

**Account No. 72708: Cogeneration**

This account and its FY15-17 budget is established for preliminary work to explore strategies and potential projects to utilize the digester gas produced in the anaerobic digestion process to produce power and offset the District's utility power purchases.

The account includes an allowance to allow the District to initiate discussions with other entities for potential partnering in the areas of cogeneration and alternative energy production services.

**Account No. 72802: Annual Sewer Adjustment for City Projects**

The budget in this account is established annually to compensate the City of Novato or County of Marin for work performed on District facilities through City or County Capital Improvement Projects. An example of work funded through this account would be a City or County street paving or repaving project, when District manholes are raised to grade.

**Account No. 72803: Annual Collection System Repairs**

This account is established annually primarily to fund smaller projects to repair District collection system facilities, primarily point and spot repairs, or to replace short reaches of sewer main(s).

The repair list is generated by collection system staff during routine maintenance activities including sewer cleaning and CCTV work, and tracked and prioritized by the Field Services Manager in conjunction with the Collection System Superintendent, Staff Engineer, and the Construction Inspector.

#### **Account 72804: Annual Reclamation Facilities Improvements**

The budget in this account is established annually to fund small projects to repair District facilities at the Reclamation Area. The work typically includes irrigation system repairs for lines larger than 4" in diameter, parcel rehabilitation work, and other miscellaneous repairs.

#### **Account No. 72805: Annual Treatment Plant & Pump Station Repairs**

This budget was established to fund small projects to repair District Facilities at the various pump stations throughout the District and the Novato Treatment Plant.

This work includes minor mechanical & electrical work, water line repairs, pavement repairs, painting, and any other small repairs or improvements.

For FY15-16, an allowance has also been provided to initiate the expansion of equalization facilities at the Ignacio Transfer Pump Station site.

#### **Account No. 72809: Novato Creek Watershed**

This account and its budget was established as a result of an agreement with the Marin County Flood Control District. Under this agreement, the District participates in a program with the County of Marin, the City of Novato, and the North Marin Water District to explore alternatives to reduce flooding potential in the lower Novato Creek portion where all of these agencies have facilities that are prone to flood damage.

#### **Account No. 73001: Waste Water Treatment Plant Facility Upgrade – Contract C**

This account includes a budget amount for closing out the Contract C (Solids Handling) project with completion of the corrosion control improvements to the effluent launders in the primary clarifiers. The account will be "zeroed out" in the FY16-17 budget year. Future corrosion control project work will be performed out of new Account No. 73006 – NTP Corrosion Control discussed below.

#### **Account No. 73002: Waste Water Treatment Plant Facility Upgrade – Contract D**

This budget was originally established to fund the design and construction of the Recycled Water Facility at the NTP site. The FY14-16 budget provided a placeholder amount for minor unanticipated improvements to the Recycled Water Facility or for incidental costs relating to this facility. However, the proposed FY15-16 budget will "zero out" this account and future RWF work will be funded from the new Account No. 73005 – RWF Expansion, discussed below.

**Account No. 73003: Administration Building Upgrades/Maintenance Building –**

This account includes allowances for minor improvements to the Administration Building, demolition of the abandoned Aeration Basins and ancillary equipment from the “old” Novato treatment plant, and eventual design and construction of a new Maintenance Building. The work is expected to proceed in phases, and over the FY15-16 and FY16-17 budget periods.

**Account No. 73004: Odor and Landscaping Improvements**

This account will budget for further work by District and operations staff working with the District’s Odor Specialist consultant(s) to address and manage any odor issues raised by the District’s neighbors. It also includes an allowance to address any landscaping items identified either by District staff or the District’s neighbors.

**Account No. 73005: RWF Expansion**

This account will fund the design and construction of an incremental capacity expansion to the existing Recycled Water Facility (RWF) at the Novato Treatment Plant site.

The expansion is necessitated by the planned expansion by the North Marin Water District (NMWD) of its Central Area Project which will push NMWD’s recycled water distribution pipelines into the Central Novato/Ignacio geographic areas. The budgeted amounts do not include any potential grants that may be received through State Proposition 84 (IRWM) or Proposition 1 (Water Bond) funds, or through the US Bureau of Reclamation Title XVI (WaterSMART) program.

**Account No. 73006: NTP Corrosion Control**

This account is newly established to budget funds for corrosion control projects at the Novato Treatment Plant site. As the recently constructed facilities age, the effects of the aggressive nature of wastewater corrosion start to appear and need to be addressed. It is anticipated that this account will see budgeting of funds on an ongoing basis.

The budgeted funds for FY15-16 will be focused on prioritizing and addressing corrosion issues at any of the primary clarifier No. 2 mechanism, or the ultraviolet disinfection channels, or at the headworks channels/effluent box.

**Account No. 73090: Vehicle Replacement**

This account includes a budget amount for the replacement of a light truck in each of FY15-16 and FY16-17.

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**Table 1: PRELIMINARY CAPITAL IMPROVEMENTS PROGRAM EXPENDITURE PROJECTION 2011-2016**  
 vers. 5/20/2015

Project No.	Project Name	Final FY14-15 Budget	FY14-15 Expenditures (thru' 4/2015)	Projected Expenditures FY14-15	Proposed FY2015-16	5-Year Total 2011-16*
72110	Drainage PS #3 & #7 Outfall Rehab.	265,000	216,978	250,000	5,000	282,163
72111	SCADA Phase II & IIA	-	-	-	-	17,179
72403	Pump Station Rehab.	1,082,185	501,064	510,000	50,000	4,346,521
72508	N. Bay Water Reuse Authority	355,000	329,100	340,000	403,000	1,311,367
72509	NTP Soil & Groundwater Invest.	-	-	-	-	-
72604	Laboratory Improvements	-	-	-	-	2,033
72607	WWTP Upgrade - Contract A1	-	-	-	-	13,138
72608	WWTP Upgrade - Contract A2	-	-	-	-	-
72609	WWTP Upgrade - Contract B	45,000	41,328	45,000	-	691,206
72611	Bayside Sewer	-	-	-	-	2,305
72612	Southgate Sewer	-	-	-	-	458
72706	Collection System Improvements	1,600,000	1,326,125	1,476,125	1,050,000	4,712,979
72706-1	Lateral Replacement Program	50,000	14,450	18,000	50,000	90,500
72707	Hamilton Wetlands/Outfall monitoring	36,542	12,265	14,000	22,500	91,306
72708	Cogeneration	40,000	-	-	20,000	20,534
72801	Annual Minor Projects	-	-	-	-	1,040
72802	Annual Sewer Adj. for City Projects	10,000	9,050	10,000	10,000	39,358
72803	Annual Coll. Sys. Repairs (Spot Repairs)	200,000	155,808	175,000	200,000	1,026,930
72804	Annual Recl. Facilities Improvements	150,000	44,972	75,000	100,000	1,044,459
72805	Annual TP & PS Improvements	200,000	146,391	120,000	300,000	1,296,637
72808	Strategic Plan Update	-	-	-	-	21,849
72809	Novato Creek Watershed	50,000	-	50,000	15,000	115,000
73001	WWTP Fac. Upgr. - Contract C (Solids)	461,396	329,894	417,000	10,000	4,083,683
73002	WWTP Fac. Upgrade - Contract D - RWF	10,000	-	3,000	-	6,982,665
73003	Admin Bldg. Upgrades/Maintenance Bldg.	1,000,000	50,902	100,000	750,000	890,719
73004	Odor & Landscaping Improvements	-	-	-	50,000	50,000
73005	RWF Expansion	-	-	-	150,000	150,000
73006	NTP Corrosion Control	-	-	-	150,000	150,000
73090	Vehicle Replacement	180,000	153,099	180,000	25,000	205,000
	<b>Sub-total (w/o P&amp;I for Capital Projects)</b>	<b>5,735,123</b>	<b>3,331,426</b>	<b>3,783,125</b>	<b>3,360,500</b>	<b>27,639,028</b>
78500	P&I - Capital Projects	7,070,754	7,070,754	7,070,754	7,075,104	33,787,665
	<b>TOTALS (incl. P&amp;I on Capital Projects)</b>	<b>12,805,877</b>	<b>10,402,180</b>	<b>10,853,879</b>	<b>10,435,604</b>	<b>61,426,693</b>

\*Includes expenditures beginning FY11-12.  
 P&I = Principal and Interest

**Novato Sanitary District**  
**Table 2 - 2015-2017 Preliminary Budget**  
**Capital Improvement Budget - CIP Expenditures**

	Final		Projected	Preliminary	Preliminary	Preliminary
	Budget	Expenditures	Expenditures	Budget	Budget	Budget
	FY14-15	thru' April 2015	FY14-15	FY15-16 <sup>(1)</sup>	FY15-16 <sup>(2)</sup>	FY16-17 <sup>(2)</sup>
				<sup>(1)</sup> From FY14-16 Budget	<sup>(2)</sup> As of May 2015	<sup>(2)</sup> As of May 2015
72110 · Drainage PS 3&7 Outfall Rehab	265,000	216,978	250,000	0	5,000	0
72403 · Pump Station Rehabilitation	1,082,185	501,064	510,000	100,000	50,000	50,000
72508 · North Bay Water Reuse Authority (NBWRA)	355,000	329,100	340,000	403,000	403,000	440,000
72509 · NTP Soil & Groundwater Inv	0	0	0	0	0	0
72604 · Laboratory Improvements	0	0	0	0	0	0
72609 · WWTP Upgrade - Contract B	45,000	41,328	45,000	0	0	0
72611 · Bayside Sewer	0	0		0		
72612 · Southgate Sewer	0	0	0	0	0	0
72706 · Collection System Improvments	1,600,000	1,326,125	1,476,125	900,000	1,050,000	900,000
72706-1 · Lateral Replacement Program	50,000	14,450	18,000	30,000	50,000	50,000
72707 · Hamilton Wetlands/Outfall Integration	36,542	12,265	14,000	2,500	22,500	
72708 · Cogeneration	40,000	0	0	10,000	20,000	20,000
72801 · Annual Minor Projects	0	0	0	0	0	0
72802 · Annual Sewer Adj. for City Proj	10,000	9,050	10,000	10,000	10,000	10,000
72803 · Annual Collection Sys Repairs	200,000	155,808	175,000	200,000	200,000	200,000
72804 · Annual Reclamation Fac Improvements	150,000	44,972	75,000	150,000	100,000	100,000
72805 · Annual Trtmt Plnt/Pump St Improvements	200,000	146,391	120,000	150,000	300,000	200,000
72809 · Novato Creek Watershed	50,000	0	50,000	0	15,000	0
73001 · WWTP Upgrade - Contract C (Solids handling)	461,396	329,894	417,000	10,000	10,000	0
73002 · WWTP Up-Contract D-Recycled Water	10,000	0	3,000	5,000	0	0
73003 · Admin Building Upgrade/Maint. Building	1,000,000	50,902	100,000	1,730,901	750,000	1,130,000
73004 · Odor Control and NTP Landscaping <sup>(1)</sup>				0	50,000	50,000
73005 · RWF Expansion <sup>(2)</sup>				0	150,000	1,200,000
73006 · NTP Corrosion Control				0	150,000	75,000
73090 · Vehicle Replacement	180,000	153,099	180,000	20,000	25,000	25,000
78500 · Interest - SRF/COP Bond	2,621,583	2,621,583	2,621,583	2,509,673	2,509,673	2,385,943
78500 · Principal	4,449,171	4,449,171	4,449,171	4,565,431	4,565,431	4,673,762
<b>Totals</b>	<b>12,805,877</b>	<b>10,402,180</b>	<b>10,853,879</b>	<b>10,796,505</b>	<b>10,435,604</b>	<b>11,509,705</b>

**Comments:**

<sup>(1)</sup>Previously included in Account 72609

<sup>(2)</sup>Does not include any grant funds received thru' CA Prop. 84, CA Prop1 (Water Bond), or USBR Title XVI.