

# NOVATO SANITARY DISTRICT

Meeting Date: August 25, 2014

**The Board of Directors of Novato Sanitary District will hold a regular meeting at 6:00 p.m., Monday, August 25, 2014, at the District Offices, 500 Davidson Street, Novato.**

*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).*

## **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. REVIEW OF MINUTES:**

- a. Consider approval of minutes of the August 11, 2014 meeting.

**5. 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, payroll, and payroll-related disbursements.

**6. WASTEWATER OPERATIONS:**

- a. Receive Wastewater Operations Committee report for July 2014.
- b. Receive recommendation from Wastewater Operations Committee, and authorize Manager-Engineer to issue a purchase order in an amount up to \$41,000 to Shape, Inc. to replace rotating assembly on the third conveyance pump at the Ignacio Transfer Pump Station (ITPS), Account No. 61000-3.
- c. Review bids received, and authorize the Manager-Engineer to execute a project work order with Roto-Rooter Plumbers in the amount of \$53,000.00.

**7. SAFETY PROGRAM:**

- a. Receive report on the District's Safety, Health, Environmental, Liability and Losses (SHELL) Award application to the California Sanitation Risk Management Authority, (CSRMA).

8. **ANNUAL BUDGET: FY2014-15 FINAL BUDGET**

- a. Present Final FY2014-15 District Annual Budget.
- b. Adopt Final FY2014-15 District Annual Budget.
- c. Adopt resolution establishing appropriations limit for the 2014-15 Fiscal Year.

9. **CAPITAL PROJECTS:**

- a. **Collection System Improvements, Account No. 72706:** Olive Parallel Force Main Project: Review bids received, approve contract award to Argonaut Constructors, and authorize Manager-Engineer to execute the contract in the bid amount of \$1,245,680.
- b. **Collection System Improvements, Account No. 72706:** Olive Parallel Force Main Project: Approve a contract with Nute Engineering for construction management services on a time and materials basis in the not-to-exceed amount of \$117,000, and authorize Manager-Engineer to execute it.

10. **BOARD OF DIRECTORS:**

- a. Affirm the District's intent to continue to abide by the Brown Act.
- b. Consider draft response to the 2013-14 Marin County Civil Grand Jury Report titled "The Scoop on Marin County Sewer Systems: Part I", and "The Scoop on Marin County Sewer Systems: Part II", provide further input, and give direction to staff as required.

11. **STAFF REPORTS:**

12. **BOARD MEMBER REPORTS:**

- a. California Association of Sanitation Agency (CASA) Annual Meeting.

13. **MANAGER'S ANNOUNCEMENTS:**

14. **ADJOURNMENT:**

Next resolution no. 3077

**Next regular meeting date: Monday, September 8, 2014, 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.***

August 11, 2014

A regular meeting of the Board of Directors of the Novato Sanitary District was held at 6:00 p.m., Monday, August 11, 2014, preceded by a closed session beginning at 5:00 p.m. at the District offices, 500 Davidson Street, Novato.

At 5:00 p.m. President Mariani announced the Board would meet in closed session to discuss the following matters on the Closed Session Agenda:

**CLOSED SESSION CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION**

- Exposure to litigation pursuant to paragraph (2) of subdivision (d) of Section 54956.9: 1 case.

**BOARD MEMBERS PRESENT FOR CLOSED SESSION:** President Jean Mariani, Directors Gary Butler, William C. Long, Brant Miller, and Jerry Peters.

**STAFF PRESENT:** Manager-Engineer-Secretary Sandeep Karkal and District Counsel Kent Alm.

The closed Session ended at 5:54 p.m.  
Open session began at 6:05 p.m.

**BOARD MEMBERS PRESENT FOR OPEN SESSION:** President Jean Mariani, Directors Gary Butler, William C. Long, Brant Miller, and Jerry Peters.

**STAFF PRESENT:** Manager-Engineer-Secretary Sandeep Karkal, District Counsel Kent Alm, and Administrative Secretary Julie Swoboda.

**ALSO PRESENT:** Steve Krautheim, Field Services Manager, NSD  
John Bailey, Project Manager, Veolia  
Brian Exberger, Assistant Project Manager, Veolia

**PLEDGE OF ALLEGIANCE:**

**AGENDA APPROVAL:** Director Butler requested that agenda items 9.a., b., and c be discussed in reverse order. President Mariani agreed. The agenda was otherwise approved as written.

**REPORT FROM CLOSED SESSION:**

Direction was given to Counsel regarding the matter of Bayside Subdivision.

**PUBLIC COMMENT:** None.

**REVIEW OF MINUTES:**

- Consider approval of minutes of the July 14, 2014 Board meeting.

*On motion of Director Butler, seconded by Director Peters and carried unanimously, the July 14, 2014 Board meeting minutes were approved.*

CONSENT CALENDAR:

*On motion of Director Peters, seconded by Director Long, and carried unanimously, the following Consent Calendar items were approved:*

- a. Authorization of Steve Krautheim, Field Services Manager, as additional signer for District petty cash account.
- b. Approval of regular disbursements in the amount of \$276,428.83, project account disbursements in the amount of \$52,190.25, payroll and payroll related disbursements in the amount of \$224,645.68, and Board Member disbursements in the amount of \$2,016.48. Ratification of July 31, 2014 regular disbursements in the amount of \$105,083.03 and project account disbursements in the amount of \$16,597.85.
- c. Approval of meeting schedule as follows: September 8<sup>th</sup>, September 22<sup>nd</sup>, October 13<sup>th</sup> and October 27<sup>th</sup>.

WASTEWATER OPERATIONS:

- Receive Wastewater Operations Committee June 2014 meeting report. Veolia Project Manager John Bailey gave an overview of the June 2014 Monthly Operations Report as presented to the Wastewater Operations Committee at their July 21, 2014 meeting. He stated that inspectors from the California State Water Resources Control Board (SWRCB) conducted a Compliance Evaluation Inspection (CEI) of the Novato treatment plant on June 18<sup>th</sup>. The inspectors reviewed records, procedures, compliance history, laboratory data, etc., and toured the facility. Their comments received at the end-of-day debriefing were positive and complimentary.

The Manager-Engineer gave the Collection System and Pump Stations report. He stated that one sanitary sewer overflow (SSO) occurred on June 9<sup>th</sup> and was completely contained at the discharge site with 100% recovery.

Field Services Manager Steve Krautheim gave the reclamation report. He stated that 65.36 million gallons of recycled water were applied over reclamation sites 3 & 7.

- Receive Wastewater Treatment Facilities Final 2013 Annual Operations and Maintenance Report. Veolia Project Manager John Bailey stated that the final 2013 Annual Operations and Maintenance Report had been provided to the WWOC members. He reviewed the report and answered questions that were brought forth by the Board members. Director Long requested that the Annual Report be reviewed a second time at the September 8<sup>th</sup> meeting.

RECLAMATION – SLUDGE DISPOSAL, ACCOUNT NO. 63115:

- Approve contract with Custom Tractor Services (CTS) for biosolids disposal and sludge lagoon cleaning in a not-to-exceed amount of \$187,000 and authorize the Manager-Engineer to execute it. The Manager-Engineer stated that for the past several years, the District has contracted with Custom Tractor Service to dispose of biosolids generated from the treatment facility at its dedicated land disposal site. He noted that the contracted price for the service has remained similar to last year's cost with only a 0.1 cent per gallon increase. The Manager-Engineer reviewed the scope of work CTS will provide and recommended that the Board approve the contract and authorize execution.

*On motion of Director Peters, seconded by Director Long and carried unanimously, the Board approved a contract with Custom Tractor Services for biosolids disposal and sludge lagoon cleaning in a not-to-exceed amount of \$187,000 and authorized the Manager-Engineer to execute it.*

CAPITAL PROJECTS: President Mariani reminded the Board that the order of the Capital Project agenda items had been reversed, so that Item 9.c. would be discussed first, followed by item 9.b. and then Item 9.a.

- Annual Treatment Plant & Pump Station Improvements, Account No. 72805: Pump Station Drainage Improvements and Bypass Pipe Connections, Project No. 72805-13-01: Grant Final Acceptance of the Project and authorize staff to file the Notice of Completion. The Manager-Engineer stated that the Project has been completed and requested the Board grant final acceptance and authorize staff to file the Notice of Completion. He stated that Field Services Manager Steve Krautheim would give an overview of the project's final cost.

Mr. Krautheim stated that the final cost of the project was \$158,735.09 or \$26,485.09 (20%) above the bid amount. Mr. Krautheim stated that the majority of the change order was due to unforeseen conditions found below grade when the new force main bypass point of connection was exposed at the Marin Village pump station.

*On motion of Director Peters, seconded by Director Butler and carried unanimously, the Board granted final acceptance of the Pump Station Drainage Improvements and Bypass Pipe Connections Project and authorized staff to file the Notice of Completion.*

- Collection System Improvements, Account No. 72706: Center Road Sewer Project – Diablo Avenue to Kristy Court: Grant Final Acceptance of the Project, and authorize staff to file the Notice of Completion. The Manager-Engineer stated that the project went well and was completed for \$22,370.11 or 3.4% below the bid amount. He requested the Board grant final acceptance and authorize staff to file the Notice of Completion.

*On motion of Director Peters, seconded by Director Long and carried unanimously, the Board granted final acceptance of the Collection System Improvements Center Road Sewer Project – Diablo Avenue to Kristy Court and authorized staff to file the Notice of Completion.*

- Drainage Pump Station 3 & 7 Outfall Rehabilitation, Account No. 72110: Review bids received, approve contract award to WR Forde, and authorize Manager-Engineer to execute the contract in the bid amount of \$222,000. The Manager-Engineer stated that on August 5, 2014, eight (8) bids were received for the Outfall Rehabilitation project. He stated that WR Forde & Associates of Richmond submitted the apparent lowest bid in an amount of \$220,000. He stated that WR Forde's bid documents were reviewed and staff found that the unit price totals did not equal the total bid amount. Staff referred to Section 00100 "Instruction to Bidders" of the project specifications,, and calculated the correct total bid amount to be \$222,000 based on the bidder's unit price totals. Upon completing this exercise, it was found that WR Forde was still the low bidder, since the next low bidder was Fieldstone Construction with a total bid amount of \$223,400. Staff contacted WR Forde to discuss their bid and the error and they are comfortable and confident with their bid as recalculated.

The Manager-Engineer recommended that the Board approve contract award to WR Forde & Associates, and authorize the Manager-Engineer to execute the contract in the bid amount of \$222,000.

*On motion of Director Peters, seconded by Director Miller and carried unanimously, the Board approved the contract award to WR Forde and authorized the Manager-Engineer to execute the contract in the bid amount of \$222,000.*

#### ADMINISTRATION:

- Approve transfer of \$161,537 from the Capital Improvement Fund to the Operating Fund for staff time spent on capital projects in FY 2013/14. The Manager-Engineer stated that during each fiscal year, staff charges time spent to capital projects. He stated that at the close of each fiscal year, adjustments are made to capture these staff expenses and correctly calculate the costs of capital projects.

*On motion of Director Long, seconded by Director Peters and carried unanimously, the Board approved the transfer of \$161,537 from the Capital Improvement Fund to the Operating Fund for staff time spent on capital projects in FY 2013/14.*

- Receive report on 2015 CalPERS Health Plan Premium rates. The Manager-Engineer presented the CalPERS health plan premiums for calendar year 2015. He stated that the rates reflect a 3.81% decrease in regular health coverage and stated that the final FY 2014/15 budget will be revised to reflect the new premium amounts.

#### BOARD OF DIRECTORS:

- Review of the 2013-14 Marin County Civil Grand Jury Report titled “The Scoop on Marin County Sewer Systems: Part 1”, and “The Scoop on Marin County Sewer Systems: Part II”, and provide any further input and direction. President Mariani asked the Board if there were any additional comments and stated that the final draft response would be brought forward to the Board at the August 25<sup>th</sup> meeting. The Board members made no additional comments.

The Manager-Engineer stated that the Grand Jury report had been previously brought before the Board at the June 23 and July 14 meetings. He reported that the other Marin County sewerage facility managers will be submitting individual responses and may consider preparing a joint response as well.

#### BOARD MEMBER REPORTS:

- North Bay Watershed Association (NBWA) meeting. Director Miller stated that the NBWA did not hold a meeting in August.

- North Bay Water Reuse Authority (NBWRA) meeting. Director Long discussed his participation in the NBWRA meeting which was held at Novato City Hall at 9:30AM on Monday, July 28<sup>th</sup>. He discussed the NBWRA joint projects and noted that fewer grants will be available. Director Long stated that Director Butler attended the meeting as well.

#### MANAGER’S ANNOUNCEMENTS:

- The Manager provided an article titled “Marin Officials Laud Civil Grand Jury”, Marin Independent Journal, August 7, 2014 and stated that it was an informational item. The Board discussed the article.
- The Wastewater Operations Committee meeting will be held on Monday, August 18<sup>th</sup> at 2:00 p.m. at the District office.
- The next regular Board meeting will be held on Monday, August 25<sup>th</sup> at 6:00 p.m. at the District office.
- The California Association of Sanitation Agencies (CASA) meeting will be held in Monterey from August 20<sup>th</sup> through August 22<sup>nd</sup>.

ADJOURNMENT: There being no further business to come before the Board, President Mariani adjourned the Board meeting at 7:26 p.m.

Respectfully submitted,

Sandeep Karkal  
Secretary

Julie Swoboda, Recording

# Novato Sanitary District Operating Check Register

August 25, 2014

Date	Num	Name	Credit
<b>Aug 25, 14</b>			
08/25/2014	57304	U.S. Bank Corporate	131,705.75
08/25/2014	57298	Pacific, Gas & Electric	76,025.90
08/25/2014	57299	PSC	17,398.20
08/25/2014	57302	RMC Water & Environment, I...	10,168.86
08/25/2014	57301	Regional Government Services	7,360.00
08/25/2014	57294	North Marin Water District	7,057.41
08/25/2014	57273	American Express-21007	5,006.63
08/25/2014	57289	Marin Mechanical II, Inc.	4,794.89
08/25/2014	57303	Telstar Instruments Inc	3,246.10
08/25/2014	57305	US Bank Corporate Trust	2,420.00
08/25/2014	57274	Bay Area Air Quality	2,418.00
08/25/2014	57295	North Marin Water District - L...	2,200.00
08/25/2014	57296	North Marin Water District Pa...	2,139.50
08/25/2014	57293	North Marin Auto Parts	1,672.35
08/25/2014	57279	Cintas Corporation	1,509.17
08/25/2014	57283	Harris & Associates, Inc	1,375.00
08/25/2014	57272	3T Equipment Company Inc.	1,201.73
08/25/2014	57285	IEDA, INC	1,072.00
08/25/2014	57277	CDW Government, Inc.	931.43
08/25/2014	57278	Central Marin Sanitation Distr...	769.23
08/25/2014	57284	Heusser Neweigh	655.00
08/25/2014	57300	Rauch Communication Cons...	599.75
08/25/2014	57306	Verizon EQ	583.69
08/25/2014	57290	MME	555.67
08/25/2014	57276	Cantarutti Electric, Inc	511.50
08/25/2014	57286	Leak Detection Pros Inc	450.00
08/25/2014	57275	Cagwin & Dorward Inc.	435.00
08/25/2014	57280	Electronic Innovations, Inc	380.50
08/25/2014	57287	Leonardi Automotive & Electr...	343.13
08/25/2014	57308	Zenith Instant Printing, Inc.	224.14
08/25/2014	57307	Verizon Wireless-	203.01
08/25/2014	57297	Novato Car Wash	149.93
08/25/2014	57292	North Coast Truck Inspections	130.00
08/25/2014	57291	North Bay Portables, Inc.	92.20
08/25/2014	57281	First Alarm	77.48
08/25/2014	57282	Grainger	39.28
08/25/2014	57288	Marin County Ford	20.43
<b>Aug 25, 14</b>			<b><u>285,922.86</u></b>

# Novato Sanitary District Capital Projects Check Register

August 25, 2014

	<u>Date</u>	<u>Num</u>	<u>Name</u>	<u>Credit</u>
<b>Aug 25, 14</b>				
	08/25/2014	2749	Valentine Corporation	263,965.24
	08/25/2014	2747	R E Smith Contractor, Inc.	67,351.75
	08/25/2014	2753	Covello Group, The	35,714.11
	08/25/2014	2748	RMC Water & Environment, Inc.	29,484.59
	08/25/2014	2745	Linscott Engineering Contractors Inc	6,458.80
	08/25/2014	2751	Water Components & Building, Inc.	2,567.34
	08/25/2014	2746	McInnis Park Apartments, LLP	2,367.41
	08/25/2014	2752	WaterSavers Irrigation Inc.	850.63
	08/25/2014	2744	Daniel Macdonald AIA Architects, Inc.	686.03
	08/25/2014	2743	void	0.00
	08/25/2014	2750	void	0.00
<b>Aug 25, 14</b>				<b><u>409,445.90</u></b>

**Novato Sanitary District**  
**Payroll and Payroll Related Check Register**  
**AUGUST - 2014**

<u>Date</u>	<u>Description</u>	<u>Amount</u>
08/29/2014	August - Payroll	103,254.16
08/29/2014	August - Retirees Health Benefits	15,274.68
08/25/2014	CalPers Health	29,755.37
08/25/2014	CALPERS Retirement	6,570.98
08/29/2014	United States Treasury	19,917.00
08/25/2014	CalPers Supplemental Income Plan	2,500.00
08/25/2014	EDD	5,601.56
08/25/2014	Lincoln Financial Group	9,140.01
08/25/2014	Lincoln Financial Group-401a Plan	2,399.70
08/25/2014	Lincoln Financial Group-401a Plan	2,651.83
08/25/2014	CALPERS Retirement	18,716.29
08/25/2014	Local Union 315	540.00
08/25/2014	Delta Dental	2,629.87
08/25/2014	Operating Engineers Trust	282.53
		<b><u>219,233.98</u></b>

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# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

<b>TITLE: Wastewater Operations Committee – Meeting Report, July 2014</b>	<b>MEETING DATE: August 25, 2014</b>  <b>AGENDA ITEM NO.: 6. a.</b>
<b>RECOMMENDED ACTION:</b> Information. Receive report.	
<b>SUMMARY AND DISCUSSION:</b> <p>The July 2014 reports for the 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. There were no NPDES violations. The Recycled Water Facility produced 13.55 MG of recycled water in July. Safety performance was excellent with another accident-free month for a total of 1,519 accident-free days at the end of July. Routine maintenance activities were performed at the NTP and the Ignacio Transfer Pump Station (ITPS). The June 2014 Discharge Monitoring Report (DMR) and Semi- Annual Report was submitted on July 18, 2014, and the Electronic Self-Monitoring Report (e-SMR) was submitted on July 20, 2014.</p> <p><b>Odor Control and Landscaping</b></p> <p>Results from the validation testing of the process change recommended by the District’s odor consultant Dave McEwen of Brown and Caldwell (B&amp;C), of converting anoxic zones B and C at the aeration basins to aerobic zones are expected to be available in August. In July, another of Mr. McEwen’s odor control recommendations (adding sodium hypochlorite to the influent flow during warm weather periods) was implemented. Staff continues to monitor the effects of these changes, and performance continues to be good. Also, staff and the District’s landscaping contractor Cagwin &amp; Dorward (C&amp;D) continue to monitor landscaping in the northeast corner of the plant property, and will bring further landscaping improvements to this area for the Board’s consideration at a future meeting.</p> <p><b>Collection System and Pump Stations</b></p> <p>Staff cleaned a total of 69,983 feet and televised 11,827 feet of sewer lines. The lower than normal CCTV production is explained in detail in the attached report. No outside cleaning or CCTV services were used. Crews also hand televised 4,802 ft with the Push Cam, and an outside contractor cleaned and televised 7,216 of larger diameter (&gt;12-inch) sewers. Staff conducted 282 lift station inspections, with 127 inspection visits generated through the JobsCal Plus program.</p> <p><u>Safety:</u> No lost time accidents in July 2014 for a total of 1,234 accident-free days.</p> <p><u>Standard and Emergency Operating Procedures (SOPs &amp; EOPs):</u> 24 pump station draft energy control SOPs issued. All EOPs have been received and have received a final review by staff.</p> <p><u>Sanitary Sewer Overflows (SSOs):</u> There were no SSOs in July 2014.</p> <p><b>Reclamation Facility</b></p> <p>A total of 63.45MG of recycled water was applied to the irrigation pastures. A leak was discovered in the Wildlife Pond Feed Line but has not been located. A proposal was requested from the contractor for the annual sludge disposal from the sludge lagoons The rancher completed moving cattle into all Sites this month and is working on routine parcel maintenance.</p>	
<b>DEPT.MGR.:</b> JB (Veolia), SRK, TMO	<b>MANAGER-ENGINEER:</b>

## NOVATO SANITARY DISTRICT

Meeting Date: August 18, 2014

The Wastewater Operations Committee of the Novato Sanitary District will hold a meeting at 2:00 PM, Monday, August 18, 2014 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 JULY 21, 2014 MEETING**

**4. WASTEWATER TREATMENT FACILITIES OPERATIONS AND MAINTENANCE REPORT FOR JULY 2014:**

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

**5. OPERATIONS: MAJOR REPAIR/REPLACEMENT, ACCOUNT NO. 61000-3:**

- a. Review a proposal from Shape, Inc. to replace the rotating assembly on the third Conveyance Pump at the Ignacio Transfer Pump Station (ITPS), and recommend that the Board authorize the Manager-Engineer to issue a purchase order up to \$41,000.

**6. COLLECTION SYSTEM OPERATIONS AND MAINTENANCE REPORT FOR JULY 2014:**

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

**7. RECLAMATION FACILITY REPORT FOR JULY 2014**

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

**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.***

July 21, 2014

A regular meeting of the Wastewater Operations Committee of Novato Sanitary District was held at 2:12 p.m., Monday, July 21, 2014, at the District Office, 500 Davidson Street, Novato.

**MEMBERS PRESENT:** Committee Member Brant Miller. Board Member Jean Mariani was present as alternate to Committee Member Peters who was absent.

**STAFF PRESENT:** Sandeep Karkal, Manager-Engineer  
Steve Krautheim, Field Services Superintendent  
Tim O'Connor, Collections System Supervisor  
John Bailey, Project Manager, Veolia

**ALSO PRESENT:** Lynda Farmery, Planner, Veolia

**AGENDA APPROVAL:** Approved as presented

**PUBLIC COMMENT:** None

**APPROVAL OF MEETING MINUTES FOR JUNE 16, 2014:** Committee Member Mariani noted that the committee composition had changed since the previous meeting; therefore, only one member from the prior meeting was present to vote on approval of the minutes. The June 16, 2014 meeting minutes were accepted by Committee Member Mariani and approved as written.

**WASTEWATER TREATMENT FACILITIES OPERATIONS AND MAINTENANCE REPORT FOR JUNE 2014:**

- Treatment Plant Performance Report, Maintenance Report and Safety & Training:  
John Bailey, Plant Manager, Veolia Water, pointed out that there was a change to the Treatment Plant Performance Summary heading which read "Bay Discharge - Waste Discharge Requirements (WDR)". He stated that on June 1<sup>st</sup>, the facility switched from Bay Discharge to Reclamation/Storage. Therefore the appropriate heading should be: "Reclamation/Storage – Waste Discharge Requirements (WDR)".

Mr. Bailey gave an overview of the treatment plant operations for the month of June and stated that June was another good month with no permit exceedances, violations or excursions. He stated that an annual NPDES Compliance Inspection was conducted on June 18<sup>th</sup> and that inspectors from the California State Water Resources Control Board (SWRCB) toured the facility in the afternoon. He stated that comments at the end-of-day debriefing were positive and complimentary.

Mr. Bailey stated that routine rounds, readings and maintenance were performed at the Novato Treatment Facility, the Ignacio Transfer Pump Station, the Recycled Water Plant and the Sludge Lagoons. He reviewed the treatment facilities charts and graphs. Mr.

Bailey reported that Veolia employees have been accident free for a total of 1,488 days/67,853 hours and will be celebrating this Four-Year-No-Incident anniversary.

Mr. Bailey stated that Jerome Meter (H<sub>2</sub>S) readings continue to be taken within the treatment plant as well as in the Lea Drive neighborhood area and that one odor notification was received in June. He stated that the recycled water facility produced 16.25 million gallons of recycled water in June.

- Odor control, noise, and landscaping report: Manager-Engineer Sandeep Karkal stated that as noise seems to no longer be an issue, it has been eliminated from the Odor Control and Landscaping Report. He reported that David McEwen, odor control consultant with Brown & Caldwell, had conducted validation testing on June 30<sup>th</sup> as a follow-up to the odor control recommendations for the aerations basins he had made in February, and which were implemented in March. He stated that testing results are expected in August and will be presented at a future Operations Committee meeting. The Manager-Engineer stated that Mr. McEwen will then be prepare a draft report of his findings and recommendations which staff would bring forward for review initially to the Operations Committee and then the full Board. On landscaping, he reported that District staff continues to work with Cagwin & Dorward, landscape contractors, to monitor landscaping installed at the District's fence-line on Lea Drive at the northeast corner of the plant property.

#### **WATEWATER TREATMENT FACILITIES 2013 ANNUAL OPERATIONS AND MAINTENANCE REPORT:**

- Receive final 2013 Annual Operations and Maintenance Report. The Manager-Engineer stated that the Annual Operations and Maintenance Report prepared by Veolia Water is required to be submitted within 90 days of the close of the calendar year, and that Veolia had done so. However, due to extenuating circumstances from events that occurred in the spring, District staff had been unable to provide timely review of the draft report, and consequently, the final report is being presented at this time. The Committee Members discussed the report with Mr. Bailey and the Manager-Engineer, following which Committee Members Miller and Mariani accepted the report as presented.

#### **COLLECTION SYSTEMS OPERATION AND MAINTENANCE REPORT FOR JUNE 2014:**

Tim O'Connor, Collections System Superintendent discussed the Collection Systems Monthly Report for June 2014. He reported that the Collection Systems crew cleaned a total of 63,323 feet of sewer pipeline and that the department completed 348 maintenance work orders which were generated in June. He stated that the District's CCTV van (Closed Circuit TV) televised 30 line segments for 5,560 feet of production and that no significant defects were detected.

The Collections System Superintendent stated that there was one sanitary sewer overflow on June 9<sup>th</sup>. Full recovery was accomplished and all reporting requirements

were met. He noted that the discharge was determined to be the result of unknown debris in the main line that caused wipes to accumulate.

The Collections System Superintendent noted that as of June 31<sup>st</sup>, the Collections Department and the District have worked accident free for a total of 1,203 days. He stated that departmental staff continues to work on generating Standard Operating Procedures (SOP's) and Emergency Operating Procedures (EOP's).

**RECLAMATION FACILITY REPORT FOR JUNE 2014:**

Field Services Manager Steve Krautheim presented the Reclamation Facilities report for June. He stated that the rancher had completed all hay harvesting operations and that cattle were moved into Site 7. He discussed repairs taking place at the irrigation parcels and noted that 65.36 MG of recycled water was applied to the irrigation pastures in June. There were no activities on sludge handling and disposal this month.

**ADJOURNMENT:** There being no further business to come before the Committee, the meeting adjourned at 2:58 p.m. The next Wastewater Operations Committee meeting will be held on Monday, August 18, 2014.

Respectfully submitted,

Sandeep Karkal  
Manager-Engineer

Julie Swoboda, Recording

# NOVATO SANITARY DISTRICT WASTEWATER OPERATIONS COMMITTEE AGENDA ITEM SUMMARY

<b>TITLE: Wastewater Treatment Facilities Operations and Maintenance Report for July 2014</b>	<b>MEETING DATE: August 18, 2014</b>  <b>AGENDA ITEM NO. 4.a.b.c.&amp;d.</b>
<b>RECOMMENDED ACTION:</b> Receive monthly Wastewater Treatment Facilities Operations and Maintenance Report for July 2014.	
<b>SUMMARY AND DISCUSSION:</b>  <p>The monthly Wastewater Treatment Facilities Operations and Maintenance Report for July 2014 as prepared by Veolia is attached. The report covers the following agenda items:</p> <ul style="list-style-type: none"> <li>4.a. Treatment Plant Performance Report</li> <li>4.b. Maintenance Report</li> <li>4. c. Safety and training</li> </ul> <p>Separately, an odor control and landscaping report for July 2014 covering agenda item 4.d. is also provided.</p>	
<b>ALTERNATIVES: NA.</b>	
<b>BUDGET INFORMATION: NA</b>	
<b>DEPT.MGR.:</b> ssk	<b>MANAGER-ENGINEER:</b>



August 13, 2014

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

**Subject: Veolia Water Operations Report – July 2014**

Dear Mr. Karkal:

I am pleased to provide the Monthly Operation Report for July 2014.

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  
July 2014**

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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• Laboratory Data	
• Recycled Water Report	
• Annual Performance Graphs	
• Process Control Data / Graphs	
• Maintenance Report (KPI)	
• Customer Notifications (Odor)	

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## TREATMENT PLANT PERFORMANCE SUMMARY: July 2014:

## Reclamation / Storage – Waste Discharge Requirements (WDR)

Parameter	Value		Limit	
	Ave	Max	#1	#2
Flow, MGD (monthly ave/max)	3.33	3.77	N/A	N/A
Max Peak Hour, MGD – Dry Weather Flow	N/A	N/A	N/A	N/A
Influent BOD <sub>5</sub> , lb/day (month ave/max)	8,018	10,321	N/A	N/A
Influent TSS, lb/day (monthly ave/max)	11,129	16,161	N/A	N/A
Effluent BOD <sub>5</sub> , mg/L (monthly ave/weekly max)	<8	14	40	N/A
Effluent TSS, mg/L (monthly ave/weekly max)	<3	3	N/A	N/A
Effluent BOD <sub>5</sub> - % Removal, Minimum	97	N/A	N/A	N/A
Effluent TSS - % Removal, Minimum	99	N/A	N/A	N/A
Ammonia, mg/L – (monthly ave/daily max)	0.48	0.48	N/A	N/A
pH, su (min / max)	6.7	7.3	6.0	9.0
Enterococcus, mpn (30 day geo mean)	N/A	N/A	N/A	N/A
Fecal Coliform, mpn (30 day median)	N/A	N/A	N/A	N/A
Fecal Coliform, mpn (90 <sup>th</sup> percentile)	N/A	N/A	N/A	N/A
Total Coliform, mpn (5 Sample Median / Max)	50	70	240	10,000
<b>Total Permit Exceedances (WDR)</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	13.55	N/A
Average Turbidity	NTU	1.6	2.0
Turbidity > 5 NTU (in 24 hour)	Minutes	0	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	<2	2

Total Rainfall. – 0.00

Daily Max – N/A

**SAFETY AND TRAINING:**

- Monthly plant safety inspections for Novato WWTP and Ignacio Pump Station completed
- Five Minute Tailgate training is held daily with all staff.
- No safety incidents for the month of July 2014
- Accident Free: 6/1/10 – 7/31/14: 1,519 days / 69,266 hours
- Fire Extinguisher Refresher
- Hot work: Cutting, Welding and Brazing

**OPERATIONS & MAINTENANCE STATUS / REVIEW:****Key events for the period:****Novato**

- Installed new cutter cartridge in screenings grinder
- Flushed Digested Sludge Line
- Flushed Decant Line
- Annual maintenance on Forklift performed
- Annual maintenance on Wet Weather Pumps performed
- Ozonia (disinfection system rep) – Ultra Violet system checkup and training
- Changed out HOA switch and blown fuse on Emergency Generator #2
- Contractor installed new Day Tank Generator #2 & #3
- Contractor installed new voltage regulators Generator #2 & #3
- Contractor installed new cooling water drain line for Generator #2 & #3
- Tested all of the above.
- Provided tour for Solid Waste Association of North America (SWANNA)
- Boiler gas throttling valve failed / repaired
- PG&E demand response / load reduction on 7/28, reduced 180 kW.

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

- Primary Clarifier #1 (not needed at current flows)
- Secondary Clarifier #2 (not needed at current flows)
- Aeration Basins 1 & 3 (not needed at current flows)

**Ignacio Transfer Pump Station**

- Routine rounds, readings and maintenance
- Assisted with installation of Transfer Pump #1 – Impeller retrofit complete

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

- None

**Recycled Water Plant (RWP)**

- Performed plant rounds and maintenance
- Serviced trailer mounted air compressor

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

- None

**Sludge Lagoons**

- Performed routine rounds and inspection
- Flushed all lines

**ADMINISTRATION:**

- June Electronic Self Monitoring Report submitted on July 20, 2014
- June DMR and Semi Annual Report submitted on July 18, 2014

**ODORS:**

- Jerome Meter (H<sub>2</sub>S) readings performed in neighborhood and within treatment plant.

**MISCELLANEOUS**

- Process Control Management Plan (PCMP) meetings held weekly.

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

John O'Hare	Technical Support
Chris McAuliffe	District Manager
Robert Coffman	Asset Management

Novato Sanitary District  
BOD/TSS Report



July, 2014

Date	Flow MGD	Influent				Effluent				BOD % Removal	TSS % Removal
		BOD		TSS		BOD		TSS		PERCENT	PERCENT
		mg/l	lb/d	mg/l	lb/d	mg/l	lb/d	mg/l	lb/d		
07/01/14	3.30	279	7,679	448	12,330	19	523	<3	<83	93.2	99.3
07/02/14	3.33	256	7,110	357	9,915	15	417	<3	<83	94.1	99.2
07/03/14	3.27	310	8,454	470	12,818	9	245	<3	<82	97.1	99.4
07/04/14	2.96										
07/05/14	3.02										
07/06/14	3.21										
07/07/14	3.67	245	7,499	528	16,161	<5	<153	<2	<61	98.0	99.6
07/08/14	3.53										
07/09/14	3.21	324	8,674	356	9,531	8	214	2	54	97.5	99.4
07/10/14	3.26										
07/11/14	3.21	275	7,362	128	3,427	5	134	3	80	98.2	97.7
07/12/14	3.16										
07/13/14	3.22										
07/14/14	3.25	327	8,863	425	11,520	<5	<136	<3	<81	98.5	99.3
07/15/14	3.35										
07/16/14	3.26	215	5,846	419	11,392	<5	<136	<3	<82	97.7	99.3
07/17/14	3.29										
07/18/14	3.13	350	9,136	585	15,271	7	183	<3	<78	98.0	99.5
07/19/14	3.16										
07/20/14	3.30	329	9,055	356	9,798	12	330	<3	<83	96.4	99.2
07/21/14	3.69										
07/22/14	3.75	330	10,321	482	15,075	10	313	<3	<94	97.0	99.4
07/23/14	3.77										
07/24/14	3.61	247	7,437	352	10,598	<5	<151	4	120	98.0	98.9
07/25/14	3.58										
07/26/14	3.36										
07/27/14	3.56										
07/28/14	3.25	251	6,803	324	8,782	<5	<136	<3	<81	98.0	99.1
07/29/14	3.17			384	10,152			<3	<79		99.2
07/30/14	3.18										
07/31/14	3.35			364	10,170			<3	<84		99.2
<b>Weekly Averages</b>											
07/05/14	Week 1	282	3,514	425	5,301	14	179	3	37		
07/12/14	Week 2	281	3,558	337	4,403	6	76	2	29		
07/19/14	Week 3	297	3,605	476	5,773	6	69	3	36		
07/26/14	Week 4	302	4,054	397	5,363	9	120	3	45		
	Week 5										
<b>Monthly</b>											
Minimum	2.96	215	5,846	128	3,427	<5	61	<2	24	93	98
Maximum	3.77	350	10,321	585	16,161	19	237	4	55	98	100
Total	103.36										
Average	3.33	288	8,018	399	11,129	<8	<107	<3	<37	97	99

Novato Sanitary District  
Conventional Pollutants Report



July, 2014

Date	INFLUENT - A001			Effluent - E002							
	Flow Total	pH	Ammonia	Coliform / Bacteria			pH	Ammonia	Unionized Ammonia	Oil & Grease	Temp
				Fecal	Entero	Total					
	MGD	su	mg/L	MPN/100 mL			su	mg/L	mg/L		Deg C
07/01/14	3.30	6.7				8	7.0				24.5
07/02/14	3.33	7.1				13	6.9				24.3
07/03/14	3.27	7.1				2	6.9				24.1
07/04/14	2.96						6.9				24.1
07/05/14	3.02										
07/06/14	3.21										
07/07/14	3.67	6.9				14	7.0				23.7
07/08/14	3.53	7.2					7.1				24.6
07/09/14	3.21	7.0				23	7.0				24.0
07/10/14	3.26						7.0				24.3
07/11/14	3.21	7.0				14	7.0				24.0
07/12/14	3.16										
07/13/14	3.22										
07/14/14	3.25	7.1				4	7.0				24.7
07/15/14	3.35						6.9				24.7
07/16/14	3.26	6.8	34			4	7.0	0.48	0.00268		24.8
07/17/14	3.29						7.0				24.8
07/18/14	3.13	7.1				9	7.0				24.5
07/19/14	3.16										
07/20/14	3.30					8					
07/21/14	3.69	7.3					7.1				24.4
07/22/14	3.75					50	7.1				24.3
07/23/14	3.77						7.1				25.2
07/24/14	3.61	6.7				50	7.0				24.9
07/25/14	3.58						7.1				25.7
07/26/14	3.36										
07/27/14	3.56										
07/28/14	3.25	6.7				30	7.1				25.2
07/29/14	3.17					70	7.0				24.9
07/30/14	3.18	7.2					7.0				25.4
07/31/14	3.35					2	7.0				24.9
<b>Monthly</b>											
Minimum	2.96	6.7	34			2	6.9	0.48			23.7
Maximum	3.77	7.3	34			70	7.1	0.48	0.00268		25.7
Total	103.36										
Average	3.33	7.0	34				7.0	0.48	0.00268		24.6

<b>TOTAL COLIFORM (RECLAMATION)</b>		
<b>Jul-14</b>		
<b>(1) 5 Sample Median not to exceed 240 mpn/100 mL</b>		
<b>(2) Maximum not to exceed 10,000</b>		
Note (2): Maximum must be confirmed by a follow-up sample taken within 24 hours		
<b>Date</b>	<b>Value</b>	<b>Median</b>
June 20, 2014	<b>30</b>	
June 23, 2014	<b>50</b>	
June 25, 2014	<b>80</b>	
June 27, 2014	<b>30</b>	
July 1, 2014	<b>8</b>	<b>30</b>
July 2, 2014	<b>13</b>	<b>30</b>
July 3, 2014	<b>2</b>	<b>13</b>
July 4, 2014		
July 5, 2014		
July 6, 2014		
July 7, 2014	<b>14</b>	<b>13</b>
July 8, 2014		
July 9, 2014	<b>23</b>	<b>13</b>
July 10, 2014		
July 11, 2014	<b>14</b>	<b>14</b>
July 12, 2014		
July 13, 2014		
July 14, 2014	<b>4</b>	<b>14</b>
July 15, 2014		
July 16, 2014	<b>4</b>	<b>14</b>
July 17, 2014		
July 18, 2014	<b>9</b>	<b>9</b>
July 19, 2014		
July 20, 2014	<b>8</b>	<b>8</b>
July 21, 2014		
July 22, 2014	<b>50</b>	<b>8</b>
July 23, 2014		
July 24, 2014	<b>50</b>	<b>9</b>
July 25, 2014		
July 26, 2014		
July 27, 2014		
July 28, 2014	<b>30</b>	<b>30</b>
July 29, 2014	<b>70</b>	<b>50</b>
July 30, 2014		
July 31, 2014	<b>2</b>	<b>50</b>
<b>Maximum</b>	<b>70</b>	<b>50</b>

**NOVATO SANITARY DISTRICT  
WATER RECLAMATION 2014  
COMPLIANCE SUMMARY REPORT**

July	Fil Inf Q	Million Gallons Delivered			Influent Turbidity		Effluent Turbidity		Cl <sup>2</sup> Dose mg/L		DO mg/L	Coliform mpn	CT Min
		Rec	Bank	Pot	Max	Ave	Min +5	Ave	Min	Ave			
July 1	1.430	0.703					0	1.5			8.5	< 2	> 450
July 2	0.830	0.657					0	1.9			8.5	< 2	> 450
July 3			0.508									< 2	
July 4	1.130	0.063	0.053	0.75			0	1.9				< 2	> 450
July 5				0.59									
July 6				0.79									
July 7				0.68									
July 8				0.70									
July 9				0.64									
July 10	0.820	0.560		0.18		1.9	0	1.7			8.1	< 2	> 450
July 11	0.860	0.695				2.0	0	1.6			8.3	< 2	> 450
July 12	0.860	0.671				1.8	0	1.7			8.4	< 2	> 450
July 13	0.770	0.744				1.7	0	1.7			8.3	< 2	> 450
July 14	0.860	0.661				1.8	0	1.8			8.7	< 2	> 450
July 15	0.720	0.765				1.8	0	1.7			8.1	< 2	> 450
July 16	0.680	0.583				1.5	0	1.8				< 2	> 450
July 17	0.800	0.761				1.8	0	1.6				< 2	> 450
July 18	0.790	0.373				1.4	0	1.6				< 2	> 450
July 19	0.030	0.299				1.6	0	1.6				< 2	> 450
July 20	0.020		0.235										
July 21	1.130	0.154				2.6	0	1.9			8.3	< 2	> 450
July 22	0.790	0.537				2.2	0	1.7			8.1	< 2	> 450
July 23	0.840	0.263				1.5	0	1.4			8.2	< 2	> 450
July 24	0.680	0.740				2.3	0	1.4				< 2	> 450
July 25	0.760	0.708				1.7	0	1.4				< 2	> 450
July 26	0.630	0.339				1.6	0	1.5				< 2	> 450
July 27	0.540	0.376				1.5	0	1.2			8.1	< 2	> 450
July 28	0.560	0.393				2.1	0	1.8			8.1	< 2	> 450
July 29	0.650	0.496				2.2	0	1.9			8.0	< 2	> 450
July 30	0.640	0.308	0.131	0.19		1.9	0	1.3					> 450
July 31	0.860	0.77				2.0	0	1.7				< 2	> 450
Total	18.68	12.62	0.93	4.51									450
Min	0.02	0.06	0.05	0.18	0		< 0.0	< 1.2	0.0	0.0	8.0	< 2	> 450
Max	1.43	0.77	0.51	0.79	0		< 0.0	< 1.9	0.0	0.0	8.7	< 2	> 450
Ave	0.75	0.53	0.23			NA	< 0.0	< 1.6			8.3	<	> 450
Count	25	24	4	8	0	NA	23	24	0	0		23	23

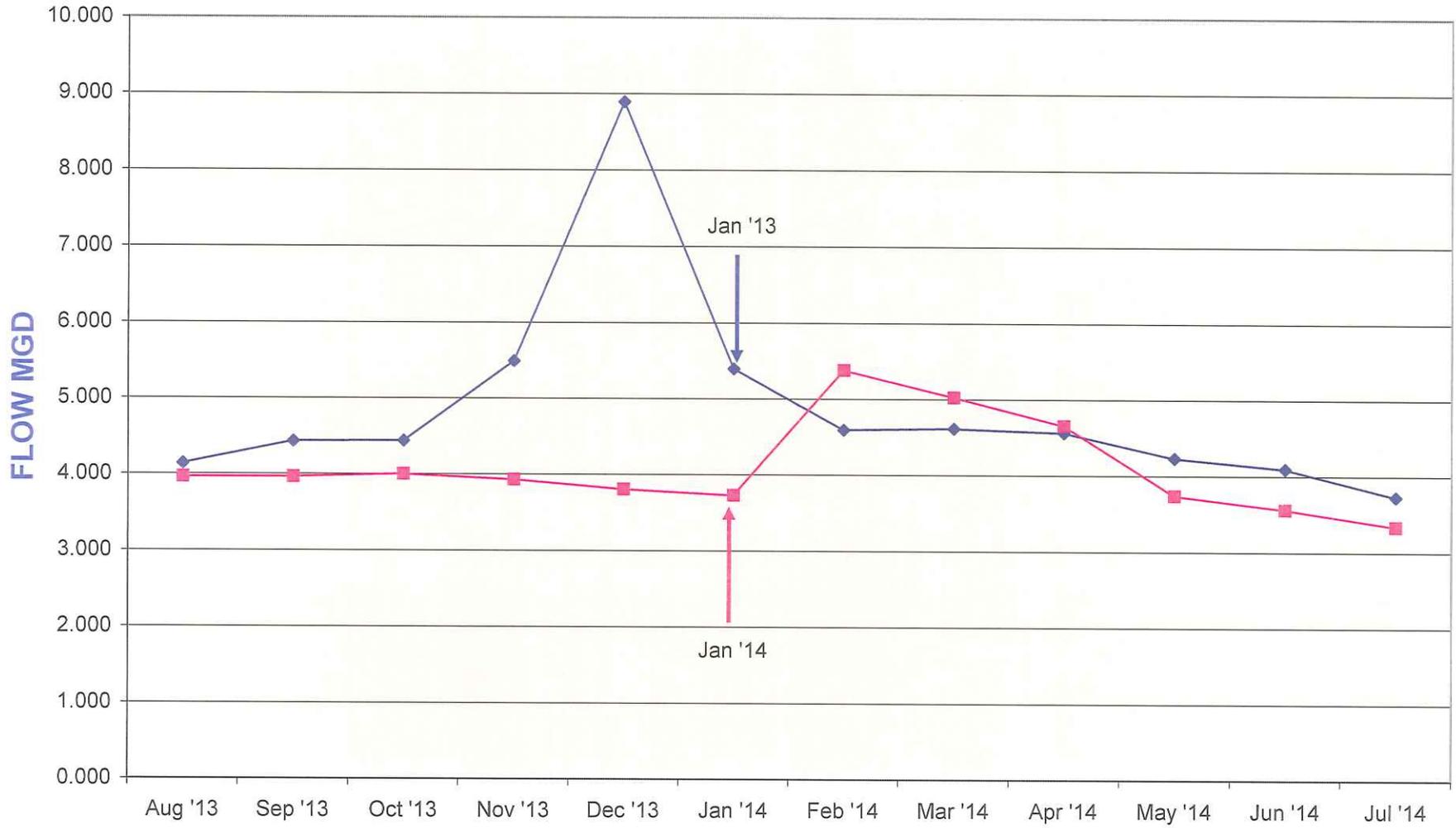
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<b>Total Banked + Title 22</b>	<b>13.55</b>
<b>Potable Water Delivered</b>	<b>4.51</b>
<b>Total Water Delivered</b>	<b>18.05</b>



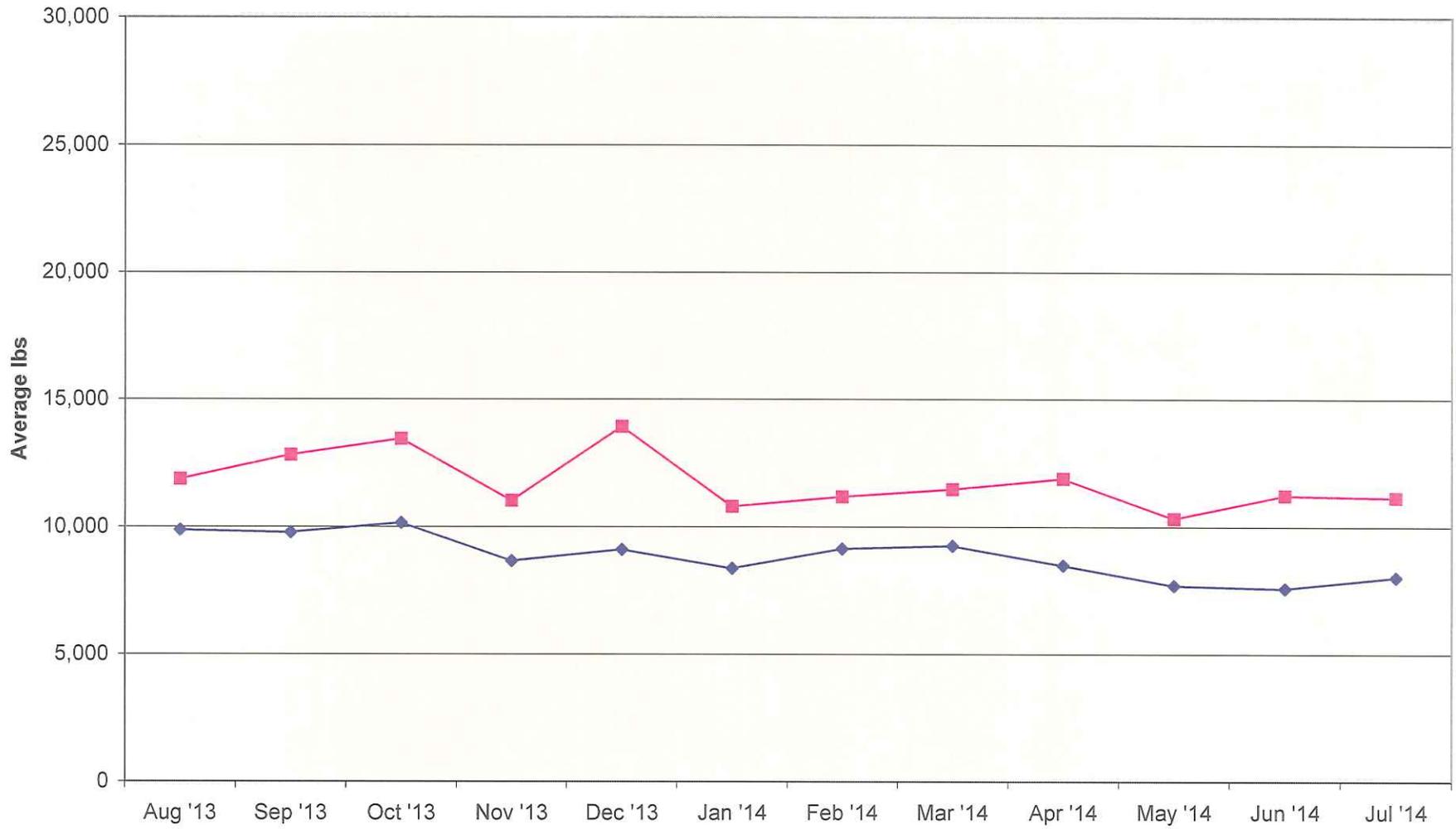
# FLOW COMPARISON

◆ 2012 / 13    ■ 2013 / 14



### Influent Load BOD / TSS lbs

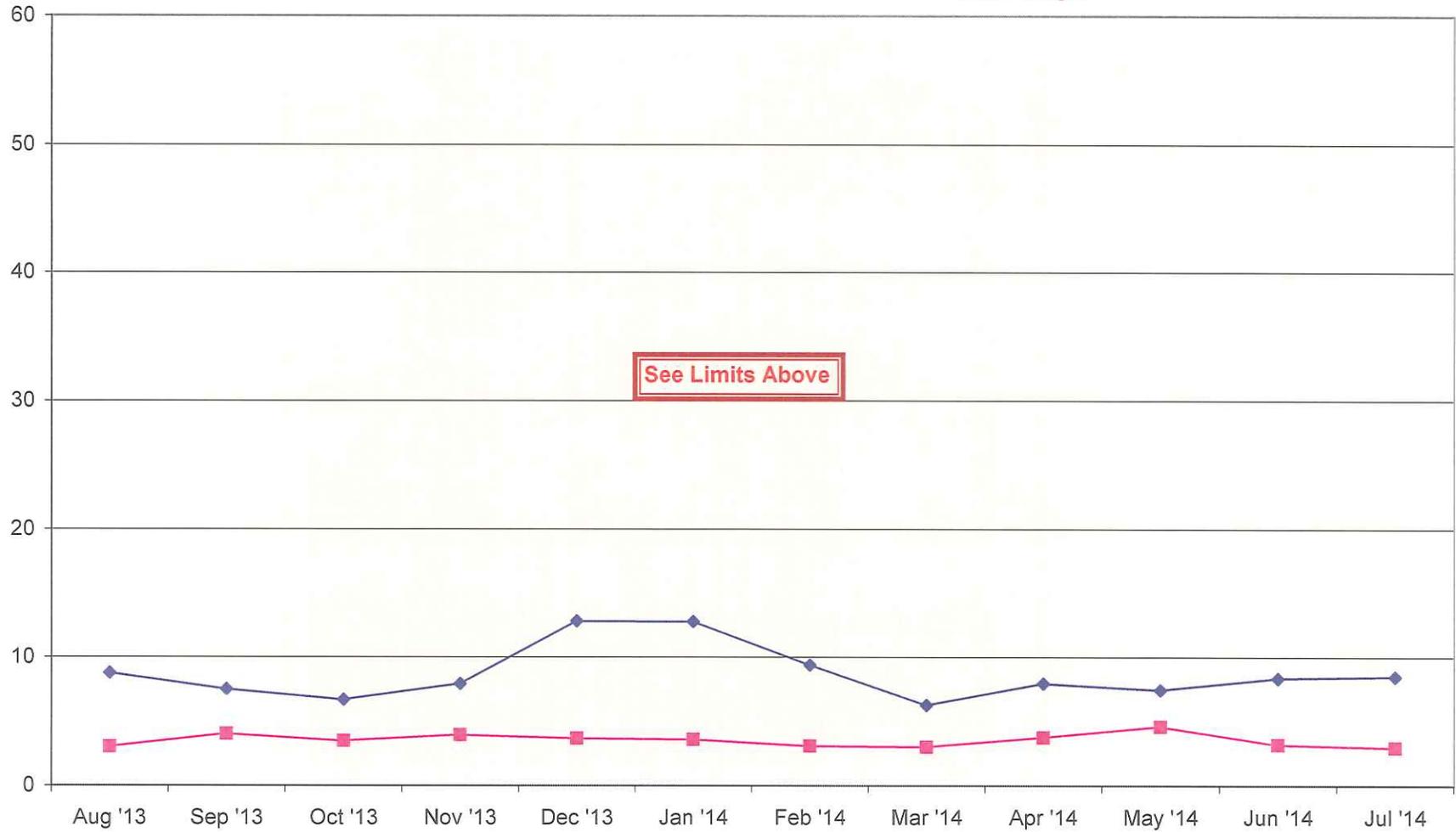
◆ BOD lbs ■ TSS lbs



# Effluent BOD / TSS Concentration

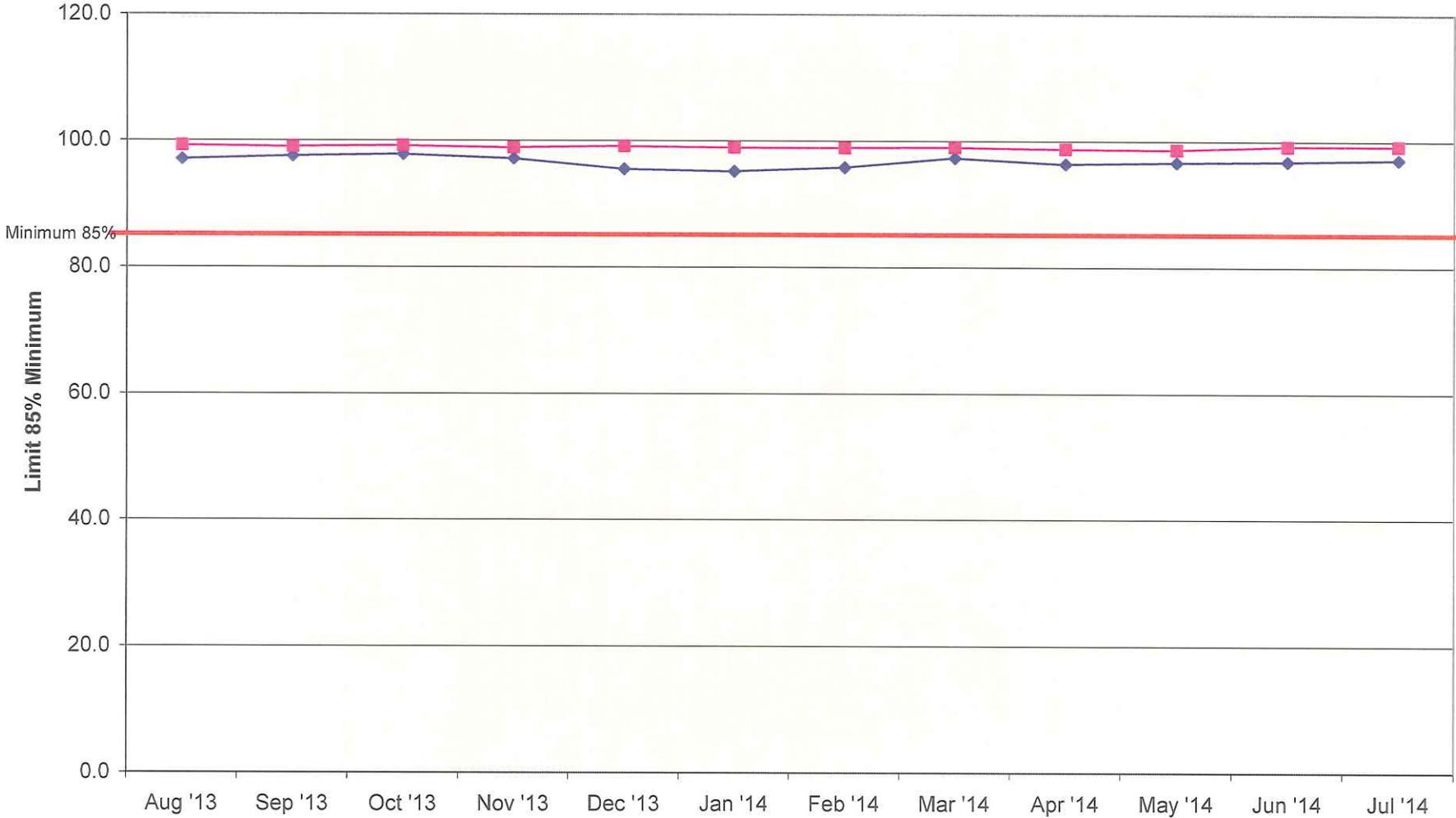
NPDES LIMITS WET SEASON  
BOD & TSS - 30 mg/L Monthly Ave, 45 mg/L Weekly Ave  
NPDES LIMITS DRY SEASON  
BOD - 15 mg/L Monthly Ave, 30 mg/L Weekly Ave  
TSS - 10 mg/L Monthly Ave, 20 mg/L Weekly Ave  
WDR (Waste Discharge Requirements) RECLAMATION  
BOD - 40 mg/L

—◆— BOD —■— TSS



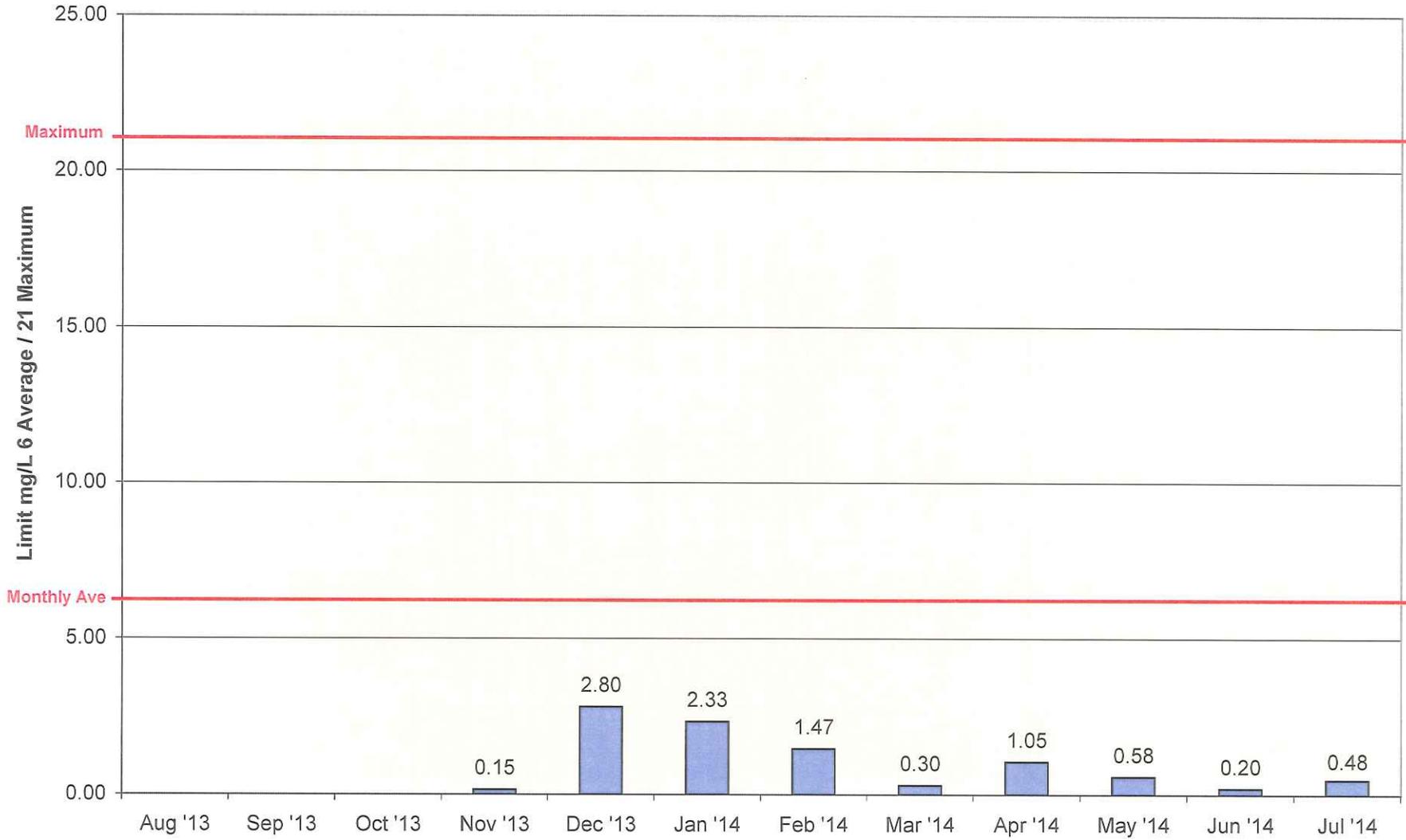
# BOD / TSS Percent Removal

◆ BOD ■ TSS



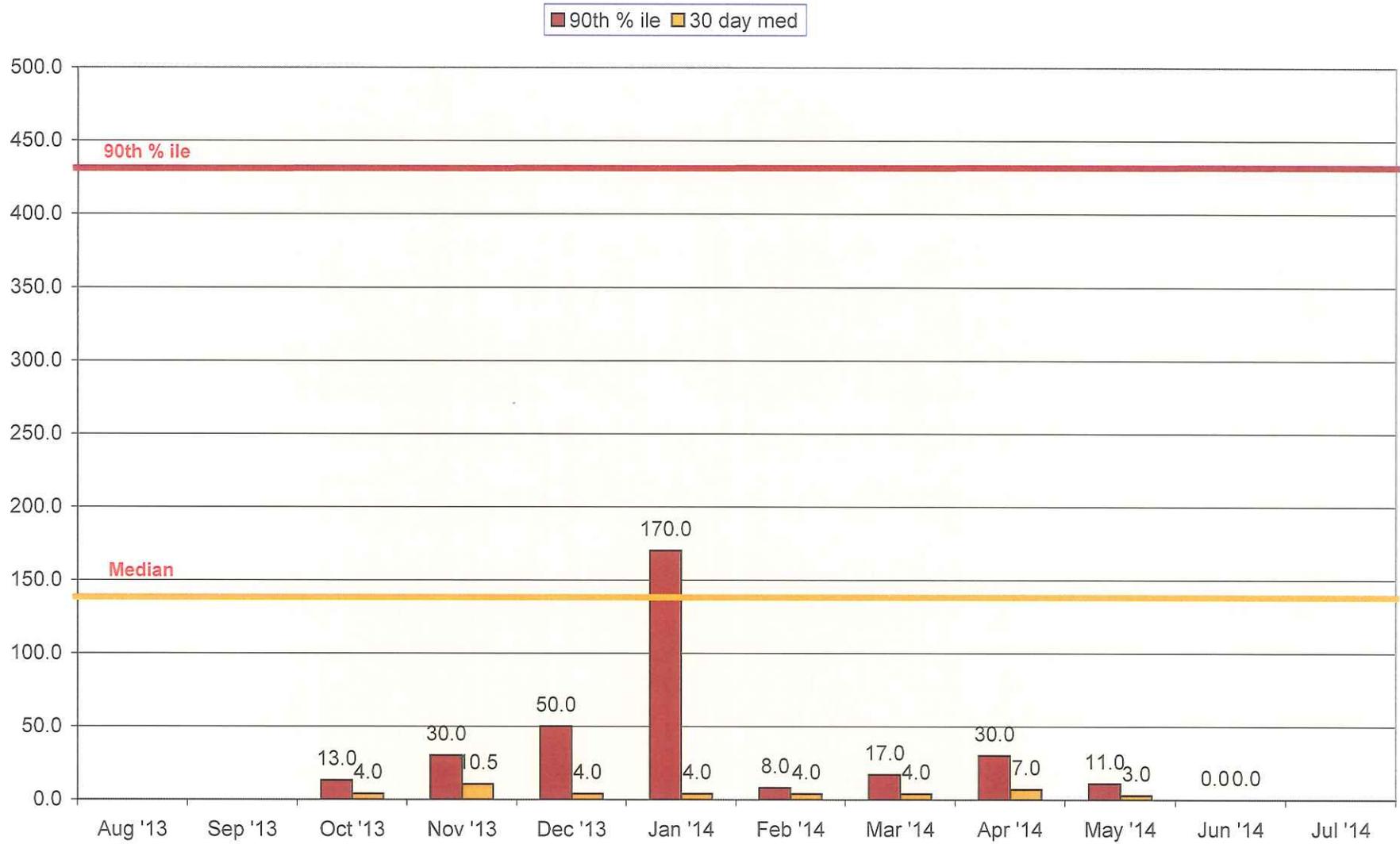
# Effluent Ammonia

No Ammonia Limits During Reclamation, Jun - Sep



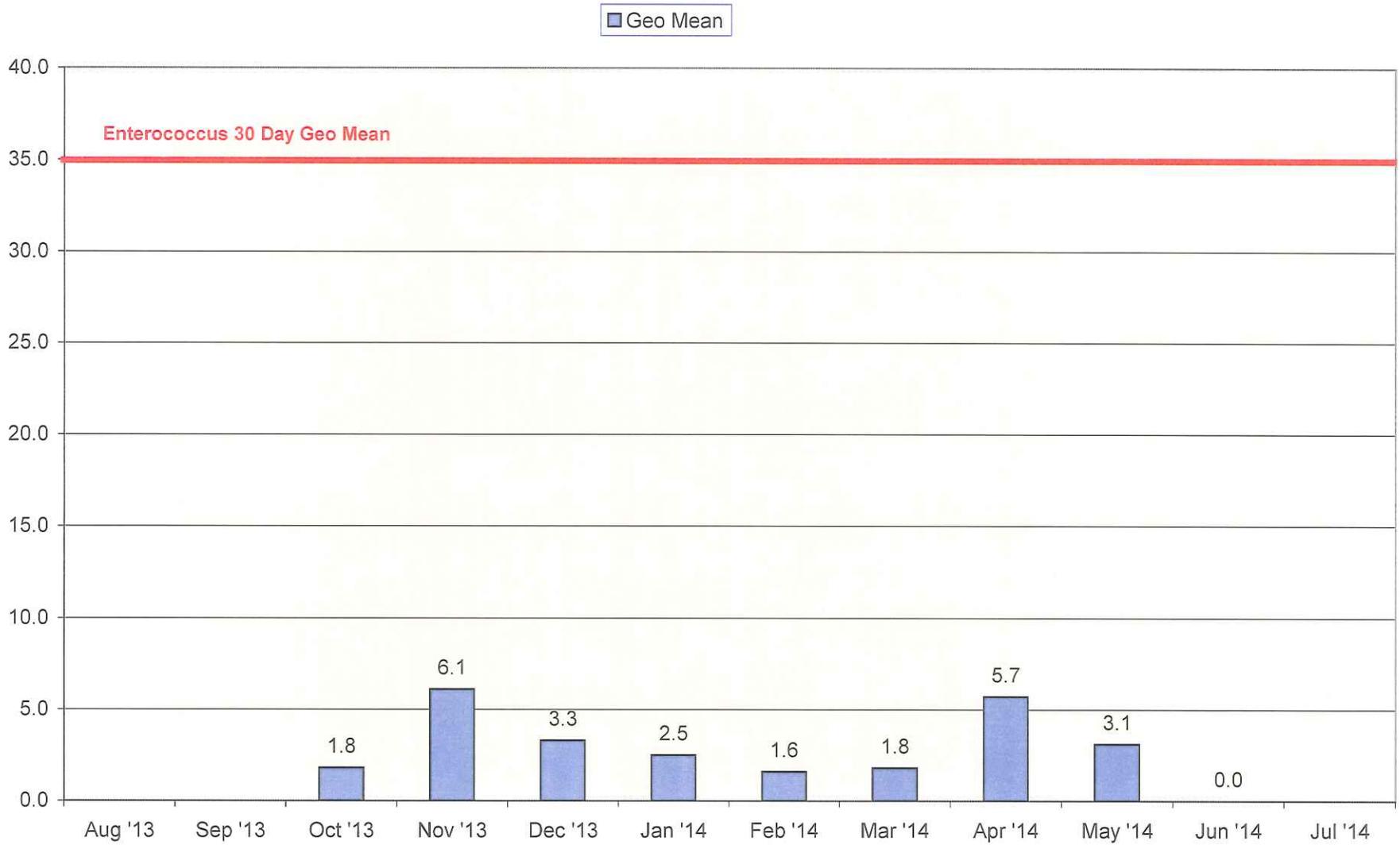
# Disinfection

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



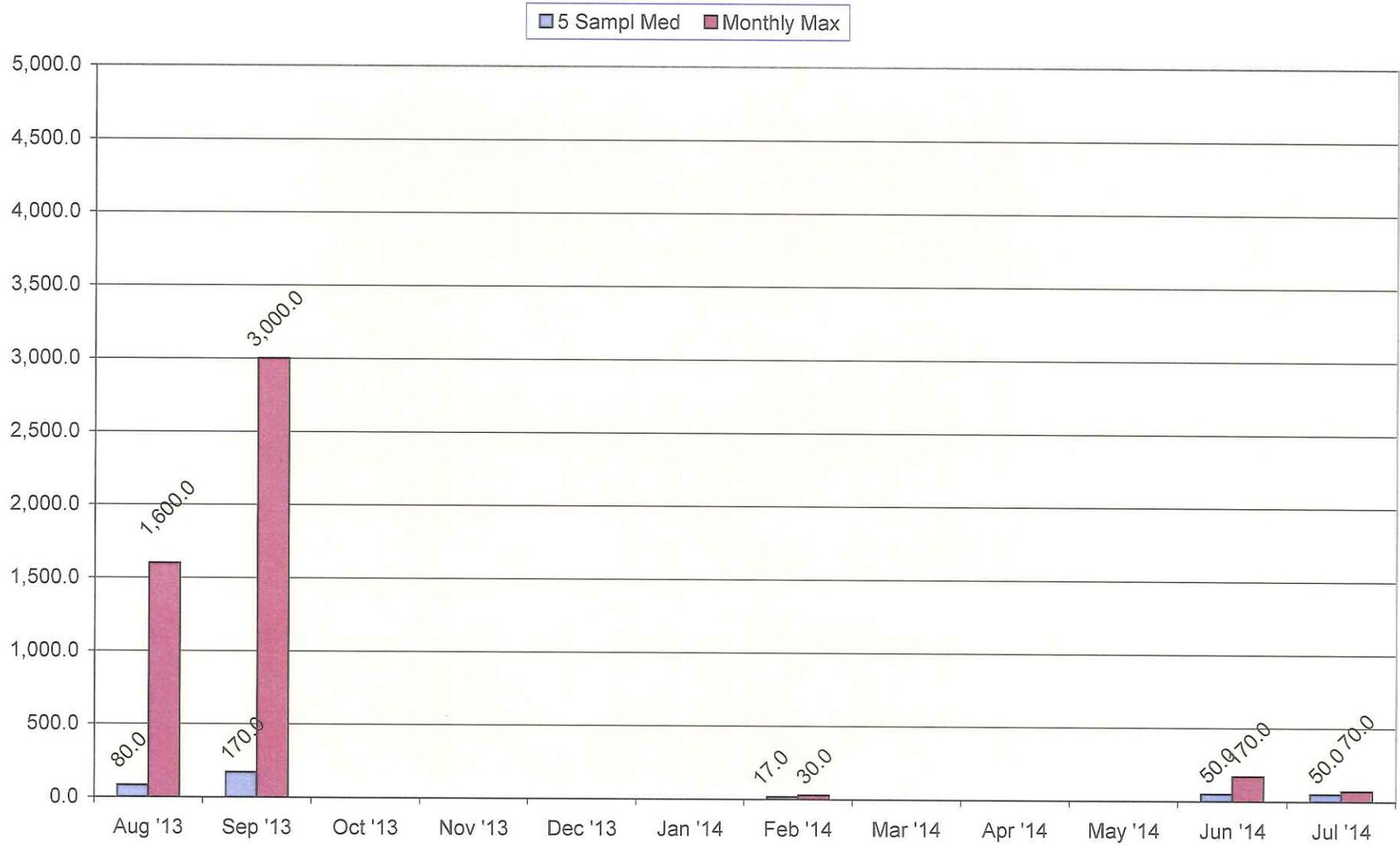
# Disinfection

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



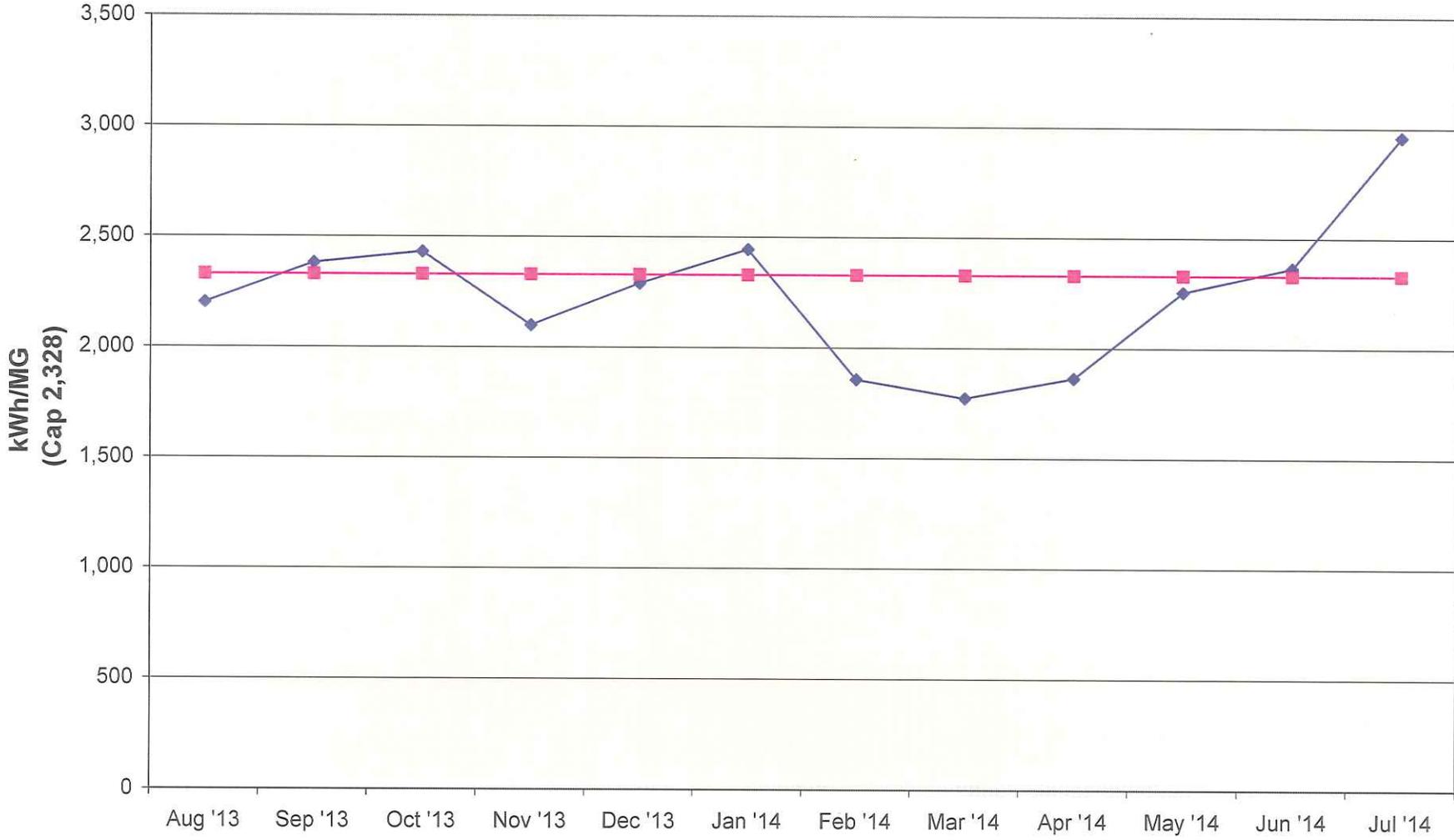
# Disinfection

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



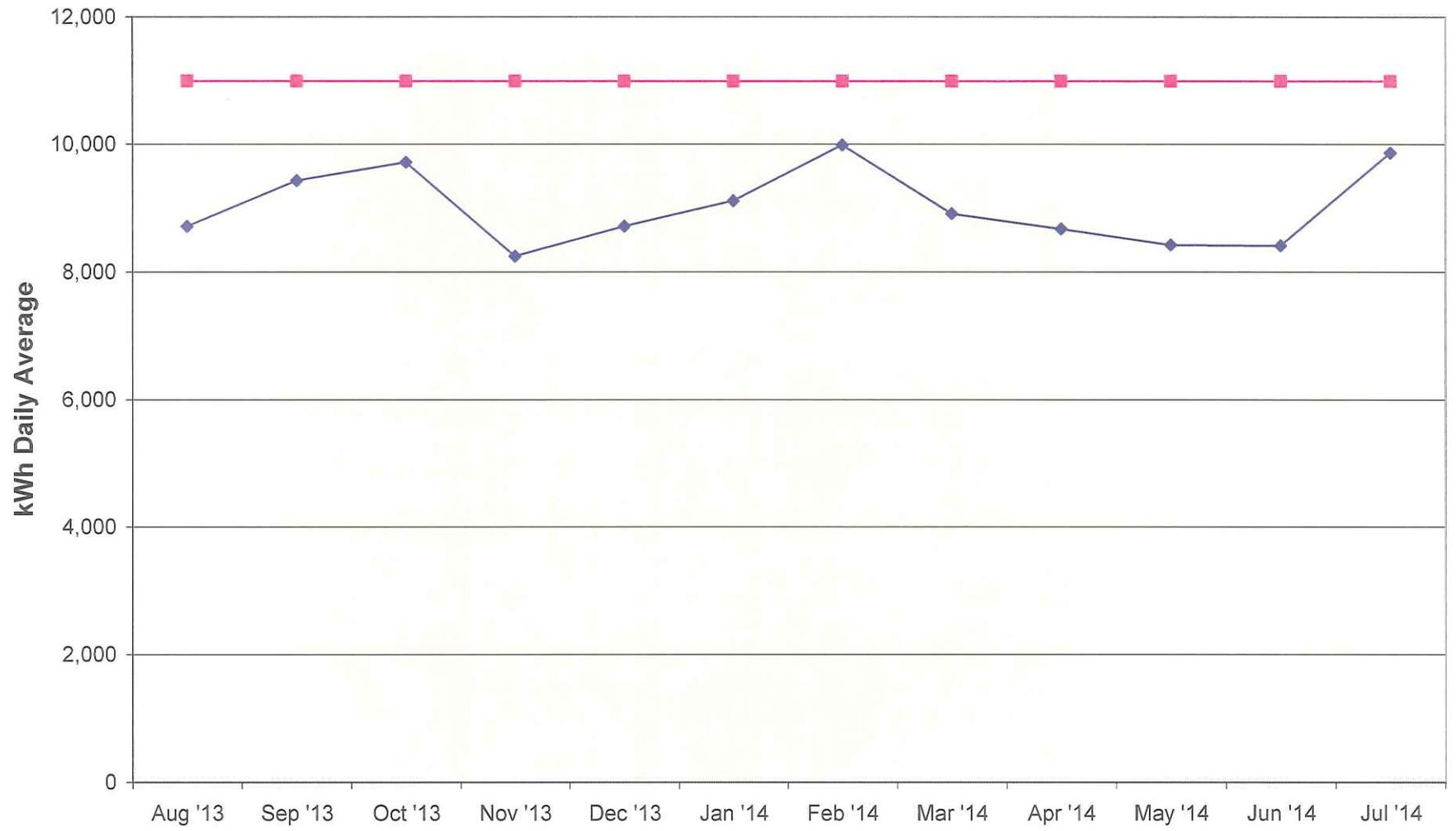
# Energy kWh/MG

—◆— kWh/MG —■— Cap

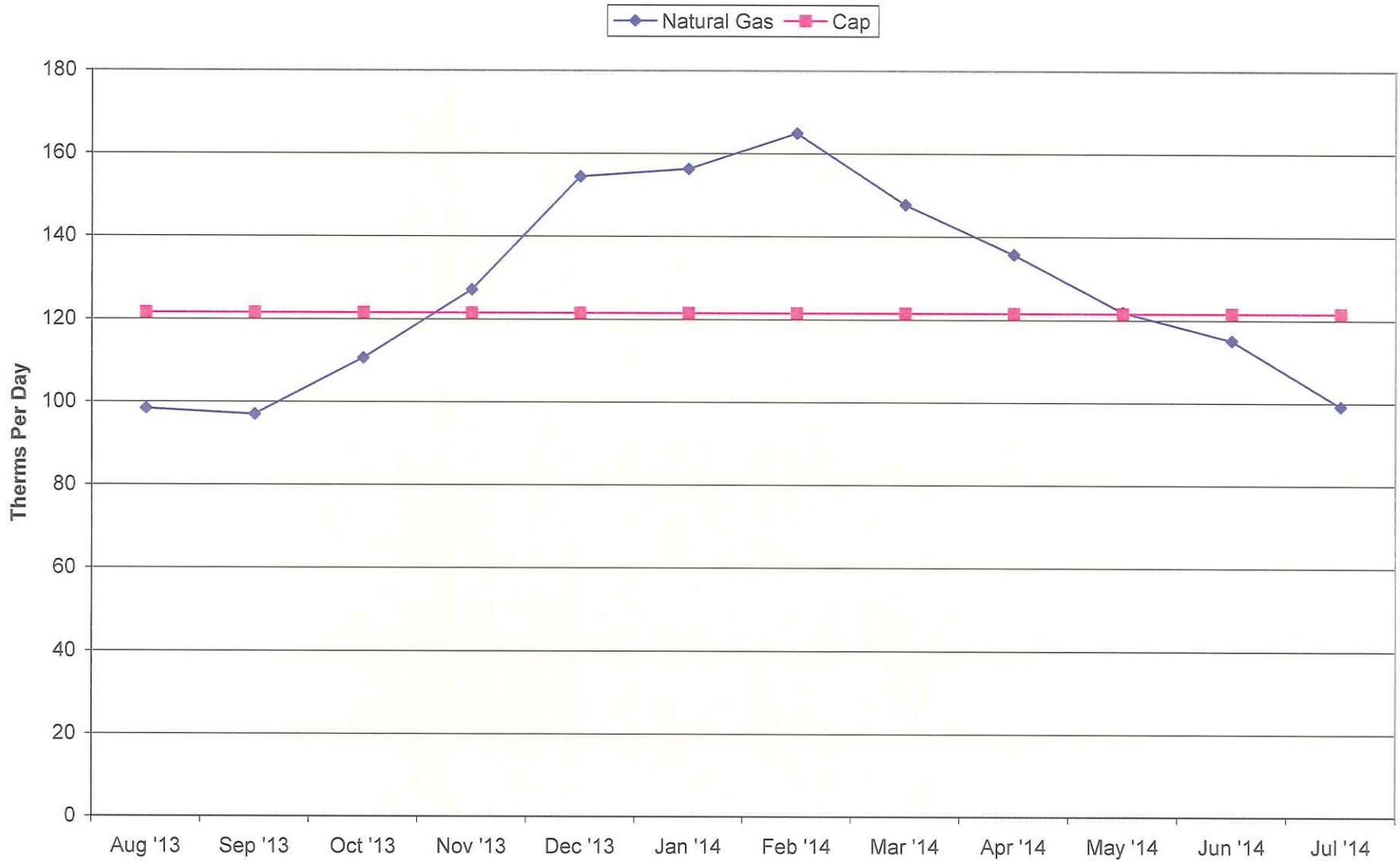


# Energy kWh

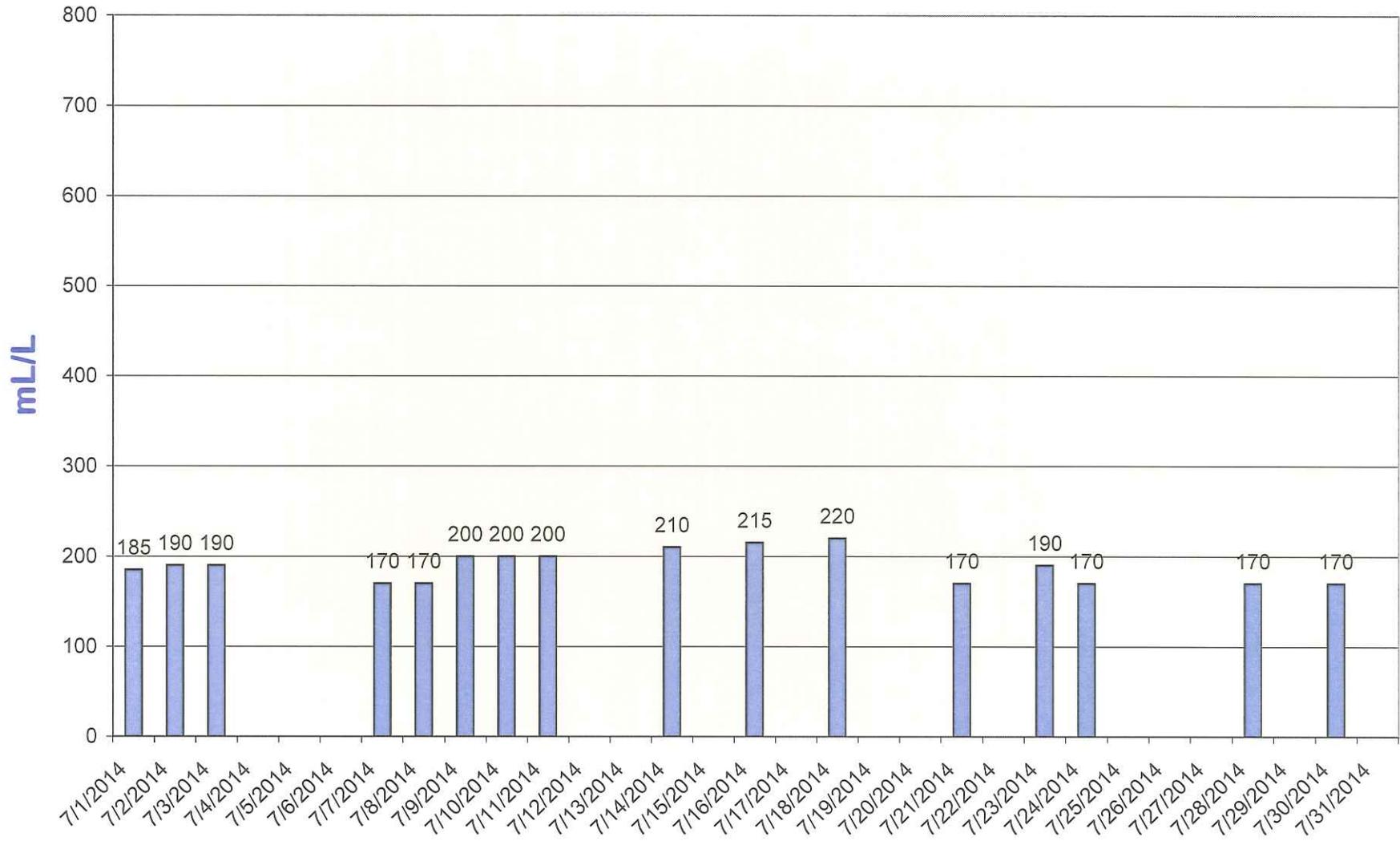
—◆— kWh —■— Cap



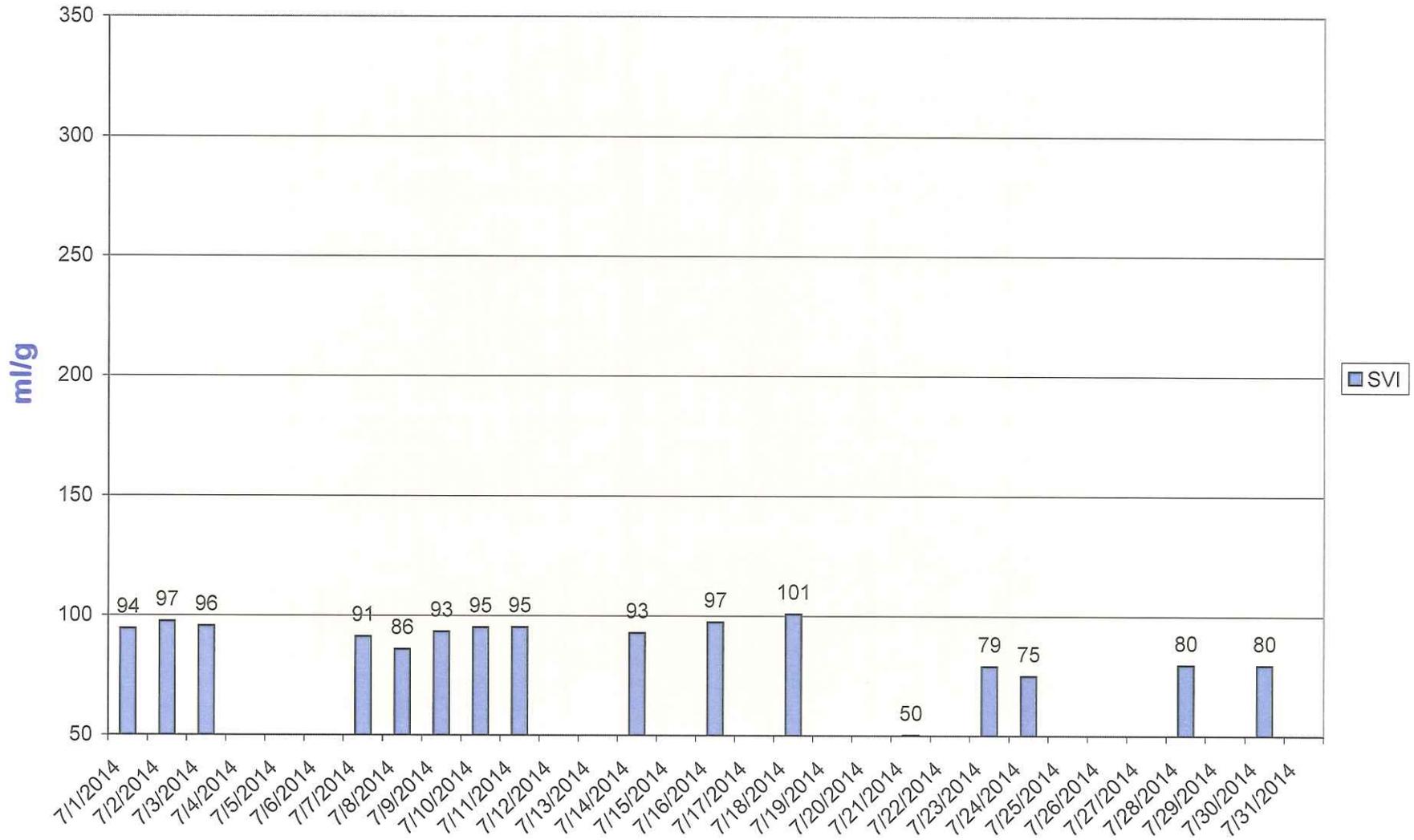
### Natural Gas Use



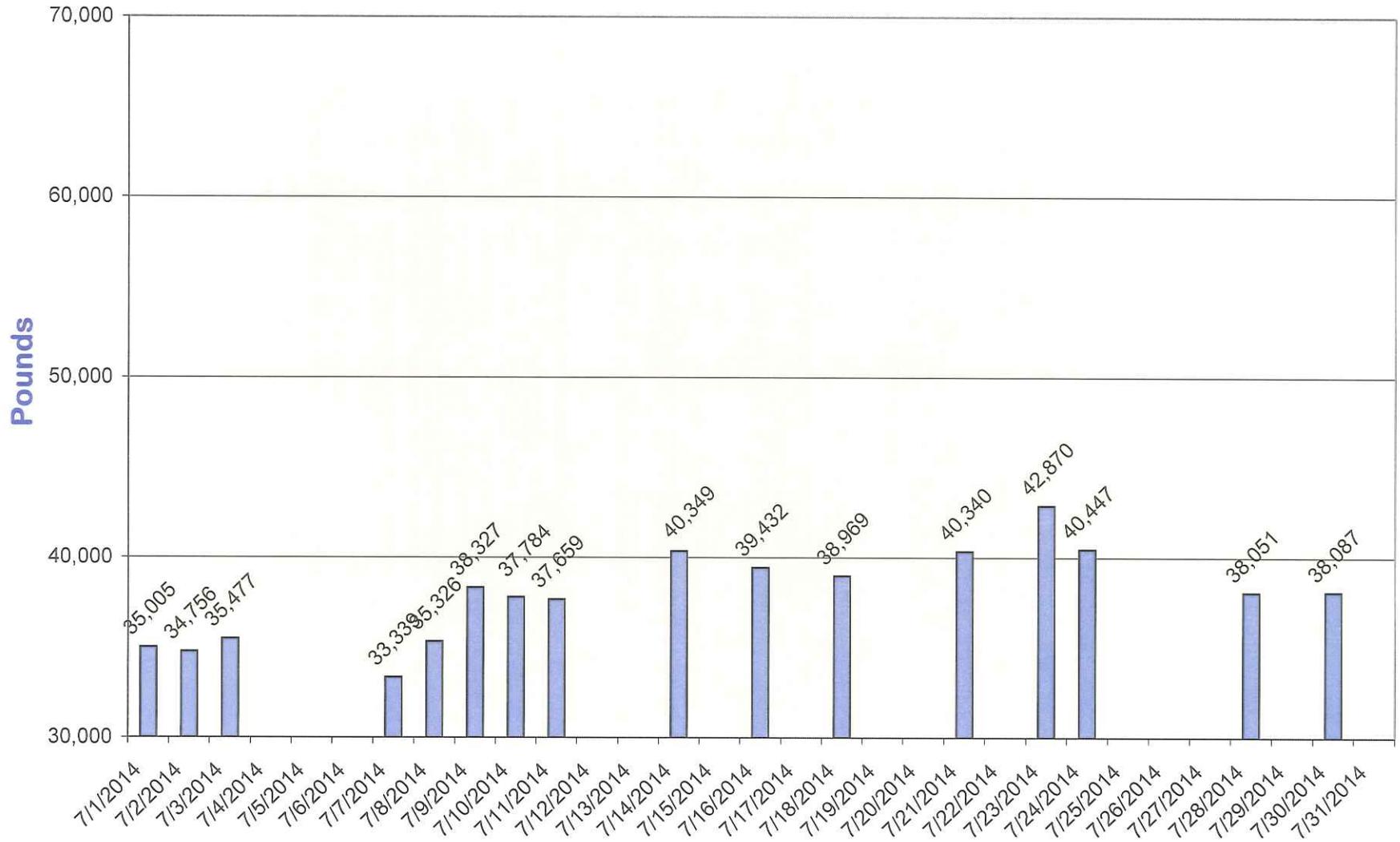
# Settleability



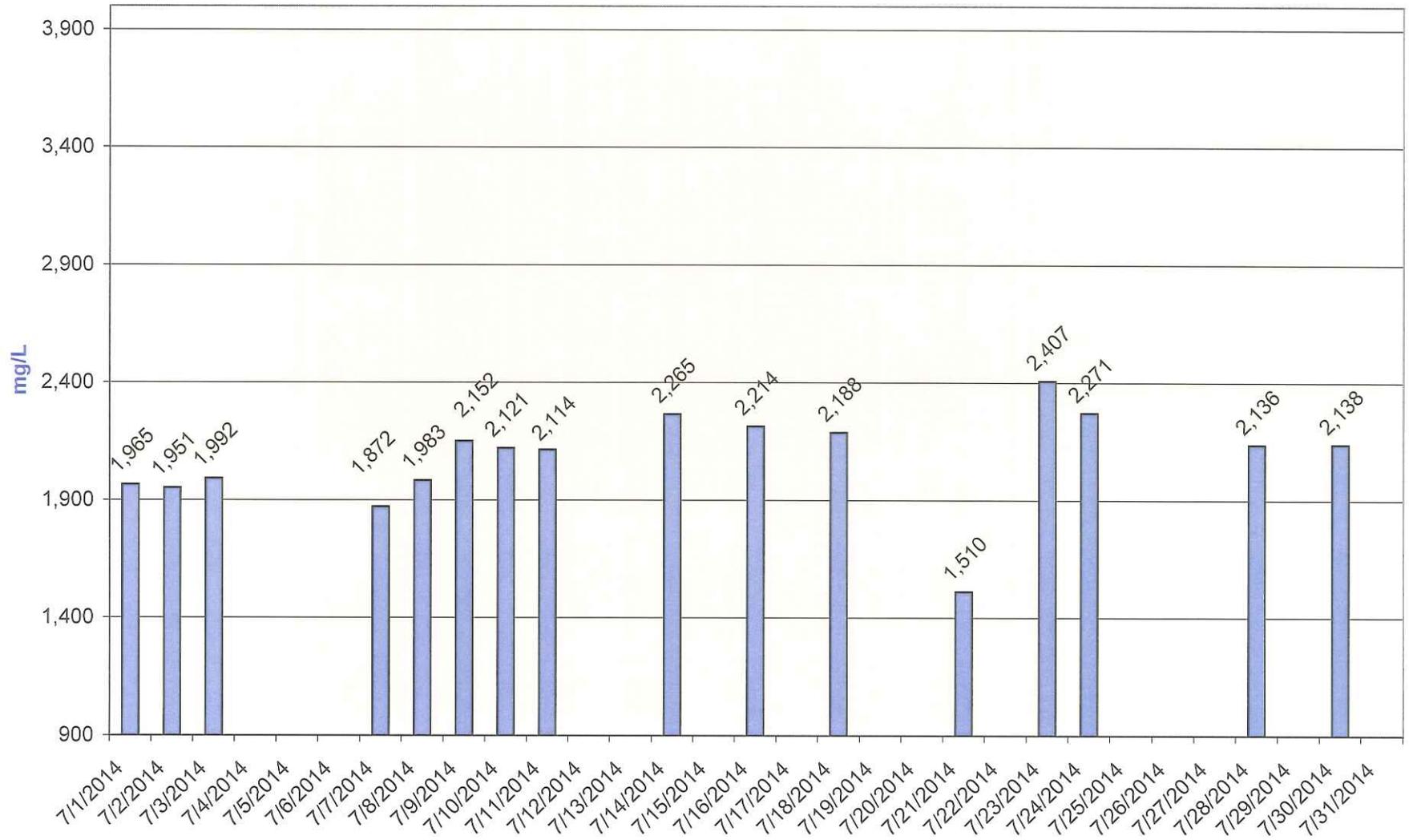
# Sludge Volume Index



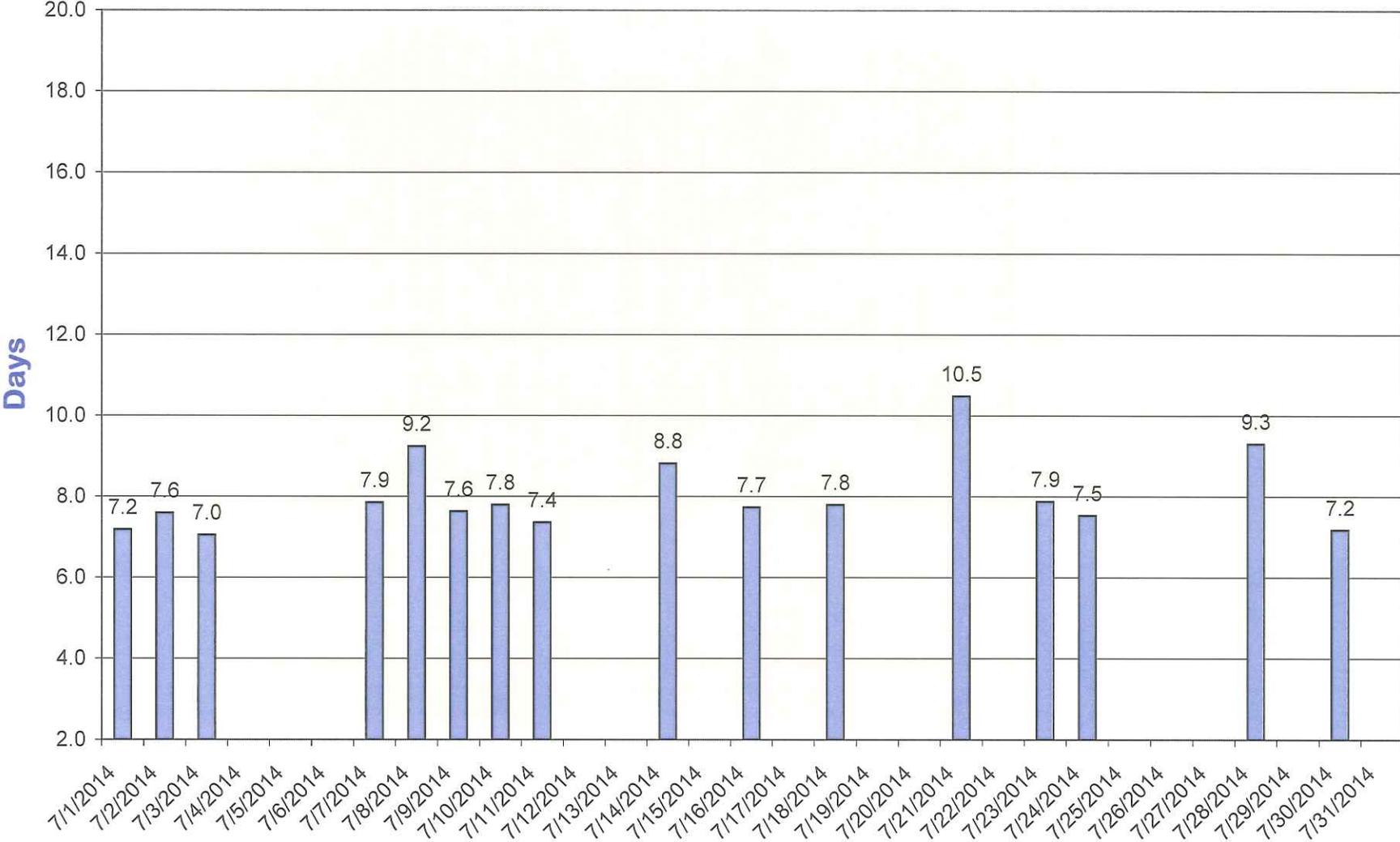
# MLSS Inventory



### MLSS Concentration



# Mean Cell Residence Time



## Process Control Data

	Influent Flow	Settleability	MLSS Concentration	MLSS Inventory	F:M Ratio	MCRT	SVI
7/1/2014	3.30	185	1,965	35,005	0.20	7.2	94
7/2/2014	3.33	190	1,951	34,756	0.13	7.6	97
7/3/2014	3.27	190	1,992	35,477	0.15	7.0	96
7/4/2014	2.96						
7/5/2014	3.02						
7/6/2014	3.21						
7/7/2014	3.67	170	1,872	33,339	0.20	7.9	91
7/8/2014	3.53	170	1,983	35,326		9.2	86
7/9/2014	3.21	200	2,152	38,327	0.14	7.6	93
7/10/2014	3.26	200	2,121	37,784		7.8	95
7/11/2014	3.21	200	2,114	37,659	0.15	7.4	95
7/12/2014	3.16						
7/13/2014	3.22						
7/14/2014	3.25	210	2,265	40,349	0.16	8.8	93
7/15/2014	3.35						
7/16/2014	3.26	215	2,214	39,432	0.13	7.7	97
7/17/2014	3.29						
7/18/2014	3.13	220	2,188	38,969	0.14	7.8	101
7/19/2014	3.16						
7/20/2014	3.30						
7/21/2014	3.69	170	1,510	40,340		10.5	50
7/22/2014	3.75						
7/23/2014	3.77	190	2,407	42,870		7.9	79
7/24/2014	3.61	170	2,271	40,447		7.5	75
7/25/2014	3.58						
7/26/2014	3.36						
7/27/2014	3.56						
7/28/2014	3.25	170	2,136	38,051	0.18	9.3	80
7/29/2014	3.17						
7/30/2014	3.18	170	2,138	38,087		7.2	80
7/31/2014	3.35						
Minimum	2.96	170.00	1,509.67	33,339	0.13	7.0	50
Maximum	3.77	220	2,407	42,870	0.20	10.5	101
Total	96.83	2,850	31,137	568,132	1.59	121.2	1,322
Average	3.34	190	2,076	37,875	0.16	8.1	88

**WORK ORDER STATISTICS**

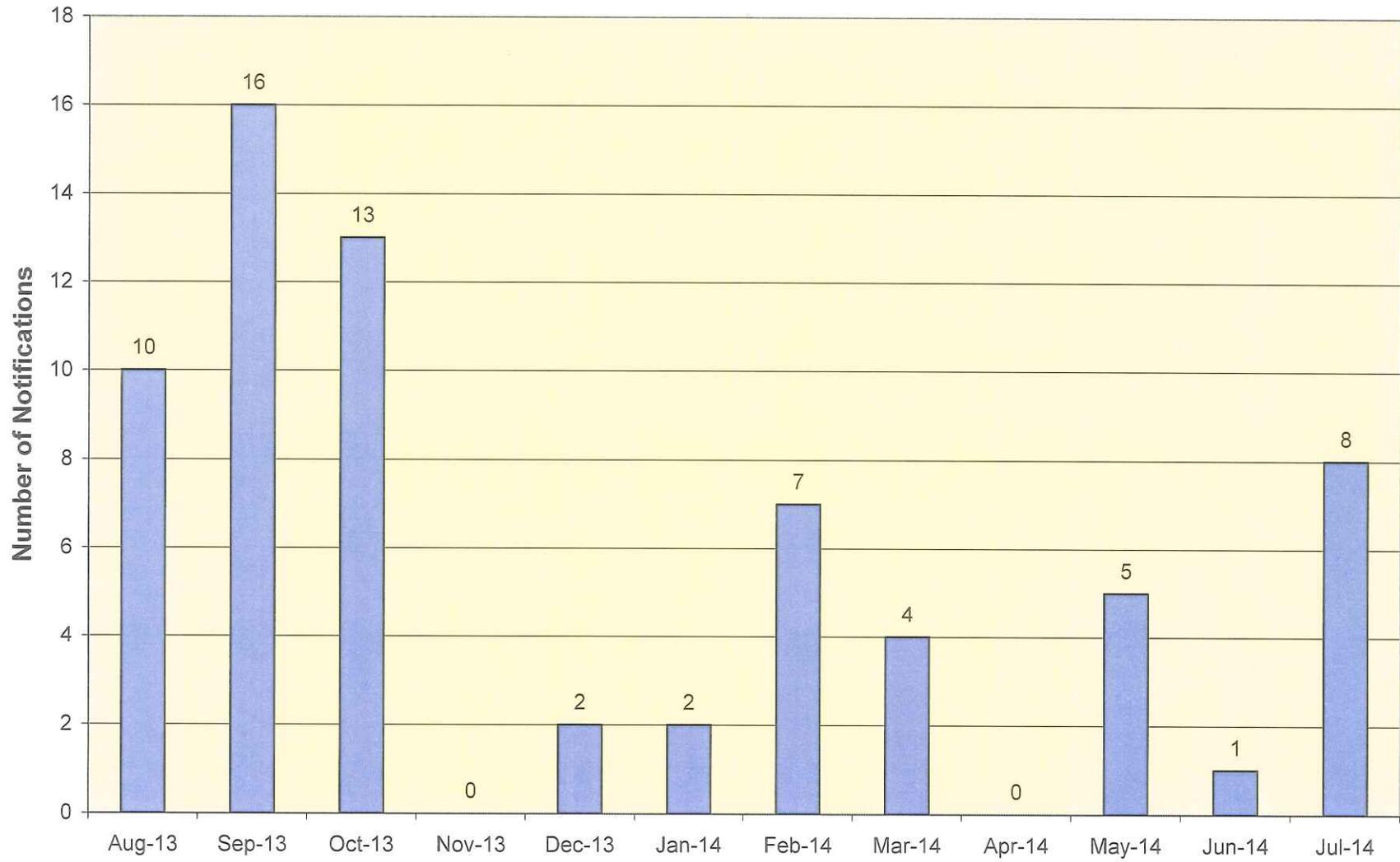
**July 1, 2014 - July 31, 2014**

	<b>Open Work Orders Due Prior to 6/1/14</b>	<b>Open Work Orders 6/1/14 - 6/30/14</b>	<b>Total Open Work Orders</b>
Preventative	3	452	455
Corrective	1	52	53
Total	4	504	508

	<b>Closed Work Orders 7/1/14 - 7/31/14</b>
Preventative	399
Corrective	24
Total	423

<b>Total Outstanding Work Orders as of August 1, 2014</b>	<b>85</b>
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## Complaints / Contacts Received



**NOVATO SANITARY DISTRICT**  
**Wastewater Operations Committee Meeting**  
**Odor Control and Landscaping Report**  
**July 2014**

**Background:**

Staff and the District's consultant continue to work to address issues of odor control and landscaping, specifically in the Lea Drive neighborhood, and at the northeast corner of the Novato Treatment Plant (NTP) site.

As previously explained, the District has already expended significant amounts beyond the substantial investment for odor control and landscaping from the original WWTP Upgrade, Contract B - Novato Treatment Plant (NTP), Project No. 72609. These additional costs have included operational changes, measures related to further odor control measures, noise abatement, visual screening, wind shielding, and daily monitoring. The District also retained Brown and Caldwell (B&C) and their project manager, Mr. David McEwen, to further study the issue of potential odor emissions from the aeration basins, and any other potential sources not previously considered.

**Odor control:**

Earlier this year, Mr. McEwen issued odor control recommendations at the aeration basins, and made detailed presentations to neighborhood representatives and to the District's Wastewater Operations Committee. As mentioned in prior reports, Mr. McEwen's most significant recommendation, i.e. converting anoxic zones B and C at the aeration basins to aerobic zones has been implemented. Although results to date have been good, and operations staff continues to monitor performance, Mr. McEwen performed sampling activities for the validation testing of this modification in June> he waited until June to carry out his testing so that his work would reflect a warm weather "worst case" scenario. Results are expected by August. Also, staff anticipates that Mr. McEwen will submit a draft technical memorandum of the results of his work shortly after he has analyzed the results of the validation testing.

In addition, another of Mr. McEwen's odor control recommendations (adding sodium hypochlorite to the influent flow during warm weather periods) was considered in June, but not implemented to prevent interferences with the testing and validation process at the aeration basins; it was subsequently implemented in early July. Again, staff continues to monitor performance and qualitatively the results appear to be good.

**Landscaping:**

On landscaping, staff continues to work with the District's landscaping contractor Cagwin and Dorward (C&D), on vegetation at the District's fence-line on Lea Drive and at the northeast corner area of the NTP. As mentioned in earlier reports, staff will also bring further landscaping improvements to this area for the Committee's consideration, at a future meeting. As an example, staff is looking into the possibility of transplanting the redwood trees currently in boxes along the western boundary of the plant site to the northeast corner of the property.

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# NOVATO SANITARY DISTRICT WASTEWATER OPERATIONS COMMITTEE AGENDA ITEM SUMMARY

<b>TITLE: Operations: Major Repair/Replacement, Account No. 61000-3</b>	<b>MEETING DATE: August 18, 2014</b>  <b>AGENDA ITEM NO. 5.a.</b>
<b>RECOMMENDED ACTION:</b> Review a proposal from Shape, Inc. to replace the rotating assembly on the third Conveyance Pump at the Ignacio Transfer Pump Station (ITPS), and recommend that the Board authorize the Manager-Engineer to issue a purchase order upto \$41,000.	
<b>SUMMARY AND DISCUSSION:</b>  <p>The Ignacio Transfer Pump Station (ITPS) is equipped with three large 90 Hp conveyance pumps and one smaller 25 Hp equalization pump. The pump station has been in continuous operation since about late 2007. All pumps are submersible type pumps manufactured by Xylem, Inc./Flygt. Given the service conditions and that the pumps have been in service over five years, the rotating assemblies on the 90 Hp pumps are judged to require replacement or an extensive retrofit.</p> <p>At the time the pump station was designed (about 2005-06), the most efficient available rotating assembly design for the 90 Hp pumps was Flygt's standard C-style assembly. Since then, Flygt has developed the innovative N-style assembly which has numerous advantages over the C-style assembly, including a non-ragging design, enhanced durability, better solids handling capabilities, and greater energy efficiency. Since 2009, the District has standardized on the N-style design for the replacement of all of its smaller pump stations. Additionally, in 2010, the District made a decision to install N-style pumps in the influent pump station at the Novato Treatment (NTP). Both decisions have resulted in the District seeing the benefits of lower power consumption and, more importantly, drastically reduced maintenance needs (primarily dramatically reduced de-ragging operations). Retrofitting the ITPS C-style pumps to N-style units will also result in potential elimination of the channel grinder upstream of the conveyance pumps due to the non-ragging N-style design.</p> <p>Given all of these reasons, staff recommended in July 2013 that the Board consider a retrofit of the 90 HP ITPS pumps from the C-style to the N-style design. Also, staff had recommended that the retrofit be carried out in a phased manner, initially retrofitting the rotating assemblies of two of the existing C-style units to N-style units in the FY13-14 budget year, and the third unit in FY14-15. Subsequently, the Board concurred with this approach and approved the retrofit of two units in FY13-14.</p> <p>Consequently, at this time, two of the pumps have been retrofitted and it is time to retrofit the third pump. Accordingly, it is recommended that the Committee: (a) Review a proposal from Shape, Inc., to replace the rotating assemblies on the third 90 HP ITPS conveyance pump, and (b) Recommend that the Board authorize the Manager-Engineer to issue a purchase order in an amount not-to-exceed \$41,000 for such work.</p>	
<b>ALTERNATIVES:</b> Do not accept the proposal.	
<b>BUDGET INFORMATION:</b> The preliminary FY14-15 budget amount for this account is \$150,000.	
<b>DEPT.MGR.:</b> ssk	<b>MANAGER-ENGINEER:</b>

# NOVATO SANITARY DISTRICT WASTEWATER OPERATIONS COMMITTEE AGENDA ITEM SUMMARY

<b>TITLE:</b> Collection System Operations and Maintenance Report for July 2014	<b>MEETING DATE:</b> August 18, 2014  <b>AGENDA ITEM NO.</b> 6. a. b. c. & d.
<b>RECOMMENDED ACTION:</b> Receive monthly Collection System Operations and Maintenance Report for July 2014.	
<b>SUMMARY AND DISCUSSION:</b>  The monthly Collection System Operations and Maintenance Report for July 2014 as prepared by District staff is attached. The report covers the following agenda items: <ul style="list-style-type: none"> <li>6.a. Collection System Maintenance</li> <li>6.b. Pump Station Maintenance</li> <li>6.c. Collection System Performance</li> <li>6.d. Safety and Training</li> </ul>	
<b>ALTERNATIVES:</b> NA.	
<b>BUDGET INFORMATION:</b> NA	
<b>DEPT.MGR.:</b> srk, tmo	<b>MANAGER-ENGINEER:</b>

**Novato Sanitary District  
Wastewater Operations Committee meeting  
Collection System Operations Report  
July 2014**

**General:**

The breakdown of Collection System department staff time for July 2014, in terms of equivalent full-time employee (FTE) hours utilized, works out approximately as follows:

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

**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 69,983 feet of sewer pipelines were cleaned this month. Staff completed 371 maintenance work orders generated by the ICOM3 CMMS system. Thirty-two (32) of these work orders are outstanding and twenty (27) of these work orders are being deferred for two to three months due to the chemical root treatment of these line segments this month. Outside contractors cleaned 7,216 feet of large diameter sewer mains this month.

Staff continues to work with ICOM/RedZone to correct apparent discrepancies between footages listed in the ICOM3 system and those listed on District maps.

The Sterling hydro-flusher (Truck 3206) was out of service for 5 working days due to water pump drive belt failure. The water pump has been repaired and the hydro-flusher is back in service.

CCTV Performance: The District's CCTV van was in the field for a total of 6 working days and televised 66 line segments for 11,827 feet of CCTV production this month. This production rate is significantly lower than the District's internally set benchmarks because the van was out of service for 17 working days due to electrical and computer problems. Field crews also televised 4,802 feet using the Push Cam. Outside contractors televised 7,216 feet of large diameter sewer mains.

CCTV Findings:

- Capital projects: The July CCTV work identified two areas with defects that will need further evaluation to determine if they are eligible candidates for infrastructure repair or replacement.

**Novato Sanitary District  
Wastewater Operations Committee meeting  
Collection System Operations Report  
July 2014**

- O&M practices: The July CCTV work did not identify any areas that would require a change in sewer line operations, or merit any changes in maintenance activities in terms of cleaning frequency or method.

**Collection System Projects:**

There was no sewer repair work completed under the Collections System Repair Projects (Account No. 72803) this month.

**Pump Station Maintenance:**

The Collection System Department conducted 282 lift station inspections this month. 127 of the inspection visits were generated through the JobCal Plus CMMS system\*. There are 23 outstanding work orders for the month. Twenty (20) of the twenty-three (23) outstanding work orders are for annual diesel fuel testing/polishing and topping off the fuel levels at different sites. This work will be completed by the end of September. Lift station inspections included 27 submersible pump station visits, once per month, 6 underground style, dry well/wet well pump station visits, once per month, and 4 main pump stations that are visited daily.

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

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

**Air Relief/Vacuum Valves**

Staff has identified and inspected a total of 40 air relief/vacuum valves (ARV's) at the District's pump stations and on raw sewage force mains; these are currently accounted for in the District's CMMS program. ARVs on the outfall pipeline and the conveyance force main for the Ignacio Transfer Pump Station are not included in this list and will be verified and inspected in August and added to the maintenance program.

Of the 40 ARVs inspected, staff has requested work be completed at 12 locations to upgrade older ARV's and/or to provide better access for maintenance. These locations will receive a closer review to determine the extent of the work requested.

Staff completed annual maintenance on 7 of the ARV's in July, all on the Black Point Pump Station force main conveyance system.

**Novato Sanitary District  
Wastewater Operations Committee meeting  
Collection System Operations Report  
July 2014**

**Pump Station Rehabilitation:**

Currently, there are two (2) pump stations under rehabilitation as part of the District's continuing multi-year Pump Station Rehabilitation Project (Capital Improvement Project Account No. 72403). This current phase, (Project Unit 5), includes rehabilitation of the Los Robles Pump Station and relocation and replacement of the Digital Drive Pump Station. Construction work continues on these projects with completion expected by the end of August.

**Safety and Training:**

General: The Collection System staff attended five safety tailgate meetings.

Specialized training: Collection System staff attended underground locator training this month.

Safety performance: There were no lost time accidents this month for a total of 1,234 accident-free days.

**Standard Operating Procedures (SOPs):**

Department staff continues to work on generating new SOPs, and finalizing earlier draft SOPs. Twenty-four (24) Pump Station draft Energy Control SOPs were issued this month.

**Emergency Operating Procedures (EOPs) – Pump Stations:**

Staff has also been working with DKF Solutions over the past year to develop 38 Emergency Operating Procedures (EOPs) for all of the District pump stations. At this time, all EOP's have been through a final review by staff. Staff expects the final EOPs to be in place (District staff has already received all relevant training.) by the end of September 2014. Also included in DKF Solution's Contract was an interactive training program hosted on CSRMA's website and on CD. Staff expects completion of this portion of the Contract by the end of October.

**Sanitary Sewer Overflows (SSOs):**

There were no (zero) SSO's in July.

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**Collection System Monthly Report For July 2014 (as of July 31, 2014)**

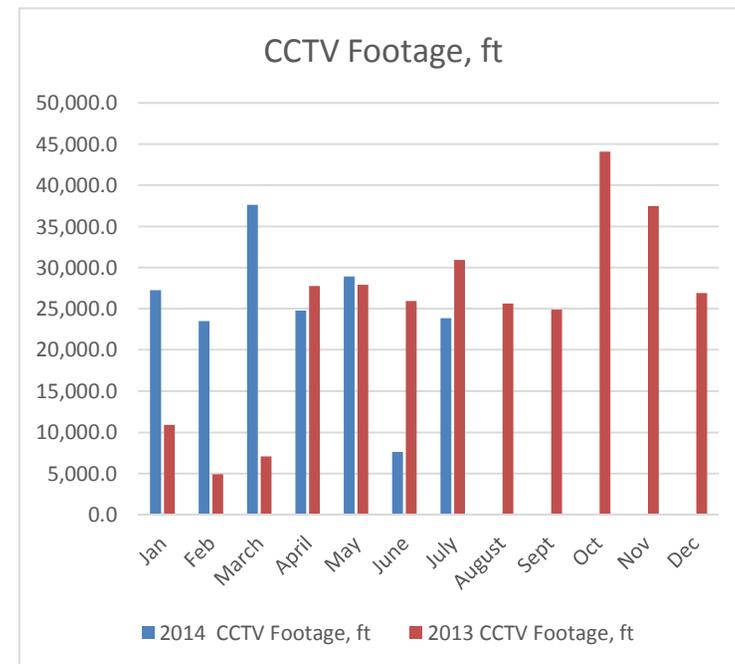
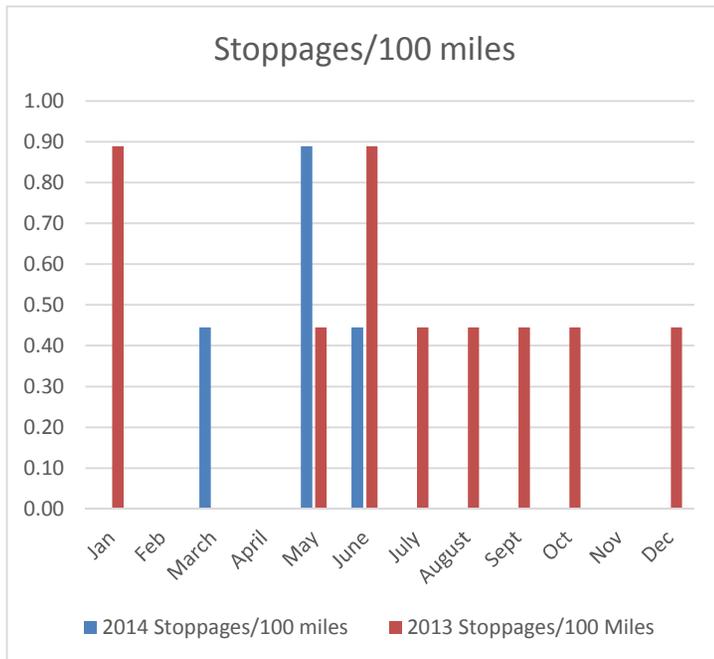
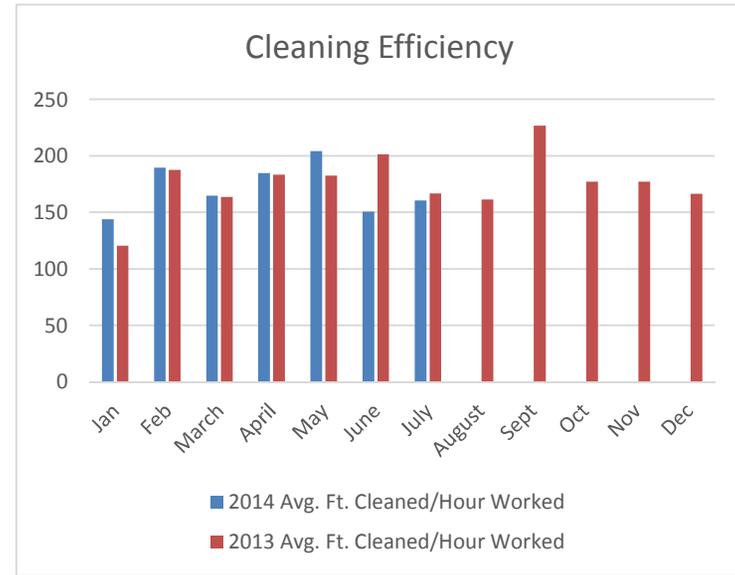
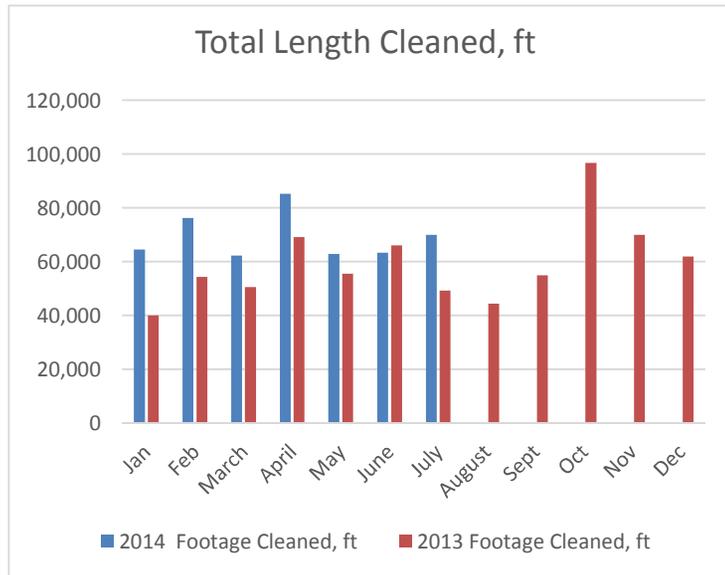
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	Total Year to Date	Average Year to Date
<b>A. Employee Hours Worked</b>														
Number of FTEs (main line cleaning), hrs.	2.6	2.5	2.2	2.6	1.8	2.5	2.3						NA	2.4
Number of FTEs (other)	1.7	1.6	2.1	1.8	1.7	2.1	1.9						NA	1.8
Number of FTEs (CCTV)	0.9	0.8	1.0	0.8	0.9	0.2	0.3						NA	0.7
Total, FTEs	5.2	4.9	5.3	5.1	4.4	4.8	4.6						NA	4.9
Regular Time Worked, (main line cleaning), hrs	448	402	378	461	308	420	436							
Regular Time Worked on Other, hrs (1)	294	262	350	313	297	362	358							
Regular Time Worked on CCTV (2)	158	125	172	136	164	38	63							
Total Regular time, worked, hrs	900	789	900	909	768	820	857						5,942	849
Total Vacation/Sick Leave/Holiday, hrs	285	151	101	143	220	195	198						1,293	185
Vacation/Sick Leave/Holiday, FTEs	1.6	0.9	0.6	0.8	1.3	1.2	1.1						7.5	1.1
Overtime Worked on Coll. Sys., hrs	2	8	3	15	0	3	17						48	7
Overtime Worked on Other, hrs (1)	22	17	16	31	35	26	15						162	23
Overtime Worked on CCTV (2)	0	0	0	3	0	0	4						7	1
Total Overtime , hrs	24	25	19	49	35	29	36	NA	NA	NA	NA	NA	217	31
<b>B. Productivity</b>														
<b>1. Line Cleaning</b>														
Rodder Work Orders generated	57	30	24	78	20	72	73						354	51
Rodder 3203 ft. cleaned	10,989	3,337	6,378	11,933	1,388	12,770	9,286						56,081	8,012
Rodder - outside services, ft cleaned	0	0	0	0	0	0	0						0	0
Flusher Work Orders generated	351	352	369	532	313	308	333						2,558	365
Truck 3205V ft. cleaned	16,187	16,552	18,158	802	13,575	9,410	17,136						91,820	13,117
Truck 3206V ft. cleaned	37,342	56,332	37,781	72,511	47,863	41,143	43,561						336,533	48,076
Flusher - outside services, ft. cleaned	2,301	1,570	6,492	11,155	0	0	7,216						28,734	
Total Footage cleaned(3)	64,518	76,221	62,317	85,246	62,826	63,323	69,983						484,434	69,205
Work Orders completed	408	361	393	580	313	348	371						2,774	396
Work Orders backlog	66	21	0	30	20	32	35						204	29
<b>2. Closed Circuit Television (CCTV)</b>														
Camera Work Orders generated	0	0	0	0	0	0	0						0	
CCTV Truck 3126T, ft. videoed	24,487	21,931	31,116	19,331	27,555	5,560	11,827						141,807	20,258
CCTV (hand cam), ft. videoed	449	0	0	5,428	1,340	2,056	4,802						14,075	
CCTV Inspection - outside services, ft. videoed	2,301	1,570	6,492	0	0	0	7,216						17,579	
Total CCTV footage(3)	27,237	23,501	37,608	24,759	28,895	7,616	23,845	NA	NA	NA	NA	NA	173,461	
<b>C. Sanitary Sewer Overflows (SSOs)</b>														
Minor (Category III)	0	0	0	0	2	1	0						4	NA
Major (Category II)	0	0	0	0	2	1	0						3	NA
Major (Category I)	0	0	0	0	0	0	0						0	NA
Major (Category I)	0	0	1	0	0	0	0						1	NA
Overflow Gallons	0	0	180	0	50	235	0						465	NA
Volume Recovered	0	0	0	0	50	235	0						285	NA
Percent Recovered	NA	NA	0%	NA	100%	100%	NA	NA	NA	NA	NA	NA	61%	NA
<b>D. Service Calls (non-SSO related)</b>														
Service calls, normal hours, #	8	3	5	4	4	3	6						33	5
Normal hours S.C. response time, mins (avg.)	38	19	25	18	14	16	15						145	21
Service Callouts, after hours, #	0	1	1	1	1	1	3						8	1
After Hours S.C. response time, mins (avg.)	0	15	40	42	13	25	34						169	24
<b>E. Benchmarks</b>														
Average Ft. Cleaned/Hour Worked	144	190	165	185	204	151	161	NA	NA	NA	NA	NA	NA	171
Total Stoppages/100 Miles	0.0	0.0	0.4	0.0	0.9	0.4	0.0						1.8	NA
Average spill response time (mins)	0	0	18	0	39	14	0						NA	10
Callouts/100 Miles	0.0	0.4	0.4	0.4	0.4	0.4	1.3						3.6	0.5
Overtime hours/100 Miles	1	4	1	7	0	1	8						21.33	3
Overflow Gallons/100 Miles	0	0	80	0	22	104	0						207	30

(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 2013-14 Graphs



Novato Sanitary District

Pump Station Monthly Report For July 2014 (as of July 31, 2014)

	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	Total Year to Date	Average Year to Date
<b>Employee Hours Worked</b>	248	212	205	226	251	190	334						1,666	
Number of Employees (FTEs)	1.4	1.1	1.1	1.1	1.3	1.0	1.4							1.2
Regular Time Worked on Pump Sta	231	181	183	194	229	169	255						1,441	
Overtime Worked on Pump Sta	17	31	22	32	22	22	79						225	
After Hours Callouts	1	5	1	5	6	1	11						30	
Average Callout response time (mins)	30	26	25	33	13	22	39						188	27
<b>Work Orders</b>														
Number generated in month	124	115	147	116	130	143	150						925	
Number closed in month	121	110	142	109	128	139	127							
Backlog	3	5	5	7	2	4	23							

**COLLECTION SYSTEM (Pump Stations)  
WORK ORDER STATISTICS  
July 1, 2014 - July 31, 2014**

	<b>Open Work Orders Due Prior to 7/1/2014</b>	<b>Open Work Orders 7/1/2014 - 7/31/2014</b>	<b>Total Open Work Orders</b>
Preventive	0	150	150
Corrective	0	0	0
Total	0	150	150

	<b>Closed Work Orders 7/1/2014 - 7/31/2014</b>
Preventive	127
Corrective	0
Total	127

<b>Total Outstanding Work Orders as of 7/31/2014</b>	<b>23</b>
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# NOVATO SANITARY DISTRICT WASTEWATER OPERATIONS COMMITTEE AGENDA ITEM SUMMARY

<b>TITLE:</b> Reclamation Facility Report for July 2014.	<b>MEETING DATE:</b> August 18, 2014  <b>AGENDA ITEM NO.</b> 7. a. b. c. & d.
<b>RECOMMENDED ACTION:</b> Receive monthly Reclamation Facility Report for July 2014.	
<b>SUMMARY AND DISCUSSION:</b>  The monthly Reclamation Facility Report for July 2014 as prepared by District staff is attached. The report covers the following agenda items:  7.a. Ranch Operations 7.b. Irrigation Parcels 7.c. Irrigation Pump Station 7.d. Sludge Handling and Disposal	
<b>ALTERNATIVES:</b> NA.	
<b>BUDGET INFORMATION:</b> NA	
<b>DEPT.MGR.:</b> srk	<b>MANAGER-ENGINEER:</b>

**NOVATO SANITARY DISTRICT  
Wastewater Operations Committee Meeting  
Reclamation Facilities Report  
July 2014**

**Summary:**

The rancher completed moving cattle into all Sites this month and is working on routine parcel maintenance. Irrigation was activated on all Parcels except those scheduled for rehabilitation work on Site 2. Minor irrigation control issues were identified on all Sites. A total of 63.45 MG of recycled water was applied to the irrigation pastures in July. A leak was discovered in the Wildlife Pond Feed Line but has not been located. A proposal was requested from the contractor for the annual sludge disposal from the sludge lagoons.

**Ranch Operations:**

The rancher has moved cattle onto all Sites. The rancher continues to sell bales of hay at a steady pace. The rancher began annual parcel maintenance, spraying weeds and thistles and made sprinkler and fence repairs.

**Irrigation Parcels:**

**Site 2:** Irrigation controls for Parcels 21, 24, 25 & 28 were tested and activated this month. Zone 252 did not function when tested so new timer relays were installed in the control box. A routine check later in the month found that the valve for Zone 252 was stuck open. After troubleshooting, staff found that the replacement timer relays were not working properly (ongoing issue) and will be replaced with a different brand. Zone 282 is off due to low voltage issues until a new valve operator can be ordered and installed. Parcels 22, 23, 26 & 27 were not activated in preparation for leveling and seeding later this year.

**Site 3:** Irrigation controls for Parcels 31, 32, & 33 were tested and activated this month. Zones 312, 313, 321 & 331 did not function when tested. The actuator for Zone 312 is off due to a low voltage issue until a new valve operator can be ordered and installed. Staff will troubleshoot the remaining actuators later this season.

**Site 7:** As reported last month, the control system shorted out and tripped the breaker once again. Staff originally thought a short existed in the control wiring for Parcel 77 but when tested earlier this month no problems were found. Staff has now isolated the problem to the back part of Parcels 74, 75, 76, 77 & 78 and will continue to troubleshoot when the contract electrician is available.

**Irrigation Pump Station:**

Approximately 63.45 MG of recycled water was used for irrigation of the parcels during the month of July.

As reported last month, staff suspected a leak existed in an irrigation water system in the area of the Irrigation Pump Station. During the month wet areas showed up near the area where the domestic water line was repaired. In addition, water started weeping out of the base of the levee road along the southwest corner of Pond 2 next to Irrigation

**NOVATO SANITARY DISTRICT  
Wastewater Operations Committee Meeting  
Reclamation Facilities Report  
July 2014**

Parcel 21. Staff suspected that the Wildlife Pond Feed Line was leaking so the Wildlife Pond Feed Pump was turned off and the wet spot and weeping area dried up. Staff is working on determining the best method to locate the leak. Recirculation of the water through the Wildlife Pond is not an essential function of the Reclamation Facility.

**Sludge Handling & Disposal:**

Staff requested and obtained a proposal from Custom Tractor Service (CTS) of Petaluma to pump sludge out of the sludge lagoons and into the Dedicated Land Disposal (DLD) area in addition to dredging the lagoons as typically performed by CTS in prior years.

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**NOVATO SANITARY DISTRICT**  
**Reclamation Facility - Monthly Statistics for Calendar Year 2014, as of July 2014**

	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	59.39	0	0	0	90.36	103.36						253.11	21.09
Irrigation (MG)	17.87	0	7.0	0	15.57	65.36	63.45						169.25	14.10
Irrigation Pump 1 Hours	29.3	0	13.5	0	27.5	107.8	106.8						284.9	23.74
Irrigation Pump 2 Hours	0	0	2.9	0	35.3	106.6	103.8						248.6	20.72
Irrigation Pump 3 Hours	31.4	0	14.4	0	25.9	133.1	103.2						308	25.67
Washdown Water Pump Hours	0	0	0	0	0	0	0						0	0.00
Wildlife Feed Pump Hours	0	0	0	0	352.9	747.6	212.4						1312.9	109.41
Water Circulated through Wildlife Pond (MG)	0	0	0	0	22.23	47.10	13.38	0	0	0	0	0	82.7127	6.89
Strainer No. 1 Hours	-	-	0.9	0	10.9	44.1	37.2						93.1	7.76
Strainer No. 2 Hours	-	-	1	0	10.8	43.9	38.2						93.9	7.83
Pond 1 Gauge @ Beginning of Month	3.3	2.4	6.1	5.2	5.2	3.9	4.4	5.3						
Pond 1 Gauge @ End of Month	2.4	6.1	5.2	5.2	3.9	4.4	5.3							
Pond 1 Gallons Stored @ End of Month(MG)	15.2	45.8	37.6	37.6	27.2	31.2	38.4							
Pond 2 Gauge @ Beginning of Month	3.3	2.2	6.1	5.2	5.2	4	4.4	5.4						
Pond 2 Gauge @ End of Month	2.2	6.1	5.2	5.2	4	4.4	5.4							
Pond 2 Gallons Stored @ End of Month(MG)	17	58	49	49	36	40	51							
Total Irrigation Water Stored	32.2	103.8	86.6	86.6	63.2	71.2	89.4	0	0	0	0	0		
<b>Drainage Pump Station No. 3</b>														
Drainage Pump No. 1 Hours	0	0	0	0	0	0	0							
Drainage Pump No. 2 Hours	0	0	14	0	0	0	0							
Drainage Pump No. 3 Hours	0.7	134.5	0	31.1	0.8	0	0							
Total Gallons Stormwater Pumped (MG)	0.21	40.35	4.2	9.33	0.24	0	0	0	0	0	0	0	54.33	4.53
<b>Drainage Pump Station No. 7</b>														
Drainage Pump No. 1 Hours	0	24.2	13.2	3.9	0	0	0							
Drainage Pump No. 2 Hours	0	106.6	48.8	9.5	0	0	0							
Drainage Pump No. 3 Hours	0	1.7	0.9	0	0	0	0							
Total Gallons Stormwater Pumped (MG)	0	59.63	28.31	6.03	0	0	0	0	0	0	0	0	93.96	7.83

# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

<b>TITLE: Operations: Major Repair/Replacement, Account No. 61000-3</b>	<b>MEETING DATE: August 25, 2014</b>  <b>AGENDA ITEM NO. 6.b.</b>
<p><b>RECOMMENDED ACTION:</b> Receive recommendation from Wastewater Operations Committee, and authorize Manager-Engineer to issue a purchase order in an amount upto \$41,000 to Shape, Inc. to replace rotating assembly on the third conveyance pump at the Ignacio Transfer Pump Station (ITPS).</p>	
<p><b>SUMMARY AND DISCUSSION:</b></p> <p>The Ignacio Transfer Pump Station (ITPS) is equipped with three large 90 Hp conveyance pumps and one smaller 25 Hp equalization pump. The pump station has been in continuous operation since about late 2007. All pumps are submersible type pumps manufactured by Xylem, Inc/Flygt. Given the service conditions and that the pumps have been in service over five years, the rotating assemblies on the 90 Hp pumps are judged to require replacement or an extensive retrofit.</p> <p>At the time the pump station was designed (about 2005-06), the most efficient available rotating assembly design for the 90 Hp pumps was Flygt's standard C-style assembly. Since then, Flygt has developed the innovative N-style assembly which has numerous advantages over the C-style assembly, including a non-ragging design, enhanced durability, better solids handling capabilities, and greater energy efficiency. Since 2009, the District has standardized on the N-style design for the replacement of all of its smaller pump stations. Additionally, in 2010, the District made a decision to install N-style pumps in the influent pump station at the Novato Treatment (NTP). Both decisions have resulted in the District seeing the benefits of lower power consumption and, more importantly, drastically reduced maintenance needs (primarily dramatically reduced de-ragging operations). Retrofitting the ITPS C-style pumps to N-style units will also result in potential elimination of the channel grinder upstream of the conveyance pumps due to the non-ragging N-style design.</p> <p>Given all of these reasons, staff recommended in July 2013 that the Board consider a retrofit of the 90 HP ITPS pumps from the C-style to the N-style design. Also, staff had recommended that the retrofit be carried out in a phased manner, initially retrofitting the rotating assemblies of two of the existing C-style units to N-style units in the FY13-14 budget year, and the third unit in FY14-15. Subsequently, the Board concurred with this approach and approved the retrofit of two units in FY13-14.</p> <p>Consequently, at this time, two of the pumps have been retrofitted and it is time to retrofit the third pump. Accordingly, it was recommended to the Wastewater Operations Committee that it review a proposal from Shape, Inc., to replace the rotating assemblies on the third 90 HP ITPS conveyance pump, and recommend that the Board authorize the Manager-Engineer to issue a purchase order in an amount not-to-exceed \$41,000 for such work. Therefore, this recommendation is being brought forth to the Board.</p>	
<p><b>ALTERNATIVES:</b> Do not approve the agreement.</p>	
<p><b>BUDGET INFORMATION:</b> The preliminary FY14-15 budget amount for this account is \$150,000.</p>	
<p><b>DEPT.MGR.:</b></p>	<p><b>MANAGER:</b></p>

# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

<b>TITLE: Operations – Collections, Outside Services, Account No. 60153; Tributary 16 CCTV Work</b>	<b>MEETING DATE: August 25, 2014</b>  <b>AGENDA ITEM NO.: 6.c.</b>
<b>RECOMMENDED ACTION:</b> Review bids received, and authorize the Manager-Engineer to execute a project work order with Roto-Rooter Plumbers in the amount of \$53,000.00	
<b>SUMMARY AND DISCUSSION:</b>  <p>The majority (about 90%) of the District’s sewer lines are 12-inch in diameter or smaller, and the District’s sewer cleaning and closed circuit television (CCTV) equipment and practices reflect this. The work proposed by this item is for sewers that are 15-inch and larger in diameter, so staff plans to have outside contractors CCTV these larger diameter sewer mains.</p> <p>Using the informal bid provisions of the Uniform Public Construction Cost Accounting Act (UPCCAA), as adopted by the Board of Directors, District staff requested proposals from two local CCTV contractors to clean and inspect by video camera 17,220 feet of large diameter sewers in Tributary 16 of the District’s collection system, located along the Novato Blvd &amp; Center Road corridors. Both of these companies have recently performed similar work for the District on smaller contracts (less than \$30,000.00) and both are on the District’s Informal Contracts’ Contractor List.</p> <p>The two bids received are as follows:</p> <ol style="list-style-type: none"> <li>1. Roto Rooter Plumbers: \$52,911.25</li> <li>2. Roy’s Sewer Service: \$76,300.00</li> </ol> <p>Roto Rooter Plumbers submitted the lowest responsive bid of \$52,911.25.</p> <p>The FY14-15 budget includes a budget amount of \$275,000 for Outside Services in the Operating Budget for Collections for this type of work. Accordingly, it is recommended that the Board review the bids received, approve award to the lowest responsive bidder, and authorize the Manager-Engineer to execute a Work Order with Roto-Rooter Plumbers in the amount of \$53,000.00</p>	
<b>ALTERNATIVES:</b> Reject all bids and not perform the work.	
<b>BUDGET INFORMATION:</b> The FY 14-15 Preliminary Budget includes a budget amount of \$275,000 for Collections - Outside Services, Account No. 60153.	
<b>DEPT.MGR.:</b> tmo, srk	<b>MANAGER-ENGINEER:</b>



# NOVATO SANITARY DISTRICT

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500 DAVIDSON STREET \* NOVATO \* CALIFORNIA 94945 \* PHONE (415) 892-1694 \* FAX (415) 898-2279  
www.novatosan.com

## BOARD OF DIRECTORS

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Manager-Engineer-Secretary

KENTON L. ALM  
Legal Counsel

## *Final BUDGET*

*FOR*

*FISCAL YEARS 2014-16*

*Including Preliminary Budget for Fiscal Year 2015-16*

*Proposed August 25, 2014*

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***SECTION I***

***LETTER OF TRANSMITTAL AND SUMMARY OF FUND  
BALANCES***

August 25, 2014

Honorable Board of Directors  
Novato Sanitary District  
Novato, California 94945

Dear Board Members:

The proposed Final District Budget for the 2014-15 and 2015-16 fiscal years is attached for your consideration and approval.

The FY 2014-15 Final Budget includes the following components:

- Summary of the Operations Budget Revenues and Expenditures,
- Breakout by Department of the Operating Fund Budget,
- Activity for Vehicle Replacement Fund,
- Activity for the Self Insurance Fund,
- Activity for Rate Stabilization, Emergency Repair Fund, and Southgate Reserve Fund,
- Capital Improvement Revenue and Expenditures Budget,
- Wastewater Capital Reserve Fund and the Certificates of Participation Reserve Fund,
- Debt Service Fund Summary for State Revolving Fund (SRF) Loan and Certificates of Participation (COP) Bond Fund

#### **OVERVIEW OF FISCAL YEAR 2014-15 DISTRICT ACTIVITIES**

This year's annual sewer service charge increase from \$514 to \$533 per service unit, or 3.7%, was adopted on June 25, 2012 through the appropriate Proposition 218 process. As in prior years, the sewer service charge is divided with \$293 (55%) allocated to the Operating Budget, and \$240 (45%) allocated to the Capital Budget.

Items to note about the FY14-15 Operating Budget as compared to the prior year (PY) Operating Budget include:

- Treatment O&M Contract amended limiting the increase: \$16.6K over PY
- Agency Dues anticipated increase: \$14K over PY
- Anticipated decrease in employee benefits: \$25.7K under PY
- Outside consulting services: \$40k over PY (increase over PY primarily NPDES Permit renewal)
- No unusual equipment maintenance for Reclamation as in prior year: \$19.2k under PY
- Insurance premium increase for the District's liability insurance: \$48.9 over PY
- Lower anticipated attorney fees: \$20k under PY
- Increase in outside services for Collections cost center: \$45K over PY
- Lower research and monitoring fees: \$50.1K under PY

- Gas and Electricity anticipated increase: \$33.9K over PY

Items to note about the FY14-15 Capital Budget include:

- No anticipated grant income.
- On-going major capital projects, including Pump Station Rehabilitation, Collection System Improvements, and the beginning of the Admin Building Upgrade/Maintenance Building Project.
- Regional projects including North Bay Water Reuse Authority (NBWRA), Novato Creek Watershed, and Hamilton Wetlands/Outfall study.

## BUDGET STRUCTURE

The District's budget is prepared on a cash basis. Table 1 summarizes the Operating and Capital Revenue and Expenditures and compares the immediate past year with the proposed budget. Total revenues are projected to increase slightly due to the approved sewer service charge rate increase on June 25, 2012. More detailed information regarding the variances between the two budget years are included below both by department and account.

Table 1: Summary of Revenues and Expenditures for FY 14 and FY 15

	<b>FY 13/14 Adopted Budget</b>	<b>FY 14/15 Proposed Budget</b>	<b>% Change FY 14 to FY 15</b>
<b>Operating Revenues</b>	\$ 9,312,285	\$ 9,601,856	3.11%
<b>Capital Revenues</b>	9,014,280	9,482,700	5.20%
<b>Total Revenues</b>	<b>\$ 18,326,565</b>	<b>\$ 19,084,556</b>	4.14%
<b>Operating Expenditures</b>	9,302,921	9,406,216	1.11%
<b>CIP Expenditures</b>	8,076,377	5,735,123	-28.99%
<b>Debt Service</b>	7,070,654	7,070,754	0.00%
<b>Total Expenditures</b>	<b>\$ 24,449,952</b>	<b>\$ 22,212,093</b>	-9.15%

## FISCAL YEAR 2014-15 OPERATING BUDGET DETAILS

### *Operating Revenues*

The proposed FY 2014-15 Operating Budget by revenue source is shown in Table 2 below, along with the figures for the past two fiscal years. Total operating revenues are expected to increase by 3.1% or \$289,571 from FY 2013-14.

**Operating Sewer Service Charges** are expected to increase by \$270,135 or 3.2% due to the rate increase of 3.7%.

**Permits and Fees** expected to decrease by \$2,683 or 7.8% due to anticipated applications for connections and repairs to continue at the same pace as the prior year.

**Recycled Water Revenue** consists of the reimbursement of costs to operate the Recycled Water Facility from North Marin Water District. This account is expected to increase by \$41,000 or 54.6% based on prior year history.

**Other Revenue** consists of septic hauler fees and other miscellaneous revenue. This account is expected to decrease by \$20,000 or 40% based on prior year history and less septic hauler accounts than in past years.

**Table 2: Operating Budget Revenue Three-Year Summary**

Funding Sources by Category	FY 12-13 Adopted Budget	FY 13-14 Adopted Budget	FY 14-15 Proposed Budget	% Change FY 14 to FY 15
Operating Sewer Service Charges	\$8,345,700	\$8,506,680	\$8,776,815	3.18%
Permit & Inspection fees	23,000	34,183	31,500	-7.85%
Interest Income	12,500	15,000	15,000	0.00%
Engineering/Admin Chgs	175,000	165,000	165,000	0.00%
Franchise Fees	47,370	48,602	49,768	2.40%
AB 939 Collector Fees	297,586	297,586	297,586	0.00%
Oil and Beverage Grant	63,015	50,234	50,187	-0.09%
Ranch Income	60,000	70,000	70,000	0.00%
Recycled Water Revenue	75,000	75,000	116,000	54.67%
Other Revenue	50,000	50,000	30,000	-40.00%
<b>Total Operating Revenue</b>	<b>\$9,149,171</b>	<b>\$9,312,285</b>	<b>\$9,601,856</b>	<b>3.11%</b>

***Operating Expenditures***

A summary of proposed and past two fiscal years Operating Expenditures are shown in Table 3 by department/cost center. Operating expenditures are expected to increase by 1.1% or \$103,295 between FY2013-14 and FY2014-15.

**Treatment:** Increase of 4.8% or \$128,299 is primarily due to an increase in contract fees with Veolia Water of approximately 3%, as allowed by the contract between Veolia and the District.

**Reclamation:** Decrease of 9.3% or \$49,619 due to no expected unusual repairs for the upcoming fiscal year as in the prior year.

**Laboratory:** Decrease of 13.3% or \$91,548 due primarily to lower research and monitoring fees expected in the upcoming fiscal year.

**Recycled Water:** Increase of 7.4% or \$8,000 due to adjusting the budget based on prior year history.

**Table 3: Operating Budget Expenditures 3-year Summary:**

Expenditures by Department	FY 12-13 Adopted Budget	FY 13-14 Adopted Budget	FY 14-15 Proposed Budget	% Change FY 14 to FY 15
Collections	\$ 1,396,845	\$ 1,316,424	\$ 1,389,859	5.58%
Treatment	2,774,000	2,699,200	2,827,499	4.75%
Reclamation	528,913	534,268	484,649	-9.29%
Laboratory	676,740	685,376	593,828	-13.36%
Pump Stations	939,862	822,016	807,072	-1.82%
Administration/Engineering	2,564,643	2,766,336	2,818,610	1.89%
Hazardous Household Waste	360,300	371,301	368,698	-0.70%
Recycled Water	75,000	108,000	116,000	7.41%
<b>Total Expenditures</b>	<b>\$ 9,316,303</b>	<b>\$ 9,302,921</b>	<b>\$ 9,406,216</b>	<b>1.11%</b>

The following table summarizes the main operational budget variances and their impact.

**Table 4: Operating Budget Significant Budget Variances 2013-14 to 2014-15**

Main Budget Variances – FY 14 to FY 15	Budget Impact
1. Employee Benefits decrease due to reduction in health care costs of approximately 3%.	\$ (25,738)
2. Anticipated increase for the District liability insurance premium.	\$ 48,970
3. Anticipated increase for the District's agency fees.	\$ 14,000
3. Anticipated attorney fees less than in prior years.	\$ (20,000)
4. Increase in consulting fees due to renewal of NPDES Permit	\$ 40,000
5. Unusual Equipment Maint decrease due to no anticipated unusual repairs	\$ (19,200)
6. Outside services increase due to Collection System cost center's anticipated increase of cleaning of large diameter pipe.	\$ 45,000
7. Research and Monitoring fees decreased due to primarily to completion of WET Testing system/Trailer.	\$ (50,150)
8. Gas & Electricity anticipated increase of 4.5% based on prior year actuals.	\$ 33,900

**FISCAL YEAR 2014-15 CAPITAL BUDGET DETAILS**

***Capital Revenues***

The proposed FY2014-15 Capital Budget by Revenue source is shown in Table 5 below along with the figures for the past two fiscal years. Total capital revenues are expected to increase by 5.2% or \$468,420 from FY 2013-14.

**Capital Sewer Service Charge Revenues** are expected to increase by \$454,920 or 6.7%. In percentage terms only, the revenue increase is higher than the 3.7% of sewer service charge increase by 3%, due to a larger portion of the allocation going toward the capital budget than in the prior year. In dollar terms, the change in allocation goes from \$227 per EDU to \$240 per EDU. Thus, a \$13 per EDU increase in allocation over approximately 29.9k EDUs results in approximately \$388.7k more revenue to the capital budget.

**Connection Fees** are expected to increase by 5% due to an increase in the connection charge.

**Interest Income** is expected to decrease by 40% due to the drawing down of COP funds as we near the end of the three year time frame.

**Table 5: Capital Budget Revenue 3-year Summary**

Funding Sources by Category	FY 12-13 Adopted Budget	FY 13-14 Adopted Budget	FY 14-15 Proposed Budget	% Change FY 14 to FY 15
Capital Sewer Service Charges	\$ 6,149,430	\$ 6,728,280	\$ 7,183,200	6.76%
Property Taxes	1,780,000	1,740,000	1,750,000	0.57%
Connection Charges	447,500	470,000	493,500	5.00%
Collector/Special Equalization Charges	6,000	6,000	6,000	0.00%
Interest Income	20,000	50,000	30,000	-40.00%
Grant and Other Revenue	901,810	20,000	20,000	0.00%
<b>Total Capital Revenues:</b>	<b>\$9,304,740</b>	<b>\$9,014,280</b>	<b>\$9,482,700</b>	<b>5.20%</b>

***Capital Expenditures***

The proposed Capital Improvement Program (CIP) Budget for FY14-15 is \$12,805,877 or \$2,341,154 less than last year. The decrease is primarily due to lower anticipated costs to complete the FY14-15 project work for pump station rehabilitation, collection system improvements, and the WWTP Upgrade – Contract C(Solids handling).

Capital projects for 2014-15 will primarily be funded from restricted COP proceeds. Of the total capital projects for 2014-15, \$5,140,123 will be funded from COP proceeds and \$595,000 will be funded through sewer service charges, property taxes, and connection proceeds. The debt service of \$7,070,754 will be funded primarily from sewer service charges, property taxes and connection charges. Table 6 shows the Capital Debt Service and Capital Project Costs for three fiscal years.

**Table 6: Capital Budget Expenditures, 3-year Summary**

Capital Expenditures	FY 12-13 Adopted Budget	FY 13-14 Adopted Budget	FY 14-15 Proposed Budget	% Change FY 14 to FY 15
Capital Projects	\$8,149,440	\$8,076,377	\$5,735,123	-28.99%
Debt Service	6,924,029	7,070,654	7,070,754	0.0%
<b>Total</b>	<b>\$15,073,469</b>	<b>\$15,147,031</b>	<b>\$12,805,877</b>	<b>-15.5%</b>

**Debt Coverage Ratio**

In the COP Installment Sale Agreement the District agreed to collect rates and charges during each fiscal year that are sufficient to yield net revenues equal to at least 120 percent of the installment payments on the COPs and all parity debt in the fiscal year. The projected Debt Coverage Ratio for 2014/15 is 1.37.

**COMPARISON OF ANNUAL SEWER SERVICE CHARGES LEVIED BY NEIGHBORING AGENCIES**

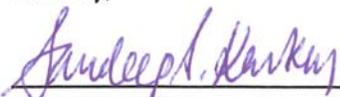
It is of interest to compare the District's rate with those of other nearby sanitation agencies. The following table makes possible such a comparison.

AGENCY	RATE (\$/yr.)
Sausalito-Marin City Sanitary District <sup>(1)</sup>	1,217 <sup>(a)</sup>
City of Santa Rosa	1,171 <sup>(a)</sup>
City of Petaluma	1,029 <sup>(b)</sup>
Tamalpais Community Services District	1,013 <sup>(a)</sup>
City of Larkspur	961 <sup>(b)</sup>
San Rafael Sanitation District	744 <sup>(b)</sup>
Ross Valley Sanitary District (SD #1)	692 <sup>(b)</sup>
City of Mill Valley	685 <sup>(b)</sup>
Las Gallinas Valley Sanitary District	647 <sup>(a)</sup>
<b>NOVATO SANITARY DISTRICT</b>	<b>533 <sup>(b)</sup></b>
Vallejo Sanitation & Flood Control District	520 <sup>(b)</sup>
Napa Sanitation District	507 <sup>(b)</sup>

Notes: <sup>(1)</sup>Includes SMCS D charge of \$725 and City of Sausalito charge of \$492  
<sup>(a)</sup>FY2013-14 charges/<sup>(b)</sup>FY2014-15 (proposed or adopted)

The proposed 2014-15 budget will be able to accomplish the Novato Sanitary District's commitments to achieving the key goals set forth in the Strategic Plan while maintaining reasonable rates for its customers.

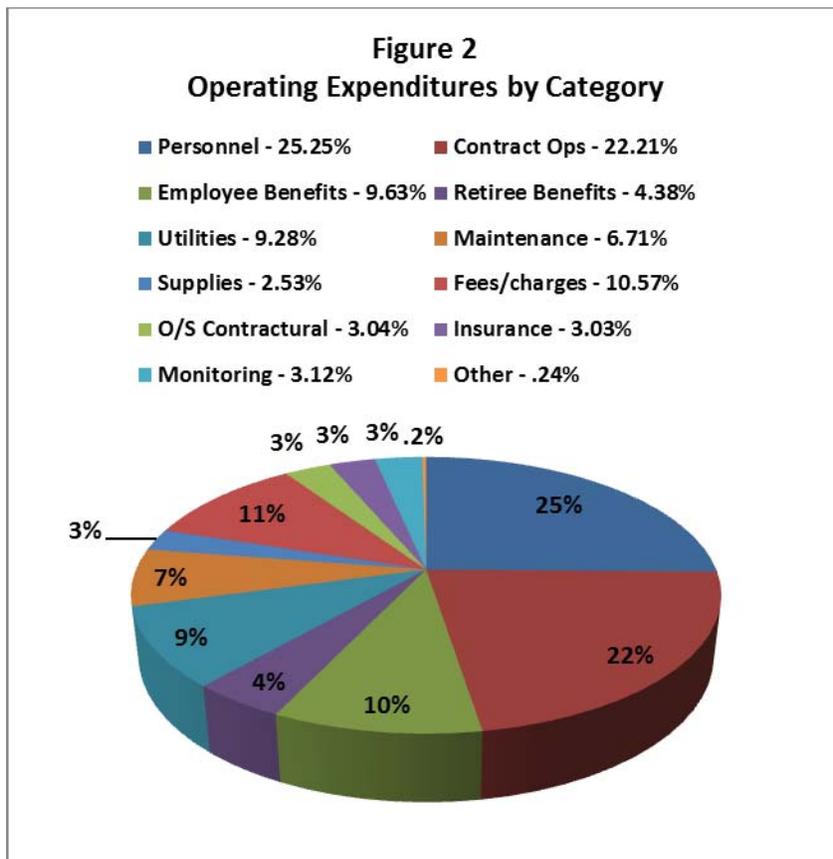
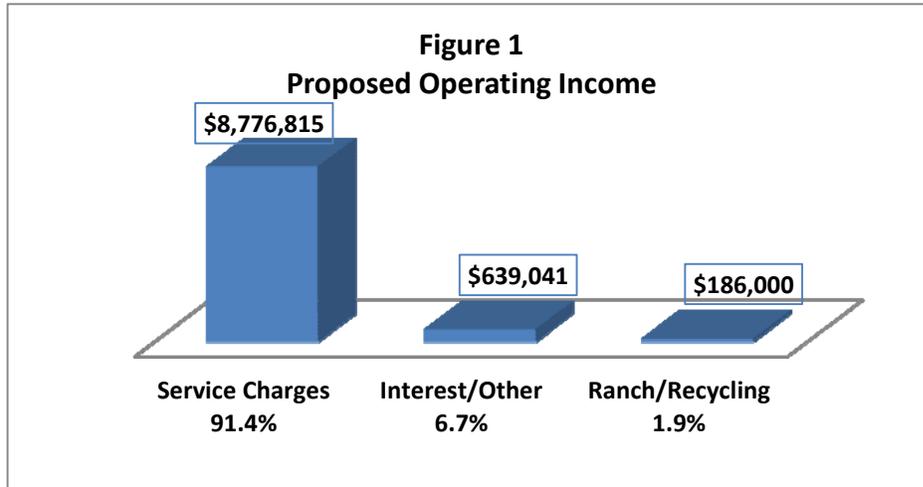
Sincerely,



SANDEEP KARKAL

Manager-Engineer

**ADDITIONAL CHARTS AND GRAPHS FOR FURTHER ANALYSIS:**



**Novato Sanitary District**  
**PROJECTED FLOW OF OPERATING FUNDS FY 2013-14 THROUGH 2017-18**

ANTICIPATED FLOW OF FUNDS	Actual 2013-14	Projected 2014-15	Projected 2015-16	Projected 2016-17	Projected 2017-18
<b>OPERATING</b>					
Beginning Balance	8,061,265	9,287,659	9,483,299	9,861,107	9,896,135
Revenues Other Than SC/PT	888,785	825,041	823,136	847,830	873,265
Service Charge Revenue	8,488,903	8,776,815	9,121,520	9,136,720	9,151,920
Fund Transfers					
From Self Insurance Reserve	165,516	0	0	0	0
Expenditures	(8,316,810)	(9,406,216)	(9,566,848)	(9,949,522)	(10,347,503)
Ending Bal - Working Capital	9,287,659	9,483,299	9,861,107	9,896,135	9,573,817
Vehicle Replacement	** 0	0	0	0	0
Self-Insurance Reserve	0	0	0	0	0
Rate Stabilization Fund	** 0	0	0	0	0
Emergency Repair Reserve Fund	** 0	0	0	0	0
Southgate Reserve Fund	** 0	0	0	0	0
Total Operating Reserves	9,287,659	9,483,299	9,861,107	9,896,135	9,573,817
Operating Service Units	29,490	29,955	30,005	30,055	30,105
Operating Service Charge Rates	287	293	304	304	304
Increase over Previous Year	4%	2.1%	3.8%	0.0%	0.0%

SIF = Self-Insurance Fund

RSF = Rate Stabilization Fund

ERR = Emergency Repair Reserve

SRF = Southgate Reserve Fund

\*\* Closed or transferred to Capital Fund, per new reserves policy.

***SECTION II***

***OPERATING BUDGET SUMMARY SCHEDULES***

**Novato Sanitary District  
2014-16 Final Budget  
Summary of Operating Fund  
And Capital Fund Balances**

	Budget 12/13	Budget 13/14	Actual Rev/Exp 2013/14	Preliminary Budget 2014/15	Final Budget 2014/15	Preliminary Budget 2015/16
<b>Operating Fund at July 1st Beginning of Each Year</b>	7,122,091	8,133,236	8,061,265	8,741,147	9,287,659	9,483,299
<b>Operating Revenue (p. 2)</b>	9,149,171	9,312,285	9,377,688	9,560,856	9,601,856	9,937,656
<b>Operating Expenditures (p. 3)</b>	9,316,303	9,302,921	8,316,810	9,497,691	9,406,216	9,780,505
<b>Net Operating Revenue</b>	(167,132)	9,364	1,060,878	63,165	195,640	157,151
<b>To close self insurance reserve</b>		165,516	165,516	0	0	0
<b>Operating Fund at the End of Each Year</b>	<b>6,954,959</b>	<b>8,308,116</b>	<b>9,287,659</b>	<b>8,804,312</b>	<b>9,483,299</b>	<b>9,640,450</b>
<b>Capital Fund at July 1st Beginning of Each Year</b>	13,213,888	10,662,381	10,737,755	7,520,032	7,482,115	4,158,938
<b>Capital Revenue (p. 20)</b>	9,304,740	9,014,280	9,000,503	9,482,700	9,482,700	9,759,040
<b>Total Capital Revenues</b>	9,304,740	9,014,280	9,000,503	9,482,700	9,482,700	9,759,040
<b>Capital Expenditures (p. 21)</b>	8,149,440	8,076,377	5,933,035	5,575,444	5,735,123	3,721,401
<b>Debt Service (p. 21)</b>	6,924,029	7,070,654	7,070,654	7,070,754	7,070,754	7,075,104
<b>Total Capital Expenditures</b>	15,073,469	15,147,031	13,003,689	12,646,198	12,805,877	10,796,505
<b>To Close reserves to Capital Fund(p. 22)</b>		1,647,546	1,647,546			
<b>To transfer funds to Rate Stabiliztn Fund(p.22)</b>		(900,000)	(900,000)			
<b>Capital Fund Balance at the End of Each Year</b>	<b>7,445,159</b>	<b>5,277,176</b>	<b>7,482,115</b>	<b>4,356,534</b>	<b>4,158,938</b>	<b>3,121,473</b>
<b>Reserved</b>	<b>6,783,619</b>	<b>1,500,000</b>	<b>4,804,012</b>	<b>1,500,000</b>	<b>1,500,000</b>	<b>1,500,000</b>
<b>Unreserved</b>	<b>7,616,499</b>	<b>12,085,292</b>	<b>11,965,762</b>	<b>11,660,846</b>	<b>12,142,237</b>	<b>11,261,923</b>
<b>Operating and Capital Fund Balances at The End of Each Year</b>	<b>14,400,118</b>	<b>13,585,292</b>	<b>16,769,774</b>	<b>13,160,846</b>	<b>13,642,237</b>	<b>12,761,923</b>

**Novato Sanitary District  
2014-16 Final Operating Budget  
Revenue Summary**

	Budget 12/13	Budget 13/14	Final Rev 2013/14	Preliminary Budget 2014/15	Final Budget 2014/15	Preliminary Budget 2015/16
<b>41010 · Sewer Service Charges (1)</b>	8,345,700	8,506,680	8,488,903	8,776,815	8,776,815	9,121,520
<b>41030 · Plan Check &amp; Inspection Fee</b>	500	500	2,069	500	500	500
<b>41040 · Permit &amp; Inspection Fee</b>	7,500	7,500	6,995	6,000	6,000	6,000
<b>41060 · Interest Income</b>	12,500	15,000	15,489	15,000	15,000	15,000
<b>41080 · Engineering &amp; Admin Charges</b>	175,000	165,000	161,537	165,000	165,000	165,000
<b>41090 · Non-domestic Permit Fees (2)</b>	15,000	26,183	32,028	25,000	25,000	15,000
<b>41100 · Garbage Franchise Fees</b>	47,370	48,602	51,019	49,768	49,768	50,863
<b>41105 · AB 939 Collector Fees</b>	297,586	297,586	297,586	297,586	297,586	297,586
<b>41107 · Oil/Bev/Tire Grants (3)</b>	63,015	50,234	57,051	50,187	50,187	50,187
<b>41130 · Ranch Income</b>	60,000	70,000	76,689	70,000	70,000	70,000
<b>41135 · Recycled Water Revenue</b>	75,000	75,000	99,790	75,000	116,000	116,000
<b>41140 · Other Revenue (4)</b>	40,000	40,000	24,782	20,000	20,000	20,000
<b>41142 · Loss on disposal of assets</b>	10,000	10,000	63,750	10,000	10,000	10,000
<b>Totals</b>	<b>9,149,171</b>	<b>9,312,285</b>	<b>9,377,688</b>	<b>9,560,856</b>	<b>9,601,856</b>	<b>9,937,656</b>

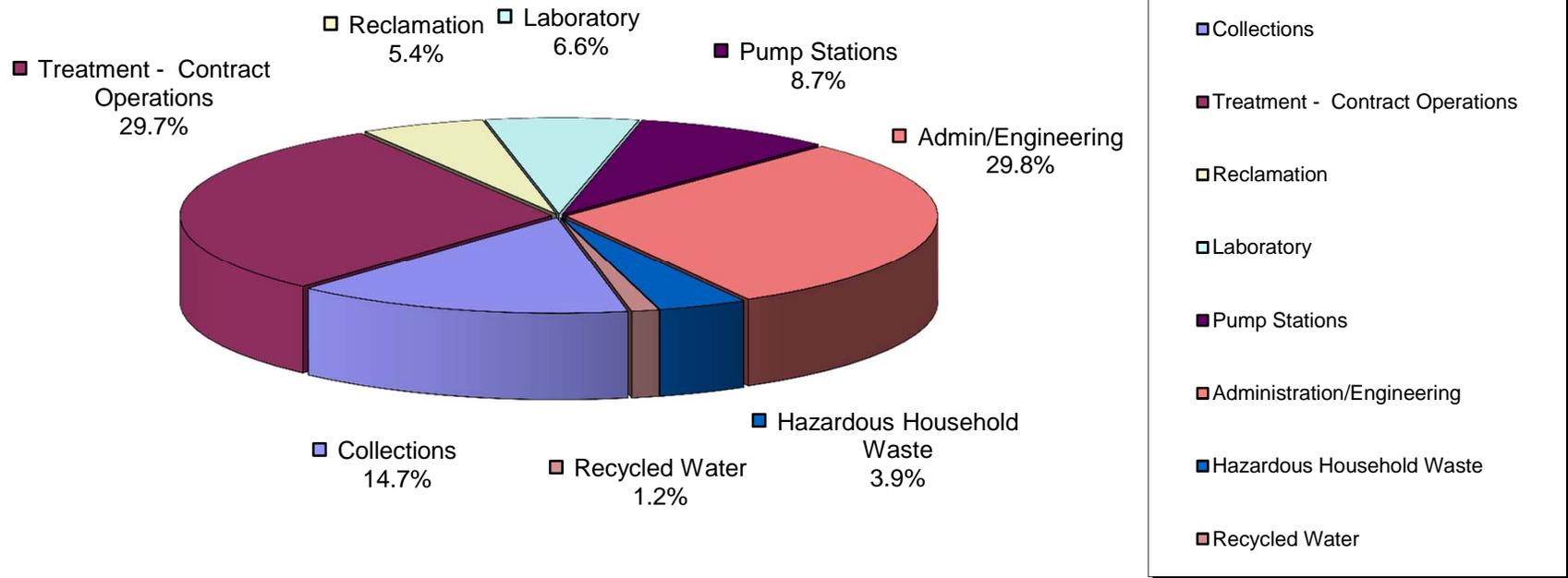
**Comments:**

- (1) Sewer Service charge revenue is based on approved rate increase and actual revenue received in prior year. The Sewer Service Charges allocations are as follows: For 2014/15 the charge is \$533, split between operations(\$293) and capital (\$240). For 2015/16 the charge is \$552, split between operations(\$304) and capital(\$248).
- (2) Includes application fees, permits and monitoring charges.
- (3) Oil/Bev/Tire Grants \$22,490/ JPA Reimb Fees \$27,697.
- (4) Other revenue includes septic tank hauling fees, and other miscellaneous revenue.

**Novato Sanitary District  
2014-16 Final Budget  
Operating Budget - Summary of Expenditures**

	Budget 12/13	Budget 13/14	Act Exp 2013/14	Preliminary Budget 2014/15	Final Budget 2014/15	Preliminary Budget 2015/16
<b>Collections</b>	1,396,845	1,316,424	1,155,809	1,398,181	1,389,859	1,250,739
<b>Treatment - Contract Operations</b>	2,774,000	2,699,200	2,659,230	2,823,379	2,827,499	2,957,690
<b>Reclamation</b>	528,913	534,268	441,931	514,382	484,649	520,677
<b>Laboratory</b>	676,740	685,376	521,966	630,191	593,828	669,734
<b>Pump Stations</b>	939,862	822,016	693,976	821,041	807,072	851,728
<b>Administration/Engineering</b>	2,564,643	2,766,336	2,416,949	2,827,819	2,818,610	3,037,639
<b>Hazardous Household Waste</b>	360,300	371,301	322,112	368,698	368,698	370,298
<b>Recycled Water</b>	75,000	108,000	104,837	114,000	116,000	122,000
<b>Totals</b>	<b>9,316,303</b>	<b>9,302,921</b>	<b>8,316,810</b>	<b>9,497,691</b>	<b>9,406,216</b>	<b>9,780,505</b>

## Final Budget 2014-15 Expenditures by Department



**Novato Sanitary District  
2014-16 Final Operating Budget  
Operating Fund and Working Capital Reserve Fund**

			2014-15	Budget
			Prelim	Final
<b>OPERATING FUND</b>				
		<b>Fund Balance 6/30/13</b>	0	0
		Actual Revenues 2013-14	9,298,125	9,377,688
		Actual Expenditures 2013-14	(8,783,759)	(8,316,810)
		Transfer from Working Capital Reserve Fund	(514,366)	(1,060,878)
(1)		To close Working Capital Reserve to Operating Fund	8,741,147	9,287,659
		<b>Fund Balance 6/30/14</b>	8,741,147	9,287,659
		Anticipated Revenues 2014-15	9,560,856	9,601,856
		Anticipated Expenditures 2014-15	(9,497,691)	(9,406,216)
		<b>Anticipated Fund Balance 6/30/15</b>	8,804,312	9,483,299
<b>WORKING CAPITAL RESERVE FUND</b>				
		<b>Fund Balance 6/30/13</b>	8,061,265	8,061,265
		Transfer from Operating Fund 2013-14	514,366	1,060,878
(1)		To close Self Insurance Fund	165,516	165,516
(1)		To close Working Capital Reserve Fund to Operating Fund	(8,741,147)	(9,287,659)
		<b>Fund Balance 6/30/14</b>	0	0
(1)		Per new fund and reserve policies the Self Insurance Fund has been closed to the Operating Fund. In addition, Working Capital Reserve Fund has been closed to the Operating Fund.		

Novato Sanitary District												
2014-15 Final Operating Budget												
Operating Budget Detail by Account Category												
	Treatment Facilities	Recl	L-M	Pump Stations	Collection System	A-E	Recycled Water	Total	Percent	Over/Under PY Budget	Under PY Budget	% Over/Under PY Budget
Salaries and Wages		60,549	194,137	316,295	604,357	983,222		2,158,560	22.95%		16,809	0.78%
O & M Services							50,000	50,000	0.53%		-	0.00%
Employee Benefits		22,500	72,191	137,777	262,502	375,733		870,703	9.26%		(25,738)	-2.87%
Retiree Health Benefits						396,155		396,155	4.21%		9,077	2.35%
Directors' Fees						45,000		45,000	0.48%		-	0.00%
Gasoline, Oil & Fuel		4,000	3,000	5,000	28,000	10,000		50,000	0.53%		(2,000)	-3.85%
Insurance	42,570					186,000		228,570	2.43%		48,970	27.27%
Ins Claims Expense						45,000		45,000	0.48%		-	0.00%
Agency Dues						60,000		60,000	0.64%		14,000	30.43%
Memberships						8,500		8,500	0.09%		500	6.25%
Office Expense						29,000		29,000	0.31%		2,000	7.41%
Safety		500	1,000	2,000	2,000	1,000		6,500	0.07%		(4,500)	-40.91%
Software Maint		3,100	4,000	12,000	25,000			44,100	0.47%		600	1.38%
Operating Supplies-		2,500	25,000	10,000	30,000	9,000	3,000	79,500	0.85%		500	0.63%
Operating Chemicals				30,000			34,000	64,000	0.68%		(1,000)	-1.54%
Sludge Disposal-Contractual		200,000						200,000	2.13%		10,000	5.26%
Accounting & Auditing						18,000		18,000	0.19%		(4,500)	-20.00%
Attorney						120,000		120,000	1.28%		(20,000)	-14.29%
Outside Consulting						275,000		275,000	2.92%		40,000	17.02%
IT/Misc. Electrical						40,000		40,000	0.43%		-	0.00%
Printing & Publication						22,000		22,000	0.23%		4,000	22.22%
Repairs & Maintenance		70,000	9,500	115,000	85,000	45,000	18,000	342,500	3.64%		7,500	2.24%
Unusual Equipment Maint	150,000	0						150,000	1.59%		(19,200)	-11.35%
Small Tools		500		1,000	2,000			3,500	0.04%		(1,500)	-30.00%
Outside Services				40,000	275,000			315,000	3.35%		45,000	16.67%
Ditch/Dike Maintenance								20,000	0.21%		-	0.00%
Research & Monitoring			247,000					247,000	2.63%		(50,150)	-16.88%
Travel, Mfgs & Train.						70,000		70,000	0.74%		-	0.00%
Pollution Prevention/Pub. Ed.			35,000					35,000	0.37%		(5,000)	-12.50%
Gas & Electricity	587,400	90,000		90,000			10,000	777,400	8.26%		33,900	4.56%
Water		5,000		7,000	8,000			20,000	0.21%		(2,000)	-9.09%
Telephone				24,000	2,000	15,000		41,000	0.44%		1,000	2.50%
Other/Operational Assistance					1,000			1,000	0.01%		-	0.00%
Permits & Fees	90,000	6,000	3,000	17,000	65,000		1,000	182,000	1.93%		(4,000)	-2.15%
Co. Collection Fees						60,000		60,000	0.64%		(5,000)	-7.69%
Ser. Chg. System Exp						5,000		5,000	0.05%		-	0.00%
AB 939 Solid Waste Programs						368,698		368,698	3.92%		(2,603)	-0.70%
Contract Operations	1,957,529							1,957,529	20.81%		16,629	0.86%
<b>Total</b>	<b>2,827,499</b>	<b>484,649</b>	<b>593,828</b>	<b>807,072</b>	<b>1,389,859</b>	<b>3,187,308</b>	<b>116,000</b>	<b>9,406,216</b>	<b>100.00%</b>		<b>103,294</b>	<b>1.11%</b>

***SECTION III***

***OPERATING FUND BUDGET***

**Novato Sanitary District  
2014-16 Final Budget  
Operating Budget - Collections**

	Budget 12/13	Budget 13/14	Actual Exp 2013/14	Preliminary Budget 2014/15	Final Budget 2014/15	Preliminary Budget 2015/16
60010 · Salaries & Wages	583,833	549,300	562,373	602,515	604,357	663,878
60020 · Employee Benefits	277,512	250,124	233,155	272,666	262,502	278,861
60060 · Gas, Oil & Fuel	25,000	30,000	24,090	28,000	28,000	28,000
60085 · Safety	5,000	5,000	1,539	2,000	2,000	2,000
60091 · Software Maint	25,000	20,000	17,879	25,000	25,000	25,000
60100 · Operating Supplies	30,000	30,000	22,703	30,000	30,000	30,000
60150 · Repairs & Maint	82,000	85,000	79,548	85,000	85,000	85,000
60152 · Small Tools	1,000	2,000	1,625	2,000	2,000	2,000
60153 · Outside Services	75,000	225,000	177,318	275,000	275,000	100,000
60192 · Water	6,000	7,000	10,386	8,000	8,000	8,000
60193 · Telephone	2,000	2,000	1,289	2,000	2,000	2,000
60200 · Other(Garbage Coll)	1,000	1,000	700	1,000	1,000	1,000
60201 · Permits & Fees	243,500	110,000	23,204	65,000	65,000	25,000
60290 · Vehicle Replacement	40,000	0	0	0	0	0
	<b>1,396,845</b>	<b>1,316,424</b>	<b>1,155,809</b>	<b>1,398,181</b>	<b>1,389,859</b>	<b>1,250,739</b>

**Novato Sanitary District  
2014-16 Final Budget  
Operating Budget - Treatment Facilities Contract Operations**

	Budget 12/13	Budget 13/14	Actual Exp 2013/14	Preliminary Budget 2014/15	Final Budget 2014/15	Preliminary Budget 2015/16
<b>61000-1 · Fixed Fee(1)</b>	1,945,000	1,940,900	1,900,514	1,957,529	1,957,529	2,016,255
<b>61000-2 · Insurance &amp; Bonds(2)</b>	55,000	50,600	38,669	44,000	42,570	48,400
<b>61000-3 · Major Repr/Replacmnt</b>	104,000	109,200	101,758	150,000	150,000	157,500
<b>61000-4 · Water/Permits/Phone</b>	100,000	65,000	84,076	85,000	90,000	90,000
<b>61000-5 · Gas &amp; Electricity(2)</b>	570,000	533,500	534,213	586,850	587,400	645,535
	<b>2,774,000</b>	<b>2,699,200</b>	<b>2,659,230</b>	<b>2,823,379</b>	<b>2,827,499</b>	<b>2,957,690</b>

**Comments:**

- (1) Fixed fee - Veolia based on 3% increase from prior year per review of amended and restated contract.
- (2) Accounts 61000-2 and -5 increase projected at 10% based on actual expenditures for 2013/14.

**Novato Sanitary District  
2014-2016 Final Budget  
Operating Budget - Reclamation**

	Budget 12/13	Budget 13/14	Actual Exp 2013/14	Preliminary Budget 2014/15	Final Budget 2014/15	Preliminary Budget 2015/16
63010 · Salaries & Wages	30,758	51,991	33,083	77,682	60,549	82,868
63020 · Employee Benefits	12,655	17,277	13,196	35,100	22,500	28,209
63060 · Gasoline & Oil	4,000	5,000	4,087	4,000	4,000	4,000
63085 · Safety	1,000	1,000	0	500	500	500
63091 · Software Maint	2,000	3,000	3,018	3,100	3,100	3,100
63100 · Operating Supplies	2,000	3,000	2,571	2,500	2,500	2,500
63115 · Sludge Disposal	215,000	190,000	180,590	200,000	200,000	200,000
63150 · Repairs & Maint	80,000	60,000	58,449	70,000	70,000	70,000
63151 · Unusual Equipment Maint	0	60,000	49,102	0	0	0
63152 · Small Tools	1,000	1,000	81	500	500	500
63157 · Ditch/Dike Maint	20,000	20,000	4,750	20,000	20,000	20,000
63191 · Gas & Electricity	120,000	110,000	87,508	90,000	90,000	100,000
63192 · Water	10,000	10,000	1,938	5,000	5,000	5,000
63201- Permits & Fees	23,500	2,000	3,558	6,000	6,000	4,000
63290 · Vehicle Replacement	7,000	0	0	0	0	0
	<b>528,913</b>	<b>534,268</b>	<b>441,931</b>	<b>514,382</b>	<b>484,649</b>	<b>520,677</b>

**Novato Sanitary District  
2014-16 Final Budget  
Operating Budget - Laboratory**

	Budget 12/13	Budget 13/14	Actual Exp 2013/14	Preliminary Budget 2014/15	Final Budget 2014/15	Preliminary Budget 2015/16
64010 · Salaries & Wages	201,512	217,324	190,521	216,772	194,137	243,858
64020 · Employee Benefits	79,328	80,402	64,124	85,919	72,191	90,376
64060 · Gasoline & Oil	2,500	3,000	2,386	3,000	3,000	3,000
64085 · Safety	1,000	1,000	0	1,000	1,000	1,000
64091 · Software Maintenance	23,000	8,500	945	4,000	4,000	2,000
64100 · Operating Supplies	25,000	25,000	23,828	25,000	25,000	25,000
64150 · Repairs & Maintenance	10,000	10,000	12,020	9,500	9,500	9,500
64160 · Research & Monitoring	290,000	297,150	195,557	247,000	247,000	257,000
64170 · Pollution Prev/Public Ed	40,000	40,000	30,226	35,000	35,000	35,000
64201 · Permits & Fees	3,000	3,000	2,359	3,000	3,000	3,000
64290 - Vehicle Replacement	1,400	0	0	0	0	0
	<b>676,740</b>	<b>685,376</b>	<b>521,966</b>	<b>630,191</b>	<b>593,828</b>	<b>669,734</b>

**Novato Sanitary District  
2014-2016 Final Budget  
Operating Budget - Pump Stations**

	Budget 12/13	Budget 13/14	Actual Exp 2013/14	Preliminary Budget 2014/15	Final Budget 2014/15	Preliminary Budget 2015/16
65010 · Salaries & Wages	331,138	315,414	272,589	324,106	316,295	356,485
65020 · Employee Benefits	164,724	146,602	112,133	143,935	137,777	148,243
65060 · Gasoline & Oil	4,000	5,000	5,400	5,000	5,000	6,000
65085 · Safety	2,000	3,000	422	2,000	2,000	2,000
65091 · Software Maintenance	10,000	12,000	8,309	12,000	12,000	12,000
65100 · Operating Supplies	9,000	10,000	5,399	10,000	10,000	10,000
65101 · Operating Chemicals	50,000	45,000	72	30,000	30,000	30,000
65150 · Repairs & Maintnnce	115,000	115,000	127,296	115,000	115,000	115,000
65152 · Small Tools	2,000	2,000	1,175	1,000	1,000	2,000
65153 · Outside Services, Electrical	70,000	45,000	31,182	40,000	40,000	40,000
65191 · Gas & Electricity	90,000	90,000	93,665	90,000	90,000	95,000
65192 · Water	5,000	5,000	6,447	7,000	7,000	7,000
65193 · Telephone	20,000	23,000	23,293	24,000	24,000	24,000
65201 · Permits & Fees	57,000	5,000	6,594	17,000	17,000	4,000
65290 - Vehicle Replacement	10,000	0	0	0	0	0
	<b>939,862</b>	<b>822,016</b>	<b>693,976</b>	<b>821,041</b>	<b>807,072</b>	<b>851,728</b>

**Novato Sanitary District  
2014-2016 Final Budget  
Operating Budget - Administration**

	Budget 12/13	Budget 13/14	Actual Exp 2013/14	Preliminary Budget 2014/15	Final Budget 2014/15	Preliminary Budget 2015/16
66010 · Salaries & Wages	994,388	1,007,722	981,912	954,601	983,222	1,090,765
66020 · Employee Benefits	399,308	402,036	377,136	388,143	375,733	420,954
66021 · Retiree Health Benefits	195,847	387,078	227,194	430,575	396,155	423,420
66030 · Director's Fees	45,000	45,000	38,700	45,000	45,000	45,000
66040 · Election Expense	0	0	0	0	0	40,000
66060 · Gasoline & Oil	8,000	9,000	7,464	10,000	10,000	10,000
66070 · Insurance	145,000	129,000	176,212	186,000	186,000	196,000
66071 · Insurance Claim Expense	45,000	45,000	9,438	45,000	45,000	45,000
66075 · Agency Dues	42,000	46,000	46,352	51,000	60,000	62,000
66080 · Memberships	7,500	8,000	7,683	8,500	8,500	8,500
66085 · Safety	1,000	1,000	954	1,000	1,000	1,000
66090 · Office Expense	30,000	27,000	28,860	29,000	29,000	29,000
66100 · Engineering Supplies	9,000	9,000	8,601	9,000	9,000	9,000
66121 · Accounting & Auditing	21,000	22,500	16,825	18,000	18,000	20,000
66122 · Attorney Fees	160,000	140,000	39,905	120,000	120,000	120,000
66123 · O/S Contractual	220,000	235,000	242,433	275,000	275,000	260,000
66124 · IT/Misc Electrical	50,000	40,000	39,823	40,000	40,000	40,000
66130 · Printing & Publications	15,000	18,000	14,559	22,000	22,000	22,000
66150 · Repairs & Maintenance	40,000	40,000	49,691	45,000	45,000	45,000
66170 · Travel, Meetings & Training	50,000	70,000	38,013	70,000	70,000	70,000
66193 · Telephone	15,000	15,000	10,779	15,000	15,000	15,000
66202 · County Fees-Property Taxes	31,000	33,000	19,828	25,000	25,000	25,000
66203 · County Fees-Sewer Ser Chg	30,000	32,000	34,587	35,000	35,000	35,000
66250 · Service Charge Sys Exp	5,000	5,000	0	5,000	5,000	5,000
66290 · Vehicle Replacement	5,600	0	0	0	0	0
	<b>2,564,643</b>	<b>2,766,336</b>	<b>2,416,949</b>	<b>2,827,819</b>	<b>2,818,610</b>	<b>3,037,639</b>

Novato Sanitary District						
Final Operating Budget 2014-16						
PERSONNEL DETAIL						
Number	Position	Dept.	Pay Range	Total		
				2014-15 Salaries	2015-16 Salaries	
1.00	Manager-Engineer.....	A/E	Contract	184,140	190,769	
1.00	Technical Services Manager	A/E	MC119	81,248	126,259	
1.00	Senior Engineer.....	.75AE/.25PS	MC116.5	124,920	129,417	
1.00	Field Services Manager.....	.25AE/.25CS/.25PS/.25Rec	MC119	134,364	146,161	
0.46	Administrative Services Specialist .....	A/E	MC117.5	60,538	31,358	
1.00	Administrative Services Officer .....	A/E	MC115	77,376	120,242	
0.50	Administrative Assistant .....	A/E	MC103	26,586	27,543	
1.00	Administrative Secretary.....	A/E	MC106	74,820	77,514	
1.00	Finance Officer.....	A/E	MC112.5	102,768	106,468	
1.00	Project Specialist	.25AE/.25CS/.25PS/.25Rec	MC112.5	22,194	96,571	
1.00	Staff Engineer.....	.5A/E/.5CS	47	95,484	98,921	
1.00	Construction Inspector.....	A/E	44.5	84,552	87,596	
1.00	Information System Specialist II.....	.5A/E/.5CS	43.5	80,520	83,419	
1.00	Environmental Services Supervisor.....	L/M	MC116	77,376	120,242	
1.00	ECA II.....	L/M	45.5	88,780	91,976	
1.00	Collection System Superintendent.....	.67CS/.33PS	MC115	116,064	120,242	
1.00	Collection System Leadworker.....	.67CS/.33PS	47	95,484	98,921	
1.00	Collection System Worker III.....	.67CS/.33PS	43.5	80,527	83,426	
1.00	Collection System Worker II.....	.67CS/.33PS	40.5	69,564	72,068	
5.00	Collection System Worker I.....	.67CS/.33PS	38.5	248,816	284,664	
1.00	Admin Intern	A/E	N/A	12,000	12,000	
1.00	Collection Intern	CS	N/A	10,000	10,000	
1.00	Engineering Intern	A/E	N/A	8,000	8,000	
1.00	Lab. Analyst (NMWD)	L/M	N/A	20,000	22,000	
0.40	Hourly Electrician	.25AE/.25PS/.50Rec	N/A	40,000	40,000	
	Allowance for Overtime.....	C/S		38,000	38,000	
	Allowance for Overtime.....	A/E		7,500	7,500	
	Allowance for Overtime.....	L/M		2,000	2,000	
	Allowance for Standby Duty Pay.....	C/S		25,000	25,000	
	CCSR.....	PS		600	600	
	Subtotal			2,089,220	2,358,878	
	Allowance for Possible COLA - across the board ... 3.60%			69,340	78,975	
				2,158,560	2,437,854	
27.36	Administration and Engineering (A/E)	=	983,222	1,090,765		
	Laboratory and Monitoring (L/M)	=	194,137	243,858		
	Collection System 67%	=	604,357	663,878		
	Pump Stations 33%	=	316,295	356,485		
	Reclamation Facilities	=	60,549	82,868		
	Total/Check		2,158,560	2,437,854		

**Novato Sanitary District  
2014-2016 Final Budget  
Operating Budget - Hazardous Household Waste**

	Budget 12/13	Budget 13/14	Est Exp 2013/14	Preliminary Budget 2014/15	Final Budget 2014/15	Preliminary Budget 2015/16
<b>67400 · Management Services</b>	106,764	119,264	97,639	130,161	130,161	130,761
<b>67500 · Household Hazardous Wst</b>	202,500	187,500	199,129	164,000	164,000	164,000
<b>67530 · Used Oil Grant</b>	5,000	5,000	0	11,963	11,963	11,963
<b>67530-1 Beverage Container Grant</b>	22,537	22,537	2,745	10,574	10,574	10,574
<b>67540 · Education/Publicity Outreach</b>	8,500	22,000	12,599	37,000	37,000	38,000
<b>67600 · Other</b>	5,000	5,000	0	5,000	5,000	5,000
<b>67610 · City AB 939 Admin Service</b>	10,000	10,000	10,000	10,000	10,000	10,000
	<b>360,301</b>	<b>371,301</b>	<b>322,112</b>	<b>368,698</b>	<b>368,698</b>	<b>370,298</b>

**Novato Sanitary District  
2014-2016 Final Budget  
Operating Budget - Recycled Water**

	Budget 12/13	Budget 13/14	Actual Exp 2013/14	Preliminary Budget 2014/15	Final Budget 2014/15	Preliminary Budget 2015/16
<b>68010 · O &amp; M Services</b>	50,000	50,000	43,356	50,000	50,000	50,000
<b>68100 · Operating Supplies</b>	1,000	2,000	3,442	2,000	3,000	2,000
<b>68101 · Operating Chemicals</b>	15,000	20,000	33,762	26,000	34,000	34,000
<b>68150 · Repairs &amp; Maintenance</b>	5,000	25,000	16,277	25,000	18,000	25,000
<b>68191 · Gas &amp; Electricity</b>	3,000	10,000	8,000	10,000	10,000	10,000
<b>68201 · Permits &amp; Fees</b>	1,000	1,000	0	1,000	1,000	1,000
	<b>75,000</b>	<b>108,000</b>	<b>104,837</b>	<b>114,000</b>	<b>116,000</b>	<b>122,000</b>

***SECTION IV***

***VEHICLE REPLACEMENT BUDGET***



***SECTION V***

***SELF INSURANCE BUDGET***



***SECTION VI***

***RATE STABILIZATION, EMERGENCY REPAIR AND  
SOUTHGATE RESERVE FUND BUDGET***

**Novato Sanitary District  
2014-16 Final Budget  
Rate Stabilization and Emergency Repair Reserve Funds**

		2014-15 Budget	
		Prelim	Final
<b><u>RATE STABILIZATION RESERVE</u></b>			
	<b>FUND BALANCE 6/30/13 . . . . .</b>	<b>600,000</b>	<b>600,000</b>
(1)	Contribution to/from Capital Reserve Fund to Rate Stabilization Fund 2013-14	900,000	900,000
	<b>FUND BALANCE 6/30/14 . . . . .</b>	<b>1,500,000</b>	<b>1,500,000</b>
(2)	Required Deposits	0	40,500
	<b>FUND BALANCE 6/30/15 . . . . .</b>	<b>1,500,000</b>	<b>1,540,500</b>
<b><u>EMERGENCY REPAIR RESERVE</u></b>			
	<b>FUND BALANCE 6/30/13 . . . . .</b>	<b>600,000</b>	<b>600,000</b>
(1)	To close fund to Capital Reserve Fund	(600,000)	(600,000)
	<b>FUND BALANCE 6/30/14 . . . . .</b>	<b>0</b>	<b>0</b>
(1)	Per new fund and reserve policies the Emergency Repair Reserve was closed to the Capital Reserve Fund and the Rate Stabilization Reserve was increased to \$1.5 million.		
(2)	Per new fund and reserve policies required deposit are adjusted by the May - April ENR Index.		

**Novato Sanitary District  
2014-16 Final Budget  
Southgate Reserve Fund**

			2014-15 Budget	
			Prelim	Final
<b><u>SOUTHGATE RESERVE FUND**</u></b>				
<b>FUND BALANCE 6/30/13 . . . . .</b>			<b>679,989</b>	<b>679,989</b>
		Contribution to/from Operating Fund to Southgate Reserve Fund 2013-14	0	0
(1)	(p. 19)	To close fund to Capital Reserve Fund	(679,989)	(679,989)
<b>FUND BALANCE 6/30/14 . . . . .</b>			<b>0</b>	<b>0</b>
(1)		Per new fund and reserve policies the Southgate Reserve Fund was closed to the Capital Reserve Fund.		

***SECTION VII***

***CAPITAL IMPROVEMENT BUDGET***

**Novato Sanitary District  
2014-16 Final Budget  
Capital Improvement Budget - Revenue Summary**

				Preliminary	Final	Preliminary
			Actual Rev	Budget	Budget	Budget
	Budget 12/13	Budget 13/14	2013/14	2014/15	2014/15	2015/16
<b>Capital Improvement Income</b>						
51010 · Sewer Service Charges(1)	6,149,430	6,728,280	6,669,000	7,183,200	7,183,200	7,435,040
51015 · Property Taxes	1,780,000	1,740,000	1,941,241	1,750,000	1,750,000	1,750,000
51020 · Connection Charges(2)	447,500	470,000	343,773	493,500	493,500	518,000
51030 · Collector Sewer Charges	2,000	2,000	0	2,000	2,000	2,000
51040 · Special Equalization Chrg	4,000	4,000	0	4,000	4,000	4,000
51060 · Interest	20,000	50,000	30,239	30,000	30,000	30,000
51062 · Grant Revenue	601,370	0	16,250	0	0	0
51070 · Other Revenue	300,440	20,000	0	20,000	20,000	20,000
<b>Total Capital Improvement Income</b>	<b>9,304,740</b>	<b>9,014,280</b>	<b>9,000,503</b>	<b>9,482,700</b>	<b>9,482,700</b>	<b>9,759,040</b>
<b>Comments:</b>						
<b>(1) Sewer Service charge revenue is based on approved rate increase and actual revenue received in prior year. The Sewer Service Charges allocations are as follows: For 2014/15 the charge is \$533, split between operations(\$293) and capital (\$240). For 2015/16 the charge is \$552, split between operations(\$304) and capital(\$248).</b>						
<b>(2) Connection Charges projected to be 50 new connections at \$9,870 each and 50 new connections the following year at \$10,360 each.</b>						

**Novato Sanitary District  
2014-2016 Final Budget  
Capital Improvement Budget - CIP Expenditures**

				Preliminary	Final	Preliminary
			Actual Exp	Budget	Budget	Budget
	Budget 12/13	Budget 13/14	2013/14	2014/15	2014/15	2015/16
72110 · Drainage PS 3&7 Outfall Rehab	50,000	150,000	28,315	275,000	265,000	0
72111 · SCADA Phase II	10,000	0	0	0	0	0
72403 · Pump Station Rehabilitation	1,900,000	1,440,000	962,791	1,082,185	1,082,185	100,000
72508 · North Bay Water Reuse Authority (NBWRA)	395,440	150,000	104,650	370,000	355,000	403,000
72509 · NTP Soil & Groundwater Inv	0	0	0	0	0	0
72604 · Laboratory Improvements	10,000	0	0	0	0	0
72607 · WWTP Upgrade - Contract A1	10,000	0	0			
72609 · WWTP Upgrade - Contract B	50,000	100,000	32,276	45,000	45,000	0
72611 · Bayside Sewer	3,000	3,000	548	0	0	0
72612 · Southgate Sewer	1,000	1,000	0	0	0	0
72706 · Collection System Improvments	555,000	1,730,000	905,525	1,435,321	1,600,000	900,000
72706-1 · Lateral Replacement Program	30,000	30,000	16,500	30,000	50,000	30,000
72707 · Hamilton Wetlands/Outfall Integration	50,000	90,000	50,446	36,542	36,542	2,500
72708 · Cogeneration	50,000	50,000	0	40,000	40,000	10,000
72802 · Annual Sewer Adj. for City Proj	25,000	10,000	10,883	10,000	10,000	10,000
72803 · Annual Collection Sys Repairs	200,000	275,000	184,349	200,000	200,000	200,000
72804 · Annual Reclamation Fac Improvements	260,000	250,000	230,247	150,000	150,000	150,000
72805 · Annual Trtmt Plnt/Pump St Improvements	540,000	275,000	292,642	200,000	200,000	150,000
72808 · Strategic Plan Update	10,000	0	0	0	0	0
72809 · Novato Creek Watershed	0	50,000	50,000	50,000	50,000	0
73001 · WWTP Upgrade - Contract C(Solids hndlng)	2,500,000	2,858,377	2,954,952	461,396	461,396	10,000
73002 · WWTP Up-Contract D-Recycled Water	1,250,000	150,000	94,658	10,000	10,000	5,000
73003 · Admin Building Upgrade/Maint. Building	250,000	400,000	14,253	1,000,000	1,000,000	1,730,901
73090 · Vehicle Replacement	0	64,000	0	180,000	180,000	20,000
78500 · Interest - SRF/COP Bond	2,785,972	2,730,721	2,730,721	2,621,583	2,621,583	2,509,673
78500 · Principal	4,138,057	4,339,933	4,339,933	4,449,171	4,449,171	4,565,431
<b>Totals</b>	<b>15,073,469</b>	<b>15,147,031</b>	<b>13,003,689</b>	<b>12,646,198</b>	<b>12,805,877</b>	<b>10,796,505</b>

**Novato Sanitary District  
2014-16 Final Budget  
Capital Fund and Working Capital Reserve Funds**

		2014-15 Budget	
		Prelim	Final
<b><u>CAPITAL FUND</u></b>			
<b>Fund Balance 6/30/13</b>		0	0
	Actual Revenues 2013-14	8,682,398	9,000,503
	Actual Expenditures 2013-14	(5,577,013)	(5,933,035)
	Debt Service Payments -SRF Loan and COP Bond	(7,070,654)	(7,070,654)
	Transfer from Working Capital Reserve Fund 2013-14	3,965,269	4,003,186
	Closed Working Capital Reserve Fund to Capital Fund	7,520,032	7,482,115
<b>Fund Balance 6/30/14</b>		7,520,032	7,482,115
	Anticipated Revenues 2014-15	9,482,700	9,482,700
	Anticipated Expenditures 2014-15	(5,575,444)	(5,735,123)
	Debt Service Payments SRF Loan and COP Bond	(7,070,754)	(7,070,754)
<b>Anticipated Fund Balance 6/30/15</b>		4,356,534	4,158,938
<b><u>WORKING CAPITAL RESERVE FUND</u></b>			
<b>Fund Balance 6/30/13</b>		10,737,755	10,737,755
	Transfer from Capital Fund Fund 2013-14	(3,965,269)	(4,003,186)
	Transfer from Southgate Reserve Fund (1)	679,989	679,989
	Transfer from Vehicle Replacement Fund(1)	367,557	367,557
	Transfer from Emergency Reserve Fund (1)	600,000	600,000
	Transfer to Rate Stabilization Fund (2)	(900,000)	(900,000)
	Transfer to Close this fund (3)	(7,520,032)	(7,482,115)
<b>Fund Balance 6/30/14</b>		0	0
(1)	Per new fund and reserve policies the Southgate Reserve, Vehicle Replacement Reserve and the Emergency Reserve were eliminated and closed to the Working Capital Reserve Fund. These reserves totalled \$1,647,546.		
(2)	Per new fund and reserve policies Rate Stabilization Fund increased by \$900k.		
(3)	Due to the new reserve and fund policies the Capital Improvement Fund will no longer be closed to the Working Capital Reserve Fund; the excess or deficit for each year will remain in the Capital Improvement Fund, now renamed the Capital Fund.		

***SECTION VIII***

***WASTEWATER CAPITAL RESERVE FUND &  
CERTIFICATE OF PARTICIPATION RESERVE FUND***

**Novato Sanitary District  
2014-16 Final Budget  
Wastewater Capital Reserve Fund**

		2014-15 Budget	
		Prelim	Final
<b><u>Wastewater Capital Reserve Fund</u></b>			
<b>FUND BALANCE 6/30/13 . . . . .</b>		<b>3,275,000</b>	<b>3,275,000</b>
	Required Deposits	0	0
<b>FUND BALANCE 6/30/14 . . . . .</b>		<b>3,275,000</b>	<b>3,275,000</b>
	Required Deposits	0	0
<b>ANTICIPATED FUND BALANCE 6/30/15 . . . . .</b>		<b>3,275,000</b>	<b>3,275,000</b>
<b>Note:</b>	Per the SRF Loan agreement, the District must deposit sufficient funds to build up the Wastewater Capital Reserve Fund (WCRF) at a minimum rate of 0.5% of the SRF loan amount each year for a period of ten years. The District's unused bonding capacity of \$3,275,000 from the 1970 and 1986 GO Bonds may be used to offset, dollar for dollar, the required cash deposits to the WCRF. The maximum required WCRF balance is \$3,599,654 of which \$3,275,000 is satisfied.		

**Novato Sanitary District  
2014-16 Final Budget  
COP Reserve Fund**

		2014-15 Budget			
		Prelim	Final		
<b><u>Certificates of Participation Reserve Fund</u></b>					
<b>FUND BALANCE 6/30/13 . . . . .</b>		<b>1,500,000</b>	<b>1,500,000</b>		
Contribution to/from Operating Fund to COP Reserve Fund		-	-		
<b>FUND BALANCE 6/30/14 . . . . .</b>		<b>1,500,000</b>	<b>1,500,000</b>		
Contribution to/from Operating Fund to COP Reserve Fund		-	-		
<b>ANTICIPATED FUND BALANCE 6/30/15 . . . . .</b>		<b>1,500,000</b>	<b>1,500,000</b>		
<b>Summary of COP Activity:</b>					
	<b>12/13</b>	<b>13/14</b>	<b>14/15</b>	<b>15/16</b>	
<b>Beginning Balance each year</b>	14,431,619	9,610,463	4,804,012	1,500,000	
<b>Cop Proceeds</b>	-	-	-	-	
<b>Less Withdrawals</b>	(4,859,140)	(4,824,518)	(3,309,012)	-	
<b>Interest earned and Reinvested</b>	37,984	18,067	5,000	1,000	
<b>Cash Balance for COP Expenditures</b>	9,610,463	4,804,012	1,500,000	1,501,000	
<b>Note:</b>	<p>The Trust Agreement for the 2012 COP financing established a reserve fund as a reserve for payment of the installment payments in October 2011. The reserve fund was initially funded at \$1.5 million. It is held by the Trustee (Bank of New York-Mellon) and maintained in the amount of the reserve requirement. The "reserve requirement" is defined in the Trust Agreement to mean, as of the date of calculation, an amount equal to the lesser of (i) 10% of the original principal amount of the COPs; or (ii) maximum amount of Installment Payments due in the current or any future Fiscal Year prior to the final maturity of the Certificates; or (iii) 125% of the total amount of then unpaid installment payments as of the date of calculation, and dividing that total by the number of fiscal years remaining to final maturity of the COPs. This amount will be used to make the final payment of the COP and the Reserve will be closed at that time.</p>				

***SECTION IX***

***DEBT SERVICE FUNDS***

**Novato Sanitary District  
2014-16 Final Budget  
State Revolving Fund Loan  
and  
COP Bond Fund**

		2014-15 Budget			
		Prelim	Final		
<b>State Revolving Fund Loan</b>					
<b>FUND BALANCE 6/30/13 . . . . .</b>		<b>77,875,979</b>	<b>77,875,979</b>		
Principal Payment 2013-14		(3,509,933)	(3,509,933)		
Interest payments 2013-14		(1,869,024)	(1,869,024)		
Transfer from Capital Improvement Fund 2013-14		1,869,024	1,869,024		
<b>FUND BALANCE 6/30/14 . . . . .</b>		<b>74,366,046</b>	<b>74,366,046</b>		
Principal Payment 2014-15		(3,594,171)	(3,594,171)		
Interest payments 2014-15		(1,784,785)	(1,784,785)		
Transfer from Capital Improvement Fund 2013-14		1,784,785	1,784,785		
<b>ANTICIPATED FUND BALANCE 6/30/15 . . . . .</b>		<b>70,771,875</b>	<b>70,771,875</b>		
<b>COP Bond Financing Issued October 2011</b>					
<b>FUND BALANCE 6/30/13 . . . . .</b>		<b>20,950,000</b>	<b>20,950,000</b>		
Principal Payment 2013-14		(830,000)	(830,000)		
Interest payments 2013-14		(861,698)	(861,698)		
Transfer from Capital Improvement Fund 2013-14		861,698	861,698		
<b>FUND BALANCE 6/30/14 . . . . .</b>		<b>20,120,000</b>	<b>20,120,000</b>		
Principal Payment 2014-15		(855,000)	(855,000)		
Interest payments 2014-15		(836,798)	(836,798)		
Transfer from Capital Improvement Fund 2014-15		836,798	836,798		
<b>ANTICIPATED FUND BALANCE 6/30/15 . . . . .</b>		<b>19,265,000</b>	<b>19,265,000</b>		
				<b>Preliminary</b>	<b>Final</b>
				<b>Budget</b>	<b>Budget</b>
		<b>Actual Rev/Exp</b>	<b>Budget</b>	<b>Budget</b>	<b>Preliminary</b>
<b>Debt Coverage Ratio(1)</b>		<b>Budget 13/14</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
Net Operating Revenue		9,364	1,060,878	63,165	157,151
Capital Revenue		9,014,280	9,000,503	9,482,700	9,759,040
Annual Debt Service		7,070,655	7,070,654	7,070,754	7,075,104
Debt Coverage Ratio		1.28	1.42	1.35	1.40
Net revenues covenant requires a 1.20 coverage ratio					
(1)Net Operating Revenue + Capital Revenue/ Annual Debt Service = Debt Coverage Ratio					

# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

<b>TITLE: Appropriations Limit for FY2014-15</b>	<b>MEETING DATE: August 25, 2014</b>
	<b>AGENDA ITEM NO.: 8.c.</b>
<b>RECOMMENDED ACTION: Adopt a Resolution Establishing the District's Appropriations Limit for 2014-15.</b>	
<b>SUMMARY AND DISCUSSION:</b>  Under the Gann Spending-Limitation Initiative (Article XIII B of the State Constitution) adopted as Proposition 4 in June 1979 (and subsequently modified by Proposition 111 in June 1990), the District is required to annually adopt a resolution setting an appropriations limit for the upcoming year. For 2014-15, staff projects that the District's appropriations subject to limitation will be \$5,936,316.  The Gann spending-Limitation Initiative provides for the limitation of state and local government appropriations and is actually a limitation on tax revenues rather than a direct limitation on appropriations.  Appropriations subject to limitation may not exceed appropriations made in 1978-79 except as adjusted for increases in the cost of living, population and service responsibility transfers.  Appropriations financed through service fees (to the degree that they do not exceed the cost of performing the service), grant programs, and other specified "non-tax" sources are not subject to the appropriations limit.  Originally, the Gann Initiative was self-executing, requiring no formal review; however, Proposition 111 requires that the annual calculation be reviewed as part of the annual financial audit.  The annual adjustment factors for changes in population and cost of living for the appropriations limit calculation must be selected by a recorded vote of the Board.	
<b>ALTERNATIVES: N/A</b>	
<b>BUDGET INFORMATION:</b>	
<b>DEPT.MGR.:</b>	<b>MANAGER:</b>

MEMORANDUM

August 25, 2014

TO: Board of Directors

FROM: Sandeep Karkal, Manager-Engineer  
Laura Creamer, Finance Officer

SUBJECT: 2014-15 Appropriations Limit

It is necessary to determine the District's appropriations limit for 2014-15 based on growth factors provided by the State Department of Finance.

Price Factor

Proposition 111, adopted in 1990, specifies that each entity of local government select its cost of living factor by a vote of its governing body. The District may select either (a) the percentage change in the California per capita personal income (CPCPI), or (b) the percentage change in the local assessment roll due to the addition of non-residential new construction.

The CPCPI percentage change over the prior year is -0.23% according to the State Department of Finance. Information obtained from the County Auditor-Controller's office shows the change in assessment due to new non-residential construction amounts to .66%. We have used the percentage change in the local assessment roll due to the addition of new non-residential new construction for setting our 2014-15 appropriations limit.

Change in Population

Senate Bill 88, implementing Proposition 111, provides that a special district shall select its change in population annually by a recorded vote of the governing body. The Board may choose to use the change in population within its jurisdiction or within the county in which it is located. If a special district is wholly within a county, the county population shall be used unless the district requests a special census from the Department of Finance.

2014-15 Appropriations Limit

It is recommended that the 2014-15 appropriations limit be set at \$5,936,316 using the change in assessment due to non-residential construction percentage change and the annual percentage change in population for Marin County.

Attached is a worksheet with the adjustment factors to obtain the 2014-15 limit.

Attachments

t:\personnel\june's word files\adm\apprlim.rtf

**Novato Sanitary District  
 APPROPRIATIONS LIMIT**

**2014-15**

APPROPRIATION LIMIT ADJUSTMENT FACTORS

Under law (Proposition 111), the District's appropriations limit may increase annually by a factor comprised of the change in population combined with either the change in California per capita personal income or the change in the local assessment roll due to local non-residential construction:

May use Per Capita Change: -0.23% Use for 2014-15 Calculation

or

Change due to non-residential construction (1): 0.66%

Population Change for Marin County: 0.42

Per Capita converted to a ratio: 0.9977

Population converted to a ratio: 1.0042

Calculation of Factor for FY 2014-15:

Price factor (.9977) x Population factor (1.0042)= 1.00189

The change factor is applied to last year's appropriation limit to obtain this year's limit:

Appropriation Limit prior FY	2013-14	5,925,116
Change Factor for this FY	2014-15	<u>1.00189034</u>

**APPROPRIATION LIMIT FOR 2014-15 \$ 5,936,316**

(1) The following information was provided by the County Auditor-Controller's Office:

Change in AV due to Construction Growth from 3-01-12 to 3-1-13	<u>3,132,076</u>	:	0.66%
Increase in total AV (+exemptions) from 2012-13 to 2013-14	474,535,842		

## APPROPRIATIONS LIMIT WORKSHEET

### Comparison of Limit to Tax Revenue

Year Ended June 30	APPROPRIATIONS SUBJECT TO LIMITATION				Amount Under Limit
	Approp Limit	Increase over PY	Tax Revenue	Increase over PY	
2001	3,638,890	7.78%	1,251,503	17.94%	2,387,387
2002	3,951,700	8.60%	1,252,939	0.11%	2,698,761
2003	4,186,081	5.93%	1,344,630	7.32%	2,841,451
2004	4,355,831	4.06%	1,392,792	3.58%	2,963,039
2005	4,611,180	5.86%	1,279,567	-8.13%	3,331,613
2006	4,872,715	5.67%	1,763,422	37.81%	3,109,293
2007	5,103,161	4.73%	1,796,003	1.85%	3,307,158
2008	5,380,409	5.43%	1,995,120	11.09%	3,385,289
(2) '2009	5,663,413	5.26%	2,527,507	26.68%	3,135,906
2010	5,744,684	1.44%	1,874,691	-25.83%	3,869,993
2011	5,792,485	0.83%	1,774,216	-5.36%	4,018,269
2012	5,841,350	0.84%	1,795,489	1.20%	4,045,861
2013	5,899,391	0.99%	1,795,781	0.02%	4,103,610
2014	5,925,116	0.44%	1,941,241	8.10%	3,983,875
(1) 2015	5,936,316	0.19%	1,750,000	-9.85%	4,186,316
15-Year Average		3.87%		4.44%	

(1) As Provided in Proposition 111, the change in assessment roll due to local non-residential construction factor was used to calculate appropriations limit.

(2) Property Taxes of approximately, \$600k were miscoded at year end to sewer service charges thus the significant jump in property taxes on this spreadsheet.

**RESOLUTION NO. 3077**  
**A RESOLUTION OF THE NOVATO SANITARY DISTRICT**  
**CORRECTING AND AMENDING PRIOR CALCULATIONS**  
**AND MAKING DETERMINATION AND ESTABLISHING**  
**THE 2014-15 APPROPRIATION LIMIT**

**RESOLVED**, by the Board of Directors of the Novato Sanitary District, Marin County, California, that in order to conform to modifications in the appropriation limit calculation as provided by Proposition 111 amending Article XIII B of the Constitution of the State of California and regulations adopted thereunder and by Senate Bill No. 88, Chapter 60 of Statutes of 1990 and especially the amendment of Section 7901 relating to the calculations of appropriation limits and the addition of Section 7914 defining "qualified capital outlay project" of the Government Code of the State of California, and in order to correct and adjust earlier calculations to comply with constitutional changes and with regulations adopted thereunder, the previously calculated limits for the District shall be amended in accordance with the appropriation limit calculations which have been on file and available in the office of the Secretary of the Novato Sanitary District. The District has calculated the maximum limit applicable to the appropriation of tax proceeds for the fiscal year 2014-15 to be the sum of **FIVE MILLION NINE HUNDRED THIRTY-SIX THOUSAND THREE HUNDRED SIXTEEN AND NO/100 (\$5,936,316.00)**. The basis of said calculations are available and on file in the office of the Secretary and the Board of Directors does hereby determine that for said fiscal year the calculations are based on the percentage change in the local assessment roll due to the addition of non-residential new construction and the population change of the County of Marin within which the District is situated, and that this resolution shall be posted by the Secretary at the official places of posting and shall be effective immediately.

\* \* \* \* \*

I hereby certify that the foregoing resolution was passed and adopted by the Board of Directors of the Novato Sanitary District, Marin County, California, at a meeting thereof held on the 25th day of August, 2014, by the following vote of the members thereof:

AYES, and in favor thereof, Members:

NOES, Members:

ABSENT, Members:

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President  
Board of Directors

APPROVED:

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Secretary

s:\board resolutions\appropriationres.doc

# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

<b>TITLE: Capital Projects: Collection System Improvements (Olive Pump Station Parallel Force Main Project), Account no. 72706.</b>	<b>MEETING DATE: August 25, 2014</b>  <b>AGENDA ITEM NO.: 9.a.</b>												
<b>RECOMMENDED ACTION:</b> Review bids received, approve contract award to Argonaut Constructors, and authorize Manager-Engineer to execute the contract in the bid amount of \$1,245,680.00.													
<b>SUMMARY AND DISCUSSION:</b>  <p>At its June 23, 2014 meeting the District Board made CEQA findings and authorized staff to advertise for bids for this project. On August 6, 2014, five (5) bids were received as follows:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 30%;"><u>Bidder</u></th> <th style="text-align: right;"><u>Amount</u></th> </tr> </thead> <tbody> <tr> <td>Argonaut Constructors:</td> <td style="text-align: right;">\$1,245,680.00</td> </tr> <tr> <td>Bay Pacific Pipeline:</td> <td style="text-align: right;">\$1,267,060.00</td> </tr> <tr> <td>Team Ghilotti:</td> <td style="text-align: right;">\$1,428,490.00</td> </tr> <tr> <td>Maggiora &amp; Ghilotti:</td> <td style="text-align: right;">\$1,475,475.00</td> </tr> <tr> <td>Precision Engineering:</td> <td style="text-align: right;">\$1,567,600.00</td> </tr> </tbody> </table> <p>As seen above, Argonaut Constructors (Santa Rosa, CA) submitted the apparent lowest bid of \$1,245,680. The Engineer's Estimate of Probable Cost was \$970,000. Given that all bids received were significantly higher than the engineer's estimate, staff analyzed the bidder's line item bid amounts against the engineer's estimate for differences. It was concluded that the overall difference was primarily due to an outdated unit price on pipeline construction that had been utilized based on the District's prior experience. Argonaut's bid documents were reviewed and they appear to be in order. Staff then contacted Argonaut to discuss their bid, and they are comfortable and confident with their bid. Also, if the bid were to be awarded to Argonaut for the bid amount, it has been agreed in principle that both the bidder and the District will explore value-engineering strategies to potentially lower the overall construction cost to the District as the project proceeds.</p> <p>The FY14-15 preliminary budget includes \$1,435,321 for Collection System Improvements, Account No. 72706. Therefore, at this time, it is recommended that the Board approve contract award to Argonaut Constructors, and authorize the Manager-Engineer to execute the contract in the bid amount of \$1,245,680.00.</p>		<u>Bidder</u>	<u>Amount</u>	Argonaut Constructors:	\$1,245,680.00	Bay Pacific Pipeline:	\$1,267,060.00	Team Ghilotti:	\$1,428,490.00	Maggiora & Ghilotti:	\$1,475,475.00	Precision Engineering:	\$1,567,600.00
<u>Bidder</u>	<u>Amount</u>												
Argonaut Constructors:	\$1,245,680.00												
Bay Pacific Pipeline:	\$1,267,060.00												
Team Ghilotti:	\$1,428,490.00												
Maggiora & Ghilotti:	\$1,475,475.00												
Precision Engineering:	\$1,567,600.00												
<b>ALTERNATIVES:</b> Not award the project and not complete the work.													
<b>BUDGET INFORMATION:</b> This work will be funded from Collection System Improvements, Account No. 72706, which has a Preliminary FY14-15 budget of \$1,435,321.													
<b>DEPT.MGR.:</b> srk, ssk	<b>MANAGER-ENGINEER:</b>												

# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

<b>TITLE: Capital Projects: Collection System Improvements (Olive Pump Station Parallel Force Main Project), Account no. 72706</b>	<b>MEETING DATE: August 25, 2014</b>  <b>AGENDA ITEM NO.: 9.b.</b>
<b>RECOMMENDED ACTION:</b> Approve a contract with Nute Engineering for construction management services on a time and materials basis in the not-to-exceed amount of \$117,000, and authorize the Manager-Engineer to execute it.	
<b>SUMMARY AND DISCUSSION:</b>  <p>As a separate item on this agenda, staff is requesting that the Board award the construction contract for this project to Argonaut Constructors. In addition, staff has identified that the District will require assistance with construction management and administration services to monitor Argonaut's work on this project. Therefore, staff requested proposals from The Covello Group (TCG) and Nute Engineering (Nute) to provide these services.</p> <p>Both firms provided excellent proposals. They both have developed excellent working relationships over the years with the City of Novato inspection staff, and that will be beneficial to the District. Both firms have also demonstrated high levels of professionalism and project management that have resulted in excellent projects for the District. However, staff is of the opinion that Nute's selection may better benefit the District for this particular project given their familiarity with the nuances of the project as the design engineer for the project.</p> <p>Therefore, staff recommends that the Board approve a contract with Nute Engineering for construction management services (including engineering services during construction) on a time and materials basis in the not-to-exceed amount of \$117,000, and authorize the Manager-Engineer to execute it.</p>	
<b>ALTERNATIVES:</b> Do not approve the contract.	
<b>BUDGET INFORMATION:</b> The FY 14-15 Preliminary Budget includes a budget amount of \$1,435,621 for Collection System Improvements, Account No. 72706.	
<b>DEPT.MGR.:</b> srk, ssk	<b>MANAGER-ENGINEER:</b>

**NOVATO SANITARY DISTRICT  
BOARD AGENDA ITEM SUMMARY**

<b>TITLE:</b> Board of Directors: Brown Act	<b>MEETING DATE:</b> August 25, 2014								
	<b>AGENDA ITEM NO.:</b> 10.a								
<b>RECOMMENDED ACTION:</b> Affirm the District's intent to continue to abide by "The Brown Act".									
<b>SUMMARY AND DISCUSSION:</b>									
<p>"The Brown Act" (Government Code sections 54950 et seq) was adopted to require that all meetings of the legislative body at local agencies (with certain very limited exceptions) shall be open to the public and all persons be permitted to attend. The intent was to provide transparent government decision-making. The legislation provided for reimbursement to the local agencies from the State of California for the costs of complying with the agenda posting and certain other requirements of the Brown Act.</p> <p>In July 2012 Assembly Bill 1464 suspended a long list of state mandates, including portions of the Brown Act, for the 2012-13 fiscal year. Senate Bill 1006 prolonged the suspension through the 2014-15 fiscal year. At their meeting of August 27, 2012, the District Board affirmed the District's intention to continue to follow the tenets of the Brown Act.</p> <p>The District was last reimbursed for Brown Act compliance costs in May 2007 in the amount of \$3,527 for fiscal year 2005-06 costs. The District has since requested reimbursement for the following from the State, but has not received reimbursement:</p> <table style="margin-left: auto; margin-right: auto; border: none;"> <tr> <td style="padding: 2px 10px;">FY 2006/07</td> <td style="padding: 2px 10px; text-align: right;">\$3,383</td> </tr> <tr> <td style="padding: 2px 10px;">FY 2007/08</td> <td style="padding: 2px 10px; text-align: right;">\$3,923</td> </tr> <tr> <td style="padding: 2px 10px;">FY 2008/09</td> <td style="padding: 2px 10px; text-align: right;">\$4,027</td> </tr> <tr> <td style="padding: 2px 10px;">FY 2009/10</td> <td style="padding: 2px 10px; text-align: right;">\$6,861</td> </tr> </table> <p>Based on this it is estimated that continued Brown Act compliance costs will be approximately \$6,500 and that continued non-reimbursement of these expenses by the State will not adversely impact the District budget. Staff recommends that the District continue to follow the tenets of the Brown Act.</p>		FY 2006/07	\$3,383	FY 2007/08	\$3,923	FY 2008/09	\$4,027	FY 2009/10	\$6,861
FY 2006/07	\$3,383								
FY 2007/08	\$3,923								
FY 2008/09	\$4,027								
FY 2009/10	\$6,861								
<b>ALTERNATIVES:</b> None									
<b>BUDGET INFORMATION:</b> Brown Act compliance will continue to be funded under the Administrative and Engineering budget.									
<b>DEPT.MGR.</b>	<b>MANAGER:</b>								

# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

<b>TITLE:</b> Board of Directors: 2013-14 Grand Jury Report; Draft Response.	<b>MEETING DATE:</b> August 25, 2014  <b>AGENDA ITEM NO.:</b> 10.b.
<b>RECOMMENDED ACTION:</b> Consider draft response to the 2013-14 Marin County Civil Grand Jury Report titled "The Scoop on Marin County Sewer Systems: Part I", and "The Scoop on Marin County Sewer Systems: Part II", provide further input, and give direction to staff as required	
<b>SUMMARY AND DISCUSSION:</b>  At the June 23, 2014 Board meeting, staff had informed the Board that the District had received the referenced Report from the Marin County Civil Grand Jury. The Report (as received from the Grand Jury) had been provided in its entirety to the Board as part of the Board agenda packet for that meeting. This subject was also brought to the Board for its input and direction at its July 14, 2014 and August 11, 2014 meetings.  At this point, staff has received comments from Board members and has prepared a draft response for further review and discussion. Pending comments and further Board direction, a final response from the District will be prepared and transmitted by late August or early September to meet the September 14, 2014 submittal deadline.	
<b>ALTERNATIVES:</b> NA.	
<b>BUDGET INFORMATION:</b> NA.	
<b>DEPT.MGR.:</b> ssk	<b>MANAGER-ENGINEER:</b>

# DRAFT

August \_\_, 2014

The Honorable Judge Faye D'Opal  
Marin County Superior Court  
PO Box 4988  
San Rafael, CA 94913-4988

Nadine A. Muller, Foreperson  
Marin County Grand Jury  
3501 Civic Center Drive, Room #275  
San Rafael, CA 94903

Subject: Response to 2013/2014 Marin County Civil Grand Jury Report titled: "The Scoop on Marin County Sewer Systems: Part I & Part II"

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## A. BACKGROUND

The 2013/2014 Marin County Civil Grand Jury released a report on June 16, 2014, "*The Scoop on Marin County Sewer Systems: Part I and Part II*" (Report).

The Board of Directors of the Novato Sanitary District (District, or NSD) met and discussed the Report in the open session portions of its following publicly noticed meetings, and in accordance with the notice, agenda, and open meeting requirements of the Ralph M. Brown Act:

- June 23, 2014, Board of Directors Meeting.
- July 14, 2014, Board of Directors Meeting.
- August 11, 2014, Board of Directors Meeting.
- August 25, 2014, Board of Directors meeting.

## **B. DISCUSSION**

We note that all of the Findings and Recommendations that apply to the District are presented in Part 1 of the Grand Jury's Report. Part 2 of the Report does not include any Findings or Recommendations for the District, hence all of our responses are directed only to those Findings and Recommendations of Part 1 of the Report that are specific to the District.

Also, before addressing each of the Findings and Recommendations, we want to clarify details of Part 1 of the Report as they relate to the District.

The "Summary" portion of Part 1 states: "In the last few years, the Novato Sanitary District and the Ross Valley Sanitary District have been charged fines amounting to \$1,839,100 for excessive sewer spill activity that occurred in previous years". What is not stated is the District's liability was \$300,000 (or less than 20 per cent of the listed amount). The Report does not make this clarification until Page 11.

Moreover, NSD successfully used most of its \$300,000 liability to fund local environmental projects. The District is partnering with the Marin Audubon Society (MAS) on two important projects, the Bahia Tidal Pond Habitat Enhancement and Marsh monitoring project on the Petaluma River in the Bahia Area of Novato, and the Simmons Slough Wetland Enhancement Project, to enhance estuarine wetland habitat on MAS' 145-acre Simmons Slough property off Atherton Avenue in Novato.

And what should be of more interest to the Grand Jury, NSD has spent over \$209 million since 2001-02 on improvements to its sewage collection, conveyance, treatment, and disposal systems (see Figures 1 and 2). These improvements have provided benchmarks (summarized in Figure 3), and significant enhancements in the District's performance (as seen in Figures 4, 5, 6 and 7). This information is not captured in the Summary (or anywhere) in the Grand Jury's Report, which instead tends to focus on NSD's fines for events that occurred from 2007 to 2011, when NSD was making these massive improvements.

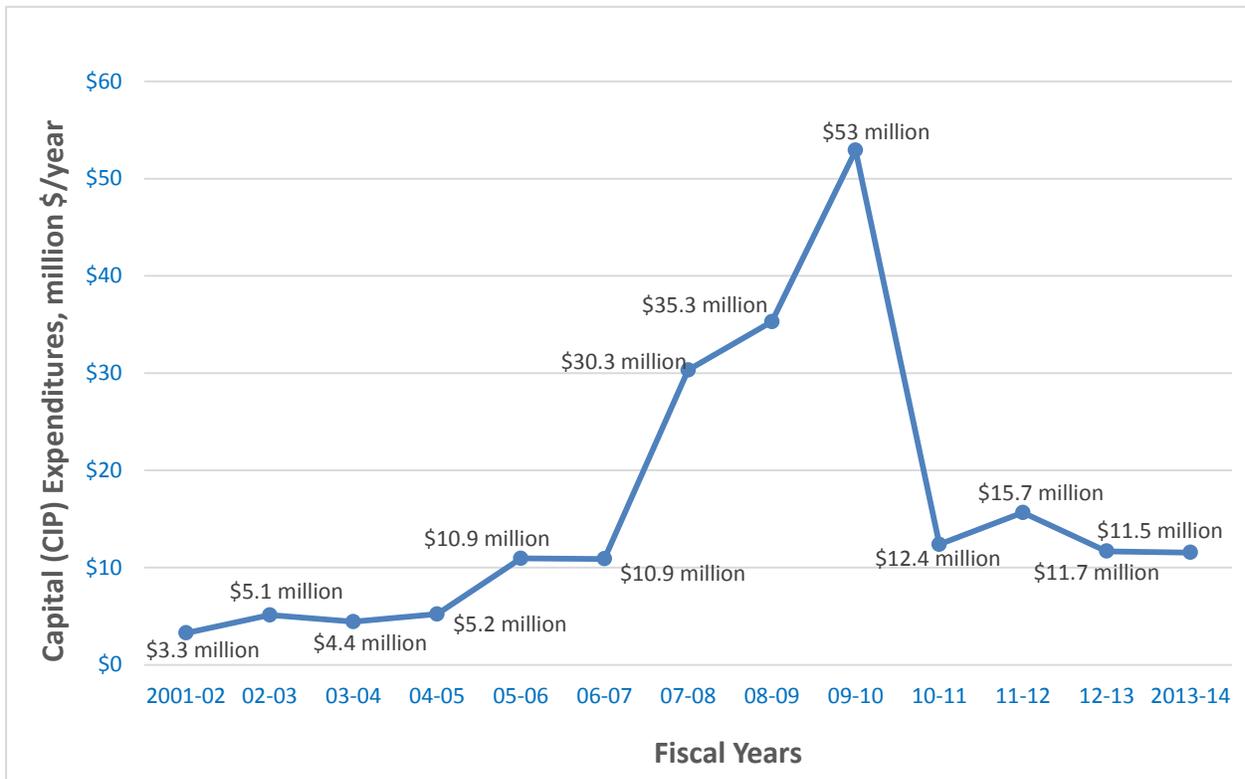
## **C. RESPONSE TO FINDINGS**

***FINDING F3:** Taxpayers ultimately bear the burden of fines from excessive sewer spill activity, which in the period 2011-2013 amounted to \$1,839,100.*

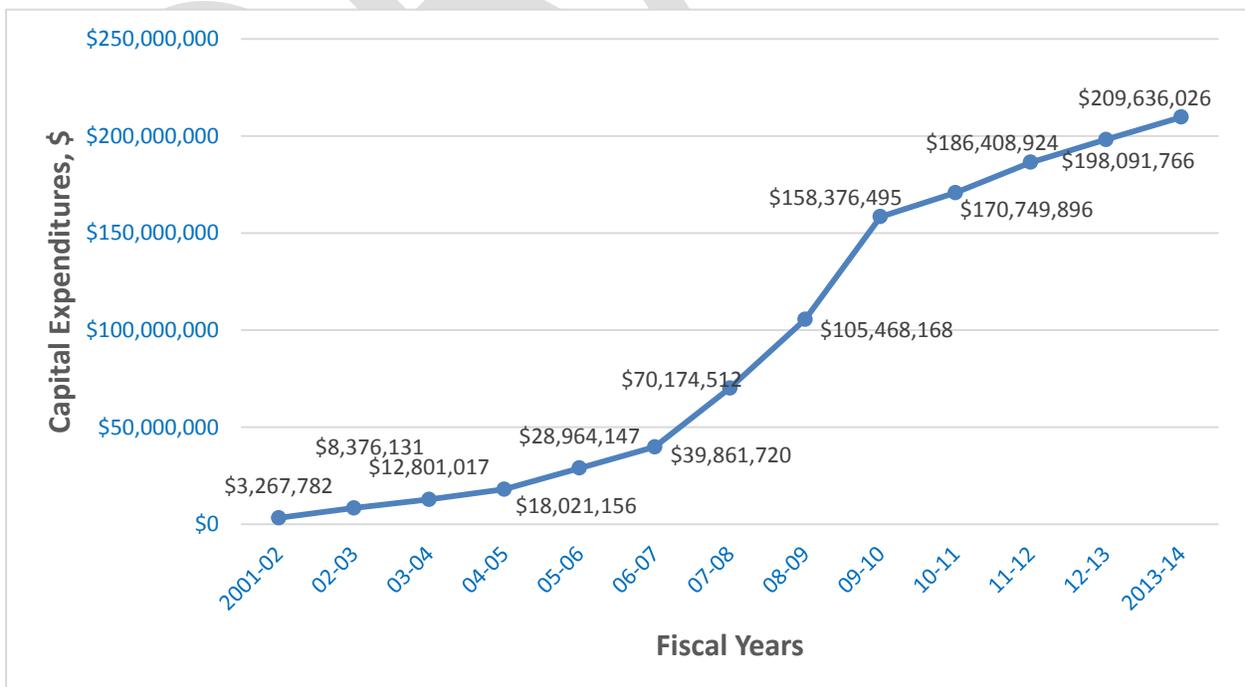
**Response:** *Novato Sanitary District partially agrees with this finding.*

**Explanation to Response:** We partially agree with this statement in that, generically speaking, taxpayers ultimately pay the fines from excessive sewer spill activity of publicly owned sewer systems. However, the District's fine of \$300,000 is less than 20 percent of the number cited in this finding, and more significantly, the fines were for events that occurred from 2007 to 2011, when the District was in the midst of making massive improvements to its systems.

**Figure 1: Novato Sanitary District - Annual Capital Improvement Program (CIP) Expenditures, FY2001-14**



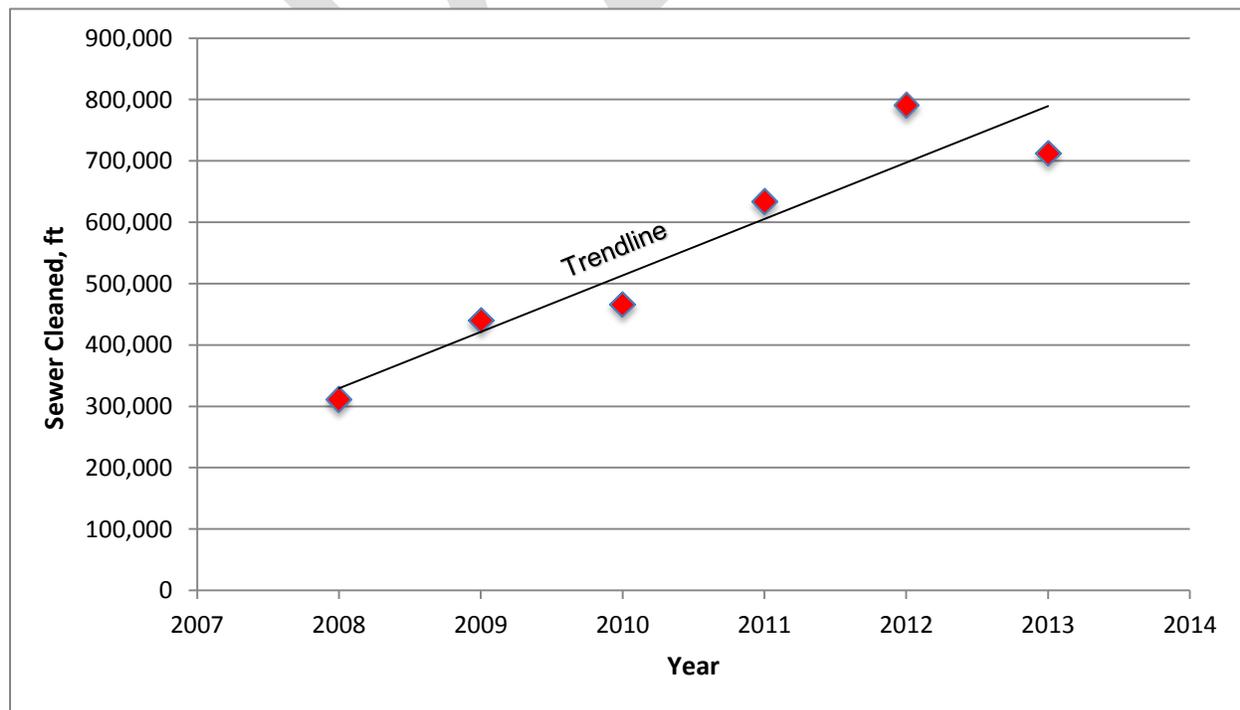
**Figure 2: Novato Sanitary District - Cumulative Capital (CIP) Expenditures, FY2001-14**



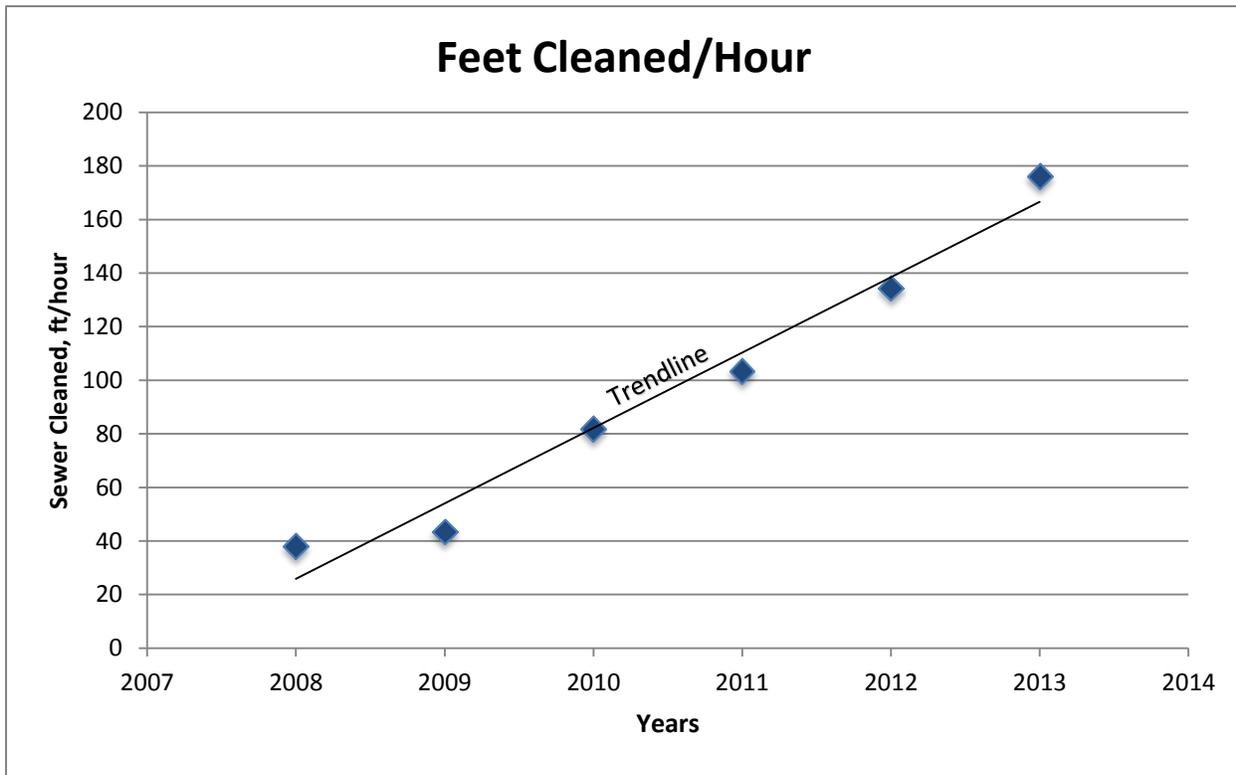
**Figure 3: Sewer Cleaning and CCTV - Performance Metrics and Tracking**

Cleaning/CCTV Frequency	Length of Sewer, feet	Annual Equivalent - Everything in 3 Years (cleaning), or 5 years (CCTV), feet
<b>Cleaning:</b>		
Every 3 months	19,827	79,308
Every 4 months	4,272	12,816
Every 6 months	45,660	91,320
Every 9 months	6,200	8,246
Every 12 months	131,308	131,308
Other	913,030	304,343
<b>Total</b>	<b>1,120,297</b>	<b>627,341 (Benchmark)</b>
<b>2013 cleaned, ft.</b>	<b>712,737</b>	
2012 cleaned, ft	790,986	
<b>CCTV: (total)</b>		
<b>TV every 5 years, ft.</b>	<b>1,120,297</b>	<b>224,059 (Benchmark)</b>
<b>2013 CCTV'd, ft</b>	<b>294,373</b>	
2012 CCTV'd, ft	114,220	

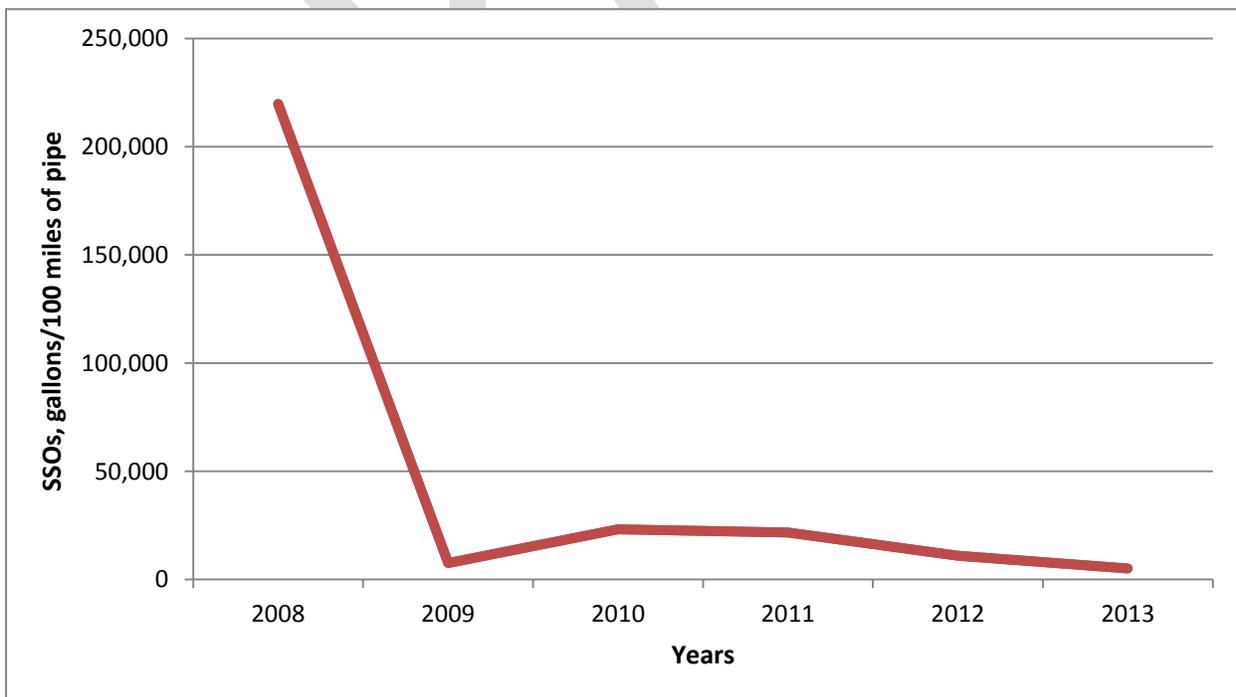
**Figure 4: Performance History: Sewers Cleaned, feet/year**



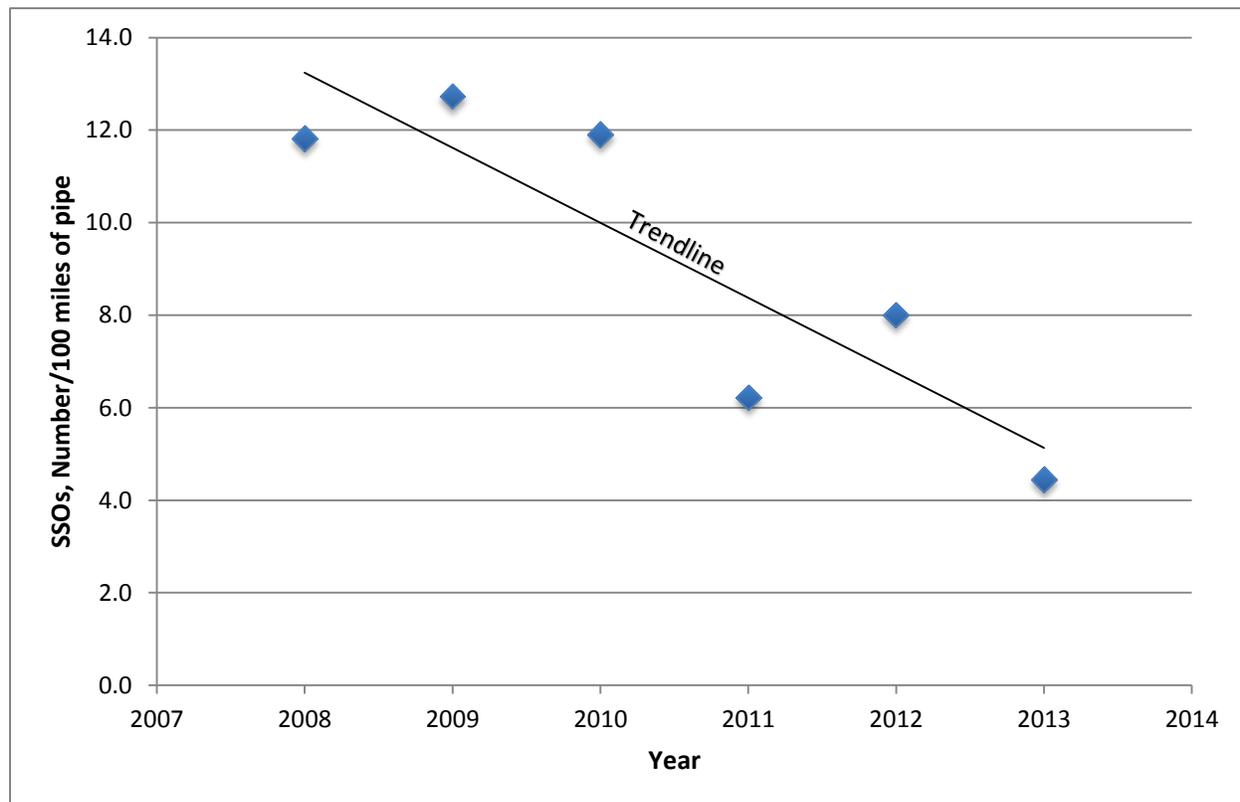
**Figure 5: Productivity History: Sewer Cleaned, feet/hour**



**Figure 6: Performance History – Sewer System Overflows (SSOs), gals/100 miles of pipe**



**Figure 7: Performance History: Sewer System Overflows (SSOs), Number/100 miles pipe**



**FINDING F9:** *There are many costs that are duplicated among wastewater agencies, particularly with respect to management, administration, overhead and governance.*

**Response:** *Novato Sanitary District partially agrees with this finding.*

**Explanation to Response:** The Marin sewer agencies are always striving to avoid duplication of costs across their services and service areas. There are many examples of resource and cost sharing across the agencies. For example, the District and the Central Marin Sanitation Agency (CMSA) have a shared Safety Program with a single individual serving as the Safety Director for both entities. NSD and CMSA also share staff in an arrangement where CMSA staff manage a portion of NSD's pretreatment (dental amalgam) program. In another example, the District and the North Marin Water District (NMWD) cooperate extensively to meet their individual water quality testing and laboratory staffing needs. Also, several years ago, all of the Marin wastewater treatment agencies combined their efforts and created an award winning (both locally and State-wide) public education program, which serves as model for other counties across the state.

And, unlike the Southern and Central portions of the County where many agencies exist to provide different but complementary aspects of sewer service, the Novato Sanitary District is already a single, integrated sewer utility that addresses all aspects of public sewerage services in Northern Marin.

***FINDING F12:*** *Districts are working together across the County, demonstrating an increasing level of commitment to cooperation and resource sharing. Most Districts agree that there is potential for greater collaboration and cost reduction.*

***Response:*** *Novato Sanitary District agrees with this finding.*

***Explanation to Response:*** We agree that districts across the County are working together cooperatively, and we remain alert for and open to any opportunities for greater collaboration and cost reduction.

#### **D. RESPONSE TO RECOMMENDATIONS**

***RECOMMENDATION R1:*** *All districts must work to eliminate spills, through in-depth analysis and investment in infrastructure.*

***Response:*** *Implemented.*

***Explanation to Response:*** Over a decade ago, NSD conducted very thorough and in-depth analyses of our facilities. These analyses resulted in massive investments in our physical infrastructure, as well as significant expenditures in technology such as Supervisory Control and Data Acquisition Systems (SCADA), and Computerized Maintenance Management Systems (CMMS), through our Capital Improvements Program, (see Figures 1 and 2 above). Throughout this process, NSD also developed, and follows, an aggressive set of standards, metrics, and benchmarking methodologies (see Figure 3 above), which are supported by a very intensive on-going Capital Improvement Program as demonstrated by our annual CIP budgets (which are available with the rest of our annual budgets at our website). The results of these investments and activities can be seen from the resulting productivity improvements and performance enhancements illustrated by Figures 4, 5, 6, and 7 above.

***RECOMMENDATION R3:*** *All agencies adopt an ordinance that will require private laterals to be inspected routinely and repaired as necessary.*

***Response:*** *Implementation is not warranted at this time.*

***Explanation to Response:***

***General:*** There is no question that excess flow (flow over base sewage flows generated by homes and businesses) occurring from groundwater or wet weather infiltration/inflow (I/I), or from direct connections of roof and subsurface drains, into poorly functioning private laterals can

result in Sanitary Sewer Overflows (SSOs) out of public sewers. This is particularly true if there are capacity constraints\* in the downstream public sewer system. General industry literature including research conducted by the Environmental Protection Agency (EPA) has indicated that poorly maintained or functioning private laterals can be responsible for as much as 70-80% of the total I/I into a public sewer system. However, if the public sewer system can hydraulically handle the peak flows resulting from these excess flows (i.e. if there are no capacity bottlenecks or choke points in the sewer system), then the potential for capacity related SSOs in the public sewer system can be minimal.

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*\*note that blockage induced SSOs are completely unrelated events and are not discussed here since these are fairly random events initiated more by physical events such as debris, etc. getting into the sewer system and causing a blockage.*

Also, if the treatment facility that the public sewer system discharges to has been designed to provide full secondary treatment to the full range of flows it can potentially receive (including the peak events generated by excess flows), the potential for the treatment facility to exceed its discharge limits is also extremely low.

NSD's Approach: As a result of the detailed planning and analyses NSD conducted beginning in 2001-02, NSD invested heavily in the physical infrastructure of its sewer system to eliminate (with one exception), capacity bottlenecks and constraints in the system. The one exception is a capacity constraint on Novato Boulevard at Diablo Avenue, where NSD's effort to upgrade its sewer line is impacted by the City of Novato's ability to carry out its street widening project for Novato Boulevard. Even here, NSD continues to cooperate with the City and we anticipate that this project will be initiated in the next two-three years.

In addition, as part of its recent investment in the upgrade of its treatment facilities, NSD opted to provide full secondary treatment capability to ALL of the flow to its new treatment plant located off Davidson Street in Novato. Note that NSD's plant is the only plant in Marin County with this capability.

NSD's new plant (completed in 2011) is designed to provide full secondary treatment to 7.0 million gallons per day (MGD) on a dry weather basis, while its current dry weather flow is only about 4 MGD. However, recognizing that this flow can go up dramatically during wet weather due to I/I in the sewer system, NSD designed its new treatment facilities to provide full secondary treatment for flows to 47 MGD (the maximum anticipated sustained peak flow within the 20 to 30 year planning time frame). In addition, with storage capability from equalization basins at its Ignacio facility, the system can handle flows up to 52 MGD. And this flow capability does not include the additional storage that is typically embedded in the pipes in a sewer system, since given their nature, sewer pipes are designed to be free flowing (under gravity), with less than half their depth utilized under normal daily conditions. This means that these pipes will typically offer an additional 50% to 100% of their normal flow capacity when they transition from normal to wet weather conditions.

This approach received detailed analysis as part of several studies that NSD performed, including a Sewer System Evaluation Study (SSES), completed in 2005-06. Further, the resulting analytical work and studies (including the SSES) were approved by the State of California as part of the District's effort to initiate and successfully acquire funds through the State Revolving Fund (SRF) program, which funded a majority of the District's massive infrastructure investment program in the 2007-2011 period.

Consequently, at least within the 20 to 30 year planning envelope of NSD's recent infrastructure investment, and potentially beyond, NSD does not believe a private sewer lateral ordinance will improve its abilities to prevent capacity related SSO's in its sewer system.

Private Lateral Replacement Program: To parallel its investments in its own physical infrastructure, and as a matter of good practice, when NSD repairs or replaces its sewer mains in the public right of way, we typically replace all of the lower sewer laterals (portion of the private lateral located in the public right of way) that we affect during a project. In addition, we offer affected homeowners the option to replace the upper portions of their laterals using the NSD project contractor, often at a lower cost than typically charged for a standalone private lateral replacement.

NSD also has a program which provides funding for private sewer lateral projects up to 50% of costs or a maximum of \$1,500 (whichever is less) in matching funds for private lateral replacement. NSD budgeted \$30,000 in FY13-14 and plans to budget \$50,000 in FY14-15.

Conclusion: We remain open to the concept of adopting an ordinance in the future if it benefits the District to do so, or if regulations change.

RECOMMENDATION R4: *All agencies conduct an analysis to determine the feasibility of using treated wastewater for flushing pipes in routine maintenance work.*

**Response:** *Implementation is not warranted as previous analysis has determined that this recommendation is not feasible.*

**Explanation to Response:** NSD has previously examined using treated wastewater for flushing sewer pipes in order to conserve potable water. Briefly, our investigations determined the following:

1. Increased Maintenance: Treated wastewater would significantly increase maintenance on NSD's hydro-flusher trucks, from increased wear and tear on sediment separation and filtration equipment, and greater rates of seal failure on the high pressure flushing water pump system, resulting in costly repairs for these large and expensive trucks. This would result in increased downtime for these trucks taking away time from sewer line cleaning activities. This would negatively impact line cleaning productivity, and could result in increased potential for spills and SSOs.
2. Travel Time: NSD's sewer system has over 225 miles of sewer lines spread out over an approximately 35 square mile area, and there is only one source of treated wastewater,

that is, the NSD treatment plant off Davidson Road. NSD's flushing trucks fill up frequently throughout the day, often in locations where the travel time back and forth from the job site to the treatment plant would make this option prohibitive from a cost standpoint because the increased travel (or "windshield") time would take significant time away from sewer line cleaning activities and negatively impact line cleaning productivity, again, with increased potential for spills and SSOs.

The North Marin Water District is planning another level of its distribution system for tertiary recycled water. This is treated wastewater that has received a further and significantly higher level of treatment to where it is suitable for "unrestricted" irrigation reuse. This recycled water distribution system is still in its infancy. This system could serve as a future option for NSD for line flushing to conserve potable water.

**RECOMMENDATION R5:** *All agencies continue to cooperate with each other and find ways to reduce costs.*

**Response:** *Implemented.*

**Explanation to Response:** In Marin County, the Marin Association of Sanitary Sewer Supervisors (otherwise known as MASS) meets at least monthly to address and discuss common issues. We expect to continue to cooperate with each other, and NSD will remain alert for and open to any opportunities for greater collaboration and cost reduction. Further, for examples of current areas of collaboration for cost reduction, please see also our response to Finding F9. above.

## **E. CLOSING COMMENTS**

In closing, we would like to thank the Grand Jury for their hard work in putting together a Report with a lot of thought, effort, and hard work behind it. We hope you find our responses helpful and complete in addressing the Grand Jury's findings and recommendations.

Please feel free to contact us if you have any questions or require additional information.

Sincerely,

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Jean Mariani  
President, Board of Directors

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Sandeep Karkal  
Manager-Engineer

# Informational Items Following:

# Richardson Bay sewer law needed for health, safety+

By Bruce Abbott

Sewers are not a favorite topic of dinner conversation, but they have been rated the 12th most important invention since the wheel.

The Atlantic magazine recently credited sewers with extending life expectancy from 40 years in 1880 when sewers were introduced to 80 years today.

In coordination with all member agencies of the Sewerage Agency of Southern Marin, the Richardson Bay Sanitary District is expected to adopt an ordinance establishing explicit guidelines for maintenance and repair of sewer laterals at its Aug. 19 meeting.

Sewer laterals carry wastewater from residences and other structures to sewer mains. Lat-

erals are owned by and are the responsibility of the property owner. Many sewer laterals in Southern Marin, especially those constructed of terra cotta pipe, are failing. Modern plastic pipe is far more durable and reliable. Defective laterals are a major source of infiltration of stormwater into the sewer system. Frequently the property owner is unaware of its occurrence because laterals are underground.

Also addressed is the illegal practice of intentionally diverting stormwater into the sewer system, which subjects complicit property owners and contractors who install it to legal sanctions.

During the rainy season, infiltration and inflow impose heavy burdens on sewer treatment plants. Defective laterals also al-

low some raw sewage to escape into the adjacent substrata.

Sewer mains are the responsibility of their parent sewer district, and are also aging.

Collectively, defective sewer laterals and mains are responsible for wet weather flow of up to 10 times that experienced during dry weather, and in combination with a storm surge can, and have, overwhelmed sewer mains and sewage treatment facilities. The resulting spills are a significant health and safety threat. Federal and state regulations mandate elimination of such spills. Changing weather patterns and rising sea levels will exacerbate the problem.

Efforts are underway throughout Marin to upgrade sewage infrastructure. The Richardson Bay district is in complete agreement that these

spills must be eliminated and is in the final phase of an accelerated capital improvement program that will bring 70 percent of district sewer mains to new condition.

Other districts in Marin have adopted sewer lateral ordinances, and others will likely follow suit. SASM is preparing a long-range plan to modernize its aging sewage treatment facility.

District ratepayers should be aware of our proposed ordinance's provisions, which include mandatory inspection (and repair or replacement if necessary) of laterals at the time of sale, or issuance of a building permit for improvement of property of \$50,000 or more.

Inspections will be conducted of laterals served by sewer mains that are being replaced, or upon determination that a

lateral has overflowed, caused an overflow, failed or degraded and become a threat to public health and safety.

For too long our sewers have remained out of sight and out of mind and we are at the point where they can no longer be taken for granted. Public support and participation are key to the achievement of a safe and effective sewer complex. The Richardson Bay ordinance is published on the district's web site: richardsonbaysd.org. Comments and suggestions are welcome.

Our rates have not increased in more than 25 years, and it is anticipated that no rate increase will result from adoption of this ordinance.

*Bruce Abbott is president of the Richardson Bay Sanitary District Board of Directors.*

**How to have your say:** Confine letters to 250 words. Letters are edited for length, grammar, spelling, clarity, style, libel and civility. We do not publish form letters, "open" letters, petitions, individual consumer complaints or letters published elsewhere. Letters must include the writer's name, address and daytime phone number so we can verify authorship.

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