

# NOVATO SANITARY DISTRICT

Meeting Date: August 26, 2013

**The Board of Directors of Novato Sanitary District will hold a regular meeting at 6:00 p.m., Monday, August 26, 2013, 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 12, 2013 meeting.

### **5. CONSENT CALENDAR:**

The Manager-Engineer has reviewed the following items. To her 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. Set meeting date of September 9<sup>th</sup> and 23<sup>rd</sup> and October 14<sup>th</sup>.
- b. Approve regular, payroll and payroll-related disbursements.

### **6. WASTEWATER OPERATIONS:**

- a. Wastewater Operations Committee August meeting report.
- b. Odor control, landscaping, and noise report.

### **7. BOARD OF DIRECTORS:**

- a. Consider approval of a Resolution to participate in the Water Bond Coalition.

- b. Presidential appointment of an Adhoc Committee to study connection charges.
- c. Presidential appointment of an Adhoc Recycled Water Committee.

**8. 2013-14 BUDGET:**

- a. Presentation of final 2013-14 annual District budget.
- b. Consider adoption of final District budget.
- c. Consider adoption of resolution establishing appropriations limit for the 2013-14 fiscal year.

**9. WASTEWATER TREATMENT PLANT UPGRADE PROJECT C:**

- a. Consider approval of a change order for coating repair on Primary Clarifier No. 2.

**10. ADMINISTRATION:**

- a. Consider approval of the revised Reserve Policy.
- b. Consider approval of Funds Policy.

**11. NORTH BAY WATER REUSE AUTHORITY:**

- a. Phase II Scoping Study update.
- b. Review and prioritize proposed Novato Sanitary District projects.

**12. BOARD MEMBER REPORTS:**

- a. North Bay Water Reuse Authority Workshop.
- b. California Association of Sanitation Agencies Annual Meeting.

**13. MANAGER'S ANNOUNCEMENTS:**

**14. ADJOURN:**

Next resolution no. 3061

**Next regular meeting date: Monday, September 9, 2013, 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 12, 2013

A regular meeting of the Board of Directors of the Novato Sanitary District was held at 6:00 p.m., Monday, August 12, 2013, at the District Office, 500 Davidson Street, Novato.

BOARD MEMBERS PRESENT: President Michael Di Giorgio, Members William C. Long, Jerry Peters, and Dennis Welsh. Member Jean Mariani was absent.

STAFF PRESENT: Manager-Engineer-Secretary Beverly B. James and Administrative Secretary Julie Swoboda. District Counsel Kent Alm arrived at 6:52 p.m. Deputy Manager-Engineer Sandeep Karkal was absent.

ALSO PRESENT: Brian Exberger, Assistant Project Manager, Veolia Water  
Brant Miller, Novato resident  
Steve McCaffrey, Director of Governmental Affairs, Novato Disposal

PLEDGE OF ALLEGIANCE:

AGENDA APPROVAL: The agenda was approved as written.

PUBLIC COMMENT: None.

REVIEW OF MINUTES:

Consider approval of minutes of the July 8, 2013 meeting.

Member Welsh requested a correction to his comments under Board Member Reports on page 5: "*A discussion followed regarding electrical ~~load shedding~~ **peak shaving** scenarios...*"

*On motion of Member Peters, seconded by Member Long, and carried unanimously by those members present, the minutes of the July 8, 2013 Board meeting were approved as corrected.*

CONSENT CALENDAR:

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

- a. Authorize the Manager-Engineer to issue a Class I Non-Domestic Temporary Discharge Permit approving treated groundwater discharge to the District's sewer system by CardnoERI from their proposed groundwater remediation project.

- b. Consider approval of a contract with Custom Tractor for biosolids disposal for a total cost of \$182,000 and authorize the Manager-Engineer to execute contract.
- c. Approval of regular disbursements in the amount of \$660,373.54, project account disbursements in the amount of \$299,586.40, and Board member related disbursements in the amount of \$2,629.61. Approval and ratification of July 22<sup>nd</sup> regular disbursements in the amount of \$212,522.53 and project account disbursements in the amount of \$562,531.38. Approval and ratification of July payroll and payroll-related disbursements in the amount of \$240,116.52.

PUBLIC HEARING – UNIFORM PUBLIC CONSTRUCTION COST ACCOUNTING ACT (UPCCAA):

- Report on Ordinance No. 118 modifying Ordinance No. 109 implementing the UPCCAA. The Manager stated that the Uniform Public Construction Cost Accounting Act (Act) had been updated to provide for alternative bidding procedures for: (a) projects of \$45,000 or less may be performed by negotiated contract or by purchase order, and (b) projects of \$175,000 or less may be let to contract by the informal procedures set forth in the Act, and (c) projects of more than \$175,000 are to be let to contract by formal bidding procedures. She stated that District Ordinance No. 118 modifies District Ordinance No. 109 to implement the updates to the Act. The Manager stated that the Notice of Public Hearing had been published twice in the Marin Independent Journal newspaper, as required.

- Open Public Hearing. At 6:08 p.m., President Di Giorgio opened the Public Hearing.

- Public comment. President Di Giorgio called for public comment. No comments were brought forth.

- Close Public Hearing. At 6:09 p.m., President Di Giorgio closed the Public Hearing.

UNIFORM PUBLIC CONSTRUCTION COST ACCOUNTING ACT (UPCCAA):

- Consider adopting Ordinance No. 118 modifying Ordinance 109 Relating to Bid Cost Thresholds and Bidding Procedures for Construction Services.

*On motion of Member Peters, seconded by Member Long and carried unanimously by those Members present, the Board adopted Ordinance No. 118: An Ordinance Relating to Bid Cost Thresholds and Bidding Procedures for Construction Services.*

### SOLID WASTE COMMITTEE:

- Solid Waste Committee report. President Di Giorgio, Solid Waste Committee member, stated that the City of Novato had prepared a draft Fiscal Sustainability Plan which included a policy option to implement a road impact fee for refuse collection as a way of increasing city revenues. He stated that to discuss this proposal, a joint City/District Solid Waste Committee meeting was held on August 6<sup>th</sup> at the District office. He noted that Mayor Pat Eklund was in attendance and that Dave Meyers, Maintenance Superintendent officially represented the City of Novato.

The Manager stated that the Powerpoint presentation she gave at the meeting was available if any members were interested in viewing it. The Manager explained how the City of Novato calculated the road impact fee.

Member Welsh, Solid Waste Committee member and President Di Giorgio, stated that the Committee made the recommendation to take no action at this time.

Novato resident Brant Miller commented on the road impact fee and the coverage this issue received in the Patch e-newsletter.

### WASTEWATER OPERATIONS:

- Wastewater Operations Committee July meeting report. The Manager introduced Brian Exberger noting that he had replaced Ed Mann as Veolia's Assistant Project Manager. She stated that Mr. Exberger has 13 years' experience in the wastewater industry field and is a Grade V Wastewater Treatment Operator.

The Manager summarized the June 2013 Operations reports for the wastewater treatment, collection, and reclamation facilities. She stated that the treatment facility transitioned to Reclamation discharge mode in June and that water quality performance was excellent with all parameters well within effluent standards. She gave an overview of the Collection Systems operations and the activities at the Reclamation facility.

The Manager discussed specific areas of the District's main lines that are in need of replacement due to the pipeline material.

- Odor control, landscaping, and noise report. The Manager stated that odor complaints have dropped slightly since June but are still sporadic. She stated that two of the aeration basins have been shut down which seemed to alleviate some odors. The Manager stated that the Deputy Manager-Engineer and John Bailey, Veolia Water, continue to meet regularly with the Lea Drive neighborhood residents.

Member Welsh asked for an update on the floating odor filter devices. The Manager stated that the filters arrived at the District and were installed. She stated, however, that

the filters were subsequently removed due to a build-up of a filamentous organism that became trapped in the filter system. The Manager stated that the matter will be discussed further at the upcoming Wastewater Operations Committee meeting.

- Consider adopting Resolution recertifying the Sewer System Management Plan (SSMP). The Manager stated that the District Board adopted the District's Sewer System Management Plan (SSMP) in accordance with California State Water Resources Control Board (SWRCB) Order No. 2006-0003 – Statewide General Waste Discharge Requirements (WDR) for Sanitary Sewer Systems. She noted that the WDR requires the District to re-certify the SSMP every five years.

She gave a brief overview of the District's SSMP document and requested the Board recertify the Plan and adopt Resolution No. 3060 documenting this recertification.

*On motion of Member Long, seconded by Member Peters and carried unanimously by those members present, the Board adopted Resolution No. 3060: A Resolution Recertifying the Sewer System Management Plan (SSMP) – as Required by the State Water Resources Control Board Order No. 2006-0003 – Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.*

#### NEW FACILITIES AND STRATEGIC PLAN COMMITTEE:

- New Facilities and Strategic Plan Committee report. The Manager stated that the New Facilities and Strategic Plan Committee met on July 30<sup>th</sup> to review the final draft of the 2013 Strategic Plan and Work Plan as prepared by Martin Rauch, Rauch Communication Consultants. The Board discussed the Strategic Plan and clarified future quarterly and annual reviews.

The Board discussed the Final Strategic Plan Workplan. Board Members discussed how Workplan reviews would be implemented to document progress towards the scheduled goals.

- Consider approval of 2013 Strategic Plan Update.

The Manager stated that the Strategic Plan will be posted on the District website upon final approval.

*On motion of Member Peters, seconded by Member Long and carried unanimously by those members present, the Board approved the District's 2013 Strategic Plan Update.*

FINANCE COMMITTEE:

- Finance Committee Report on Reserve and Fund policies. President Di Giorgio asked if the Finance Committee Report and subsequent policy approvals could be postponed until Member Mariani was present.

*On motion of Member Long, seconded by Member Peters and carried unanimously by those members present, the Board tabled the presentation of the Finance Committee Report and tabled the approval of the Reserve Policy and the Funds Policy.*

- Consider approval of response to Grand Jury findings and recommendations. The Manager gave an overview of the Grand Jury Report Response which was released on May 21<sup>st</sup>. She stated that the Finance Committee reviewed the findings and recommendations and has responded to the Grand Jury with the attached memorandum which is due on or before August 19<sup>th</sup>. President Di Giorgio recommended that a signature block be added to the response prior to sending the document.

The Manager discussed the District's responses to the Grand Jury letter. She noted that the Board has already taken significant steps to reduce the District's liability and that the current liability is not increasing but for a specific group of individuals. District Counsel Kent Alm stated that some of the responses to the recommendations will need to be modified.

*On motion of Member Peters, seconded by Member Long and carried unanimously by those members present, the Board adopted the responses to the Grand Jury Report, authorized the Manager to accept the report, make appropriate adjustments and suggested that District Counsel provide input to the recommendations.*

COLLECTION SYSTEM IMPROVEMENT PROJECT 72706:

- Consider making CEQA findings, approving plans and specifications, and authorizing advertising for bids for the Center Road-Diablo Avenue to Kristy Court project. The Manager stated that the project consists of installing 971 feet of 24 inch sewer in Center Road and the replacement of 538 feet of sewer in Kristy Court. She stated that the upgrade is necessary to redirect sewer flow away from Warner Creek and Cypress Street Pump Stations for the purpose of the eventual elimination of the pump station.

The Manager stated that staff has completed the California Environmental Quality Act (CEQA) documentation and has determined that the project is categorically exempt. She stated that the engineer's estimate for the work is \$650,000 and recommends that the Board approve the plans and specifications.

*On motion of Member Welsh, seconded by Member Peters and carried unanimously by those members present, the Board authorized the making of CEQA findings, approved*

*the plans and specifications for the Collection Systems Improvements Project #72706, Phase H, and authorized the Manager to advertise for bids.*

PETITIONS FOR WRITS OF MANDATE CITY OF NOVATO VS. STATE OF CALIFORNIA SUPERIOR COURT MARIN COUNTY CASE NO. 34-2013-80001496:

- Consider approval of submitting a stipulation re compliance with issued writ of mandate, judgment, and/or final ruling by and between petitioners and real party in interest. District Counsel gave an outline of the Writs of Mandate petition. He outlined the alternatives available to the District under the Petition and what the benefits the District would realize if the petition were successful. District Counsel requested authorization to stipulate that Novato Sanitary District had been served and he recommended that the District not seek to actively participate in the lawsuit but agree to be bound by the decision.

The Board directed Counsel to stipulate that the District will be bound by the final ruling and to stipulate that the District will not be an active participant in the lawsuit and to stipulate that the District will not file an answer.

*On motion of Member Long, seconded by Member Peters and carried unanimously by those members present, the Board authorized District Counsel Kent Alm to enter into stipulation re: compliance with the Writ of Mandate.*

***Closed session not needed.***

BOARD MEMBER REPORTS:

- The North Bay Watershed Association July meeting: President Di Giorgio stated that the minutes from the July 12<sup>th</sup> North Bay Watershed Association meeting were provided as part of the meeting packet. He outlined topics discussed at the meeting and discussed the Water Bond Coalition. He stated that the Coalition is seeking support from various water agencies and noted that the Marin Municipal Water District has already endorsed the Coalition. President Di Giorgio suggested the Board consider joining the Water Bond Coalition and requested that this item be agendaized for a future Board meeting.

- Member Long commented on a North Bay Water Reuse Authority tour that he participated in which included State legislatures and their staff. He noted that the tour included the Novato Sanitary District facility.

MANAGER'S ANNOUNCEMENTS:

- The District has been awarded the Government Finance Officers Association (GFOA) Certificate of Achievement for Excellence in Financial Reporting for fiscal year ended June 30, 2012.
- The Wastewater Operations Committee will meet on Tuesday, August 13<sup>th</sup> at 2:00 p.m. at the District office.
- The Board meetings of August 26<sup>th</sup> and September 9<sup>th</sup> will be held in an alternate location due to the District Board room not being available. Location to be announced.
- The New Facilities and Strategic Planning Committee will meet on Monday, August 19<sup>th</sup> at 4:00 p.m. at the District office.
- The North Bay Water Reuse Authority will meet on Monday, August 19<sup>th</sup> at 9:30 a.m. at the Novato City Hall.
- The District is hosting a public tour of the treatment facility on Saturday, August 17<sup>th</sup> beginning at 10:00 a.m.
- The California Association of Sanitation Agencies (CASA) will hold their annual meeting in San Diego from August 21<sup>st</sup> through the 24<sup>th</sup>. CSRMA will give a presentation on Succession Planning.

ADJOURNMENT: There being no further business to come before the Board, President Di Giorgio adjourned the meeting at 7:55 p.m.

Respectfully submitted,

Beverly B. James  
Secretary

Julie Swoboda, Recording

# Novato Sanitary District Operating Check Register

August 26, 2013

Date	Num	Name	Credit
<b>Aug 26, 13</b>			
8/26/2013	56017	U.S. Bank Corporate	134,721.25
8/26/2013	55995	DKF Solutions Group, LLC	20,979.00
8/26/2013	56007	North Marin Water District	6,332.59
8/26/2013	55986	American Express-21007	5,707.24
8/26/2013	55994	Central Marin Sanitation Distr...	5,019.74
8/26/2013	55996	Eaton Corporation	4,000.00
8/26/2013	56003	Maze & Associates	4,000.00
8/26/2013	55998	Harris & Associates, Inc	2,750.00
8/26/2013	56008	North Marin Water District - L...	2,695.00
8/26/2013	56001	Marin Mechanical II, Inc.	2,329.26
8/26/2013	55988	Bay Area Air Quality	2,252.00
8/26/2013	55987	Bartle Wells Assoc, Inc	2,250.00
8/26/2013	56020	Water Components & Buildin...	2,132.04
8/26/2013	55990	Brown & Caldwell, Inc.	2,127.65
8/26/2013	56021	WaterSavers Irrigation Inc.	1,946.34
8/26/2013	55993	CDW Government, Inc.	1,389.75
8/26/2013	56009	North Marin Water District Pa...	1,341.09
8/26/2013	56022	WECO	1,338.10
8/26/2013	55991	Cagwin & Dorward Inc.	1,279.00
8/26/2013	55997	Empire Mini Storage - Novato	840.00
8/26/2013	55992	Calcon Systems	751.81
8/26/2013	56002	Marin/Sonoma Mosquito Dist	696.06
8/26/2013	55999	Heusser Neweigh	652.00
8/26/2013	56005	North Bay Truck Service	555.12
8/26/2013	56018	USA BlueBook	524.50
8/26/2013	55989	Bay Area Barricade Service, I...	488.32
8/26/2013	56015	Shape Incorporated	403.30
8/26/2013	56004	MME	273.94
8/26/2013	56014	RMC Water & Environment, I...	261.25
8/26/2013	56010	Novato Car Wash	156.96
8/26/2013	56000	Marin Independent Journal	147.50
8/26/2013	56019	Verizon California	147.04
8/26/2013	56011	Novato Chamber of Commerce	145.00
8/26/2013	56016	Staples Business Adv Inc.	117.20
8/26/2013	56013	Petty Cash	95.03
8/26/2013	56006	North Marin Auto Parts	23.96
8/26/2013	56012	Pacific, Gas & Electric	14.78
<b>Aug 26, 13</b>			<b>210,883.82</b>

**Novato Sanitary District**  
**Operating Check Register Detail**  
For August 26, 2013

	Date	Num	Account	Amount
<b>American Express-21007</b>				
	08/13/2013	August 28, 2013	66085 · Safety	1,018.98
	08/13/2013	August 28, 2013	66090 · Office Expense	3,130.02
	08/13/2013	August 28, 2013	66085 · Safety	85.49
	08/13/2013	August 28, 2013	66100 · Engineering Supplies	108.98
	08/13/2013	August 28, 2013	64170 · Pollution Prevention/Public	162.44
	08/13/2013	August 28, 2013	65100 · Operating Supplies	35.00
	08/13/2013	August 28, 2013	66124 · IT/Misc Electrical	6.00
	08/13/2013	August 28, 2013	66170 · Travel, Meetings & Trainin	293.48
	08/13/2013	August 28, 2013	66193 · Telephone	20.00
	08/13/2013	August 28, 2013	21015 · American Express	846.85
Total American Express-21007				<u>5,707.24</u>
<b>Bartle Wells Assoc, Inc</b>				
	08/08/2013	BWA028V-1003	66123 · O/S Contractual	2,250.00
Total Bartle Wells Assoc, Inc				<u>2,250.00</u>
<b>Bay Area Air Quality</b>				
	08/13/2013	3EP02	63201 · Permits & Fees	2,252.00
Total Bay Area Air Quality				<u>2,252.00</u>
<b>Bay Area Barricade Service, Inc.</b>				
	08/06/2013	295682-IN	65100 · Operating Supplies	368.42
	08/06/2013	296598-IN	65100 · Operating Supplies	119.90
Total Bay Area Barricade Service, Inc.				<u>488.32</u>
<b>Brown &amp; Caldwell, Inc.</b>				
	08/09/2013	11197853	66123 · O/S Contractual	2,127.65
Total Brown & Caldwell, Inc.				<u>2,127.65</u>
<b>Cagwin &amp; Dorward Inc.</b>				
	08/01/2013	470417	66150 · Repairs & Maintenance	329.00
	08/09/2013	469916	63157 · Ditch/Dike Maintenance	950.00
Total Cagwin & Dorward Inc.				<u>1,279.00</u>
<b>Calcon Systems</b>				
	07/31/2013	31947	65153 · Outside Services, Electric	751.81
Total Calcon Systems				<u>751.81</u>
<b>CDW Government, Inc.</b>				
	08/07/2013	DZ26669	66124 · IT/Misc Electrical	570.00
	08/09/2013	FB26697	66124 · IT/Misc Electrical	819.75
Total CDW Government, Inc.				<u>1,389.75</u>
<b>Central Marin Sanitation District</b>				
	08/12/2013	13-8096	64170 · Pollution Prevention/Public	4,696.28
	08/12/2013	13-8100 (Final FY13)	66123 · O/S Contractual	323.46
Total Central Marin Sanitation District				<u>5,019.74</u>
<b>DKF Solutions Group, LLC</b>				
	08/03/2013	11270	66123 · O/S Contractual	20,979.00
Total DKF Solutions Group, LLC				<u>20,979.00</u>
<b>Eaton Corporation</b>				
	06/30/2013	38100377	66123 · O/S Contractual	4,000.00
Total Eaton Corporation				<u>4,000.00</u>
<b>Empire Mini Storage - Novato</b>				
	08/01/2013	September 2013	66123 · O/S Contractual	840.00
Total Empire Mini Storage - Novato				<u>840.00</u>
<b>Harris &amp; Associates, Inc</b>				
	08/12/2013	22071	21045 · Novato Heights Deposits	2,750.00
Total Harris & Associates, Inc				<u>2,750.00</u>
<b>Heusser Neweigh</b>				
	08/02/2013	13-1713	64150 · Repairs & Maintenance	652.00
Total Heusser Neweigh				<u>652.00</u>
<b>Marin Independent Journal</b>				
	07/31/2013	663785	66090 · Office Expense	147.50
Total Marin Independent Journal				<u>147.50</u>

**Novato Sanitary District**  
**Operating Check Register Detail**  
For August 26, 2013

	Date	Num	Account	Amount
<b>Marin Mechanical II, Inc.</b>				
	08/19/2013	NSD5872	60150 · Repairs & Maintenance	240.00
	08/19/2013	NSD5170	65150 · Repairs & Maintenance	1,360.00
	08/19/2013	NSD5761	63150 · Repairs & Maintenance	729.26
Total Marin Mechanical II, Inc.				<u>2,329.26</u>
<b>Marin/Sonoma Mosquito Dist</b>				
	08/15/2013	1169	63150 · Repairs & Maintenance	696.06
Total Marin/Sonoma Mosquito Dist				<u>696.06</u>
<b>Maze &amp; Associates</b>				
	08/12/2013	7244	66121 · Accounting & Auditing	4,000.00
Total Maze & Associates				<u>4,000.00</u>
<b>MME</b>				
	08/12/2013	84190-IN	60150 · Repairs & Maintenance	273.94
Total MME				<u>273.94</u>
<b>North Bay Truck Service</b>				
	07/24/2013	7030	60150 · Repairs & Maintenance	105.12
	08/09/2013	7035	60150 · Repairs & Maintenance	100.00
	08/09/2013	7033	60150 · Repairs & Maintenance	75.00
	08/09/2013	7032	60150 · Repairs & Maintenance	75.00
	08/09/2013	7038	60150 · Repairs & Maintenance	100.00
	08/09/2013	7039	60150 · Repairs & Maintenance	100.00
Total North Bay Truck Service				<u>555.12</u>
<b>North Marin Auto Parts</b>				
	08/14/2013	679041	64150 · Repairs & Maintenance	23.96
Total North Marin Auto Parts				<u>23.96</u>
<b>North Marin Water District</b>				
	08/09/2013	09/03/13	65192 · Water	222.39
	08/09/2013	09/03/13	63192 · Water - Reclamation	6,110.20
Total North Marin Water District				<u>6,332.59</u>
<b>North Marin Water District - Lab</b>				
	08/13/2013	12398	64160 · Research & Monitoring	2,695.00
Total North Marin Water District - Lab				<u>2,695.00</u>
<b>North Marin Water District Payroll</b>				
	08/13/2013	12395	64010 · Salaries & Wages	1,341.09
Total North Marin Water District Payroll				<u>1,341.09</u>
<b>Novato Car Wash</b>				
	08/01/2013	July/August 2013	66150 · Repairs & Maintenance	45.97
	08/01/2013	July/August 2013	60150 · Repairs & Maintenance	60.99
	08/01/2013	July/August 2013	65150 · Repairs & Maintenance	50.00
Total Novato Car Wash				<u>156.96</u>
<b>Novato Chamber of Commerce</b>				
	07/24/2013	30476	66170 · Travel, Meetings & Trainin	45.00
	08/12/2013	Alumni Dinner 8-29	66170 · Travel, Meetings & Trainin	100.00
Total Novato Chamber of Commerce				<u>145.00</u>
<b>Pacific, Gas &amp; Electric</b>				
	08/01/2013	7282909-6	65191 · Gas & Electricity	1.55
	08/01/2013	7282910-4	65191 · Gas & Electricity	13.23
Total Pacific, Gas & Electric				<u>14.78</u>
<b>Petty Cash</b>				
	08/19/2013	August 2013	60085 · Safety	15.00
	08/19/2013	August 2013	66170 · Travel, Meetings & Trainin	20.00
	08/19/2013	August 2013	66090 · Office Expense	46.22
	08/19/2013	August 2013	65060 · Gasoline & Oil	10.01
	08/19/2013	August 2013	65100 · Operating Supplies	3.80
Total Petty Cash				<u>95.03</u>
<b>RMC Water &amp; Environment, Inc.</b>				
	08/13/2013	16594	64160 · Research & Monitoring	261.25
Total RMC Water & Environment, Inc.				<u>261.25</u>

**Novato Sanitary District**  
**Operating Check Register Detail**  
For August 26, 2013

	Date	Num	Account	Amount
<b>Shape Incorporated</b>				
	07/31/2013	118364	65150 · Repairs & Maintenance	403.30
Total Shape Incorporated				<u>403.30</u>
<b>Staples Business Adv Inc.</b>				
	08/07/2013	7000761339	66090 · Office Expense	17.40
	08/07/2013	7000761341	66090 · Office Expense	23.97
	08/08/2013	7000765999	66090 · Office Expense	75.83
Total Staples Business Adv Inc.				<u>117.20</u>
<b>U.S. Bank Corporate</b>				
	07/22/2013	09/02/2013	21045 · Novato Heights Deposits	134,721.25
Total U.S. Bank Corporate				<u>134,721.25</u>
<b>USA BlueBook</b>				
	08/12/2013	121971	65100 · Operating Supplies	524.50
Total USA BlueBook				<u>524.50</u>
<b>Verizon California</b>				
	08/10/2013	September 3 2013	66193 · Telephone	147.04
Total Verizon California				<u>147.04</u>
<b>Water Components &amp; Building, Inc.</b>				
	08/01/2013	30332677	63150 · Repairs & Maintenance	2,132.04
Total Water Components & Building, Inc.				<u>2,132.04</u>
<b>WaterSavers Irrigation Inc.</b>				
	08/13/2013	1370596-00	63150 · Repairs & Maintenance	1,946.34
Total WaterSavers Irrigation Inc.				<u>1,946.34</u>
<b>WECO</b>				
	08/13/2013	29929-IN	60150 · Repairs & Maintenance	539.59
	08/13/2013	29928-IN	60150 · Repairs & Maintenance	798.51
Total WECO				<u>1,338.10</u>
<b>TOTAL</b>				<u><u>210,883.82</u></u>

**Novato Sanitary District  
Capital Projects Check Register**

August 26, 2013

Date	Num	Name	Credit
<b>Aug 26, 13</b>			
8/26/2013	2569	Lateral-Victoria M Lee	1,500.00
8/26/2013	2570	Willis Professional Land Surv...	1,095.00
8/26/2013	2568	Associated Corrosion Engine...	810.00
<b>Aug 26, 13</b>			<b>3,405.00</b>

**Novato Sanitary District**  
**Capital Projects**  
For August 26, 2013

	<u>Date</u>	<u>Account</u>	<u>Amount</u>
<b>Associated Corrosion Engineers</b>			
	08/12/2013	72706 · 2008 Collection System Improv	810.00
Total Associated Corrosion Engineers			<u>810.00</u>
<b>Lateral-Victoria M Lee</b>			
	08/21/2013	72706 · 2008 Collection System Improv	1,500.00
Total Lateral-Victoria M Lee			<u>1,500.00</u>
<b>Willis Professional Land Surveying</b>			
	08/13/2013	72110 · Drainage PS 3&7 Outfall Rehab	1,095.00
Total Willis Professional Land Surveying			<u>1,095.00</u>
<b>TOTAL</b>			<u><u>3,405.00</u></u>

**Novato Sanitary District**  
**Payroll and Payroll Related Check Register**  
**August 2013**

<u>Date</u>	<u>Description</u>	<u>Amount</u>
08/31/2013	August Payroll	111,270.26
08/23/2013	August - Retirees Health Benefits	16,434.29
08/23/2013	CalPers Health	31,622.88
08/23/2013	CALPERS Retirement	22,457.52
08/23/2013	United States Treasury	23,288.90
08/23/2013	CalPers Supplemental Income Plan	6,750.00
08/23/2013	EDD	6,261.85
08/23/2013	Lincoln Financial Group	7,476.01
08/23/2013	Lincoln Financial Group-401a Plan	4,375.20
08/23/2013	Lincoln Financial Group-401a Plan	4,084.87
08/23/2013	CALPERS Retirement	4,612.87
08/23/2013	Local Union 315	600.00
08/23/2013	Marin Employ Federal Credit Union	517.00
08/23/2013	Operating Engineers Local 3 RHSP	314.10
		<b><u>240,065.75</u></b>

# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

**TITLE: Wastewater Operations Report for July 2013**

**MEETING DATE: August 26, 2013**

**AGENDA ITEM NO.: 6.a.**

**RECOMMENDED ACTION:** Information. Receive report.

**SUMMARY AND DISCUSSION:**

The July 2013 operations reports for the wastewater treatment, collection, and reclamation facilities are attached.

**Wastewater Treatment Facility**

The Novato Treatment Plant (NTP) water quality performance was excellent with all parameters well within effluent standards. The Recycled Water Facility delivered 18.5 million gallons of recycled water in July. Crews drained and cleaned Primary Clarifier No. 2 in preparation for recoating. Safety performance was excellent with another accident-free month for a total of 1,155 accident-free days at the end of July. Routine maintenance activities were performed at the NTP and the Ignacio Transfer Pump Station (ITPS). Eight odor complaints were received in July, most relating to the odors from the work on the primary clarifiers and headworks when covers had to be opened to gain access for cleaning.

**Collection System**

The Collection System report summarizes the monthly and year-to-date performance, and a comparison of these performances against the prior year. In July, the crews cleaned and televised a total of 80,114 feet of sewer line. The average cleaning rates for July was 167 feet/hour versus 201 feet/hour for the previous month. There were no lost time accidents for a total of 181 accident-free days at the end of July.

The District had one Sewer System Overflows (SSOs) in July as summarized below; further details on these SSOs can be found in the attached operations report.

No.	Date	Location	Amount, gal	Cause
1	7/7/2013	21 Jennifer Lane	<10	Roots

**Reclamation Facility**

The rancher grazed cattle on all three sites. Irrigation was enabled on all sites resulting in the application of 73.2 million gallons of recycled water. Approximately 2.8 million gallons accumulated in the ponds raising the pond elevation by 2 inches. Staff continued to test irrigation control systems on a weekly basis and located a source of premature actuator failure caused by excessive voltage drop on Sites 2 and 3.

Pump No.1 was removed from the Drainage Pump Station and it was determined that the volute had fallen off. The pump was sent to the vendor for a repair estimate.

**DEPT.MGR.:**

**MANAGER-ENGINEER:**



August 8, 2013

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

**Subject: Veolia Water Operations Report – July 2013**

Dear Ms. James:

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

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

Regards,

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

John Bailey  
Project Manager

**MONTHLY OPERATIONS REPORT  
July 2013**

Prepared for

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

Prepared by

**Veolia Water West Operating Services, Inc. (VWWOS)**

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**TREATMENT PLANT PERFORMANCE SUMMARY: July 2013:**

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

Parameter	Value		Limit	
	Ave	Max	#1	#2
Flow, MGD (monthly ave/max)	3.73	4.36	N/A	N/A
Max Peak Hour, MGD – Daily (Dry Weather)	N/A	N/A	N/A	N/A
Influent BOD <sub>5</sub> , lb/day (month ave/max)	8,341	9,621	N/A	N/A
Influent TSS, lb/day (monthly ave/max)	8,400	12,616	N/A	N/A
Effluent BOD <sub>5</sub> , mg/L (monthly ave/weekly max)	<6	7	40	N/A
Effluent TSS, mg/L (monthly ave/weekly max)	<3	3	N/A	N/A
Effluent BOD <sub>5</sub> - % Removal, Minimum	98	N/A	N/A	N/A
Effluent TSS - % Removal, Minimum	99	N/A	N/A	N/A
Ammonia, mg/L – (monthly ave/daily max)	5.4	22	N/A	N/A
pH, su (min / max)	7.0	7.3	6.5	8.5
Total Coliform (5 Sample Median) / mpn/100 ml	23	N/A	240	N/A
Total Coliform (maximum) / mpn/100 ml	30	N/A	10,000	N/A
<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	18.50	N/A
Average Turbidity	NTU	1.3	< 2.0
Turbidity > 5 NTU (in 24 hour)	Minutes	0	65
Minimum CT (disinfection)	ml-min/L	> 450	> 450
Minimum Dissolved Oxygen (DO)	mg/L	7.9	> 1.0
Maximum Total Coliform	mpn/100 ml	< 2	< 2

**OPERATIONS & MAINTENANCE STATUS / REVIEW:**

**Key events for the period:**

**Novato**

- Routine rounds, readings and maintenance
- Assisted Contractor with bulkhead installation after hours shutdown
- Digested Sludge Pump #2 – cleared blockage
- Repair to Blower #3 – VFD Fan
- Repaired air monitor sensor on sludge building
- Repaired condensate leak on HVAC – Blower Building
- Drained and cleaned out Primary Clarifier #2 for Recoating
- Annual Aeration Basin Mixer Service performed

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

- Headworks Compactor OOS – Auger replacement / Scheduled to ship week of July 15<sup>th</sup>
- Primary Clarifier #2 OOS – Preparation for recoating as part of Contract “C” – WWTP Upgrade Project
- GBT Odor Fan #1 OOS - replace bearings/belts

**Ignacio Transfer Pump Station**

- Routine rounds, readings and maintenance
- Installed new cutter cartridge – Grinder
- Cleaned and prepared old cutter cartridge for return to JWC
- Influent Pump #1 – Cleared blockage
- Influent Pump #2 – Cleared blockage

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

- Influent channel grinder (see above)

**Recycled Water Plant**

- Performed plant rounds and maintenance
- Produced 18.50 million gallons of recycled water in July
- Rebuilt Chlorine Analyzer
- Assisted with RWP Tour

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

- Polymer Pump #1 OOS – New pump on order
- Compressor #2 OOS – warranty issue

**Sludge Lagoons**

- Performed checks

**ADMINISTRATION:**

- Electronic Self Monitoring Report June submitted on 7-19-13

**SAFETY AND TRAINING:**

- Monthly plant safety inspections for Novato WWTF completed
- Five Minute Tailgate training is held daily with the O&M staff.
- No safety incidents for the month of July 2013
- Accident Free: 6/1/10 – 7/31/13: 1,155 days / 51,975 hours
- Emergency Action Plan
- Hot Work
- Reviewed SOP – Draining Pump Station Headworks Force Main

**ODORS:**

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

**MISCELLANEOUS**

- Process Control Management Plan (PCMP) meetings held regularly
- Brian Exberger – New Assistant Plant Manager
- Ed Mann Retired

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

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

Novato Sanitary District  
BOD/TSS Report



July, 2013

Date	Flow MGD	Influent				Effluent				BOD % Removal PERCENT	TSS % Removal PERCENT
		BOD		TSS		BOD		TSS			
		mg/l	lb/d	mg/l	lb/d	mg/l	lb/d	mg/l	lb/d		
07/01/13	3.93	254	8,325	344	11,275	7	229	3	98	97.2	99.1
07/02/13	3.88										
07/03/13	3.82	302	9,621	396	12,616	<5	<159	<3	<96	98.3	99.2
07/04/13	3.75										
07/05/13	3.72	294	9,121	356	11,045	8	248	<3	<93	97.3	99.2
07/06/13	3.79										
07/07/13	3.98										
07/08/13	3.40	268	7,599	346	9,811	7	198	<3	<85	97.4	99.1
07/09/13	3.50										
07/10/13	3.64	243	7,377	306	9,289	<5	<152	<3	<91	97.9	99.0
07/11/13	3.53										
07/12/13	3.42	282	8,043	436	12,436	<5	<143	<3	<86	98.2	99.3
07/13/13	3.49										
07/14/13	3.53	302	8,891	400	11,776	<5	<147	<3	<88	98.3	99.3
07/15/13	3.54										
07/16/13	3.63	299	9,052	331	10,021	8	242	<3	<91	97.3	99.1
07/17/13	3.63										
07/18/13	3.53	288	8,479	421	12,394	6	177	<3	<88	97.9	99.3
07/19/13	3.47										
07/20/13	3.45										
07/21/13	3.58										
07/22/13	3.81	294	9,342	118	3,749	5	159	<3	<95	98.3	97.5
07/23/13	4.01										
07/24/13	3.89	176	5,710	165	5,353	9	292	<3	<97	94.9	98.2
07/25/13	3.93										
07/26/13	3.86	265	8,531	111	3,573	<5	<161	<3	<97	98.1	97.3
07/27/13	3.84										
07/28/13	4.00										
07/29/13	3.28			130	3,556			<3	<82		97.7
07/30/13	4.36			127	4,618			<3	<109		97.6
07/31/13	4.31			125	4,493			<3	<108		97.6
<b>Weekly Averages</b>											
07/06/13	Week 1	283	4,093	365	5,282	7	96	3	43		
07/13/13	Week 2	264	3,481	363	4,768	6	75	3	40		
07/20/13	Week 3	296	3,995	384	5,170	6	86	3	40		
07/27/13	Week 4	245	3,566	131	1,917	6	93	3	44		
	Week 5										
<b>Monthly</b>											
Minimum	3.28	176	5,710	111	3,556	<5	<65	<3	<37	95	97
Maximum	4.36	302	9,621	436	12,616	9	132	3	<49	98	99
Total	115.50										
Average	3.73	272	8,341	274	8,400	<6	<87	<3	<42	98	99

Novato Sanitary District  
Conventional Pollutants Report



July, 2013

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	
07/01/13	3.93	7.0	36			21	7.3	22.00			24.1
07/02/13	3.88	6.8					7.2				24.7
07/03/13	3.82	7.0				4	7.2				23.9
07/04/13	3.75						7.1				24.3
07/05/13	3.72	7.1				30	7.1				23.1
07/06/13	3.79										
07/07/13	3.98										
07/08/13	3.40	7.4	35			30	7.1	1.53			23.3
07/09/13	3.50	7.2					7.0				23.7
07/10/13	3.64	7.2				2	7.0				23.8
07/11/13	3.53	6.7					7.0				23.4
07/12/13	3.42	7.1				4	7.0				23.1
07/13/13	3.49										
07/14/13	3.53					2					
07/15/13	3.54	7.2					7.0				23.4
07/16/13	3.63	7.2	33			22	7.0	0.11			23.1
07/17/13	3.63	7.0					7.0				23.2
07/18/13	3.53	7.1	32			2	7.0	1.29			23.1
07/19/13	3.47						7.0				23.7
07/20/13	3.45										
07/21/13	3.58										
07/22/13	3.81	7.2	31			2	7.0	1.26			23.9
07/23/13	4.01	7.0					7.1				24.0
07/24/13	3.89					2	7.1				23.5
07/25/13	3.93						7.0				23.9
07/26/13	3.86					4	7.0				24.1
07/27/13	3.84										
07/28/13	4.00										
07/29/13	3.28	7.1				2	7.0				23.4
07/30/13	4.36	6.3					7.0				23.1
07/31/13	4.31						7.0				23.5
<b>Monthly</b>											
Minimum	3.28	6.3	31			2	7.0	0.11			23.1
Maximum	4.36	7.4	36			30	7.3	22.00			24.7
Total	115.50										
Average	3.73	7.0	33				7.1	5.24			23.6

## TOTAL COLIFORM (RECLAMATION)

Jul-13

(1) 5 Sample Median not to exceed 240 mpn/100 mL

(2) Maximum not to exceed 10,000

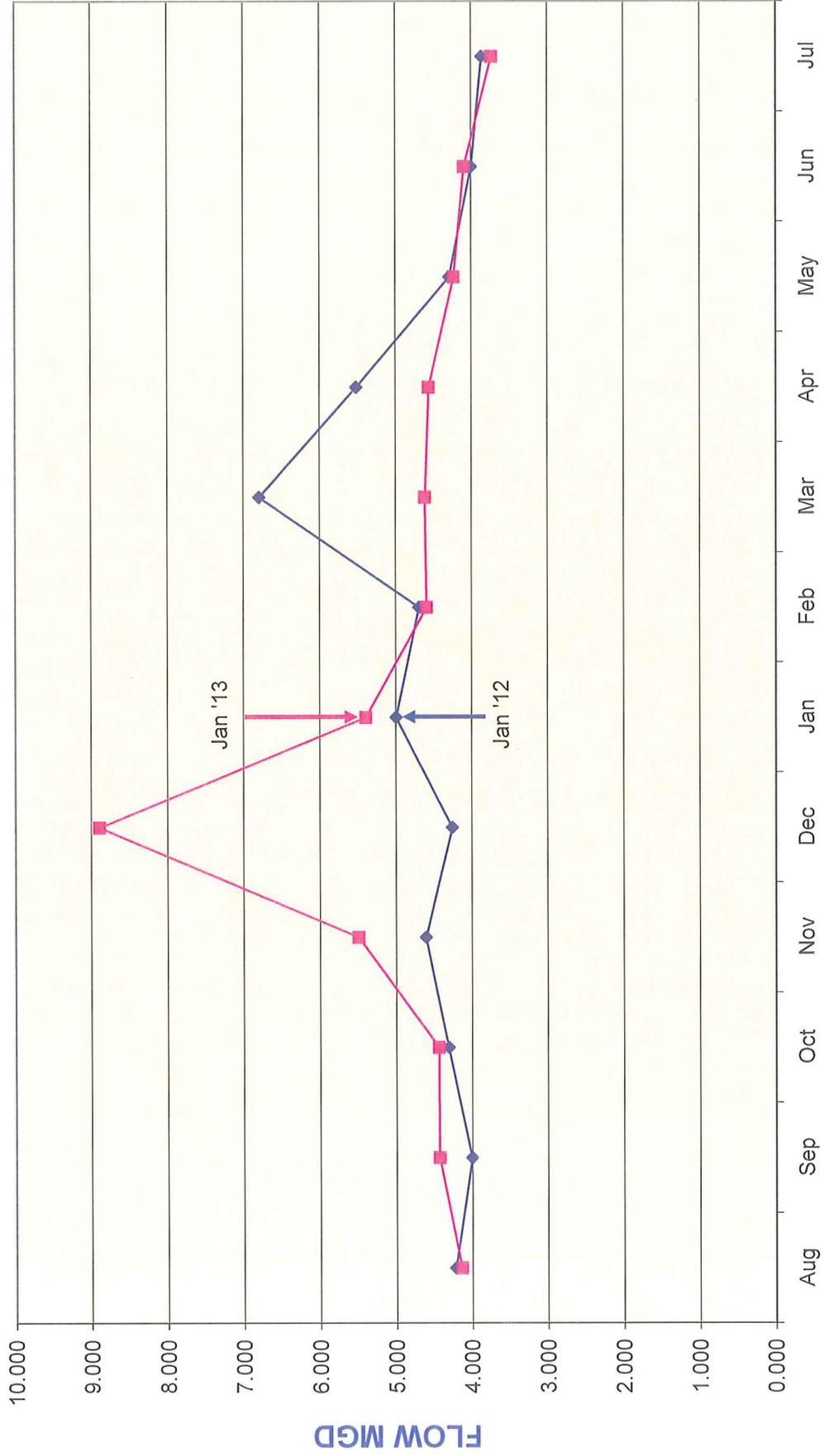
Note (2):

Maximum must be confirmed by a follow-up sample taken within 24 hours

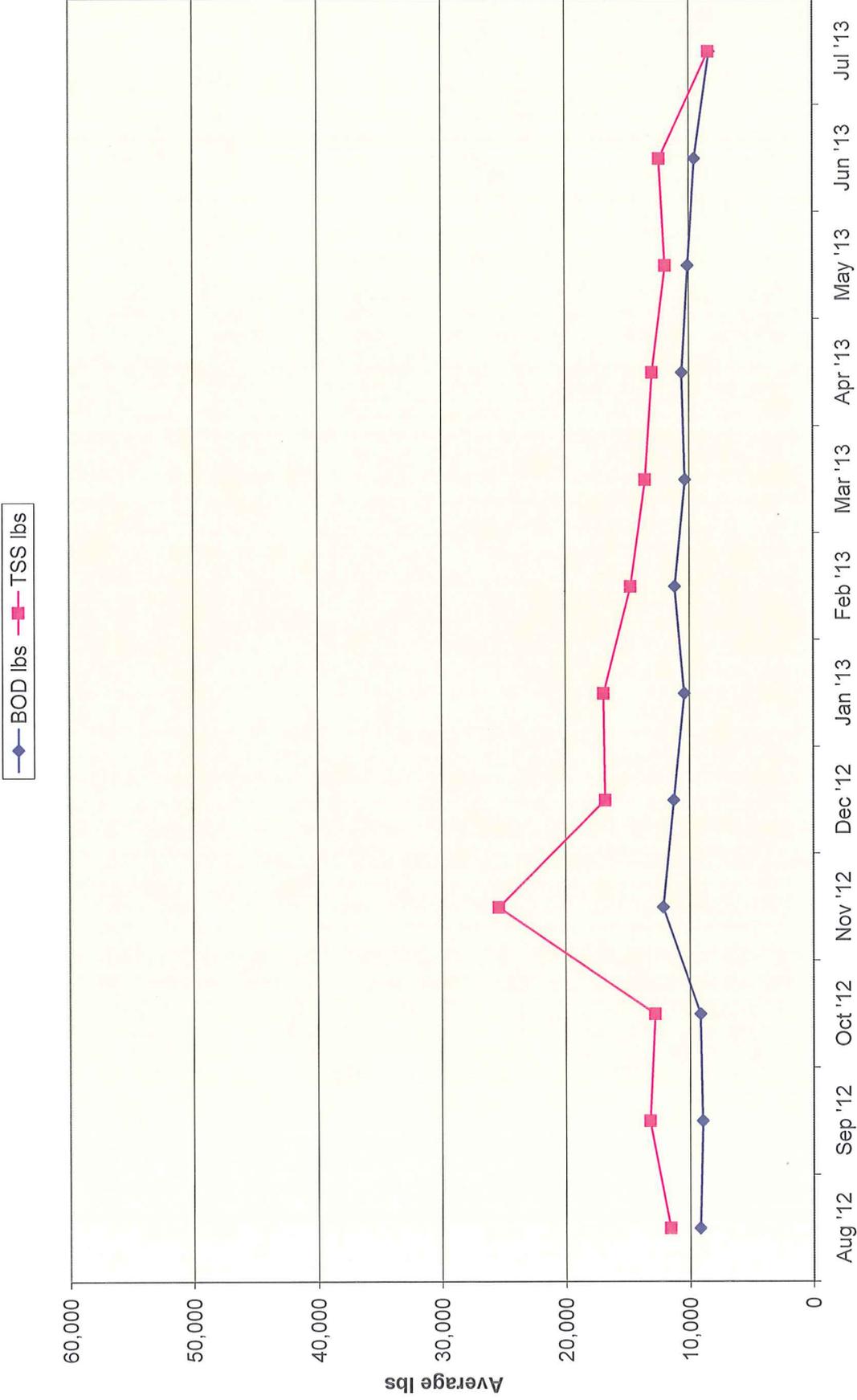
Date	Value	Median
June 21, 2012	50	
June 24, 2012	23	
June 26, 2012	70	
June 28, 2012	2	
July 1, 2013	21	23
July 2, 2013		
July 3, 2013	4	21
July 4, 2013		
July 5, 2013	30	21
July 6, 2013		
July 7, 2013		
July 8, 2013	30	21
July 9, 2013		
July 10, 2013	2	21
July 11, 2013		
July 12, 2013	4	4
July 13, 2013		
July 14, 2013	2	4
July 15, 2013		
July 16, 2013	22	4
July 17, 2013		
July 18, 2013	2	2
July 19, 2013		
July 20, 2013		
July 21, 2013		
July 22, 2013	2	2
July 23, 2013		
July 24, 2013	2	2
July 25, 2013		
July 26, 2013	4	2
July 27, 2013		
July 28, 2013		
July 29, 2013	2	2
July 30, 2013		
Maximum	30	23

# FLOW COMPARISON

—◆— 2011/12    —■— 2012/13



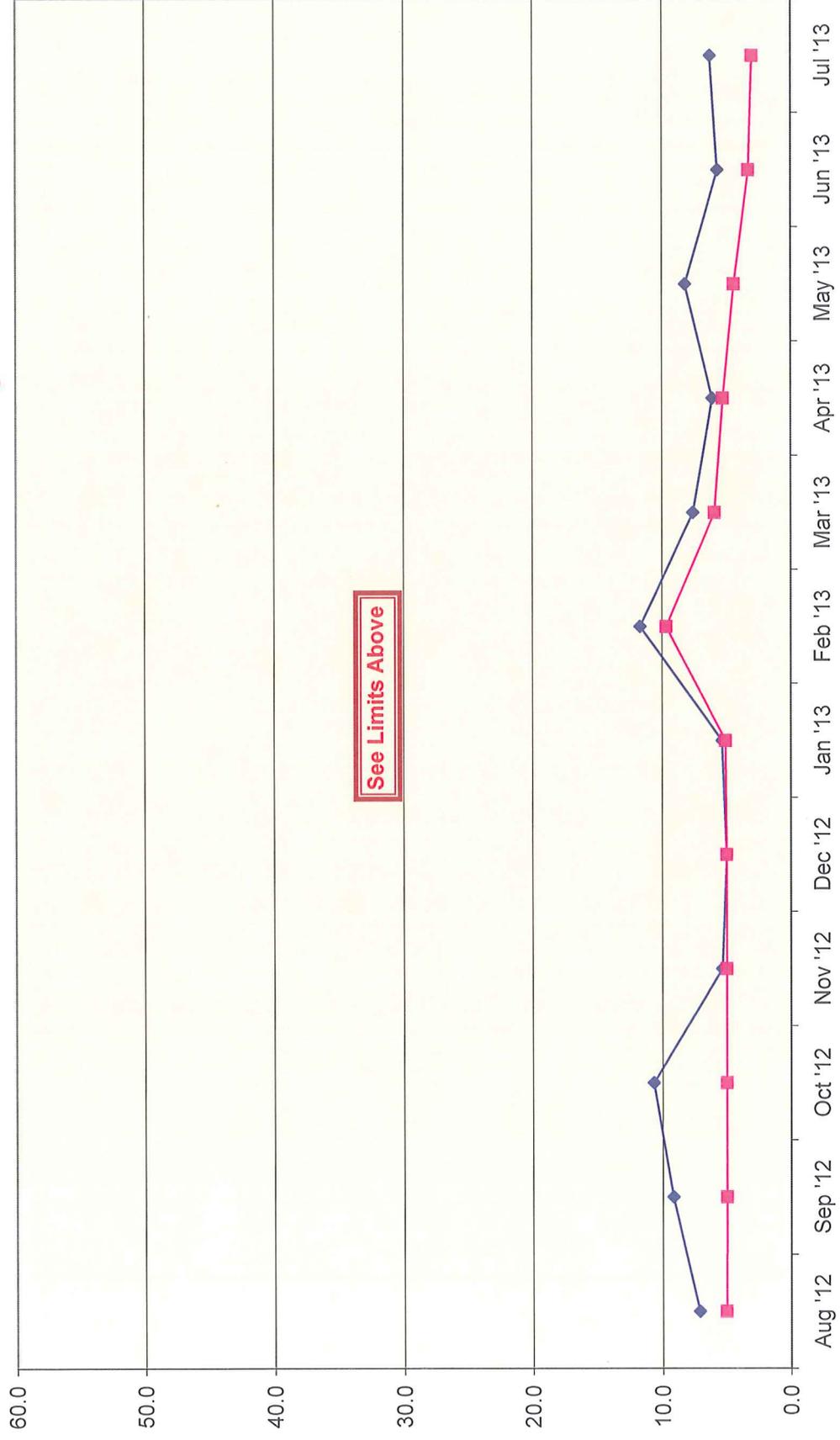
# Influent Load BOD / TSS lbs



# Effluent BOD / TSS Concentration

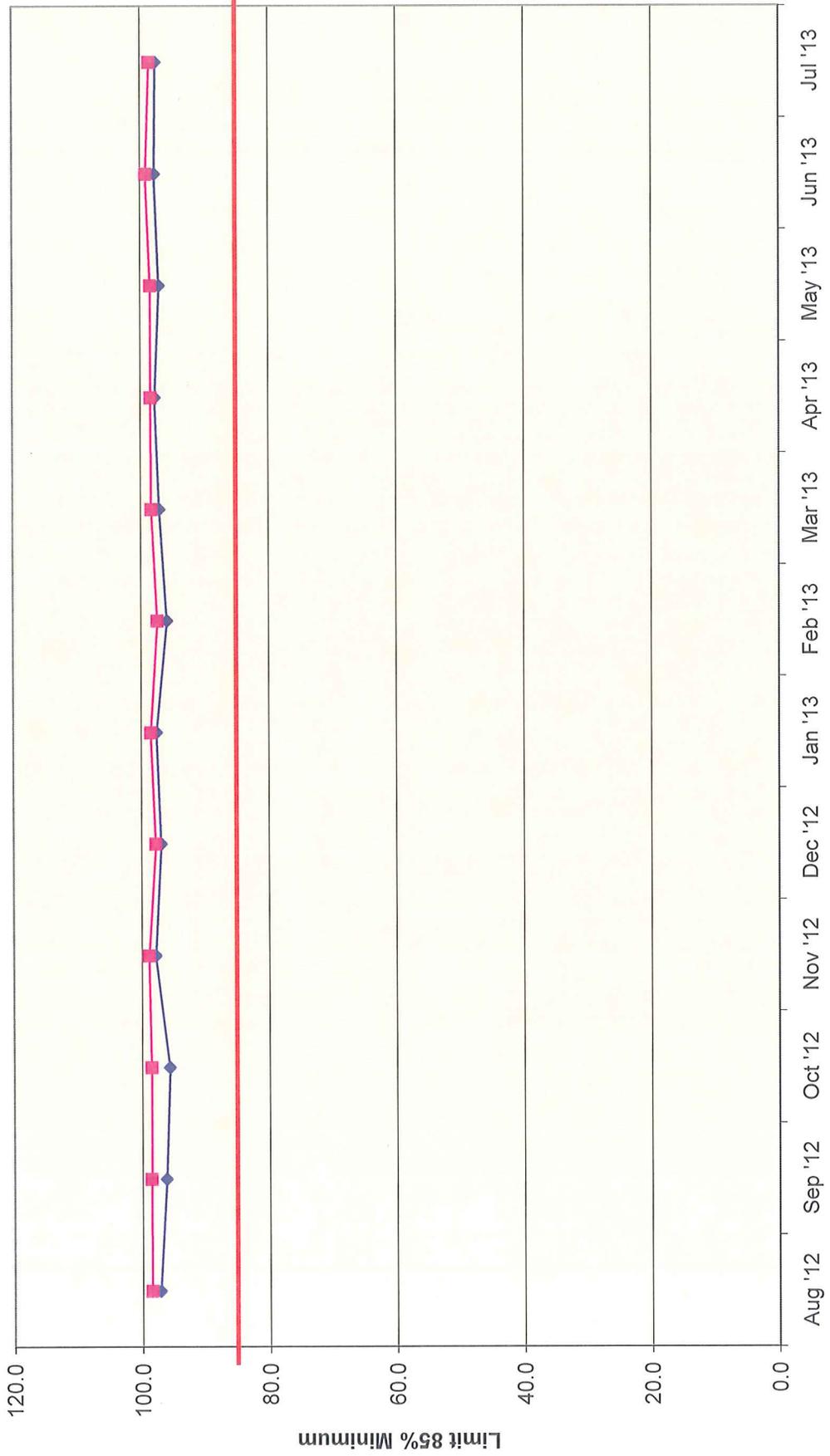
NPDES LIMITS WET SEASON  
 BOD & TSS - 30 mg/L Monthly Ave, 45 mg/L Weekly Ave  
 NPDES LIMITS DRY SEASON  
 BOD - 15 mg/L Monthly Ave, 30 mg/L Weekly Ave  
 TSS - 10 mg/L Monthly Ave, 20 mg/L Weekly Ave  
 WDR (Waste Discharge Requirements) RECLAMATION  
 BOD - 40 mg/L

—◆— BOD —■— TSS



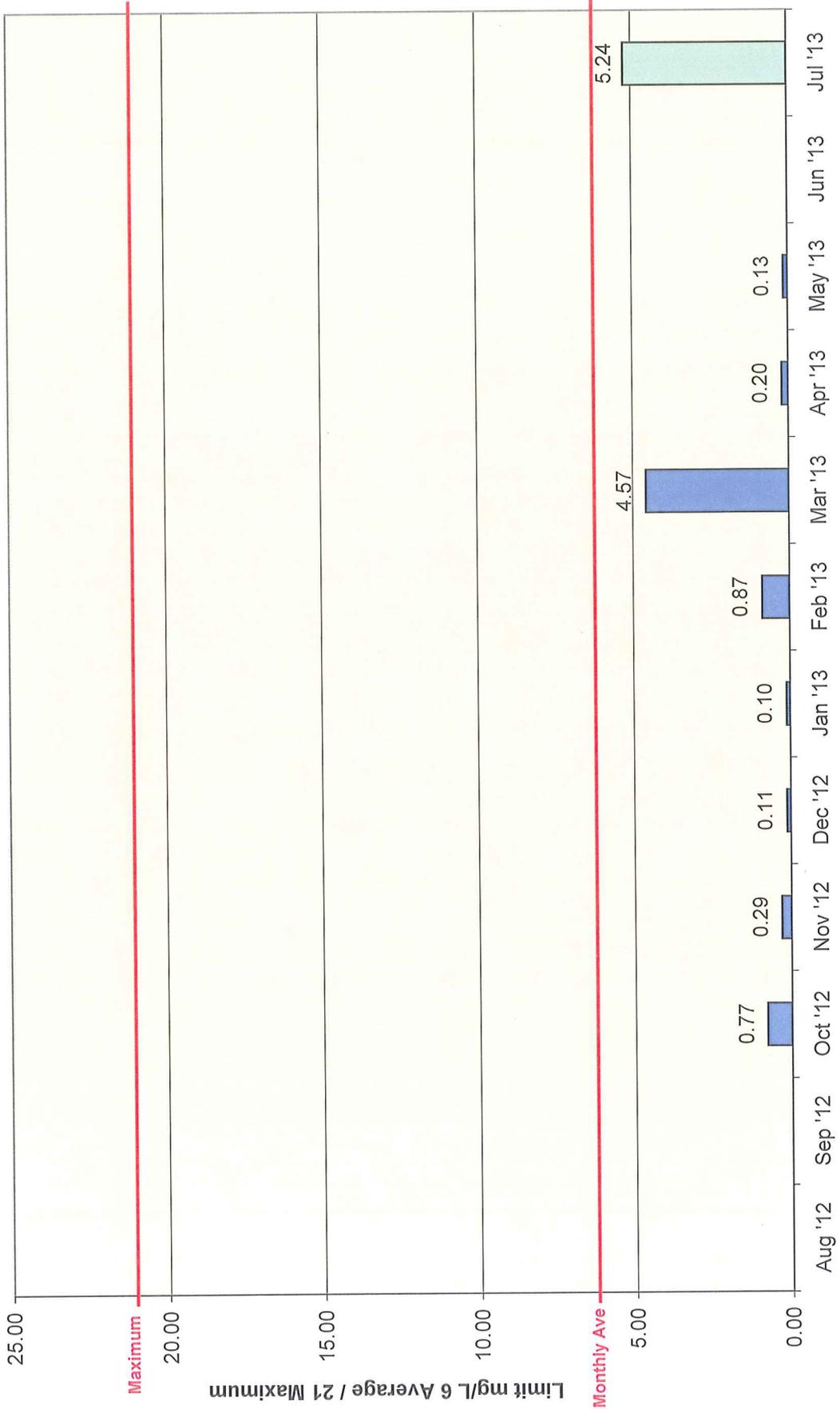
# BOD / TSS Percent Removal

—◆— BOD —■— TSS



# Effluent Ammonia

No Ammonia Limits During Reclamation.



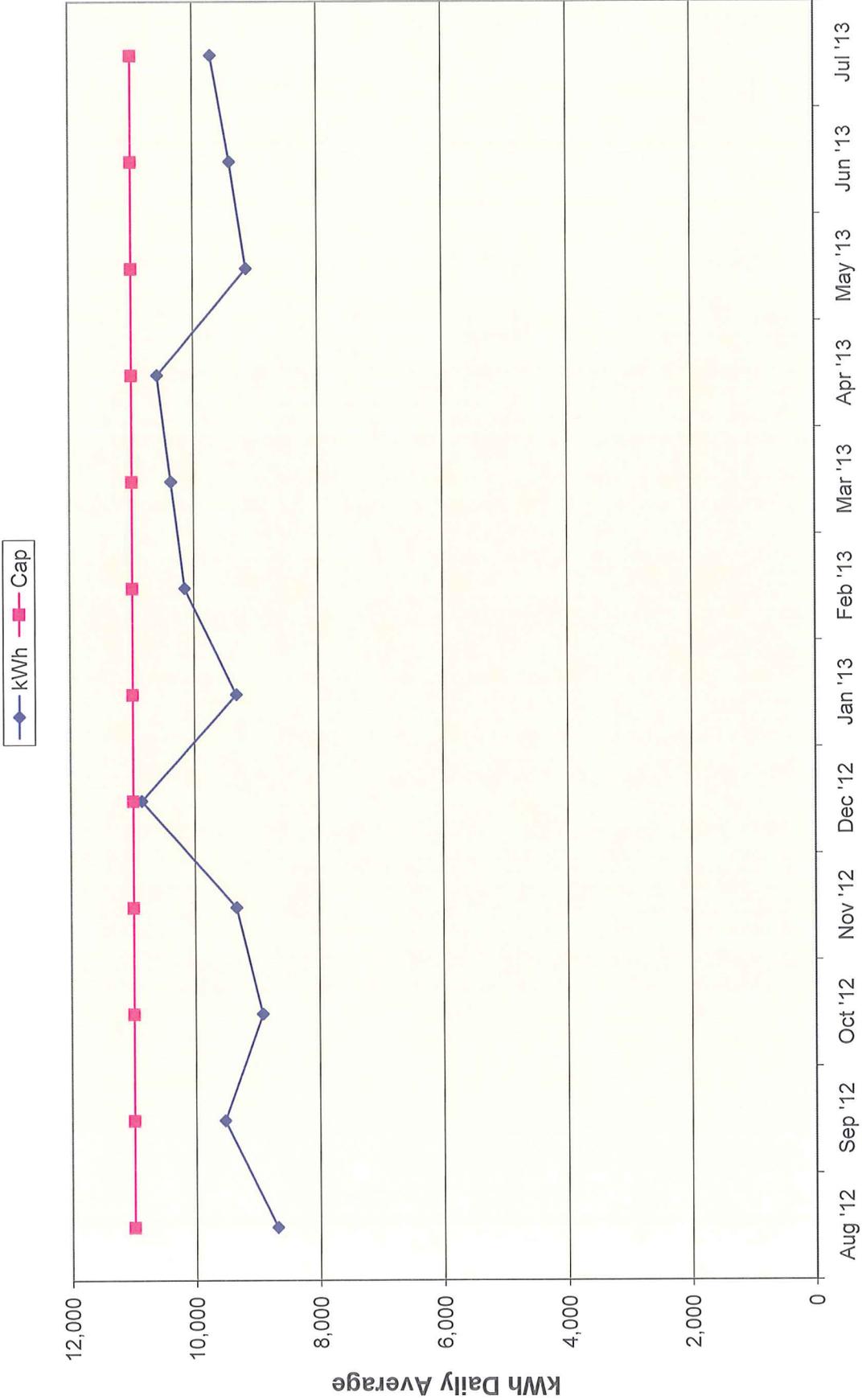
**TOTAL COLIFORM LIMITS - WDR**  
 5 Sample Median - 240 mpn /100 ml  
 Maximum - 10,000 mpn/100 ml

# Disinfection

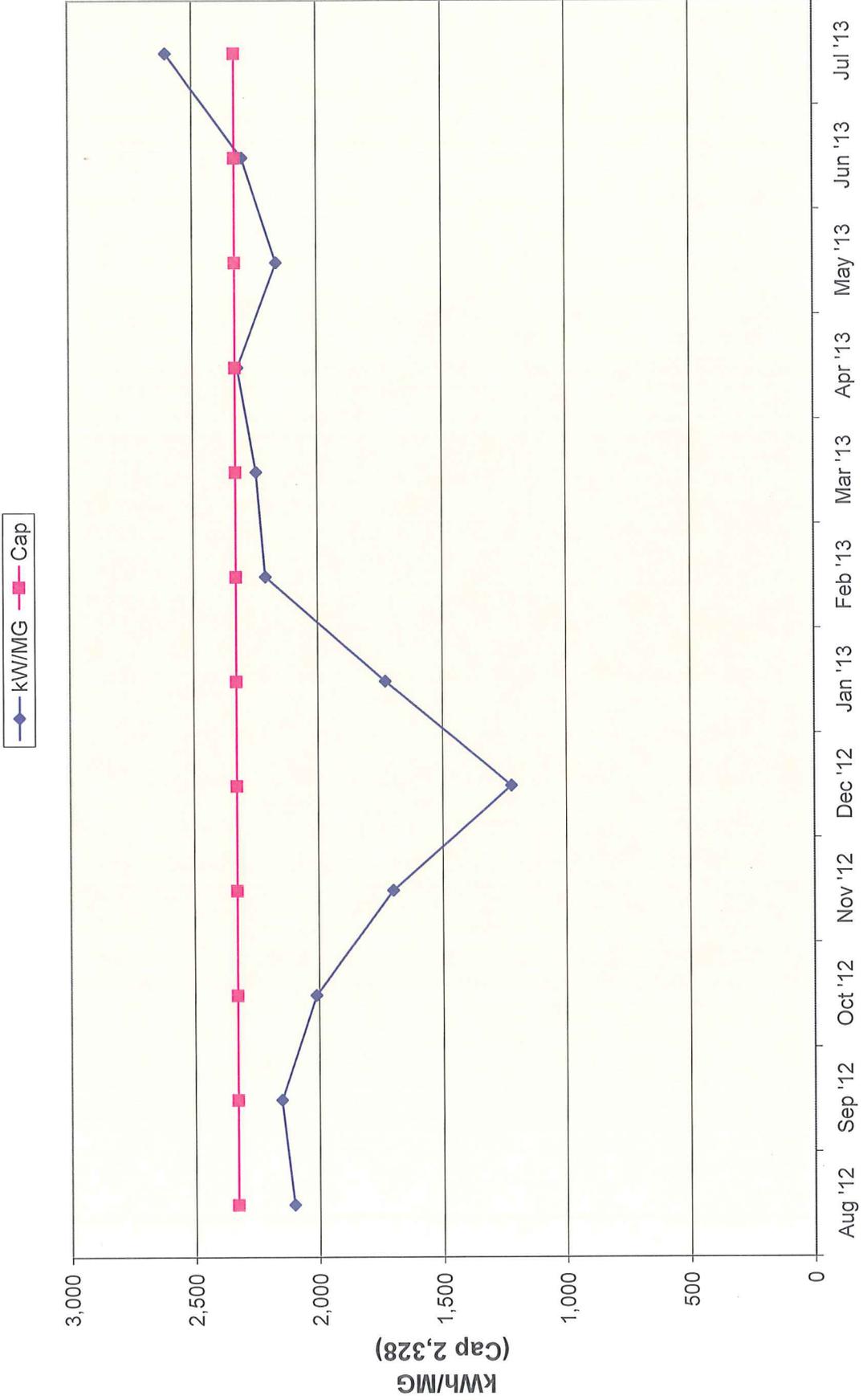
■ Median 5 ■ Maximum



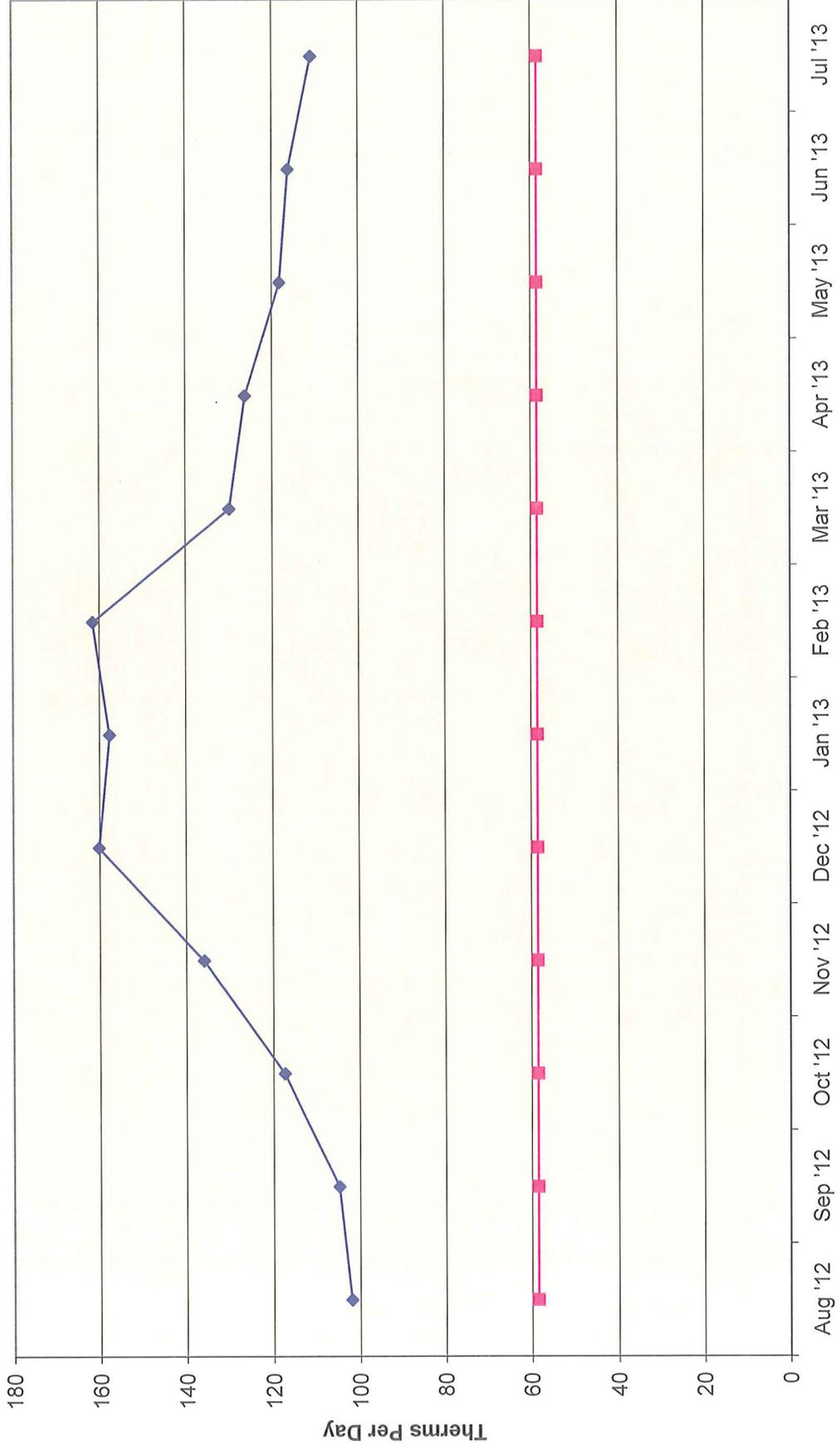
# Energy kWh



# Energy kWh/MG



# Natural Gas Use

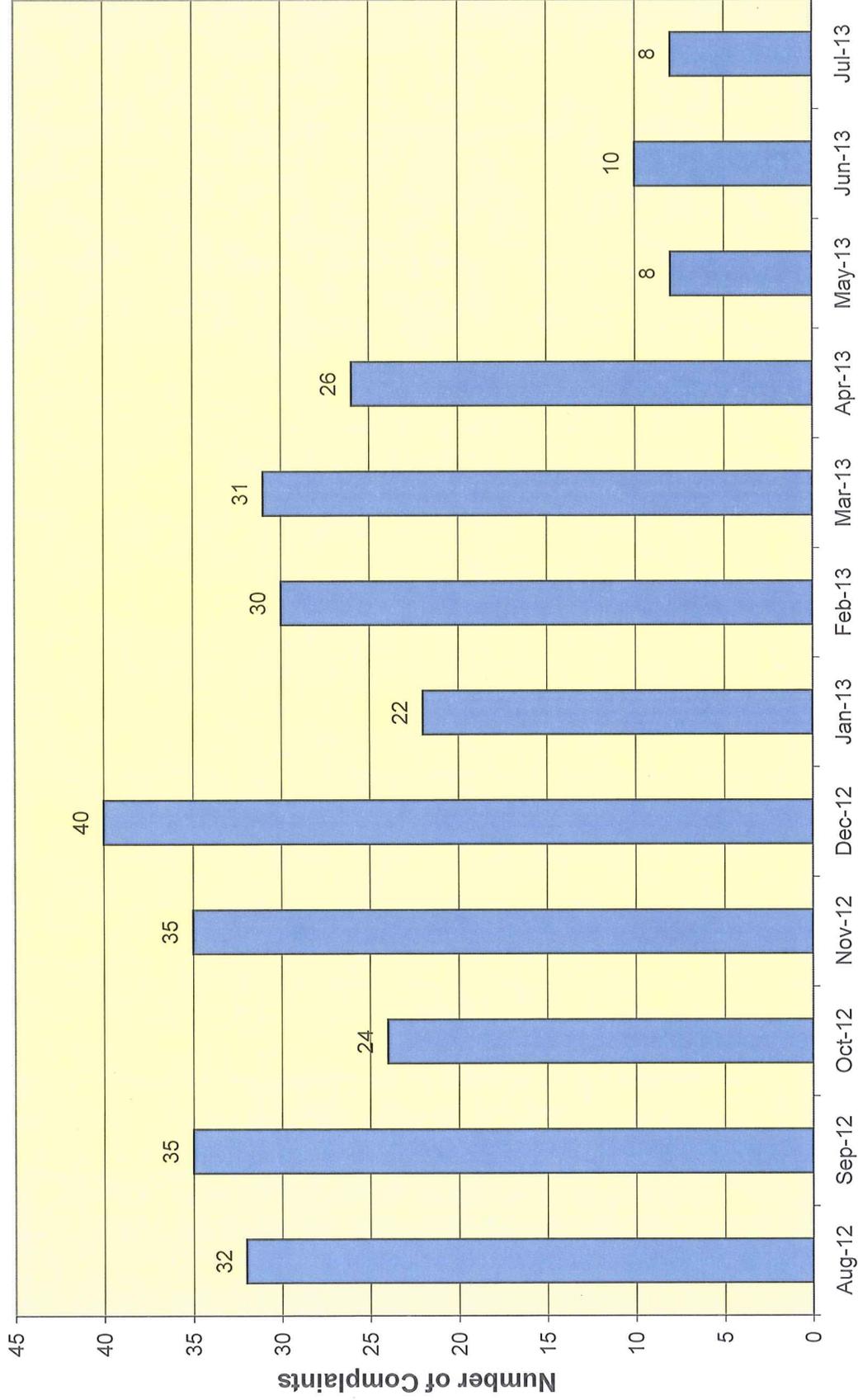


**NOVATO SANITARY DISTRICT  
WATER RECLAMATION 2012  
COMPLIANCE SUMMARY REPORT**

July	Fil Inf Q	Million Gallons Delivered			Influent Turbidity		Effluent Turbidity		Cl <sup>2</sup> Dose mg/L		DO	Coliform	CT
		Rec	Bank	Pot	Max	Ave	Min +5	Ave	Min	Ave	mg/L	mpn	Min
July 1	0.94	0.62		0.00	< 20	NA	0	0.9			8.12	< 2 >	450
July 2	0.92	0.68		0.00	< 20	NA	0	< 2.0			7.99	< 2 >	450
July 3	0.69	0.75	X	0.00	< 20	NA	0	1.0			7.97	< 2 >	450
July 4	0.93	0.73		0.00	< 20	NA	0	1.1				< 2 >	450
July 5	0.93	0.66		0.00	< 20	NA	0	1.0			8.01	< 2 >	450
July 6	0.94	0.73		0.00	< 20	NA	0	1.0				< 2 >	450
July 7	0.80	0.43		0.00	< 20	NA	0	1.1				< 2 >	450
July 8	0.90	0.99	X	0.00	< 20	NA	0	1.1			7.57	< 2 >	450
July 9	0.93	0.74		0.00	< 20	NA	0	1.4			7.84	< 2 >	450
July 10	0.71	0.69		0.00	< 20	NA	0	1.2			7.7	< 2 >	450
July 11	0.60	0.57		0.00	< 20	NA	0	1.4			7.98	< 2 >	450
July 12	0.87	0.69		0.00	< 20	NA	0	1.3				< 2 >	450
July 13	0.94	0.62		0.00	< 20	NA	0	1.2				< 2 >	450
July 14	0.94	0.71		0.00	< 20	NA	0	1.5				< 2 >	450
July 15	0.94	0.59		0.00	< 20	NA	0	1.5			8.31	< 2 >	450
July 16	0.62	0.73	X	0.00	< 20	NA	0	1.7			8.37	< 2 >	450
July 17	0.84	0.69		0.00	< 20	NA	0	1.7			7.91	< 2 >	450
July 18	0.90	0.67		0.00	< 20	NA	0	1.4				< 2 >	450
July 19	0.85	0.68		0.00	< 20	NA	0	1.3				< 2 >	450
July 20	0.94	0.63		0.00	< 20	NA	0	1.1				< 2 >	450
July 21	0.94	0.63		0.00	< 20	NA	0	1.2				< 2 >	450
July 22	0.77	0.69		0.00	< 20	NA	0	0.9			8.33	< 2 >	450
July 23	0.66	0.56	X	0.00	< 20	NA	0	1.0			7.23	< 2 >	450
July 24	0.72	0.74		0.00	< 20	NA	0	1.0			7.56	< 2 >	450
July 25	0.95	0.78		0.00	< 20	NA	0	1.1				< 2 >	450
July 26	0.93	0.33		0.00	< 20	NA	0	1.4				< 2 >	450
July 27	0.03	0.15		0.00	< 20	NA	0	1.3			8.36	< 2 >	450
July 28	0.29	0.17		0.00	< 20	NA	0	1.0				< 2 >	450
July 29	0.31	0.17		0.00	< 20	NA	0	1.2			7.0	< 2 >	450
July 30	0.00	0.20	X	0.00	< 20	NA	0	1.3				< 2 >	450
July 31	0.54	0.48		0.00	< 20	NA	< 65	< 2.0			7.3	< 2 >	450
Total	23.27	18.50		0.00	< 20	NA							
Min	0.00	0.15		0.00	20	NA	< 0.0	< 0.9	0.0	0.0	7.0	< 2 >	450
Max	0.95	0.99		0.00	20	NA	< 65.0	< 2.0	0.0	0.0	8.4	< 2 >	450
Ave	0.75	0.60		0.00	20	NA	< 0.0	< 1.3	#DIV/0!	#DIV/0!	7.9	< 2 >	450
Count	31	31		31	30	NA	30	31	0	0		30	30

July 30 & 31 - preliminary values

# Complaints Received



**WORK ORDER STATISTICS**

**June 1, 2013 - June 30, 2013**

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

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

<b>Total Outstanding Work Orders as of July 1, 2013</b>	<b>66</b>
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**NOVATO SANITARY DISTRICT**  
**Wastewater Operations Committee Meeting**  
**Odor Control, Noise, and Landscaping Report**  
**July 2013**

**Summary:**

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

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

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

**Odor control:**

As mentioned in previous reports, the District has contracted with the consulting firm of Brown and Caldwell (B&C) led by their project manager Mr. David McEwen, for a new odor study focusing primarily on the aeration basins as a potential odor source. As part of this study, Mr. McEwen had scheduled an initial sampling event for late June. However, due to unseasonal rains on the day of the sampling event, Mr. McEwen postponed this initial sampling, and performed it after rescheduling it to July.

Also, the District developed pilot project to cover the anoxic zones of the aeration basins this summer progressed with a partial equipment delivery in July from Pi2 Technologies of Montreal, Quebec. Due to US Customs related issues, delivery of the remaining equipment and completion of installation was rescheduled for early August. As mentioned in earlier reports, these covers incorporate a honeycomb design, float on the water surface, and utilize carbon filtering/scrubbing media to remove odors. Further, to investigate the effectiveness of this technology, staff has included provisions in B&C's contract to include efficacy testing of this technology.

**Noise:**

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

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

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

**Landscaping:**

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

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

**General:**

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

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

**Collection System Maintenance:**

A total of 49,204 feet of sewer pipelines were cleaned for the month. The footage cleaned per hour and line cleaned/month are within established parameters for the department. Graphs showing the length of line cleaned/month, footage cleaned/hour worked, along with the overflows/month are attached. Staff completed 239 maintenance work orders generated by the ICOM3 CMMS system, with 89 outstanding work orders. 51 of the outstanding work orders originate to the mechanical rodding unit which was non-operational in July due to mechanical and safety related issues. 38 outstanding work orders originate to the hydro-flushers, and 23 of them were post-phoned because the main lines had been chemically treated for root abatement in June. These 23 work orders will be completed in late August or early September to allow the chemical root treatment to achieve full effectiveness. The CCTV van was in the field for a total of 17 working days during the month of July and the department's CCTV production of 30,910ft for the month is below expected production goals.

Both issues, i.e. the outstanding cleaning work orders being higher than normal and the CCTV production are primarily due to: the mechanical rodding unit being out of service due to mechanical and safety issues, and the continuing implementation of modified work practices to better integrate flushing with CCTV work as part of the department's continuous improvement practices. These issues are being addressed and resolved, and staff anticipates catching up to its production goals in the future.

**Pump Station Maintenance:**

The Collection System Department conducted 289 lift station inspections for the month with 134 of the inspection visits generated through the JobCal Plus CMMS system.

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

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

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

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

**Pump Station Rehabilitation:**

There are no pump stations currently under construction as part of the District's continuing multi-year Pump Station Rehabilitation Project (Capital Improvement Project No. 72403).

**Safety and Training:**

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

Specialized training: Collection System staff attended Traffic Control and Flagging, USA Procedures and SSMP training in July. Aaron Hendricks and Bob Stiles attended Injury and Illness Prevention Program, Material Safety Data, Lock Out/Tag Out and Energized Electrical Work training.

Safety performance: There were no lost time accidents this month for a total of 181 accident-free days.

**Standard Operating Procedures (SOPs):**

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

**Sanitary Sewer Overflows (SSOs):**

For the month of July, there was one (1) SSO.

No.	Date	Location	Amount, gal	Cause
1	7/7/2013	21 Jennifer Ln.	<10	Roots

1. SSO at 21 Jennifer Ln.: This SSO was a Category II event with the discharge volume of approximately 10 gallons going to open ground. There was no recovery (0%) for this discharge as the event was not witnessed by District staff and there was no evidence of the discharge when our employees arrived on site. This discharge was reported to the District by a neighborhood resident.

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

This discharge was determined to be the result of a partial root blockage in the main line and a root mass pushed into the District mainline by a plumbing contractor. The duration of this discharge was determined using residential and reporting party interviews. The discharge volume was estimated based on the eyewitness account of the resident who reported the problem.

In accordance with reporting requirements: (a) no report was required to either the California Emergency Management Agency (CalEMA) or Marin County Environmental Health Services (MCEHS) as this was a low volume Category II event, and (b) as detailed below, the discharge was reported to the State CIWQS system.

In terms of cleaning history, the affected line segment was last cleaned on schedule on November 16, 2011 using a hydro-flusher, and this line segment is on a thirty-six (36) month cleaning frequency. CCTV inspection immediately after the discharge event showed moderate root intrusion at one point in this line segment. No changes to the cleaning schedule will be made as a result of this event. The roots were removed from the main line and a repair request was generated to repair the damaged section of pipe.

This event was reported into the State's CIWQS database on August 8, 2013 as a Category II event, SSO Event ID # 797666 and was certified in CIWQS on August 8, 2013, Certification ID # 571594.

\*\*\*\*

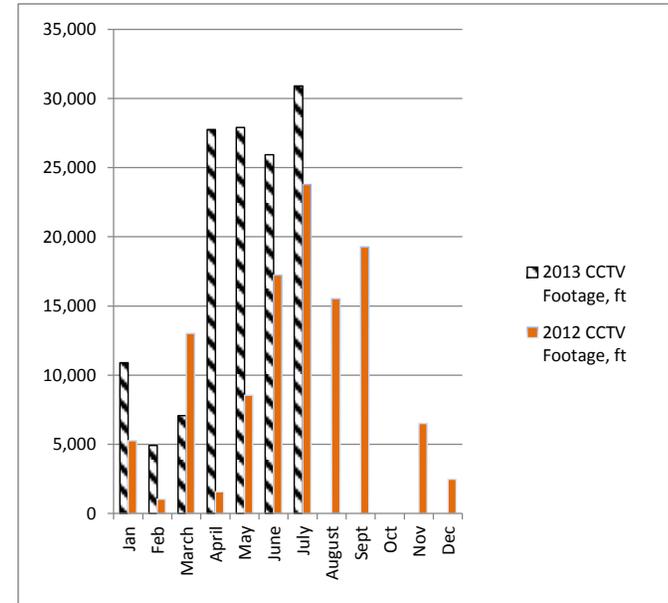
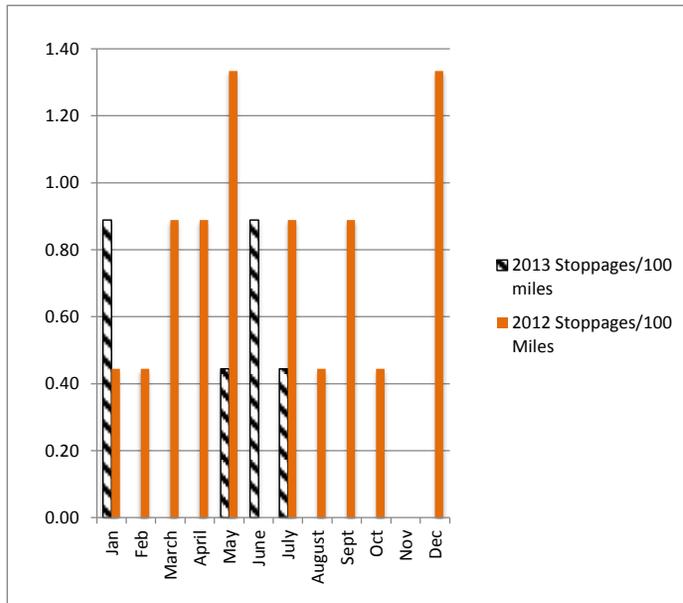
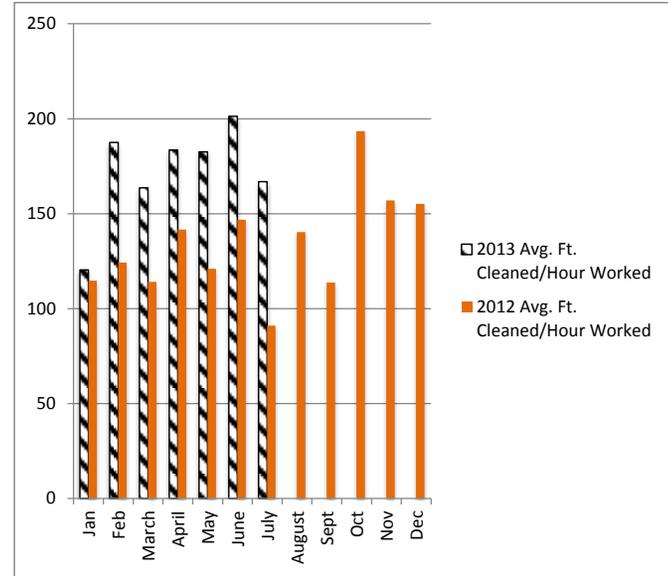
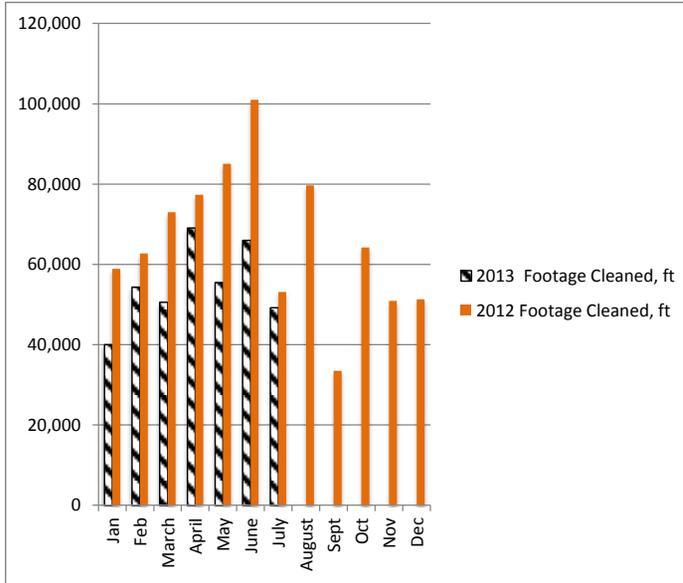
**Novato Sanitary District**  
**Collection System Monthly Report For July 2013 (as of July 31, 2013)**

	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>														
Number of FTEs (main line cleaning), hrs.	1.9	1.7	1.8	2.2	1.8	1.9	1.7						NA	1.8
Number of FTEs (other)	1.9	1.4	2.4	1.5	1.8	1.2	1.8						NA	1.7
Number of FTEs (CCTV)	0.1	0.3	0.5	1.7	1.1	1.2	1.5						NA	0.9
Total, FTEs	3.9	3.4	4.7	5.4	4.6	4.3	4.9						NA	4.5
Regular Time Worked, (main line cleaning), hrs	333	290	309	377	304	328	295						2,235	319
Regular Time Worked on Other, hrs <sup>(1)</sup>	326	249	415	259	308	216	304						2,076	297
Regular Time Worked on CCTV <sup>(2)</sup>	20	46	85	300	192	200	258						1,100	157
Total Regular time, worked, hrs	678	585	809	935	804	744	857						5,411	773
Total Vacation/Sick Leave/Holiday, hrs	204	77	101	114	239	62	191						987	141
Vacation/Sick Leave/Holiday, FTEs	1.2	0.4	0.6	0.7	1.4	0.4	1.1						5.7	0.8
Overtime Worked on Coll. Sys., hrs	6	45	5	47	5	1	24						133	19
Overtime Worked on Other, hrs <sup>(1)</sup>	3	19	5	28	12	6	16						89	13
Overtime Worked on CCTV <sup>(2)</sup>	1	3	0	0	0	0	2						6	1
Total Overtime, hrs	10	67	10	75	17	7	42						228	33
<b>Productivity</b>														
Rodder Work Orders Generated, ft	14	0	24	31	83	66	51						269	38
Rodder 3203 Ft. Cleaned	3,138	0	3,856	5,490	678	4,371	760						18,293	2,613
Flusher Work Orders Generated	187	252	290	385	438	361	277						2,190	313
Truck 3205V Ft. Cleaned	2,782	5,146	2,755	13,698	15,477	10,186	0						50,044	7,149
Truck 3206V Ft. Cleaned	34,114	49,225	43,954	49,898	39,332	51,468	48,444						316,435	45,205
Camera Work Orders Generated	0	0	0	0	0	0	0						0	0
Camera Ft. Videoed	10,905	4,912	7,075	27,756	27,913	25,938	30,910	NA	NA	NA	NA	NA	135,409	19,344
Work Orders Completed	201	252	286	374	314	267	239						1,933	276
Work Orders backlog	6	0	28	42	207	160	89						532	76
Total Footage Cleaned	40,034	54,371	50,565	69,086	55,487	66,025	49,204	NA	NA	NA	NA	NA	384,772	54,967
<b>Sanitary Sewer Overflows (SSOs)</b>														
Minor (Category II)	0	0	0	0	1	1	1						3	NA
Major (Category I)	2	0	0	0	0	1	0						3	NA
Overflow Gallons	2,200	0	0	0	158	1,111	10						3,479	NA
Volume Recovered	880	0	0	0	158	100	0						1,138	NA
Percent Recovered	40%	NA	NA	NA	100%	9%	0%	NA	NA	NA	NA	NA	33%	NA
<b>Service Calls (non-SSO related)</b>														
Service calls, normal hours, #	7	5	7	12	6	6	8						51	7
Normal hours S.C. response time, mins (avg.)	12	15	14	18	17	22	19						117	17
Service Callouts, after hours, #	1	0	0	1	1	0	1						4	1
After Hours S.C. response time, mins (avg.)	23	NA	NA	20	30	0	27						100	20
<b>Benchmarks</b>														
Average Ft. Cleaned/Hour Worked	120	187	164	183	183	201	167	NA	NA	NA	NA	NA	NA	172
Total Stoppages/100 Miles	0.9	0.0	0.0	0.0	0.4	0.9	0.4	NA	NA	NA	NA	NA	2.7	NA
Average spill response time (mins)	18	0	0	0	15	19	15						NA	10
Callouts/100 Miles	0.4	0.0	0.0	0.4	0.4	0.0	0.4						1.8	0.3
Overtime hours/100 Miles	3	20	2	21	2	0	11						59	8
Overflow Gallons/100 Miles	978	0	0	0	70	494	4	NA	NA	NA	NA	NA	1546	221

<sup>(1)</sup>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.

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

## Collection System 2012-13 Graphs



Novato Sanitary District

Pump Station Monthly Report For 2013 (as of April 30, 2013)

	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	Total Year to Date	Average Year to Date
<b>Employee Hours Worked</b>	253	224	313	226	256	249	320						1,841	
Number of Employees	1.4	1.3	1.8	1.3	1.4	1.4	1.8						1,480	1.5
Regular Time Worked on Pump Sta	185	189	223	182	227	201	273						362	
Overtime Worked on Pump Sta	69	35	90	44	29	48	47						22	
After Hours Callouts	4	3	1	8	1	0	5						135	19
Average Callout response time (mins)	24	35	20	30	0	0	26							
<b>Work Orders</b>														
Number generated in month	107	112	116	124	110	125	134						828	
Number closed in month	104	110	116	124	110	123	134							
Backlog	3	2	0	0	0	2	0							

**COLLECTION SYSTEM (Pump Stations)  
WORK ORDER STATISTICS  
July 1, 2013 - July 31, 2013**

	<b>Open Work Orders Due Prior to 7/1/2013</b>	<b>Open Work Orders 7/1/2013 -7/31/2013</b>	<b>Total Open Work Orders</b>
Preventive	2	134	2
Corrective	0	0	0
<b>Total</b>	<b>0</b>	<b>134</b>	<b>134</b>

	<b>Closed Work Orders 7/1/2013 -7/31/2013</b>
Preventive	134
Corrective	0
<b>Total</b>	<b>134</b>

<b>Total Outstanding Work Orders as of 7/31/2013</b>	<b>0</b>
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**NOVATO SANITARY DISTRICT**  
**Wastewater Operations Committee Meeting**  
**Reclamation Facilities Report**  
**July 2013**

**Summary:**

The rancher grazed cattle on all three Sites. Irrigation controls were tested on a weekly basis. Problematic irrigation valve actuators were troubleshot and the problem may be power fluctuations during operation. Pump 1 at Drainage Pump Station 7 was removed, revealing that the pump volute had fallen off. Approximately 73 MG of recycled water was used for irrigation this month. The storage ponds are storing approximately 59 MG of recycled water. A leak on the top of Irrigation Pump No. 1 was repaired. The DLD continued to further dry in preparation for sludge application.

**Ranch Operations:**

The rancher grazed cattle on all Sites, with nothing significant to report.

Pump No. 1 at Drainage Pump Station No. 7 was removed for inspection and upon removal it was discovered that the volute was missing from the bottom of the pump. In addition, rope and debris was found in the pump hindering its operation. The pump was taken to the vendor's shop where it will be further inspected and a quote prepared for repair. Staff will attempt to retrieve the volute from the sump without dewatering the sump. It may be necessary to dewater the sump to retrieve the volute; the volute must be removed from the bottom of the sump because it may interfere with the installation of the repaired pump when it is returned.

**Irrigation Parcels:**

Staff continued to test the irrigation control systems on a weekly basis to insure that no problems exist in the control systems and parcels are not getting over-irrigated.

Representatives for the irrigation valves and actuators were on site this month to assist staff with troubleshooting the problems with the actuators in Site 2 & 3. On occasion, the actuators will not fully open or close and some motors have failed. During the troubleshooting process it was discovered that when the valves are called to open or close there is a significant drop in the voltage which causes the valve to stop working on occasion. This may be why the motors are failing also. This problem is occurring at locations that are at the furthest distance from the power supply.

The supplier & factory representatives recommended installing another actuator that can tolerate the voltage drop. Staff will look at all the options before making a decision on how to resolve the problem.

**Irrigation Pump Station:**

Approximately 73.19 million gallons of recycled water was used for irrigation in July. The average storage pond staff gauge depth at the beginning of July was 5.0 feet and 5.2 feet at end of July, accumulating approximately 2.8 million gallons. This quantity is calculated using charts from the Reclamation Facilities O&M Manual. The level of the Wildlife Pond was raised from four feet to six feet as recommended in the Reclamation Facilities O&M Manual.

**NOVATO SANITARY DISTRICT**  
**Wastewater Operations Committee Meeting**  
**Reclamation Facilities Report**  
**July 2013**

As previously reported, staff is re-evaluating the replacement/repair of Irrigation Pump No. 2. Staff contacted PG&E to inquire about rebate programs for replacing the pump with a more efficient motor. PG&E requested run time data and staff forwarded this information to PG&E in early June. Staff met with a PG&E representative this month and inquired about the rebate program. The representative said he would check on it and staff had not heard back from the representative.

In June, Irrigation Pump No. 1 began leaking at the top of the pump around where the shaft comes out of the pump and up to the motor. Further investigation determined that the leak was due to a failing gasket between the top of the pump body and the flange for the mechanical seal. The leak is only a nuisance and will not harm the pump. This leak was repaired this month.

**Sludge Handling & Disposal:**

There were no reclamation area related sludge handling and disposal activities in July. The Dedicated Land Disposal (DLD) surface continues to dry so it can be worked to prepare it for sludge application.

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# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

<b>TITLE: NBWRA: Water Bond Coalition</b>	<b>MEETING DATE: August 12, 2013</b>
<b>AGENDA ITEM NO.: 7.a.</b>	
<b>RECOMMENDED ACTION: Adopt Resolution No. 3061 in support of the Water Bond Coalition</b>	
<b>SUMMARY AND DISCUSSION:</b>	
<p>Approval of this resolution would indicate support from the Novato Sanitary District for development of future statewide water bonds that include funding for local and regional water projects. The resolution also authorizes the Board to designate an individual to serve a representative to the Water Bond Coalition and to advocate for development of future water bonds that provide funding for local and regional water- related needs.</p> <p>The Water Bond Coalition was formed in 2002 in order to achieve an equitable distribution of statewide water bond dollars to projects across the state. Prior water bonds explicitly directed a majority of funds to southern California interests. Some 220 public agencies from 34 counties participated in the coalition and adopted resolutions in support of the coalition’s objectives. In part due to this effort, subsequent water bonds, Proposition 50 (2002) and Proposition 84 (2006), directed substantial funding toward Integrated Regional Water Management programs and allocated \$138 million to the SF Bay Area. The bonds also provided funding for water reuse, water quality, and conservation programs, statewide.</p> <p><b>Water Bond of 2014:</b> The California legislature developed a new \$11.1 billion water bond for the 2010 ballot. Concerns regarding the economy and financial restrictions the state was facing caused the bond to be delayed twice and it is now scheduled for the November 2014 General Election ballot.</p> <p>Due to lingering concerns about the large size of the proposed bond the California legislature is expected to take action over the next four months to substantially revise the proposed water bond with the goal of making the bond smaller and eliminating programs with unproven public benefit.</p> <p>The Water Bond Coalition members recognize the important work to be done to restore Delta ecosystems and make improvements to the State Water Project. However, coalition members also support allocation of future water bond funds on a fair and equitable basis to local and regional entities across all of California for water related needs such as water reuse, groundwater planning, groundwater remediation, improved stormwater management, replacement of failing infrastructure, fishery restoration, and completion of upgrades necessary to meet water quality standards and improve wateruse efficiency.</p> <p>Engaging with the Water Bond Coalition may offer an opportunity to influence development of the 2014 water bond and support language that could protect local Novato interests in this funding program.</p>	
<b>ALTERNATIVES: Do not adopt resolution of support</b>	
<b>BUDGET INFORMATION: No additional funding is required.</b>	
<b>DEPT.MGR.:</b>	<b>MANAGER:</b>

RESOLUTION NO. 3061

RESOLUTION OF THE NOVATO SANITARY DISTRICT AGREEING TO PARTICIPATE IN THE WATER BOND COALITION, SUPPORTING THE ACTIVITIES OF THE COALITION, ENDORSING EFFORTS OF THE COALITION TO DEVELOP THE FAIR AND EQUITABLE DISTRIBUTION OF STATE WATER BOND FUNDS FOR PROJECTS THAT WILL BENEFIT THE (COUNTY/CITY/DISTRICT) AND OTHER ENTITIES THROUGHOUT NORTHERN AND COASTAL CALIFORNIA, AND DESIGNATING THE MANAGEER-ENGINEER AS THE OFFICIAL REPRESENTATIVE FOR THE NOVATO SANITARY DISTRICT TO THE WATER BOND COALITION.

**WHEREAS**, in the past 10 years, the California electorate has approved Propositions 50, 84 and 1E that have provided more than \$12 billion for water- related projects in California; and

**WHEREAS**, an additional water bond measure is now being developed and if approved by the voters, would provide additional funding for the planning and implementation of water- related programs and projects in California; and

**WHEREAS**, the Northern and Coastal California Water Bond Coalition was formed in 2002, a diverse network of 220 cities, counties and special districts from 34 counties that worked to support the equitable distribution of state bond funds and secure grant funds for drinking water, wastewater, fisheries, wetlands, water reuse, non- point source and flood protection projects that benefited the Novato Sanitary District; and

**WHEREAS**, the development of a regional coalition to organize and promote local and regional projects for funding has proven to be effective in obtaining funding from these bond measures totaling \$1 million for Novato and has enabled the construction of \$11.5 million of water reuse projects in Novato; and

**WHEREAS**, the Novato Sanitary District has identified \$22 million in unmet funding needs for high priority projects that will increase water reuse, enhance wetlands, and improve water supply reliability; and

**WHEREAS**, there is a tremendous need for improvements in California's diverse water system and cities, counties, and local and regional water supply, flood control and sanitation agencies across the state are facing significant challenges including aging infrastructure, more challenging regulatory compliance standards, changes in climate that impact public safety and water supply reliability, and environmental impacts that could increase costs or reduce water availability; and

**WHEREAS**, existing state water infrastructure bond funds meant to help address these challenges will soon be fully appropriated and a new commitment of significant state funding to assist local and regional water management projects is necessary to assure water future supply reliability; and

**WHEREAS**, the Water Bond Coalition supports new investment in regional competitive grant programs that distribute funds equitably across the state – in acknowledgement of the importance of source watersheds as well as population centers – to achieve any of the following objectives:

- Integrated, multi- agency approaches to water management;
- Improved protection of wildlife, fisheries and watersheds to reduce conflicts with water management efforts;
- Improved water supply reliability;
- Water systems that are diversified, resilient, and reliable in the face of natural disasters and a changing climate;
- Funding for planning, implementation and sustaining projects in the following categories: integrated regional water management, water reuse and recycled water, flood protection, stormwater management, upgrades and enhancements to aging infrastructure, groundwater management, groundwater cleanup, water use efficiency, and water quality compliance.

**NOW, THEREFORE, BE IT RESOLVED** that the Novato Sanitary District will participate in the Water Bond Coalition and support efforts by the Coalition to promote the principles above; and be it

**FURTHER RESOLVED**, that the Novato Sanitary District now designates the Manager-Engineer to serve as the official representative for the Novato Sanitary District to the Water Bond Coalition.

**FURTHER RESOLVED**, that the Manager-Engineer is authorized to sign letters and speak of behalf of Novato Sanitary District in support of legislation that furthers the principles identified above.

I hereby certify that the foregoing resolution was duly and regularly passed and adopted by the Board of Directors of the Novato Sanitary District, Marin County, California, at a meeting thereof duly held on the 26<sup>th</sup> day of August 2013, by the following vote:

AYES, and in favor thereof, Directors:

NOES, Directors:

ABSENT, Directors:

\_\_\_\_\_  
President, Novato Sanitary District

COUNTERSIGNED:

\_\_\_\_\_  
Secretary

MEMORANDUM

August 26, 2013

TO: Board of Directors

FROM: Beverly B. James, Manager-Engineer  
Laura Creamer, Finance Officer

SUBJECT: 2013-14 Appropriations Limit

It is necessary to determine the District's appropriations limit for 2013-14 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 5.12% 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 .016%. We have used the percentage change in the local assessment roll due to the addition of new non-residential new construction for setting our 2013-14 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.

2013-14 Appropriations Limit

It is recommended that the 2013-14 appropriations limit be set at \$5,925,116 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 2013-14 limit.

Attachments

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

**Novato Sanitary District  
APPROPRIATIONS LIMIT**

**2013-14**

Today: 19-Aug-13

**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:	5.12	
or		
Change due to non-residential construction (1):	0.016	Use for 2013-14 Calculation
Population Change for Marin County:	0.42	
Per Capita converted to a ratio:	1.0002	
Population converted to a ratio:	1.0042	

Calculation of Factor for FY 2013-14 :

Price factor (1.0002) x Population Factor (1.0042) = 1.004360672

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

Appropriation Limit prior FY	2012-13	\$5,899,391
Change Factor for this FY	2013-14	<u>1.00436067</u>

**APPROPRIATION LIMIT FOR 2013-14 \$5,925,116**

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

Change in AV due to Construction Growth from 03-01-11 to 03-01-12	<u>6,133,269</u>	=	0.01614676
Increase in total AV (+exemptions) from 2011-12 to 2012-13	379,844,934		

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	
00	3,376,331	8.45%	1,061,125	10.27%	2,315,206
01	3,638,890	7.78%	1,251,503	17.94%	2,387,387
02	3,951,700	8.60%	1,252,939	0.11%	2,698,761
03	4,186,081	5.93%	1,344,630	7.32%	2,841,451
04	4,355,831	4.06%	1,392,792	3.58%	2,963,039
05	4,611,180	5.86%	1,279,567	-8.13%	3,331,613
06	4,872,715	5.67%	1,763,422	37.81%	3,109,293
07	5,103,161	4.73%	1,796,003	1.85%	3,307,158
08	5,380,409	5.43%	1,995,120	11.09%	3,385,289
09	5,663,413	5.26%	2,527,507	26.68%	3,135,906
10	5,744,684	1.44%	1,874,691	-25.83%	3,869,993
11	5,792,485	0.83%	1,774,216	-5.36%	4,018,269
12	5,841,350	0.84%	1,795,489	1.20%	4,045,861
13	5,899,391	0.99%	1,780,000	-0.86%	4,119,391
(1) 14	5,925,116	0.44%	1,795,877	0.89%	4,129,239
15-Year Average		4.39%		5.18%	

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

**RESOLUTION NO. 3062**  
**A RESOLUTION OF THE NOVATO SANITARY DISTRICT**  
**CORRECTING AND AMENDING PRIOR CALCULATIONS**  
**AND MAKING DETERMINATION AND ESTABLISHING**  
**THE 2013-14 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 2013-14 to be the sum of **FIVE MILLION NINE HUNDRED TWENTY-FIVE THOUSAND ONE HUNDRED SIXTEEN AND NO/100 (\$5,925,116.00)**. 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 26th day of August, 2013, 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

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# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

<b>TITLE: Wastewater Treatment Plant Upgrade Project C: Change Order</b>	<b>MEETING DATE: August 12, 2013</b>  <b>AGENDA ITEM NO.: 9.a.</b>
<b>RECOMMENDED ACTION: Approve change order for coating repair on Primary Clarifier No. 2 in the amount of \$91,304.</b>	
<b>SUMMARY AND DISCUSSION:</b>  <p>When clarifier no. 2 was removed from service and cleaned in preparation for coating the effluent launder the center mechanism was also inspected. The metal center mechanism, rake and skimmer arms on primary clarifier no. 2 have corrosion on approximately 20% of the metal. A follow up inspection and recommendation by a corrosion engineer is to sandblast all mechanism and surfaces to “white metal” and the recoat. This coating should last 15 to 20 years. If the coating is not redone at this time we will probably need structural repairs in 10 years. Another alternative would be to authorize spot repairs, estimated to cost about \$60,000. These would be done on a time and materials basis because it is not possible to identify all of the spots that need repair ahead of time. Also, in this case the spots would be wire-brushed not sandblasted so the preparation would not be as good. To summarize, the alternatives are:</p> <ol style="list-style-type: none"> <li>1. Sandblast and recoat the entire mechanism \$91,304 fixed price.</li> <li>2. Wire brush and recoat corroded spots only \$60,000 time and materials.</li> <li>3. No action \$0 cost now, potentially significant cost in 10 years.</li> </ol> <p>Staff recommendation: Sandblast and recoat the entire mechanism.</p>	
<b>ALTERNATIVES: 1. Wire brush and recoat spots only or 2. No action</b>	
<b>BUDGET INFORMATION:</b> This would be funded from the budget for Wastewater Treatment Plant Upgrade Project C contingency.	
<b>DEPT.MGR.:</b>	<b>MANAGER:</b>

## MEMORANDUM

Date: August 8, 2013  
To: Board of Directors  
From: Finance Committee: Jean Mariani, William Long  
Subject: Reserve Policy Revision

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The Finance Committee met on May 3<sup>rd</sup>, 30<sup>th</sup> and July 16<sup>th</sup> to discuss revisions to the District's Reserve Policy. They determined that a portion of what the District currently labels "Reserves" are more appropriately designated as "Funds" because their purpose is to provide for cash flow needs. They therefore directed staff to develop both a Reserve Policy and an Operating and Capital Funds Policy. Drafts of both of these policies are attached.

### **Purpose of Reserves:**

The District reserves should serve two purposes:

- A. Comply with legal requirements.
- B. Provide for extraordinary expenses such as disaster response, litigation, or fines without having to implement an immediate rate adjustment.

### **Purpose of Funds**

The District receives over 90% of its revenue from service charges and property taxes that are billed on the annual property tax bill. Payments are due on December 10<sup>th</sup> and April 10<sup>th</sup> so the District receives approximately 55% of its revenues in December and 45% in April. Expenditures are more evenly spread throughout the year with the exception of debt payments, which are in August, December, and February. The purpose of the Capital and Operating Funds is to provide for cash flow needs throughout the year.

### **Background**

In 2001, the District adopted an Operating Reserve Fund Policy that created the following Operating Reserve Funds:

- Operating Cash Flow Reserve .....\$2,200,000\*
- Service Charge Rate Stabilization Reserve .....\$600,000
- Emergency Repair Reserve.....\$600,000

- Self-insurance and Self Retention Reserve .....\$200,000
  - Vehicle Replacement Reserve .....\$85,700
- \* equal to six months expenses in 2001.

The District later added the following reserves:

- Southgate Reserve .....\$679,989
- Wastewater Capital Reserve Fund ..... 0.5% of SRF Loan/year
- COP Reserve .....\$1,500,000

The Southgate Reserve was funded from the settlement for acceptance of the Southgate subdivision. The Settlement Agreement stipulates “District shall have discretion to apply the Settlement Proceeds as it deems appropriate.”

### **Committee Recommendation**

The Finance Committee reviewed the District’s existing Reserve Policy and made the following recommendations:

1. Eliminate the Emergency Reserve, Vehicle Replacement Reserve, and Southgate Reserve. Transfer the money currently in these reserves into the Capital Fund.
2. Eliminate the Self Insurance Reserve and transfer the money currently in the Self Insurance Reserve into the Operating Fund.
3. Increase the Rate Stabilization Reserve.
4. Maintain the Wastewater Capital Reserve Fund.
5. Maintain the Certificate of Participation Reserve.

The current Reserve Policy is included as Attachment 1. Since the changes are substantial, clean copies of the proposed Reserve Policy and Fund Policy are provided in Attachments 2 and 3 instead of an edited version of the existing policy.

The proposed Reserve Policy has three Reserve Funds: Rate Stabilization Reserve, Wastewater Capital Reserve Fund, and Certificates of Participation Reserve. These reserves are described below.

The proposed Fund Policy has two funds: Operating Fund and Capital Fund. These funds are described below

## **RESERVES**

### **Rate Stabilization Reserve**

The Rate Stabilization Reserve should be sufficient to fund unusual major expenses such as disaster response, legal fines or fees without having to enact a rate increase. The typical example is a pump station destroyed by flooding or other disaster. The District has five mid-size pump stations with an average replacement cost of \$2 million. The potential major fine risk is failure of the Ignacio force main. Similar occurrences at other agencies have resulted in fines between \$1 million and \$2 million.

**The Committee recommends increasing the Rate Stabilization Reserve to \$1,5 million**

**Wastewater Capital Reserve Fund**

The District borrowed \$81,307,947 from the State Revolving Fund (SRF Loan) between 2008 and 2011. The loan is being repaid in annual installments of \$5,378,956 due each December 31 through June 30, 2031. The loan agreement terms require that the District establish and maintain a “Wastewater Capital Reserve Fund” for expansion, major repair, or replacement of the wastewater facilities for the term of the loan agreement.

The District must deposit sufficient funds to build up the Wastewater Capital Reserve Fund at a minimum rate of 0.5% of the SRF loan amount each year for a period of ten (10) 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 Wastewater Capital Reserve Fund. The Reserve amount is set by the terms of the loan agreement and varies by year. as shown in the Table below, the District can apply unused bonding capacity for the required contributions until 2017-18. The maximum required Wastewater Capital Reserve Fund Balance is \$3,599,654 of which \$3,275,000 is satisfied by unused bonding capacity.

Fiscal Year	Loan Amt	Annual Required	Fund Balance Required	Deposit
2008/9	21,691,826.00	108,459.13	108,459.13	3,275,000.00 *
2009/10	47,989,587.00	239,947.94	348,407.07	
2010/11	72,720,776.00	363,603.88	712,010.95	
2011/12	81,329,083.00	406,645.42	1,118,656.36	
2012/13	81,307,946.00	406,539.73	1,525,196.09	
2013/14	79,875,979.00	399,379.90	1,924,575.99	
2014/15	74,366,047.00	371,830.24	2,296,406.22	
2015/16	70,771,876.00	353,859.38	2,650,265.60	
2016/17	67,091,444.00	335,457.22	2,985,722.82	
2017/18	63,322,683.00	316,613.42	3,302,336.24	27,336.24
2018/19	59,463,471.00	297,317.36	3,599,653.59	297,317.36

\* Unused bonding capacity from 1970 and 1986 GO bonds.

## **Certificates of Participation (COP) (Debt Service) Reserve**

The District issued \$21,750,000 of Certificates of Participation (COP) in October 2011 to fund Collection System, Pump Stations, Reclamation System, and Treatment Plant Capital Improvements. The COPs will be repaid over 20 years.

The Trust Agreement established a reserve fund as a reserve for the payment of the installment payments. The reserve fund was initially funded from the COP proceeds at \$1,500,000. It is held by the Trustee and maintained in the amount of the reserve requirement. The "Reserve Requirement" is defined in the 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; (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.

The COP references the Rate Stabilization Reserve so the District must keep it at least until the COP is paid off. This amount would be kept in the Reserve year round unless Board action authorized its use for exceptional expenses. Any draw on this reserve would be replaced within four years.

***The COP conditions require that the District maintain a Reserve of \$1.5 million until 2032. The minimum required Rate Stabilization Reserve amount is \$600,000 but the Committee recommends continuing the current basis of one medium pump station or currently \$1,500,000 and escalating it by the ENR construction cost index each year.***

## **FUNDS**

The Committee proposed two fund targets: one for an Operating Fund and one for a Capital Fund. These would not be reserves but instead would be a target amount that is needed as of July 1<sup>st</sup> of each year in order to provide for the District's cash flow needs.

### **Operating Fund Target**

The District receives most of its operating revenue from the property tax bills in December and April. Operating expenses are generally evenly distributed throughout the year although there can be seasonal variation or unusual expenses.

A target equal to eight months (67%) of operating expenses as of July 1<sup>st</sup>, the beginning of each fiscal year, should be sufficient to adequately fund District operations and provide flexibility to meet seasonal variation and unusual expenses.

**The recommended target is 67% of the Operating Expenses in the Operating Fund as of July 1<sup>st</sup> each year.**

### **Capital Fund Target**

The District receives most of its capital revenue from the property tax bills in December and April. Construction expenditures are typically highest in June through October. There is a COP interest payment (\$443,000) due in August, and SRF payment (\$5,379,000) due in December and a principal and interest COP payment (\$1,243,000) due in February. The debt payments currently consume 78% of capital revenues.

The District has a balance in the COP of \$9.2 million in the COP as of 7/1/13. These funds are reserved to pay for capital projects and are not included in the calculation of the target for the Capital Fund. The COP proceeds must be spent by October 2014. COP proceeds will fund the budgeted \$7.9 million of capital projects in 2013/14 and \$1.3 million of the capital projects in 2014/15. Once the COP proceeds have been spent, all new capital projects will be pay-as-you-go.

The Capital Fund target is recommended to be equal to one year of Capital Expenditures (including debt payments and pay-as-you go project costs) minus one half the anticipated Capital Receipts.

### **Reconciliation of Proposed Reserves and Fund Targets**

Table 1 shows the relationship to the proposed Reserves and Fund Targets to the current Reserves and Funds.

**Table 1: Novato Sanitary District  
 Current Operating and Capital Reserve Funds and Proposed Targets**

	June 30, 2013 Estimated	Notes	Proposed Target Reserve July 1, 2013
Operating Reserve	\$7,604,490	Transfer to Operating Fund	\$0
Self Insurance Reserve Fund	\$164,516	Transfer to Operating Fund	
<b>Operating Fund</b>		8 mos operating expenditures (1)	<b>\$6,254,768</b>
Current Capital Reserve (2)	\$1,006,212	Transfer to Capital Fund	
Emergency Reserve Fund	\$600,000	Transfer to Capital Fund	
Vehicle Replacement Fund	\$238,795	Transfer to Capital Fund	
Southgate Reserve Fund	\$679,989	Transfer to Capital Fund	
<b>Rate Stabilization Reserve</b>	<b>\$600,000</b>	Current cost to replace one medium pump station	<b>\$1,500,000</b>
<b>Wastewater Capital Reserve Fund</b>	<b>\$1,525,196</b>	<b>Legally required</b>	<b>\$1,525,196<sup>4</sup></b>
<b>COP Reserve</b>	<b>\$1,500,000</b>	<b>Legally required</b>	<b>\$1,500,000</b>
<b>Capital Fund</b>	<b>\$0</b>	One year Cap. Expend (3). -1/2 Cap Receipts	<b>\$2,750,274</b>
<b>Total</b>	<b>\$13,919,392</b>		<b>\$13,530,298</b>

**Note1:** Calculations based on Operating Expenditures 2013/14 budget of \$9.38 million

Note 2: Capital Reserves not including COP balance which is restricted

Note 3: Annual Capital expenditures not including debt-financed projects.

Note 4: Unused 1970 and 1986 GO Bonds

# **Novato Sanitary District Operating Reserve Fund Policy September, 2001**

Novato Sanitary District (District) provides wastewater collection, treatment, reclamation, and disposal for properties within the City of Novato and adjacent unincorporated areas in northern Marin County. The District maintains prudent financial practices to provide its function to protect public health and the environment.

Initially, all revenues are deposited in an Operating Fund and then distributed into other District funds and accounts. Most revenue is derived from service charges and property taxes. Other sources of revenue include connection charges, interest earnings, and property rental.

The District caused an investigation of the financial requirements for the Operating Fund especially relating to the prudent amount of reserves to maintain in the Operating Fund. An Operating Reserve Fund Review report dated August 2001 was prepared and accepted by the District's Board of Directors.

The Report identifies the basic requirements for the Operating Fund namely:

- Operating cash flow
- Service charge rate stabilization
- Emergency repairs

Each of these needs requires that the District allow reserves to accumulate in the Operating Fund to provide sufficient funding.

It should be noted that the District has two established funds to which a portion of the total operating reserve balance is dedicated. The Self-Insurance Reserve Fund was established by the District Board of Directors in 1986. That fund was established to provide cash reserves to fund liability claim losses that fall below the current \$100,000 deductible. The target fund balance was initially established at \$100,000, but was increased in 1987 to \$200,000. That balance is the current target Self Insurance Reserve Fund amount.

The District also has established a Vehicle Replacement Fund that is intended to fund replacement of District vehicles at planned intervals. The fund is based on a rolling projection of depreciation costs for existing vehicles. Each year funds are transferred to the Vehicle Replacement Fund to account for this depreciation. In theory, funds are then available to replace vehicles at the end of their useful life. The target fund balance is determined each budget year by updating the inventory of vehicles and depreciation schedule.

# Novato Sanitary District Operating Reserve Fund Policy September, 2001

## Operating Cash Flow

Operating cash flow necessitates an initial (July 1) fund balance equal to not less than 6 months of average monthly expenses (budgeted expenses less non-tax collection revenues divided by 12). A reserve is required because the District receives most revenues from the Marin County tax collector in two payments in May and January. This allows a financing safeguard because other District revenues such as fees, rents and interest earnings are generated on a more regular basis.

**POLICY: During the annual budgeting process, insure that a minimum balance of six months of average budgeted expenses is available to fund expenses. If such funds are not available then provide for increased revenues to fund such a reserve balance.**

## Service Charge Rate Stabilization

Service charge rate stabilization requires additional reserves in the Operating Fund to allow the District to spread unexpected expenses over several years. The rate stabilization fund provides a reserve to pay for unanticipated costs until the District increases rates sufficiently.

An example of an unanticipated cost is the sharp rise in energy costs experienced during 2000 and 2001. Most of these cost increases are expected to be permanent, but they were not anticipated in the District's financial planning. An unlimited reserve fund is impractical and not prudent. A reserve fund in an amount of \$600,000 is recommended based on recent expense increase experience.

**POLICY: Maintain a rate stabilization fund balance of \$600,000. Fund unexpected expense increases using the reserve. By Board action, use the reserve fund to spread such cost increases over more than one year. Replenish any reserves used over a three to four year period.**

## Emergency Repairs

Novato Sanitary District has invested millions of dollars in wastewater facilities. In the event of a breakdown or other emergency, the District is legally obligated to instigate immediate repairs. There is no time to plan for financing emergency expenses; such funds must be readily available.

A rule of thumb to determine the amount of an emergency repair fund is to use the average cost of a key facility possibly subject to breakdown and vital to operations. A pump station is an example for such a facility. Pump station equipment may cost

**Novato Sanitary District  
Operating Reserve Fund Policy  
September, 2001**

upwards of \$500,000 to \$700,000. This indicates an emergency repair reserve in the amount of \$600,000.

**POLICY: Maintain an emergency repair reserve balance of \$600,000. Fund emergency repairs using the reserve. Replenish any reserves used over a two to three year period.**

**Total Operating Reserve**

The Operating Fund receives all District revenues and then distributes the revenues to other District funds and accounts. The Operating Fund reserves are required to provide financial flexibility and to adequately fund District operations.

**POLICY: Maintain a total Operating Fund Reserve balance equal to the sum of the following elements:**

<b>Operating cash flow (6 months of ave. monthly expenses)</b>	<b>\$2,200,000</b>
<b>Service charge rate stabilization</b>	<b>600,000</b>
<b>Emergency repairs</b>	<b>600,000</b>
<b>Self insurance retention</b>	<b><u>200,000</u></b>
<b>Total</b>	<b>\$3,600,000</b>

**Use the reserves for the intended purpose. Replenish operating cash funds as soon as practical. Replenish service charge rate stabilization reserves used over a five to six year period. Replenish emergency repairs reserves used over a two to three year period.**

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# NOVATO SANITARY DISTRICT

## POLICY HANDBOOK

**POLICY TITLE: Reserves**

**POLICY NUMBER: 3500**

### **3500.1 Need for Reserves.**

Not all operating and capital expenses of the District can be precisely forecast, and factors such as weather, emergency repairs, energy cost fluctuations, third party liability claims, regulatory charges, fines, and regional or national calamities require that the District retain prudent amounts of reserves because of the time required to raise funds through rate increases. The District must accumulate and maintain sufficient fund balances in its operating and capital accounts to meet current and projected expenses, cover cash flow requirements, cover debt payments, and provide for both anticipated and unanticipated liabilities and expenses without adversely affecting the District's ability to provide both short and long term, high quality, uninterrupted service in compliance with applicable federal and state law, and regulatory permits.

### **3500.2 Rate Stabilization Reserve.**

3500.21 Purpose: The Rate Stabilization Reserve enables the District to meet unusual or unexpected operating or capital expenses.

3500.22 Reserve Amount: The target amount for the Rate Stabilization Reserve shall be \$1,500,000 as of July 1, 2013. It shall be adjusted annually based on the ENR Construction Cost Index for the San Francisco Bay Area.

3500.23 Use: Expenditures from the Rate Stabilization Reserve must be approved by the Board of Directors except that the Manager-Engineer may authorize expenditures in the event of an emergency that threatens public health or environmental quality. The Manager-Engineer must then convene a noticed meeting of the Board of Directors as soon as it is feasible to obtain a quorum.

3500.24 Replenishment: In the event of drawdown, the Rate Stabilization Reserve shall be replenished within four years.

### **3500.3 Wastewater Capital Reserve Fund.**

3500.31 State Revolving Fund Loan: The District borrowed \$81,307,947 from the State Revolving Fund (SRF Loan) between 2008 and 2011. The loan is being repaid in annual installments of \$5,378,956 due each December 31 through June 30, 2031. The loan agreement terms require that the District establish and maintain a "Wastewater Capital Reserve Fund" for expansion, major repair, or replacement of the wastewater facilities for the term of the loan agreement. The District established the Wastewater Capital Reserve Fund by Resolution No. 2933 adopted on April 24, 2006.

The District must deposit sufficient funds to build up the Wastewater Capital Reserve Fund at a minimum rate of 0.5% of the SRF loan amount each year for a period of ten (10) 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 Wastewater Capital Reserve Fund.

Money deposited in the Wastewater Capital Reserve Fund shall be available for the costs for planning, design, and construction of capital improvements to the wastewater treatment facilities. However, the District must replace any amounts expended from the Wastewater Capital Reserve Fund by depositing at a minimum annual rate of ten (10) percent of the expended amount.

All interest earned on deposits to the Wastewater Capital Reserve Fund shall remain in the Fund and restricted to the allowed uses.

**3500.32 Purpose:** The Wastewater Capital Reserve Fund is dedicated to the expansion, major repair, or replacement of the wastewater treatment facilities in accordance with the terms of the State Revolving Fund loan.

**3500.33 Reserve Amount:** The reserve amount is set by the terms of the loan as shown below:

Fiscal Year	Loan Amt	Annual Required	Fund Balance Required	Deposit
2008/9	21,691,826.00	108,459.13	108,459.13	3,275,000.00 *
2009/10	47,989,587.00	239,947.94	348,407.07	
2010/11	72,720,776.00	363,603.88	712,010.95	
2011/12	81,329,083.00	406,645.42	1,118,656.36	
2012/13	81,307,946.00	406,539.73	1,525,196.09	
2013/14	79,875,979.00	399,379.90	1,924,575.99	
2014/15	74,366,047.00	371,830.24	2,296,406.22	
2015/16	70,771,876.00	353,859.38	2,650,265.60	
2016/17	67,091,444.00	335,457.22	2,985,722.82	
2017/18	63,322,683.00	316,613.42	3,302,336.24	27,336.24
2018/19	59,463,471.00	297,317.36	3,599,653.59	297,317.36

\* Unused bonding capacity from 1970 and 1986 GO bonds.

**3500.34 Control:** Expenditures from the Wastewater Capital Reserve Fund must be authorized by the Board of Directors and replaced as specified in the SRF loan terms at a minimum annual rate of 10% of the expended amount.

**3500.4 Certificates of Participation Reserve.**

**3500.41 Certificates of Participation:** The District issued \$21,750,000 of Certificates of Participation (COP) in October 2011 to fund Collection System, Pump Stations, Reclamation System, and Treatment Plant Capital Improvements. The COPs will be repaid over 20 years.

The Trust Agreement established a reserve fund as a reserve for the payment of the installment payments. The reserve fund was initially funded by the District at \$1,500,000. It is held by the Trustee and maintained in the amount of the reserve requirement. The "Reserve Requirement" is defined in the 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;(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.

The Official Statement for the COPs referenced the District's Rate Stabilization Fund that allows the District to spread unexpected expenses over several years. The minimum fund balance was identified as \$600,000 which will be replenished over a three to four year period should the fund be drawn down.

3500.42 Purpose: The COP Reserve fund serves as a reserve for the payment of the installment payments.

3500.43 Reserve Amount: The "COP Reserve Requirement" is defined in the 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;(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. It was initially funded at \$1,500,000.

3500.44 Control: The COP Reserve fund is held by the COP Trustee. If the balance in the COP Reserve Fund exceeds the reserve requirement, the Trustee will transfer the excess to the installment payment fund at least semiannually on or prior to each installment payment date.

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# NOVATO SANITARY DISTRICT

## POLICY HANDBOOK

**POLICY TITLE: Operating and Capital Funds Minimum Beginning Balance for each Fiscal Year**

**POLICY NUMBER: 3510**

### **3510.1 Operating Fund.**

3510.11 Purpose: The District receives approximately 55% of its revenues in December and 45% in April. Operating expenditures are distributed relatively evenly throughout the year. The Operating Fund serves to provide cash flow during the months between the receipt of revenues. It is required to be sufficient to adequately fund District operations and to provide financial flexibility to meet seasonal variation and minor unanticipated expenses as outlined in Section 3510.2.

3510.12 Fund Target: The Operating Fund target is 67% (eight months) of the Operating Expenditures for the upcoming fiscal year as of July 1st of each year.

### **3510.2 Capital Fund.**

3510.21 Purpose: Capital Revenues are made up primarily of Sewer Service Charges and Property Taxes that are received in April and December. The District has ongoing fixed capital costs for the principal and interest payments on the SRF loan and COPs of \$7,046,654. These payments are due in August, December, and February. Most of the Capital Budget is therefore not discretionary.

3510.22 Fund Target: The Capital Fund target as of July 1<sup>st</sup> each year is the debt payments plus the pay-as-you-go capital projects budget for the upcoming fiscal year minus the anticipated December capital receipts.

**3510.3** The District is committed to clear and consistent financial policies so that constituents can readily verify that prudent practices are in place. The Capital and Operating Fund targets are set for July 1 of each year so that the Funds can be readily aligned with the Budget documents.

### **3510.4 Background.**

3510.41 General: The Novato Sanitary District (hereinafter "District") was formed and lawfully operates under the Sanitary District Act of 1923. The District, pursuant to the statutory authority invested in it, is charged with protecting the health and safety of the citizens within the jurisdictional limits of the District with regard to sanitation, including collection, treatment and disposal of sewage, as well as solid waste collection and disposal. The District is charged with operating a collection and treatment system for sewage pursuant to the terms of its NPDES permit No. CA0037958, that sets forth stringent requirements for the District's

operations and protection of the water environment. The Sanitary District Act of 1923 and other statutory authority provides the District with the power to levy and collect fees, tolls, charges and assessments in order to meet its operating revenue requirements and capital funding needs.

3510.42 Fund Purpose: The District must accumulate and maintain sufficient fund balances in its operating and capital accounts to meet current and projected expenses, cover cash flow requirements, cover debt payments, and provide for both anticipated and unanticipated liabilities and expenses without adversely affecting the District's ability to provide both short and long term, high quality, uninterrupted service in compliance with applicable federal and state law, and regulatory permits.

3510.43 State Revolving Fund Loan: The District borrowed \$81,307,947 from the State Revolving Fund (SRF Loan) between 2008 and 2011. The loan is being repaid in annual installments of \$5,378,956 due each December 31 through June 30, 2031.

3510.44 Certificates of Participation: The District issued \$21,750,000 of Certificates of Participation (COP) in October 2011 to fund Collection System, Pump Stations, Reclamation System, and Treatment Plant Capital Improvements. The COPs will be repaid over 20 years. Interest is payable February 1 and August 1 of each year beginning February 1, 2012 through 2032. Principal payments are due on February 1 of each year.

# NOVATO SANITARY DISTRICT BOARD AGENDA ITEM SUMMARY

<b>TITLE:</b> North Bay Water Reuse Authority (NBWRA)	<b>MEETING DATE:</b> August 26, 2013  <b>AGENDA ITEM NO.:</b> 11. a. & b.
<b>RECOMMENDED ACTION:</b> Review and prioritize proposed Novato Sanitary District projects.	
<b>SUMMARY AND DISCUSSION:</b>  <p>The NBWRA Phase II Scoping Study as identified some conceptual level projects for Novato. The District is being asked to prioritize these projects and provide an implementation schedule for them. Attachments 1 and 2 include a description of the projects and a figure showing the location of the proposed projects.</p> <p>The Board discussion at the meeting will provide direction as to the District's priorities. In addition, we are proposing to convene a meeting of the joint Recycled Water Committee with the North Marin Water District and the County of Marin to coordinate with their priorities.</p> <p>Attachment 3 lists the projects and provides space for prioritizing the projects on a scale of 1 to 5.</p> <p>Attachment 4 is from the slide presentation at the NBWRA Workshop describing the progress and the selection criteria.</p>	
<b>ALTERNATIVES:</b> NA	
<b>BUDGET INFORMATION:</b> The estimated total cost of the proposed Novato projects will determine the Novato SD share of the cost of the feasibility study. This impact won't be known until the 2014-15 budget year.	
<b>DEPT.MGR.:</b>	<b>MANAGER:</b>

## Section 3

# Initial Project Identification

The Project Definition Scoping Study identified an initial range of conceptual water supply and environmental enhancement projects provided by the NBWRA Member Agencies. This section builds on these projects and describes additional Phase 2 opportunities not previously identified in earlier NBWRP activities. This analysis was conducted to determine the broadest range of uses and projects prior to the members' decision to proceed with the more detailed Feasibility Study and environmental screening analyses. The potential projects identified here will be combined and formulated into conceptual alternatives that maximize the Program objectives summarized in Section 2.

Information was collected on potential projects seeking to maximize the value and use of all available water in the North Bay by using a Total Water Management (TWM) perspective to view the water resources system and incorporating principles of sustainability. TWM can be utilized to increase water resources efficiency and enhance overall benefits. It examines water systems in a more interconnected manner, focusing on reducing water demands for fresh water, increasing water recycling and reuse, creating water supply assets from stormwater, matching water quality to end-use needs, and achieving environmental and societal goals through multi-purpose, multi-benefit projects. Concepts for the expanded NBWRP have been developed in conjunction with the Member Agencies through in-person meetings, follow-up telephone calls, and the workshop process to identify potential projects and to explore inter-agency partnership opportunities that could increase system efficiencies, cost savings, and regional benefits.

The following subsections provide a broad range of water management projects. The information is summarized by county and agency. For each Member Agency, the project components are summarized by treatment, storage, distribution, stormwater capture and recharge, and other project opportunities and interaction with agencies/organizations.

### 3.1 Marin County Subregion

The Marin County subregion includes NBWRA Members Agencies Novato Sanitary District, Las Gallinas Valley Sanitary District, and Marin Municipal Water District, with additional input and interface with Marin County and North Marin Water District.

#### 3.1.1 Novato Sanitary District

Potential project opportunities for Novato Sanitary District (Novato SD) were identified through several meetings with Novato SD staff. On January 7, 2013, the project team met with Beverly James and Sandeep Karkal. A Marin County agencies subregion meeting was also held on February 25, 2013, with Beverly James in attendance for Novato SD. Figure 3-1 presents the potential Phase 2 projects for Novato SD.

##### 3.1.1.1 Recycled Water Treatment

Additional tertiary treatment capacity may be required if all the potential recycled water projects discussed below move forward. Either Novato SD's Davidson or Ignacio Plant sites could accommodate the up to 5 million gallons per day (mgd) of tertiary capacity that may be needed if additional demands are identified.

### 3.1.1.2 Recycled Water Storage

Novato SD is considering construction of a new 600-acre multi-purpose storage wetlands to temporarily store secondary effluent. This project has been adapted from initial storage concepts presented in *Bel Marin Keys Unit V Restoration Project – Evaluation of NSD Outfall Alternatives* (California State Coastal Conservancy 2012), and *Phase 2 Project Definition Scoping Study Report* (NBWRA 2012). The storage wetlands would store secondary effluent from Novato SD’s wastewater treatment plant (WWTP), providing wet weather storage for reuse during the summer months and reducing effluent discharged into San Pablo Bay in the summer. The storage wetlands would provide between approximately 920 and 1,230 acre-feet (AF) of capacity, at least 29 days of storage at the average wet weather flow of 10.3 mgd from the WWTP.

The project would be done in conjunction with the Coastal Conservancy which plans to remove their existing bayside levee and construct a new setback, 9,000-linear foot (LF), earthen levee to create the new freshwater wetlands as well as tidal wetlands. The ecotone slope earthen levee would be a hybrid approach that combines tidal marsh restoration with construction of levees to be adaptive to climate change and sea level rise. This concept allows for shoreline protection and environmental enhancement through upland slopes with moist grasslands and brackish marshes inland of the tidal marsh. According to a recent report on tidal marsh restoration for the Bay Institute, these horizontal levees are “designed to provide both elevation and salinity gradients that would allow the tidal marsh to both move landward and accelerate vertical accretion in order to keep pace with sea level rise” (ESA/PWA 2013). Effluent from Novato SD along the shore would irrigate the upland ecotone slope.

### 3.1.1.3 Recycled Water Distribution

#### *Near-Term Projects*

If the new storage wetlands is built, the existing outfall pipeline discharging into San Pablo Bay would be truncated to discharge into the new storage wetlands. Novato SD is evaluating the options for relocating their discharge under a separate study. During the winter, the overflow from the storage wetlands would flow directly into the adjacent new bay tidal wetlands created by the removal of the existing bayside levee.

A new flow splitting structure and pump station would be constructed to pump the water stored in the storage wetland to users. The pump station is assumed to include three 250-horsepower (HP) pumps (two duty, one standby). For agricultural reuse, the pump station would deliver the stored secondary effluent directly into the existing pasture irrigation system. For tertiary reuse, the pump station would pump the stored effluent to the Recycled Water Facility (RWF) for further treatment to Title 22 tertiary standards before the recycled water is supplied to users.

#### *Long-Term Future Projects*

In previous NBWRA studies, a potential new 18-inch diameter pipeline was identified to convey secondary effluent from Novato to agricultural and vineyard users in Sonoma County. Recent discussions have determined that this is a long-term option to serve the southern Sonoma County area and is not needed at this time. In concept, the 43,800-LF pipeline would run northward from the pump station, and cross beneath the Petaluma River in order to reach agricultural users (primarily vineyard and pasture farms).

Previously, a 20,700-LF, 18” pipeline was identified that would run southward from the Novato SD pump station and interconnect with the Las Gallinas Valley Sanitary District (LGVSD) recycled water system. This pipeline will allow the two systems to be able to share recycled water resources during

peak usage periods in either area. However, unless demands exceed LGVSD supply, this pipeline is considered a long-term option that would be studied only if demands are demonstrated.

Two long-term recycled water distribution projects were identified through staff discussions. Novato SD staff suggested they may look to increase supply to North Marin Water District (NMWD), expanding their service area to the west. Previously, NMWD studied the west areas W-1, W-2, W-3, and W-5 in their 2004 *Recycled Water Master Plan* (North Marin Water District and Novato Sanitary District 2004). The recycled water demand in these areas was estimated to be 105 to 336 AF per year (AFY). However, NMWD indicated it is not ready at this time to proceed with this service area expansion.

Additionally, Novato SD suggested that Indian Valley Golf Course and Marin Country Club could be candidates for future recycled water service. No specific details have been developed at this time. More detailed study would be required at the Feasibility Study stage if it is to be included in the conceptual alternatives.

#### **3.1.1.4 Stormwater Capture and Recharge**

Novato SD has not identified any stormwater capture and recharge projects as part of the NBWRP Phase 2.

#### **3.1.1.5 Other Project Opportunities and Interaction with Agencies/Organizations**

The construction of storage and coordinated efforts with the California Coastal Conservancy would create a beneficial discharge of Novato SD effluent to improve habitat along the Marin County coast of San Pablo Bay and would address Novato SD effluent management issues in a synergistic manner. Novato SD's existing shallow water discharge pipeline would be abandoned and water quality of flows reaching San Pablo Bay would be improved after flowing through the ecotone slope and transitional wetlands before reaching the bay.

Construction of the storage wetlands would also create a synergistic solution in conjunction with Marin County. Currently Novato SD leases land from Marin County in the area south of Highway 37 and north of Novato Creek to use as ranch lands irrigated by recycled water. The storage and habitat project with California Coastal Conservancy would allow Novato SD to return the leased lands to Marin County for potential other uses as identified in the Novato Creek Watershed Study currently in process. The Marin County wetland project is described further in Section 3.1.4. Additionally, giving up the leased lands would relieve Novato SD of the responsibility and costs associated with maintaining seven miles of levee on the southern border property.

Novato SD is also working with Marin County on the Novato Watershed Program, described further in Section 3.1.4. The program's goal is to identify opportunities to integrate flood protection and sediment management goals with creek and wetland restoration elements. This process includes evaluating alternatives that would reduce flood protection maintenance costs and impacts and increased resiliency to sea level rise.

### **3.1.4 Integration with Marin County**

The Marin County subarea has demonstrated significant opportunities for synergistic water supply, effluent management, and recreation and habitat restoration projects that would engage multiple agencies in cooperative alternatives. Additionally, these agencies share a commitment to designing projects to leverage financial resources, mitigate impacts of sea-level rise due to climate change, and minimize discharges of highly treated recycled water into the bay.

On January 9, 2013 a meeting was held with Liz Lewis, Marin County Flood Control and Water Conservation District, to review the previously identified projects, identify new conceptual projects for study, and provide project information and insights. Liz Lewis also attended the Marin County agencies subregion meeting on February 25, 2013. Additional background information was drawn from the Marin County Watershed Program website, [www.marinwatersheds.org](http://www.marinwatersheds.org).

#### **3.1.4.1 Novato Creek Watershed**

Marin County is currently conducting watershed studies on Novato Creek as part of the county-wide Watershed Program. The Novato Watershed Program is described as follows:

“The purpose of the Novato Watershed Program is to identify opportunities to integrate flood protection goals with creek and wetland restoration elements. This process includes evaluating alternatives that would reduce flood protection maintenance costs and impacts and be resilient to sea level rise...This program seeks to provide the County and its partner agencies, City of Novato, North Marin Water District and the Novato Sanitary District, with alternatives that reduce sediment input from upstream sources and rely on the inherent ability of Novato Creek to scour its channel and transport more sediment to the Bay....This program will seek opportunities watershed wide to improve our operations and maintenance in a manner that is informed by sea level rise projections while we identify alternatives that would improve the creek’s ability to transport sediment to the bay. The process considers the restoration of watershed health and function as a basic tenet to ensure our projects are eligible for the broadest range of funding at the State and Federal levels.” (Marin County 2013)

As indicated in Section 3.1.1.5, construction of the proposed Novato SD storage wetlands would allow Novato SD to end its lease of lands owned by the Marin County Flood Control and Water Conservation District. The lands, referred to as “Flood Control Lands,” are currently leased to Novato SD for a reclamation facility. Without use by Novato SD, the lands could be used for habitat enhancement, recreation, and restoration of the tidal prism in lower Novato Creek. Marin County’s preliminary work on the area includes ongoing hydrologic and hydraulic studies, geomorphology, definition of fauna and flora, and preliminary design. The marsh restoration proposes the use of sediment dredged from nearby flood control channels as construction and maintenance material for the upland ecotone. Recycled water from Novato SD could be used to irrigate the upland ecotone slope. Marin County will be starting design of marsh restoration in lower Novato Creek in winter 2013.

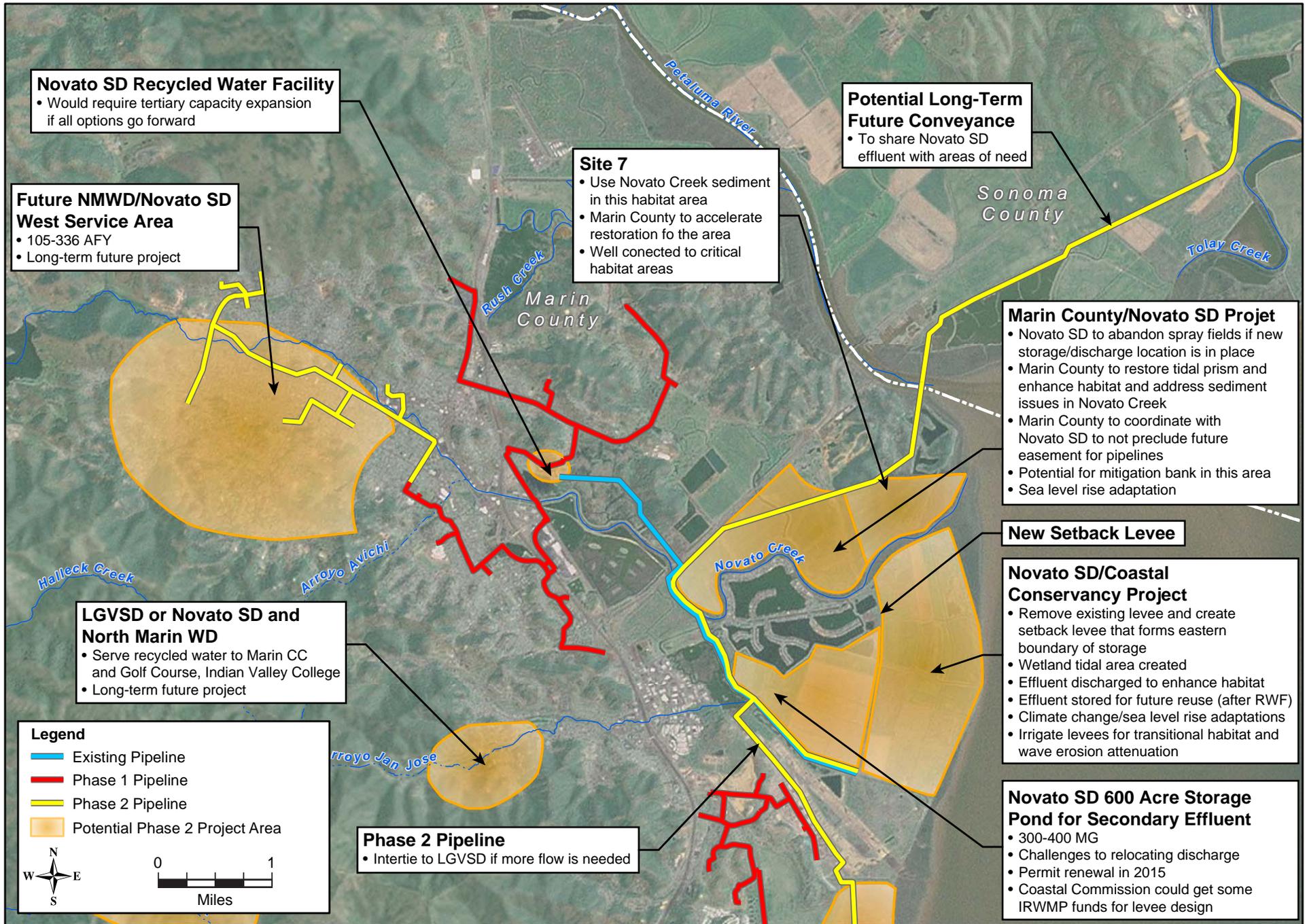
In conjunction with Novato SD, Marin County will incorporate analysis of a potential right-of-way alignment for a potential future pipeline to convey recycled water from the pond to agricultural and vineyard users in southern Sonoma County. Although this pipeline is considered just a future possibility by Novato SD that would be studied only if demands are demonstrated, the goal is to not preclude any future opportunities for expanded reuse.

## NBWRA Phase 2 Potential Project List Novato Sanitary District

Project Category	Project	Priority	Implementation Horizon*
Treatment	Improvement to WWTP to increase tertiary capacity by 5 mgd		2025
Storage	Construction of a 600-acre storage wetlands for secondary effluent		2018-19
	Joint project with NMWD - includes Norman Tank rehabilitation and conversion		
Distribution	Joint project with NMWD - would serve recycled water to Marin Country Golf Course & Indian Valley College. Approximate demand: 178 AFY.		2022
	Long-term future conveyance to Southern Sonoma County to irrigate vineyard and pasture farms.		2025
	Long-term future conveyance to LGVSD		2025
Other Projects	Marin County/Novato SD project: Abandon Novato SD reclamation facility and use the land to restore tidal prism, enhance habitat, and address sediment issues in Novato Creek.		2024

\* Assuming Phase 2 projects start design/construction in 2018.

DRAFT



Data Source(s): ESRI World Imagery Service, CDM Smith, ESA  
 Service Layer Credits: Source: ESRI, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



**Figure 3-1**  
 Novato SD Potential Phase 2 Projects



## NBWRP Phase 2 Scoping Study Workshop #4

August 19, 2013



 **NORTH BAY WATER REUSE PROGRAM**  
*Water Supply Reliability through Regional Reuse*



## Background



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## Scoping Studies: Revisiting the Process

- ◆ Membership Outreach
  - Which agencies are interested in Phase 2
- ◆ Project Definition Study
  - Inventory of projects to determine broadest range; individual and inter-agency joint ventures
- ◆ New User Assessment and Multi-Purpose Storage Scoping Study and Scoping Studies Summary Report
  - Developed Program objectives and sub-objectives
  - Where is recycled water needed and for what uses
  - How much recycled water is available
  - What projects meet Program objectives **and** agency priorities to move forward into Phase 2 Feasibility studies



## Where we are now: Shaping Phase 2

- ◆ Defined Program benefits
  - Described in objectives and sub-objectives
- ◆ Available recycled water
  - 28,000 ac-ft/yr within the Program area
  - 3,400 ac-ft/yr, 12%, is water available for summer use
  - 24,600 ac-ft/yr, 88%, is winter water and needs to be stored
- ◆ Identified projects
  - Treatment, storage, and distribution
  - Stormwater and groundwater management
  - Environmental enhancement





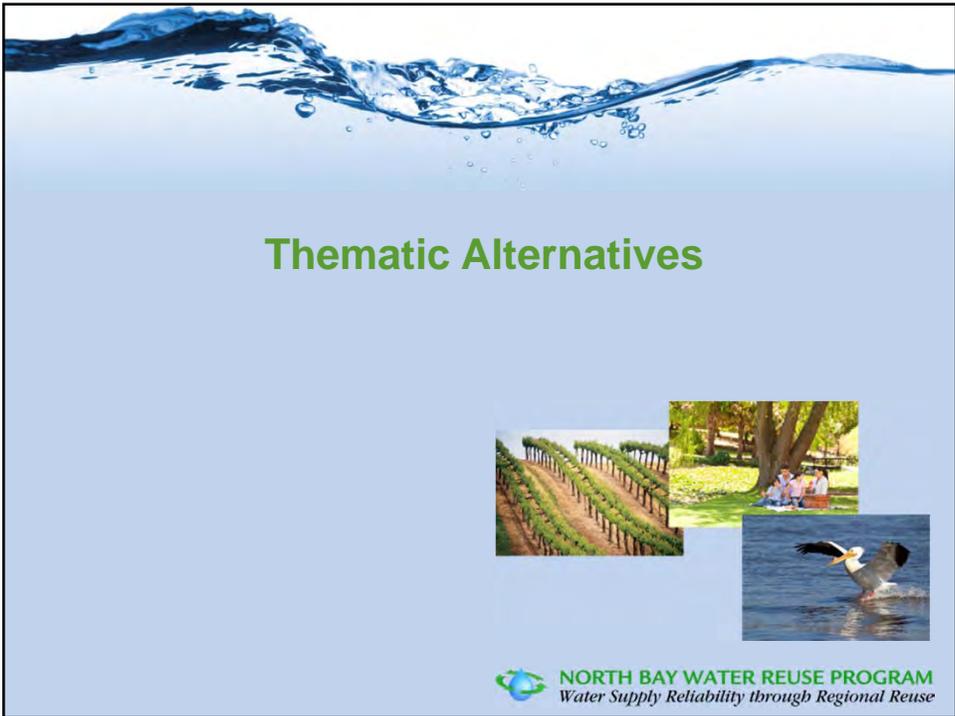
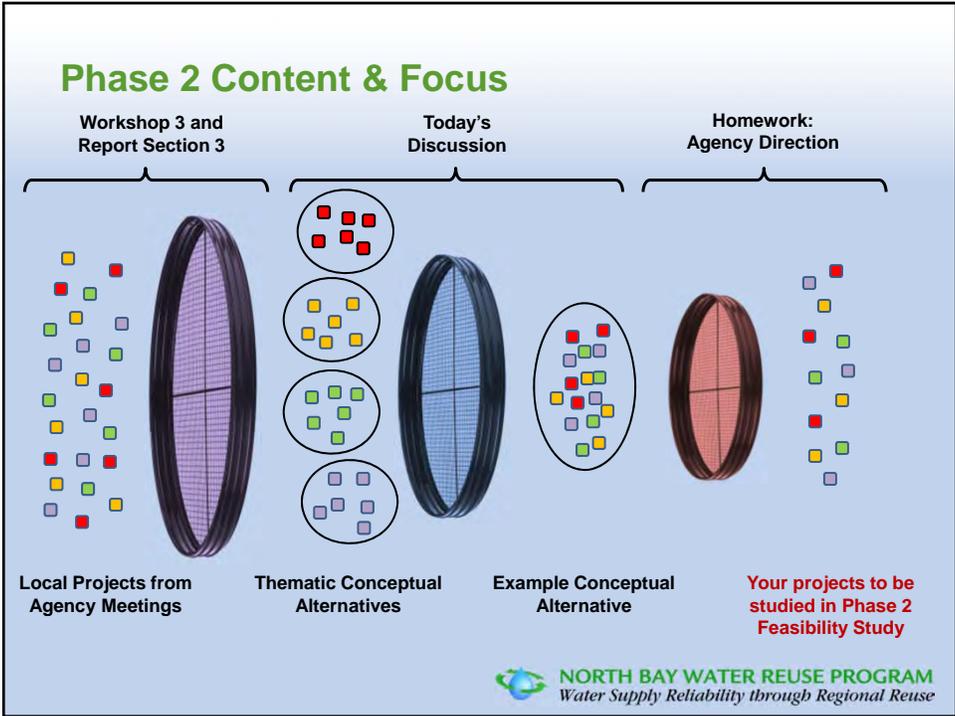
## Conceptual Alternatives Process



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## Formulation of Alternatives

- ◆ Start with conceptual and broad-scale *thematic alternatives*
- ◆ Alternatives are based on **themes**, such as:
  - Maximize reuse for irrigation
  - Maximize environmental enhancement
  - Maximize total water supply
- ◆ The purpose of **themes** is to clearly identify strengths and weaknesses against Program objectives
- ◆ Process defines content and focus of Phase 2 Feasibility Study



## Thematic Alternatives

- ◆ Program objectives yield alternative **themes**:
  - Alternative 1 – Maximize Recycled Water Irrigation
  - Alternative 2 – Maximize Non-Recycled Water Supplies
  - Alternative 3 – Maximize Total Water Supply (*Alternatives 1 + 2*)
  - Alternative 4 – Maximize Environmental Enhancement



## Thematic Alternative 1: Maximize Recycled Water Irrigation

Agency	Projects
Marin Municipal Water District	<ul style="list-style-type: none"> <li>• Expand recycled water distribution into San Rafael</li> </ul>
Las Gallinas Valley Sanitary District	<ul style="list-style-type: none"> <li>• Storage and treatment needed to meet MMWD supply needs</li> </ul>
Novato Sanitary District	(no defined irrigation projects)
Petaluma	<ul style="list-style-type: none"> <li>• Expand recycled water distribution to existing potable customers</li> <li>• Operational and seasonal storage to meet supply needs</li> </ul>
Sonoma Valley County Sanitation District	<ul style="list-style-type: none"> <li>• 4 new distribution areas in Sonoma Valley</li> <li>• Expand distribution network in Carneros</li> <li>• Increase capacity of tertiary effluent line at WWTP</li> <li>• Seasonal storage to meet supply needs</li> </ul>
Sonoma County Water Agency	(no defined irrigation projects)
Napa Sanitation District	<ul style="list-style-type: none"> <li>• Treatment improvements</li> <li>• Expand distribution to the west in MST</li> <li>• Provide recycled water to other demands in County (no distribution)</li> <li>• Increase operational and season storage to meet supply needs</li> </ul>



## Thematic Alternative 2: Maximize Non-Recycled Water Supplies

Agency	Projects
Marin Municipal Water District	(no non-recycled water projects)
Las Gallinas Valley Sanitary District	<ul style="list-style-type: none"> <li>Gallinas Creek stormwater capture</li> </ul>
Novato Sanitary District	(no non-recycled water projects)
Petaluma	<ul style="list-style-type: none"> <li>Stormwater capture project at Capri Creek</li> <li>Groundwater banking of surface water flows</li> </ul>
Sonoma Valley County Sanitation District	(no non-recycled water projects)
Sonoma County Water Agency	<ul style="list-style-type: none"> <li>Stormwater capture project in Upper Petaluma River Basin</li> <li>Stormwater capture project in Sonoma Valley</li> <li>Groundwater banking of surface water flows</li> </ul>
Napa Sanitation District	(no non-recycled water projects)



## Thematic Alternative 3: Maximize Total Water Supply (Alternative 1 + Alternative 2)

Agency	Projects
Marin Municipal Water District	<ul style="list-style-type: none"> <li>Expand recycled water distribution into San Rafael</li> </ul>
Las Gallinas Valley Sanitary District	<ul style="list-style-type: none"> <li>Storage and treatment needed to meet MMWD supply needs</li> <li>Miller Creek percolation ponds at Grady Ranch</li> <li>Gallinas Creek stormwater capture</li> </ul>
Novato Sanitary District	(no water supply projects)
Petaluma	<ul style="list-style-type: none"> <li>Expand recycled water distribution to existing potable customers</li> <li>Operational and seasonal storage to meet supply needs</li> <li>Stormwater capture project at Capri Creek</li> <li>Groundwater banking of surface water flows and/or recycled water</li> </ul>
Sonoma Valley County Sanitation District	<ul style="list-style-type: none"> <li>4 new distribution areas in Sonoma Valley</li> <li>Expand distribution network in Carneros</li> <li>Increase capacity of tertiary effluent line at WWTP</li> <li>Seasonal storage to meet supply needs</li> </ul>
Sonoma County Water Agency	<ul style="list-style-type: none"> <li>Stormwater capture project in Upper Petaluma River Basin</li> <li>Stormwater capture project in Sonoma Valley</li> <li>Groundwater banking of surface water flows</li> </ul>
Napa Sanitation District	<ul style="list-style-type: none"> <li>Treatment improvements</li> <li>Expand distribution to the west in MST</li> <li>Provide recycled water to other demands in County (no distribution)</li> <li>Increased operational and season storage to meet supply needs</li> </ul>



### Thematic Alternative 4: Maximize Environmental Enhancement\*

Agency	Projects
Marin Municipal Water District	(no specific environmental enhancement projects)
Las Gallinas Valley Sanitary District	<ul style="list-style-type: none"> <li>• Miller Creek percolation ponds at Grady Ranch</li> <li>• McInnis Marsh wetlands restoration</li> <li>• Repair pond levees with climate change adaption</li> <li>• Develop storage wetlands and brackish marsh with climate adaptation</li> </ul>
Novato Sanitary District	<ul style="list-style-type: none"> <li>• Develop storage wetlands and brackish marsh with climate adaptation</li> <li>• Assist restoration of wetlands and improve sediment transport along Novato Creek</li> </ul>
Petaluma	(no specific environmental enhancement projects)
Sonoma Valley County Sanitation District	(no specific environmental enhancement projects)
Sonoma County Water Agency	<ul style="list-style-type: none"> <li>• Stormwater capture project in Upper Petaluma River Basin</li> </ul>
Napa Sanitation District	(no specific environmental enhancement projects)

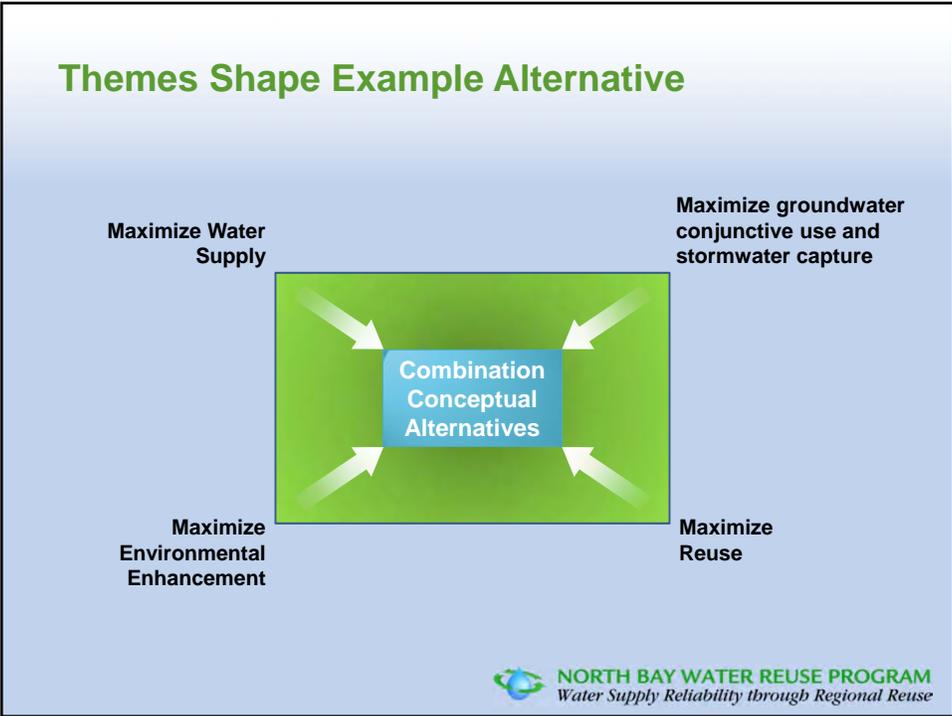
\* **Projects specifically designed to provide environmental benefits**



### Insights

- ◆ Each thematic alternative had certain strengths, but did not meet all objectives
- ◆ Member Agencies with “incidental” environmental enhancement benefit from teaming with agencies with “designed” enhancement
- ◆ Multi-purpose projects will score higher
- ◆ However:
  - Review of alternatives at this stage is qualitative
  - Feasibility Study will develop quantifiable metrics





### Example Combination Alternative

Agency	Projects
Marin Municipal Water District	<ul style="list-style-type: none"> <li>Expand recycled water distribution into San Rafael</li> </ul>
Las Gallinas Valley Sanitary District	<ul style="list-style-type: none"> <li>Storage and treatment needed to meet MMWD supply needs</li> <li>Gallinas Creek stormwater capture</li> <li>McInnis Marsh wetlands restoration</li> <li>Repair pond levees with climate change adaption</li> <li>Develop storage wetlands and brackish marsh with climate adaptation</li> </ul>
Novato Sanitary District	<ul style="list-style-type: none"> <li>Develop storage wetlands and brackish marsh with climate adaptation</li> <li>Assist restoration of wetlands and improve sediment transport along Novato Creek</li> </ul>
Petaluma	<ul style="list-style-type: none"> <li>Expand recycled water distribution to existing potable customers</li> <li>Operational and seasonal storage to meet supply needs</li> <li>Stormwater capture project at Capri Creek</li> <li>Groundwater banking of surface water flows and/or recycled water</li> </ul>
Sonoma Valley County Sanitation District	<ul style="list-style-type: none"> <li>4 new distribution areas in Sonoma Valley</li> <li>Expand distribution network in Carneros</li> <li>Increase capacity of tertiary effluent line at WWTP</li> <li>Seasonal storage to meet supply needs</li> </ul>
Sonoma County Water Agency	<ul style="list-style-type: none"> <li>Stormwater capture project in Upper Petaluma River Basin</li> <li>Stormwater capture project in Sonoma Valley</li> <li>Groundwater banking of surface water flows</li> </ul>
Napa Sanitation District	<ul style="list-style-type: none"> <li>Treatment improvements</li> <li>Expand distribution to the west in MST</li> <li>Provide recycled water to other demands in County (no distribution)</li> <li>Increased operational and season storage to meet supply needs</li> </ul>

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### Homework: Agency Direction

- ◆ Today you will receive:
  - Revised Section 3 with documentation of changes
  - Table of your projects
- ◆ Review list of your projects
- ◆ Set priority of your projects based on:
  - Order of importance
  - Implementation horizon
  - Financial constraints
- ◆ Rank your potential projects – it’s ok if they’re all important!
- ◆ This will yield the initial list of your projects that will be in the Feasibility Study



### Example Project Table

Return to Project Team by Tuesday, September 3

Project Category	Project	Priority	Implementation Horizon*
Treatment	Project A	5	2030-2035
	Project B	2	2019-2020
Storage	Project A	1	2018-2020
	Project B	4	2021-2026
Distribution	Project A	1	2018-2020
	Project B	3	2022-2025
	Project C	3	2018-2019
Stormwater Capture & Recharge	Project A	5	2025-2026
	Project B	6	2027-2028
Other projects	Project A	4	2020-2022

\* Assuming Phase 2 projects start design/construction in 2018





## Next Steps in Scoping Study



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## What We're Doing With Your Homework

- ◆ Today – September 2:
  - Agencies prioritize projects
  - Evaluate operations/storage needs
- ◆ September 3 – November 17:
  - Analyze agency preferences
  - Formulate a conceptual alternative to identify cost range
  - Formulate Phase 2 study content
- ◆ November 18, Workshop #5:
  - Confirm prioritized projects
  - Identify upper boundary of costs
  - Base Phase 2 Feasibility Study topics on these findings



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