

# NOVATO SANITARY DISTRICT

Meeting Date: June 14, 2017

**The Strategic Planning and New Facilities Committee of Novato Sanitary District will hold a meeting at 1:00 PM, Wednesday, June 14, 2017, at the District offices, 500 Davidson Street, Novato.**

*Materials related to items on this agenda that are public records, 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). Note: All times and order of consideration for agenda items are for reference only. The Committee may consider item(s) in a different order than set forth herein.*

## AGENDA

1. **AGENDA APPROVAL:**
2. **PUBLIC COMMENT (PLEASE OBSERVE A THREE-MINUTE TIME LIMIT):**

*This item is to allow anyone present to comment on any subject not on the agenda, or to request consideration to place an item on a future agenda. Individuals will be limited to a three-minute presentation. No action will be taken by the Committee at this time as a result of any public comments made.*

3. **REVIEW CIP BUDGET HIGHLIGHTS, FY17-19:**

- a. Recycled Water Facility (RWF) Expansion.
- b. Cogeneration/Alternative Energy.
- c. Collection System Improvements.
- d. Treatment Plant.
- e. Collections System Operations.
- f. North Bay Water Reuse Authority (NBWRA).

4. **ANNUAL CAPITAL IMPROVEMENTS PROGRAM (CIP) BUDGET:**

- a. Review FY17-19 proposed preliminary CIP budget, and subject to minor changes and edits, recommend its adoption by the Board of Directors.

5. **ADJOURNMENT:**

*In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the District at (415) 892-1694 at least 24 hours prior to the meeting. Notification prior to the meeting will enable the District to make reasonable accommodation to help ensure accessibility to this meeting.*

# NOVATO SANITARY DISTRICT STRATEGIC PLANNING & NEW FACILITIES COMMITTEE AGENDA ITEM SUMMARY

<b>TITLE: New Facilities Committee: Annual Capital Improvements Program (CIP) Budget.</b>	<b>MEETING DATE: June 14, 2017</b>  <b>AGENDA ITEM NO.: 4.a.</b>
<b>RECOMMENDED ACTION: Review FY17-19 proposed preliminary CIP Budget, and subject to minor changes and edits, recommend its adoption by the Board of Directors.</b>	
<b>SUMMARY AND DISCUSSION:</b>  <p>At the June 12, 2017 Board meeting, staff presented the District's preliminary Budget for Fiscal Years 2017-19 to the Board.</p> <p>The New Facilities Committee (Committee) is being presented the proposed preliminary CIP budget for the Committee's review, and subject to minor changes and edits, requested to present its recommendation for adoption to the full Board. Similarly, the preliminary Solid Waste budget and the preliminary Operating Budget are being separately presented to the Solid Waste Committee, and the Wastewater Operations Committee, respectively, with the request that each committee recommend adoption of their respective budgets to the full Board.</p> <p>The relevant elements of the preliminary CIP Budget are attached for review by the Committee. Staff suggests that the Committee review these items, and subject to minor changes and edits, recommend the preliminary CIP Budget for adoption by the full Board at its June 26, 2017 meeting.</p>	
<b>ATTACHMENTS:</b> 1. Preliminary Capital Improvements Program (CIP) Budget for Fiscal Years 2017-19.	
<b>DEPT. MGR.: EB, SRK</b>	<b>GENERAL MANAGER: SSK</b>



**Preliminary Capital Improvements  
Program (CIP) Budget  
FOR  
FISCAL YEARS 2017-19**

*Strategic Planning and New  
Facilities Committee  
June 14, 2017*

# Novato Sanitary District

## MEMORANDUM

**TO:** District Board of Directors

**FROM:** Sandeep Karkal, General Manager-Chief Engineer  
Steve Krautheim, Field Services Manager  
Erik Brown, Technical Services Manager

**DATE:** May 19, 2017

**SUBJECT:** FY17-19 Preliminary Capital Improvements Program (CIP) Budget –  
Summary of Anticipated Project Work.

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### Introduction

This memo presents a summary of the potential or anticipated scope of work for projects and project work included within the various Accounts of the Capital Improvements Program (CIP) budget for FY17-19.

A copy of the proposed two-year FY17-19 capital improvement expenditures is included as Table 1: 2017-19 Preliminary Budget, Anticipated Capital Improvement Expenditures.

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

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

Therefore, construction work is not anticipated during FY17-18. However, design work on the remaining pump stations may be initiated depending on how development plans for these areas evolve, and a placeholder amount is included in the account to initiate any needed design work.

In addition to the potential design related placeholder amount, an additional budget amount is also included for the design and installation of two dry pit submersible pumps at the Rowland Plaza Pump Station to replace the existing pumps and motors, as well as an above ground control panel. This work will ensure the reliability of this pump station until further upgrades/modifications are carried out.

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

The District is a member agency of the North Bay Water Reuse Authority (NBWRA). FY17-18 will be the fourth year of the multi-year Phase 2 program, including a Feasibility Study and environmental work for currently over \$75 million in recycled water projects across all NBWRA agencies for funding under the US Bureau of Reclamation Title XVI (WaterSMART) program.

In the scoping study leading into the Phase 2 feasibility work, the District had identified three projects with a total estimated cost of about \$36 million. These projects have been substantially refined in the feasibility phase to Title XVI eligible projects with an estimate of about \$6.5 million, primarily a second (about 2021-22) expansion of the District's Recycled Water Facility (RWF).

In addition to RWF expansion, the Phase 2 environmental work will include preliminary environmental work for a potential third (after about 2025) non-Title XVI funded RWF expansion project, with a current estimate of about \$5 million. The Phase 2 environmental work will also provide programmatic (high level) environmental analyses of two recycled water storage alternatives on District owned property at the site of the existing reclamation facility, with current estimates of about \$6 million and \$8 million respectively.

A significant portion of the District's cost commitments towards Phase 2 have been satisfied in the prior three-year period from FY14-15 through FY16-17, and NBWRA estimates that continuing costs to the District will average about \$80,000 for each of FY17-18 and FY18-19. The District's preliminary FY17-19 CIP budget includes a budget amount of \$100,000 for each of these years.

Also, if the initial Title XVI eligible Phase 2 projects move into the design and construction phases, it is anticipated that grant funding from USBR would pay for up to 50% of design and construction costs for recycled water storage projects, and up to 25% of other recycled water projects (tertiary treatment, pipelines, pumping, etc.). The District would be required to come up with its share (local share) of the project costs, i.e. 50% of design and construction costs for storage projects and 75% of the design and construction costs for additional tertiary treatment facilities, etc.

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

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

1. The rehabilitation of about 1,850 feet of 12-inch sewer main along Redwood Blvd. between Lamont Avenue and Diablo Avenue.
2. The rehabilitation of about 950 feet of 10-inch and about 1,350 feet of 8-inch sewer main in Bel Marin Keys Blvd.
3. Continuing work associated with the Collection System Master Plan (CSMP) currently underway for the District.

4. An allowance for the potential design of a relief sewer in San Marin Drive between Simmons Lane and Campus Drive.
5. An allowance for the initial design of the Novato Boulevard Trunk Sewer between Diablo Avenue and Grant Avenue (if the City of Novato revives the Novato Boulevard street widening project).
6. An allowance for the relocation of about 700 feet of 8-inch sewer main that currently runs through an easement on the Marin Country Club's property to extend down Country Club Drive to the existing sewer on Birdie Drive.

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

The District established this program as a sub-account within Account No. 72706, as part of a long-term approach to reducing infiltration and inflow from private residential laterals into the District's collection system.

The program seeks to incentivize individual homeowners financially to replace the entire sewer lateral between their residence and the sewer main, and currently provides a grant for half of the replacement cost up to \$2,000 to replace a residential sewer lateral in the District's service area. In FY16-17, the District budgeted an overall budget amount of \$60,000 for this program.

Based on the District's FY16-17 experience with the program, the District's share, i.e. the maximum individual grant amount will remain at \$2,000 for FY2017-18, but the overall budget for the program will increase to \$80,000.

As in prior years, the District will continue to monitor and modulate the maximum individual grant and budget amounts on a yearly basis, based on its ongoing experience, and its goal of incentivizing lateral replacement.

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

Previously, the District cooperated with the California State Coastal Conservancy (SCC) in a study to examine alternatives for a long-term SCC project to integrate the District's outfall into the SCC's Hamilton Wetlands project.

As noted in prior years, the SCC's goal for their project is to utilize the District's effluent as a reliable, long-term fresh water source to establish and maintain a brackish marsh habitat at the SCC's Wetlands project.

While all funding to implement this project will be provided by the SCC, this account will continue to retain a "placeholder" status with nominal budget amounts in FY17-19 to meet any minor or unanticipated District expenses for coordination work with SCC staff.

### **Account No. 72708: Cogeneration**

This account will fund the design and construction of a cogeneration project that will utilize digester gas produced in the anaerobic digestion process to produce power that may result in an offset to the District's utility power purchases.

The District will also pursue grant-funding opportunities for these projects, and the FY17-18 budget includes funds for initial engineering studies and design, potential California Environmental Quality Act (CEQA) related work, and assistance with securing grant funding.

Also, the budgeted amounts do not include any potential grants that may be received through programs such as the Clean Water State Revolving Fund Green Project Reserve (GPR), or rebates through the California Public Utility Commission's Self Generation Incentive Program (SGIP).

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

The budget in this account is established annually to compensate the City of Novato or County of Marin for work performed on District facilities through City or County Capital Improvement Projects.

An example of work funded through this account would be a City or County street paving or repaving project, when District manholes are raised to grade.

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

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

The Collection system staff generates the repair list during routine maintenance activities including sewer cleaning and CCTV work. The Field Services Manager then tracks and prioritizes repair projects in conjunction with the Collection System Superintendent, the Technical Services Manager, and the Construction Inspector.

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

The budget in this account is established annually to fund small projects to repair District facilities at the Reclamation Area.

The work typically includes irrigation system repairs for lines larger than 4" in diameter, parcel rehabilitation work, and other miscellaneous repairs. Also included in the budget for this year is the removal of fallen eucalyptus trees and fence repairs.

### **Account No. 72805: Annual Treatment Plant Improvements**

This budget account is established to fund small projects to repair District treatment related facilities at the Novato Treatment Plant.

This account is anticipated to fund minor mechanical & electrical work, water line repairs, pavement repairs, painting, and any other small repairs or improvements.

An allowance is also made this fiscal year for work associated with the cleaning of Digester No. 1.

**Account No. 72806: Annual Pump Station Improvements**

This budget account was established to fund small projects to repair District pumping facilities at the various pump stations throughout the District.

This account is anticipated to fund minor mechanical & electrical work, water line repairs, pavement repairs, painting, and any other small repairs or improvements at District pump stations.

**Account No. 72807: Annual Ignacio Facility Improvements**

This budget account is newly established this year to fund small projects to maintain the Ignacio facility (ex the Ignacio Transfer Pump Station), or perform demolition/site clean-up work related to the some of the abandoned treatment units of the decommissioned Ignacio Treatment Plant (ITP).

**Account No. 72808: Strategic Plan Update:**

The District's Strategic Plan document was most recently updated in 2016. While no specific updates have been identified or are expected for FY17-18, this account is established to serve as a "placeholder" account if the need to make any potential updates to the District's Strategic Plan document arise during the fiscal year.

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

This account and its budget was established as a result of an agreement with the Marin County Flood Control District.

Under this agreement, the District participates in a program with the County of Marin, the City of Novato, and the North Marin Water District to explore alternatives to reduce flooding potential in the lower Novato Creek portion where all of these agencies have facilities that are prone to flood damage.

The budgeted amounts are a minimal amount and function as a "placeholder", or to meet minimal District commitments to potential, previously unidentified studies, through FY18-19. Future work (FY18-19 and beyond) arising out of these studies may require increased funding, but potential costs are unknown at this point.

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

This account includes allowances for minor improvements to the Administration Building and work associated with providing a new temporary Maintenance Building.

Paving of the abandoned aeration basins demolition site and installing utilities to service a temporary modular maintenance building was completed in FY 16-17. Additionally, procurement documents for the new modular maintenance building were produced.

Budgeted FY17-18 funds include procurement and placement of a temporary modular maintenance building and appurtenances.

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

This account budgets further work by District and operations staff and the District's Odor Specialist consultant(s) to address and manage any odor issues raised by the District's neighbors. It also includes an allowance to address any landscaping items.

Installation of a new sodium hypochlorite tank and appurtenances at Ignacio Transfer Pump Station was completed in FY16-17.

#### **Account No. 73005: RWF Expansion**

This account will fund the design and construction of an incremental capacity expansion to the existing Recycled Water Facility (RWF) at the Novato Treatment Plant site. This first expansion is necessitated by the planned expansion by the North Marin Water District (NMWD) of its Central Area Project, which will push NMWD's recycled water distribution pipelines into the Central Novato/Ignacio geographic areas.

The budgeted amounts do not include any potential grants that may be received through State Proposition 84 (Integrated Regional Water Management or IRWM) or Proposition 1 (State Water Bond) funds, or through the US Bureau of Reclamation (USBR) Title XVI (WaterSMART) program.

The project was originally planned to bid for construction in 2016-17, and budgeted accordingly in the FY16-17 budget, and the design of this first expansion was completed in FY 16-17. However, upon reviewing the construction bid climate with other agencies, and in consultation with its consultant, the District was advised that it might be more prudent to delay advertisement, bidding, and award of the project until late summer/early fall 2017 to benefit from a potentially more favorable bid environment. Therefore, at this time, the FY 17-18 budget includes funds for the construction of the expansion project, construction/project management and SCADA programming.

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

This account includes funds for corrosion control projects at the Novato Treatment Plant site. As the recently constructed facilities age, the effects of the aggressive nature of wastewater corrosion start to appear and need to be addressed.

It is anticipated that this account will see budgeting of funds on an ongoing basis. The budgeted funds for FY17-18 will focus on addressing corrosion issues at Headworks Channels and Effluent Box. Coating of Primary Clarifier No. 1 mechanism was completed in FY 16-17.

**Account No. 73090: Vehicle Replacement**

This account includes a budget amount for the purchase of a hydro-flusher truck, the replacement of the CCTV van, and a 40kw portable generator. Replacement of an additional light truck is anticipated in FY 18-19.

Also, staff has been working on the purchase of the hydro-flusher truck in FY16-17 (see Board Agenda Item No. 9.a., Board meeting of May 22, 2017). Depending on the timing of the purchase of the hydro-flusher truck and its payment, (the truck has a lead-time of approximately 20 weeks), the funds for FY17-18 and FY18-19 may be adjusted in the final FY17-18 budget.

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## **SECTION IV**

### **CAPITAL IMPROVEMENT BUDGET**

***Abstracted from  
Preliminary Budget for Fiscal Years 2017-19  
as presented to the District Board on June 12, 2017***

**Novato Sanitary District  
2017-19 Preliminary Budget  
Capital Improvement Budget - Summary of Revenues**

			Projected	Proposed	Preliminary
Capital Fund	Adopted	Adopted	Revenue	Budget	Budget
Revenue Center - 51000	Budget 15/16	Budget 16/17	2016-17	2017-18	2018-19
<b>Accounts</b>					
<b>Capital Improvement Income</b>					
51010 · Sewer Service Charges(1)	7,435,040	7,595,952	7,595,952	7,753,152	7,940,160
51015 · Property Taxes	1,900,000	1,938,000	2,145,777	2,188,693	2,232,466
51015-1 · Redevelopment Agency(2)	0	0	81,000	0	0
51020 · Connection Charges(3)	518,000	434,400	175,000	447,600	461,200
51030 · Collector Sewer Charges	2,000	1,000	0	1,000	2,000
51040 · Special Equalization Chrg	4,000	1,000	0	1,000	4,000
51060 · Interest	22,000	25,000	40,000	40,000	45,000
51070 · Other Revenue(4)	20,000	20,000	230,000	20,000	20,000
51072 · Grant Revenue - RWF	0	0	0	475,000	0
<b>Total Capital Improvement Income</b>	<b>9,901,040</b>	<b>10,015,352</b>	<b>10,267,729</b>	<b>10,926,445</b>	<b>10,704,826</b>
<b>Comments:</b>					
<b>(1) Sewer Service Charge (SSC) revenue is based on rate increase approved on June 13, 2016 and actual revenue received in prior year. The Sewer Service Charges allocations are as follows:</b>					
- For 2017/18 the charge is \$594 split between operations(\$330) and capital (\$264).					
- For 2018/19 the charge is \$615 split between operations(\$345) and capital (\$270).					
<b>(2) Redevelopment Agency(RDA) related revenues are being shown separately as they have increased over the past few years from the dissolution and distribution of assets of these agencies. Also, projections for future RDA fund distributions are not available at this time.</b>					
<b>(3) Connection Charges projected at 40 new connections each year.</b>					
- Per Ordinance 120, the connection charge beginning July 1, 2017 is \$11,190 per EDU, and increases by 3% on July 1, 2018 to \$11,530 per EDU.					
<b>(4) Includes one-time amount of \$225,000 in FY16-17 from settlement of the Bayside matter.</b>					

**Novato Sanitary District  
2017-2019 Preliminary Budget  
Capital Improvement Budget - CIP Expenditures**

			Projected	Proposed	Preliminary
Capital Improvements	Adopted	Adopted	Exp	Budget	Budget
Cost Centers - 72000 & 73000	Budget 15/16	Budget 16/17	2016-17	2017-18	2018-19
<b>Accounts</b>					
72110 · Drainage PS 3&7 Outfall Rehab	5,000	0	0	0	0
72403 · Pump Station Rehabilitation	50,000	50,000	0	150,000	250,000
72508 · North Bay Water Reuse Authority (NBWRA)	403,000	440,000	207,344	100,000	100,000
72706 · Collection System Improvements	1,050,000	1,200,000	1,000,000	1,700,000	1,700,000
72706-1 · Lateral Replacement Program	50,000	60,000	60,000	80,000	100,000
72707 · Hamilton Wetlands/Outfall Integration	22,500	10,000	2,000	10,000	10,000
72708 · Cogeneration	20,000	45,000	45,000	350,000	700,000
72802 · Annual Sewer Adj. for City Proj	10,000	10,000	10,000	40,000	20,000
72803 · Annual Collection Sys Repairs	200,000	200,000	50,000	200,000	225,000
72804 · Annual Reclamation Fac Improvements	100,000	100,000	100,000	175,000	100,000
72805 · Annual Treatment Plant Improvements	300,000	100,000	80,000	300,000	100,000
72806 · Annual Pump Station Improvements	0	100,000	70,000	100,000	140,000
72807 · Annual Ignacio Facility Improvements	0	0	0	50,000	50,000
72808 · Strategic Plan Update	10,000	20,000	0	20,000	20,000
72809 · Novato Creek Watershed	15,000	10,000	0	5,000	5,000
73001 · WWTP Upgrade - Contract C (Solids handling)	10,000	0	0	0	0
73003 · Admin Building Upgrade/Maint. Building	740,000	350,000	35,000	350,000	50,000
73004 · Odor Control and NTP Landscaping	50,000	75,000	60,000	50,000	50,000
73005 · RWF Expansion (1)	150,000	1,300,000	200,000	1,460,000	50,000
73006 · NTP Corrosion Control	150,000	180,000	160,000	150,000	150,000
73090 · Vehicle Replacement	25,000	425,000	30,000	390,000	25,000
<b>Subtotal before Debt Service</b>	<b>3,360,500</b>	<b>4,675,000</b>	<b>2,109,344</b>	<b>5,680,000</b>	<b>3,845,000</b>
78500 · Interest - SRF Loan	1,698,525	1,610,195	1,610,195	1,519,744	1,427,123
78500 · Principal - SRF Loan	3,680,431	3,768,762	3,768,762	3,859,212	3,951,833
78500 · Interest - COP Bond	811,148	775,748	775,748	739,548	702,548
78500 · Principal - COP Bond	885,000	905,000	905,000	925,000	945,000
<b>Subtotal for Debt Service</b>	<b>7,075,104</b>	<b>7,059,705</b>	<b>7,059,705</b>	<b>7,043,504</b>	<b>7,026,504</b>
<b>Totals</b>	<b>10,435,604</b>	<b>11,734,705</b>	<b>9,169,049</b>	<b>12,723,504</b>	<b>10,871,504</b>

**Comments:**

(1) FY17-18 expenditures include provisions for USBR Title XVI grant funds through the NBWRA Phase I program, and potential reimbursement from the joint NMWD/NSD Recycled Water Capital Replacement and Expansion Fund.