



NORTH MARIN WATER DISTRICT

NORTH MARIN WATER DISTRICT AGENDA - REGULAR MEETING March 3, 2020 – 6:00 p.m. District Headquarters 999 Rush Creek Place Novato, California

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Est. Time	Item	Subject
6:00 p.m.	CALL TO ORDER	
	1.	APPROVE MINUTES FROM SPECIAL MEETING , February 11, 2020
	2.	APPROVE MINUTES FROM REGULAR MEETING , February 18, 2020
	3.	APPROVE MINUTES FROM SPECIAL MEETING , February 25, 2020
	4.	GENERAL MANAGER'S REPORT
	5.	OPEN TIME: (Please observe a three-minute time limit) This section of the agenda is provided so that the public may express comments on any issues not listed on the agenda that are of interest to the public and within the jurisdiction of the North Marin Water District. When comments are made about matters not on the agenda, Board members can ask questions for clarification, respond to statements or questions from members of the public, refer a matter to staff, or direct staff to place a matter of business on a future agenda. The public may also express comments on agenda items at the time of Board consideration.
	6.	STAFF/DIRECTORS REPORTS CONSENT CALENDAR The General Manager has reviewed the following items. To his knowledge, there is no opposition to the action. The items can be acted on in one consolidated motion as recommended or may be removed from the Consent Calendar and separately considered at the request of any person.
	7.	Consent Approve: Oceana Marin Treatment and Storage Pond Repair Project -CEQA- Notice of Exemption
	8.	Consent Approve: Human Resource Consulting Contract Amendment – Darlene Rhodes
	ACTION CALENDAR	
	9.	Approve: Accept 2020 Novato and Recycled Water Rate Study Draft Report and Direct Staff to Prepare a Proposition 218 Notice of Public Hearing on Proposed Revenue Increases and Rate Structure Changes
	10.	Approve: Low Income Rate Assistance Program Policy
	11.	Approve: Authorize Assistant General Manager/Chief Engineer Recruitment
	12.	MISCELLANEOUS Disbursements – Dated February 20, 2020 Disbursements – Dated February 27, 2020 Sonoma Water Russian River-Cotati Aqueduct Emergency Repairs

All times are approximate and for reference only.

The Board of Directors may consider an item at a different time than set forth herein.

(Continued)

Est. Time	Item	Subject
		<u>News Articles:</u> Complex slate of hikes proposed for rates, Fees –NORTH MARIN WATER DISTRICT Dozens of high-risk Bay Area dams lack required emergency plans California Drought: Northern California having driest February since 1864 City exempts 9-unit townhome project from affordability rule
	13.	CLOSED SESSION: In accordance with California Government Code sec. 54957(b)(1), PUBLIC EMPLOYEE PERFORMANCE EVALUATION Title: (General Counsel).
8:30 p.m.	14.	ADJOURNMENT

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DRAFT
NORTH MARIN WATER DISTRICT
MINUTES OF SPECIAL MEETING
OF THE BOARD OF DIRECTORS
February 11, 2020

CALL TO ORDER

President Joly called the special meeting of the Board of Directors of North Marin Water District to order at 6:00 p.m. at the District Headquarters and the agenda was accepted as presented. Present were Directors Jack Baker, Rick Fraites, and Michael Joly. Director James Grossi arrived at 6:02 p.m. Director Stephen Petterle was absent. Also present were General Manager Drew McIntyre, District Secretary Terrie Kehoe, and Auditor-Controller Julie Blue.

In the audience were Mark Hildebrand from Hildebrand Consulting, Martin Rauch from Rauch Communications, District Legal Counsel Doug Coty and Morgan Biggerstaff and Gino Gerard Thomas from Novato Community Television. Also, in the audience were residents Chris DeGabriele, Judy Holland, Jeff McAndrew, Craig Hill, Brigid Flagerman and Jean Mariani.

OPEN TIME

President Joly asked if anyone in the audience wished to bring up an item not on the agenda and there was no response. Director Joly commented that it was wonderful to see those from the public take interest and attend this meeting.

NOVATO WATER RATE STUDY WORKSHOP NO. 1

Director Joly introduced the General Manager, Drew McIntyre to briefly summarize the process for the rate study. Mr. McIntyre reminded the Board that about a year ago the District entered into an agreement with Hildebrand Consulting to do a comprehensive Novato water rate study. He added Mr. Hildebrand has experience in this field and his clients include San Francisco Public Utilities, City of Santa Rosa, City of Healdsburg, and City of Davis to name a few. Mr. McIntyre noted that the Novato Water Rate Study is being done to ensure that our rate structure continues to generate revenue from each class of customer in proportion to the cost to serve each customer. He added Mr. Hildebrand will provide a presentation tonight and that a second workshop is tentatively scheduled on February 25th. Mr. McIntyre advised the Board that the completed study will again be presented as part of the March 3rd regular meeting at which time the Board will consider taking action to accept the draft study report and direct staff to prepare a Proposition 218 Notice of Public Hearing scheduled for June 16. Mr. McIntyre also stated that we are videotaping tonight's workshop and it will be posted on our website for those that cannot attend.

34 Mr. McIntyre introduced District Legal Counsel, Doug Coty and Morgan Biggerstaff and
35 Martin Rauch our Public Relations Consultant. Mr. McIntyre also reviewed the public outreach to
36 date and noted that there is a water cost calculator on our website that customers can use to
37 calculate bill impacts associated with the proposed rate charges.

38 Mr. McIntyre stated that it is appropriate to mention what the District is doing to control costs.
39 He noted that we have reduced staffing from 58 to 54 employees over the last decade. He added
40 that this has occurred even though we have undergone a major recycled water expansion in
41 cooperation with Novato and Las Gallinas Valley Sanitary Districts where NMWD has added 17
42 miles of new recycled water pipelines, 2 storage tanks, and have gone from 2 to 90 recycled water
43 customers. He added that recycled water supply now represents close to one third of our Stafford
44 Treatment Plant production capacity during summer month operation.

45 Mr. McIntyre stated that the District has upsized five miles, or 70% of our North Marin
46 aqueduct with over 80% of the total project cost funded by Caltrans and Marin Municipal Water
47 District. He added this upsizing project has eliminated the need to use the 400 HP Kastania Pump
48 Station. Mr. McIntyre also noted that the District has been successful in receiving various Federal
49 and State grants and low interest rate loans for various capital improvement projects. Mr. McIntyre
50 also touched upon pension costs, stating that data from the 2017 Marin County Grand Jury report
51 identified that NMWD's pension costs were 39% below the average of all public agencies and 20%
52 below the average of utility districts.

53 Mr. McIntyre stated the rate study presentation will illustrate the drivers that are
54 necessitating the reasons for the proposed revenue increase and rate structure changes. He then
55 introduced Mark Hildebrand from Hildebrand Consulting to provide his presentation.

56 Mr. Hildebrand from Hildebrand Consulting gave a presentation on the draft 2020 Novato
57 and Recycled Water Rate Study. The presentation led into a discussion that included the rate
58 setting process, rate study framework, enterprise fund revenue/expenses, capital spending and
59 reserves, financial forecast and rate structure design.

60 At the conclusion of the presentation President Joly asked if there were any questions from
61 the Board, or members of the public.

62 Resident Jean Mariani stated that she is on the Novato Sanitary District Board and has also
63 worked on tiered rates when she was at the East Bay Municipal Utility District. She commented that
64 the District and consultant did an amazing job, she was happy with the presentation and felt the
65 reasons for the rate increase are sound, and there was good data and analysis to substantiate the
66 increase. Director Joly responded that all data will be available on our website, because we wish

67 to be as transparent as possible to our owners, the public. He stated that he used to be a financial
68 banker and he would go through these complex studies and understands that we want to give
69 people a lot of time and tools to understand the rates. He added that we provide a safe and reliable
70 product for our customers and we want them to understand what we are doing and why we are
71 doing what we are doing; that is the purpose of these meetings.

72 Resident Chris DeGabriele stated that Mr. McIntyre sent him a link to the study and added
73 Mr. Hildebrand did a fine job. He added that he is the former General Manager of NMWD and noted
74 that the methodology is clear and straight forward, but it is important to remember how the District
75 established the current tier rate thresholds and that many of the customers that were previously only
76 in Tier 1 will now be in a higher tier with the new rate structure. Mr. DeGabriele then provided more
77 history behind development of the current tiered rates. He stated it is important for the Board to
78 consider how we communicate to those customers who have the same landscaping as before, who
79 were in tier one and will now be in tier two. He added that he is not suggesting Mr. Hildebrand is
80 wrong, however you need to make sure you communicate this to the customers. Mr. DeGabriele
81 also commented on the cost difference between SCWA wholesale water and local supply from the
82 Stafford Treatment Plant. He stated that the SCWA wholesale cost is less expensive than STP
83 water today, but he believes the costs will flip once STP debt service is paid off.

84 Director Joly announced, so that the public is aware, that we have many sources of water.
85 He added that we have a high asset base, low pay go, debt creation, and since we are a public
86 agency, we do not generate profit. Director Joly stated that Stafford Lake is around 25% of our total
87 supply and that recycled water supply is around 7%. He asked what is the recycled water level
88 contribution in the summer months and Mr. McIntyre replied about 12%. Director Joly also stated
89 that we do provide fire protection as a service, and that water is all from us. He added that all the
90 NMWD water Novato Fire Protection District uses to fight fires is at no cost to them. Director Joly
91 noted there are many things this District does that is not readily seen and it is important to our
92 owners, the public, to understand that. Director Fraites commented that it was a very good
93 presentation and thanked Mr. Hildebrand.

94 President Joly again asked if anyone else from the public had any questions. He announced
95 that another public workshop is tentatively scheduled for February 25th. Director Grossi asked if we
96 received any written or electronic comments. Ms. Blue responded that we received a handful,
97 mainly from emails and she can pull them together and share them at the next Board meeting.
98 Director Joly stated that he would like to keep the February 25th special meeting to give the public
99 another chance to be heard again and there was unanimous agreement from the Board.

Director Joly asked Doug Coty from legal counsel if he would like to say anything about Proposition 218. Mr. Coty replied that Mr. Hildebrand already did a good job explaining Proposition 218 during his presentation, but that basically Proposition 218 was part of the Right to Taxes Act. He added that not until 2006 did it affect water utilities, so now we need to look at the actual cost for each customer base, go through and do an analysis so that we properly allocate those costs. Director Joly asked if Mr. Rauch would like to add anything. Mr. Rauch stated the rate study is very complicated and has many moving parts, and is very mysterious to most, noting it is necessary to provide every opportunity for the public to ask questions. He applauded the District for their outreach. Director Joly reminded the audience to utilize the water cost calculator on our website to help them figure out how the new rates will affect their bill. Ms. Blue added they will need their account number and name on the account in order to show the rates today and the impact the proposed new rates will have. Mr. McIntyre reminded the Board that the video of today's workshop should be posted on our website by the end of the week for viewing by our customers.

President Joly thanked Mr. McIntyre, Ms. Blue and Mr. Hildebrand for a fine job on the rate study. He also announced that at the February 18th meeting there will be a presentation on the rehabilitation of the Administration building and discussion on the debt service for that project.

ADJOURNMENT

President Joly adjourned the meeting at 7:30 p.m.

Submitted by

Theresa Kehoe

District Secretary

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DRAFT
NORTH MARIN WATER DISTRICT
MINUTES OF REGULAR MEETING
OF THE BOARD OF DIRECTORS
February 18, 2020

CALL TO ORDER

President Joly called the regular meeting of the Board of Directors of North Marin Water District to order at 6:00 p.m. at the District headquarters and the agenda was accepted as presented. Present were Directors Jack Baker, Rick Fraites, James Grossi (arrived at 6:03 p.m.), and Michael Joly. Director Stephen Petterle was absent. Also present were General Manager Drew McIntyre, District Secretary Terrie Kehoe and Auditor-Controller Julie Blue.

Emanuel Robinson from Landsea Homes, District employees Tony Arendell (Construction/Maintenance Supervisor), Robert Clark (Operations/Maintenance Supervisor) and Pablo Ramudo (Water Quality Supervisor) were also in attendance.

MINUTES

On motion of Director Fraites, seconded by Director Baker the Board approved minutes from the February 4, 2020 meeting by the following vote:

AYES: Director Baker, Grossi, Fraites and Joly

NOES: None

ABSTAIN: None

ABSENT: Director Grossi and Petterle

GENERAL MANAGER'S REPORT

Novato Water Rate Study Workshop No. 2

Mr. McIntyre reminded the Board of the Novato Water Rate Study Workshop No. 2 to be held at the District office on February 25th at 6:00 p.m. He also announced the first workshop video has been uploaded on our website and is available for our customers to review at their convenience. Mr. McIntyre added that the Marin Independent Journal also ran an article on the Water Rate Study on the front page of today's newspaper.

Ms. Blue added that the District has received few comments; one customer came in to see what tier and rate they would be in, and asked for his usage history; there were no phone calls. She added in response to the eblast one customer blamed the increase on pensions and the other said they were unable to attend the workshop and would like to know how much of an increase he will see and Ms. Blue notified him that there is an online water cost calculator posted

on our website. Director Joly commented that he went on the website and used the calculator and found it very informative and detailed. In addition, Director Joly stated he watched the video on our website and wanted to compliment Mr. McIntyre and staff for their public outreach efforts including the FAQs, workshop video and the water cost calculator. He added that he checked the Marin IJ comments and there only a couple, and he found the article to be informative although he thought there was something wrong with some of the reported rate increase percentages and that the financial planning period is not five years, but ten years. Director Joly requested Mr. McIntyre notify the journalist of the error. Mr. McIntyre confirmed he will do so.

TAC Budget Subcommittee

Mr. McIntyre announced that Ms. Blue will be attending the second TAC budget subcommittee meeting tomorrow afternoon with Sonoma County Water Agency (SCWA). He added the plan is to have a draft budget completed by February 27th in advance of the March 2nd TAC meeting. Mr. McIntyre reminded the Board that Lynn Rosselli from Sonoma County Water Agency will provide a budget presentation at the March 17th NMWD Board Meeting.

Potter Valley Project Common Interest Agreement

Mr. McIntyre apprised the Board that he will be having another PVP FERC relicensing phone conference on February 26th at 11:00 a.m. He noted that District legal counsel Mr. Robert Maddow will also be participating. Mr. McIntyre reiterated that the purpose of these calls with SCWA is to ensure that the water contractors are both informed and engaged as the Planning Agreement Partners continue to work on a Feasibility Study that must be submitted to FERC by May 14, 2020. Director Baker asked if Mr. Maddow is getting closer to full retirement. Mr. McIntyre replied that he is primarily focusing on special projects and not so much day to day office activities. Director Baker commented that it is important that he is still involved because PVP relicensing is a very complicated issue. Mr. McIntyre added that SCWA staff has a lot of respect for Mr. Maddow and they listen to what he has to say. Director Baker added that Mr. Maddow has great credibility.

Vacation Schedule

Mr. McIntyre informed the Board that he will be out of the office the remainder of the week and Ms. Blue will be in charge during his absence. He added that he will also be available remotely as needed.

OPEN TIME

President Joly asked if anyone in the audience wished to bring up an item not on the agenda and there was no response.

68 **STAFF/DIRECTORS REPORTS**

69 President Joly asked if staff or Directors wished to bring up an item not on the agenda
70 and the following items were discussed:

71 Ms. Kehoe reminded the Board that the completed Form 700 and the Ethics Training must
72 be turned in to the District office by April 1st. She also reminded the Board to turn in their
73 biographies for the new website and also to notify her of any changes to the Emergency Contact
74 List.

75 Mr. Clark announced that we have a candidate for our Assistant Water Distribution and
76 Treatment Plant Operator position. In addition, he announced that Sarah Baccei has accepted a
77 job with SCWA and praised her for the many years of good service at NMWD. Director Baker
78 asked if Mr. Clark had any insight as to if there will be many people with Ms. Baccei's qualifications
79 that will apply. Mr. Ramudo replied Ms. Baccei has been with the District for fifteen years and
80 she is at a high level of experience, using advanced instruments. He added that we want
81 someone with experience using atomic absorption instruments and that will narrow the pool of
82 candidates. Director Joly thanked Ms. Baccei for her great service to the District and wished her
83 the best of luck. Mr. Clark added that it was a difficult decision for Ms. Baccei.

84 Mr. Clark announced to the Board that the new, permanent standby power generator
85 installation at the Stafford Treatment Plant is complete. Director Grossi asked how big the
86 generator is. Mr. Clark replied 300 kW, and it has the capacity to run the whole treatment plant.

87 **MONTHLY PROGRESS REPORT**

88 Mr. McIntyre provided the Board with the Monthly Progress Report for January and it was
89 reviewed. He stated that water production in Novato is down 2% from one year ago and up 2%
90 year to date. He informed that Board that in West Marin, water production is down 16% from one
91 year ago and down 14% year to date. He also noted that Recycled Water production is up 7%
92 fiscal year to date and Stafford Treatment Plant had no production during the month of January
93 and production is up 64% fiscal year to date. The Board was apprised that Stafford Lake is at
94 73% capacity and 5.5 feet below the spillway crest, Lake Sonoma is at 91% capacity and Lake
95 Mendocino is at 114% capacity. Under Oceana Marin, Mr. McIntyre noted there was good
96 irrigation field discharge volume and the pond freeboard levels looks good.

97 Under Safety and Liability. Mr. McIntyre reported that we had eleven days without a lost
98 time injury. He added that under Utility Performance Metrics there were eleven planned service
99 interruptions on Tamalpais Avenue due to scheduled replacement of a broken blow off valve. On
100 the Summary of Complaints and Service Orders, the Board was apprised that total numbers are
101 down 35% from January one year ago. Mr. McIntyre also noted that bill adjustments were higher

this month than last year due to Public Safety Power Shutoffs in October and impacts on irrigation controllers.

Ms. Blue reported on the January 2019 Investments, where the District's portfolio holds \$23.6M earning a 2.13% average rate of return. She noted that during January the cash balance increased by \$249,927. She also noted the LAIF rate is 1.97%. Ms. Blue added that the District did buy another CD with a 1.75% interest rate for 2 years, which is a better rate than the CD the District purchased in December.

Director Joly asked if we should be troubled by lower water sales in January, even though there was little rain. Mr. McIntyre responded that it is hard to predict future water sale trends for this year given the weather variability, but we are budgeting future Novato water sales to be no greater than FY19 for which we are currently tracking close for Novato. He agreed that West Marin water sales are down and will require a closer look when starting the upcoming budget cycle for West Marin. Director Baker commented that we usually expect rain in February but there hasn't been any and it does not appear that the weather will change anytime soon. He asked if we would start getting nervous mid-March. Mr. McIntyre replied that the weather pattern is very similar to two years ago, when we didn't get much rain in February, and our lake levels also are very similar. He noted that staff will be watching Kent Lake rainfall data closely as current rainfall totals 21 inches and we will have a Dry Year condition in West Marin if Kent Lake rainfall does not reach 28-inches by April 1 of this year. Director Baker asked how Marin Municipal Water District's supply stands. Mr. McIntyre responded that their reserve levels are good.

CONSENT ITEMS

On the motion of Director Fraites, and seconded by Director Baker the Board approved the following items on the consent calendar by the following vote:

AYES: Director Baker, Fraites, Grossi, and Joly

NOES: None

ABSTAIN: None

ABSENT: Director Petterle

WATER AGREEMENT 7711 REDWOOD BLVD. LANDSEA HOMES PHASE 1 (APN 125-580-16)

The Board approved authorization of this agreement. The current development proposes construction of 80 townhome style condominium units on a four-acre site in fourteen separate buildings. High pressure Zone 2 water will be provided for the project and to mitigate the high pressure NMWD will require the applicant/owner to install and maintain individual pressure reducing valves conforming to NMWD Standard 28.

136 **SELECTION OF CPA FIRM TO PERFORM ANNUAL FINANCIAL AUDIT**

137 The Board authorized the Auditor-Controller to renew the agreement with Fedak & Brown
138 LLP to perform the annual financial audit of the District for a three-year period subject to annual
139 review for a fee not to exceed \$17,500 for FY 19/20, \$18,120 for FY 20/21, \$18,760 for FY 21/22,
140 with an option to extend the contract for two additional years through FY 23/24. The cost of the
141 first year of the extension is 10% lower than the closest priced proposal received in 2016. Fedak
142 & Brown LLP have audited many water districts similar in size to NMWD, and are experience in
143 water district issues and have performed the annual financial audit of the District for fiscal years
144 2016 through 2019.

145 **APPROVAL OF OUT-OF-STATE TRAVEL FOR AWWA D.C. MEETING**

146 The Board approved out of state travel for the Operations/Maintenance Superintendent to
147 attend an AWWA meeting in D.C. The AWWA Office of Government Affairs is conducting a face
148 to face meeting in Washington D.C. and has agreed to fund the travel of various regional source
149 water quality representatives on efforts to promote the funding opportunities from the Agriculture
150 Improvement Act of 2018.

151 **ACTION ITEMS**

152 **APPROVAL OF OUT-OF-STATE TRAVEL FOR GOVERNMENT FINANCE OFFICERS**

153 **ASSOCIATION (GFOA) CONFERENCE**

154 Ms. Blue reported that our outside auditor, Fedak & Brown LLP strongly encourages staff's
155 participation in GFOA trainings. She added this conference consists of eleven sessions covering
156 topics that include Note Disclosures, Transparency, Benefits, Cyber Issues, Actuarial Reports,
157 Federal Grants, GASB Changes and more. Ms. Blue noted that Senior Accountant Nancy
158 Williamson has never attended this conference before and it would be good opportunity.

159 On the motion of Director Fraites, and seconded by Director Grossi the Board approved
160 Out-of-State Travel for the Senior Accountant to attend the Government Finance Officers
161 Association (GFOA) 2020 Annual Conference by the following vote:

162 AYES: Director Baker, Fraites, Grossi and Joly

163 NOES: None

164 ABSTAIN: None

165 ABSENT: Director Petterle

166 **HEADQUARTERS UPGRADE MASTER PLAN – FINAL REPORT**

167 Mr. McIntyre presented the final report of the Headquarters Upgrade Master Plan. He
168 reminded the Board that the Administrative Draft was distributed to the Board as part of the
169 February 4, 2020 Agenda packet. He added that no additional comments were received therefore

staff-initiated preparation of the final report. Mr. McIntyre stated that once the Master Plan is approved, staff will include the proposed project in the capital projects plan and on-going financing/rate studies.

Director Joly noted that at the February 4th meeting the Board asked a lot of questions, and stated that he believes that during overall project development there will be ongoing dialog. There was a general discussion about the building's proximity to Rush Creek, and flooding impacts. Mr. McIntyre responded that we are early in the process and that Marin County Flood Control is working with the City and U.S. Fish and Wildlife (USFW) for an expanded study of Rush Creek drainage. Director Baker asked if USFW will be cooperative. Mr. McIntyre replied that he heard they were engaged now.

On the motion of Director Fraites, and seconded by Director Grossi the Board authorized the Headquarters Upgrade Master Plan Final Report by the following vote:

AYES: Director Baker, Fraites, Grossi and Joly

NOES: None

ABSTAIN: None

ABSENT: Director Petterle

INFORMATION ITEMS

SECOND QUARTER FY 19/20 WATER QUALITY REPORT

Mr. Ramudo reported on the Novato System, the Point Reyes System, and there was no Novato Recycled Water to report on since the Deer Island facility was off during the quarter. Mr. Ramudo stated Stafford Lake was used as a source of water until November 27th and the water quality was great. He added there was good algae diversity with few blooms of blue green algae which in the past caused taste and odor problems. Mr. Ramudo noted we continue to use activated carbon and it is effective in removing the taste and odor of algae and we have noticed a great improvement. Director Baker asked if the Granular Activated Carbon (GAC) has to be reconditioned and if we are able to discard it. Mr. Ramudo stated over the life of the new Treatment Plant they have tried many kinds of GAC, some from coal, some from coconut husk, they have used different intervals of time, and have found that the virgin carbon that has not been regenerated worked out the best if we changed it out once a year. Mr. Ramudo stated we are giving our customers the best water we can give them and our investment is paying off.

Mr. Ramudo stated in Point Reyes our Coast Guard Wells came in with another high record of salinity intrusion. He added Bromide was up to 2.5mg per liter, and fortunately Gallagher Well was able to produce most of the water which kept our disinfection byproducts levels within

203 compliance. Mr. Ramudo reminded the Board that a year ago the running average increased
204 significantly and this triggered an assessment of our system including hiring a consultant to advise
205 us on treatment options. Mr. Ramudo stated the consultant's recommended design is expensive
206 so we are currently looking at other options. Mr. Ramudo stressed that as long as we use the
207 Coast Guard Wells we will have salinity intrusion. Director Joly asked what was the percentage
208 of Gallagher well water use in the second quarter. Mr. Ramudo replied 75-80% of our supply was
209 from Gallagher Well, noting there are times when we don't use any Coast Guard Well water.

210 Mr. Ramudo also informed the Board about water quality impacts due to golf balls that
211 are hit into Stafford Lake. He stated there have been a number of studies that show that golf balls
212 take a long time to break down, some over 1000 years. Mr. Ramudo added they are made of
213 plastic and rubber which when broken down are not harmful products. He added that there are
214 also some zinc and heavy metals but not to levels of concern and we have no zinc in our raw
215 water. Mr. Ramudo noted that the golf balls do not seem to pose a problem to us, however they
216 could be contaminating the soil, but not the water. Director Fraites ask about the protocol for
217 removing golf balls. Mr. Ramudo responded that we do not have a protocol. Director Fraites
218 stated that about a month ago the lake was down and you could see a ton of golf balls, remarking
219 they should be made to pick them up. Mr. Ramudo replied that we would have to gauge the
220 Board's desire to have this done, and he merely wanted to give the Board confidence that they
221 are not harmful to the water supply. Director Fraites stated it is still disconcerting to see the golf
222 balls sitting in the lake, and asked if the balls can be recycled. Pablo responded that some may
223 be able to be reused. Mr. McIntyre noted that he asked Mr. Ramudo to comment on this issue
224 because the question does come up from time to time. Director Baker said this is the first time
225 that he remembers hearing about it. Director Joly complimented Mr. Ramudo and stated he
226 appreciated the dialog, adding he did a nice job explaining the issue and is glad he is keeping an
227 eye on it.

228 **NBWA MEETING – FEBRUARY 7, 2020**

229 Director Fraites updated the Board on the NBWA held on February 7th. He reported on
230 the response and recovery lessons from the 2017 North Bay fires and on Governor Newsom's
231 Water Resilience Portfolio.

232 Director Fraites announced that he, Director Joly and Director Grossi all attended the
233 meeting. Director Baker noted he learns something new each time he goes. Director Grossi
234 agreed that it was very informative. Director Joly shared that he asked for a copy of Ben
235 Horenstein's presentation, noting it was very informative and educational, and he learned about

how the project management and control changes once FEMA gets involved. Director Baker added that at the recent ACWA conference he attended in San Diego Mr. Horenstein from Marin Municipal and Ms. Burke from the City of Santa Rose spoke about much of the same issues.

Director Fraites also announced the bi-annual NBWA conference will be held in Petaluma on April 3rd and Congressmen Huffman will be attending. Director Baker requested that he be registered for the event. Director Joly thanked Director Fraites for his great report.

MISCELLANEOUS

The Board received the following miscellaneous items: Disbursements – Dated February 6, 2020 and Disbursements – Dated February 13, 2020.

The Board received the following news articles: Even after Oroville near-disaster, California dams remain potentially hazardous; Workshop planned on water rate hike – NOVATO; Dry forecast prompts early preparation for fire season; City's revamped finance office gets new leader – NOVATO and Novato considers tax hikes, fees to increase revenue - Novato.

Director Joly commented that he found the article on the dam very interesting, and inquired about Stafford Dam status. Mr. McIntyre replied that NMWD prepared an Emergency Action Plan in 2015, many years before said plans were required by the State. He added that the 2015 EAP is undergoing additional review at the state level and we are using a consultant to respond to their comments.

CLOSED SESSION

President Joly adjourned the regular session at 7:08 p.m. and the Board began the closed session at 7:13 p.m. in accordance with California Government Code Section 54957 for Public Employment, Title: Chief Engineer.

OPEN SESSION

Upon returning to regular session at 7:31 p.m., President Joly stated that no reportable action had been taken.

ADJOURNMENT

President Joly adjourned the meeting at 7:31 p.m.

Submitted by

Theresa Kehoe
District Secretary

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DRAFT
NORTH MARIN WATER DISTRICT
MINUTES OF SPECIAL MEETING
OF THE BOARD OF DIRECTORS
February 25, 2020

CALL TO ORDER

President Joly called the special meeting of the Board of Directors of North Marin Water District to order at 6:00 p.m. at the District Headquarters and the agenda was accepted as presented. Present were Directors Jack Baker, Rick Fraites, James Grossi, Michael Joly and Director Petterle. Also present were General Manager Drew McIntyre, District Secretary Terrie Kehoe, and Auditor-Controller Julie Blue.

In the audience were Mark Hildebrand from Hildebrand Consulting, District Legal Counsel Carl Nelson, Novato resident Judy Holland, Will Houston from the Marin IJ and Gino Gerard Thomas from Novato Community Television.

OPEN TIME

President Joly asked if anyone in the audience wished to bring up an item not on the agenda and there was no response.

NOVATO WATER RATE STUDY WORKSHOP

Director Joly introduced the General Manager, Drew McIntyre to briefly summarize the process for the rate study. Mr. McIntyre reminded the Board that about a year ago the District entered into an agreement with Hildebrand Consulting to do a comprehensive water rate study. Mr. McIntyre noted that the Novato Water Rate Study is being performed to ensure that our rate structure continues to generate revenue from each class of customer in proportion to the cost to serve each customer. He reminded the Board that the completed study will again be presented as part of the March 3rd regular meeting at which time the Board will consider taking action to accept the draft study report and direct staff to prepare a Proposition 218 Notice of Public Hearing scheduled for the June 16 regular board meeting.

Mr. McIntyre announced that we are again videotaping tonight's workshop and it will be posted on our website for those who cannot attend. He thanked Mr. Gerard and other supporting members from Novato Community Television for doing a great job on the first video. Mr. McIntyre introduced District Legal Counsel, Carl Nelson. Mr. McIntyre reviewed the public outreach to date, which included a notice in last fall's waterline newsletter that was mailed to all our customers, special website page posting beginning in November 2019 and messaging on all water bills during December 2019 and January 2020. In addition, an ad was placed in the Marin IJ and there have

35 been two newspaper articles. Mr. McIntyre also noted that an email notice about the workshop was
36 sent to ~8,000 customers and 3,330 customers clicked on an embedded link to gain access to our
37 Water Rate Study website page. Mr. McIntyre also noted that a water cost calculator on the website
38 allows customers to calculate what an individual customer's bill would look like under the proposed
39 rate changes.

40 Mr. McIntyre stated that it is appropriate to talk about what the District is doing to control
41 costs. He noted that we have reduced staffing from 58 to 54 employees over the last decade. He
42 added that this has occurred even though we have undergone a major recycled water expansion in
43 cooperation with Novato and Las Gallinas Valley Sanitary Districts where NMWD has added 17
44 miles of new recycled water pipelines, 2 storage tanks, and have gone from 2 to 90 recycled water
45 customers. He added that recycled water supply now represents close to one third of our Stafford
46 Treatment Plant production capacity during summer month operation.

47 Mr. McIntyre added that the District has upsized five miles, or 70% of our North Marin
48 aqueduct with over 80% of the total project cost funded by Caltrans and Marin Municipal Water
49 District. He added this this upsizing project has eliminated the need to use the 400 HP Kastania
50 Pump Station. Mr. McIntyre also noted that the District has been successful in receiving numerous
51 Federal and State grants and low interest rate loans for various capital improvement projects. Mr.
52 McIntyre also touched upon pension costs stating that data from the 2017 Marin County Grand Jury
53 report identified that NMWD's pension costs were 39% below the average of all public agencies and
54 20% below the average of utility districts.

55 Mr. McIntyre stated the rate study presentation will illustrate the drivers that are necessitating
56 the reasons for the proposed revenue increase and rate structure changes. He then introduced
57 Mark Hildebrand from Hildebrand Consulting to provide his presentation.

58 Mr. Hildebrand gave a presentation for the draft 2020 Novato and Recycled Water Rate
59 Study. The presentation led into a discussion that included the rate setting process, rate study
60 framework, enterprise fund revenue/expenses, capital spending and reserves, financial forecast and
61 rate structure design.

62 At the conclusion of the presentation President Joly asked if there were any questions from
63 the Board, or members of the public, noting there will also be other opportunities to solicit input.

64 Mr. Hildebrand pointed out a correction in some of the high use numbers on Slide 31.
65 Director Baker asked how that was discovered. Ms. Blue stated that she discovered the error when
66 she compared the online water cost calculator with the proposed rate. Mr. Hildebrand added that
67 this did not affect the overall analysis, only that one table. Director Joly asked how the bills will be

68 impacted and if the new graphic will be on the webpage. Ms. Blue replied that the revised copy was
69 put on the webpage as soon as it was discovered.

70 Director Joly stated that he looked at his individual account on the water cost calculator and
71 noted that his account was impacted more than the proposed 6%, and asked if the first year will
72 have the largest increase and then get less after that. Mr. Hildebrand replied that the bill calculator
73 is only for a one-year period. He added only in the first year will the percentage of increase fluctuate
74 and that is due to the initial structural rate changes. Director Joly asked if Proposition 218 is
75 requiring us to change our rate structure based on water supply rather than customer behavior. He
76 inquired if some customers will be greatly impacted based on their usage history and if we might be
77 able to talk to those customers in advance. Mr. McIntyre responded that our extensive outreach
78 effort is designed to encourage customers to use the District's online water cost calculator as the
79 best way to see how each account is impacted by the proposed rate changes. He added that
80 Novato Unified School District water costs could go up about 8% in the first year, and City of Novato
81 water costs may go up 9% in the first year. He added, however, that these projected cost increases
82 do not take into account that both NUSD and the City have had many meters converted at no cost
83 over the last three to five years from potable water to lower cost recycled water resulting in a savings
84 of up to 7- 8%.

85 Director Fraites asked what logic was used on the tier allocation and why are they proposing
86 to shrink the range. Mr. Hildebrand replied that a common way rates were set in the past was based
87 on customer behavior. He added the current 262 gallons per day in tier one is a direct result of
88 selling 74% of water in that tier which is the percentage of water we purchase from Sonoma County
89 Water Agency. Mr. Hildebrand added a vast number of customers will still stay in tier one. Mr.
90 Hildebrand stated that it is true that some customers will go to higher tiers faster, however the higher
91 tier costs are less expensive than before. He explained the rates are not set on District policy, and
92 not by public water use behavior, rather, it is based on what water supply we use. He added that the
93 tier one rate is based on the 74% water supply we purchase from Sonoma County Water Agency,
94 tiers two and three reflect Stafford Treatment Plant water which provides additional supply along
95 with water conservation costs. Director Joly asked if we have any provisions that we will be putting
96 in effect so that people who are on a fixed income and are deeply challenged have access to some
97 available funds to help them. Ms. Blue replied that she is working on a low-income rate assistance
98 program which she will bring to the Board at the next meeting and if approved, will be effective on
99 July 1st as a flat rate fixed component to help those in financial need. Mr. Hildebrand noted that the
100 affordability program is also mentioned in the rate study.

Director Baker noted that Novato Unified School District has always struggled to keep track of their use, and they receive public pressure to keep the fields green which is good for business but not good for their budget. Director Baker stated that earlier we mentioned something about changing meters for them, and wondered if there are other possibilities to look at to provide changes in regards to irrigation. Mr. McIntyre responded that we continue to offer rebate programs that NUSD has used in the past to reduce overall water use. Director Baker asked about Indian Valley College, noting they are doing many changes now with new buildings, upgrading and not much landscaping which gives us a sense that they are taking this in account. Mr. McIntyre confirmed that they currently have many renovation projects underway and that all the new buildings will be equipped with much more efficient plumbing fixtures. Director Baker noted that it does not seem like there will be extensive landscape with the new projects. Director Grossi confirmed that there's very little outside landscape irrigation at the college site. Director Baker stated he remembered that NUSD had one school that used recycled water. Mr. McIntyre replied that Olive, Lynwood and both Hamilton Schools have been converted to recycled water for outside turf irrigation.

Director Joly added that recycled water is a third component of our supply, and asked what is the percentage of basis for this supply. Mr. McIntyre replied annually it is 7% of our supply, and peaks to about 12% or more in the summer months. He also noted we now have three automatic car washes that use recycled water year around.

Director Grossi commented that we will have to decide on whether to move forward with a one year or multiple year rate increase and how comfortable are we with the forecast period. Mr. Hildebrand replied that the standard rate study is typically up to five years, adding that you really don't know what inflation will do and the capital spending program can change so it is not advisable to forecast beyond the five-year window. He added some agencies do rate increase one year at a time; but it depends on the agency and their comfort level. Mr. McIntyre reminded the Board that a week from tonight this will come back as an action item to accept the report and give direction to staff. Mr. McIntyre noted that historically we have brought a five-year financial plan to the board each spring and the Board has typically directed staff to move forward with Prop 218 noticing for the first year. Director Joly asked what the SCWA wholesale cost is projected to be. Ms. Blue replied that it is projected to be 6.79%. Director Joly asked for how long. Ms. Blue responded for only one year, usually the increase is 4-6% and they were projecting 7%, but went slightly below after having budget review meetings. Mr. Hildebrand stated that we don't have a crystal ball so we used 6% based on the SCWA original estimate noting not every projected number will be correct, and in the end, it won't affect the results.

134 Director Joly asked about the building renovation, noting the Administration building is fifty-
135 five years old and the project is not a tear down, but a rebuild. He noted the current interest rates
136 are low and Ms. Blue will soon begin looking at financing for the project. Director Joly asked what is
137 the sensitivity of the building with respect to percentage rate increases over the proposed period
138 with a project cost of \$16-18M. Mr. Hildebrand replied that it is about 1% per year over the next five
139 years. Director Joly asked what is the life cycle depreciation for the building. Mr. McIntyre replied
140 around forty to fifty years. Director Joly commented that the building is already depreciated beyond
141 its useful life and we need to provide a safe place for our staff and customers. Director Fraites also
142 noted that we will double the size of the lab which is greatly needed. Mr. McIntyre added that the
143 building renovation project also includes permanent standby power to ensure reliable 24/7 operation
144 and upgrades to ensure ADA compliance for both our customers and staff. Director Grossi asked if
145 the rate study factors in costs for all phases of the project. Mr. McIntyre replied the rate study
146 includes costs for Phase 1 and Phase 2 of the renovation.

147 Director Grossi also asked how we will factor in the West Marin fees, since the costs are all
148 different and not in this study. Ms. Blue replied that we are currently looking into costs to perform a
149 West Marin Water Rate Study next fiscal year.

150 Ms. Holland from the audience stated that the consultant did a great job explaining the study;
151 however, she was unclear about what he meant by availability of water. She noted that she is a
152 single person, she understands the change cost basis and that we are mandated to do so, but what
153 constitutes the availability of water. Mr. Hildebrand replied it is based on the District use of water
154 purchased from SCWA and how much treated water from Stafford Lake is used as a source of
155 supply. He added the legal requirement with Proposition 218 is that the District must charge the
156 customer for water served based on the cost for providing that water, and this is what should be
157 reflected in the rates. Ms. Holland asked if the mandated cost is based on a single family. Director
158 Joly asked if she has had a chance to review the water cost calculator available on our website. Ms.
159 Holland replied not yet, but wanted to come to the meeting to get a better understanding. Director
160 Joly asked Mr. Nelson if he could help address the question as it relates to Proposition 218. Mr.
161 Nelson replied that in the past the State of California encouraged conservation through use of tier
162 rates and a court decision came out that this is allowed only if the tier rates are directly associated
163 with the cost to provide service for each tier. Mr. McIntyre commented that Ms. Holland is more
164 than welcome to come in during normal office hours and we would be happy to work with her to see
165 what her projected water bill impacts will be. Ms. Holland stated that she is new to all of this and
166 coming to the meeting helped her to understand the proposed rates and structure and she enjoyed
167 listening to the presentation.

Director Joly summarized the workshop stating this was the second workshop and the first workshop was on February 11th. He added an article was in the Marin IJ on February 17th, and on our website, there is a water cost calculator, a seventy-one-page rate study and in addition staff has made various social media outreach efforts. Director Joly noted we will have a regular Board Meeting on March 3rd and that is when the Board can opt to accept the report and provide direction to staff on Prop 218 noticing to our customers. Additionally, after the Board gathers all the customer feedback during the Prop 218 notice period, on June 16th the Board will take action as part of a Public Hearing. Director Joly thanked everyone and stated that it is important to the Board to be transparent as possible throughout this process.

ADJOURNMENT

President Joly adjourned the meeting at 7:40 p.m.

Submitted by

Theresa Kehoe
District Secretary

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MEMORANDUM

To: Board of Directors
 From: Drew McIntyre, General Manager 
 Carmela Chandrasekera, Senior Engineer 
 Subject: Oceana Marin Treatment and Storage Pond Repair Project – CEQA – Notice of Exemption

February 28, 2020

R:\Folders by Job No\7000 jobs\7173 OM Pond Rehab-404 Grant\BOD Memos\7173 NOE BOD Memo OM_Ponds_3-3-20.doc

RECOMMENDED ACTION: Approve Filing Attached Notice of Exemption (NOE)

FINANCIAL IMPACT: None – Information

Staff recommends the Board approve filing the attached Notice of Exemption for the Oceana Marin Treatment and Storage Pond Repair Project.

The Oceana Marin Treatment and Storage Pond Repair Project (project) proposes to mitigate the impacts of extreme weather and earthquakes on the Oceana Marin Waste Water Treatment and Storage Ponds (See Attachment 1) that occurred as a result of 2016-2017 heavy rains and wind generated waves. Emergency pond berm repairs were performed in 2018 as a temporary solution. The current project entails armoring of the pond berms with stabilization fabric and rock rip rap to provide a long term solution with a high degree of effectiveness. The Project is eligible to receive FEMA / Cal OES grant funding of approximately \$128,000 (up to 75% cost share) in Phase 1 (design). Phase 1 completion is currently required by November 2020.


The Board approved GHD to provide topographic survey, environmental permitting support and design services for the project on October 1, 2019. GHD indicates that the Project qualifies for a Categorical Exemption under California Environmental Quality Act (CEQA) Section 15301 b (existing facilities publicly owned sewer) and Section 15302 c (replacement of reconstruction of existing utility systems involving negligible or no expansion capacity). See Notice of Exemption (Attachment 2).

Although categorically exempt from CEQA other environmental permitting is still required to construct the project. GHD is progressing with the permitting and design phases in parallel.

Staff recommends that the District file a Notice of Exemption with the County of Marin at this time. The Notice of Exemption (NOE) is provided as Attachment 2.

RECOMMENDATION

Approve filing of the attached Notice of Exemption.

Approved by GM 

Date 2/28/20



Paper Size ANSI A
0 250 500 750 1,000
Feet



North Marin Water District
Oceana Marin Treatment
and Storage Pond Repair

Project No. 11151119
Revision No. -
Date October 2017

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California III FIPS 0403 Feet

Project Site Map

N:\GIS\Bentley\Projects\11151119 NMWD FEMA HMGP\105-
GIS\Map\Deliverables\F2_SiteMap.mxd
Print date: 31 Oct 2017 - 16:32

Data source: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community. Created by: jlab2

Notice of Exemption**Appendix E**

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

County Clerk

County of: Marin

3501 Civic Center Drive, Room 234

San Rafael, CA 94903

From: (Public Agency): North Marin Water District

999 Rush Creek Place/PO Box 146

Novato, CA 94948

(Address)

Project Title: Oceana Marin Treatment and Storage Pond Repair Project

Project Applicant: North Marin Water District

Project Location - Specific:

Latitude & Longitude: 38.253963 & -122.955413. The project is located at the end of Ocean View Blvd. at the eastern edge of the community of Dillon Beach.

Project Location - City: Dillon Beach Project Location - County: Marin

Description of Nature, Purpose and Beneficiaries of Project:
See attached.

Name of Public Agency Approving Project: North Marin Water District

Name of Person or Agency Carrying Out Project: Drew McIntyre, General Manager

Exempt Status: **(check one):**

☐ Ministerial (Sec. 21080(b)(1); 15268);

☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));

☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));

☒ Categorical Exemption. State type and section number: Section 15301 (b) and Section 15302 (c)

☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:
See attached.

Lead Agency
Contact Person: Drew McIntyre Area Code/Telephone/Extension: 415-761-8912

If filed by applicant:

1. Attach certified document of exemption finding.

2. Has a Notice of Exemption been filed by the public agency approving the project? ☐ Yes ☐ No

Signature: _____ Date: _____ Title: General Manager

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: _____

Nature, Purpose, and Beneficiaries of the Project

The Oceana Marin WWTP is located on top of a hill in Dillon Beach in Marin County, CA and includes treatment and storage ponds. The two ponds were damaged during winter storms in 2016 and 2017 and require repair.

The ponds were constructed in 1973 under date requirements in the California Building Code. At the time, seismic provisions were not mandatory. Thus, the ponds are unlined and constructed with dirt berms. The project site is less than 2 miles from the San Andreas Fault, which is known to be seismically active. If the berms fail, untreated wastewater would flow downhill and potentially damage residential and commercial properties on Oceana Drive, Tahiti Way and Lanai Way. Untreated wastewater will also flow directly onto a beach on Bodega Bay, which has high public use and is connected to the Pacific Ocean.

The objective of this project is to mitigate the impacts of extreme weather and earthquakes on the Oceana Marin WWTP and the associated impacts to the residents of Dillon Beach through retrofitting the berms of the treatment and storage ponds. Planned retrofits include re-grading the pond berms and placement of geotextile fabric covered with rip rap to prevent erosion and to make the ponds more resilient to earthquake damage. The electrical equipment at the treatment pond is obsolete, and will be replaced to ensure the retrofitted WWTP will work as needed during extreme weather events.

Reasons Why the Project is Exempt

All project components are categorically exempt under Section 15301 (b) – Existing Facilities and Section 15302 (c) – Replacement or Reconstruction.

- Section 15301 (b) is applicable because the WWTP is a publicly-owned sewerage facility. Storm damage at the facility will be repaired. The existing berms surrounding the treatment and storage ponds will be retrofitted to improve extreme weather and earthquake resiliency. Existing obsolete electrical equipment will be replaced to ensure the WWTP functions properly.
- Section 15302 (c) is applicable because the WWTP berm retrofit will require minor reconstruction, including re-grading the pond berms. Additional applicable project features include placement of a geotextile fabric covered with rip rap to prevent erosion and provide additional extreme weather and earthquake resiliency and ensure proper function during extreme weather.

8

MEMORANDUM

To: Board of Directors

February 28, 2020

From: Julie Blue, Auditor/Controller JB

Subj: Human Resources Consulting Contract Amendment – Darlene Rhodes

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RECOMMENDED ACTION: Amend Contract with Darlene Rhodes to Provide Continued Human Resource (HR) Consulting Services

FINANCIAL IMPACT: Not to Exceed \$20,125

At the January 8, 2019 meeting, the Board authorized a consulting agreement between the District and Darlene Rhodes for Human Resources (HR) services. At the August 6, 2019 meeting the Board approved an extension of her contract. HR is an ongoing need of any organization and has been covered by the Auditor/Controller, with the assistance of legal counsel, HR consulting, and the accounting staff since the position of HR/Safety Manager has remained unfilled.

Darlene has worked with Management and staff for the past twelve months to assist in day to day HR related operations. She has also provided executive coaching and assessed the department needs of the Accounting Department. She is currently assessing the department needs of the Consumer Services Department since implementation of the AMI system has changed the workload of the department. The objective of this consulting services agreement is to provide continued assistance for current HR matters and to assess the ongoing needs of the District.

The total fee for these tasks is estimated at a maximum of \$20,125, as shown in the attached proposal. The original contract was approved for \$19,800 and the subsequent extension was approved for \$10,500. To date the total costs of HR services provided by the consultant have totaled \$31,000. The vacant HR/Safety Manager position continues to create a favorable FY 2019-20 budget variance of approximately \$10,000 per month which adequately covers the costs of the HR consultant.

Once approved by the Board, the consultant will continue her work with the Auditor/Controller and other members of Management and staff to assess and fulfill the department level needs of the District. The consultant will be available for additional tasks as outlined above or assigned specific tasks as directed by the Auditor/Controller or the General Manager. The term of the contract will span four months, approximately from March 3, 2020 through June 30, 2020.

Approved by GM



Date

2/28/20

RECOMMENDATION:

Board to authorize an additional \$20,125 for HR Consultant Darlene Rhodes to provide continued Human Resources Consulting Services.

North Marin Water District – Human Resources Project
Executive Human Resources Consultation
SCOPE OF SERVICES
PROPOSAL

In coordination with Drew McIntyre, General Manager, this scope of services is proposed to respond to identified Human Resources goals and needs within the North Marin Water District.

Services shall include: General Executive Human Resources consulting.

GOALS

1. To continue to provide Executive Human Resources consultation services related to continued departmental organizational assessments, updating/creating job classifications, recruitment and onboarding (specifically recruiting for/onboarding of the new HR staff member), performance management, and other HR-related needs; as well as to develop any improvement goals, consistent with talent management development recommendations and departmental and/or organizational goals.

PROPOSAL TIMELINE, EXPECTATIONS & DELIVERABLES

January 2020 –	GENERAL EXECUTIVE HR CONSULTING
June 2020	General Executive Human Resources Consulting will be ongoing on an as-needed basis, as requested by Julie Blue or Drew McIntyre.

OTHER TERMS

Consultant Presence/Onsite Requirements

- For all requested meetings, Consultant will be on-site at the North Marin Water District located at 999 Rush Creek Place, Novato – unless otherwise agreed.
- Consultant will be available via telephone, email or text for all HR requests, not requiring an in-person meeting. No regular office hours will be established; this contract will be on an as-needed basis.

Project Timeline Commitment: Consultant commits to project for a time period up to four months with the option to extend, by mutual agreement of Consultant and North Marin Water District General Manager. Timeline would begin as early as **February 2020**. Project time period would conclude approximately **June 2020**. Extension requires formal amendment to agreement, executed by the General Manager or his designee.

COSTS / FEES

Executive HR Consultation*

\$175 / hour

**Consultations include Consultant travel to/from Sonoma, CA*

Estimated Costs

Executive HR Consultation:

NTE 115 hours

\$ 20,125.00

PROPOSAL TOTAL: \$ 20,125.00**

Drew McIntyre, General Manager for NMWD

Date _____

Darlene D. Rhodes, HR Consultant

Date _____

****Billed bi-monthly; 10th and 25th of month**

9

MEMORANDUM

To: Board of Directors

February 28, 2020

From: Drew McIntyre, General Manager
Julie Blue, Auditor/Controller

Subj: Accept 2020 Novato and Recycled Water Rate Study Draft Report and Direct Staff to Prepare a Proposition 218 Notice of Public Hearing on Proposed Revenue Increases and Rate Structure Changes

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RECOMMENDED ACTION: Accept 2020 Novato and Recycled Water Rate Study Draft Report and Direct Staff to Prepare a Proposition 218 Notice of Public Hearing**FINANCIAL IMPACT:** None at this timeBackground

The District's water rate structure was last modified in 2007 with implementation of the Conservation Incentive Tier Rate (CITR). Customers are currently billed under a rate structure comprised of 16 rates categorized by commercial, residential, elevation zones, and seasons. At the March 19, 2019 meeting, the Board approved an agreement with Hildebrand Consulting (Oakland, CA) to prepare a comprehensive Water Rate Study. Hildebrand Consulting (Hildebrand) has provided water rate setting and related services to public agencies throughout northern California. The objective of the Water Rate Study is to develop water rates that are fair and equitable and to ensure that the District's water rates remain in compliance with California Constitution Article XIII D, Section 6 (commonly referred to as Proposition 218). In order to maintain compliance, the rate structure should generate revenue from each class of customers in proportion to the cost to serve each customer.

Novato Service Area Rate Study Development and Public Outreach

The 2020 Novato and Recycled Water Rate Study (Attached) was developed through several meetings with District staff and the Board's Ad Hoc Water Rate Study Subcommittee (Director's Michael Joly and James Grossi) over several months. During this process, the District carried out an extensive Novato Water Rate Study public outreach effort that began in October 2019 and included news flashes, newsletters mailed to all customers, water bill messages, social media posts, ads in the local newspaper, web notices, and more. Two Special Board meetings were held to conduct Workshops on the proposed Water Rate Study to solicit input from our customers (workshop videos are typically posted on our website within one week of occurrence). The first workshop was held on February 11, 2020 and was attended by six

customers. Public comments included: (1) support for the clarity of the Rate Study presentation and rationale for the proposed changes, (2) concern about messaging the tier rate structure changes to customers and (3) questions on a tier rate structure methodology that assumes Stafford Treatment Plant costs will continue to be higher than imported water purchases from SCWA.

The second workshop was held on February 25, 2020 and was attended by one customer. Public comment primarily centered around questions related to differences between local (Stafford Treatment Plant) and imported (Sonoma County Water Agency) water supply and costs. In addition to the aforementioned comments during both Workshops, the District has also been tallying comments received via phone or email as they pertain to the rate study and workshops.

There have been two customers that expressed opposition to the rate increases via email, one customer who came into the office inquiring what tier he would fall into under the new rate structure, and one email from a customer asking how much their water bill would be with the proposed increases. In most cases customers have been directed to the District's online rate calculator.

Key milestone dates are tabulated below with completed tasks shaded:

- **Feb. 11, 2020** Special Board Meeting Rate Study Workshop No. 1 (Board & Public)
- **Feb. 25, 2020** Special Board Meeting Rate Study Workshop No. 2 (Board & Public)
- **Mar. 3, 2020** Regular Board Meeting - Rate Study Presentation and Acceptance of Draft
- **June 16, 2020** Public hearing to adopt Rate Study and to enact new water rates

Discussion

The rate study prepared multi-year financial plans, reviewed the District's rate structure components, and based thereon proposes a 5-year rate schedule for both the Novato Enterprise and the Recycled Water Enterprise. The financial plans were based on historical and budgeted financial information, including historical and budgeted operating costs, a multi-year capital improvement program, and outstanding debt service obligations. The analysis identifies a revenue shortfall in upcoming years which leads to the conclusion that revenue adjustments are required for both the Novato Enterprise and the Recycled Water Enterprise as summarized graphically in the adjacent table.

A cost-of-service (COS) analysis was completed to evaluate the cost of providing raw, potable and recycled

Rate Adjustment Date	Proposed Rate Increase
July 1, 2020	6.0%
July 1, 2021	6.0%
July 1, 2022	6.0%
July 1, 2023	5.0%
July 1, 2024	5.0%

water service and to allocate those costs to rate structure components to ensure the proposed rates are aligned with costs to provide service. The COS analysis is a necessary step in order to comply with Proposition 218. Upon completion of the COS analysis, a rate structure analysis was performed to evaluate rate structure modifications and calculate specific rate schedules for implementation in FY 2020/21. The rate structure proposed by the Study is designed to fairly and equitably recover costs through rates; conform to accepted industry practice and legal requirements; and provide fiscal stability and more consistent recovery of system fixed costs.

The Study found that the District's current rate structure components are consistent with common industry practices and recommends updating the meter equivalency schedule and structuring the potable tiered and seasonal rates to more closely reflect the cost of water supply. The Residential Tier 1 rate and the Commercial Winter rate are designed to recover the cost of importing water from SCWA (the District's lowest cost source of water). The Residential Tier 2 & 3 rate and the Commercial Summer rate as proposed are designed to recover the cost of treating local surface water at the Stafford Treatment Plant. The costs of the Conservation Program are proposed to be recovered through the Tier 3 rates and Summer rates because it is those customers that use the most water who create the need for the Conservation Program.

The allocation of water proposed for Tier 1 is 262 gallons per day per dwelling unit, which would result in the same proportion of water being sold at Tier 1 rates as is purchased from SCWA. Similarly, the "season" proposed for Commercial Winter Rates extends from October through June, which would also result in the same proportion of water (i.e., the proportion purchased from SCWA) being sold at the Winter Rate. No structural changes are proposed for the Recycled Water Rates.

The proposed water rates will need to be adopted in accordance with Proposition 218, which will require a detailed notice describing the proposed charges to be mailed to each affected property owner or customer at least 45 days prior to conducting a public hearing on June 16, 2020 to adopt the rates.

Recommendation

Accept the Draft 2020 Novato and Recycled Water Rate Study and provide direction to staff on preparing a single year or multiple year Proposition 218 Notice of Public Hearing on proposed rate structure changes and revenue increases.

Attachments: Draft 2020 Novato and Recycled Water Rate Study, February 25, 2020
2020 Rate Study Recommendations Board Presentation, March 3, 2020



NORTH MARIN WATER DISTRICT

2020 Novato and Recycled Water Rate Study

Draft Report

February 25, 2020



HILDEBRAND
CONSULTING

February 11, 2020



Mr. Drew McIntyre
General Manager
North Marin Water District
999 Rush Dr.
Novato, CA 94945

Re: **Draft** 2020 Novato and Recycled Water Rate Study

Dear Mr. McIntyre,

Hildebrand Consulting is pleased to present this **Draft** 2020 Water Rate Study (Study) for the Novato Enterprise and Recycled Water Enterprise that was performed for North Marin Water District (District). We appreciate the fine assistance provided by you and all of the members of the District staff who participated in the Study.

If you or others at the District have any questions, please do not hesitate to contact me at:

mhildebrand@hildco.com
(510) 316-0621

We appreciate the opportunity to be of service to the District and look forward to the possibility of doing so again in the near future.

Sincerely,

Mark Hildebrand
Hildebrand Consulting, LLC

Enclosure

Executive Summary

Hildebrand Consulting, LLC has been retained by North Marin Water District (District) to conduct a rate study (Study) for the Novato water service area and the District's recycled water system. This report describes in detail the assumptions, procedures, and results of the Study, including conclusions and recommendations.

The District provides water service to approximately 61,000 residents in the greater Novato area through over 20,000 potable water service connections and 90 recycled water connections. Nearly three quarters of the Novato service area's water supply is purchased from the Sonoma County Water Agency (SCWA), while the remaining supply is treated surface water from Stafford Lake.

The scope of this Study is to prepare multi-year financial plans, review the rate structures, and propose a 5-year rate schedule for both the Novato Enterprise and the Recycled Water Enterprise.

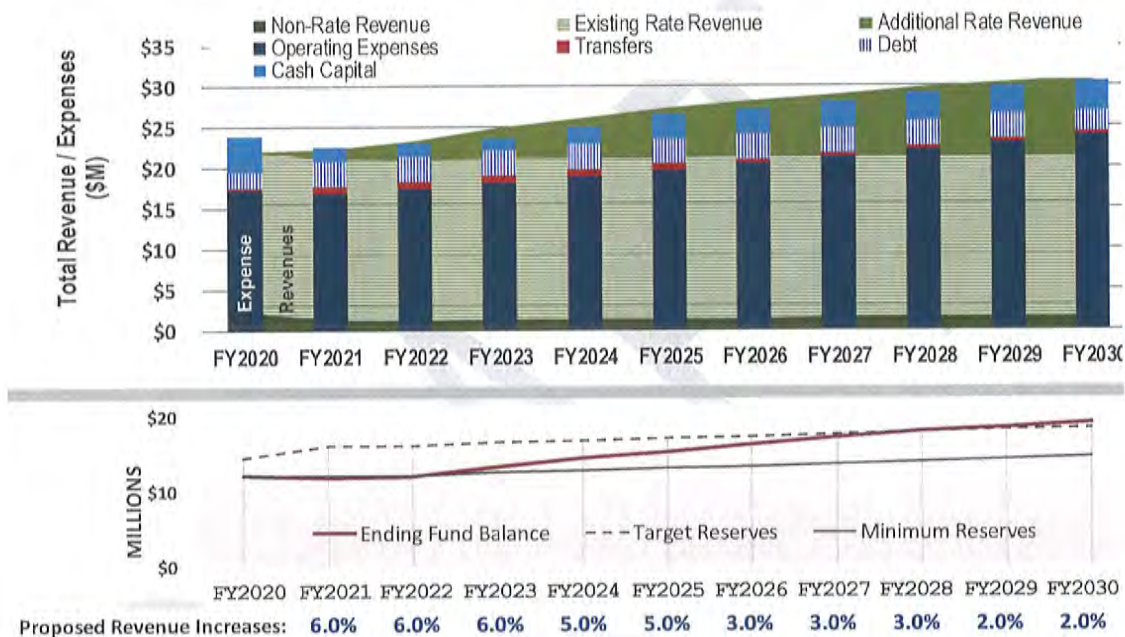
This Study applied methodologies that are aligned with industry standard practices for rate setting as laid out in the American Water Works Association (AWWA) M1 Manual, and all applicable law, including California Constitution Article XIII D, Section 6(b), commonly known as Proposition 218.

Financial Plans

The Study developed 10-year financial plans for both the Novato Enterprise and the Recycled Water Enterprise based on historical and budgeted financial information associated with operation of the Novato Enterprise and Recycled Water Enterprise, including historical and budgeted operating costs, a multi-year capital improvement program (CIP), and outstanding debt service obligations. The 10-year financial plans were developed through several interactive work sessions with both District staff and the Board's Ad Hoc Water Rate Study Subcommittee. The analysis identifies a revenue

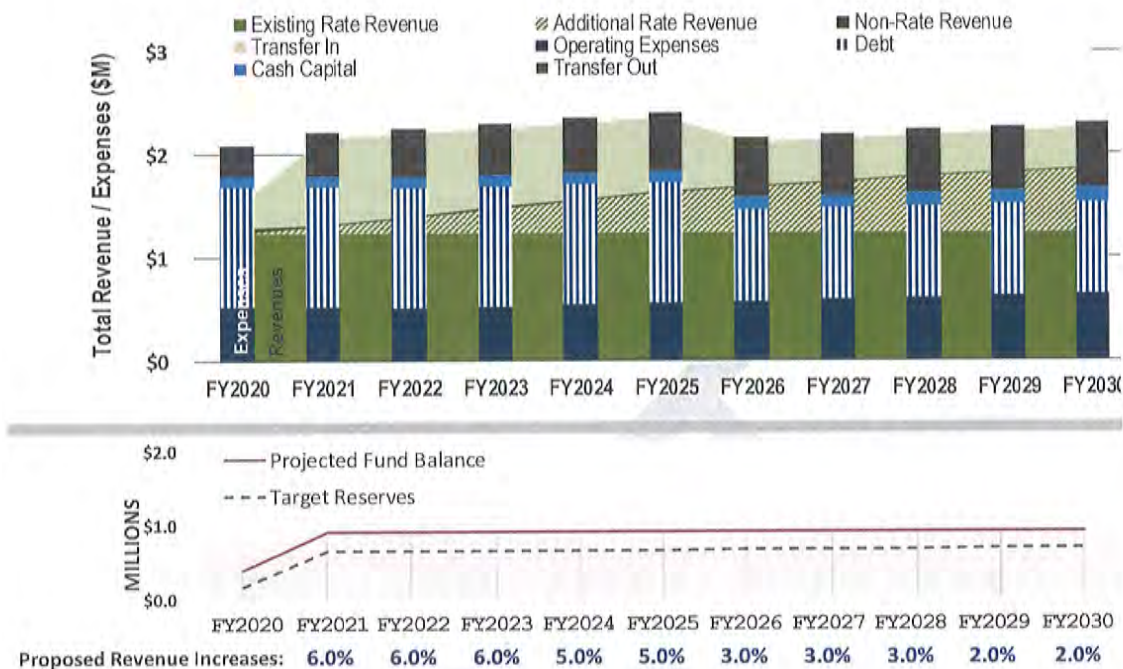
shortfall in upcoming years which leads to a conclusion that revenue adjustments are required for both the Novato Enterprise and the Recycled Water Enterprise.

Based upon the Study's financial data, assumptions, policies, and debt strategy, this Study proposes a 5-year schedule of rate adjustments for the Novato Enterprise as summarized graphically in the figure below.



Novato Enterprise Financial Projections with Recommended Rate Increases

Similarly, this Study proposes a 5-year schedule of rate adjustments for the Recycled Water Enterprise as summarized graphically in the figure below.



Recycled Water Financial Projections with Recommended Rate Increases

For both enterprises, it is projected that minimal (approximately inflationary) increases will be necessary following the final recommended increase in FY 2024/25.

Cost of Service & Rate Structure

The Cost-of-Service (COS) analysis evaluates the cost of providing water and recycled water service and to allocate those costs to rate structure components to ensure the proposed rates are aligned with costs to provide service. The COS analysis is done in order to comply with Proposition 218, which requires water rates to be equitably apportioned and proportional to the cost of providing water service. Upon completion of the COS analysis, a rate structure analysis was performed to evaluate rate structure modifications and calculate specific rate schedules for implementation in FY 2020/21. The complete schedule of proposed rates for FY 2020/21 through FY 2023/24 is detailed in the full report.

The rate structure proposed by the Study is designed to:

- ▶ Fairly and equitably recover costs through rates;
- ▶ Conform to accepted industry practice and legal requirements; and
- ▶ Provide fiscal stability and recovery of system fixed costs.

This Study employed a COS methodology that is consistent with the “commodity-demand” COSA methodology promulgated in AWWA’s *Manual M1: Principles of Water Rates, Fees, and Charges (M1)*. This is a well-established methodology as recognized by the AWWA and other accepted industry standards.

Proposed Rate Structure Changes

The Study found that the District’s current rate structures are consistent with common industry practices and recommends updating the meter equivalency schedule and structuring the potable tiered and seasonal rates to reflect the cost of water supply. The Residential Tier 1 rate and the Commercial Winter rate are designed to recover the cost of importing water from SCWA (the District’s lowest cost source of water). The Residential Tier 2 & 3 rate and the Commercial Summer rate are designed to recover the cost of treating local surface water at the Stafford Treatment Plant. The costs of the Conservation Program are recovered through the Tier 3 rates and Summer rates because it is those customers that use the most water who create the need for the Conservation Program.

The allocation of water in Tier 1 is 262 gallons per day per dwelling unit, which results in same proportion of water sold at Tier 1 rates as is purchased from SCWA. Similarly, the “season” for Commercial Winter Rates extends from October through June, which also results in same proportion of water being sold at the Winter Rate.

No structural changes are proposed for the Recycled Water Rates.

Proposed Novato Water Rates

The proposed fixed Service Charge for Novato customers is made up of an account charge and a meter charge as summarized in the table below.

Proposed Service Charges – Novato

Meter Size	Account Charge	Meter Charge	Bi-Monthly Service Charge
5/8 ⁱⁿ *	\$19.73	\$21.73	\$41.46
1"	\$19.73	\$54.33	\$74.06
1.5"	\$19.73	\$108.65	\$128.38
2"	\$19.73	\$173.84	\$193.57
3"	\$19.73	\$347.68	\$367.41
4"	\$19.73	\$543.25	\$562.98
6"	\$19.73	\$1,086.50	\$1,106.23
8"	\$19.73	\$1,412.45	\$1,432.18

The residential, commercial and raw water Quantity Charges are calculated by combining unit costs associated with water supply costs and an appropriate elevation charge as summarized below.

Proposed Quantity Charges – Novato

Residential Quantity Charges	
Tier 1*	\$5.50
Tier 2**	\$6.23
Tier 3	\$7.67
Commercial Quantity Charges	
Winter (Oct. to June)	\$5.50
Summer (Jul. to Sept.)	\$7.67
Other Quantity Charges	
Raw Water	\$2.93
Temporary Meter	\$6.99
Elevation Zone Charge	
Zone B	\$0.76
Zone C	\$2.10

* Allocation is 262 gpd per dwelling unit

** Allocation is 458 gpd per dwelling unit

Proposed Recycled Water Rates

Similarly, the proposed fixed Service Charge for Recycled Water customers is made up of an account charge and a meter charge as summarized in the following table.

Proposed Service Charges – Recycled Water Enterprise

Meter Size	Account Charge	Meter Charge	Bi-Monthly Service Charge
5/8"	\$24.11	\$24.67	\$48.78
1"	\$24.11	\$61.68	\$85.79
1.5"	\$24.11	\$123.35	\$147.46
2"	\$24.11	\$197.36	\$221.47
3"	\$24.11	\$394.72	\$418.83
4"	\$24.11	\$616.75	\$640.86
6"	\$24.11	\$1,233.50	\$1,257.61

The Quantity Charge for Recycled Water of \$6.24 per TGAL.

Conclusion

The Study used methodologies that are aligned with industry standard practices for rate setting as promulgated by AWWA and all applicable laws, including California's Proposition 218. The proposed annual adjustments to the rates will allow the District to continue to provide reliable service to customers while meeting the state's mandates.

The water rates will need to be adopted in accordance with Proposition 218, which will require a detailed notice describing the proposed charges to be mailed to each affected property owner or customer at least 45 days prior to conducting a public hearing to adopt the rates.

The full report includes schedules which detail 5 years of proposed rates.

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Schedule 1 – Novato Enterprise Budgeted and Projected Cash Inflows

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Schedule 8 – Allocation of Costs to System Functions – Novato Enterprise

Schedule 9 - Allocation of Costs to System Functions – Recycled Water Enterprise

Schedule 10 – Schedule of Proposed Rates

List of Acronyms

AEEP	Aqueduct Energy Efficiency Project
AWWA	American Water Works Association
CIP	capital improvement program
COS	cost of service
DCR	debt service coverage ratio
FY	fiscal year (which ends on June 30 for the District)
G&A	general and administrative
GPD	gallons per day
GPM	gallons per minute
MG	million gallons
MMWD	Marin Municipal Water District
O&M	operations and maintenance
OPEB	Other Post-Employment Benefits
pay-go	“pay as you go” (i.e. cash financing for capital projects)
SCWA	Sonoma County Water Agency
SRF	State Revolving Fund (loan program)
TGAL	thousand gallons

Section 1. INTRODUCTION

Hildebrand Consulting, LLC has been retained by North Marin Water District (District) to conduct a rate study (Study) for the Novato water service area and the District's recycled water system. This report describes in detail the assumptions, procedures, and results of the Study, including conclusions and recommendations.

1.1 UTILITY BACKGROUND

The District provides water service to approximately 61,000 residents in the greater Novato area through over 20,000 potable water service connections and 90 recycled water connections. The District also provides water service to approximately 1,800 residents in the Point Reyes service area of West Marin County through over 780 service connections and sewer service to approximately 500 residents in the Oceana Marin service area of West Marin County through approximately 230 service connections. The focus of this Study is both the Novato service area (which sells potable water) and the Recycled Water system. The District was formed by voter approval in April 1948 pursuant to provisions of the County Water District Law and is governed by a five-member Board of Directors, elected by division from within the District's service area.

Nearly three quarters of the Novato service area's water supply is purchased from the Sonoma County Water Agency (SCWA), while the remaining supply is treated surface water from Stafford Lake.

1.2 SCOPE & OBJECTIVES OF STUDY

The scope of this Study is to prepare multi-year financial plans, review the rate structures, and propose a 5-year rate schedule for both the Novato Enterprise and the Recycled Water Enterprise.

The primary objectives of this Study are to:

- i. Develop multi-year financial management plans that integrate operational and capital project funding needs;
- ii. Identify future rate adjustments to water rates to help ensure adequate revenues to meet each enterprises' respective ongoing financial obligations;
- iii. Determine the cost of providing water service using industry-accepted methodologies; and
- iv. Recommend specific modifications to the District's existing rate structures in order to ensure that the District is equitably recovering the cost of service and comporting with industry standards and California's legal requirements.

1.3 STUDY METHODOLOGY

This Study applied methodologies that are aligned with industry standard practices for rate setting as laid out in the American Water Works Association (AWWA) M1 Manual, and all applicable law, including California Constitution Article XIII D, Section 6(b), commonly known as Proposition 218.

The Study began with a review of the District's current financial dynamics and latest available data for the utility's operations. Multi-year financial management plans for both the Novato (Potable) Enterprise and the Recycled Water Enterprise were then developed to determine the level of annual rate revenue required to cover projected annual operating expenses, debt service (including coverage targets), and capital cost requirements while maintaining adequate reserves. This portion of the Study was conducted using an MS Excel®-based financial planning model which was customized to reflect both enterprises financial dynamics and latest available data for the utility's operations in order to develop a long-term financial management plan, inclusive of projected annual revenue requirements and corresponding annual rate adjustments.

Revenue requirements calculated for fiscal year ending June 2021 (FY 2020/21¹) were then used to perform a detailed cost-of-service (COS) analysis. The COS analysis and rate structure design were conducted based upon principles outlined by the AWWA, legal requirements (Proposition 218) and other generally accepted industry practices to develop rates that reflect the cost of providing service.

¹ Fiscal years are sometimes indicated by their ending years. For example, FY 2019/20, starts on July 1, 2019 and ends on June 30, 2020, can also be expressed as FY 2020.

Section 2. FINANCIAL PLANS

This section presents the 10-year financial plans for both the Novato Enterprise and the Recycled Water Enterprise, including a description of the source data, assumptions, and the District's financial policies. The District provided historical and budgeted financial information associated with operation of the Novato Enterprise and Recycled Water Enterprise, including historical and budgeted operating costs, a multi-year capital improvement program (CIP), and outstanding debt service obligations. District staff also assisted in providing other assumptions and policies, such as reserve targets and escalation rates for operating costs (all of which are described in the following subsections).

The 10-year financial plans were developed through several interactive work sessions with both District staff and the Board's Ad Hoc Water Rate Study Subcommittee. As a result of this process, the Study has produced robust financial plans that will allow the District to meet the revenue requirements of the respective enterprises and achieve financial performance objectives throughout the projection period while striving to minimize rate increases.

The analysis identifies a revenue shortfall in upcoming years which leads to a conclusion that revenue adjustments are required for both the Novato Enterprise and the Recycled Water Enterprise. The schedules attached to this report include detailed data supporting the financial plan discussed herein.

2.1 NOVATO ENTERPRISE FINANCIAL PLAN

The following provides the details of the Novato Enterprise financial plan.

2.1.1 Novato Enterprise Beginning Fund Balances

The ending cash balances for FY 2018/19 were used to establish the FY 2019/20 beginning balances, as outlined in **Table 1**.

Table 1: Novato Enterprise FY 2019/20 Beginning Cash Balance

Cash	\$0
Self-Insured Workers' Compensation Fund	\$507,000
Retiree Medical Benefits Fund	\$4,124,000
Maintenance Accrual Fund	\$2,500,000
Operating Reserve Fund	\$2,332,000
Liability Contingency Reserve	\$1,142,000
Total Unrestricted:	\$10,605,000
 Restricted:	 \$1,628,000
Total Reserves:	\$12,233,000
 Long-term Receivable from Recycled Water:	 \$7,659,000

The District's self-insurance program was recently terminated, and the associated funds (\$507 thousand) have been transferred to the Operating Reserve Fund. The "restricted reserves" are primarily associated with reserves that set aside in conformance with debt covenants for an existing State Revolving Fund (SRF) loan. The purpose and target reserve levels for the remaining funds is detailed in Section 2.1.8. The "Long-term Receivable" from Recycled Water is explained in Section 2.2.5.

2.1.2 Novato Service Area Customer Growth

Over the past 4 years the District has collected an average of approximately \$1 million per year in Connection Fee revenue from new customers connecting to the system. While this level of growth may continue, this Study conservatively assumes that Connection Fee revenue will average \$486 thousand per year going forward (based on 50% of the average revenue from FY2014/15 – FY2018/19). This level of revenue corresponds with a growth rate of approximately 0.07%. This Study assumes that this

rate of growth will continue over the next 10-year planning period, while also recognizing that actual growth may turn out to be materially higher.

2.1.3 Novato Enterprise Rate Revenues

Rate revenue is the revenue generated from customers for water service. The District collects rate revenue from potable water customers in the Novato service area based on a fixed “Service Charge” (assessed based on meter sizes) and a water usage “Quantity Rate.” Customers receive a bimonthly bill. The Novato Enterprise financial plan starts with FY 2018/19 actual rate revenues and then inflates those revenues by 3.5% to estimate FY 2019/20 revenues (the District adopted a 3.5% increase on June 1, 2019). Future rate revenues include assumed customer growth (see Section 2.1.2) as well as the annual rate revenue adjustments proposed by this Study. Budgeted and projected rate revenues (including proposed rate adjustments) are listed in **Schedule 1**.

2.1.4 Novato Enterprise Non-Rate Revenues

In addition to rate revenue, the District receives some “non-rate revenue” from sources such as miscellaneous service fees, wheeling charges², Connection Fee³ revenue, rents/leases on District property, grants, loan repayments⁴, and interest revenue on investments. Projections of all non-rate revenues were based on FY 2019/20 budgeted revenues with the exception of interest income which was calculated annually based upon projected fund balances and assumed interest rate of 1.47% on invested funds, which is consistent with the District’s historical interest

² Charged to Marin Municipal Water District (MMWD) for wholesale water transfers through NMWD’s Aqueduct.

³ The District’s “Connection Fees” are known as “Capacity Charges” per Government Code Section 66013.

⁴ Namely from MMWD for capital contributions to the Aqueduct Energy Efficiency Project (AEEP).

earnings. Budgeted non-rate revenues are depicted in Figure 2 below and listed in detail in Schedule 1.

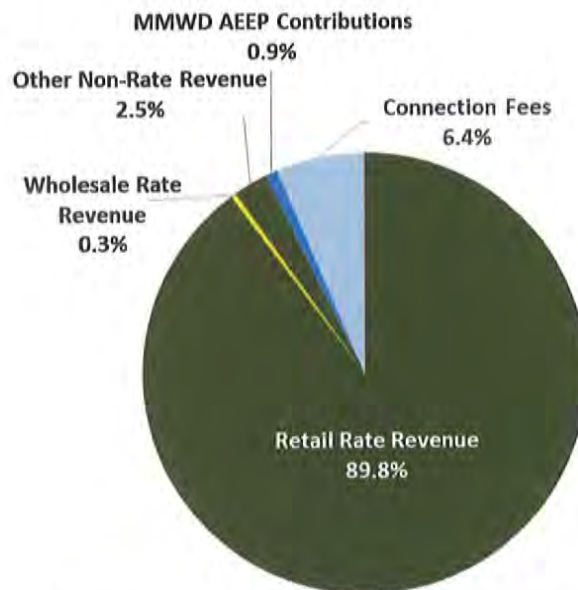


Figure 1: Novato Enterprise Budgeted Revenue Categories (FY 2019/20)

It should be noted that California law (specifically Government Code Section 66013) requires that Connection Fee revenue be spent “solely for the purposes for which the charges were collected” (i.e. expansion-related projects). In the case of the District, Connection Fee revenue is used to contribute to existing debt service payments for Recycled Water system expansion projects. The use of Connection Fee revenue to pay for the expansion of the Recycled Water system is reasonable given that Recycled Water is part of the District’s larger water portfolio and the use of recycled water mitigates the District’s need to pay for other (potentially more expensive) new sources of water. The mechanics of the transfer of Connection Fee revenue from the Novato Enterprise to the Recycled Water Enterprise are explained in more detail in Section 2.2.5.

2.1.5 Novato Enterprise Operating and Debt Expenses

Novato Enterprise expenses include operating and maintenance expenses, SCWA water purchase payments, debt service, transfers to the Recycled Water Enterprise (see Section 2.2.5). Capital spending is addressed in Section 2.1.7. The Novato Enterprise current outstanding debt includes a 2008 loan from Bank of Marin (a \$8.0 million loan, \$7 million of which was for the Aqueduct Energy Efficiency Project and \$1 million for West Marin capital projects), a 2010 SRF loan for the Stafford Treatment Plant (\$16.5 million), and a 2019 loan from JP Morgan Chase (\$4.6 million for the Advanced Meter Information (AMI) Project). The Novato Enterprise total annual debt service in FY 2019/20 is \$1,903,800.

Future operating expenses were projected based upon the budgeted expenditures from FY 2019/20 and adjusted for inflation (see Section 2.1.6).

Budgeted expense categories for FY 2019/20 are depicted in **Figure 2**. Budgeted and projected operating and debt expenses are listed in detail in **Schedule 2**.

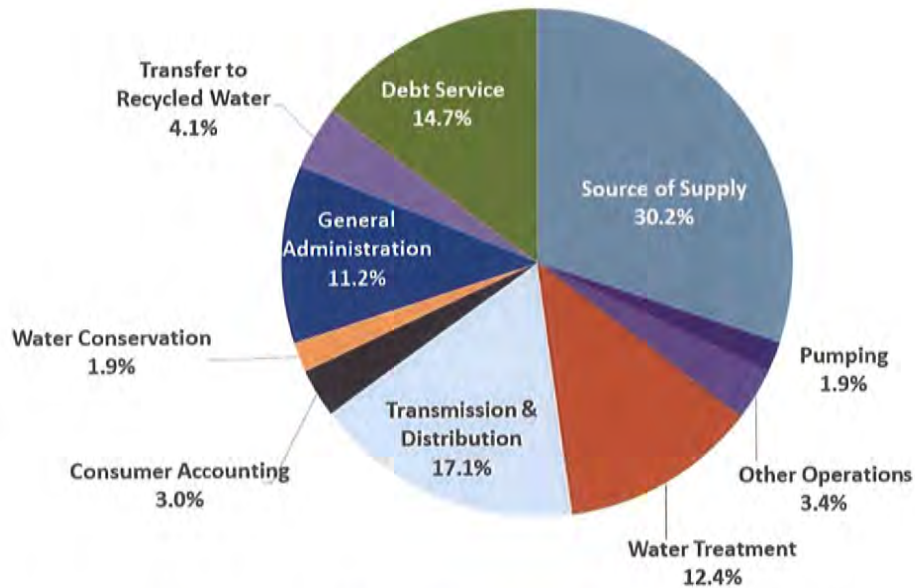


Figure 2: Novato Enterprise Forecasted Expense Categories (FY 2020/21)

2.1.6 Cost Escalation

Annual cost escalation factors for the various types of expenses were developed based upon a review of historical inflation trends, published inflation forecasts, industry experience, and discussions with District staff. During the projection period, most of the Novato Enterprise and Recycled Water Enterprise expenses are projected to increase at 3.0% per year. The only exception are water purchase costs from SCWA, which are assumed to increase by 6% per year based on projections provided by SCWA.

2.1.7 Novato Enterprise Capital Improvement Program

Figure 3 shows that total capital spending from FY 2015/16 to FY 2018/19 has averaged \$4.1 million, of which an average of \$1.9 million was cash financed (“pay-go”). During that period, the District received \$4.4 million in grants and issued a \$4.6 million loan.

Going forward, the District is planning to increase its annual pay-go spending to an average of \$4.0 million. The District is increasing its pay-go spending in order to proactively address aging pipes, pump stations, water tanks, and other system deficiencies, such as making improvement to the system’s fire flow capacity. A \$15 million loan is projected to be issued in FY 2020/21 to rehabilitate the Administrative Building and laboratory facilities.

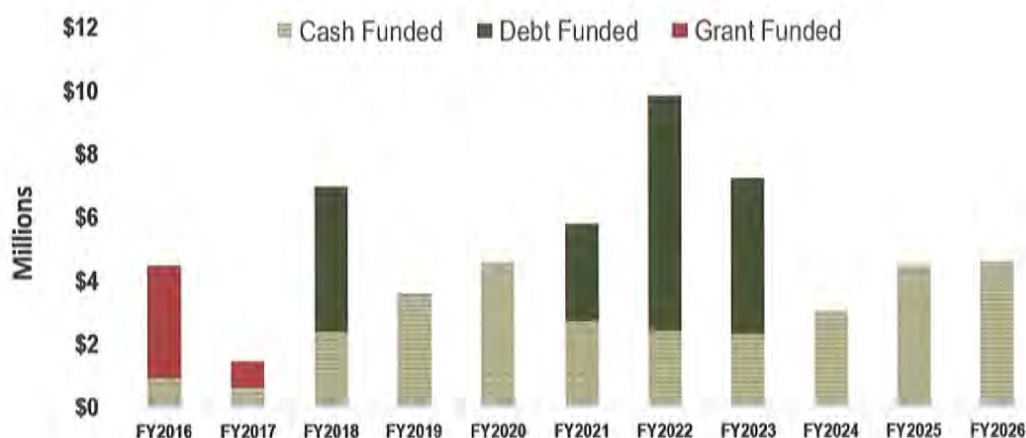


Figure 3: Novato Enterprise Historic and projected capital spending

A detailed list of capital projects and associated costs is provided in **Schedule 3**.

It should be noted that capital spending forecasts beyond FY 2024/25 is based on the District’s 2019 Water Master Plan 5-year spending forecast of \$19.2 million, for an average annual expense of \$3.8 million (in today’s dollars). All capital spending values

provided by the District were provided in current dollars and were inflated at a rate of 3% per year.

2.1.8 Novato Enterprise Reserve Targets

Target reserves for utilities are cash balances retained for specific cash flow needs. The target for reserves is an important component when developing a multi-year financial plan. Utilities rely on reserves for financial stability; credit rating agencies evaluate utilities in part on their adherence to formally adopted reserve targets; and lending agencies require utilities to maintain specific debt reserves for outstanding loans.

The Novato Enterprise has formal reserve policies (Policy No. 45, last revised on May 1, 2018) which includes three separate reserve targets, which are summarized below. The target levels of the policies below are consistent with: 1) the findings of reserve studies conducted by the AWWA; 2) a healthy level of reserves for a utility per the evaluation criteria published by rating agencies (e.g. Fitch, Moody's, and Standard & Poor's); and, 3) Hildebrand Consulting's industry experience for similar systems.

Operating Reserve – The Operating Reserve is comprised of a minimum of four months of budgeted operating expenditures as recommended by the District's financial advisors. This reserve serves to ensure adequate working capital for operating, capital, and unanticipated cash flow needs that arise during the year.

Given the forecasted FY 2020/21 O&M budget of \$16.8 million, the Operating Reserve target will be **\$5.6 million**.

Other Post-Employment Benefits (OPEB) Liability Reserve – The District pays the cost of health insurance for retirees (subject to certain limitations). The target level for this reserve is based on a 2018 actuarial analysis which calculated the District's total OPEB accrued liability at \$4.1 million (later adjusted to \$4.5 million in FY 2018/19).

Liability Contingency Reserve – This reserve was established when the District first elected to self-insure its general liability risk. Today the reserve target of \$2 million is based on an independent financial assessment of the District’s current liabilities.

Maintenance Accrual Fund Reserve – This reserve provides a source of funds for the replacement of treatment, storage, transmission and distribution facilities as they wear out. Until recently the reserve target goal has been \$2.5 million, based on the Novato Enterprise’s annual capital spending pay-go budget. Starting in FY 2020/21 the target for this reserve will be increased to \$4.0 million based on the District’s planned increase in pay-go spending.

This Study proposes that the District distinguish between “**Minimum “Reserves”** and “**Reserve Targets**”. The first three reserves targets above (the Operating Reserve target, OPEB Liability Reserve target, and Liability Contingency Reserve target, which add up to approximately \$12 million) are maintained for the purpose of mitigating unexpected expenses or events. For this reason, the District should always plan to have these reserves fully funded (in case those unexpected events come to pass, at which time it may be appropriate to draw down on the reserves). On the other hand, the Maintenance Accrual Fund Reserve is designed to give the District some “cushion” to smooth out the peaks and valleys in the pay-go capital spending program. As such, it make sense to draw down on this reserve during years of higher-than-average pay-go spending and replenish the reserve during years with lower-than-average spending. As such, the Maintenance Accrual Fund Reserve is treated as a “target” rather than a “minimum”.

The total reserve target by year is shown in **Schedule 4** (Novato Enterprise 10-Year Cash Flow Proforma), which shows that the projected cash reserves don’t dip below the minimum reserve target of \$12 million, while the Target Reserve level of \$16 million (\$12 million + \$4 million) is only occasionally fully funded.

2.1.9 Future Borrowing Assumptions

This Study assumes that the \$15 million Administrative Building & Laboratory rehabilitation project will be debt financed with a bank loan in FY 2020/21. This Study assumes a repayment period of 20-years and a fixed interest rate of 3.10% based on information provided by the District's financial advisor. The annual debt service associated with the \$16.6 million loan (after escalation, cost of issuance (@ 1%) and reserve requirement (@ one year of debt service) is estimated to be \$1.13 million.

The District's existing loans have a debt service coverage ratio (DCR) requirement of 1.20. Based on recently published guidance from Fitch Ratings⁵, utility systems with *midrange* financial profiles should maintain a DCR greater than 1.50 times annual debt service. As per the District's debt management policy (Policy No. 47), a DCR of at least 1.50 was maintained throughout the projection period to enable the District to access favorable borrowing terms in the future.

2.1.10 Proposed Novato Enterprise Rate Revenue Increases

All of the above information was entered into a Novato Enterprise financial planning model to produce a 10-year projection of the sufficiency of revenues to meet current and projected financial requirements and determine the level of rate revenue increases necessary in each year of the projection period.

Based upon the previously discussed financial data, assumptions, policies, and debt strategy (a \$16.4 million loan), this Study proposes a 5-year schedule of rate adjustments as detailed in **Table 2**.

⁵ As published on July 31, 2013.

Table 2: Recommended Novato Enterprise Water Rate Revenue Increase

Rate Adjustment Date	Proposed Rate Revenue Increase
July 1, 2020	6.0%
July 1, 2021	6.0%
July 1, 2022	6.0%
July 1, 2023	5.0%
July 1, 2024	5.0%

The numbers provided in **Schedule 4** (Novato Enterprise cash flow proforma) are summarized graphically in **Figure 4**, which shows that cash reserves and DCR targets are maintained over the course of the planning period.

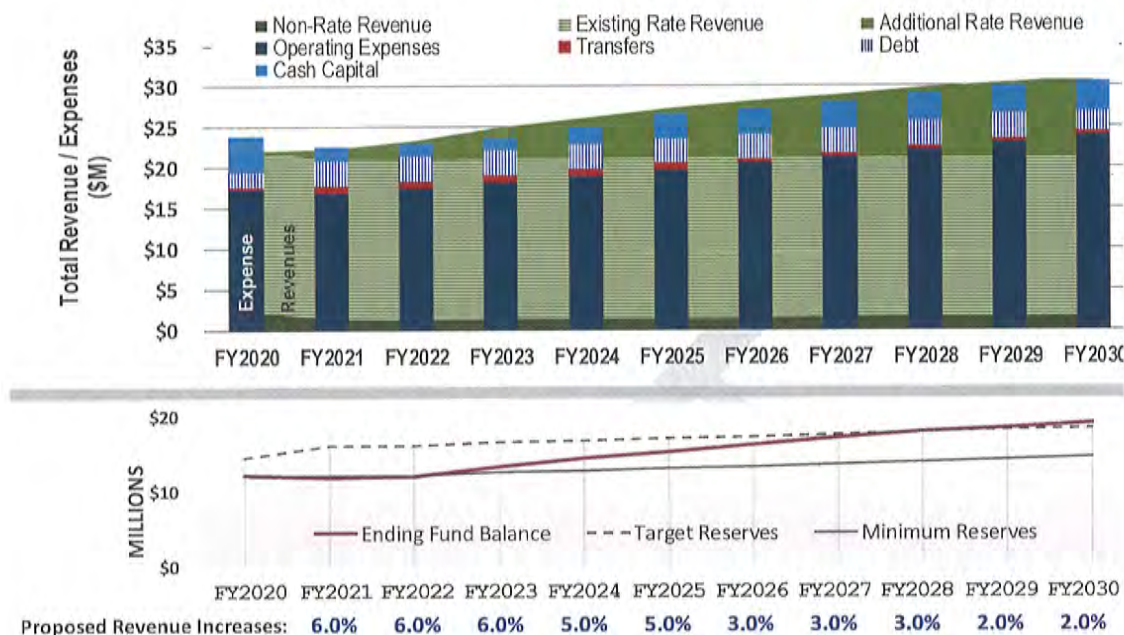


Figure 4: Novato Enterprise Financial Projection with Recommended Rate Increases

After the final recommended increase in FY 2024/25, it is projected that minimal (approximately inflationary) increases will be necessary going forward, barring unforeseen emergencies or changes in infrastructure/operational needs.

Section 3.6 discusses the Board's options when deciding how many years of proposed rates to adopt.

2.2 RECYCLED WATER ENTERPRISE FINANCIAL PLAN

The following provides the details of the Recycled Water Enterprise financial plan.

2.2.1 Recycled Water Enterprise Beginning Fund Balances

The ending cash balances for FY 2018/19 were used to establish the FY 2019/20 beginning balances, as outlined in **Table 3**.

Table 3: Recycled Water Enterprise FY 2019/20 Beginning Cash Balance

Cash	\$230,000
Operating Reserve Fund	\$174,000
Total Unrestricted:	\$404,000
Restricted	\$2,416,000
Capital Replacement & Expansion Fund	\$1,867,000
Total Reserves:	\$4,687,000

The “restricted reserves” are associated with (1) reserves that set aside per an interagency agreement with Novato Sanitary District and Las Gallinas Valley Sanitary District, (2) reserves set aside in conformance with debt covenants for existing SRF loans and (3) the Deer Island RWF Replacement Fund. The purpose and target reserve levels for the remaining funds is detailed in Section 2.2.8.

2.2.2 Recycled Water Customer Growth

Extending the recently developed Recycled Water system is a long and expensive endeavor. At this time the District doesn’t have any plans to expand the Recycled Water system, although the existing system has capacity to allow for expansion of the customer base in the future.

2.2.3 Recycled Water Rate Revenues

Much like potable water customers, the Recycled Water Enterprise receives rate revenue from a fixed “Service Charge” and a water usage “Quantity Rate” and customers receive a bimonthly bill. Rate revenue in the Recycled Water Enterprise financial plan begins with FY 2019/20 budgeted rate revenues. Future rate revenues are modeled to increase annually with the annual rate revenue adjustments proposed by this Study. Budgeted and projected rate revenues are listed in **Schedule 5**.

2.2.4 Recycled Water Enterprise Non-Rate Revenues

In addition to rate revenue, the Recycled Water Enterprise receives “non-rate revenue” from sources such as loan repayments⁶, miscellaneous service fees, grants, and interest revenue on investments. Most substantially, the Recycled Water Enterprise receives an annual transfer from the Novato Enterprise (explained in Section 2.2.5).

Projections of all non-rate revenues were based on FY 2019/20 budgeted revenues with the exception of interest income which was calculated annually based upon projected average fund balances and assumed the same interest rate as the Novato Enterprise. Budgeted revenues are depicted in **Figure 5** below and listed in detail in **Schedule 5**.

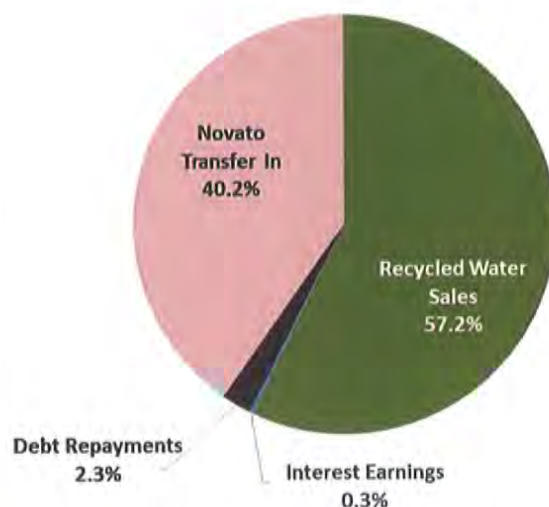


Figure 5: Recycled Water Forecasted Revenue Categories (FY 2020/21)

⁶ Namely Marin Country Club contributions to the enterprise’s debt service (approximately \$49 thousand per year).

2.2.5 Transfer In from Novato Enterprise

As previously mentioned in Section 2.1.4, Connection Fee revenue from the Novato Enterprise pays for the debt service on loans that were used to expand the Recycled Water storage and distribution system. However, this Connection Fee revenue is insufficient (in the short-term) to pay for the debt service. As such, the Novato Enterprise is using reserves from the Operating Reserve Fund to temporarily fund any debt service that exceeds Connection Fee revenue. Eventually Connection Fee revenue will begin to exceed the annual debt service payments (as the loans begin to be paid off starting in FY 2025/26 (see Schedule 6, Row 36)), at which time Connection Fee revenue will begin to reimburse the Novato Enterprise Operating Reserve Fund.

At present time, transfers are made from the Novato Enterprise Operating Reserve Fund to the Recycled Water Enterprise in amounts that are equal to the Recycled Water Enterprise's debt service less recycled water rate revenue surplus⁷. As explained in the previous paragraph, Connection Fee revenue is used to offset the cost of the transfer (i.e. loan) from the Novato Enterprise Operating Reserve Fund. For example, in FY2020/21 the transfer out is budgeted to be \$743 thousand and the Connection Fee revenue is budgeted to be \$486 thousand, therefore the balance of the loan (identified as "Long-Term Receivables" in the Novato Enterprise financial, see Section 2.1.1) from the Recycled Water Enterprise will increase by the difference (\$257 thousand). Again, in years when the Connection Fee revenue is greater than the transfer out to the Recycled Water Enterprise, the balance of the Long-Term Receivable will decrease.

⁷ Any surplus in revenue accounts for contributions from the Marin Country Club for debt service (which, by District policy, should be subtracted from transfers from the Novato Enterprise.

2.2.6 Recycled Water Operating and Debt Expenses

Recycled Water expenses include operating and maintenance expenses, debt service, and transfers to the partner agencies. Capital spending is address in Section 2.2.7. The Recycled Water Enterprise currently has nine (9) outstanding SRF loans, ranging from a \$457 thousand loan to a \$7.1 million loan. The Recycled Water Enterprise total annual debt service in FY 2019/20 is \$1,163,439.

Future operating expenses were projected based upon the budgeted expenditures from FY 2019/20 and adjusted for inflation (see Section 2.1.6).

In accordance with its agreements with Novato Sanitary District and Las Gallinas Valley Sanitary District⁸, the District also transfers out half of its revenue that is in excess of operating costs⁹ to partner agencies for the purpose of paying for the costs of repair and replacement at each respective agency.

Budgeted expense categories for FY 2019/20 are depicted in **Figure 6**. Budgeted and projected operating and debt expenses are listed in detail in **Schedule 6**.

⁸ The “Inter Agency Agreement for Recycled Water Between Las Gallinas Sanitary District and North Marin Water District” and the “Inter Agency Agreement for Recycled Water Between Novato Sanitary District and North Marin Water District” both executed in 2011.

⁹ The Inter Agency Agreements for Recycled Water between Novato Sanitary District, Las Gallinas Valley Sanitary District & NMWD in 2011 require that any payments to the NMWD by its retail customers in excess of “Operating and Maintenance Costs” shall be deposited in a separate fund for capital expenditures at each respective agency. “Operation and Maintenance Costs” are defined as the actual cost of labor, equipment and vehicle charges, consumables, and spare parts and/or replaced components necessary to reliably treat and deliver recycled water to the retail customers. Operation and Maintenance Costs do not include costs for major capital replacement or process changes.

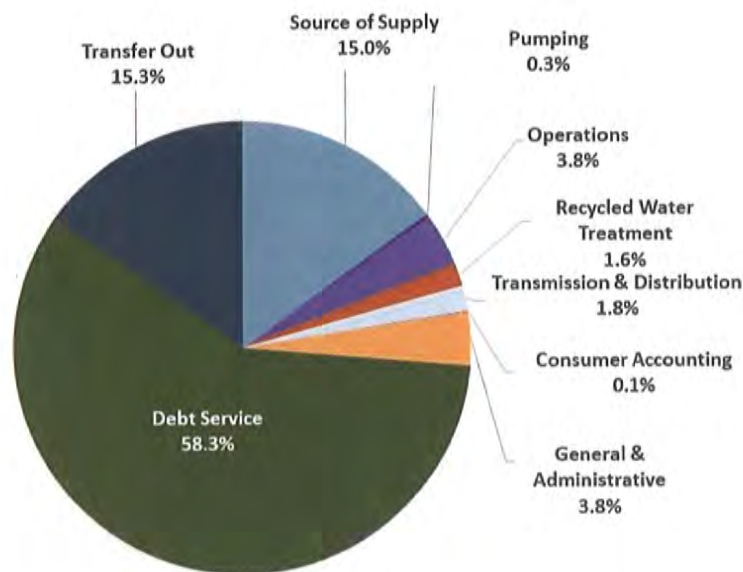


Figure 6: Recycled Water Budgeted Expense Categories (FY 2019/20)

2.2.7 Recycled Water Capital Improvement Program

Figure 7 shows that total capital spending from FY 2015/16 to FY 2017/18 was \$15.4 million of which \$7.4 million was debt financed, \$5.4 million was grant funded and \$2.6 million was cash funded. Starting in FY 2018/19 the annual capital spending drops to approximately \$100 thousand, all of which will be funded by pay-go.

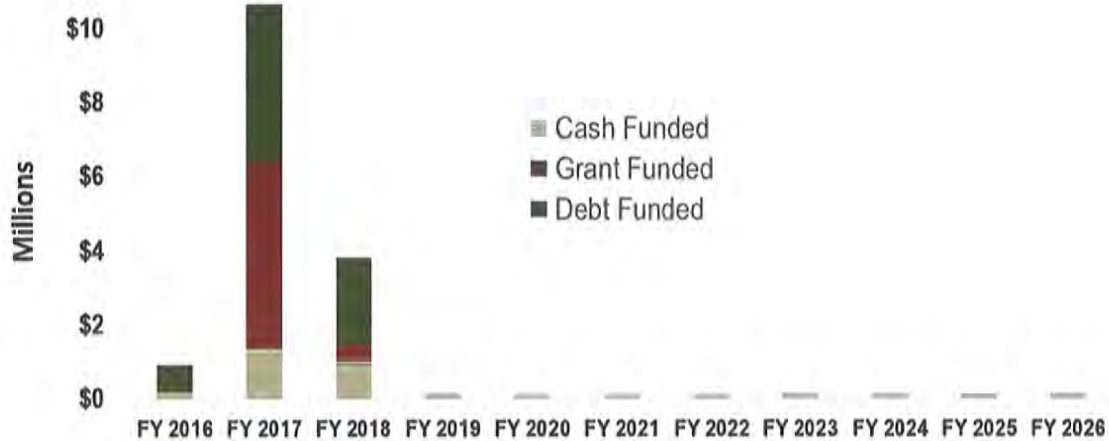


Figure 7: Recycled Water Historic and projected capital spending

2.2.8 Recycled Water Enterprise Reserve Targets

As discussed in Section 2.1.8, target reserves for utilities are cash balances retained for specific cash flow needs. The Recycled Water Enterprise's only formal reserve (as stated in District Policy No. 45 last revised on May 1, 2018) is its Operating Reserve, which is comprised of a minimum of four months of budgeted operating expenditures and serves to ensure adequate working capital for operating, capital, and unanticipated cash flow needs that arise during the year. Given the forecasted FY 2020/21 O&M budget of \$523 thousand, the Recycled Water Operating Reserve target will be \$175 thousand.

This Study also proposed to establish a **Capital Reserve** for the Recycled Water Enterprise. Much like the Maintenance Accrual Fund Reserve (see Section 2.1.8) this reserve is designed to equip the enterprise to withstand the natural volatility of annual capital spending while also providing emergency funds in the event of a catastrophic asset failure. The proposed target for this reserve is equal to the enterprise's annual depreciation expense (currently \$474 thousand).

The total reserve target by year is shown in **Schedule 7** (Recycled Water Enterprise 10-Year Cash Flow Proforma, Row 31), which shows that the projected cash reserves are projected to remain very steady at around \$900 thousand (which is just above the targeted reserve levels). The reason that the reserve levels are forecasted to remain so steady (which is atypical for a utility) is due to the fact that the transfer in from Novato (see Section 2.2.5) is calculated to balance the Recycled Water Enterprise's cash flow requirements.

2.2.9 Proposed Recycled Water Rate Revenue Increases

All of the above information was entered into a Recycled Water Enterprise financial planning model to produce a 10-year projection of the sufficiency of revenues to meet current and projected financial requirements and determine the level of rate revenue increases necessary in each year of the projection period.

Based upon the previously discussed financial data, assumptions, and policies, this Study proposes a 5-year schedule of rate adjustments which mirror those of the Novato Enterprise, as detailed in **Table 2**.

Table 4: Recommended Recycled Water Enterprise Rate Revenue Increase

Rate Adjustment Date	Proposed Rate Revenue Increase
July 1, 2020	6.0%
July 1, 2021	6.0%
July 1, 2022	6.0%
July 1, 2023	5.0%
July 1, 2024	5.0%

The numbers provided in **Schedule 7** (Recycled Water Enterprise cash flow proforma) are summarized graphically in **Figure 8**, which shows that cash reserves and DCR targets are maintained over the course of the planning period.

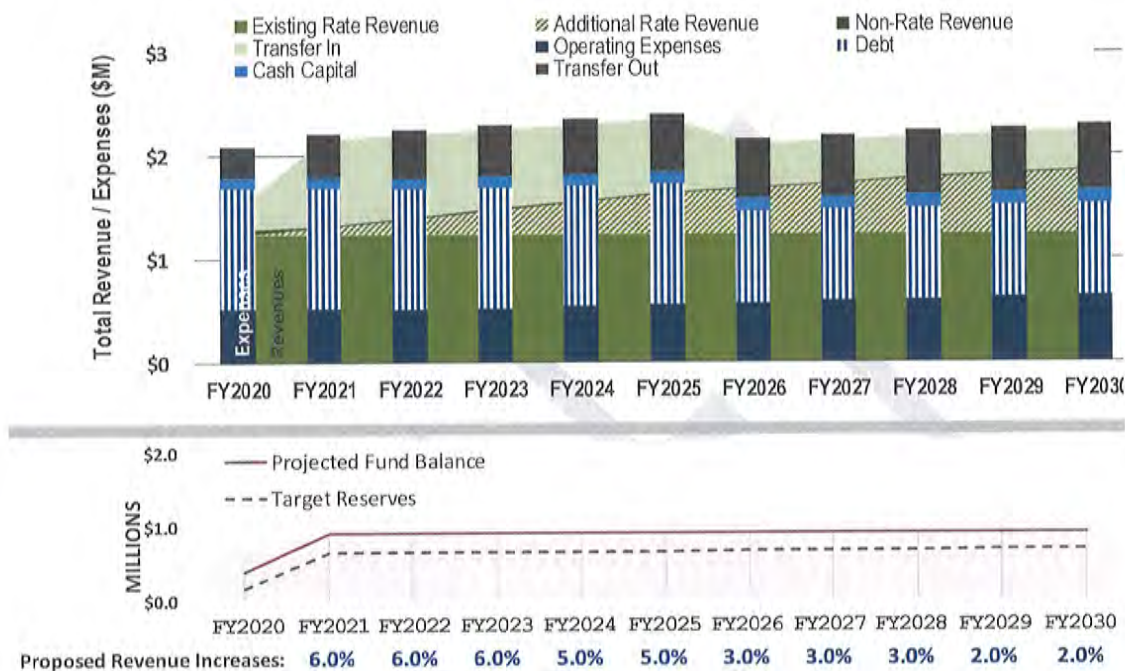


Figure 8: Recycled Water Financial Projections with Recommended Rate Increases

After the final recommended increase in FY 2024/25, it is projected that minimal (approximately inflationary) increases will be necessary going forward, barring unforeseen emergencies or changes in infrastructure/operational needs.

Section 3.6 discusses the Board's options when deciding how many years of proposed rates to adopt.

Section 3. COST OF SERVICE & RATE STRUCTURE

The Cost-of-Service (COS) analysis evaluates the cost of providing water and recycled water service and to allocate those costs to rate structure components to ensure the proposed rates are aligned with costs to provide service. The COS analysis is done in order to comply with Proposition 218, which requires water rates to be equitably apportioned and proportional to the cost of providing water service.

Upon completion of the COS analysis, a rate structure analysis was performed to evaluate rate structure modifications and calculate specific rate schedules for implementation in FY 2020/21. The complete schedule of proposed rates for FY 2020/21 through FY 2023/24 is detailed in **Schedule 10**.

The rate structure proposed by this Study is designed to:

- ▶ Fairly and equitably recover costs through rates;
- ▶ Conform to accepted industry practice and legal requirements; and
- ▶ Provide fiscal stability and recovery of system fixed costs.

This Study employed a COS methodology that is consistent with the “commodity-demand” COSA methodology promulgated in AWWA’s *Manual M1: Principles of Water Rates, Fees, and Charges (M1)*. This is a well-established methodology as recognized by the AWWA and other accepted industry standards.

3.1 CURRENT RATES

The structure for the District’s current potable water and recycled water rates follow a common industry practice with a two-part structure that is comprised of a fixed Service Charge and a consumption-based Quantity Charge. In addition, some potable water customers pay an additional Elevation Zone Charge, which is a consumption-based charge based on the elevation of the property. The Service Customer Charge is scaled based on the individual account’s meter size and currently recovers

approximately 24% of rate revenue for the Novato Enterprise and 5% of rate revenue for the Recycled Water Enterprise.

The Quantity Charge is assessed based on actual water usage (measured in thousand-gallon increments or “TGALs”) and the rate varies by customer class. Residential potable water customers pay inclining block rates (three tiers) and receive water allocations for each tier as summarized in **Table 5**.

Table 5: Current Residential Potable Tiered Rates

Tier	Rate (per TGAL)	Allocation (gallons per day per dwelling unit)
1	\$5.42	0 - 615
2	\$8.64	615 - 1856
3	\$15.05	Greater than 1845

Commercial (i.e. all non-residential) potable water customers currently pay a uniform season rate as shown in **Table 6**.

Table 6: Current Commercial Seasonal Rates

Season	Rate (per TGAL)
Summer (June through October)	\$6.42
Winter (November through May)	\$5.97

Recycled Water customer classes currently pay a uniform rate of \$5.97 per TGAL.

The Novato Enterprise has two raw water customers that pay only a Quantity Charge of \$2.46 per TGAL.

The Elevation Zone Charge is a surcharge added to the potable water Quantity Rates, as summarized **Table 7**.

Table 7: Current Elevation Zone Charges

Zone	Rate (per TGAL)	Elevation
A	\$0.00	0 to 60 ft
B	\$0.65	60 to 200 feet
C	\$2.08	Over 200 feet

3.2 PROPOSED RATE STRUCTURE CHANGES

This Study has found that the District's current rate structures are consistent with common industry practices and recommends the following minor modifications.

1. Update the meter equivalency schedule (see Section 3.3.3); and
2. Structure the potable tiered and seasonal rates to reflect the cost of water supply (see Section 3.2.2).

The above proposed changes are explained in more detail in the following subsections.

3.2.1 Meter Equivalency

A meter equivalency schedule is an industry-standard factor used to represent the relative capacity associated with various meter sizes based on their hydraulic flow capacity (measured in gallons per minute (GPM)). A meter equivalency schedule allows for indexing of each meter size in terms of multiples of the lowest common denominator (in this case a 5/8" meter). This Study recommends a standard meter equivalency table as taken from AWWA's M1 manual as shown in **Table 8**. The application of this meter equivalency schedule is discussed in Section 3.3.3.

Table 8: Meter Equivalency Schedule

Meter Size	Meter Type	Rating (gpm)	Equivalency Schedule
5/8"	Displacement	20	1.00
3/4"	Displacement	30	1.50
1"	Displacement	50	2.50
1 1/2"	Displacement	100	5.00
2"	Displacement	160	8.00
3"	Compound Class 1	320	16.00
4"	Compound Class 1	500	25.00
6"	Compound Class 1	1,000	50.00
8"	Compound Class 1	1,300	65.00

Source: Table VI.2-5 AWWA meter Standards, *AWWA M1 Manual*, 6th Ed.

3.2.2 Tier and Seasonal Rate Pricing and Allocation

Tiered and seasonal rates are made up of two components: the rate (i.e. the cost) and the allocation (i.e. the amount). The rate is how much is charged per unit of water while the allocation is how much water can be purchased at each tier (or the duration of each season for seasonal rates). This Study proposes to use water supply costs and availability to calculate the rates and the allocations for the tiered/seasonal rates.

The Residential **Tier 1 rate** and the Commercial **Winter rate** are designed to recover the cost of importing water from SCWA (the District's lowest cost source of water). The rates are calculated based on the costs associated with purchasing and importing the water, as summarized in the "Imported Water" column of **Schedule 8**. Since this imported water constituted about 74% of the District's water usage over the past 4 years, the allocation of Tier 1 is 262 gallons per day (GPD) per dwelling unit, which results in 74% of water sold to residential accounts to be sold at Tier 1 rates. Similarly, the "season" for Commercial Winter Rates extends from October through June, which also results in approximately 75% of the commercial water being sold at the Winter Rate.

The Residential **Tier 2 & 3 rate** and the Commercial **Summer rate** are designed to recover the cost of treating local surface water at the Stafford Treatment Plant. These

costs are as summarized in the “Treated Local Water” column of **Schedule 8**. As a final component, the costs of the District’s Conservation Program are “layered” onto the Tier 2 rates in order to create the **Tier 3 rate**. Conservation program costs are also recovered through Commercial **Summer Rates**. The costs of the Conservation Program are recovered through the Tier 3 rates and Summer rates because it is those customers that use the most water who create the need for the Conservation Program. The sale of water in Tier 2, Tier 3, and the Summer Rate¹⁰ will collectively amount to 26% of the potable water sales (and this is also the proportion of the District water that comes from the Stafford Treatment Plant). The Tier 2 allocation is 458 GPD per dwelling unit (i.e. for water usage between 262 GPD to 720 GPD), which results in about 21% of water sold to residential accounts to be sold at Tier 2 rates. The remaining 5% is sold at Tier 3 rates, which is a reasonable percentage for the purpose of isolating those customers that use the most water.

Figure 9 and **Figure 10** present graphical summaries of the cost basis and allocation basis for the tiered rates and seasonal rates, respectively.

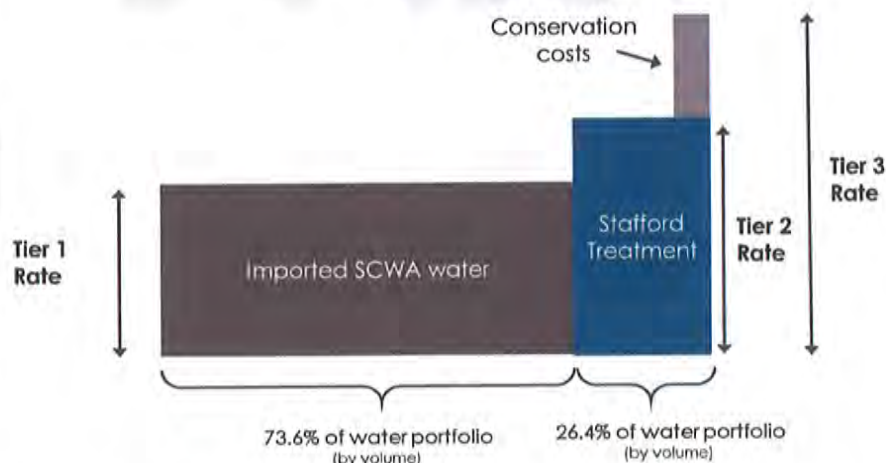


Figure 9: Basis for Tiered Rate Costs and Allocations

¹⁰ The Summer Rate will apply to the months of July, August and September, as opposed to the current months of June, July, August, September and October.

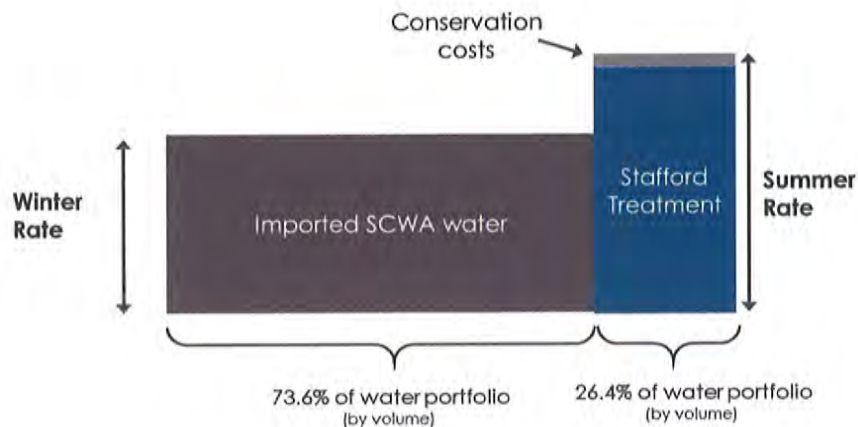


Figure 10: Basis for Seasonal Rate Costs and Allocations

3.3 RATE STRUCTURE DEVELOPMENT – NOVATO ENTERPRISE

The following section presents a detailed description of the process for developing the water rate structure for the Novato Enterprise using cost of service principles. The following rates are proposed to be adopted for FY 2020/21. A complete schedule of proposed rates is provided in **Schedule 10**.

3.3.1 Cost Functions - Novato Enterprise

First, all costs for the Novato Enterprise’s FY 2020/21 (“Test Year”) are allocated to seven (7) system functions: Customer Service, Water Distribution, Imported Water, Water Treatment, Conservation, Raw Water, and Pressure System (i.e. the pumping system which pressurized the water for delivery through-out the service area). These grouped costs will eventually form the basis of the proposed Service Charges, Quantity Charges and Elevation Zone Charges (as illustrated in **Figure 11**).

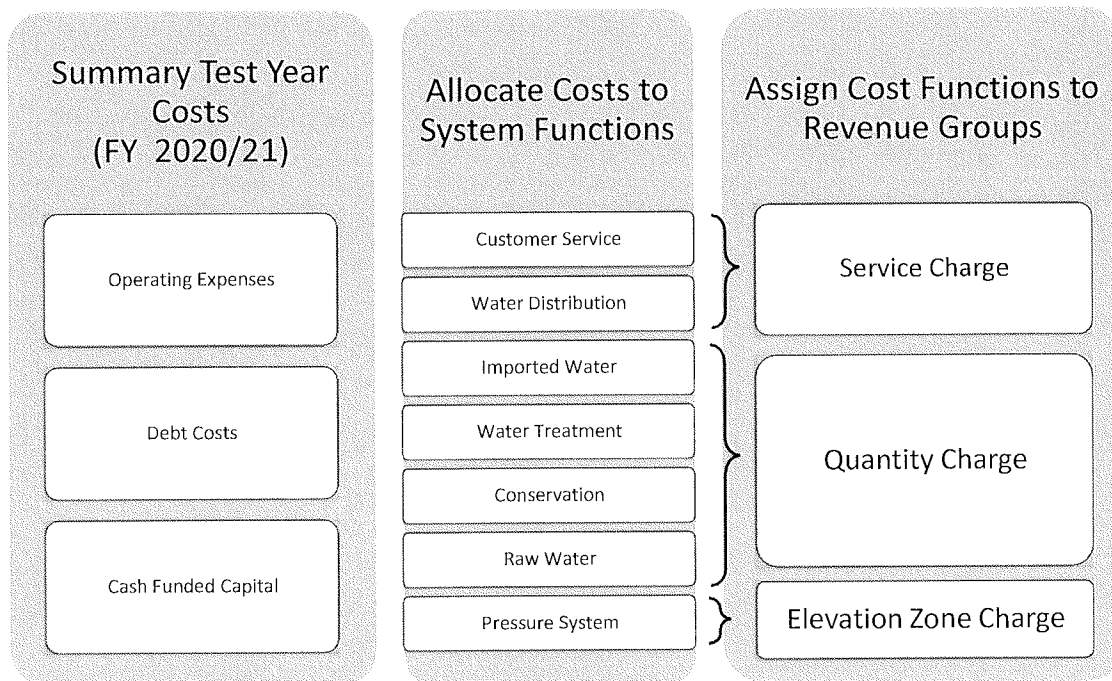


Figure 11: Novato Enterprise Cost Functions

Operating and capital line-item expenses are assigned to a specific system function or activity. The following explains the percent allocations that are detailed in **Schedule 8**:

- Direct allocations - Some costs can be allocated directly to a functional component. For example, on Row 8 purchased water costs are allocated 100% to the Imported Water function.
- Asset value-based allocations – Most line items are allocated to functions based on the value of existing District assets¹¹ in the relevant functions. Asset values are a reasonable proxy for estimating the cost to operate and maintain various functions within the system. Rows 1 through 4 of **Table 9** show how asset values are proportionately divided among Functional Components. Row 1 shows the relative value for all assets, while Rows 2, 3 and 4 show the relative

¹¹ This Study used the replacement cost new less depreciation (RCNLD) of assets in the District's asset register.

value of assets when isolating certain functions. For example, Row 2 of Table 9 shows the relative value of all assets when excluding Raw Water. These percentages are used to allocate the costs of Operations (see Rows 15 through 20 of Schedule 8) since the raw water customers have very limited reliance on District operations.

- Water utilization allocation – Costs associated with managing Stafford Lake not including the treatment plant (see Rows 3 through 7 of Schedule 8) are split between Water Treatment and Raw Water based on the amount of water used by each customer group (644 million gallons and 59 million gallons per year, respectively).
- Indirect cost allocation – Beginning with Row 78 in Schedule 8, most costs are allocated using the indirect cost allocation method, which is based on the proportionate allocation of all costs that were previously allocated to the respective system functions (see Row 6 of Table 8). General & Administration (G&A) costs combine the Customer Service indirect allocation (11.3%) and Water Distribution indirect allocation (19.4%) and puts the combined amount (30.7%) under the Customer Service function because (as will be explained in more detail in Section 3.3.3), Customer Service costs are allocated to customers on a per-account basis rather than a meter equivalency basis, which is appropriate for G&A costs. This logic also applies to transfers and the “Changes in Fund Balance” (which together net \$476 thousand in the Test Year).

Table 9: System Function Allocation Percentages

	Customer Service	Water Distribution	Imported Water	Water Treatment	Conservation	Raw Water	Pressure System
Asset Value Based Allocations							
All Assets:	0.0%	38.2%	23.4%	14.3%	0.0%	3.5%	20.6%
All Assets less Raw Water:	0.0%	39.6%	24.2%	14.8%	0.0%	0.0%	21.3%
Water Supply and Pumping Only:	0.0%	0.0%	37.9%	23.1%	0.0%	5.7%	33.3%
Water Supply Only:	0.0%	0.0%	56.7%	39.7%	0.0%	3.6%	0.0%
Other Allocation Bases							
Water Utilization:	0.0%	0.0%	0.0%	91.6%	8.4%	0.0%	0.0%
Indirect Cost Allocation:	11.3%	19.4%	43.1%	19.5%	2.8%	0.1%	3.8%

3.3.2 Allocating Non-Rate Revenue - Novato Enterprise

In order to complete the allocation of costs to each system function, a final step requires non-rate revenue to be used to offset costs that would otherwise need to be recovered through rates. Non-rate revenue includes interest income, and other operating revenue such as miscellaneous fees. These revenues are credited to each system function using the indirect cost allocation method (see Row 102 of Schedule 8 and Table 10).

Table 10 below summarizes the allocation of all expenses and non-rate revenues to each system function, which establishes the rate revenue requirement for each function.

Table 10: Novato Rate Revenue Requirement by Function

	Customer Service	Water Distribution	Imported Water	Water Treatment	Conservation	Raw Water	Pressure System
Total Expenses	\$2,525,036	\$3,548,431	\$9,092,767	\$4,374,445	\$481,785	\$189,193	\$2,066,890
Less Non-Rate Revenue	(\$152,420)	(\$261,075)	(\$580,774)	(\$263,234)	(\$37,363)	(\$1,338)	(\$50,797)
Rate Revenue Requirement	\$2,372,615	\$3,287,356	\$8,511,993	\$4,111,211	\$444,422	\$187,855	\$2,016,093
	11.3%	15.7%	40.7%	19.6%	2.1%	0.9%	9.6%

3.3.3 Units of Service – Novato Enterprise

As explained in Section 3.3.1, the revenue requirements established for each system function (see Table 10) are recovered through the Service Charge, Quantity Charge and Elevation Zone Charge, respectively. Those charges are calculated by dividing the Rate Revenue Requirement of each system function by an appropriate metric. For example, the Customer Service revenue requirement is divided by the number of accounts in the Novato Enterprise to calculate a cost per account.

The following describe units of service that were quantified for this Study.

Accounts – This is simply a count of all water accounts within the Novato Enterprise.

Equivalent Meters – Table 11 shows the calculation of the total equivalent meters for potable water accounts in the Novato service area.

Table 11: Novato Potable Water Meter Equivalencies

Meter Size:	5/8"	1"	1.5"	2"	3"	4"	6"	8"
Residential:	17,896	573	143	58	0	0	1	0
Commercial:	550	377	249	164	18	6	2	1
Total:	18,446	950	392	222	18	6	3	1
Meter Equivalency:	1.0	2.5	5.0	8.0	16.0	25.0	50.0	65.0
Equivalent Meters:	18,446	2,375	1,960	1,776	288	150	150	65
							Total:	25,210

Imported Water – Over the past five years the District has purchases between 68% to about 77% of its water supply from SCWA (or approximately 1.65 billion gallons per year).

Treated Local Water – Over the same period, the Stafford Treatment Plant has supplied between 23% and 32% of the District’s water supply (or approximately 700 million gallons (MG) per year).

Conservation – The costs for the District’s conservation program are recovered through Tier 3 and Summer rates. As explained in Section 3.2.2, the quantity of water to be sold at those rates is designed to be approximately 5% of water sales (or 308 MG).

Raw Water – Raw water customers utilized 64 million gallons of water in FY 2018/19, which is assumed to be a representative quantity for purposes of this Study.

Table 12 presents a summary of the units of service used for the purpose of calculating unit costs for each system function.

Table 12: Units of Service (FY 2017)

System Function	Units of Service
Number of Customers	20,040 Accounts
Distribution System Utilization	25,210 EDUs
Imported Water Volume	1,647.3 MG
Local Treated Water Volume	696.9 MG
Conservation	308.0 MG
Raw Water Volume	64.0 MG

3.3.4 Unit Costs – Novato Enterprise

The revenue requirements for each system function (Table 10) are divided by the appropriate units of service (Table 12) in order to calculate the unit costs that will build the rate structure. These calculations are shown in **Table 13**.

Table 13: Calculation of Unit Costs – Novato Enterprise

System Function:	Customer	Distribution System	Imported Water	Treated Local Water	Conservation	Raw Water
Units of Service:	20,040 Accounts	25,210 Equivalent Meters	1,647,296 TGALs	696,911 TGALs	307,977 TGALs	64,025 TGALs
Revenue Requirement:	\$2,372,615	\$3,287,356	\$8,511,993	\$4,111,211	\$444,422	\$187,855
Unit Costs:	\$118.39 per account per year or \$19.73 per account per bi-month	\$130.40 Per equivalent meter per year or \$21.73 Per equivalent meter per bi-month	\$5.17 Per TGAL for Tier 1 Water & Winter Water	\$5.90 Per TGAL for Tier 2 & 3 Water & Summer Water	\$1.44 Per TGAL for Tier 2 & 3 Water & Summer Water	\$2.93 Per TGAL for Raw Water

3.3.5 Elevation Zone Charge

All potable water in the Novato service area is pressurized when delivered to customers. The District must provide additional pressurization to deliver water to customers located at higher elevations. The District has previously calculated the

relative cost of pumping water to each respective elevation zone¹². It was not in the scope of this Study to independently calculate the Elevation Zone Charge, rather this Study updates the existing Elevation Zone Charges based on current costs.

As a first step, the revenue requirements associated with the pressure system were calculated (\$2,016,000 see Table 10). Next the existing cost relationships between the elevation zones were used to calculate elevation “factors” (see column b of Table 14). These factors were multiplied by the amount of water sold in each zone (column c) to derive “scaled” TGALs (Column d). The revenue requirement (\$2,016,000) was divided by the “scaled” TGALs (\$6,136,966) to calculate the unit cost per scaled TGAL (\$0.33), which is then multiplied by the elevation factor to calculate the cost per TGAL for each zone (Column e). The Zone A pumping costs are included in all Quantity Charges, therefore the Elevation Zone surcharges for Zone B and Zone C are shown in Column f.

Table 14: Elevation Zone Charge Calculation

	(a) Elevation Range (ft)	(b) Elevation "Factor"	(c) Water Usage (TGAL)	(d) "Scaled" TGALs	(e) Cost per TGAL	(f) Proposed Surcharge (per TGAL)
Zone A:	0 - 60	1.0	1,067,197	1,067,197	\$0.33	(na)
Zone B:	60 - 200	3.3	1,078,367	3,558,613	\$1.09	\$0.76
Zone C:	200+	7.4	205,599	1,511,156	\$2.43	\$2.10
	Total:		2,351,164	6,136,966		

3.3.6 Service Charges – Novato Enterprise

The fixed Service Charge is made up of an account charge (\$19.73 per bi-month) and a meter charge (\$21.73 per equivalent meter per bi-month). **Table 15** provides a complete schedule for all meter sizes in the Novato service area.

¹² Cost of Service Study, December 2018 draft

Table 15: Proposed Service Charges – Novato Enterprise

Meter Size	Account Charge	Meter Charge	Bi-Monthly Service Charge
5/8"	\$19.73	\$21.73	\$41.46
1"	\$19.73	\$54.33	\$74.06
1.5"	\$19.73	\$108.65	\$128.38
2"	\$19.73	\$173.84	\$193.57
3"	\$19.73	\$347.68	\$367.41
4"	\$19.73	\$543.25	\$562.98
6"	\$19.73	\$1,086.50	\$1,106.23
8"	\$19.73	\$1,412.45	\$1,432.18

* This Study recommends residential account with a 1" meter that would otherwise have a 5/8" meter but-for fire requirements, should be charged at the 5/8" meter rate.

3.3.7 Quantity Charge – Novato Enterprise

The residential, commercial and raw water Quantity Charges are calculated by combining the unit costs shown in Table 13 and Table 14 (with exception to Raw Water which does not pay the elevation charge since those customers do not receive pumping services from the District). For example, the Tier 1 unit cost from Table 13 (\$5.17 per TGAL) is combined with the Zone A Elevation Zone Charge (\$0.33) for a total of \$5.50 for Tier 1 Zone A. The various combinations of adding these unit costs together is summarized below in Table 16.

Table 16: Proposed Quantity Charges – Novato Enterprise

Residential Quantity Charges	
Tier 1*	\$5.50
Tier 2**	\$6.23
Tier 3	\$7.67
Commercial Quantity Charges	
Winter (Oct. to June)	\$5.50
Summer (Jul. to Sept.)	\$7.67
Other Quantity Charges	
Raw Water	\$2.93
Temporary Meter [†]	\$6.99
Elevation Zone Charge	
Zone B	\$0.76
Zone C	\$2.10

* Allocation is 262 gpd per dwelling unit

** Allocation is 458 gpd per dwelling unit

[†] *Temporary Meters will be charged the Tier 2, Zone B Quantity Charge and a Service Charge depending on the size of the construction meter. It is reasonable to charge Temporary Meter customers for the District's more costly source of water (reflected in Tier 2 rates) and for the "middle" elevation zone (Zone B) since the meters may be installed in various zones.*

3.4 RATE STRUCTURE DEVELOPMENT – RECYCLED WATER ENTERPRISE

The following section presents a detailed description of the process for developing the water rate structure for the Recycled Water Enterprise using the same cost of service principles as for the Novato Enterprise. The following rates are proposed to be adopted for FY 2020/21. A complete schedule of proposed rates is provided in **Schedule 10**.

3.4.1 Cost Functions – Recycled Water Enterprise

All costs for the enterprise's FY 2020/21 Test Year are first allocated to three (3) system functions: Customer Service, Water Distribution, and Water Treatment, as illustrated

in **Figure 11**. These grouped costs will eventually form the basis of the proposed Service Charge and Quantity Charge.

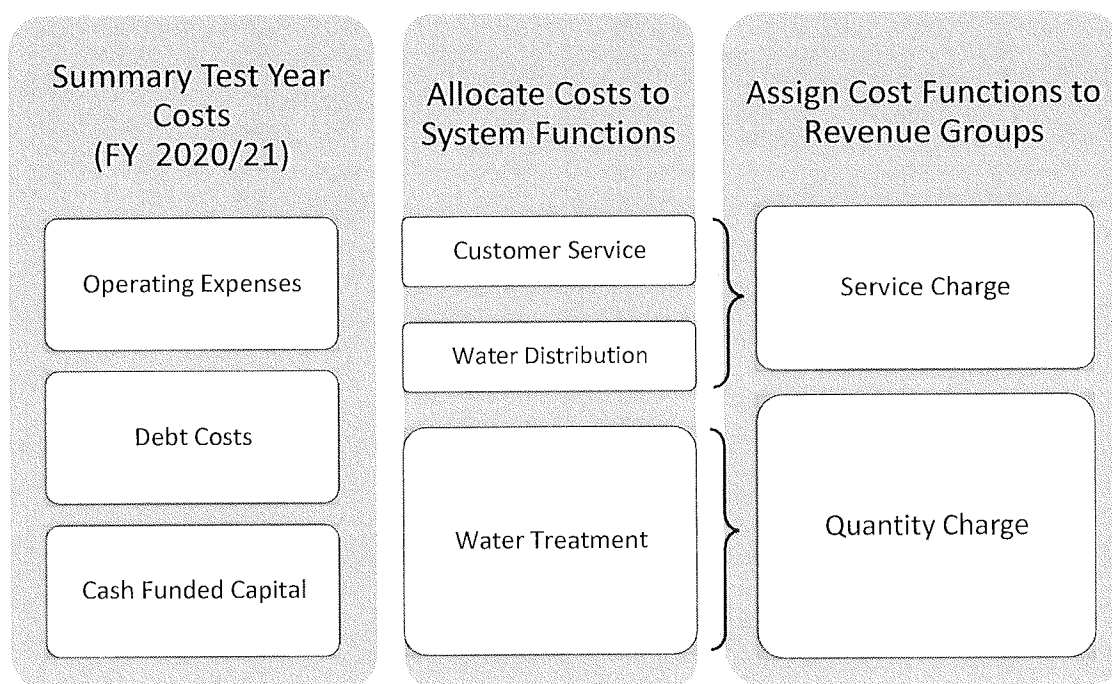


Figure 12: Recycled Water Cost Functions

Operating and capital line-item expenses are assigned to a specific system function. The following explains the percent allocations that are detailed in **Schedule 9**:

- Direct allocations - Most costs can be allocated directly to a functional component.
- Indirect cost allocation – Those line-items that cannot be allocated directly are allocated using the indirect cost allocation method (for explanation, see Section 3.3.1). General & Administration (G&A) costs combine the Customer Service indirect allocation (0.1%) and Recycled Water Distribution allocation (17.0%) and puts the full 17.1% under Customer Service. This also applies to transfers and the Changes in Fund Balance.

3.4.2 Allocating Non-Rate Revenue - Recycled Water Enterprise

As explained in Section 3.3.1, non-rate revenue is used to offset costs that would otherwise need to be recovered through rates. Table 17 below summarizes the allocation of all expenses and non-rate revenues to each Recycled Water system function, which establishes the rate revenue requirement for each function.

Table 17: Recycled Water Rate Revenue Requirement by Function

	Customer Service	Recycled Water Distribution	Water Treatment
Total Expenses	\$14,086	\$241,972	\$1,904,418
Less Non-Rate F	(\$1,069)	(\$144,208)	(\$703,723)
Rate Revenue R	\$13,017	\$97,764	\$1,200,695
	1.0%	7.5%	91.6%

3.4.3 Units of Service – Recycled Water Enterprise

As explained in Section 3.3.1, the revenue requirements established for each system function (see Table 17) are recovered through the Service Charge and Quantity Charge, respectively. Those charges are calculated by dividing the Rate Revenue Requirement of each system function by an appropriate metric.

Accounts – This is a count of all Recycled Water accounts.

Equivalent Meters –Table 18 shows the calculation of the total Recycled Water equivalent meters.

Table 18: Recycled Water Enterprise Meter Equivalencies

Meter Size:	5/8"	1"	1.5"	2"	3"	4"	6"
Recycled Water	2	9	32	43	2	0	2
Meter Equivalency:	1.0	2.5	5.0	8.0	16.0	25.0	50.0
Equivalent Meters:	2	23	160	344	32	0	100
Total Equivalent Meters:						661	

Recycled Water Sales – During the most recent billing period, the Recycled Water Enterprise sold 192 MG.

3.4.4 Unit Costs – Recycled Water Enterprise

The revenue requirements for each system function (Table 10) are divided by the appropriate units of service (Section 3.3.3) in order to calculate the unit costs that will build the rate structure. These calculations are shown in Table 19.

Table 19: Calculation of Unit Costs – Recycled Water Enterprise

System Function:	Customer	Distribution System	Water Treatment
Units of Service:	90 Accounts	661 Equivalent Meters	192,300 TGALs
Revenue Requirement:	\$13,017	\$97,764	\$1,200,695
Unit Costs:	\$144.64 per account per year or \$24.11 per account per bi-month	\$148.02 Per equivalent meter per year or \$24.67 Per equivalent meter per bi-month	\$6.24 Per TGAL

3.4.5 Service Charges – Recycled Water Enterprise

The fixed Service Charge is made up of the account charge (\$24.11 per bi-month) and the meter charge (\$24.67 per equivalent meter per bi-month). Table 20 provides a complete schedule for all meter sizes in the Recycled Water service area.

Table 20: Proposed Service Charges – Recycled Water Enterprise

Meter Size	Account Charge	Meter Charge	Bi-Monthly Service Charge
5/8"	\$24.11	\$24.67	\$48.78
1"	\$24.11	\$61.68	\$85.79
1.5"	\$24.11	\$123.35	\$147.46
2"	\$24.11	\$197.36	\$221.47
3"	\$24.11	\$394.72	\$418.83
4"	\$24.11	\$616.75	\$640.86
6"	\$24.11	\$1,233.50	\$1,257.61

3.4.6 Quantity Charge – Recycled Water Enterprise

The Quantity Charge for Recycled Water of \$6.24 per TGAL is calculated in Table 19.

3.5 FIRE LINE SERVICE CHARGE

The District provides maintenance services for private fire service lines, which is a service that is not provided to other customers. The annual maintenance costs are \$155 thousand. The Fire Line Service Charge is calculated by first charging a bi-monthly \$10 administrative charge to all 427 accounts (see Table 21), which will generate about \$25 thousand. The remaining costs of \$130 thousand are recovered through a maintenance service charge which is scaled based on the size of the service line. This scale is based on the relative replacement cost ratio between service lines (see column c of Table 21).

Table 21: Fire Line Service Charge Calculation and Schedule

(a)	(b)	(c)	(d)	(e)	(f)
Service Size	No. of Accounts	Cost Ratio*	Bi-monthly Maintenance Charge	Bi-monthly Administrative Charge	Total Proposed Bi-Monthly Charge
1"	58	1	\$4.24	\$10.00	\$14.24
2"	14	2.1	\$8.78	\$10.00	\$18.78
4"	127	10.0	\$42.40	\$10.00	\$52.40
6"	177	15.0	\$63.60	\$10.00	\$73.60
8"	48	20.7	\$87.83	\$10.00	\$97.83
10"	3	27.9	\$118.11	\$10.00	\$128.11
427					

* Source: American Water Works Association

3.6 ADOPTION OF PROPOSED RATES

This Study has calculated, and is proposing, a 5-year schedule of water rates (see Schedule 10). That being said, the Board has the discretion to adopt as few as one (1) year of the proposed rates or as many as all five (5) years of the proposed rates. In addition, in the event that the Board chooses to adopt just one year of rates, the Board may elect to adopt the second year of rates during the subsequent fiscal year (assuming that the financial projections from the Study can be shown to have remained reasonable as compared to actuals).

All rates are proposed to be effective as of July 1, as opposed to the current practice of making new rates effective on June 1.

Section 4. CONCLUSION

This Study used methodologies that are aligned with industry standard practices for rate setting as promulgated by AWWA and all applicable laws, including California's Proposition 218. The proposed annual adjustments to the rates will allow the District to continue to provide reliable service to customers while meeting the state's mandates.

The water rates will need to be adopted in accordance with Proposition 218, which will require a detailed notice describing the proposed charges to be mailed to each affected property owner or customer at least 45 days prior to conducting a public hearing to adopt the rates.

SCHEDULES

- Schedule 1 – Novato Enterprise Budgeted and Projected Cash Inflows**
- Schedule 2 - Novato Enterprise Budgeted and Projected Cash Outflows**
- Schedule 3 - Novato Enterprise Capital Spending Plan**
- Schedule 4 - Novato Enterprise Cash Flow Pro Forma**
- Schedule 5 –Recycled Water Enterprise Budgeted and Projected Cash Inflows**
- Schedule 6 - Recycled Water Enterprise Budgeted and Projected Cash Outflows**
- Schedule 7 - Recycled Water Enterprise Cash Flow Pro Forma**
- Schedule 8 – Allocation of Costs to System Functions – Novato**
- Schedule 9 – Allocation of Costs to System Functions – Recycled Water**
- Schedule 10 – Schedule of Proposed Rates**

North Marin Water District
2020 Novato and Recycled Water Rate Study

Schedules

Novato Enterprise Budgeted and Projected Cash Inflows

Schedule 1

	FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	FY2024/25	FY2025/26	FY2026/27	FY2027/28	FY2028/29	FY2029/30
1 Growth in Water Accounts	na	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%
2 Proposed Water Rate Increase	(na)	6.0%	6.0%	6.0%	5.0%	5.0%	3.0%	3.0%	3.0%	2.0%	2.0%
Rate Revenue											
3 Water Rate Revenue	\$19,734,000	\$19,734,000	\$20,932,000	\$22,203,000	\$23,551,000	\$24,746,000	\$26,001,000	\$26,800,000	\$27,623,000	\$28,472,000	\$29,062,000
4 Increase due to growth		14,000	15,000	16,000	17,000	18,000	19,000	19,000	20,000	21,000	21,000
5 Increase due to new rate adjustments		1,184,000	1,256,000	1,332,000	1,178,000	1,237,000	780,000	804,000	829,000	569,000	581,000
6 Total Rate Revenue	\$19,734,000	\$20,932,000	\$22,203,000	\$23,551,000	\$24,746,000	\$26,001,000	\$26,800,000	\$27,623,000	\$28,472,000	\$29,062,000	\$29,664,000
Other Revenue:											
7 Account Turn-on Charges	\$79,000	\$79,000	\$79,000	\$79,000	\$79,000	\$79,000	\$79,000	\$79,000	\$79,000	\$79,000	\$79,000
8 New Account Charges	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
9 Returned Check Charges	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
10 Hydrant Meter Up/Down Charge:	5,000	5,000	5,000	5,000	5,000	5,000	5,000	6,000	6,000	6,000	6,000
11 Backflow Service Charges	142,000	142,000	142,000	142,000	142,000	142,000	142,000	142,000	142,000	142,000	142,000
12 Lab Service-Outside Clients	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000
13 Wheeling Charges - MMWD	75,000	77,000	80,000	82,000	84,000	87,000	90,000	92,000	95,000	98,000	101,000
14 Other Non-Operating Revenue	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
15 MMWD AEEP Capital Contributi	205,000	205,000	205,000	205,000	205,000	205,000	205,000	205,000	205,000	205,000	205,000
16 Rents & Leases	83,000	83,000	83,000	83,000	83,000	83,000	83,000	83,000	83,000	83,000	83,000
17 Interest Earnings	150,000	179,000	0	179,000	197,000	216,000	227,000	242,000	257,000	270,000	278,000
18 Connection Fees	1,400,000	486,000	486,000	486,000	486,000	486,000	486,000	486,000	486,000	486,000	486,000
19 Total Other Revenue	\$2,230,000	\$1,347,000	\$1,171,000	\$1,352,000	\$1,372,000	\$1,394,000	\$1,408,000	\$1,426,000	\$1,444,000	\$1,460,000	\$1,471,000
20 TOTAL REVENUE	\$21,964,000	\$22,279,000	\$23,374,000	\$24,903,000	\$26,118,000	\$27,395,000	\$28,208,000	\$29,049,000	\$29,916,000	\$30,522,000	\$31,135,000

North Marin Water District
2020 Novato and Recycled Water Rate Study

Schedules

Novato Enterprise Budgeted and Projected Operating & Debt Expenses (existing)

Schedule 2 (1 of 3)

	FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	FY2024/25	FY2025/26	FY2026/27	FY2027/28	FY2028/29	FY2029/30
SOURCE OF SUPPLY											
1 Supervision & Engineering	\$11,000	\$11,300	\$11,700	\$12,000	\$12,400	\$12,800	\$13,100	\$13,500	\$13,900	\$14,400	\$14,800
2 Operating Expense - Source	14,000	14,400	14,900	15,300	15,800	16,200	16,700	17,200	17,700	18,300	18,800
3 Maint/Monitoring of Dam	67,000	69,000	71,100	73,200	75,400	77,700	80,000	82,400	84,900	87,400	90,000
4 Maint of Lake & Intakes	20,000	20,600	21,200	21,900	22,500	23,200	23,900	24,600	25,300	26,100	26,900
5 Maint of Structures	5,000	5,200	5,300	5,500	5,600	5,800	6,000	6,100	6,300	6,500	6,700
6 Maint of Watershed	45,000	46,400	47,700	49,200	50,600	52,200	53,700	55,300	57,000	58,700	60,500
7 Water Quality Surveillance	14,000	14,400	14,900	15,300	15,800	16,200	16,700	17,200	17,700	18,300	18,800
8 Purchased Water	5,710,000	6,052,600	6,415,800	6,800,700	7,208,700	7,641,300	8,099,700	8,585,700	9,100,900	9,646,900	10,225,700
9 Sonoma County Water Agency (bond opt-out payment)	1,200,000	0	0	0	0	0	0	0	0	0	0
10 GASB68 Adjustment	10,000	10,300	10,600	10,900	11,300	11,600	11,900	12,300	12,700	13,000	13,400
PUMPING											
11 Operating Expense - Pumping	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000
12 Maint of Structures & Grounds	32,000	33,000	33,900	35,000	36,000	37,100	38,200	39,400	40,500	41,800	43,000
13 Maint of Pumping Equipment	53,000	54,600	56,200	57,900	59,700	61,400	63,300	65,200	67,100	69,200	71,200
14 Electric Power	288,000	296,600	305,500	314,700	324,100	324,100	324,100	324,100	324,100	324,100	324,100
15 GASB68 Adjustment (Pension)	8,000	8,200	8,500	8,700	9,000	9,300	9,600	9,800	10,100	10,400	10,800
OPERATIONS											
16 Supervision & Engineering	158,000	162,700	167,600	172,700	177,800	183,200	188,700	194,300	200,100	206,200	212,300
17 Operating Expense - Operations	238,000	245,100	252,500	260,100	267,900	275,900	284,200	292,700	301,500	310,500	319,900
18 Maintenance Expense	57,000	58,700	60,500	62,300	64,200	66,100	68,100	70,100	72,200	74,400	76,600
19 Telemetry Equipment/Controls Maint	87,000	89,600	92,300	95,100	97,900	100,900	103,900	107,000	110,200	113,500	116,900
20 Leased Lines	17,000	17,500	18,000	18,600	19,100	19,700	20,300	20,900	21,500	22,200	22,800
21 GASB68 Adjustment (Pension)	128,000	131,800	135,800	139,900	144,100	148,400	152,800	157,400	162,100	167,000	172,000
WATER TREATMENT											
22 Supervision & Engineering	143,000	147,300	151,700	156,300	160,900	165,800	170,700	175,900	181,100	186,600	192,200
23 Operating Expense - Water Treatment	322,000	331,700	341,600	351,900	362,400	373,300	384,500	396,000	407,900	420,100	432,700
24 Purification Chemicals	475,000	489,200	503,900	519,000	534,600	534,600	534,600	534,600	534,600	534,600	534,600
25 Sludge Disposal	124,000	127,700	131,600	135,500	139,600	139,600	139,600	139,600	139,600	139,600	139,600
26 Maint of Structures & Grounds	122,000	125,700	129,400	133,300	137,300	141,400	145,700	150,000	154,500	159,200	164,000
27 Maint of Purification Equipment	191,000	196,700	202,600	208,700	215,000	221,400	228,100	234,900	242,000	249,200	256,700
28 Electric Power	156,000	160,700	165,500	170,500	175,600	175,600	175,600	175,600	175,600	175,600	175,600
29 Water Quality Programs	101,000	104,000	107,200	110,400	113,700	117,100	120,600	124,200	127,900	131,800	135,700
30 Laboratory Direct Labor	364,000	374,900	386,200	397,800	409,700	422,000	434,600	447,700	461,100	474,900	489,200
31 Lab Service-Outside Clients	46,000	47,400	48,800	50,300	51,800	51,800	51,800	51,800	51,800	51,800	51,800
32 Water Quality Supervision	75,000	77,300	79,600	82,000	84,400	86,900	89,600	92,200	95,000	97,900	100,800
33 Laboratory Supplies & Expense	80,000	82,400	84,900	87,400	90,000	92,700	95,500	98,400	101,300	104,400	107,500
34 Customer Water Quality	66,000	68,000	70,000	72,100	74,300	76,500	78,800	81,200	83,600	86,100	88,700
35 Lab Cost Distributed	(25,000)	(25,700)	(26,500)	(27,300)	(28,100)	(29,000)	(29,900)	(30,700)	(31,700)	(32,600)	(33,600)
36 GASB68 Adjustment (Pension)	254,000	261,600	269,500	277,600	285,900	294,500	303,300	312,400	321,800	331,400	341,400

North Marin Water District
2020 Novato and Recycled Water Rate Study

Schedules

Novato Enterprise Budgeted and Projected Operating & Debt Expenses (existing)

Schedule 2 (2 of 3)

	FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	FY2024/25	FY2025/26	FY2026/27	FY2027/28	FY2028/29	FY2029/30
TRANSMISSION & DISTRIBUTION											
37 Supervision & Engineering	591,000	608,700	627,000	645,800	665,200	685,100	705,700	726,900	748,700	771,100	794,300
38 Maps & Records	160,000	164,800	169,700	174,800	180,100	185,500	191,000	196,800	202,700	208,800	215,000
39 Operation of T&D System	68,000	70,000	72,100	74,300	76,500	78,800	81,200	83,600	86,100	88,700	91,400
40 Facilities Location	149,000	153,500	158,100	162,800	167,700	172,700	177,900	183,300	188,700	194,400	200,200
41 Safety: Construction & Engineering	60,000	61,800	63,700	65,600	67,500	69,600	71,600	73,800	76,000	78,300	80,600
42 Customer Service Expense	276,000	284,300	292,800	301,600	310,600	320,000	329,600	339,400	349,600	360,100	370,900
43 Flushing	54,000	55,600	57,300	59,000	60,800	62,600	64,500	66,400	68,400	70,500	72,600
44 Storage Facilities Expense	125,000	128,800	132,600	136,600	140,700	144,900	149,300	153,700	158,300	163,100	168,000
45 Cathodic Protection	18,000	18,500	19,100	19,700	20,300	20,900	21,500	22,100	22,800	23,500	24,200
46 Maint of Valves/Regulators	192,000	197,800	203,700	209,800	216,100	222,600	229,300	236,100	243,200	250,500	258,000
47 Maint of Mains	170,000	175,100	180,400	185,800	191,300	197,100	203,000	209,100	215,400	221,800	228,500
48 Leak Detection - Mains	12,000	12,400	12,700	13,100	13,500	13,900	14,300	14,800	15,200	15,700	16,100
49 Backflow Prevention Program	220,000	226,600	233,400	240,400	247,600	255,000	262,700	270,600	278,700	287,100	295,700
50 Maint of Copper Services	141,000	145,200	149,600	154,100	158,700	163,500	168,400	173,400	178,600	184,000	189,500
51 Maint of PB Service Lines	481,000	495,400	510,300	525,600	541,400	557,600	574,300	591,600	609,300	627,600	646,400
52 Maint of Meters	141,000	145,200	149,600	154,100	158,700	163,500	168,400	173,400	178,600	184,000	189,500
53 Detector Check Assembly Maint	84,000	86,500	89,100	91,800	94,500	97,400	100,300	103,300	106,400	109,600	112,900
54 Maint of Hydrants	73,000	75,200	77,400	79,800	82,200	84,600	87,200	89,800	92,500	95,200	98,100
55 GASB68 Adjustment (Pension)	417,000	429,500	442,400	455,700	469,300	483,400	497,900	512,900	528,200	544,100	560,400
CONSUMER ACCOUNTING											
56 Meter Reading	107,000	110,200	113,500	116,900	120,400	124,000	127,800	131,600	135,500	139,600	143,800
57 Collection Expense - Labor	32,000	33,000	33,900	35,000	36,000	37,100	38,200	39,400	40,500	41,800	43,000
58 Collection Expense - Agency	3,000	3,100	3,200	3,300	3,400	3,400	3,400	3,400	3,400	3,400	3,400
59 Billing & Consumer Accounting	213,000	219,400	226,000	232,800	239,700	246,900	254,300	262,000	269,800	277,900	286,300
60 Contract Billing	18,000	18,500	19,100	19,700	20,300	20,300	20,300	20,300	20,300	20,300	20,300
61 Stationery, Supplies & Postage	55,000	56,600	58,300	60,100	61,900	63,800	65,700	67,600	69,700	71,800	73,900
62 Online Payment Processing Fees/CC Fe	60,000	61,800	63,700	65,600	67,500	69,600	71,600	73,800	76,000	78,300	80,600
63 Lock Box Service	11,000	11,300	11,700	12,000	12,400	12,800	13,100	13,500	13,900	14,400	14,800
64 Uncollectable Accounts	5,000	5,200	5,300	5,500	5,600	5,800	6,000	6,100	6,300	6,500	6,700
65 Office Equipment Expense	35,000	36,100	37,100	38,200	39,400	40,600	41,800	43,000	44,300	45,700	47,000
66 Distributed to West Marin (4.1%)	(16,000)	(16,500)	(17,000)	(17,500)	(18,000)	(18,500)	(19,100)	(19,700)	(20,300)	(20,900)	(21,500)
67 GASB68 Adjustment (Pension)	90,000	92,700	95,500	98,300	101,300	104,300	107,500	110,700	114,000	117,400	121,000
WATER CONSERVATION											
68 Residential	255,000	262,700	270,500	278,600	287,000	295,600	304,500	313,600	323,000	332,700	342,700
69 Commercial	20,000	20,600	21,200	21,900	22,500	23,200	23,900	24,600	25,300	26,100	26,900
70 Public Outreach/Information	44,000	45,300	46,700	48,100	49,500	51,000	52,500	54,100	55,700	57,400	59,100
71 Large Landscape	28,000	28,800	29,700	30,600	31,500	32,500	33,400	34,400	35,500	36,500	37,600
72 GASB68 Adjustment (Pension)	43,000	44,300	45,600	47,000	48,400	49,800	51,300	52,900	54,500	56,100	57,800

North Marin Water District
2020 Novato and Recycled Water Rate Study

Schedules

Novato Enterprise Budgeted and Projected Operating & Debt Expenses (existing)

Schedule 2 (3 of 3)

	FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	FY2024/25	FY2025/26	FY2026/27	FY2027/28	FY2028/29	FY2029/30
GENERAL AND ADMINISTRATIVE											
73 Directors Fees	41,000	42,200	43,500	44,800	46,100	47,500	49,000	50,400	51,900	53,500	55,100
74 Legal Fees	21,000	21,600	22,300	22,900	23,600	23,600	23,600	23,600	23,600	23,600	23,600
75 Human Resources	52,000	53,600	55,200	56,800	58,500	60,300	62,100	64,000	65,900	67,800	69,900
76 Auditing Fees	21,000	21,600	22,300	22,900	23,600	24,300	25,100	25,800	26,600	27,400	28,200
77 Consulting Services/Studies	195,000	200,900	206,900	213,100	219,500	219,500	219,500	219,500	219,500	219,500	219,500
78 General Office Salaries	1,154,000	1,188,600	1,224,300	1,261,000	1,298,800	1,337,800	1,377,900	1,419,300	1,461,900	1,505,700	1,550,900
79 Safety: General District Wide	57,000	58,700	60,500	62,300	64,200	66,100	68,100	70,100	72,200	74,400	76,600
80 Office Supplies	47,000	48,400	49,900	51,400	52,900	54,500	56,100	57,800	59,500	61,300	63,200
81 Employee Events	12,000	12,400	12,700	13,100	13,500	13,900	14,300	14,800	15,200	15,700	16,100
82 Other Administrative Expense	15,000	15,500	15,900	16,400	16,900	17,400	17,900	18,400	19,000	19,600	20,200
83 Dues & Subscriptions	95,000	97,900	100,800	103,800	106,900	110,100	113,400	116,800	120,300	124,000	127,700
84 Vehicle Expense	8,000	8,200	8,500	8,700	9,000	9,300	9,600	9,800	10,100	10,400	10,800
85 Meetings, Conferences & Training	189,000	194,700	200,500	206,500	212,700	219,100	225,700	232,400	239,400	246,600	254,000
86 Recruitment Expense	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000
87 Gas & Electricity	39,000	40,200	41,400	42,600	43,900	43,900	43,900	43,900	43,900	43,900	43,900
88 Telephone	8,000	8,200	8,500	8,700	9,000	9,300	9,600	9,800	10,100	10,400	10,800
89 Water	2,000	2,100	2,100	2,200	2,300	2,300	2,300	2,300	2,300	2,300	2,300
90 Buildings & Grounds Maint	57,000	58,700	60,500	62,300	64,200	66,100	68,100	70,100	72,200	74,400	76,600
91 Office Equipment Expense	129,000	132,900	136,900	141,000	145,200	149,500	154,000	158,700	163,400	168,300	173,400
92 Insurance Premiums & Claims	146,000	150,400	154,900	159,500	164,300	169,300	174,300	179,600	184,900	190,500	196,200
93 Retiree Medical Benefits	172,000	177,200	182,500	187,900	193,600	199,400	205,400	211,500	217,900	224,400	231,200
94 (Gain)/Loss on Overhead Charges	(120,000)	(123,600)	(127,300)	(131,100)	(135,100)	(139,100)	(143,300)	(147,600)	(152,000)	(156,600)	(161,300)
95 G&A Applied to Other Operations (5.9%)	(146,000)	(150,400)	(154,900)	(159,500)	(164,300)	(169,300)	(174,300)	(179,600)	(184,900)	(190,500)	(196,200)
96 G&A Applied to Construction	(326,000)	(335,800)	(345,900)	(356,200)	(366,900)	(377,900)	(389,300)	(400,900)	(413,000)	(425,400)	(438,100)
97 GASB68 Adjustment (Pension)	366,000	377,000	388,300	399,900	411,900	424,300	437,000	450,100	463,600	477,500	491,900
98 Other Non-Operating Expense	20,000	20,600	21,200	21,900	22,500	23,200	23,900	24,600	25,300	26,100	26,900
TRANSFERS											
99 Transfer out to Recycled Water	219,000	794,000	747,000	714,000	687,000	656,000	368,000	353,000	337,000	329,000	321,000
100 Affordability Program	0	86,000	89,000	89,000	89,000	89,000	89,000	89,000	89,000	89,000	89,000
DEBT SERVICE											
101 Existing Debt Service	1,904,000	1,907,000	1,905,000	1,902,000	1,905,000	1,907,000	1,904,000	1,906,000	1,902,000	1,903,000	1,382,000
102 Total Operating Expenses	\$19,474,000	\$19,594,000	\$20,234,000	\$20,916,000	\$21,641,000	\$22,352,000	\$22,834,000	\$23,632,000	\$24,461,000	\$25,346,000	\$25,751,000

Novato Enterprise Capital Spending Plan

Schedule 3

		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
PIPELINE REPLACEMENTS/ADDITIONS						
Main/Pipeline Replacements						
1	Replace 12" CI Pipe (785LF) S. Novato Bl (btwn Rowland/	\$0	\$100,000	\$240,000	\$0	\$0
2	Replace Plastic Thin Walled Pipe < 4-inch	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
3	Relocate 8" Pipe in Country Club Dr.	\$0	\$0	\$0	\$0	\$30,000
4	Other Main Replacements (60+ years old)	\$424,000	\$200,000	\$650,000	\$460,000	\$600,000
Main/Pipeline Additions						
5	San Mateo 24" Inlet/Outlet Pipe (2,200')	\$50,000	\$742,000	\$0	\$0	\$0
6	Loop Mariner Way to Redwood Bl.	\$0	\$0	\$125,000	\$0	\$0
7	Loop Los Robles Rd and Posada Del Sol	\$0	\$0	\$0	\$125,000	\$0
8	Other Main/Pipeline Additions	\$0	\$150,000	\$150,000	\$150,000	\$500,000
Polybutylene Service Line Replacements						
9	Replace PB in Sync w/City Paving (30 Services)	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000
10	Other PB Replacements (80 Services)	\$230,000	\$80,000	\$80,000	\$80,000	\$80,000
Relocations to Sync w/City & County CIP						
11	Other Relocations	\$200,000	\$70,000	\$70,000	\$70,000	\$70,000
SYSTEM IMPROVEMENTS						
12	DCA Repair/Replace-FY20 (~14/yr)	\$200,000	\$60,000	\$100,000	\$100,000	\$100,000
13	Anode Installations-FY20 (150/yr)	\$50,000	\$10,000	\$10,000	\$10,000	\$10,000
14	Asset Management Software Procure/Implement	\$163,000	\$0	\$0	\$0	\$0
15	Facilities Security Enhancements	\$0	\$25,000	\$0	\$25,000	\$0
16	San Marin Aqueduct Valve Pit (STP to Zone 2)	\$0	\$110,000	\$0	\$0	\$0
BUILDING, YARD, STP IMPROVEMENTS						
Administration Building						
17	Electronic Document Management System	\$70,000	\$70,000	\$0	\$0	\$0
18	Office/Yard Building Renovation (Note 1)	\$500,000	\$0	\$0	\$0	\$0
19	Office/Yard Building Renovation (Note 1)	\$0	\$3,000,000	\$7,000,000	\$4,500,000	\$0
20	Yard Roof Repairs	\$0	\$100,000	\$0	\$0	\$0
Corp Yard/Warehouse/Construction Office						
21	Other Yard Improvements	\$30,000	\$0	\$0	\$0	\$0
Stafford Treatment Plant						
22	Dam Concrete Repair (Apron)	\$50,000	\$0	\$50,000	\$0	\$50,000
23	Leveroni Creek Embankment Repair	\$191,000	\$0	\$0	\$0	\$0
24	Concrete Apron Overlay	\$0	\$0	\$0	\$100,000	\$0
25	Other Treatment Plant Improvements	\$114,000	\$50,000	\$50,000	\$50,000	\$50,000
26	Efficiency Improvements	\$100,000	\$100,000	\$0	\$0	\$0
27	STP Generator	\$400,000	\$0	\$0	\$0	\$0
STORAGE TANKS/PUMP STATIONS						
Clear Tank Sites						
28	Woodland Heights (120,000 gal, 1974)	\$0	\$0	\$0	\$0	\$65,000
29	New Half Moon Tank Property Site Acquisition	\$0	\$0	\$0	\$0	\$200,000
30	Old Ranch Rd Tank No. 2 (100k gal)	\$150,000	\$481,000	\$0	\$0	\$0
Tank Rehabilitation						
31	Hydropneumatic Tank Repairs	\$30,000	\$30,000	\$30,000	\$0	\$0
32	Cherry Hill #2 Recoat (0.2 MG)	\$400,000	\$0	\$0	\$0	\$0
33	Garner Tank Recoat (0.1 MG)	\$0	\$0	\$270,000	\$0	\$0
34	Lynwood Recoat/Seismic Upgrade (0.85MG & 0.5MG)	\$0	\$0	\$0	\$700,000	\$700,000
35	Lynwood P.S. Motor Control Center	\$320,000	\$0	\$0	\$0	\$0
36	Crest PS (Design/Const) /Reloc School Rd PS	\$635,000	\$0	\$0	\$0	\$0
37	Davies PS Upgrade	\$0	\$0	\$115,000	\$0	\$0
38	Fire Flow Backfeed Valve Nunes Tank	\$0	\$0	\$100,000	\$0	\$0
39	TOTAL:	\$4,527,000	\$5,598,000	\$9,260,000	\$6,590,000	\$2,675,000
40	TOTAL ADJUSTED FOR INFLATION:	\$4,527,000	\$5,766,000	\$9,824,000	\$7,201,000	\$3,011,000

North Marin Water District
2020 Novato and Recycled Water Rate Study

Schedules

Novato Enterprise Cash Flow Proforma

Schedule 4

	Actual FY 2019	Budget FY 2020	Forecast FY 2021	Forecast FY2022	Forecast FY2023	Forecast FY2024	Forecast FY2025	Forecast FY2026	Forecast FY2027	Forecast FY2028	Forecast FY2029	Forecast FY2030
1 Water Rate Revenue Increase:	0.00%	0.00%	6.0%	6.00%	6.00%	5.00%	5.00%	3.00%	3.00%	3.00%	2.00%	2.00%
Rate Revenue												
2 Water Rate Revenue	\$19,073,190	\$19,734,000	\$19,734,000	\$20,932,000	\$22,203,000	\$23,551,000	\$24,746,000	\$26,001,000	\$26,800,000	\$27,623,000	\$28,472,000	\$29,062,000
3 Change due to growth & use			\$14,000	\$15,000	\$16,000	\$17,000	\$18,000	\$19,000	\$19,000	\$20,000	\$21,000	\$21,000
4 Increase due to rate adjustments			\$1,184,000	\$1,256,000	\$1,332,000	\$1,178,000	\$1,237,000	\$780,000	\$804,000	\$829,000	\$569,000	\$581,000
Non-Rate Revenues												
5 Wholesale Rate Revenue	\$97,866	\$75,000	\$77,000	\$80,000	\$82,000	\$84,000	\$87,000	\$90,000	\$92,000	\$95,000	\$98,000	\$101,000
6 Other Charges	\$233,483	\$234,000	\$234,000	\$234,000	\$234,000	\$234,000	\$234,000	\$234,000	\$235,000	\$235,000	\$235,000	\$235,000
7 Interest Earnings	\$238,474	\$150,000	\$179,000	\$0	\$179,000	\$197,000	\$216,000	\$227,000	\$242,000	\$257,000	\$270,000	\$278,000
8 Connection Fees	\$1,484,380	\$1,400,000	\$486,000	\$486,000	\$486,000	\$486,000	\$486,000	\$486,000	\$486,000	\$486,000	\$486,000	\$486,000
9 Operating Revenue	\$118,919	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000
10 Grants	\$20,191	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11 Misc. Revenue	\$126,306	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
12 MMWD AEEP Contributions	\$245,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000
13 Total Revenue	\$21,637,808	\$21,964,000	\$22,279,000	\$23,374,000	\$24,903,000	\$26,118,000	\$27,395,000	\$28,208,000	\$29,049,000	\$29,916,000	\$30,522,000	\$31,135,000
O&M Costs												
14 Source of Supply	\$5,167,409	\$7,096,000	\$6,244,000	\$6,613,000	\$7,004,000	\$7,418,000	\$7,857,000	\$8,322,000	\$8,814,000	\$9,336,000	\$9,890,000	\$10,476,000
15 Pumping	\$389,149	\$384,000	\$396,000	\$407,000	\$420,000	\$432,000	\$435,000	\$439,000	\$442,000	\$446,000	\$449,000	\$453,000
16 Other Operations	\$711,175	\$685,000	\$706,000	\$727,000	\$749,000	\$771,000	\$794,000	\$818,000	\$842,000	\$868,000	\$894,000	\$921,000
17 Water Treatment	\$1,945,958	\$2,494,000	\$2,569,000	\$2,646,000	\$2,725,000	\$2,807,000	\$2,864,000	\$2,923,000	\$2,984,000	\$3,046,000	\$3,111,000	\$3,177,000
18 Transmission & Distribution	\$3,142,281	\$3,432,000	\$3,535,000	\$3,641,000	\$3,750,000	\$3,863,000	\$3,979,000	\$4,098,000	\$4,221,000	\$4,348,000	\$4,478,000	\$4,612,000
19 Consumer Accounting	\$485,786	\$613,000	\$631,000	\$650,000	\$670,000	\$690,000	\$710,000	\$731,000	\$752,000	\$774,000	\$796,000	\$819,000
20 Water Conservation	\$341,784	\$390,000	\$402,000	\$414,000	\$426,000	\$439,000	\$452,000	\$466,000	\$480,000	\$494,000	\$509,000	\$524,000
21 General Administration	\$2,867,267	\$2,257,000	\$2,325,000	\$2,394,000	\$2,466,000	\$2,540,000	\$2,608,000	\$2,677,000	\$2,749,000	\$2,823,000	\$2,899,000	\$2,977,000
22 Total Operating Expenses	\$15,050,810	\$17,351,000	\$16,808,000	\$17,492,000	\$18,210,000	\$18,960,000	\$19,699,000	\$20,474,000	\$21,284,000	\$22,135,000	\$23,026,000	\$23,959,000
Capital Costs												
23 Total Capital Spending	\$3,536,373	\$4,527,000	\$5,766,000	\$9,824,000	\$7,201,000	\$3,011,000	\$4,452,000	\$4,585,000	\$4,723,000	\$4,864,000	\$5,010,000	\$5,161,000
24 Bond Funded Capital	\$0	\$0	\$3,090,000	\$7,426,000	\$4,917,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25 SRF Funded Capital	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
26 Existing Debt Service	\$1,883,038	\$1,904,000	\$1,907,000	\$1,905,000	\$1,902,000	\$1,905,000	\$1,907,000	\$1,904,000	\$1,906,000	\$1,902,000	\$1,903,000	\$1,382,000
27 Cash Funded Capital Projects	\$2,367,648	\$4,527,000	\$1,873,200	\$1,678,600	\$1,598,800	\$2,107,700	\$3,116,400	\$3,209,500	\$3,306,100	\$3,404,800	\$3,507,000	\$3,612,700
28 New Debt Service	\$0	\$0	\$1,129,000	\$1,129,000	\$1,129,000	\$1,129,000	\$1,129,000	\$1,129,000	\$1,129,000	\$1,129,000	\$1,129,000	\$1,129,000
29 Total Capital Expenses	\$4,250,686	\$6,431,000	\$4,909,200	\$4,712,600	\$4,629,800	\$5,141,700	\$6,152,400	\$6,242,500	\$6,341,100	\$6,435,800	\$6,539,000	\$6,123,700
Transfers												
Transfer Out to Recycled Water	(\$1,239,907)	\$219,000	\$794,000	\$747,000	\$714,000	\$687,000	\$656,000	\$368,000	\$353,000	\$337,000	\$329,000	\$321,000
Funding for Affordability Program	\$0	\$0	\$86,000	\$89,000	\$89,000	\$89,000	\$89,000	\$89,000	\$89,000	\$89,000	\$89,000	\$89,000
30 Total Revenue Requirement	\$18,061,589	\$24,001,000	\$22,597,200	\$23,040,600	\$23,642,800	\$24,877,700	\$26,596,400	\$27,173,500	\$28,067,100	\$28,996,800	\$29,983,000	\$30,492,700
31 Beginning Year Balance	\$10,605,000	\$14,181,000	\$12,144,000	\$11,826,000	\$12,159,000	\$13,419,000	\$14,659,000	\$15,458,000	\$16,493,000	\$17,475,000	\$18,394,000	\$18,933,000
32 Surplus/(Shortfall)	\$3,576,219	(\$2,037,000)	(\$318,200)	\$333,400	\$1,260,200	\$1,240,300	\$798,600	\$1,034,500	\$981,900	\$919,200	\$539,000	\$642,300
33 End of Year Balance	\$14,181,219	\$12,144,000	\$11,825,800	\$12,159,400	\$13,419,200	\$14,659,300	\$15,457,600	\$16,492,500	\$17,474,900	\$18,394,200	\$18,933,000	\$19,575,300
34 Minimum Reserves (by policy)	\$12,002,667	\$12,002,667	\$12,002,667	\$12,002,667	\$12,470,000	\$12,720,000	\$12,966,333	\$13,224,667	\$13,494,667	\$13,778,333	\$14,075,333	\$14,386,333
35 Available Cash	\$2,178,553	\$141,333	(\$176,867)	\$156,733	\$949,200	\$1,939,300	\$2,491,267	\$3,267,833	\$3,980,233	\$4,615,867	\$4,857,667	\$5,188,967
36 Intra-district Loan Balance	(\$7,659,100)	(\$6,040,100)	(\$6,348,100)	(\$6,609,100)	(\$6,837,100)	(\$7,038,100)	(\$7,208,100)	(\$7,090,100)	(\$6,957,100)	(\$6,808,100)	(\$6,651,100)	(\$6,486,100)
37 Debt Coverage Ratio	3.50	2.31	1.51	1.66	1.94	2.10	2.29	2.40	2.41	2.43	2.33	2.69



Recycled Water Enterprise Budgeted and Projected Cash Inflows

Schedule 5

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1 Growth in Accounts	na	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2 Proposed Water Rate Increase	(na)	6.0%	6.0%	6.0%	5.0%	5.0%	3.0%	3.0%	3.0%	2.0%	2.0%
Rate Revenue											
3 Rate Revenue	\$1,237,000	\$1,237,000	\$1,311,000	\$1,390,000	\$1,473,000	\$1,547,000	\$1,624,000	\$1,673,000	\$1,723,000	\$1,775,000	\$1,811,000
4 Increase due to growth		0	0	0	0	0	0	0	0	0	0
5 Increase due to new rate adjustments		74,000	79,000	83,000	74,000	77,000	49,000	50,000	52,000	36,000	36,000
6 Total Rate Revenue	\$1,237,000	\$1,311,000	\$1,390,000	\$1,473,000	\$1,547,000	\$1,624,000	\$1,673,000	\$1,723,000	\$1,775,000	\$1,811,000	\$1,847,000
Other Revenue:											
7 Debt Service Repayments	\$45,000	\$6,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000
8 Account Turn-on Charges	1,093,000	49,000	49,000	49,000	49,000	49,000	49,000	49,000	49,000	49,000	49,000
9 Total Other Revenue	\$1,138,000	\$55,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000
10 TOTAL REVENUE	\$2,375,000	\$1,366,000	\$1,452,000	\$1,535,000	\$1,609,000	\$1,686,000	\$1,735,000	\$1,785,000	\$1,837,000	\$1,873,000	\$1,909,000

North Marin Water District
2020 Novato and Recycled Water Rate Study

Schedules

Recycled Water Enterprise Budgeted and Projected Operating & Debt Expenses (existing)

Schedule 6

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Source of Supply											
1 Purchased Water - NSD	\$212,000	\$235,000	\$242,500	\$250,100	\$257,600	\$265,400	\$273,400	\$281,700	\$290,200	\$298,900	\$307,900
2 Purchased Water - LGVSD	63,000	65,000	67,000	69,000	71,000	73,100	75,200	77,400	79,600	81,900	84,300
Pumping											
4 Maint of Pumping Equipment	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000
5 Electric Power	3,000	3,100	0	0	0	0	0	0	0	0	0
Operations											
7 Supervision & Engineering	13,000	13,400	13,800	14,200	14,600	15,000	15,400	15,800	16,300	16,700	17,200
8 Operating Expense - Operations	13,000	13,400	13,800	14,200	14,600	15,000	15,400	15,800	16,300	16,700	17,200
9 Potable Water Consumed	11,000	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100
10 Maintenance Expense	10,000	10,200	10,400	10,700	10,900	11,100	11,400	11,600	11,900	12,200	12,500
11 Telemetry Equipment/Controls Maint	27,000	27,500	28,100	28,800	29,400	30,100	30,800	31,500	32,200	32,900	33,600
Water Treatment											
13 Purification Chemicals	4,000	4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000
14 Maint of Purification Equipment	15,000	15,300	0	0	0	0	0	0	0	0	0
15 Electric Power	2,000	2,000	0	0	0	0	0	0	0	0	0
16 Laboratory Direct Labor	6,000	6,200	0	0	0	0	0	0	0	0	0
17 Lab Expense Distributed from Novato	3,000	3,100	3,100	3,200	3,300	3,300	3,400	3,500	3,600	3,700	3,700
Transmission & Distribution											
19 Supervision & Engineering	26,000	0	0	0	0	0	0	0	0	0	0
20 Maps & Records	1,000	0	0	0	0	0	0	0	0	0	0
21 Operation of T&D System	1,000	1,000	1,100	1,100	1,100	1,200	1,200	1,200	1,300	1,300	1,300
22 Facilities Location	1,000	1,000	1,100	1,100	1,100	1,200	1,200	1,200	1,300	1,300	1,300
23 Cathodic Protection	1,000	1,000	1,100	1,100	1,100	1,200	1,200	1,200	1,300	1,300	1,300
24 Customer Service Expense	7,000	7,200	7,400	7,600	7,800	8,100	8,300	8,500	8,800	9,000	9,300
25 Storage Facilities Expense	11,000	11,300	11,700	12,000	12,400	12,800	13,100	13,500	13,900	14,400	14,800
26 Maint of Valves/Regulators	6,000	6,100	6,200	6,400	6,500	6,700	6,800	7,000	7,100	7,300	7,500
27 Backflow Prevention Program	6,000	6,200	6,400	6,600	6,800	7,000	7,200	7,400	7,600	7,800	8,100
28 Maint of Meters	1,000	1,000	1,000	1,100	1,100	1,100	1,100	1,200	1,200	1,200	1,200
29 Maint of Mains	1,000	1,000	1,000	1,100	1,100	1,100	1,100	1,200	1,200	1,200	1,200
Consumer Accounting											
30 Distributed from Novato (0.2%)	1,000	1,000	1,100	1,100	1,100	1,200	1,200	1,200	1,300	1,300	1,300
General & Administrative											
31 Distributed from Novato (2.4%)	55,000	56,000	57,300	58,600	59,900	61,300	62,700	64,100	65,500	67,000	68,500
32 NBWRA Grant Program Administration	20,000	20,300	20,800	21,300	21,800	22,300	22,800	23,300	23,800	24,400	24,900
Transfers											
33 Transfer out to Novato Sanitary	306,000	269,000	304,000	328,000	348,000	370,000	381,000	392,000	404,000	410,000	415,000
34 Transfer out to Las Gallinas	0	100,000	112,000	121,000	129,000	137,000	141,000	145,000	149,000	151,000	154,000
Debt Service											
35 Existing Debt Service	1,163,000	1,163,000	1,163,000	1,163,000	1,163,000	1,163,000	890,000	890,000	890,000	890,000	890,000
36 Total Operating Expenses	\$1,992,000	\$2,058,000	\$2,092,000	\$2,140,000	\$2,182,000	\$2,227,000	\$1,984,000	\$2,015,000	\$2,047,000	\$2,071,000	\$2,096,000

North Marin Water District
2020 Novato and Recycled Water Rate Study

Schedules

Recycled Water Cash Flow Proforma											Schedule 7	
	Actual FY 2019	Budget FY 2020	Forecast FY 2021	Forecast FY2022	Forecast FY2023	Forecast FY2024	Forecast FY2025	Forecast FY2026	Forecast FY2027	Forecast FY2028	Forecast FY2029	Forecast FY2030
1 Rate Revenue Increase:			6.0%	6.0%	6.0%	5.0%	5.0%	3.0%	3.0%	3.0%	2.0%	2.0%
Rate Revenue												
2 RW Service Charge Revenue	\$1,180,811	\$1,237,000	\$1,237,000	\$1,311,000	\$1,390,000	\$1,473,000	\$1,547,000	\$1,624,000	\$1,673,000	\$1,723,000	\$1,775,000	\$1,811,000
3 Increase due to rate adjustments			\$74,000	\$79,000	\$83,000	\$74,000	\$77,000	\$49,000	\$50,000	\$52,000	\$36,000	\$36,000
Non-Rate Revenues												
4 Operating Revenue	\$2,608	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5 Miscellaneous Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6 Interest Earnings	\$76,542	\$45,000	\$6,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000
7 Connection Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8 Debt Service Repayments	\$349,000	\$1,093,000	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000
9 Total Revenue	\$1,608,961	\$2,375,000	\$1,366,000	\$1,452,000	\$1,535,000	\$1,609,000	\$1,686,000	\$1,735,000	\$1,785,000	\$1,837,000	\$1,873,000	\$1,909,000
O&M Costs												
10 Source of Supply	\$300,457	\$275,000	\$300,000	\$310,000	\$319,000	\$329,000	\$338,000	\$349,000	\$359,000	\$370,000	\$381,000	\$392,000
11 Pumping	\$3,930	\$6,000	\$6,000	\$3,000	\$3,000	\$3,000	\$3,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
12 Operations	\$222,565	\$74,000	\$75,000	\$77,000	\$79,000	\$81,000	\$82,000	\$84,000	\$86,000	\$88,000	\$90,000	\$92,000
13 Water Treatment	\$15,437	\$30,000	\$31,000	\$7,000	\$7,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$9,000	\$9,000
14 Transmission & Distribution	\$16,718	\$62,000	\$36,000	\$37,000	\$38,000	\$39,000	\$40,000	\$41,000	\$42,000	\$44,000	\$45,000	\$46,000
15 Consumer Accounting	\$1,118	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
16 General & Administrative	\$52,910	\$75,000	\$76,000	\$78,000	\$80,000	\$82,000	\$84,000	\$85,000	\$87,000	\$89,000	\$91,000	\$93,000
17 Total Operating Expenses	\$613,134	\$523,000	\$525,000	\$513,000	\$527,000	\$543,000	\$556,000	\$572,000	\$587,000	\$604,000	\$621,000	\$637,000
Capital Costs												
18 Total Capital Spending	\$134,724	\$100,000	\$103,000	\$106,000	\$109,000	\$113,000	\$116,000	\$119,000	\$123,000	\$127,000	\$130,000	\$134,000
19 Bond Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20 SRF Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
21 Existing Debt Service	\$1,163,439	\$1,163,000	\$1,163,000	\$1,163,000	\$1,163,000	\$1,163,000	\$1,163,000	\$890,000	\$890,000	\$890,000	\$890,000	\$890,000
22 Cash Funded Capital Projects	\$134,724	\$100,000	\$103,000	\$106,000	\$109,000	\$113,000	\$116,000	\$119,000	\$123,000	\$127,000	\$130,000	\$134,000
23 New Debt Service			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
24 Total Capital Expenses	\$1,298,163	\$1,263,000	\$1,266,000	\$1,269,000	\$1,272,000	\$1,276,000	\$1,279,000	\$1,009,000	\$1,013,000	\$1,017,000	\$1,020,000	\$1,024,000
Transfers												
25 Transfer in from Novato	(\$1,239,907)	\$218,000	\$794,000	\$747,000	\$714,000	\$687,000	\$656,000	\$368,000	\$353,000	\$337,000	\$329,000	\$321,000
26 Transfer out to Novato Sanitary		\$306,000	\$269,000	\$304,000	\$328,000	\$348,000	\$370,000	\$381,000	\$392,000	\$404,000	\$410,000	\$415,000
27 Transfer out to Las Gallinas		\$0	\$100,000	\$112,000	\$121,000	\$129,000	\$137,000	\$141,000	\$145,000	\$149,000	\$151,000	\$154,000
28 Total Revenue Requirement	\$3,151,204	\$1,873,000	\$1,366,000	\$1,451,000	\$1,534,000	\$1,609,000	\$1,686,000	\$1,735,000	\$1,784,000	\$1,837,000	\$1,873,000	\$1,909,000
Beginning Year Balance												
29 Beginning Year Balance	\$20,256	\$400,000	\$902,000	\$902,000	\$903,000	\$904,000	\$904,000	\$904,000	\$904,000	\$905,000	\$905,000	\$905,000
30 Surplus/(Shortfall)	(\$1,542,243)	\$502,000	\$0	\$1,000	\$1,000	\$0	\$0	\$0	\$1,000	\$0	\$0	\$0
31 End of Year Balance	(\$1,521,987)	\$902,000	\$902,000	\$903,000	\$904,000	\$904,000	\$904,000	\$904,000	\$905,000	\$905,000	\$905,000	\$905,000
32 Minimum Reserves (by policy)	\$169,674	\$174,000	\$649,000	\$645,000	\$650,000	\$655,000	\$659,000	\$665,000	\$670,000	\$675,000	\$681,000	\$686,000
33 Available Cash	(\$1,691,661)	\$728,000	\$253,000	\$258,000	\$254,000	\$249,000	\$245,000	\$239,000	\$235,000	\$230,000	\$224,000	\$219,000
34 Debt Coverage Ratio	-0.21	1.78	1.41	1.45	1.48	1.51	1.54	1.72	1.74	1.76	1.78	1.79

SCHEDULE 8 - ALLOCATION OF COSTS TO SYSTEM FUNCTIONS - NOVATO

		Percent Allocation to System Functions							Cost Allocation to System Functions							
Budget Line Items		Test Year Budget	Customer Service	Water Distribution	Imported Water	Water Treatment	Conservation	Raw Water	Pressure System	Customer Service	Water Distribution	Imported Water	Water Treatment	Conservation	Raw Water	Pressure System
SOURCE OF SUPPLY																
1	Supervision & Engineering	\$11,330			56.7%	39.7%		3.6%				\$6,424	\$4,494		\$412	
2	Operating Expense - Source	\$14,420			56.7%	39.7%		3.6%				\$8,176	\$5,719		\$525	
3	Maint/Monitoring of Dam	\$69,010				91.6%		8.4%					\$63,210		\$5,800	
4	Maint of Lake & Intakes	\$20,600				91.6%		8.4%					\$18,869		\$1,731	
5	Maint of Structures	\$5,150				91.6%		8.4%					\$4,717		\$433	
6	Maint of Watershed	\$46,350				91.6%		8.4%					\$42,455		\$3,895	
7	Water Quality Surveillance	\$14,420				91.6%		8.4%					\$13,208		\$1,212	
8	Purchased Water	\$6,052,600			100.0%							\$6,052,600				
9	GASB68 Adjustment	\$10,300			56.7%	39.7%		3.6%				\$5,840	\$4,085		\$375	
PUMPING																
10	Operating Expense - Pumping	\$3,090							100.0%							\$3,090
11	Maint of Structures & Grounds	\$32,960							100.0%							\$32,960
12	Maint of Pumping Equipment	\$54,590							100.0%							\$54,590
13	Electric Power	\$296,640							100.0%							\$296,640
14	GASB68 Adjustment (Pension)	\$8,240							100.0%							\$8,240
OPERATIONS																
15	Supervision & Engineering	\$162,740		39.6%	24.2%	14.8%			21.3%		\$64,421	\$39,462	\$24,116			\$34,740
16	Operating Expense - Operations	\$245,140		39.6%	24.2%	14.8%			21.3%		\$97,040	\$59,443	\$36,326			\$52,330
17	Maintenance Expense	\$58,710		39.6%	24.2%	14.8%			21.3%		\$23,241	\$14,236	\$8,700			\$12,533
18	Telemetry Equipment/Controls Maint	\$89,610		39.6%	24.2%	14.8%			21.3%		\$35,473	\$21,729	\$13,279			\$19,129
19	Leased Lines	\$17,510		39.6%	24.2%	14.8%			21.3%		\$6,931	\$4,246	\$2,595			\$3,738
20	GASB68 Adjustment (Pension)	\$131,840		39.6%	24.2%	14.8%			21.3%		\$52,190	\$31,969	\$19,537			\$28,144
WATER TREATMENT																
21	Supervision & Engineering	\$147,290				100.0%							\$147,290			
22	Operating Expense - Water Treatment	\$331,660				100.0%							\$331,660			
23	Purification Chemicals	\$489,250				100.0%							\$489,250			
24	Sludge Disposal	\$127,720				100.0%							\$127,720			
25	Maint of Structures & Grounds	\$125,660				100.0%							\$125,660			
26	Maint of Purification Equipment	\$196,730				100.0%							\$196,730			
27	Electric Power	\$160,680				100.0%							\$160,680			
28	Water Quality Programs	\$104,030				100.0%							\$104,030			
29	Laboratory Direct Labor	\$374,920				100.0%							\$374,920			
30	Lab Service-Outside Clients	\$47,380				100.0%							\$47,380			
31	Water Quality Supervision	\$77,250				100.0%							\$77,250			
32	Laboratory Supplies & Expense	\$82,400				100.0%							\$82,400			
33	Customer Water Quality	\$67,980				100.0%							\$67,980			
34	Lab Cost Distributed	(\$25,750)				100.0%							(\$25,750)			
35	GASB68 Adjustment (Pension)	\$261,620				100.0%							\$261,620			

North Marin Water District
2020 Novato and Recycled Water Rate Study

Schedules

SCHEDULE 8 - ALLOCATION OF COSTS TO SYSTEM FUNCTIONS - NOVATO

		Percent Allocation to System Functions							Cost Allocation to System Functions							
Budget Line Items		Test Year Budget	Customer Service	Water Distribution	Imported Water	Water Treatment	Conservation	Raw Water	Pressure System	Customer Service	Water Distribution	Imported Water	Water Treatment	Conservation	Raw Water	Pressure System
TRANSMISSION & DISTRIBUTION																
36	Supervision & Engineering	\$608,730	25.0%	75.0%						\$152,183	\$456,548					
37	Maps & Records	\$164,800	100.0%							\$164,800						
38	Operation of T&D System	\$70,040	100.0%							\$70,040						
39	Facilities Location	\$153,470	100.0%							\$153,470						
40	Safety: Construction & Engineering	\$61,800		100.0%							\$61,800					
41	Customer Service Expense	\$284,280	100.0%							\$284,280						
42	Flushing	\$55,620		100.0%							\$55,620					
43	Storage Facilities Expense	\$128,750		100.0%							\$128,750					
44	Cathodic Protection	\$18,540		100.0%							\$18,540					
45	Maint of Valves/Regulators	\$197,760		100.0%							\$197,760					
46	Maint of Mains	\$175,100		100.0%							\$175,100					
47	Leak Detection - Mains	\$12,360		100.0%							\$12,360					
48	Backflow Prevention Program	\$226,600		100.0%							\$226,600					
49	Maint of Copper Services	\$145,230		100.0%							\$145,230					
50	Maint of PB Service Lines	\$495,430		100.0%							\$495,430					
51	Maint of Meters	\$145,230		100.0%							\$145,230					
52	Detector Check Assembly Maint	\$86,520		100.0%							\$86,520					
53	Maint of Hydrants	\$75,190	100.0%							\$75,190						
54	GASB68 Adjustment (Pension)	\$429,510	25.0%	75.0%						\$107,378	\$322,133					
CONSUMER ACCOUNTING																
55	Meter Reading	\$110,210	100.0%							\$110,210						
56	Collection Expense - Labor	\$32,960	100.0%							\$32,960						
57	Collection Expense - Agency	\$3,090	100.0%							\$3,090						
58	Billing & Consumer Accounting	\$219,390	100.0%							\$219,390						
59	Contract Billing	\$18,540	100.0%							\$18,540						
60	Stationery, Supplies & Postage	\$56,650	100.0%							\$56,650						
61	Online Payment Processing Fees/CC Fees	\$61,800	100.0%							\$61,800						
62	Lock Box Service	\$11,330	100.0%							\$11,330						
63	Uncollectable Accounts	\$5,150	100.0%							\$5,150						
64	Office Equipment Expense	\$36,050	100.0%							\$36,050						
65	Distributed to West Marin (4.1%)	(\$16,480)	100.0%							(\$16,480)						
66	GASB68 Adjustment (Pension)	\$92,700	100.0%							\$92,700						
WATER CONSERVATION																
67	Residential	\$262,650					100.0%							\$262,650		
68	Commercial	\$20,600					100.0%							\$20,600		
69	Public Outreach/Information	\$45,320					100.0%							\$45,320		
70	Large Landscape	\$28,840					100.0%							\$28,840		
71	GASB68 Adjustment (Pension)	\$44,290					100.0%							\$44,290		
Total Operating Costs										\$1,638,730	\$2,806,916	\$6,244,127	\$2,830,129	\$401,700	\$14,383	\$546,135
										11.3%	19.4%	43.1%	19.5%	2.8%	0.1%	3.8%

North Marin Water District
2020 Novato and Recycled Water Rate Study

Schedules

SCHEDULE 8 - ALLOCATION OF COSTS TO SYSTEM FUNCTIONS - NOVATO

Percent Allocation to System Functions									Cost Allocation to System Functions							
Budget Line Items		Test Year Budget	Customer Service	Water Distribution	Imported Water	Water Treatment	Conservation	Raw Water	Pressure System	Customer Service	Water Distribution	Imported Water	Water Treatment	Conservation	Raw Water	Pressure System
GENERAL AND ADMINISTRATIVE																
72	Directors Fees	\$42,230	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$12,964		\$18,208	\$8,253	\$1,171	\$42	\$1,593
73	Legal Fees	\$21,630	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$6,640		\$9,326	\$4,227	\$600	\$21	\$816
74	Human Resources	\$53,560	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$16,442		\$23,093	\$10,467	\$1,486	\$53	\$2,020
75	Auditing Fees	\$21,630	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$6,640		\$9,326	\$4,227	\$600	\$21	\$816
76	Consulting Services/Studies	\$200,850	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$61,656		\$86,599	\$39,251	\$5,571	\$199	\$7,574
77	General Office Salaries	\$1,188,620	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$364,876		\$512,487	\$232,283	\$32,970	\$1,181	\$44,824
78	Safety: General District Wide	\$58,710	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$18,023		\$25,314	\$11,473	\$1,628	\$58	\$2,214
79	Office Supplies	\$48,410	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$14,861		\$20,873	\$9,460	\$1,343	\$48	\$1,826
80	Employee Events	\$12,360	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$3,794		\$5,329	\$2,415	\$343	\$12	\$466
81	Other Administrative Expense	\$15,450	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$4,743		\$6,661	\$3,019	\$429	\$15	\$583
82	Dues & Subscriptions	\$97,850	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$30,037		\$42,189	\$19,122	\$2,714	\$97	\$3,690
83	Vehicle Expense	\$8,240	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$2,529		\$3,553	\$1,610	\$229	\$8	\$311
84	Meetings, Conferences & Training	\$194,670	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$59,759		\$83,934	\$38,043	\$5,400	\$193	\$7,341
85	Recruitment Expense	\$3,090	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$949		\$1,332	\$604	\$86	\$3	\$117
86	Gas & Electricity	\$40,170	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$12,331		\$17,320	\$7,850	\$1,114	\$40	\$1,515
87	Telephone	\$8,240	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$2,529		\$3,553	\$1,610	\$229	\$8	\$311
88	Water	\$2,060	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$632		\$888	\$403	\$57	\$2	\$78
89	Buildings & Grounds Maint	\$58,710	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$18,022		\$25,313	\$11,473	\$1,628	\$58	\$2,214
90	Office Equipment Expense	\$132,870	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$40,788		\$57,288	\$25,966	\$3,686	\$132	\$5,011
91	Insurance Premiums & Claims	\$150,380	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$46,163		\$64,838	\$29,388	\$4,171	\$149	\$5,671
92	Retiree Medical Benefits	\$177,160	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$54,384		\$76,384	\$34,621	\$4,914	\$176	\$6,681
93	(Gain)/Loss on Overhead Charges	(\$123,600)	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	(\$37,942)		(\$53,292)	(\$24,154)	(\$3,428)	(\$123)	(\$4,661)
94	G&A Applied to Other Operations (5.9%)	(\$150,380)	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	(\$46,163)		(\$64,838)	(\$29,388)	(\$4,171)	(\$149)	(\$5,671)
95	G&A Applied to Construction	(\$335,780)	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	(\$103,076)		(\$144,775)	(\$65,619)	(\$9,314)	(\$333)	(\$12,663)
96	GASB68 Adjustment (Pension)	\$376,980	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$115,723		\$162,539	\$73,670	\$10,457	\$374	\$14,216
NON-OPERATING CATEGORIES																
97	Other Non-Operating Expense	\$20,600	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$6,324		\$8,882	\$4,026	\$571	\$20	\$777
98	Funding for Affordability Program	\$86,000	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$26,400		\$37,080	\$16,806	\$2,385	\$85	\$3,243
99	Debt Service	\$3,036,000			37.9%	23.1%		5.7%	33.3%			\$1,149,553	\$702,505		\$171,942	\$1,012,000
100	Capital Spending	\$1,873,200		39.6%	24.2%	14.8%			21.3%		\$741,515	\$454,227	\$277,583			\$399,875
101	Change in Fund Balance & Transfers	\$475,800	30.7%		43.1%	19.5%	2.8%	0.1%	3.8%	\$146,059		\$205,146	\$92,982	\$13,198	\$473	\$17,943
102	Non-Rate Revenue	(\$1,347,000)	11.3%	19.4%	43.1%	19.5%	2.8%	0.1%	3.8%	(\$152,420)	(\$261,075)	(\$580,774)	(\$263,234)	(\$37,363)	(\$1,338)	(\$50,797)
103	Totals:	\$20,930,830								\$2,372,395	\$3,287,356	\$8,511,684	\$4,111,071	\$444,402	\$187,854	\$2,016,066



SCHEDULE 9 - ALLOCATION OF COSTS TO SYSTEM FUNCTIONS - RECYCLED WATER

			Percent Allocation to System Functions			Cost Allocation to System Functions		
	Budget Expense	Test Year Budget	Customer Service	Recycled Water Distribution	Wastewater Treatment	Customer Service	Recycled Water Distribution	Wastewater Treatment
	Source of Supply							
1	Purchased Water - NSD	\$235,000			100.0%			\$235,000
2	Purchased Water - LGVSD	\$65,000			100.0%			\$65,000
	Pumping							
3	Maint of Pumping Equipment	\$3,090		100.0%			\$3,090	
4	Electric Power	\$3,090			100.0%			\$3,090
	Operations							
5	Supervision & Engineering	\$13,371		100.0%			\$13,371	
6	Operating Expense - Operations	\$13,371		100.0%			\$13,371	
7	Potable Water Consumed	\$11,078		100.0%			\$11,078	
8	Maintenance Expense	\$10,173		100.0%			\$10,173	
9	Telemetry Equipment/Controls Maint	\$27,468		100.0%			\$27,468	
	Water Treatment							
10	Purification Chemicals	\$4,069			100.0%			\$4,069
11	Maint of Purification Equipment	\$15,260		100.0%			\$15,260	
12	Electric Power	\$2,014			100.0%			\$2,014
13	Laboratory Direct Labor	\$6,171		100.0%			\$6,171	
16	Lab Expense Distributed from Novato	\$3,052		100.0%			\$3,052	
	Transmission & Distribution							
17	Operation of T&D System	\$1,030		100.0%			\$1,030	
18	Facilities Location	\$1,030		100.0%			\$1,030	
19	Cathodic Protection	\$1,030		100.0%			\$1,030	
20	Customer Service Expense	\$7,200		100.0%			\$7,200	
21	Storage Facilities Expense	\$11,330		100.0%			\$11,330	
22	Maint of Valves/Regulators	\$6,104		100.0%			\$6,104	
23	Backflow Prevention Program	\$6,180		100.0%			\$6,180	
24	Maint of Meters	\$1,017		100.0%			\$1,017	
25	Maint of Mains	\$1,017		100.0%			\$1,017	
	Consumer Accounting							
26	Distributed from Novato (0.2%)	\$1,030	100.0%			\$1,030		
27	Transfer Out	\$369,000			100.0%			\$369,000
	General & Administrative							
28	Distributed from Novato (2.4%)	\$55,954	17.1%		82.9%	\$9,575		\$46,379
29	NBWRA Grant Program Administration	\$20,347	17.1%		82.9%	\$3,482		\$16,865
	Non-Operating Categories							
30	Debt Service	\$1,163,000			100.0%			\$1,163,000
31	Capital Spending	\$103,000		100.0%			\$103,000	
32	Change in Fund Balance	\$0	17.1%		82.9%	\$0		\$0
33	Non-Rate Revenue	(\$849,000)	0.1%	17.0%	82.9%	(\$1,069)	(\$144,208)	(\$703,723)
Total:		\$1,311,476				\$13,017	\$97,764	\$1,200,695

Schedule 10 – Proposed Rates Schedules for FY 2020/21 through FY 2023/24

Proposed Rates beginning July 1, 2020

Service Charges

Meter Size	Potable Water Bi-Monthly Service Charge	Recycled Water Bi-Monthly Service Charge	Fire Line Service Charge
5/8"	\$41.46	\$48.78	(na)
1"	\$74.06	\$85.79	\$14.24
1.5"	\$128.38	\$147.46	(na)
2"	\$193.57	\$221.47	\$18.78
3"	\$367.41	\$418.83	(na)
4"	\$562.98	\$640.86	\$52.40
6"	\$1,106.23	\$1,257.61	\$73.60
8"	\$1,432.18	(na)	\$97.83
10"	(na)	(na)	\$128.11

Quantity Charges (per TGAL)

Residential Quantity Charges	
Tier 1*	\$5.50
Tier 2**	\$6.23
Tier 3	\$7.67
Commercial Quantity Charges	
Winter (Oct. to June)	\$5.50
Summer (Jul. to Sept.)	\$7.67
Other Quantity Charges	
Raw Water	\$2.93
Temporary Meter	\$6.99
Recycled Water	\$6.24
Elevation Zone Charge	
Zone B	\$0.76
Zone C	\$2.10

* Allocation is 262 gpd per dwelling unit

** Allocation is 458 gpd per dwelling unit

Proposed Rates beginning July 1, 2021

Service Charges

Meter Size	Potable Water Bi-Monthly Service Charge	Recycled Water Bi-Monthly Service Charge	Fire Line Service Charge
5/8"	\$43.95	\$51.71	(na)
1"	\$78.50	\$90.93	\$15.09
1.5"	\$136.08	\$156.31	(na)
2"	\$205.18	\$234.76	\$19.91
3"	\$389.45	\$443.96	(na)
4"	\$596.76	\$679.31	\$55.54
6"	\$1,172.60	\$1,333.07	\$78.02
8"	\$1,518.11	(na)	\$103.70
10"	(na)	(na)	\$135.80

Quantity Charges (per TGAL)

Residential Quantity Charges	
Tier 1*	\$5.83
Tier 2**	\$6.60
Tier 3	\$8.13
Commercial Quantity Charges	
Winter (Oct. to June)	\$5.83
Summer (Jul. to Sept.)	\$8.13
Other Quantity Charges	
Raw Water	\$3.11
Temporary Meter	\$7.41
Recycled Water	\$6.61
Elevation Zone Charge	
Zone B	\$0.81
Zone C	\$2.23

* Allocation is 262 gpd per dwelling unit

** Allocation is 458 gpd per dwelling unit

Proposed Rates beginning July 1, 2022

Service Charges

Meter Size	Potable Water Bi-Monthly Service Charge	Recycled Water Bi-Monthly Service Charge	Fire Line Service Charge
5/8"	\$46.59	\$54.81	(na)
1"	\$83.21	\$96.39	\$16.00
1.5"	\$144.24	\$165.69	(na)
2"	\$217.49	\$248.85	\$21.10
3"	\$412.82	\$470.60	(na)
4"	\$632.57	\$720.07	\$58.87
6"	\$1,242.96	\$1,413.05	\$82.70
8"	\$1,609.20	(na)	\$109.92
10"	(na)	(na)	\$143.95

Quantity Charges (per TGAL)

Residential Quantity Charges

Tier 1*	\$6.18
Tier 2**	\$7.00
Tier 3	\$8.62

Commercial Quantity Charges

Winter (Oct. to June)	\$6.18
Summer (Jul. to Sept.)	\$8.62

Other Quantity Charges

Raw Water	\$3.30
Temporary Meter	\$7.86
Recycled Water	\$7.01

Elevation Zone Charge

Zone B	\$0.86
Zone C	\$2.36

* Allocation is 262 gpd per dwelling unit

** Allocation is 458 gpd per dwelling unit

Proposed Rates beginning July 1, 2023

Service Charges

Meter Size	Potable Water Bi-Monthly Service Charge	Recycled Water Bi-Monthly Service Charge	Fire Line Service Charge
5/8"	\$48.92	\$57.55	(na)
1"	\$87.37	\$101.21	\$16.80
1.5"	\$151.45	\$173.97	(na)
2"	\$228.36	\$261.29	\$22.16
3"	\$433.46	\$494.13	(na)
4"	\$664.20	\$756.07	\$61.81
6"	\$1,305.11	\$1,483.70	\$86.84
8"	\$1,689.66	(na)	\$115.42
10"	(na)	(na)	\$151.15

Quantity Charges (per TGAL)

Residential Quantity Charges

Tier 1*	\$6.49
Tier 2**	\$7.35
Tier 3	\$9.05

Commercial Quantity Charges

Winter (Oct. to June)	\$6.49
Summer (Jul. to Sept.)	\$9.05

Other Quantity Charges

Raw Water	\$3.47
Temporary Meter	\$8.25
Recycled Water	\$7.36

Elevation Zone Charge

Zone B	\$0.90
Zone C	\$2.48

* Allocation is 262 gpd per dwelling unit

** Allocation is 458 gpd per dwelling unit

Proposed Rates beginning July 1, 2024

Service Charges

Meter Size	Potable Water Bi-Monthly Service Charge	Recycled Water Bi-Monthly Service Charge	Fire Line Service Charge
5/8"	\$51.37	\$60.43	(na)
1"	\$91.74	\$106.27	\$17.64
1.5"	\$159.02	\$182.67	(na)
2"	\$239.78	\$274.35	\$23.27
3"	\$455.13	\$518.84	(na)
4"	\$697.41	\$793.87	\$64.90
6"	\$1,370.37	\$1,557.89	\$91.18
8"	\$1,774.14	(na)	\$121.19
10"	(na)	(na)	\$158.71

Quantity Charges (per TGAL)

Residential Quantity Charges

Tier 1*	\$6.81
Tier 2**	\$7.72
Tier 3	\$9.50

Commercial Quantity Charges

Winter (Oct. to June)	\$6.81
Summer (Jul. to Sept.)	\$9.50

Other Quantity Charges

Raw Water	\$3.64
Temporary Meter	\$8.67
Recycled Water	\$7.73

Elevation Zone Charge

Zone B	\$0.95
Zone C	\$2.60

* Allocation is 262 gpd per dwelling unit

** Allocation is 458 gpd per dwelling unit

Rate Study Recommendations Board Presentation

North Marin Water District

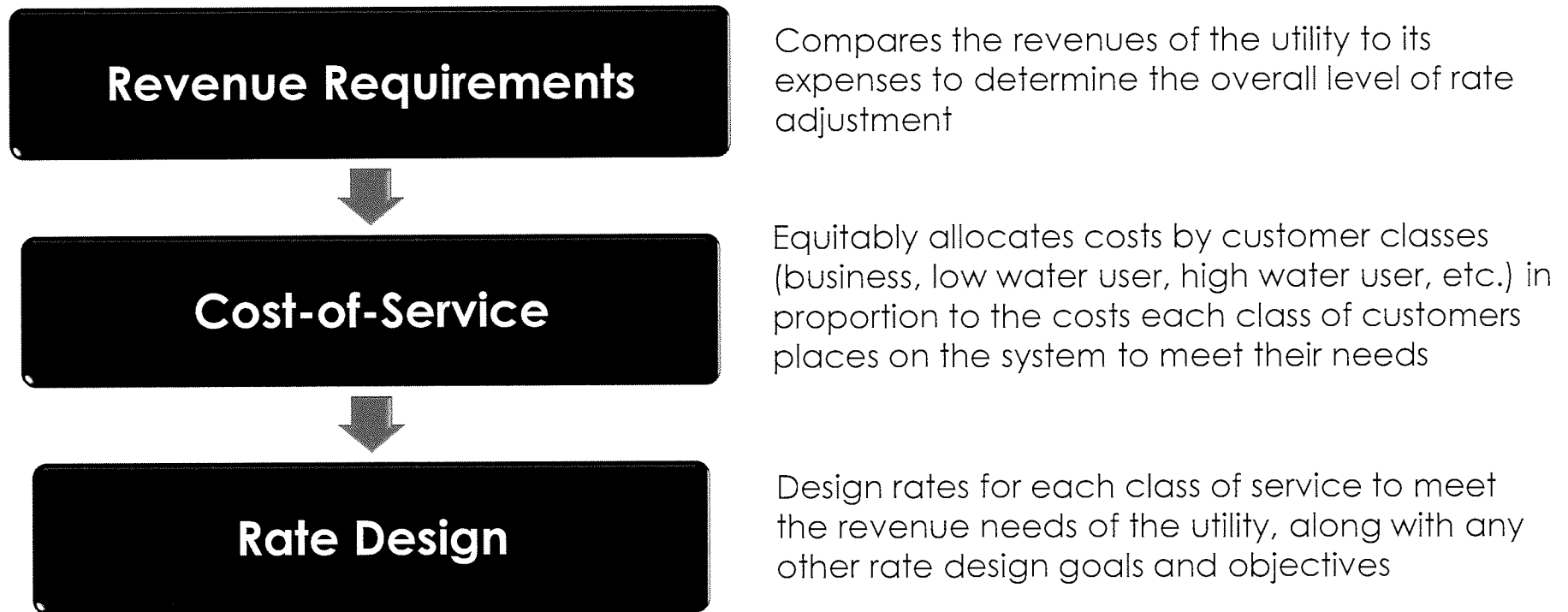
March 3, 2020



Agenda

1. Rate studies overview & scope
2. Review financial plans
 - Novato Enterprise (potable)
 - Recycled Water Enterprise
3. Rate design & structure
4. Project schedule

The Rate Setting Process



Rate Study Framework

1. Look for opportunity to improve the existing rate structure while retaining the same basic structure
 - ✓ Make it simpler, easier to understand, and in line with industry standards
2. Treat potable water and recycled water as separate enterprises
 - ✓ Finances are already separated
 - ✓ Keeping the funds separate promotes transparency in rate setting
3. Ensure equity among all ratepayers and conformance to the “cost of service” requirements of Proposition 218
 - ✓ All utilities change over time and require cost of service updates

Novato Potable Water Financial Plan

Novato Enterprise Reserves

Cash Reserves

Fiscal year beginning July 1, 2019

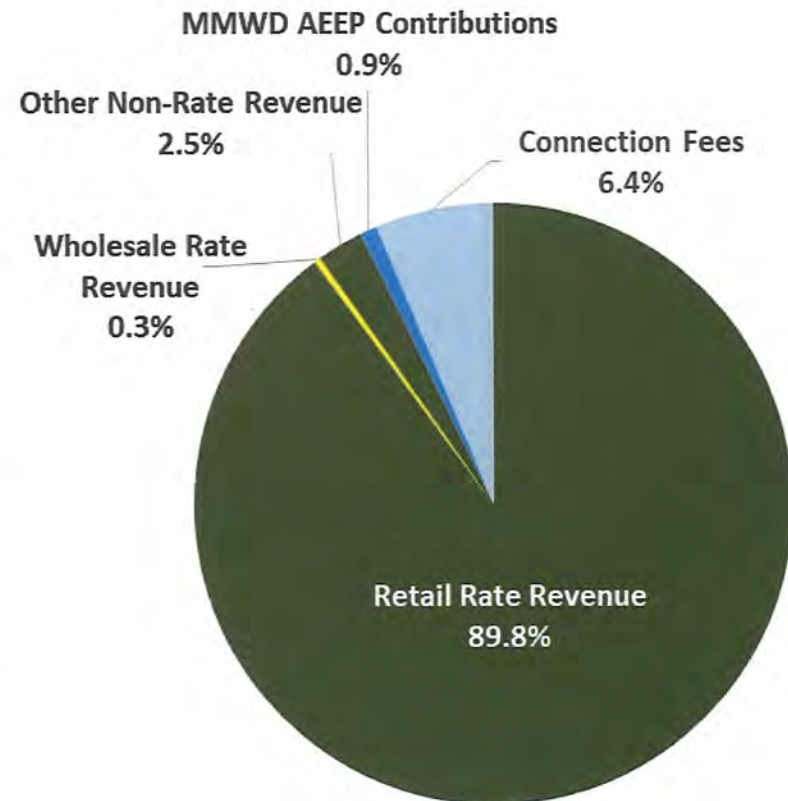
Cash	\$0	
Self-Insured Workers' Compensation Fund	\$507,000	
Retiree Medical Benefits Fund	\$4,124,000	*
Maintenance Accrual Fund	\$2,500,000	
Operating Reserve Fund	\$2,332,000	
Liability Contingency Reserve	\$1,142,000	
Total Unrestricted:	\$10,605,000	
Restricted:	\$1,628,000	
Total Reserves:	\$12,233,000	
Long-term Receivable from Recycled Water:	\$7,659,000	

* No longer funded since District is no longer self-insured

Novato Enterprise Revenue

FY2019/20 Budget

Retail Rate Revenue	\$19,734,000*
Wholesale Rate Revenue	\$75,000
Non-Rate Revenue	
Interest Earnings	\$150,000
Connection Fees	\$1,400,000
Operating Revenue	\$116,000
Other Charges	\$234,000
Miscellaneous	\$50,000
MMWD AEEP Contributions	\$205,000
<hr/>	
Total:	\$21,964,000

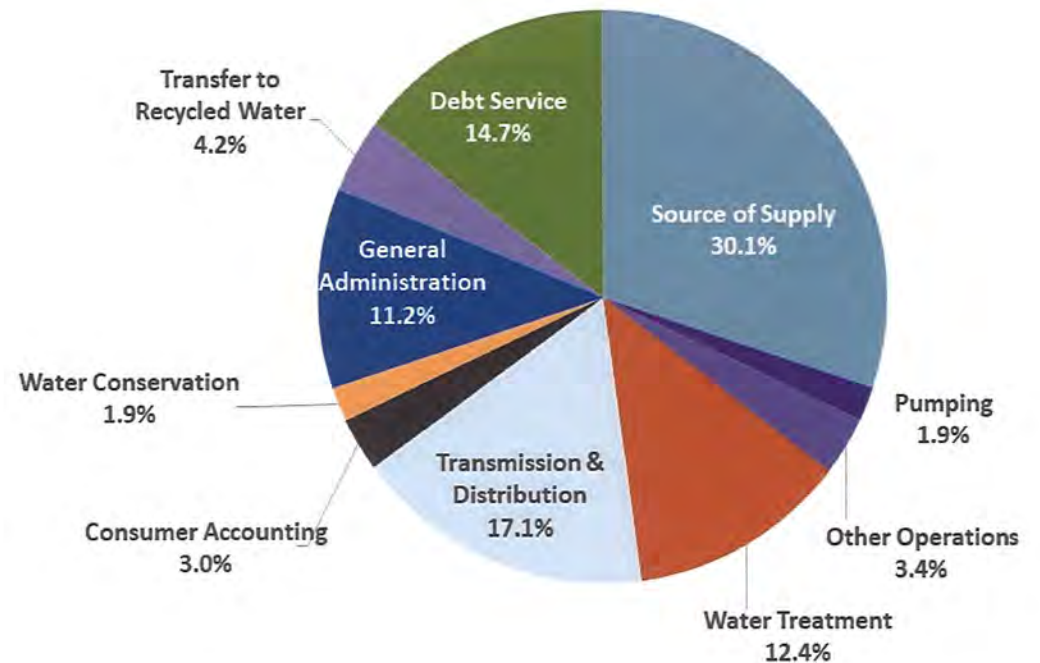


* 2.4 billion gallons sold. Price per gallon = \$0.008

Novato Enterprise Operating Expenses & Debt Service

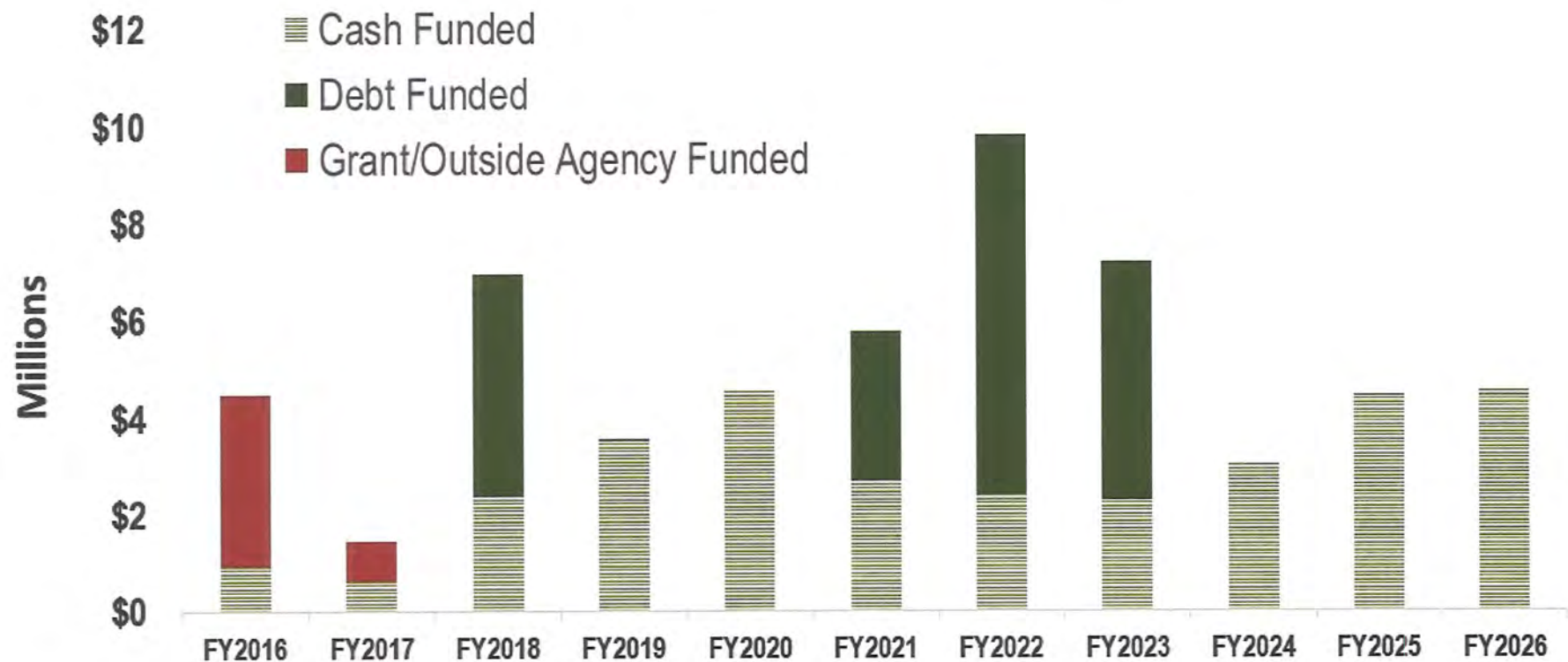
FY2020/21 Budget Forecast

Source of Supply	\$6,244,000
Pumping	\$396,000
Other Operations	\$706,000
Water Treatment	\$2,569,000
Transmission & Distribution	\$3,535,000
Consumer Accounting	\$631,000
Water Conservation	\$402,000
General Administration	\$2,325,000
Affordability Program	\$86,000*
Transfer to Recycled Water	\$870,000
Debt Service	\$3,036,000
Total Budget:	\$20,800,000



* Under development, to be proposed

Novato Enterprise Capital Spending



Average PayGo: \$2.7 million

Capital Spending

PROJECT TYPE	5-Year Forecast
PIPELINE REHABILITATION	
Various pipeline replacement projects	\$6,796,000
PREVENTATIVE MAINTENANCE	
Pipe leak and rust detection	\$650,000
Asset management software	\$163,000
FACILITY IMPROVEMENTS	
Administration Building	\$15,240,000
Stafford Treatment Plant	\$140,000
STORAGE TANKS & PUMP STATIONS	
Tank construction and rehabillitation	\$3,822,000
Pump Station rehabillitation	\$955,000

Capital Spending

Administrative Building

- Reaching end of useful life
- Non-ADA compliant
- Need new laboratory facilities
- Taking advantage of historically low interest rates

Repair & Replacement

- Pro-actively addressing system deficiencies rather than deferring maintenance
- Some pipelines are up to 70 years old
- Funding projects with cash in order to allow for continuous re-investment

Fire Flow Improvements

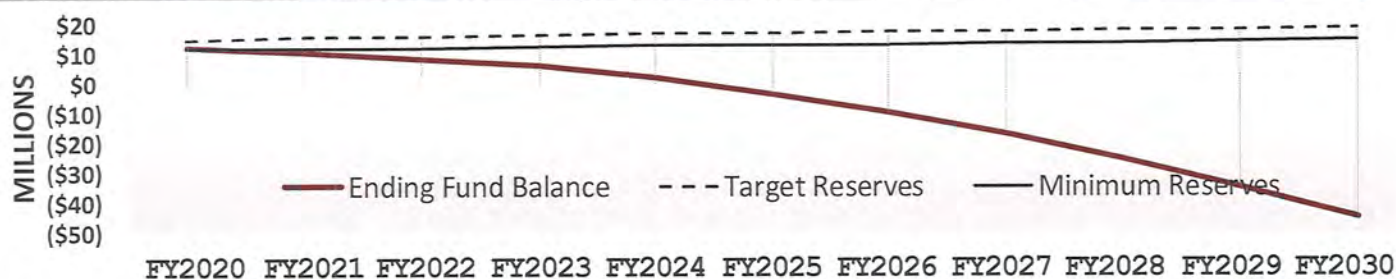
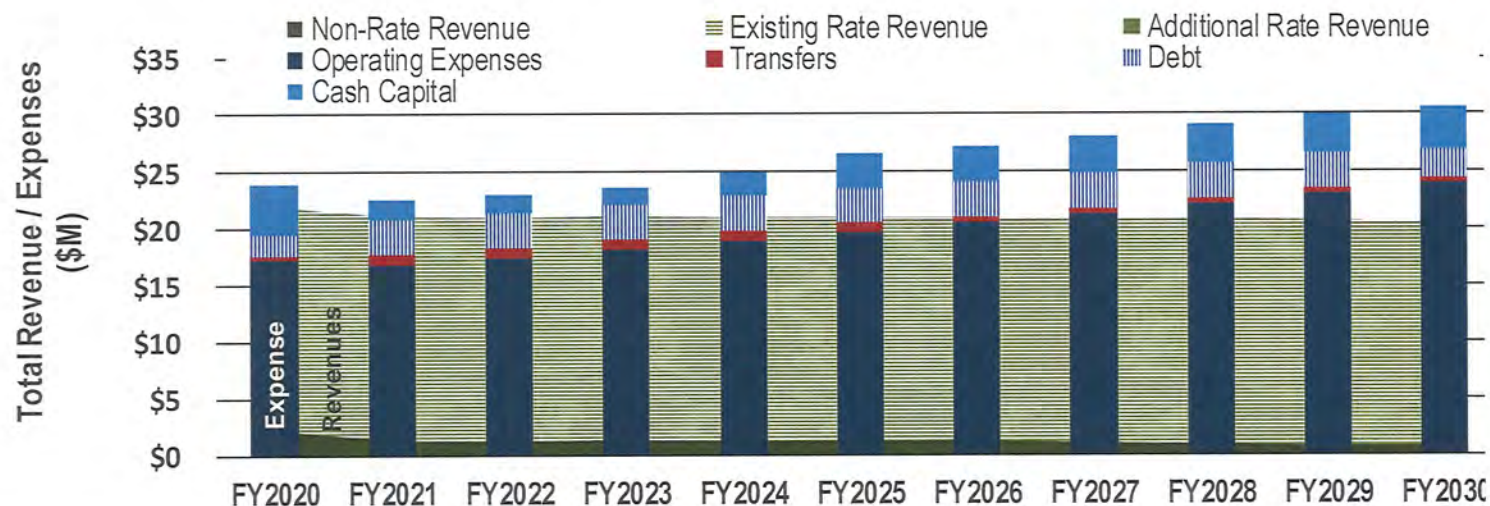
- Increase resilience during fire events
- Upsize existing water mains
- Increase size of storage tanks

Reserves

The following are established District reserve policies. In addition to protecting the District against unforeseen circumstances, these policies also contribute towards the District's credit rating.

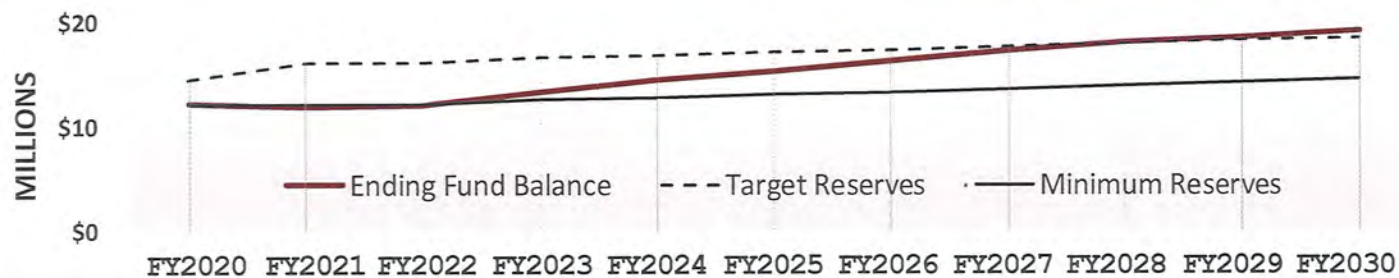
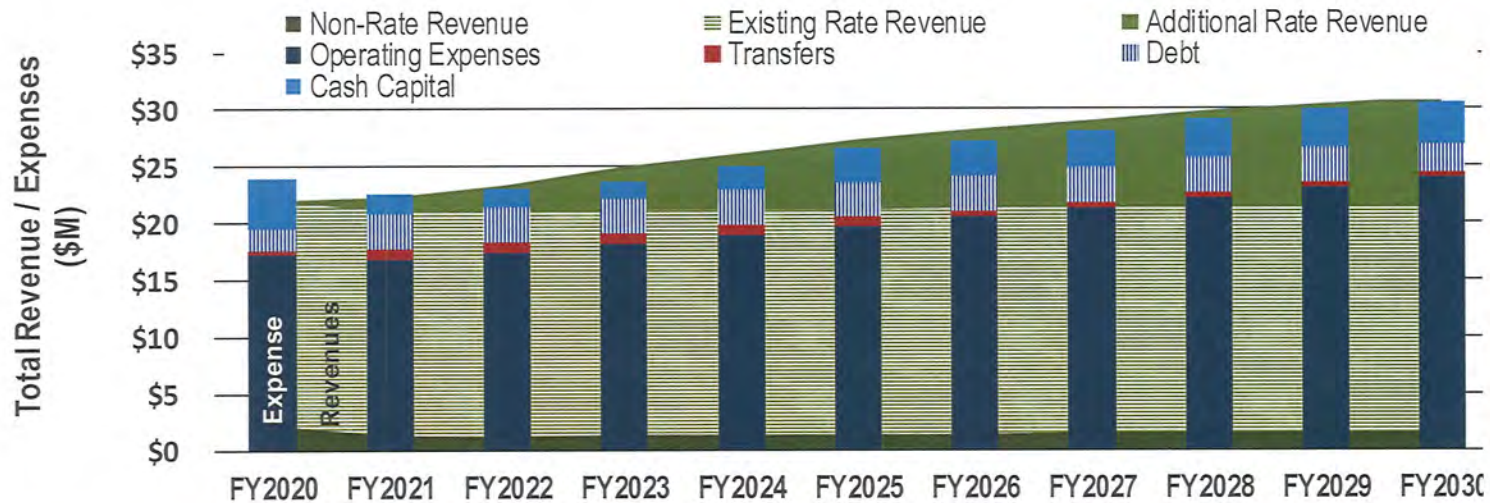
Minimum Reserves: \$12.0 million	These reserves should always *plan* to be fully funded: Operating Reserve (\$5.6 million) Other Post Employment Benefit (OPEB) Liability Reserve (\$4.4 million) Liability Contingency Reserve (\$2.0 million)
Target Reserves: \$16.0 million	This reserve is designed to occasionally be drawn down: Maintenance Accrual Fund (\$4.0 million)

Novato Enterprise Financial Forecast – No rate increases



	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Proposed Revenue Increases:	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Debt Coverage Ratio:	2.1	1.2	1.0	0.9	0.7	0.5	0.4	0.2	-0.1	-0.3	-0.8
Net Debt Proceeds:	\$0.0M	\$3.1M	\$7.4M	\$4.9M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M

Novato Enterprise Financial Forecast



Proposed Revenue Increases:	6.0%	6.0%	6.0%	5.0%	5.0%	3.0%	3.0%	3.0%	2.0%	2.0%	
Debt Coverage Ratio:	2.1	1.5	1.6	1.8	1.9	2.2	2.2	2.3	2.3	2.2	2.6
Net Debt Proceeds:	\$0.0M	\$3.1M	\$7.4M	\$4.9M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M

Rate increase drivers:

Operating costs

- Operating costs have increased by an average of 6.3% per year over the past 4 years
- Going forward we assume most costs will escalate at 3% but water purchase costs (30% of the operating budget) will increase by 6%.

Increased capital spending and facility re-investment

- The average pay-go expenditure over the past 4 years was \$1.9 million
 - The average pay-go expenditure over the next 5 years is forecasted to ramp up to \$3.9 million
 - Debt service will increase by \$1.13 million in 2021
-

Unless changes are made:

- Expenses will continue to rise above revenues
- Debt coverage ratio will fall below mandated levels
- Cash reserves will fall below safe levels
- District will be unable to fund needed facility upgrades and replacements
- Quality water service could be impacted

Recycled Water Enterprise Financial Plan

Recycled Water Reserves

Cash Reserves

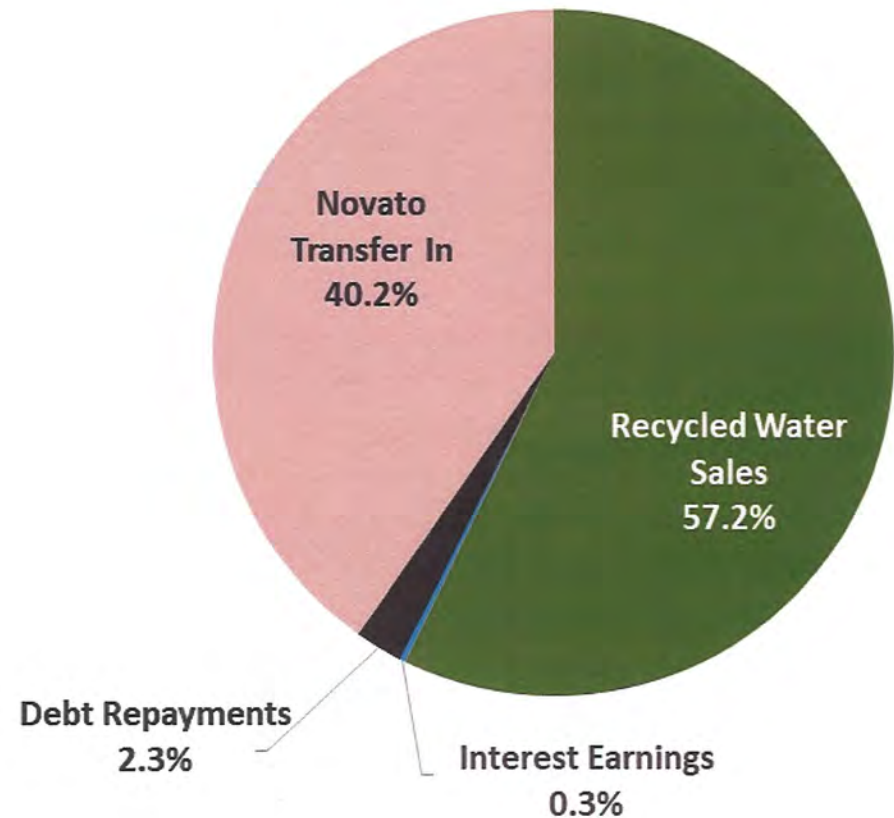
Fiscal year beginning July 1, 2019

Cash	\$230,000
Operating Reserve Fund	\$174,000
Total Unrestricted:	\$404,000
Restricted	\$2,416,000
Capital Replacement & Expansion Fund	\$1,867,000
Total Reserves:	\$4,687,000

Recycled Water Revenue

FY2020/21 Budget Forecast

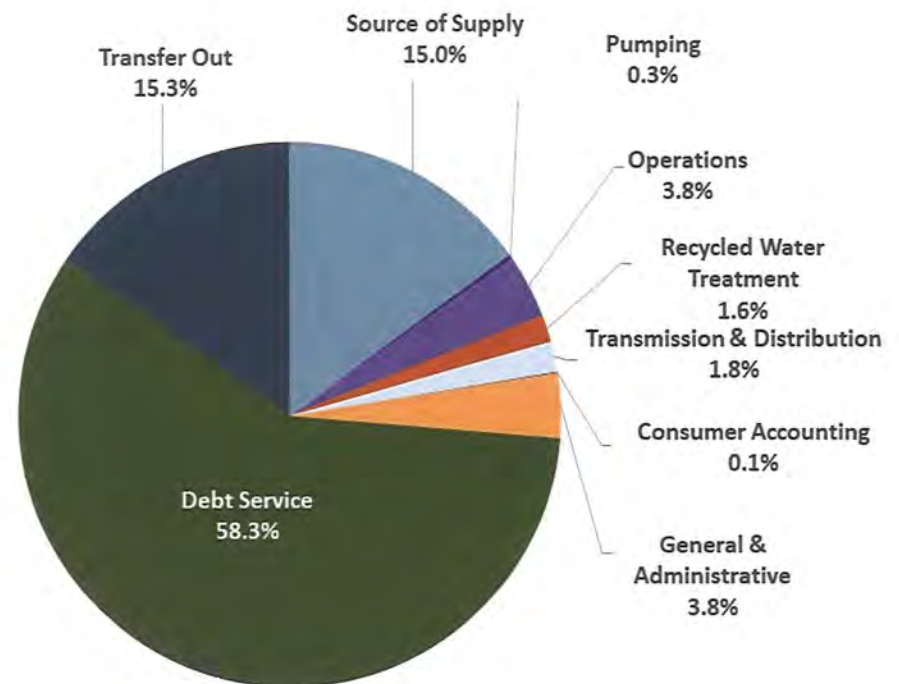
Recycled Water Sales	\$1,237,000
Non-Rate Revenue	
Miscellaneous	\$0
Interest Earnings	\$6,000
Debt Repayments	\$49,000
Novato Transfer In	\$870,000
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Total:	\$2,162,000



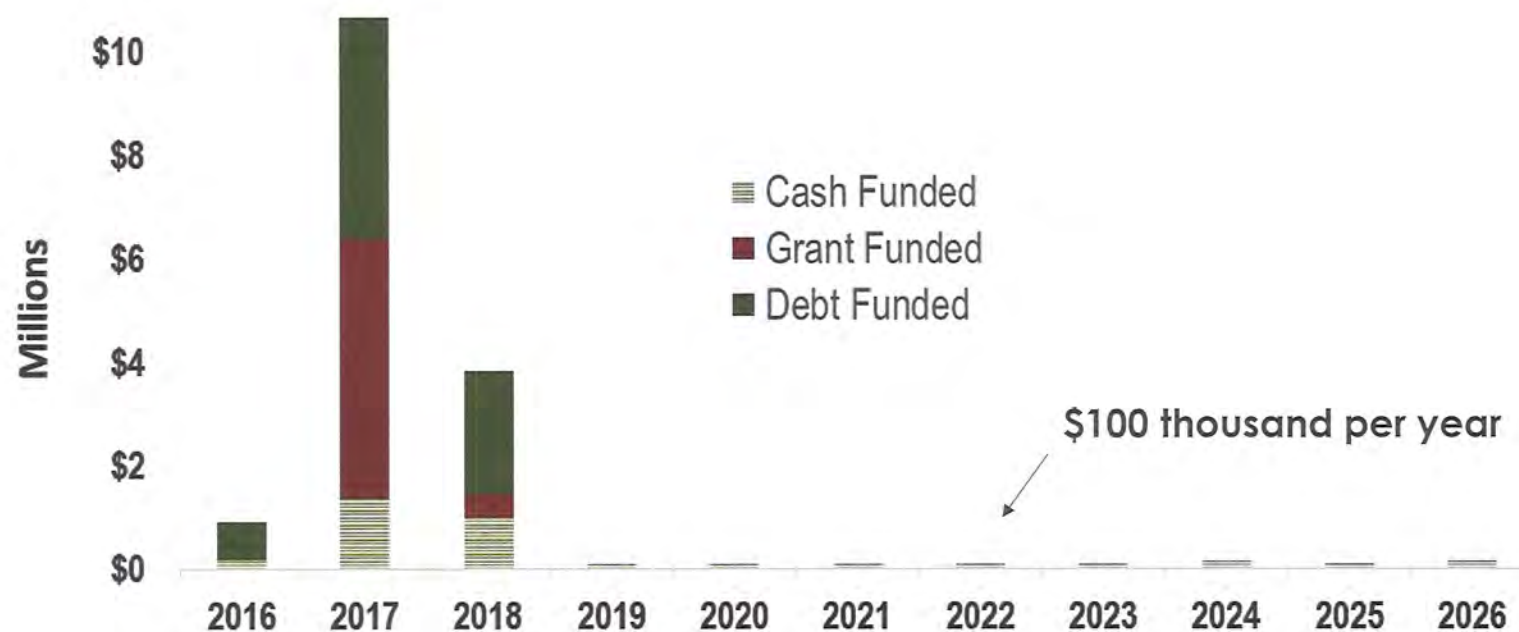
Recycled Water Operating Expenses & Debt Service

FY2020/21 Budget Forecast

Source of Supply	\$300,000
Pumping	\$6,000
Operations	\$75,000
Recycled Water Treatment	\$31,000
Transmission & Distribution	\$36,000
Consumer Accounting	\$1,000
General & Administrative	\$76,000
Debt Service	\$1,163,000
Transfer Out	\$306,000
Total Budget:	\$1,994,000



Recycled Water Capital Spending



Recycled Water Reserves

In addition to protecting the District against unforeseen circumstances, strong reserve policies also contribute towards the District's credit rating.

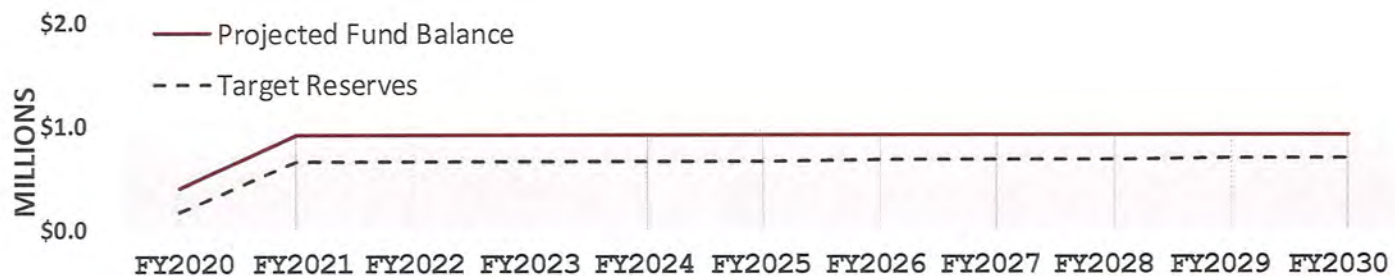
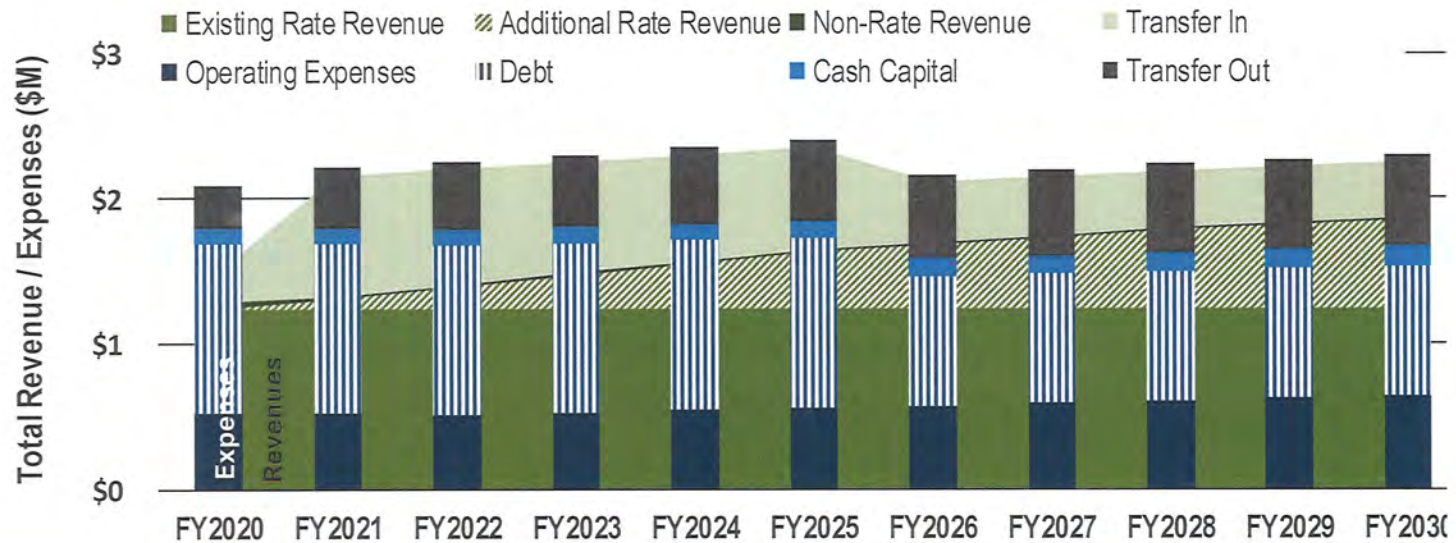
Operating Reserve (established District reserve policy)

- Reserve in the event of unexpected changes to cash flow or operating costs
- Current target: 4 months (approximately \$175 thousand)

Capital Reserve Fund (proposed District reserve policy)

- Supports volatility of capital spending and provides emergency funds in the event of asset failure.
- Proposed target: equal to current annual depreciation expense (\$474 thousand)

Recycled Water Fund Financial Forecast



	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Proposed Revenue Increases:		6.0%	6.0%	6.0%	5.0%	5.0%	3.0%	3.0%	3.0%	2.0%	2.0%
Combined DCR:	2.11	1.48	1.49	1.61	1.82	1.94	2.15	2.24	2.25	2.26	2.19
Net Debt Proceeds:	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M

Cost of Service Study and Rate Structure Redesign

Existing Rates

☐ Water Usage “Quantity” Rate:

- ✓ 3 Tiers for Residential
 - Allocation increases with dwelling units
- ✓ Seasonal rates for Commercial (Non-Residential)
- ✓ Raw water rate
- ✓ Recycled Water rate
- ✓ Elevation Surcharge
- ✓ Drought Surcharge*

☐ Fixed Service Charge by Meter size

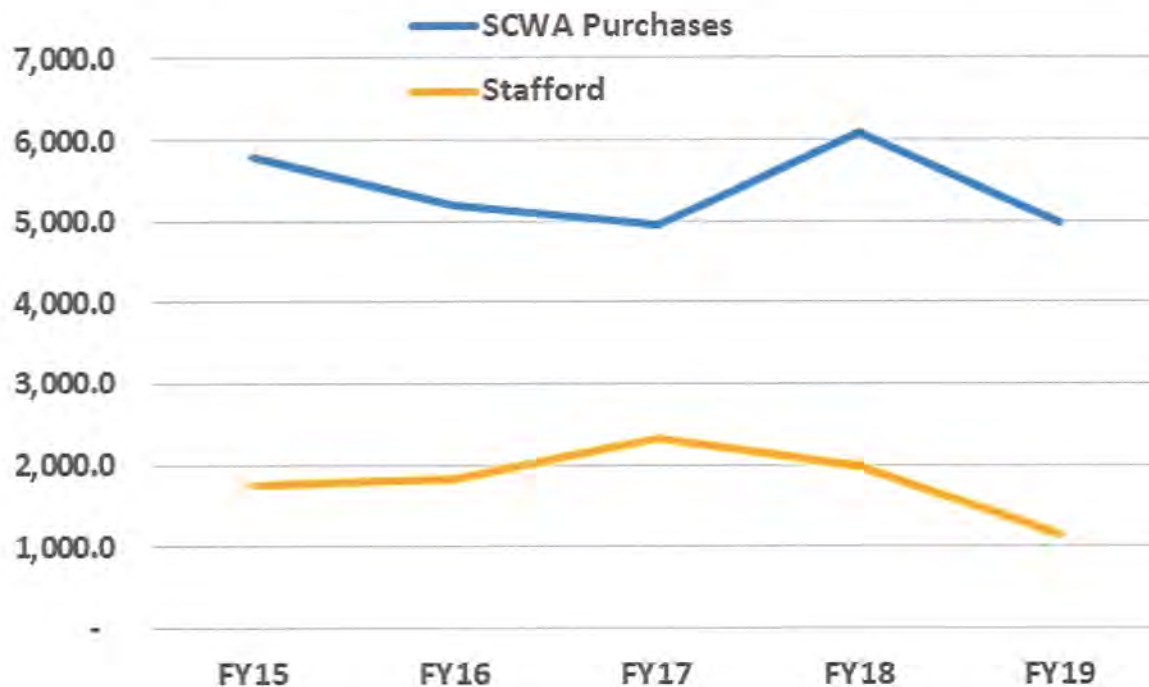
☐ Other Charges

- ✓ Fire Service
- ✓ AMI Opt-Out*
- ✓ Backflow*

* Not part of the current study

Structuring tiered usage rates based on SCWA & Stafford water costs

- ✓ Tier prices will be based on the difference in cost between SCWA vs. Stafford
- ✓ Tier allocation will be based on the availability of water from those two sources.



Average Unit Cost*:

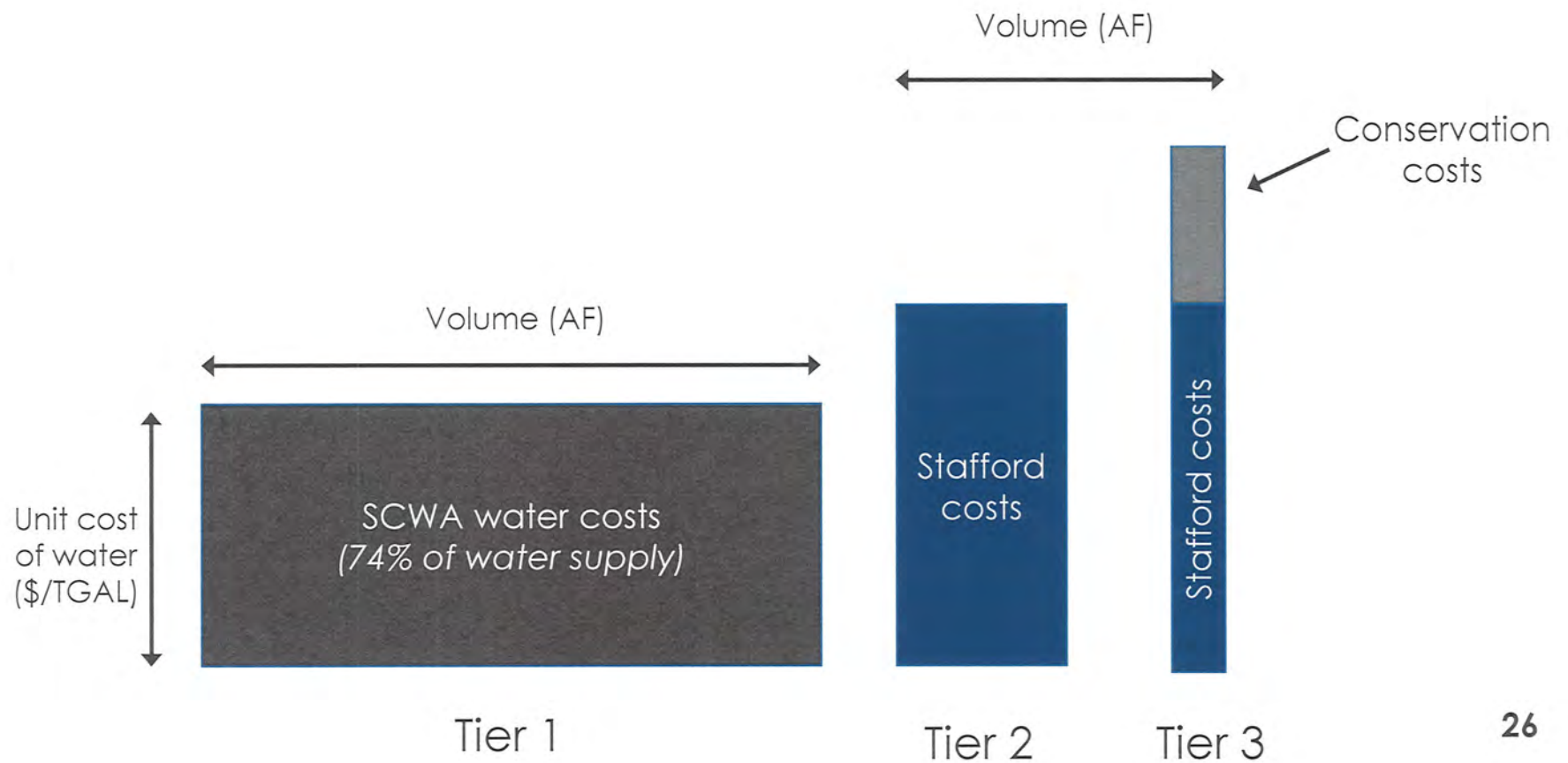
SCWA Purchases: \$2,709 / AF

Stafford Treatment: \$3,285 / AF

Relative Cost: 121%

* During past three years

Proposed Basis for Tiered Water Rates



Elevation Zone Charge

Proposed Approach: Use the known cost relationship to pump a different elevations to allocate current pumping costs (which includes operating costs, G&A, debt & capital)

	Elevation Range (ft)	Average Elevation (ft)	Water Usage (TGAL)	Cost per TGAL	Current Charge (per TGAL)	Proposed Surcharge (per TGAL)
Zone A:	0 - 60	40	1,067,197	\$0.33	(na)	(na)
Zone B:	60 - 200	132	1,078,367	\$1.09	\$0.73	\$0.76
Zone C:	200+	294	205,599	\$2.43	\$2.01	\$2.10
Total:			2,351,164			

Total Pumping Costs: \$2,016,066

Proposed Meter Equivalency Schedule

- Current rate structure uses a hybrid of a “meter cost ratio” and a “hydraulic capacity ratio.”
- The proposed meter equivalency schedule uses only the hydraulic capacity ratio (which is the industry standard) and results in a “steeper” ratio.

Fiscal impact: more fixed costs will be allocated to larger meters

Meter Size	Rating (gpm)	Proposed Equivalency Schedule	Existing Equivalency Schedule	Increase
5/8"	20	1.00	1.00	0%
1"	50	2.50	2.00	25%
1 1/2"	100	5.00	2.44	105%
2"	160	8.00	3.80	110%
3"	320	16.00	7.53	112%
4"	500	25.00	12.09	107%
6"	1,000	50.00	25.30	98%
8"	1,300	65.00	37.72	72%

Source: Table VI.2-5 AWWA meter Standards, *AWWA M1 Manual*, 6th Ed.

Fixed vs. Variable Revenue

	<u>Fixed Revenue</u>		<u>Variable Revenue</u>	
	Current	Proposed	Current	Proposed
Novato	\$4,657,000 24%	\$5,686,000 27%	\$14,845,000 76%	\$15,093,000 73%
Raw	\$0 0%	\$0 0%	\$157,000 100%	\$188,000 100%
Recycled Water	\$65,000 5%	\$91,000 7%	\$1,146,000 95%	\$1,200,000 93%

Tier Sizing

Tier Allocation (gal/day)

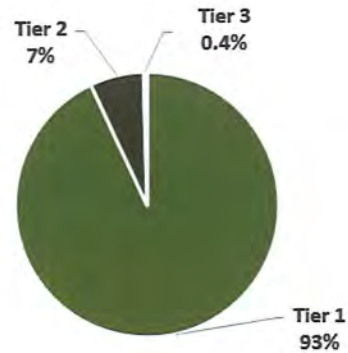
Current:

Tier 1: 0 to 615
Tier 2: 615 to 1845
Tier 3: Above 1845

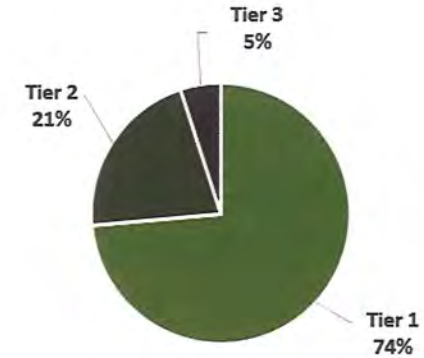
Proposed:

Tier 1: 0 to 262
Tier 2: 262 to 720
Tier 3: Above 720

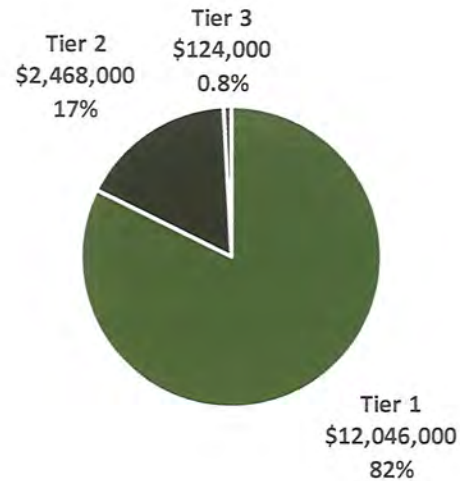
Current Usage By Tier



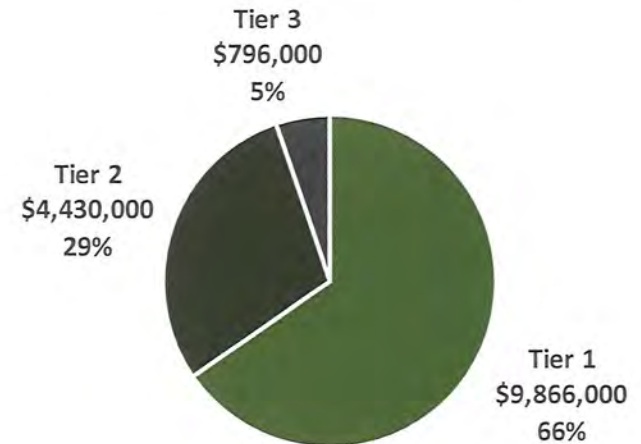
Proposed Usage By Tier



Current Revenue By Tier



Proposed Revenue By Tier



Proposed Rates (Year 1)

Tier Allocation (gal/day)

Current:

Tier 1: 0 to 615
Tier 2: 615 to 1845
Tier 3: Above 1845

Proposed:

Tier 1: 0 to 262
Tier 2: 262 to 720
Tier 3: Above 720

Summer Rates:

July, August and September

Winter Rates:

October through June

QUANTITY CHARGE per TGAL	PROPOSED			CURRENT			CHANGE					
	Winter	Summer		Winter	Summer		Winter		Summer			
	Commercial Zone A	\$5.50	\$7.67	\$5.97	\$6.42		-\$0.47	-8%	\$1.25	19%		
	Commercial Zone B	\$6.26	\$8.43	\$6.62	\$7.07		-\$0.36	-5%	\$1.36	19%		
	Commercial Zone C	\$7.60	\$9.77	\$8.05	\$8.50		-\$0.45	-6%	\$1.27	15%		

SERVICE CHARGE

Potable Water	PROPOSED	CURRENT	CHANGE
5/8"	\$41.46	\$34.15	\$7.31 21.4%
1" Fire*	\$41.46	\$38.80	\$2.66 6.9%
1"	\$74.06	\$68.30	\$5.76 8.4%
1.5"	\$128.38	\$83.30	\$45.08 54.1%
2"	\$193.57	\$129.90	\$63.67 49.0%
3"	\$367.41	\$257.20	\$110.21 42.8%
4"	\$562.98	\$413.00	\$149.98 36.3%
6"	\$1,106.23	\$864.00	\$242.23 28.0%
8"	\$1,432.18	\$1,288.00	\$144.18 11.2%

Recycled Water	PROPOSED	CURRENT	CHANGE
5/8"	\$48.78	\$34.15	\$14.63 42.8%
1"	\$61.68	\$68.30	-\$6.62 -9.7%
1.5"	\$123.35	\$83.30	\$40.05 48.1%
2"	\$197.36	\$129.90	\$67.46 51.9%
3"	\$394.72	\$257.20	\$137.52 53.5%
6"	\$1,233.50	\$864.00	\$369.50 42.8%

* Upsized due to fire requirements

Bill Impacts - Residential

	Meter Size	Bimonthly Water Usage (TGAL)		Bi-Monthly Bill			
				Current	Proposed	Change	
Single Family	5/8"	Low	8.0	\$77.51	\$85.46	10.3%	56% of all accounts
		Median	14.0	\$110.03	\$118.46	7.7%	
		High	50.0	\$347.33	\$351.28	1.1%	
	1" Fire	Low	8.0	\$82.16	\$85.46	4.0%	14% of all accounts
		Median	14.0	\$114.68	\$118.46	3.3%	
		High	50.0	\$351.98	\$351.28	-0.2%	
	1"	Low	20.0	\$176.70	\$187.18	5.9%	1% of all accounts
		Median	34.0	\$252.58	\$274.40	8.6%	
		High	50.0	\$381.48	\$383.87	0.6%	

		Average Water		Current	Proposed	Change
		Meter Size	Usage (TGAL)			
Multi-Family	4 Units	1"	35.3	\$259.63	\$268.21	3.3%
	8 Units	1"	61.1	\$399.46	\$410.11	2.7%
	16 Units	1.5"	148.3	\$872.09	\$889.71	2.0%
	19% of all accounts 62 Units	2"	265.4	\$1,506.77	\$1,533.76	1.8%

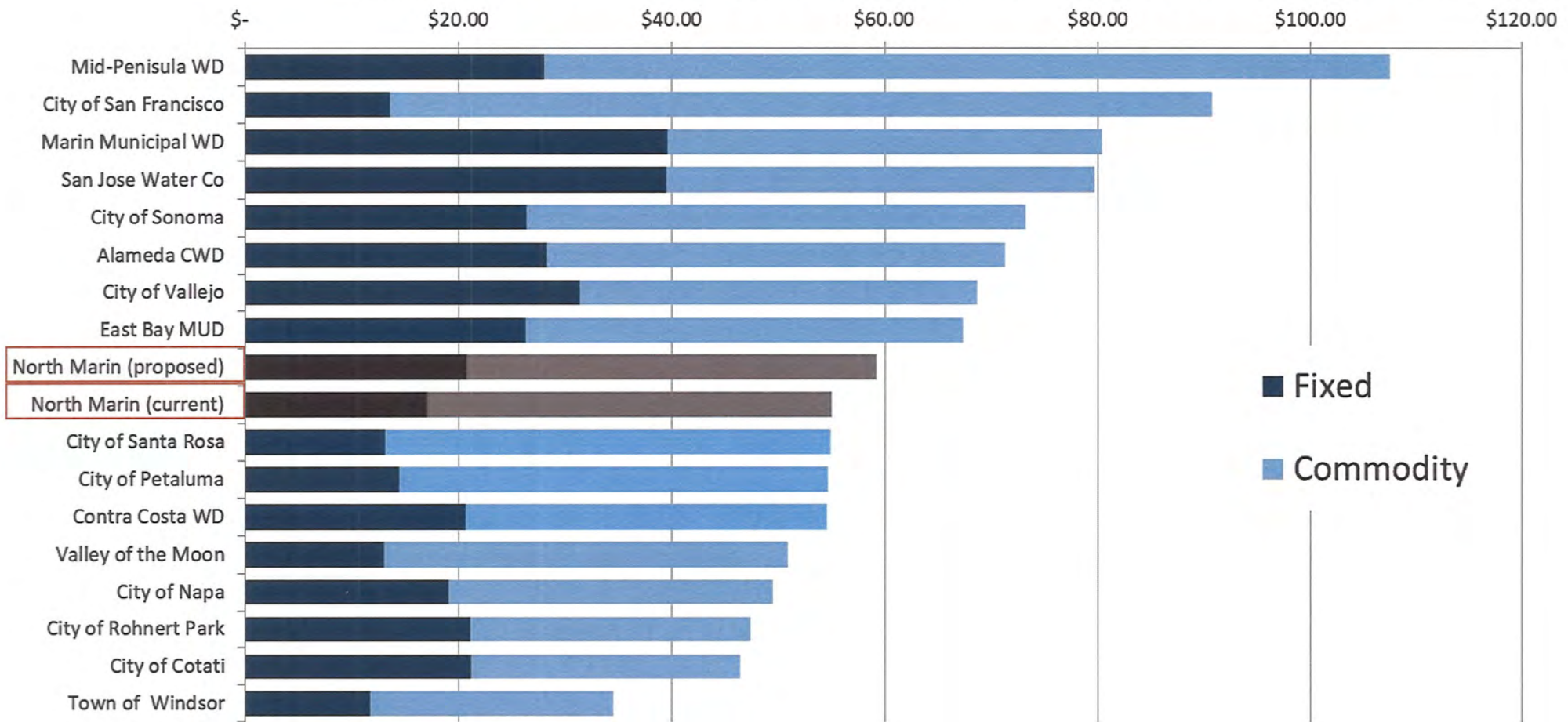
Bill Impacts - Commercial

Meter Size	Average Water Usage (TGAL)	<u>Summer Month</u> ¹ (average use by meter size)			<u>Winter Month</u> ²			<u>Annual Total</u>			Percent of Accounts
		Current	Proposed	Change	Current	Proposed	Change	Current	Proposed	Change	
5/8"	9.9	\$103	\$118	14.7%	\$67	\$68	0.6%	\$915	\$963	5.4%	2.7%
1"	21.6	\$207	\$240	15.8%	\$162	\$161	-1.0%	\$2,083	\$2,166	4.0%	1.9%
1.5"	52.8	\$422	\$534	26.3%	\$290	\$319	9.9%	\$3,881	\$4,474	15.3%	1.2%
2"	86.3	\$684	\$855	25.1%	\$553	\$583	5.5%	\$7,027	\$7,815	11.2%	0.8%
3"	279.6	\$2,052	\$2,512	22.4%	\$1,489	\$1,502	0.9%	\$19,553	\$21,052	7.7%	0.1%
4"	510.3	\$3,689	\$4,477	21.4%	\$2,463	\$2,452	-0.5%	\$33,235	\$35,496	6.8%	0.03%

¹ Summer Rates: July, August and September

² Winter Rates: October through June

Monthly Water Bill Survey for Single Family Homes with Median Usage (7,000 gallons per month)



Fire Connections

Fire service charges are for commercial connections with fire sprinklers.

The charges are calculated based on the District's costs for maintaining the fire service lines.

- Costs in FY2019: \$155 thousand
- 427 service lines

Service Size	No. of Accounts	Cost Ratio*	Maintenance Charge	Administrative Charge	Total Proposed Charge	Current Charge
1	58	1	\$4.24	\$10.00	\$14.24	\$17.08
2	14	2.1	\$8.78	\$10.00	\$18.78	\$17.08
4	127	10.0	\$42.40	\$10.00	\$52.40	\$31.57
6	177	15.0	\$63.60	\$10.00	\$73.60	\$61.60
8	48	20.7	\$87.83	\$10.00	\$97.83	\$94.20
10	3	27.9	\$118.11	\$10.00	\$128.11	\$123.17
427						

Project Schedule

- | | |
|---|-------------------|
| 1. COS & rate design workshop No. 2 (Board Ad-Hoc Committee) | January 14, 2020 |
| 2. COS & rate design workshop No. 3 (Board Ad-Hoc Committee) | January 21, 2020 |
| 3. Special Board Meeting Rate Study workshop (Board & Public) | February 11, 2020 |
| 4. Special Board Meeting Rate Study workshop (Board & Public) | February 25, 2020 |
| 5. Regular Board meeting - Final rate study report presentation | March 3, 2020 |
| 6. Public hearing to enact new water rates | June 16, 2020 |

10

MEMORANDUM

To: Board of Directors

February 28, 2020

From: Julie Blue, Auditor/Controller JB

Subj: *Low Income Rate Assistance Program Policy*

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RECOMMENDED ACTION: Approve Low Income Rate Assistance (LIRA) Program Policy**FINANCIAL IMPACT:** Approximately \$85,000 Annually

The Board is scheduled to approve a water rate study which will increase the rate revenue by approximately 6%. In concurrence with the proposed water rate increases staff is proposing a program to assist low and fixed income customers with their water bills. This program would be available to proven low income customers in the single-family residential classification and would provide a credit on their two-month billing cycle of \$15/bill⁽¹⁾ or \$90/year. The new policy is included as an attachment to this memo.

In order for the District to comply with Prop. 218 and related legal requirements, the District may not use revenue from one class of customers to pay or subsidize the costs of another class of customers, including low and fixed income customers. The District may, however, use non-rate revenue to pay for the low income assistance program as proposed. Staff has identified miscellaneous revenue from rents and leases which includes the District's rental properties, grazing leases, the Indian Valley Golf Club Lease, and the lease for the Pacheco Valle Tennis Courts. This revenue source is approximately \$85,000 annually.

Based on an anticipated participation rate of approximately 4-4.5% the total number of customers that will take part in the program is estimated at 800. This total was derived by reviewing similar sized agency programs and participation levels. At this participation level the non-rate revenue provided by rent and leases will sufficiently cover the \$15 bi-monthly credit. The amount of the credit is set at a conservative level and will allow the District flexibility in analyzing the participation level and to allow for fluctuations in these non-rate revenue sources.

To minimize administrative costs of the program the qualification criteria would be based on a customer's participation in the Pacific Gas & Electric's (PG&E) California Alternate Rates for Energy (CARE) program. The total potential eligible customers are unknown as that information is not readily made available by PG&E. Staff will evaluate the program after implementation to ensure it is functioning as expected and adjustments may be made to the policy if considered necessary.

(1) Note: The proposed first year rate increase for a typical low water use residential customer is <\$9/bill.

Low Income Rate Assistance Program Policy Summary

- A direct water customer who holds a single-family residential account and is eligible for PG&E's CARE program will be eligible for the District's Low Income Rate Assistance Program. This excludes customers that are serviced with a master meter or who do not otherwise have an account with the District.
- Customers will be required to submit an application and provide a copy of their most recent PG&E bill with the District's Consumer Services Billing Department to sign up for the program.
- A customer would be required to notify the Water District if their income level changes and they no longer qualify for the PG&E CARE program.

Financial Impact

The LIRA Program reduces the annual Novato Water Enterprise revenues by approximately \$85,000. The LIRA Program annual expenditures will be budgeted based on the rent and lease income received during the previous fiscal year.

Comparable Programs

The District's proposed LIRA Program was compared to other agencies programs and was found to be created on similar bases. Established programs were reviewed and included San Jose Water, San Francisco Public Utilities Commission, Marin Municipal Water District, Contra Costa Water District, East Bay Municipal Utility District, Alameda County Water District, and the cities of Napa and Santa Rosa. The discounts offered varied from \$25/month, 50% off the monthly fixed charge, to 15% off the total water bill.

Possible Impacts to the LIRA Program

Recently, the State Water Resource Control Board (SWRCB) developed an Advisory Group to help implement the Safe and Affordable Drinking Water Fund, which may include analysis and recommendations of supplemental programs to assist California residents with water bills. The District will monitor the SWRCB and the Advisory Group's recommendations and decisions regarding the Safe and Affordable Drinking Water Fund. As information becomes available, staff will update the Board and suggest modifications to its LIRA Program if changes are necessary.

RECOMMENDATION:

The Board to approve the Low Income Rate Assistance Program Policy and direct staff to implement the program on July 1, 2020.

NORTH MARIN WATER DISTRICT

POLICY: LOW INCOME RATE ASSISTANCE PROGRAM

POLICY NUMBER: XX

Original Date: 03/03/2020

Last Reviewed:

Last Revised:

North Marin Water District offers a water bill discount to assist customers who are deemed to be in financial need. This discount is available to water customers in the Novato and West Marin Service Territories. This policy is effective on July 1, 2020.

CUSTOMER AVAILABILITY:

The program is available to low income single-family residential customers who are already enrolled in the Pacific Gas & Electric (PG&E) California Alternate Rates for Energy (CARE) Program for their energy bill. Customers with a master meter or who do not otherwise have an account with the District are excluded.

The person applying for the program must be the NMWD customer of record. Family members, neighbors, or landlords cannot act on behalf of another customer.

DISCOUNT OFFERED:

A \$15 discount per bi-monthly water bill.

ENROLLMENT PROCESS:

Qualified customers will fill out an application and provide a copy of their current PG&E bill which shows enrollment in the PG&E CARE Program. The application can be submitted via email, mail, or in person. The application must be approved by the Consumer Services (CS) Supervisor or Auditor/Controller. Once approved the CS Department will add the discount code to the customer's account through the billing system.

ELIGIBILITY CONFIRMATION:

A customer's eligibility will be reconfirmed every other fiscal year at the beginning of the fiscal year, July 1. A customer would be required to notify the Water District if their income level changes and they no longer qualify for the PG&E CARE program.

Once enrolled a customer's discount will transfer automatically if they move to a new single-family residence served by the District within the Novato or West Marin Service Territories.

11

MEMORANDUM

To: Board of Directors

February 28, 2020

From: Drew McIntyre, General Manager

Subj: Authorize Assistant General Manager/Chief Engineer Recruitment

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RECOMMENDED ACTION: Approve**FINANCIAL IMPACT:** None at this time (to be included in FY20/21 Operations Budget)

With the recent resignation of Chief Engineer Rocky Vogler, it is necessary to initiate a recruitment process. The recruitment process will take a minimum of three months. During this interim period it is requested that the Board appoint me as acting Chief Engineer to ensure consistent handling of matters specifically requiring the approval of the Chief Engineer.

To handle the interim additional workload requirements, I have already approved Associate Engineer Carmela Chandrasekera to work "in a higher class" (as defined in the Employee Handbook) as acting Senior Engineer which includes a 5% pay differential (or \$582 per month). In addition, recently retired Associate Engineer David Jackson has been hired as a part time employee to work on specific capital improvement projects. Additional need for third party consulting support will be evaluated on a case by case basis.

Options are to recruit for a Chief Engineer or recruit for an Assistant General Manager/Chief Engineer. My recommendation is to recruit for an Assistant General Manager/Chief Engineer to improve future succession planning options. Recall that prior to Mr. Vogler's tenure as Chief Engineer, I was in the role of Assistant General Manager/Chief Engineer for a couple of years.

A prospective brochure and job description for the Assistant General Manager/Chief Engineer (AGM/CE) position is provided in Attachment 1 for your information and comment. Additionally, if approved, the FY2020/21 budget will include funding for the AGM/CE position with a beginning step salary of \$13,574 per month, a 13% increase from the Chief Engineer merit step, which equates to an increase of \$14,076 on an annual basis including benefits.

The District will solicit candidates through its normal process (NeoGov, Baywork, Jobs Available, BC Water, mailing to local agencies and the District website). Final filing date for the Assistant General Manager/Chief Engineer will be April 24, 2020 with initial interviews scheduled for the week of May 11, 2020 and interviews by the Board and selection on June 2, 2020. Attached is a revised organization chart reflecting the proposed AGM/CE position description (Attachment 2). Also, attached is an updated salary schedule which includes the AGM/CE and Senior Engineer for your approval (Attachment 3).

RECOMMENDATION:

That the Board:

- (1) Appoint Drew McIntyre as acting Chief Engineer until a replacement Chief Engineer is selected and appointed by the Board
- (2) Approve recruitment for the AGM/CE position.
- (3) Approve updated salary schedule.



**DRAFT
NORTH MARIN WATER DISTRICT**

Invites application for

**ASSISTANT GENERAL MANAGER/
CHIEF ENGINEER**

JOB POSTING DATE

March 13, 2020

FINAL FILING DATE

April 24, 2020

INTERVIEWS

With Selection Panel to be held week of May 11, 2020 (Tentative)

With Board of Directors (for final selection) June 2, 2020 (Tentative)

NORTH MARIN WATER DISTRICT
999 Rush Creek Place
P.O. Box 146
Novato, CA 94948-0146

Phone (415) 897-4133

www.nmwd.com

The District is an equal opportunity employer

ASSISTANT GENERAL MANAGER/CHIEF ENGINEER

The Position

This is an ideal position for an experienced registered Professional Engineer seeking a career with a public agency. The Assistant General Manager/Chief Engineer supervises the Engineering Department, reports directly to the General Manager, and represents and acts on behalf of the General Manager in communication to subordinate managers and others during periods of absence or as assigned. Areas of responsibility include: plans, develops and implements goals and objectives for the Engineering Department; directs and is responsible for the work of a small professional and technical staff in the design, construction and maintenance of transmission pipelines, distribution facilities and mechanical and electrical equipment including power and control, communications and cathodic protection; directs the engineering aspects of water supply development and water quality control; prepares a work program and budget, manages and monitors goal accomplishment and expenditures; selects, trains and evaluates the work of subordinates; advises and consults with the General Manager on difficult engineering problems; communicates clearly and concisely, both orally and in writing, makes special studies and reports; recommends and periodically updates District design and material standards and coordinates the engineering and construction program with that of other District Departments and Divisions, private utilities and public agencies. The Assistant General Manager/Chief Engineer is expected to and spends a significant portion of time estimating the cost of, and designing water distribution (and to a lesser extent) wastewater collection and treatment facilities and is responsible for coordinating District Emergency Operations planning.

Qualifications

Graduation from an accredited college with a Bachelor of Science degree in engineering and ten years of increasingly responsible professional level engineering experience that includes a minimum of four years of experience managing engineering operations or equivalent. Thorough knowledge of the principles, methods, materials and equipment used in the design, construction and maintenance of water and sewage system facilities; knowledge of the principles and methods of organization and management and ability to work as part of a Districtwide technical team involved with all construction and maintenance activities; establish budgets; can demonstrate experience and capability to handle multiple projects up to twenty-five million dollars and also plan, lead, train, motivate and direct the work of a small professional and technical staff; familiarity with and ability to effectively use engineering design software and other computer aids commonly found in an engineering design office, ability to establish and maintain effective relationships with the District Board of Directors, other public and private agencies, contractors, developers and the general public. The Assistant General Manager/Chief Engineer attends Board of Directors meetings and prepares and presents staff reports to the Board for consideration.

Compensation and Benefits

The salary range for the Assistant General Manager/Chief Engineer is \$13,574 to \$16,500 per month and consists of a five-step range. The first three steps are achievable with good performance over 24 months. The last (merit) step is achievable at 48 months. Hiring is normally accomplished at the lowest step but consideration will be given for applicable experience. The Assistant General Manager/Chief Engineer is furnished with a District auto allowance of \$338 per month for business vehicle use.

The District offers excellent benefits, which include:

- Public Employee Retirement System (CalPERS) pension. The employee contributes a percentage of gross pay to PERS equaling the full employee contribution. (8% for CalPERS Classic Members; 6.75% for CalPERS new members) Retirement pay is coordinated with Social Security and is based on 2.5% per year of service times the highest annual salary earned for CalPERS

Classic Members (based on retirement at age 55) and 2% per year of service times the highest average 3 years of annual salary earned (based on retirement at age 62) for CalPERS new members.

- Excellent health, dental and vision care plans for employee and dependents.
- Vacation (upon eligibility), starting at 2 weeks and increasing to 5 weeks per year.
- Sick leave. Twelve days per year (may be accumulated and; 50% of any amount accumulated over 90 days can be traded annually for cash).
- Holidays. Fourteen per year.
- Life insurance (equal to annual salary up to \$200,000).
- Other voluntary and employee paid specific insurance coverage through AFLAC and or IRS Section 125 pretax Flexible Spending Plans.
- Multiple voluntary deferred compensation options.

(The salary and benefits described herein do not represent a contract and may be changed without notice.)

The Selection Process

Interested persons must submit a District online application at www.nmwd.com. A selection panel will review all applications and invite those presenting the best job-related qualifications to an initial interview. Based on initial interview, the most qualified candidates will be invited to be interviewed by the Board of Directors. Subsequent interviews may be required.

The District

North Marin Water District is a publicly owned water district formed in 1948 and operating under Division 12 of the California Water Code. Its policy board consists of five Directors elected at large. The District covers an area of approximately 100 square miles in north and northwest Marin County. It enjoys a reliable water supply imported from the Russian River and supplemented with a local surface water source (Stafford Lake).

The District's 56 full time equivalent employees provide water through 21,500 service connections to a population of approximately 61,000 including the greater Novato area and Point Reyes Station, Inverness Park, Olema and Paradise Ranch in western Marin County. Wastewater collection, treatment and disposal in West Marin is provided for the Oceana Marin subdivision (near Dillon Beach).

The District employs a dedicated, hardworking staff, has progressive planning and financial management policies, and is a recognized industry leader in water utility standards, water quality protection and water conservation management.

You can learn more about the District at www.nmwd.com.

The Novato Area

Novato is the second largest city in Marin County. It boasts an excellent climate and beautiful oak studded rolling hills and is primarily a suburban residential area with a picturesque main street and friendly local shopping centers. It is less than a 45-minute drive from the city of San Francisco to the south, California's unparalleled coast and abundant national seashore areas to the west, Sonoma wine country to the north and Napa Valley wine country to the east. Excellent winter sports areas and high Sierra recreation are a four-hour drive to the east. The area abounds with educational opportunities from pre-school to university level, both public and private.

Applicants residing within 10 miles of the District's Service Area will be given preference to all other applicants. The District has an Employer Assisted Housing Program to encourage residency within the District Service Area.

Climate

The climate is typical California with mean annual rainfall of 27 inches, Mediterranean like temperatures and virtually no humidity. Outdoor recreation is a popular year-round activity.

NORTH MARIN WATER DISTRICT

GENERAL INFORMATION

North Marin Water District is a publicly owned water district which provides primarily domestic and recycled water service to the greater Novato area and water service to small coastal communities at the base of Tomales Bay in West Marin. Additionally, wastewater collection and treatment service is provided to a coastal residential community in West Marin adjacent to Dillon Beach.

Medical Examination

The selected applicant will be required to satisfactorily pass a medical examination and drug screen (District expense) given by a regularly licensed physician designated by the District.

Authorization to Work

Before an appointment may be made, the selected applicant must provide documented proof of identity and authorization to work in the United States, according to federal law.

To Apply

Applications may be obtained online at www.nmwd.com.

Applications must be filed online **before 5 p.m. April 24, 2020.**

ASSISTANT GENERAL MANAGER/ASSISTANT GENERAL MANAGER/CHIEF ENGINEER

*This class description is only intended to present a summary of the range of duties and responsibilities associated with the positions. Descriptions **may not include all** duties performed by individuals within the class. In addition, descriptions outline the minimum qualifications necessary for entry into the class and do not necessarily convey the qualifications of incumbents within the position.*

DEFINITION

Under general administrative direction of the General Manager, is responsible to plan, organize and direct the engineering function of the District performs engineering planning and design work, training, supervision project management and represents the Department and the District in contacts with other agencies and organizations. Represents and acts on behalf of the General Manager in communication to subordinate managers and others during periods of absence or as assigned. Serves as an officer of the District.

DISTINGUISHING CHARACTERISTICS

The **Assistant General Manager/Chief Engineer** assumes the full leadership and management responsibility for the Engineering Department and organizes, supervises and directs the Engineering Department including design engineering for both developer and District-funded programs; construction inspection and management; engineering records management; and new applicant water/sewer service administrative. Recruits, interviews and assists in the selection of Engineering Department employees.

SUPERVISION RECEIVED

Receives direction from the General Manager and the Board of Directors.

ESSENTIAL DUTIES (include but are not limited to the following)

Assists the General Manager in managing and directing activities of the District. Plans, develops and implements goals and objects for the Engineering Department; directs and is responsible for the work of a small professional and technical staff in the design, construction and maintenance of transmission pipe lines, distribution facilities and mechanical and electrical equipment including power and control, communications and cathodic protection; directs the engineering aspects of water supply development and water quality control; prepares a work program and budget, manages and monitors goal accomplishment and expenditures; selects, trains and evaluates the work of subordinates; advises and consults with the General Manager on difficult engineering problems; attends Board of Director meetings, prepares and presents staff reports for consideration by the Board; communicates clearly and concisely, both orally and in writing, makes special studies and reports; recommends and periodically updates District design and material standards and coordinates the engineering and construction program with that of other District Departments, private utilities and public agencies. Is expected to and spends a significant portion of time estimating the cost of, and designing water distribution (and to a lesser extent) wastewater collection and treatment facilities. Is responsible for coordinating District Emergency Operations planning.

QUALIFICATIONS (The following minimum qualifications are necessary for entry into the class)

Education/Experience

Graduation from an accredited college with a Bachelor of Science degree in engineering and ten years of increasingly responsible professional level engineering experience that includes a minimum of four years of experience managing engineering operations or equivalent.

Knowledge/Skill/Ability

Thorough knowledge of the principles, methods, materials and equipment used in the design, construction and maintenance of water and sewage system facilities; knowledge of the principles and methods of organization and management and ability to work as part of a Districtwide technical team involved with all construction and maintenance activities; establish budgets; can demonstrate experience and capability to handle multiple projects up to twenty-five million dollars and also plan, lead, train, motivate and direct the work of a small professional and technical staff; familiarity with and ability to effectively use engineering design software and other computer aids commonly found in an engineering design office, ability to establish and maintain effective relationships with the District Board of Directors, other public and private agencies, contractors, developers and the general public.

License/Certificate

Possession of a valid Class C California driver's license.

Registration as a Professional Engineer in the State of California.

Residency

Applicants residing within 10 miles of the District's Service Area will be given preference to all other applicants.

WORKING CONDITIONS/PHYSICAL REQUIREMENTS

Position requires prolonged sitting, standing, walking, reaching, twisting, turning, kneeling, bending, squatting, and stooping in the performance of daily activities. The position also requires grasping, repetitive hand movement, and fine coordination in preparing and reviewing construction plans, statistical reports and data, and using a computer keyboard. Additionally, the position requires near, far, and color vision in reading reports, reviewing plans and blueprints, and using the computer. When visiting construction sites or existing District facilities the position will require walking on uneven and slippery surfaces, climbing ladders or stairwells, exposure to all weather conditions, dust and pollen, and potential mechanical and heavy equipment hazards. Work hours include various evening meetings including regularly scheduled Board meetings.

OTHER REQUIREMENTS

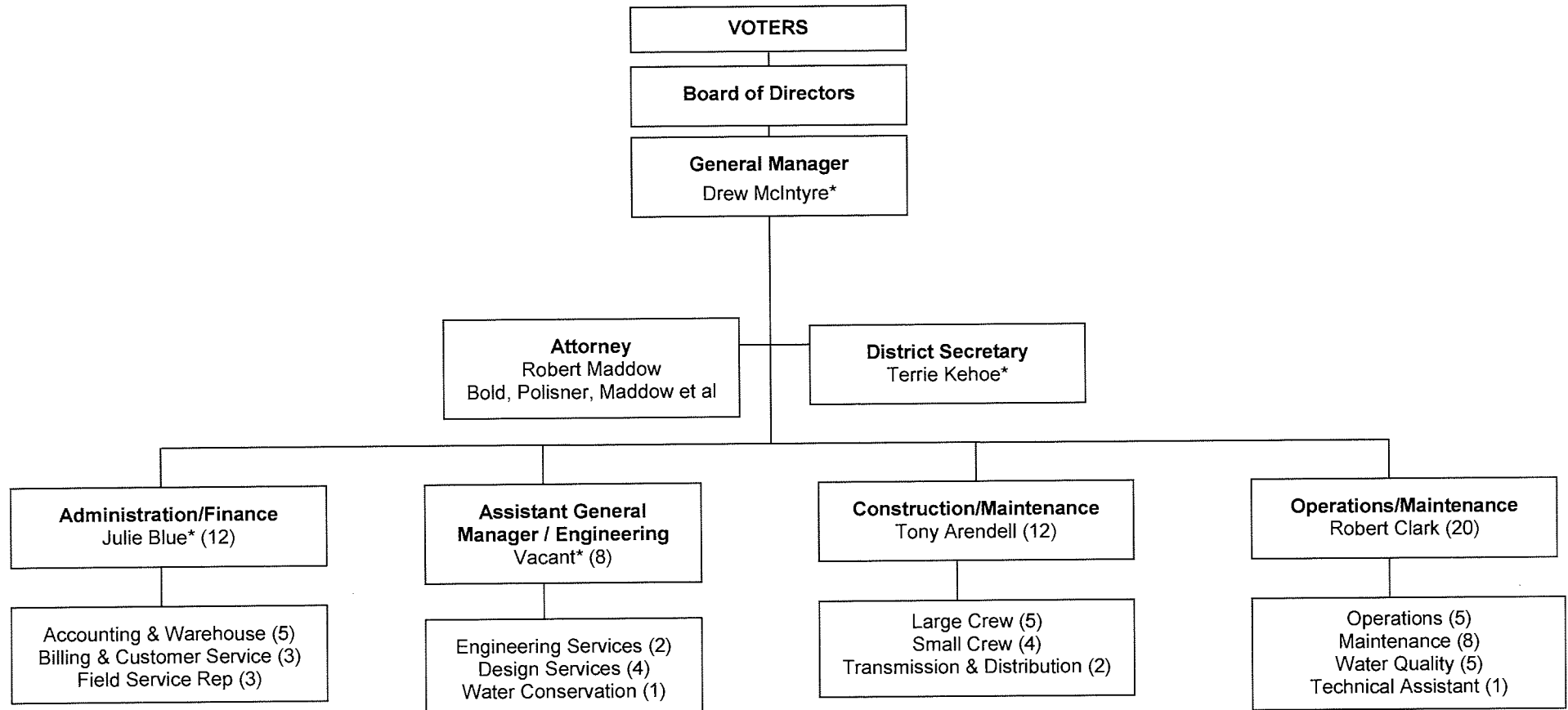
Per California Government Code, Title 1, Division 4, Chapter 8, Section 3100, "all public employees are hereby declared to be disaster service workers subject to such disaster service activities as may be assigned to them by their superiors or by law."

Approved	DM
Date	

North Marin Water District

Organization Chart

February 2020



*Also serves as District officer

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NORTH MARIN WATER DISTRICT**Employee Salary Ranges and Job Classifications - Effective 10/01/2019**

Revised as of 10/01/2019 and adopted by the Board as of 10/01/2019, 10/15/2019 & 03/03/2020

JOB CLASSIFICATION	Beg Monthly	6 Mo Monthly	18 Mo Monthly	24 Mo Monthly	Merit Monthly
<u>ADMINISTRATION DEPARTMENT</u>					
Receptionist/Cashier	4,767	5,006	5,256	5,519	5,795
Account/Credit Clerk II	5,263	5,526	5,802	6,092	6,397
Accounting Clerk II	5,263	5,526	5,802	6,092	6,397
Field Service Representative	5,303	5,568	5,846	6,138	6,445
Storekeeper/Safety Coordinator	5,868	6,161	6,469	6,792	7,132
Consumer Services Supervisor	7,439	7,811	8,202	8,612	9,043
Senior Accountant	7,767	8,155	8,563	8,991	9,441
District Secretary	8,091	8,496	8,921	9,367	9,835
Human Resource/Safety Manager	8,227	8,638	9,070	9,524	10,000
Accounting Supervisor	8,364	8,782	9,221	9,683	10,167
Auditor-Controller	12,864	13,507	14,182	14,891	15,636
General Manager	19,583	19,583	19,583	19,583	19,583
<u>CONSTRUCTION / MAINTENANCE DEPARTMENT</u>					
Laborer	4,722	4,958	5,206	5,466	5,739
Pipe Worker Assistant	5,066	5,319	5,585	5,864	6,157
Pipe Worker	5,868	6,161	6,469	6,792	7,132
Heavy Equipment Operator	6,090	6,395	6,715	7,051	7,404
Distribution Maintenance Foreman	7,123	7,479	7,853	8,246	8,657
Pipeline Foreman	7,123	7,479	7,853	8,246	8,657
Construction/Maintenance Superintendent	9,839	10,331	10,848	11,390	11,960
<u>ENGINEERING DEPARTMENT</u>					
Engineering Secretary	5,479	5,753	6,041	6,343	6,660
Engineering Services Rep	5,996	6,296	6,611	6,942	7,289
Engineering Technician IV	7,137	7,494	7,869	8,262	8,675
Junior Engineer	7,452	7,825	8,216	8,627	9,058
Assistant Civil Engineer	8,146	8,553	8,981	9,430	9,902
Water Conservation Coordinator	9,283	9,747	10,234	10,746	11,283
Associate Civil Engineer	9,577	10,056	10,559	11,087	11,641
Senior Engineer	10,533	11,060	11,613	12,194	12,803
Chief Engineer	11,868	12,461	13,084	13,738	14,425
Assistant General Manager/Chief Engineer	13,574	14,253	14,966	15,714	16,500

NORTH MARIN WATER DISTRICT**Employee Salary Ranges and Job Classifications - Effective 10/01/2019**

Revised as of 10/01/2019 and adopted by the Board as of 10/01/2019, 10/15/2019 & 03/03/2020

JOB CLASSIFICATION	Beg Monthly	6 Mo Monthly	18 Mo Monthly	24 Mo Monthly	Merit Monthly
<u>OPERATIONS / MAINTENANCE DEPARTMENT</u>					
Building & Grounds Maint Assistant	4,456	4,679	4,913	5,159	5,417
Program Assistant I	4,810	5,051	5,304	5,569	5,847
Cross Connection Control Tech I	5,160	5,418	5,689	5,973	6,272
Assistant Water Distrib & TP Operator	5,913	6,209	6,519	6,845	7,187
Apprentice Electrical/Mechanical Tech	5,629	5,910	6,206	6,516	6,842
Program Assistant II	5,847	6,139	6,446	6,768	7,106
Auto/Equipment Mechanic	5,868	6,161	6,469	6,792	7,132
Chemist I	6,412	6,733	7,070	7,424	7,795
Cross Connection Control Tech II	6,272	6,586	6,915	7,261	7,624
Electrical/Mechanical Technician	6,607	6,937	7,284	7,648	8,030
Water Distrib & TP Operator	7,362	7,730	8,117	8,523	8,949
Senior Electrical/Mechanical Tech	7,158	7,516	7,892	8,287	8,701
Senior Water Distrib & TP Operator	8,192	8,602	9,032	9,484	9,958
Chemist II	7,637	8,019	8,420	8,841	9,283
Senior Chemist	8,358	8,776	9,215	9,676	10,160
Maintenance Supervisor	8,308	8,723	9,159	9,617	10,098
Distrib & Treatment Plant Supervisor	9,911	10,407	10,927	11,473	12,047
Water Quality Supervisor	9,784	10,273	10,787	11,326	11,892
Operations/Maintenance Superintendent	11,003	11,553	12,131	12,738	13,374

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DISBURSEMENTS - DATED FEBRUARY 20, 2020

Date Prepared 2/18/20

The following demands made against the District are listed for approval and authorization for payment in accordance with Section 31302 of the California Water Code, being a part of the California Water District Law:

Seq	Payable To	For	Amount
1	ARB	Refund Security Deposit on Hydrant Meter Less Final Bill	\$519.93
2	Allied Electronics	Switch for Lab Oven	17.45
3	Alpha Analytical Labs	Lab Testing	75.00
4	Arendell, Tony	Exp Reimb: Fred Pryor Seminars Online, Off-Site Training & Classes	199.00
5	Athens Administrators	January Indemnity Review Fee	105.00
6	Bank of Marin	Bank of Marin Loan Principal & Interest (100 of 240) (Aqueduct Energy Efficiency Project)	46,066.67
7	Bearings & Hydraulics	Belt for STP HVAC Fan	8.24
8	Benchmark Civil Construction	Refund Security Deposit on Hydrant Meter Less	411.84
9	Bobcat of Santa Rosa	Misc Parts (Bobcat Loader)	70.18
10	Borges & Mahoney	Spare Parts and Maint Kit for Chemical Feed Pumps (STP)	1,727.71
11	California Dept of Fish & Wildlife	1652 Habitat Restoration Agreement Fee for the Gallagher Ranch Streambank Stabilization Project	5,430.50
12	Calpico	2" Clamps (25)	183.09
13	Chase	JP Morgan/Chase Loan Interest (Pyemt #4 of 30 - AMI Project)	318,642.00
14	Cilia, Joseph	Retiree Exp Reimb (Feb Health Ins)	334.00
15	Clipper Direct	March Commuter Benefit Program	107.00
16	Dell Computers	Replacement PC's (Kurfirst & Davenport)	1,630.75
17	Electrical Equipment	Motor Starter (\$317) & Control Switches for O.M. Ponds (4) (\$282)	599.00

Seq	Payable To	For	Amount
18	E & M	Service Contract for Distribution & STP SCADA Software (\$6,820) (Wonderware) & 911 Alarm Software Support (\$495) (STP)	7,315.00
19	Envir. Science Assoc.	Prog Pymt#2: NMWD Gallagher EWP Stream Channel Repair (Balance Remaining on Contract \$26,863)	20,719.94
20	Frontier Communications	Leased Lines	1,431.41
21	Gaya, DB	Prog Pymt#2: Third Party Coating Inspection of the Cherry Hill No. 2 Recoat & Rehab Project (Balance Remaining on Contract \$4,039)	9,710.40
22	Grady, Ken	Magnetrol Level Gauges to Control the Level on the Actifloc Units and GAC Units (STP)	3,368.93
23	Grainger	Beverage Cooler for E/M Truck (\$33), Adaptor for Water Pump Fittings (3) (\$220), Reducer Bushing (STP), Box Cutters (12) & Hard Hat	291.60
24	Hamner, John	Water Distribution Operator Exam-Math Prep Class (Rupp, Northen & Lemos)	300.00
25	ICF Jones & Stokes	Prog Pymt#9: Consulting Services for Steelhead Habitat Survey in Upper Novato Creek (Balance Remaining on Contract \$0)	5,156.46
26	Intellaprint Systems	Canon Ink & Print Head for Engineering Plotter (\$488) & Repair on Engineering Copier (\$1,233)	1,871.94
27	Jackson, David	Retiree Exp Reimb (Feb Health Ins)	987.21
28	Jim-n-i Rentals	Pump Gauges (3)	79.56
29	Kiosk Creative	Prog Pymt#1: Communication Plan (\$1,525) (Balance Remaining on Contract \$58,475) & Prog Pymt#1: Website Design & Development (\$13,475) (Balance Remaining on Contract \$16,525)	15,000.00
30	KJ Woods Construction	Refund Security Deposit on Hydrant Meter Less Final Bill	864.44
31	Larsengines	Replacement Trash Pump (\$2,337) (STP) & 2" Trash Pump (\$540) (Construction & Maintenance)	2,877.29

Seq	Payable To	For	Amount
32	Latanyszyn, Roman	Retiree Exp Reimb (Feb Health Ins)	334.00
33	Lemos, Kerry	Retiree Exp Reimb (Feb Health Ins)	987.21
34	Maltby Electric	Wire for O.M. Ponds Chlorine Station	201.47
35	McLellan, WK	Misc Paving	13,401.93
36	McMaster-Carr Supply	Vac Hose (\$670) ('19 Ditch Witch) & 4" Suction Hose (\$521)	1,191.71
37	Mintzer, Sheila	Novato "Toilet Rebate" Program	300.00
38	Pace Supply	Tube Nuts (7) (\$525), Meter Lids (5) (\$122), Couplings (2) & Meter Flanges (6) (\$844)	1,557.57
39	PES Environmental	Prog Pymt#5: Consulting Services Gallagher Ranch Well No. 2 Project (Balance Remaining on Contract \$5,677)	2,851.70
40	Pini Hardware	Lighting Fixtures for District Apartment (\$115), Umbrella, Tank Sprayer (\$39) (STP) & Miscellaneous Tools & Hardware Supplies (\$954)	1,107.91
41	Randall Bros. Automotive	Smog Test ('07 Chevy Colorado)	70.00
42	R & B	Vault (3' x 5' x 3')	699.83
43	Soiland	Asphalt Recycling (6 tons)	57.80
44	Township Building Services	January Janitorial Services	2,035.48
45	TPx Communications	February Telephone Charges	530.25
46	USA BlueBook	Fittings for Water Pumps	245.03
47	Waste Management	Green Waste Removal	164.52
48	Woodall-Massey, Jessica	Novato "Toilet Rebate" Program	100.00

Seq	Payable To	For	Amount
49	West Yost Associates	Prog Pymt#3: West Marin Brominated TTHM Reduction in Distribution System (Balance Remaining on Contract \$29,799)	15,201.50
		TOTAL DISBURSEMENTS	<u>487,139.45</u>

The foregoing payroll and accounts payable vouchers totaling \$487,139.45 are hereby approved and authorized for payment.


Auditor-Controller

2/18/2020
Date


General Manager

2/18/2020
Date

DISBURSEMENTS - DATED FEBRUARY 27, 2020

Date Prepared 2/25/20

The following demands made against the District are listed for approval and authorization for payment in accordance with Section 31302 of the California Water Code, being a part of the California Water District Law:

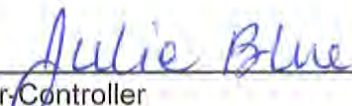

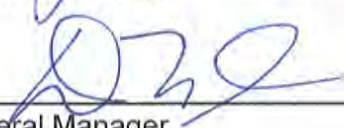
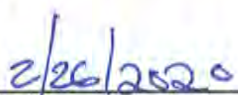
<u>Seq</u>	<u>Payable To</u>	<u>For</u>	<u>Amount</u>
P/R*	Employees	Net Payroll PPE 2/15/20	\$142,307.95
EFT*	Internal Revenue Service	Federal & FICA Taxes PPE 2/15/20	62,171.73
EFT*	State of California	State Taxes & SDI PPE 2/15/20	13,065.31
EFT*	CalPERS	Pension Contribution PPE 2/15/20	38,078.29
EFT*	US Bank	January Bank Analysis Charge (Lockbox \$912 & Other \$396, Less Interest \$86)	1,221.94
1	Allied Mechanical	Labor to Install 2 Gal Expansion Tank on Boiler (Front Office)	1,875.00
2	All Star Rents	Propane (19 gal)	81.39
3	Alpha Analytical Labs	Lab Testing (Pt Reyes)	70.00
4	Amazon/Genuine-Hardware	Rubber Bands (1 lb) (\$20), Respirator Masks (2) (\$56) (STP), Air Filters for Trash Pumps (\$28), Vacuum Cleaner Dust Bags (3) (\$6) (Lab), Cat 5 Connectors for Radio Communication (\$39), Daily Planner (\$51), Epoxy Dispenser (\$139) & Grease Gun (\$32)	372.23
5	American Family Life Insurance	February Employee AFLAC Employee Paid Benefit	3,137.93
6	Arrow Benefits Group	February Dental Admin Fee	299.45
7	Arrow Benefits Group	January Dental Expense	3,243.80
8	AT&T	Leased Lines	66.06
9	Automation Direct	Control Screen for North St Lift Station (\$339) & Communication Card for Kastania Programmable Logic Controller (\$239)	577.22
10	Backflow Distributors	Backflow Repair Parts	241.33
11	Bay Area Crane Services	Crane for STP Tank	1,360.00

Seq	Payable To	For	Amount
12	Benchmark Civil Const	Refund Overpayment on Closed Account	365.29
13	Boucher Law	February Legal Fees	325.00
14	Buck's Saw Service	18" Chain (4)	123.34
15	Comcast	March Internet Connection	1.63
16	Core Utilities	Consulting Services: January IT Support (\$6,000), IT SCADA Support for Novato Radio/Cell Modem Sites (\$650), IT & SCADA Support for STP (\$50), Modifications in Core for New Shut-Off Policy (\$50), Website Maintenance (\$400) & Rate Study (\$75)	7,225.00
17	Devlin, Bridget	West Marin "Washer" Rebate Program	50.00
18	Diesel Direct West	Diesel (370 gals) (\$1,286) & Gasoline (1,400 gals) (\$4,564)	5,850.85
19	Ditch Witch West	Pressure Washer Parts	174.47
20	Evoqua Water Technologies	Service on Lab Deionization System (11/2019-01/2020)	433.19
21	Fedak & Brown	January Progress Billing (FY19 Audit) (Balance Remaining on Contract \$0)	530.00
22	Grainger	Ferric Tank Parts & Cushioned Lamps (6) (STP) (\$369), Hose Fittings (\$321), Nipples (3), Plumbing Supplies (\$215) (STP), Grease Gun (\$162), Hand Soap (\$59), Tape Measure, All Purpose Cleaner (4) (\$95) & Backpack Sprayer (2-4 gal) (\$179) (Less Credit of \$924 Received for Returned Supplies)	523.92
23	Hach	Salt Bridge for STP pH Analyzer	273.26
24	High-Purity Standards	Standards (Lab)	293.43
25	Hildebrand Consulting	Prog Pymt #8: Water Rate Study (Balance Remaining on Contract \$6,375)	8,820.00
26	InfoSend	January Processing Fee for Water Bills (\$1,259) & Postage (\$3,536)	4,795.98
27	Johannsen, Susan	Novato "Toilet" Rebate Program	100.00
28		Vision Reimbursement	128.98

Seq	Payable To	For	Amount
29	Lincoln Life	Deferred Compensation PPE 2/15/20	10,051.72
30	Marin County Public Works Department	Creek Permit for Gallagher Ranch Streambank Stabilization Project	220.00
31	McConnell, Sean	Novato "Toilet" Rebate Program	200.00
32	McMaster-Carr Supply	2" Suction Hose for Water Pumps (\$291) & Nuts for Tank Level Switches (6)	342.77
33	Nationwide Retirement Solution	Deferred Compensation PPE 2/15/20	995.00
34	Neopost USA	Postal Meter Rental (3/1/20 - 3/31/20)	143.09
35	Pace Supply	Valves (8) (\$236), PVC Pipe (20), Couplings (87) (\$1,671), Bushings (57) (\$495), Flanges (6) (\$348), Nipples (53) (\$330), Copper Pipe (240') (\$1,149), Elbows (54) (\$313) & Bolts (75) (\$123)	4,692.17
36	Parkinson Accounting Systems	January Accounting Software Support	195.00
37	Peterson Trucks	Battery Post & Insulator ('15 International 5yd Dump Truck)	40.69
38	PG&E	Power: Bldgs/Yard (\$3,907), Other (\$152), Pumping (\$19,702), R/C (\$508) & TP (\$220)	24,489.00
39	Point Reyes Prop Mgmt Assn	February HOA Dues (25 Giacomini)	75.05
40	Primex	Programmable Logic Controller Work @ STP	5,208.00
41	Rauch Communication Consultant	Prog Pymt#5: Consulting Services Outreach Support (Balance Remaining on Contract \$24,329)	350.00
42	Scott Technology Group	Maintenance on Engineering Copier (2/21/20-3/20/20) (\$167) & Overage Charge (1/21/20 - 2/20/20) (\$105)	271.76
43	Service Station Systems	Parts & Service on Fuel Tanks	898.91
44		Vision Reimbursement	184.00
45	Sonoma County Water Agency	January Contract Water	321,789.38
46	SPG Solar Facility	January Energy Delivered Under Solar Services Agreement	7,113.53

Seq	Payable To	For	Amount
47	State Water Resources Control Board	Water Quality Certification Fee for Gallagher Ranch Streambank Stabilization Project	520.00
48	Telstar Instruments	Annual Calibration on Flow Meters	2,540.00
49	The Transmitter Shop	Recondition & Calibrate Level Transmitters (PRE 2 & 3)	637.00
50	USA BlueBook	White Fiber Curve Marking Post (\$231) & 33' Stripe Wand	310.88
51	US Bank	January Safekeeping Treasury Securities	142.00
52	Van Bebber Bros	Metal Plate (10" x 69") ('14 F150)	323.10
53		Vision Reimbursement	552.00
54	VWR International	Boxes for Safe Disposal of Broken Glass (Lab)	33.23
55	White & Prescott	Prog Pymt# 21: AEEP Easement Support B2 Reach A (\$3,105), Prog Pymt#22: 7711 Redwood Water Line Easement (\$2,070) & Prog Pymt#23: PRE Tank 4A Access Easement (\$560) (Balance Remaining on Contract \$4,600)	5,735.00
56	ZFA Structural Engineers	Prog Pymt#2: Provide Design for Lynwood P/S (Balance Remaining on Contract \$500)	1,172.50
TOTAL DISBURSEMENTS			<u>687,409.75</u>

The foregoing payroll and accounts payable vouchers totaling \$687,409.75 are hereby approved and authorized for payment.

 _____ Auditor-Controller	 _____ Date
 _____ General Manager	 _____ Date

MEMORANDUM

To: Board of Directors
From: Brad Stompe, Distribution & Treatment Plant Supervisor
Robert Clark, Operations / Maintenance Superintendent
Subject: Sonoma Water Russian River-Cotati Aqueduct Emergency Repairs
X:\MAINT SUP\2020\BOD\BOD Memo SW shutdown 3-16-20.doc

February 28, 2020

RECOMMENDED ACTION: Information

FINANCIAL IMPACT: TBD

A few weeks ago, during an inspection of their pipe line the Sonoma Water (aka Sonoma County Water Agency) staff identified an issue with a portion of the Russian River-Cotati Aqueduct that will need to be replaced (see attached press release). The segment of pipe is located in a meter vault near River Road and Wohler Road in Forestville.

Previous inspections did not detect the corrosion, which was on the underside of the pipe. Since this corrosion was detected, all 24 of the meter vaults in the distribution system have been inspected. Five of those vaults also had pipes with minor corrosion, and those repairs will be carried out by Sonoma Water maintenance staff.

The meter vault will be opened up and the corroded section of the 48-inch pipeline will be removed and replaced. Work will be carried out by a private contractor. They anticipate any impacts to water deliveries to last approximately one week. It is estimated to cost \$750,000 to cover the emergency repairs. A final cost has not yet been determined. Sonoma Water has requested an emergency declaration for approval of work to be completed from their Board.

During construction, this segment of aqueduct will not be in service. We have been working with Sonoma Water to prepare for reduced water deliveries in the event that water demands continue to increase with the persistent dry weather pattern. Sonoma Water has requested all contractors to use local supplies, as available, on March 16th through March 27th to help reduce demand on their system.

Our plan is to complete Stafford Treatment Plant (STP) maintenance and have the plant ready to run in case we need to operate to meet any potential increase in demands. Sonoma Water is asking for flows to remain below 10 Million gallons per day (MGD) from the North Marin aqueduct from March 16 – 27. Current demand for NMWD is in the 5-6 MGD range so even without STP running we expect to have sufficient supply.

Staff has discussed these restricted operating conditions with the Marin Municipal Water District (MMWD) operations staff and we will be in touch over the next two weeks. The worst-case scenario for MMWD is that STP will not run and MMWD will be cut back to 2 MGD or shut off at their Ignacio pump station. Best case, STP is on line March 16th and they can maintain their take of 6 – 8 MGD.



(//)



Emergency Repairs for Russian River-Cotati Aqueduct Approved

FOR IMMEDIATE RELEASE - February 25, 2020

CONTACT - Barry Dugan: 707-547-1930 (office), 707-331-2040 (cell), barry.dugan@scwa.ca.gov
(<mailto:barry.dugan@scwa.ca.gov>)

Santa Rosa, CA – The Board of Directors of the Sonoma County Water Agency (Sonoma Water) today approved a resolution to allow emergency repairs for a portion of the Russian River-Cotati Aqueduct.

The emergency declaration allows repairs to take place in an expedited fashion. A corroded section of 48-inch pipe will be replaced inside a meter vault near River Road in Forestville. The corrosion was discovered during a recent routine inspection. The pipe is located in an underground vault that is subject to groundwater seepage, which contributed to the corrosion.

The Russian River-Cotati Aqueduct is one of several main pipelines in the Sonoma Water distribution system that provides wholesale water to more than 600,000 residents in Sonoma and Marin counties.

It is anticipated that work to repair the pipeline will start in mid-March and will take approximately a week to complete. Sonoma Water is working with its wholesale water customers to maintain adequate water deliveries during construction. Some local jurisdictions also have auxiliary groundwater supplies available if needed to supplement Sonoma Water deliveries during construction.

A private contractor is being hired to do the repair work. The board action allocates up to \$750,000 for the repairs, but final costs will not be available until a contract is approved and the repairs are completed.

Sonoma Water is asking all water customers to reduce their indoor and outdoor water usage at this time because of increasing demands due to the dry weather, and the upcoming repairs to the water distribution system. Using water wisely is always a good idea: "There's never enough to waste."

###

Sonoma Water provides water supply, flood protection and sanitation services for portions of Sonoma and Marin counties. Visit us on the Web at www.sonomawater.org (<https://www.sonomawater.org>)

More: [Press Releases \(https://www.sonomawater.org/news/category/301/\)](https://www.sonomawater.org/news/category/301/)

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Contact Us

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Complex slate of hikes proposed for rates, fees

NORTH MARIN WATER DISTRICT

Utility cites rising costs, need for system upgrades

By Will Houston

whouston@marinij.com @Will_S_Houston on Twitter

The North Marin Water District is proposing to raise its water rates and service charges for customers for potentially the next five years.

The district says the hikes are necessary to keep up with rising employee, operations and water delivery costs while also allowing it to invest more into repairing and replacing its aging pipes, storage tanks and other equipment. Pipes and tanks also need to be larger to account for increased fire risk.

“For NMWD, we’re about 70 years old now,” said Drew McIntyre, the district’s general manager. “It’s important that we start increasing our expenditures to address aging infrastructure.”

With the rate increase, the district would seek to ramp up its investment in upgrades from \$2.5 million per year to \$4 million per year to pay for \$27.8 million in projects in the next five years.

In addition, the district is eyeing whether to alter its rate structures, which could reduce or increase the rates for residents and businesses depending on their daily water use.

Meter-based service charges would also rise between 37% to 136% in the next five years under the proposal. Most ratepayers with 5/8th-inch meters would see a 50% jump, while one-inch me-

RATES» PAGE 4

'Any time rates go up it can affect residents and businesses, and ultimately it all comes down to the consumer.'

— *Coy Smith, Novato Chamber of Commerce*



Lalo Sanchez paints a section of piping on a North Marin Water District tank in Novato on Thursday. The district is planning \$27.8 million in projects in the next five years.

PHOTOS BY SHERRY LAVARS — MARIN INDEPENDENT JOURNAL



North Marin Water District engineer Carmela Chandrasekera looks over a freshly painted cap on a tank in Novato on Thursday.

Rates

FROM PAGE 1

ter users could see their fee more than double by 2024. The district has been undercharging these fees, McIntyre said, with the new fees aligning with industry standards according to an analysis by a rate consultant.

About 18,000 accounts would be affected by the changes. The district covers Novato and parts of West Marin.

“We haven’t received much feedback,” McIntyre has said about customers’ response to the proposal.

Overall, most residential ratepayers would see about an \$8 increase on their bimonthly water bills, according to the district. Even after the increase, the district’s rates would still be lower than its local counterpart, the Marin Municipal Water District, and in the median range compared to 16 other water agencies in the region, McIntyre said.

The district board of directors is set to hold a public workshop on the rate increases on Feb. 25. The time and location have not been set.

At its March 3 meeting, the board is expected to decide whether the rate hike should be for a single year or up to five years, McIntyre said. The district typically adopts one-year increases, McIntyre said, with the last one occurring in July with a 3.5% hike.

Should the district proceed, it would issue a Proposition 218 notice and schedule public hearings. A final vote would take place in June.

NMWD board president Mike Joly and board member Rick Fraites deferred comment about the proposal to McIntyre. Attempts to contact board members Jim Grossi, Jack Baker and Steve Petterle were unsuccessful.

“I’m still in the learning stage,” Fraites wrote in an email on Friday.

Rate structure

The proposed changes to the district’s rate structures are complex.

with higher elevations being charged higher rates. These elevation charges are also set to increase under the proposal by 46% or 25% by 2024, depending on the elevation.

Commercial customers pay a uniform rate, which increases or decreases depending on the time of year. Currently, these customers pay a summer rate of \$6.42 per thousand gallons from June through October. The rate drops to the \$5.97 rate in the winter months from November through May.

Starting in July, the district proposes to change the summer rate months to July through September at a rate of \$7.67 and the winter months to October through June at a rate of \$5.50. By 2024, the summer rates will jump 14% to \$6.81 and by 48% for winter months at a rate of \$9.50.

Novato Chamber of Commerce CEO Coy Smith said the chamber has no position on the changes as of now and does not recall the chamber taking a position on past rate increases. The chamber’s governmental affairs committee is likely to review the proposal in the near future, he said.

“Obviously, any time rates go up it can affect residents and businesses, and ultimately it all comes down to the consumer,” he said. “If a business has increased cost they’re probably going to pass them along to their clients and customers. That’s not always a good thing.”

City expenses

The rate increases would coincide with a mandated minimum wage increase in Novato set to take place in July — the second increase this year.

The city of Novato would see a significant increase in the city’s water bill, estimated at 9.3%, from the rate and fee hikes. The city paid \$577,000 for water in the 2018-2019 fiscal year.

“They’re particularly looking at a large increase — almost 50% — in their large meter charges, meters above 2 inches,” said city interim finance director David Bentley, who was the water district’s auditor-controller for 31 years. “The city has got a lot of those for the parks. I saw 10 (meters) that I think the city could downsize for modest cost and save some money there.”

To ease customers' understanding of how the rate changes would impact them, the district has set up a rate calculator on its website at bit.ly/2Hw4laj.

Essentially, the district has separate rates for residential and commercial customers. Residential customers are divided into three rate tiers based on their daily water use, with higher water users being charged higher rates. Commercial water users are charged based on the time of year they are using the water, with summer rates being higher than winter rates.

Under its proposal, the district plans to lower the threshold of water use that residential customers would need to meet to be bumped into a higher paying tier. Customers who are in a lower paying tier may find themselves in a higher paying tier under the proposed changes.

Currently, Tier 1 customers who use up to 615 gallons per day pay a rate of \$5.42 per thousand gallons, Tier 2 customers who use 616 to 1,845 gallons per day pay \$8.64 per thousand gallons and Tier 3 customers who use more than 1,845 gallons per day pay \$15.05.

Under the new proposed structure that would take effect in July, the Tier 1 threshold would drop to 262 gallons per day with a rate of \$5.50 per thousand gallons, Tier 2 would range from 262 to 720 gallons per day at a rate of \$6.23 and Tier 3 for use above 720 gallons per day at a rate of \$7.67.

If the board adopts a five-year rate increase, Tier 1 customers' rates would increase from their current rates by more than 25% to \$6.81 per thousand gallons by July 2024. The Tier 2 rates would drop by 11% to \$7.72 per thousand gallons and by nearly 37% to \$9.50 per thousands gallons for Tier 3 customers by July 2024. However, customers who once fell under Tier 1 or 2 status under the old structure could be paying higher rates under the new one, depending on their water use.

The district tacks on more rate charges depending on the elevation of the customer's connection,

McIntyre said the restructuring is meant to better reflect the source and costs of the water being delivered.

About 75% of the district's water is delivered by Sonoma Water, which is about 20% cheaper than the water supplied by the district through its Stafford Lake treatment plant. Sonoma Water is expected to increase its water delivery rates by 6% to 7% this summer, McIntyre said. Higher water use, such as during the summer months and by higher water users, puts greater demand on the district's Stafford Lake water supplies, thus justifying the higher costs, he said.

The district has made several cost-cutting decisions in recent years, McIntyre said. Steps taken so far include reducing staffing from 58 full-time positions in 2009 to the current 54, increasing recycled water capacity, implementing the state's pension reforms, installing solar energy at its Stafford Lake treatment plant and obtaining about \$10 million in state and federal grants.

More information about the proposed rate increases can be found online at bit.ly/2UZFR11.



Contractor Marcos Mora paints a tank in Novato on Thursday for the North Marin Water District. About 75% of the district's water is delivered by Sonoma Water.

SHERRY LAVARS — MARIN INDEPENDENT JOURNAL

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Local // Bay Area & State

Dozens of high-risk Bay Area dams lack required emergency plans

Joaquin Palomino Feb. 25, 2020 Updated: Feb. 25, 2020 9:24 p.m.



Aerial view of the Anderson Reservoir dam and the homes below in Morgan Hill, which could be at risk if a big quake hit.

Photo: LiPo Ching / Special to The Chronicle



The Anderson Reservoir dam and spillway in Morgan Hill. This largest dam in the Bay Area has been ordered to be drained by Oct. 1 due to concerns it could collapse in a major quake.

Photo: LiPo Ching / Special to The Chronicle

The Bay Area is dotted with at least 145 dams where failure or misoperation could result in death or property destruction, yet many lack required emergency plans, according to an analysis of state data.

Most of these “high-hazard” dams were built before 1960. While not at a higher risk of failure, they could endanger countless homes and businesses that rest below the aging facilities, making emergency planning and maintenance increasingly important, experts said.

Yet at least 47 of the risky dams in the Bay Area — nearly a third — reported no formal procedures for warning downstream residents of a breach or set up other plans for reducing loss of life and property damage in an emergency, according to data analyzed by the Associated Press and reviewed by The Chronicle. The figures came from state inspections between 2015 and 2018.



Source: Analysis of state and federal data by the Associated Press
John Blanchard / The Chronicle

California has required owners of high-hazard dams overseen by the state to submit such plans to the state’s Office of Emergency Services since 2017, after the near failure of a spillway at the Oroville Dam forced the evacuation of 180,000 residents.

But they must also be approved by the state.

In January, however, California's independent auditor, Elaine Howle, looked at compliance at 650 high-hazard dams regulated by the state and found that just 22 had approved emergency action plans, as of November. Although many more dam owners submitted plans, state officials sent them back for revisions and are still pending, according to the state's Office of Emergency Services.

On Monday, federal dam safety regulators ordered Valley Water in Santa Clara County to begin draining the Anderson Reservoir — the largest of 10 reservoirs storing water for the region — by Oct. 1 due to concerns that it could collapse in a major earthquake.

"For too long we've taken these dams and the safety of these dams for granted," said Peter Gleick, cofounder of the Pacific Institute, an environmental think tank in Oakland. "A lot of people and a lot of property live below these dams, and we're either unsure of their safety or unprepared if they fail."

By some measures, California has a robust program to oversee its roughly 1,200 dams inspected by the state. A 2016 study by the Association of State Dam Safety Officials found that California had the nation's leading dam safety program, and that its high-risk dams were monitored by a "very well-documented and rigorous" state inspection program.

All but about 100 were ranked as "satisfactory" — the highest mark, said Chris Orrock, a spokesman for the California Department of Water Resources.

"The vast majority of dams in California have the highest condition assessment possible," he said.

In the Bay Area, nearly 90% of the high-hazard dams were recently labeled "satisfactory," according to the Associated Press analysis.

Yet there are signs that dozens of dams in the Bay Area and throughout California are unprepared for an emergency — meaning the people living and working near them may be at risk.

Having an emergency plan is a "very important tool for identifying and mitigating a potential failure" and its downstream consequences, said Mark Ogden, a technical specialist with the Association of State Dam Safety Officials.

State officials agreed, yet the vast majority of California's dams still do not have approved emergency plans.

“This is important work and Cal OES is committed to holding individual dam owners accountable for updating and maintaining emergency action plans that meet the highest standards to protect public safety,” the department said in a statement.

The aging facilities will probably be tested in the coming years by global warming and anticipated periods of intense rain, experts said.

“The proper response isn’t panic,” said Gleick of the Pacific Institute. “The proper response is much more aggressive inspections and preparation for protecting populations at risk.”

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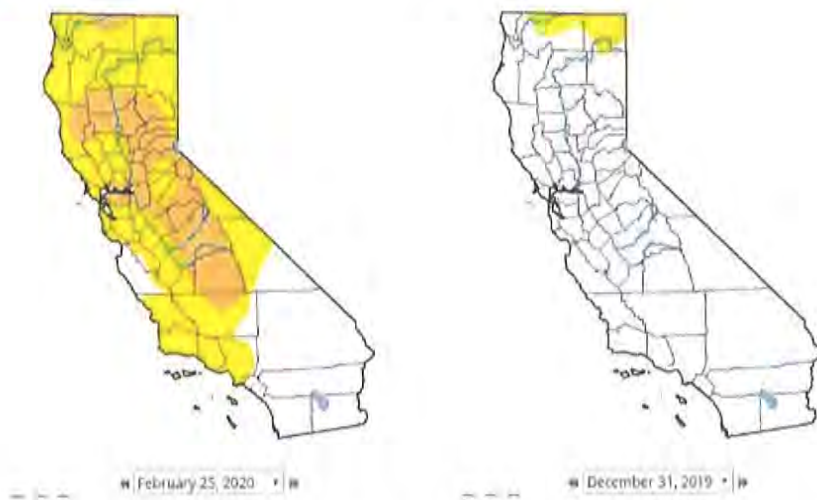
California Drought: Northern California having driest February since 1864

Nearly 25% of the state now is in drought, Sierra Nevada snowpack at 46% of normal

By Paul Rogers | progers@bayareanewsgroup.com | Bay Area News Group
PUBLISHED: February 27, 2020 at 6:11 a.m. | UPDATED: February 27, 2020 at 4:04 p.m.

Drought Classification

- | | |
|-----------------------|--------------------------|
| None | D3 (Extreme Drought) |
| D0 (Abnormally Dry) | D4 (Exceptional Drought) |
| D1 (Moderate Drought) | No Data |
| D2 (Severe Drought) | |



On Thursday Feb. 27, nearly a quarter of California, or 23.3%, was in moderate drought. Two months ago, none of the state's land area was in drought, according to the US Drought Monitor.

The driest February in the Bay Area in 156 years is coming to a close — with no end in sight to the unusually parched, hot weather — and nearly a quarter of California is now under drought conditions, federal officials announced Thursday.

If this week ends without a drop of rain, as is forecast, it will be the first time since 1864 — when the Civil War was raging and covered wagons roamed the American West — that San Francisco had no measurable rain in February, normally one of the wettest months of the year.

And the news in the Sierra Nevada is just as grim. On Thursday, the snowpack, the source of one-third of California's water supply, was 46% of its historical average, down from 92% on New Year's Day, with no precipitation falling this month over key Sierra Nevada watersheds for the first time since records began in 1921.

When will it really rain next? Not until mid-March at the earliest, forecasters say.

With only about a month left in California's winter weather season, the likelihood that the state will end its rainy season in April with below-normal rain and snow conditions is nearly certain, experts say, raising concerns about fire danger this summer.

"We'll most likely end this water year below average," said Sean de Guzman, chief of snow surveys and water supply forecasting for the state Department of Water Resources. "We just don't know how far."

Altogether, 23.3% of the state is in "moderate drought" — up from 9.5% last week, according to the U.S. Drought Monitor, a weekly report issued by the National Oceanic and Atmospheric Administration, the U.S. Department of Agriculture and the University of Nebraska-Lincoln.

That's the most of any week in 13 months. Another 46.4% of California is now classified as "abnormally dry."

Sunny, dry weather, with temperatures in the 60s and 70s, is forecast for at least another week across Northern California. Apart from a slight chance of sprinkles on Sunday, the next time significant showers are possible in the Bay Area is between Monday, March 9, and Wednesday, March 11, when the long-range forecast shows a 40% chance in San Jose, Oakland and San Francisco, according to the National Weather Service.

The culprit for the dry weather? A large ridge of high pressure air, similar to the one that created much of the state's 2012-2017 drought, that has set up off the West Coast and deflected storms to Washington state, southern Canada and Mexico that otherwise were on target to hit California.

"California and parts of the Southwest dried out while the Northwest observed surplus precipitation," wrote David Miskus, a NOAA meteorologist who issued this week's Drought Monitor report.

"During the past 60-days, less than 25% of normal precipitation had fallen on much of California and western Nevada," he added, "creating deficits exceeding a foot in parts of the Sierra Nevada, and 4 to 8 inches along the coast."

Overall, 23.6 million acres of California now is in “moderate drought,” an area stretching across most of the Central Valley and including Sacramento, Mendocino County and parts of Contra Costa, Solano and Napa counties in the Bay Area.

One piece of good news: Because of wet winters last year and in 2018, the water levels in major reservoirs around the state are at near or above average.

“We have some dry conditions across the state, but our reservoirs are doing well,” said Chris Orrock, a spokesman for the state Department of Water Resources. “If we have to go through two dry years, then we’ll start looking at what additional conservation measures we need.”

On Thursday, Shasta Lake, the state’s largest reservoir, was 78% full — 107% of its historic average for late February. Lake Oroville was 64% full, or 92% of its historic average. And San Luis Reservoir near Los Banos was 70% full, or 83% of average for this time of year.

But the Sierra Nevada snowpack — the source of nearly one-third of California’s water supply for farms and cities — is taking a major hit.

For the first time since measurements began in 1921, de Guzman said, no precipitation fell at all in February over the Northern Sierra Eight-Station Index. The closely-watched weather stations are located in watersheds from Mount Shasta to south of Lake Tahoe that empty into the major reservoirs of Northern California.

And the lack of rain this February has been historic across Northern California.

This winter began with several significant storms shortly after Thanksgiving. But since then, there has only been one day in the Bay Area, Jan. 16, when San Jose, Oakland and San Francisco all received more than 1 inch of rain.

As a result, the seasonal rainfall totals are looking meager. Since Oct. 1, San Jose had received just 3.8 inches of rain through Wednesday night, or 36% of its historical average for that date. Oakland was at 39%, with 5.8 inches. And San Francisco was at 50% of normal, with 8.8 inches. Even in the Central Valley and Southern California, where some storms broke through earlier this year, dry conditions have been the norm. Fresno is at 47% of normal rainfall for this time of year and Los Angeles at 68%.

Because of reservoir and groundwater storage, it typically takes at least two years of dry winters for a major drought to emerge in California. A wet winter next year could return conditions to normal. But the lack of rain this year is generating concerns about increased fire risk this summer and increasing the chances of major blazes, due to lower moisture levels in grasses, brush and trees.

On Thursday, fire crews in the Mendocino National Forest in Glenn County battled a wildfire in remote brush and timber that began when a controlled burn spread out of control in an area that normally would be wet this time of year. The fire, which is 68 acres, was 40% contained, and 75 firefighters were working to stop its spread. No structures were threatened.



Paul Rogers

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City exempts 9-unit townhome project from affordability rule

NOVATO

By Will Houston

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Novato will exempt a nine-unit townhome project near downtown from a requirement to designate one unit for a low income buyer. While most of Novato City Council members said this week that they recognize the need for more affordable housing, many housing projects are stalled because of rising development costs.

“This is a project where, without this (exemption), we might just not be getting a low-income unit; we might not be getting any of the units whatsoever,” Councilman Eric Lucan said on Tuesday.

The Springbrook Green Homes project at 1602 and 1604 Vallejo Ave. calls for two-story, two-bedroom townhomes for sale. The project was approved by the Planning Commission in late January and was not appealed to the council.

The council discussion on Tuesday centered on whether the developer should be required to build an affordable housing unit per city ordinance or allow the developer to pay a fee that would go toward promoting affordable housing development. The exemptions are allowed if approved by a majority of the council.

Under the city’s affordable housing ordinance, the Springbrook Green Homes project would have been required to offer one unit at a low-income price, which city staff estimated to be at about \$298,572 as of now. The developer plans to sell the homes for \$500,000 to \$600,000. Construction is expected later this year.

The Novato-based developer, Vince Sproete of Stonehenge Properties LLC, asked that the council allow him to either pay the

\$172,386 fee, or offer the sale of one townhome at a moderate-income pricing level of about \$483,443, according to city staff.

Townhomes are already affordable by design, Sproete said, but the rising cost of development, especially after the destructive fires in the state, is dissuading developers from building.

“So it comes to the point, you start adding things up, and it doesn’t make sense anymore to build,” Sproete told the council. “There’s no profit in the project

TOWNHOME»PAGE 4

Rendering of the Springbrook Green Homes proposed for 1602 Vallejo Ave. in Novato.

TAYLOR BUILDING DESIGNS

Townhome

FROM PAGE 3

when the costs go up so high and so fast.”

The council voted 4-1 to approve the request, with Mayor Pro Tem Pat Eklund dissenting. Eklund said the city is not meeting its regional housing targets for 2022 and could face consequences from the state, such as withheld transportation funds, if it fails to meet them on time. State housing legislation could exacerbate the consequences, she said.

“We need low- and very low-income units,” Eklund said.

The city’s regional housing

needs assessment for 2015-2022 shows it has issued permits for 235 of the 415 required housing units for various income levels as of the end of 2019. Counting pending project entitlements and permits before the city, Novato could meet its targets assuming every project makes it to construction, staff said.

Other council members agreed one low-income unit shouldn’t put an entire project at risk.

“Not only do we have an affordable housing crisis in California, but we have a housing crisis in general,” Councilwoman Susan Wernick said.

More information about the project is online at [bit. ly/3ad5znq](https://bit.ly/3ad5znq).

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