EXHIBITS TO PETITION & COMPLAINT

- 1•170300•Map-MMWD<WRP 2040.pdf
- 2•190515•May 15 PPt-Meter Size breakdown.pdf
- 3•190515• May 15 PPt-Impact on Average Customer.pdf
- 4•190616•Powerpoints-BoardMtg.pdf
- 5•190618•fire Chief letter-MMWD Meter Increase Objection Letter 5.25.19 (1) copy.pdf
- 6•19040•Prop 218 Notice• CLEAN.pdf
- 7•Ordinance No, 442.pdf
- 8•190627•Policy No. 52.pdf
- 9•190300•RaftellisWaterUseTable.pdf
- 10•"ExpExistProgs"Appendix I,Table 3-1, p.3.pdf
- 11•ResiliencyOptionEvaluation•Attachment A•Option Scores.p.A-1 2.pdf
- 12•WRP-2040•AppndxF,p.82,pdf.202•[E003]Watershed man->water produc•ancil2FirePro.pdf
- 13•WRP-2040•ApndxF,p.1,pdf.121,[WE01]EnhancedConservation.pdf
- 14•WRP-2040•ApndxF,p.52-3,pdf.172-3,[ES07]SantaRosaPlainConjUse.pdf
- 15•180802•Appendix C- ConnectionFeeStudy.pdf
- 16•181025•MMWD Connection Fees copy.pdf
- 17•190701•MMWD schedule of rates.pdf
- 18•180927•What Doing Fire Risk-MMWD Report.pdf
- 19•190515•PPt.22-Watershed Budget Increases.pdf
- 20•190300•BFFIP.pdf
- 21•190300•BFFIP•2-3•Map of WUI<BFFIP.pdf
- 22•190300•BFFIP•2-6&2-7.FuelBreaks•.pdf
- 23•120800•CharlesRpt.-selectedpdf
- 24•160100•LAFCO MSR-powers.pdf

Exhibit "1"

Figure 2-1: Marin Municial Water District Service Area

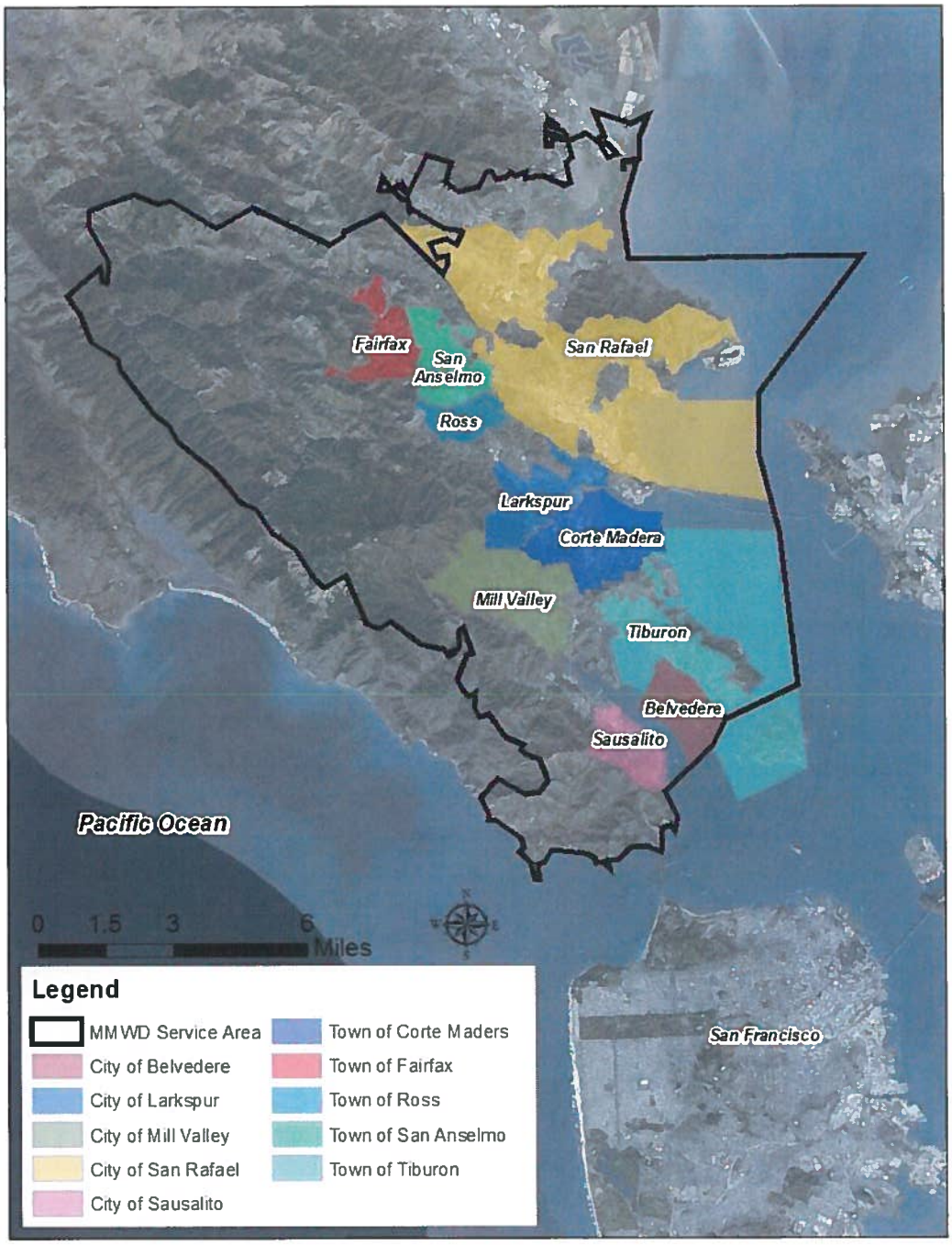


Exhibit "2"

MARIN MUNICIPAL WATER DISTRICT

Capital Maintenance Fee

(including fire & fuels management)

Meter Size	# of Meters	% of Customers	Annual Per Meter Charge $	Annual Revenue
5/8"	41,227	68.08%	163.50	$ 6,740,615
3/4"	3,404	5.62%	245.25	$ 834,831
1"	12,774	21.09%	408.74	$ 5,221,245
1 1/2"	2,278	3.76%	817.47	$ 1,862,197
2"	650	1.07%	1,307.95	$ 850,168
3"	157	0.26%	2,861.14	$ 449,199
4"	44	0.07%	5,150.05	$ 226,602
6"	19	0.03%	11,444.54	$ 217,446
8"	5	0.01%	19,619.21	$ 98,096
10"	-	0.00%	31,063.75	$ -
Totals	**60,558**	**100.00%**		**$ 16,500,398**

5/8" meters make up 69% of all accounts and 74% of all single family residential accounts

Exhibit "3"

MARIN MUNICIPAL WATER DISTRICT

Impact to Average Customer

Average Single-Family Residential Customer Impact*						
For 5/8" meter size	Current Rates	Proposed July 1, 2019	Proposed July 1, 2020	Proposed July 1, 2021	Proposed July 1, 2022	Proposed July 1, 2022
Service Charge	$36.79	$39.66	$41.25	$42.90	$44.62	$46.41
Watershed Management Fee	$9.78	$10.29	$10.71	$11.14	$11.59	$12.06
Tier 1 Water Usage 17 CCFs	$69.19	$71.23	$74.12	$77.18	$80.41	$83.64
Total Bi-monthly Bill	$115.76	$121.18	$126.08	$131.22	$136.62	$142.11
Per Month	$57.88	$60.59	$63.04	$65.61	$68.31	$71.06
Monthly Increase		$2.71	$2.45	$2.57	$2.70	$2.75
Annual Capital Maintenance Fee**		$163.50	$170.04	$176.84	$183.92	
Monthly		$13.63	$14.17	$14.74	$15.33	
Total Monthly Increase		$16.34	$16.62	$17.31	$18.03	

*based on average ratepayer bi-monthly usage of 17CCF's

**assumes Engineering News-Record (ENR) indexing (4% annual maximum)

Exhibit "4"

MARIN MUNICIPAL WATER DISTRICT

Use of Meter Size for the CMF

Using meter size to apportion costs is an accepted industry approach

- Meter size represents the potential demand on the system and not the actual water use a customer may be using at a given time
- Consideration of potential future demand is critical when investing in infrastructure designed to last 75 – 100 years

Every water agency reviewed (see list below) utilizes meter size as a basis for a water infrastructure related fee:

- Districts: Contra Costa Water, Dublin San Ramon, NMWD, EBMUD, Alameda County Water

- Cities: Palo Alto, Hayward, Mountain View, Los Altos, Livermore, Santa Clara, Sonoma, San Jose, SFPUC

Commercial and Institutional Private Fire Service Lines are not included in the new fee

- Used only in the very rare event of interior fire and, thus, do not impact demand on the system and associated infrastructure sizing
- Similarly, not included in Connection Fee calculations for the same reasons

MARIN MUNICIPAL WATER DISTRICT

Upsized Residential Meters

Factors that determine meter size

- Water pressure
- Number of fixtures (Uniform Plumbing Code)
- Sprinkler system

Note: Applicant requests meter size, it is not defined by MMWD

MARIN MUNICIPAL WATER DISTRICT

Upsized Residential Meters (cont.)

- National Fire Protection Association (NFPA) fire sprinkler requirement adopted by the local fire districts for new single family residential (SFR) and substantial remodel to the existing building (over 50%), beginning in 1988
- 2010 California Fire Code required Fire Sprinklers for new and remodeled single family residences
- 3,400 District single family residence (SFR) services identified with fire sprinklers, about 6%, of MMWD SFR services

Exhibit "5"

Marin County Fire Chiefs Association
1004 Sir Francis Drake Blvd.
Kentfield, CA 94904

Phone: 415-453-7464

June 18, 2019

Ben Horenstein, General Manager
Marin Municipal Water District
220 Nellen Avenue
Corte Madera, CA 94925

Dear Mr. Horenstein,

The Marin County Fire Chiefs Association, representing the 13 fire agencies in the County many of which provide fire protection services within your service area, have concerns associated with the recent rate changes based on meter size.

At your May 28th meeting, the Board adopted a new fee structure with substantial fee increases for meters greater than 5/8". The local fire agencies have expressed our concern annually at our Fire Flow meetings and on several occasions with your staff surrounding related cost increases for meter and pipe upgrades specifically for fire sprinkler systems.

Every year more than 3,000 Americans die in home fires and more than 18,000 are injured. Children and the elderly are especially at risk in home fires because they are less capable to escape on their own when fire strikes. The best way to protect those who cannot quickly escape, and at the same time protect your home and belongings, is by installing sprinklers. (National Institute of Standards and Technology, NIST 2019).

Like the fire sprinklers found in most public buildings, residential sprinklers stand ready 24 hours a day to detect and extinguish fires before they can become a threat to lives or property. As life safety devices residential fire sprinklers are designed to react more quickly than their commercial cousins and thus need less water to do their work. Each sprinkler operates independently, so most home fires are extinguished by one or two heads with only a few gallons of water. (NIST 2019).

The Marin County Fire Chiefs Association is urging that you and your Board consider eliminating additional costs/fees associated with properties that have had to or will upgrade meters and pipe size solely for the purpose of having the capacity necessary to support a residential fire sprinkler system.

As always, we make ourselves available to discuss this issue and look forward to a continued partnership in public safety.

Please contact me (415) 878-2600 if you have any questions concerning this correspondence.

Respectfully,

Bill Tyler
President
Marin County Fire Chiefs Association

Exhibit "6"

MARIN MUNICIPAL WATER DISTRICT

220 Nellen Ave.
Corte Madera, CA 94925

Notice of Public Hearing on Proposed Water Service Rates, Fees and Charges

The Marin Municipal Water District (MMWD) Board of Directors will hold a public hearing to consider proposed increases to our water service rates, fees and charges. We invite and encourage the public to attend.

Tuesday, May 28, 2019, starting at 7:30 p.m.
Marin Municipal Water District
220 Nellen Ave., Corte Madera, CA 94925

Notice of Public Hearing on Proposed Water Service Rates, Fees and Charges

The Marin Municipal Water District (MMWD) Board of Directors will hold a public hearing to consider proposed increases to the water service rates, fees and charges. We invite and encourage the public to attend.

Tuesday, May 28, 2019, starting at 7:30 p.m.

Marin Municipal Water District
220 Nellen Ave., Corte Madera, CA 94925

How to Submit a Protest

To protest the proposed rates, you must submit your protest in writing, even if you plan to attend the public hearing. If written protests are submitted by a majority of the affected property owners or customers, the proposed rate changes will not be imposed. Only one written protest will be counted per identified parcel.

Your written protest must be received prior to the close of the May 28, 2019 public hearing. Written protests must identify the parcel (parcel number) or utility (MMWD) account number or address for which the protest(s) are submitted. Written protests also must include a signature of the record property owner or utility customer and a statement that the person is opposed to the proposed rates, fees and charges. Send or deliver written protests to:

Board Secretary
Marin Municipal Water District
220 Nellen Ave., Corte Madera, CA 94925

MARIN MUNICIPAL WATER DISTRICT

About this Notice: Proposed Water Rate Increases

Investing in our Infrastructure

The Marin Municipal Water District (MMWD) is proposing to raise water rates to invest in our aging infrastructure, stabilize monthly billing rates, better manage long-term debt, responsibly manage our watershed with an emphasis on reducing wildfire risk, and continue to offer the level of service our customers expect from us.

Since 1912, MMWD has provided high-quality, locally sourced water while protecting the crown jewel of Marin—Mt. Tamalpais. As the oldest municipal water district in California, we face significant challenges in maintaining our aging infrastructure, including our treatment plants, storage tanks and pipelines. And as the largest public land manager on Mt. Tam, we face the ongoing challenge of responding to climate change and reducing wildfire risk to help protect our communities.

As a public agency, MMWD is dedicated to controlling rising costs and ensuring that the price of water is affordable for everyone. At the same time, the costs to deliver water, maintain our infrastructure, manage our watershed and protect against fire risk are changing. MMWD is faced with higher prices for everything from electricity, to water treatment chemicals, to wholesale water purchases. We are not alone; utility costs are increasing across California and the country. As costs rise, our rates must rise to recover the cost of providing this vital service.

The proposed rate changes include two main components:

- An increase to the water use and fixed charges on your bimonthly water bill, **averaging a 4% annual revenue increase**, to keep pace with inflation and fund MMWD's ongoing operations and maintenance.
- A new Capital Maintenance Fee (CMF) to fund investments in critical water system projects for clean, reliable water; projects to reduce wildfire risk on Mt. Tam; and may be used to fund debt service on existing and future capital projects.

MMWD is notifying record owners of property subject to the proposed increase and water customers of the proposed changes. This notice explains the proposed rate changes in more detail and provides examples of how they may affect customers. It also includes information on how you can participate in the process. Learn more at: **marinwater.org/rates**

MMWD by the Numbers

MMWD maintains a complex system to capture, store, treat and deliver water to customers' homes and businesses, 24/7/365.

7
reservoirs

3
water treatment plants

128
storage tanks

97
pump stations

900+
miles of pipeline

21,600
acres of watershed land

950
acres of wildfire fuel reduction

1¢
Cost of one gallon of MMWD water delivered to your tap

Proposed Increases to Water Service Rates, Fees & Charges

The proposed rate adjustments include increasing the fixed Service Charge, fixed Watershed Management Fee, fixed Private Fire Line Service Charge and the Tiered Rate Charges for all customer classes. The proposed rates, fees and charges effective July 1, 2019, 2020, 2021 and 2022 vary by customer class (see rate tables for details) but result in overall annual 4% revenue increases and are necessary for the District to keep pace with inflation.

Proposed Capital Maintenance Fee

MMWD also is proposing a new Capital Maintenance Fee (CMF). The CMF is a per meter charge based on meter size. It may be collected on customer property tax bills, similar to the District's current Fire Flow Fee, or placed on the bimonthly customer water bill. Funds raised through the CMF will go directly to the District's Capital Improvement Program (CIP), which is dedicated to maintaining, upgrading, rehabilitating and building resiliency into our existing and aging assets. A portion of the CMF will be dedicated to fund fire reduction efforts on our watershed.

The CMF will support our 10-year capital improvement plan (which may change as the District's Asset Management Program gears up), pay for needed capital improvements without escalating debt for normal maintenance, stabilize monthly rates, and save millions of dollars in interest and fees for ratepayers. The CMF may also be used for existing and future debt service payments, for example in times of emergency. The CMF will be effective July 1, 2019. Each July 1 thereafter through and including July 1, 2024, the CMF may automatically be increased or decreased to keep pace with inflation. The annual increases/decreases will be benchmarked to the industry standard Engineering News-Record (ENR) Construction Cost Index. Increases will be capped at 4% annually. The CMF will not apply to dedicated private fire service lines.

$20 million: *Constructed in the late 1950s, the San Geronimo Water Treatment Plant is one of MMWD's three treatment plants. Over the next 10 years, MMWD plans to invest $20 million in seismic and other upgrades to our plants to extend the lifespan and improve the reliability of our water treatment operations.*

MMWD has established a Citizen Advisory Panel on Infrastructure Investments to offer input on the CIP regarding investment priorities. The Panel will also review annual expenditures and provide the MMWD Board and management with additional feedback on annual infrastructure funding needs.

Reason for the Proposed Changes

MMWD is committed to providing high-quality, reliable water service at the lowest possible rates for our customers, while protecting the water resources and public health and safety of our community. As the oldest municipal water district in California, it is critically important that we continually re-invest in our built assets and keep pace with inflation and other cost increases. MMWD also is equally committed to protecting the Mt. Tamalpais Watershed—the primary source of our water—including managing wildfire risk on District lands.

Each year the District evaluates its infrastructure needs, programs, and operations and maintenance costs for the ensuing fiscal year. The District hired an independent rate consultant to determine how best to recover projected operating and maintenance costs over a five-year period and projected capital and wildfire management costs over a 10-year period. Based on this evaluation, the District has determined that rate increases are necessary to: recover current and projected costs of operations and maintenance, including increases in purchased wholesale water; fund capital infrastructure improvements needed to provide safe and reliable drinking water; maintain the operational and financial stability of the district; manage wildfire risk on our watershed lands; and avoid operational deficits and depletion of financial reserves. The proposed increases will allow us to recover our costs and to continue to provide safe, reliable drinking water to our customers, avoid budget deficits, and continue to invest in our infrastructure and maintain our high service levels.

Basis Upon Which Water Service Rates, Fees & Charges Are Calculated

The rates of our Service Charge, Watershed Management Fee, Fire Line Service Charge, and Tier Charges are structured to proportionally allocate

$1 million per year: *The Mt. Tamalpais Watershed is our primary source of water. As the largest land manager on the mountain, MMWD is committed to reducing the risk of wildfire to protect our community. The proposed CMF will provide $1 million annually for fire/ fuels management and capital purchases of firefighting equipment.*

the cost of providing water service and are currently billed on a bimonthly basis. The District's rate structure has eight customer classes: (1) Single-Family; (2) Multi-Family; (3) Duplex; (4) Commercial; (5) Irrigation; (6) Recycled Water; (7) Institutional; and (8) Raw Water, i.e., customers who receive untreated water.

Fixed Service Charge

The fixed Service Charge is established on the basis of the size of the water meter serving a property (in inches) and is calculated to recover a significant portion of our fixed costs, such as billing and collections, customer service, meter reading, meter maintenance, and meter-related capital and infrastructure.

Watershed Management Fee

MMWD has had a Watershed Management Fee in place since 2015 to help preserve the ecological health of our watershed and downstream ecosystems. The Watershed Management Fee is a fixed charge based on the size of a water meter serving a property and is designed to recover some of the watershed maintenance and vegetation management costs.

Tiered Rates

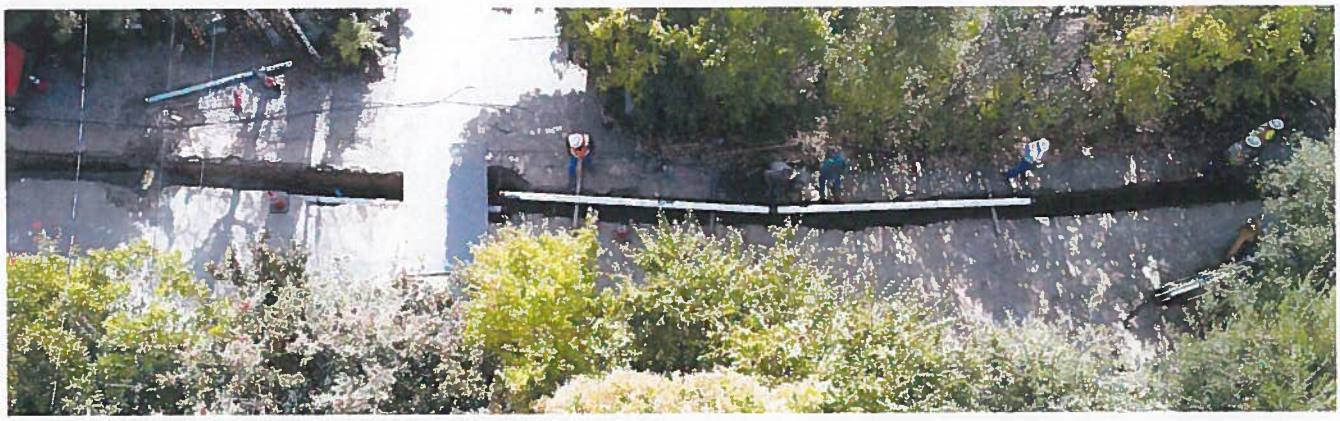
The rates for different levels of water usage are tiered and calculated to recover a portion of our fixed and variable costs of providing water service. Tier one usage is billed at the lowest rate. Additional water use is billed at higher tier rates because higher water use places greater demands on our water system and limited water resources. Depending on the customer class, the tiered rates consist of three or four tiers which increase as the customer's level of water consumption increases. One unit of water is equal to 748 gallons or one hundred cubic feet (CCF).

Residential

For Single-Family, Multi-Family, and Duplex customers, each tier consists of a defined amount of water. The amount of water allotted to each tier changes depending on when the water is used—summer (June through November) or winter (December through May).

Commercial, Irrigation and Recycled

Rates for Commercial, Irrigation and Recycled Water customers are designed differently than residential accounts. They are instead provided an allotment based on their assigned water budget. The budgets



$110 million: *MMWD maintains over 900 miles of pipeline—almost half of which are 50 years or older. Over the next 10 years, we plan to invest $110 million in capital projects to replace aging pipes, inhibit corrosion and maintain pump stations.*

are determined by the nature and type of business or institution and usage needs—for example, a restaurant requires more water than an office. The water budget is divided over the billing periods. These allocations are referred to as the account's baseline. The water use for each billing period is compared to the account's baseline for the same period and is billed accordingly. This difference in rate structure is based on the fact that non-residential water usage varies significantly from customer to customer depending on the type of use, whereas residential water usage is relatively uniform.

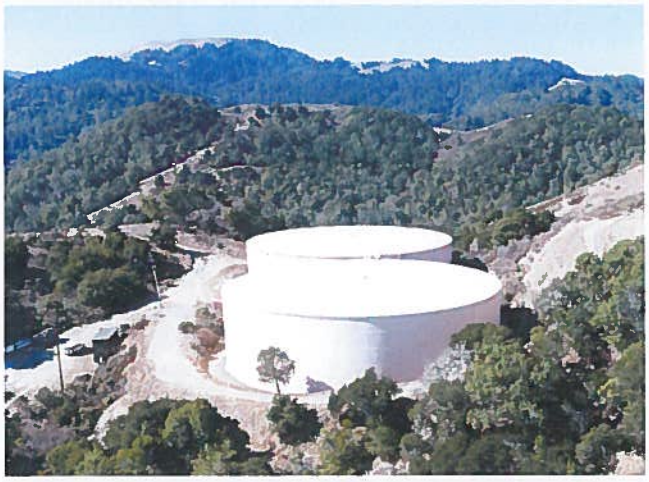
Private Fire Line Service Charge

MMWD imposes a fixed bimonthly Private Fire Line Service Charge on certain properties as a condition of extending or initiating water service (1) by the installation of a private fire suppression system, and (2) upon the request of the customer or property owner for the delivery of water to the property for the purpose of fire service protection. The rates for the bimonthly Private Fire Line Service Charge are established on the basis of the size of the fire service lateral through which water is delivered and are calculated to recover the cost of providing water to such properties for private fire service protection.

Capital Maintenance Fee

The proposed new Capital Maintenance Fee (CMF) is based on meter size. A property with a larger meter size has the capacity for significantly higher water demand as opposed to a smaller meter. In turn, the water system as a whole—including transmission and distribution lines, storage tanks and reservoirs—is required to have higher capacity to account for customers with larger meters. Calculating the CMF on meter size thus ensures that capital costs are distributed equitably among water users based on the demand they place on the system.

$30 million: *We rely on 128 water storage tanks throughout our service area to meet operational and emergency demands. Over the next 10 years, we plan to invest $30 million to maintain tanks and replace aging and deficient storage.*



Ensuring Water Delivery Requires Proactive Maintenance

Investments made by MMWD and its customers over the last 100 years have ensured the reliable delivery of safe, high-quality water. During the last decade the District invested over $200 million in our water system, including upgrading our water treatment plants, replacing over 70 miles of pipe, replacing over 30 storage tanks and rehabilitating 10 storage tanks.

Capital Maintenance Fee

$/Meter Size			
Meter Size	% of meters	Current	Annual Per Meter Charge*
5/8"	68.09%	-	$163.50
3/4"	5.62%	-	245.25
1"	21.09%	-	408.74
1.5"	3.76%	-	817.47
2"	1.07%	-	1,307.95
3"	0.26%	-	2,861.14
4"	0.07%	-	5,150.05
6"	0.03%	-	11,444.54
8"	0.01%	-	19,619.21
10"	0.00%	-	31,063.75

95% of MMWD customers have meters 1" or smaller

** With annual increases/decreases benchmarked to ENR Construction Cost Index and capped at 4% increases per year.*

The CMF does not apply to dedicated private fire service lines.

In order for this service to remain reliable, additional long-term, proactive maintenance of what we have is needed. Over the next ten years, the District will need to invest at a minimum another $233 million to maintain our drinking water system. The current 10-year capital plan includes the following:

- $36 million to maintain and protect our watershed and reservoirs
- $20 million to maintain our treatment plants
- $110 million to replace aging pipelines, inhibit corrosion and maintain pump stations
- $30 million to maintain and replace storage tanks
- $37 million to replace other aging facilities and equipment

High-Quality Water at a Reasonable Price

MMWD has worked hard to keep water rates low. This includes using reserve funds, prioritizing capital projects and implementing an asset management plan to optimize our investments, strategically managing the District's water supplies to maximize the use of the lowest cost water, reducing staff count without sacrificing service, and securing grant funding for environmental enhancement and other projects. It also includes investing in and promoting water conservation, which helps us avoid having to find and secure expensive new sources of water to meet demand.

Since 1990, MMWD's Tier 1 water rates have increased an average of 8.1¢ per CCF per year. That's in line with the average inflation rate as tracked by the Bay Area Consumer Price Index, and well below the 37.6¢ national trend for water utilities as tracked by the American Water Works Association (AWWA) National Rate Survey. Fifteen of the last 30 years at MMWD saw no rate increases.

Going forward, the proposed 4% average annual revenue increases will help us keep pace with inflation while maintaining our service levels and continuing to provide safe, clean, local water at a reasonable price.

Special Assistance Programs

MMWD offers two discount rate programs for single-family residential customers who qualify: The Service Charge Waiver Program for Low-Income Customers and the Medical Disability Discount. Both programs waive the Fixed Service Charge and the Watershed Management Fee. The Medical Disability Discount also provides an additional 12 CCFs at the Tier 1 rate. Learn more at: **marinwater.org/discounts**

Super Water Saver Program

Beginning July 1, MMWD's new Super Water Saver Program will reward the top 5% of water-conserving, single-family residential customers who meet program qualifications. Super Water Savers will receive an $8 credit on their bimonthly bill. Learn more at: **marinwater.org/rates**

How to Learn More About the Proposed Rate Increases

Community Workshops

To provide additional information about the proposed increases, we are holding two community workshops. Join us!

Thursday, April 25, 2019
5:00 - 8:00 p.m.
Mill Valley Community Center
180 Camino Alto, Mill Valley, CA 94941

Wednesday, May 15, 2019
5:00 - 8:00 p.m.
Albert J. Boro Community Center
50 Canal Street, San Rafael, CA 94901

Contact Us

If you have questions, please call our Customer Service Department at 415-945-1400 or visit:

marinwater.org/rates

How will the proposed changes affect single-family residential customers?

MMWD's average single-family residential customer uses about 17 CCFs (12,716 gallons) of water per two-month billing cycle. 74% of our single-family residential customers have a 5/8" size meter. This chart shows the estimated impact of the rate proposal on a typical residential customer with a 5/8" meter.

To estimate the effects of the proposed rate increases based on your individual meter size, customer class and water usage, see the tables included in this notice or find a bill calculator at: **marinwater.org/rates**

For 5/8" meter size	Current Rates	Proposed July 1			
		2019	2020	2021	2022
Service Charge	$36.79	$39.66	$41.25	$42.90	$44.62
Watershed Management Fee	9.78	10.29	10.71	11.14	11.59
Tier 1 Water Usage, 17 CCFs	69.19	71.23	74.12	77.18	80.41
Total Bimonthly Bill	**115.76**	**121.18**	**126.08**	**131.22**	**136.62**
Per Month	57.88	60.59	63.04	65.61	68.31
Monthly Increase		2.71	2.45	2.57	2.70
Annual Capital Maintenance Fee*	-	**$163.50**	**$170.04**	**$176.84**	**$183.92**
Per Month	-	13.63	14.17	14.74	15.33

**Assuming maximum annual increases of 4%*

Tiered Rates & Allotments - Residential Customers

1 CCF = 100 cubic feet = 748 gallons

Single-Family Tier Rates ($/CCF) and Tier Allotments (in CCF)

Tiers	Summer CCFs	Winter CCFs	Current	Proposed July 1			
				2019	2020	2021	2022
Tier 1	0-26	0-21	$4.07	$4.19	$4.36	$4.54	$4.73
Tier 2	27-59	22-48	7.13	7.26	7.56	7.87	8.19
Tier 3	60-99	49-80	12.07	12.25	12.74	13.25	13.78
Tier 4	100+	81+	19.45	19.68	20.47	21.29	22.15

Duplex Tier Rates ($/CCF) and Tier Allotments (in CCF)

Tiers	Summer CCFs	Winter CCFs	Current	Proposed July 1			
				2019	2020	2021	2022
Tier 1	0-20	0-18	$4.10	$4.22	$4.39	$4.57	$4.76
Tier 2	21-45	19-35	7.24	7.38	7.68	7.99	8.31
Tier 3	46-78	36-68	12.02	12.19	12.68	13.19	13.72
Tier 4	79+	69+	18.90	19.13	19.90	20.70	21.53

Multi-Family Tier Rates ($/CCF) and Tier Allotments (in CCF)

Tiers	Summer CCFs	Winter CCFs	Current	Proposed July 1			
				2019	2020	2021	2022
Tier 1	0-10	0-10	$4.16	$4.27	$4.45	$4.63	$4.82
Tier 2	11-20	11-18	7.07	7.20	7.49	7.79	8.11
Tier 3	21-28	19-26	11.25	11.41	11.87	12.35	12.85
Tier 4	29+	27+	18.94	19.16	19.93	20.73	21.56

Tiered Rates & Allotments - Commercial, Irrigation, Recycled and Raw Water Customers

Commercial, Irrigation & Institutional Tier Rates ($/CCF) and Tier Allotments

Tiers	% of baseline	Current	Proposed July 1			
			2019	2020	2021	2022
Tier 1	0-85	$3.98	$4.09	$4.26	$4.44	$4.62
Tier 2	86-150	10.82	10.99	11.43	11.89	12.37
Tier 3	150+	16.26	16.46	17.12	17.81	18.53

Single-Family Irrigation Tier Rates ($/CCF) and Tier Allotments

Tiers	% of baseline	Current	Proposed July 1			
			2019	2020	2021	2022
Tier 1	0-50	$5.14	$5.27	$5.49	$5.71	$5.94
Tier 2	51-100	6.15	6.29	6.55	6.82	7.10
Tier 3	100+	10.76	10.94	11.38	11.84	12.32

Recycled Water Tier Rates ($/CCF) and Tier Allotments

Tiers	% of baseline	Current	Proposed July 1			
			2019	2020	2021	2022
Tier 1	0-100	$3.17	$3.27	$3.41	$3.55	$3.70
Tier 2	101-150	10.05	10.20	10.61	11.04	11.49
Tier 3	150+	18.73	18.94	19.70	20.49	21.31

Raw Water Rates ($/CCF)

	Current	Proposed July 1			
		2019	2020	2021	2022
All Uses	$4.23	$3.82	$3.98	$4.14	$4.31

Your Water Rates, Charges & Fees Pay for:

- *Clean water delivered to your tap 24/7/365*
- *Water storage, treatment and distribution*
- *Critical infrastructure projects to ensure a reliable and resilient water supply for the future*
- *Protecting the health of 21,600 acres of watershed land*
- *Ongoing work to reduce the risk of wildfire on Mt. Tam and to our community*
- *Round-the-clock operations and emergency response*
- *Excellent customer service*
- *Water conservation programs and rebates*
- *Free school programs, volunteer events and other community engagement opportunities*

Fixed Charges & Fees - All Customers

95% of MMWD customers have meters 1" or smaller

Bimonthly Service Charge ($/Meter Size)

Meter Size	Current	Proposed July 1			
		2019	2020	2021	2022
5/8"	$36.79	$39.66	$41.25	$42.90	$44.62
3/4"	46.62	50.74	52.77	54.89	57.09
1"	66.28	72.89	75.81	78.85	82.01
1.5"	115.43	128.27	133.41	138.75	144.30
2"	174.41	194.72	202.51	210.62	219.05
3"	361.18	405.17	421.38	438.24	455.77
4"	636.42	715.30	743.92	773.68	804.63
6"	1,393.33	1,568.15	1,630.88	1,696.12	1,763.97
8"	2,376.33	2,675.75	2,782.78	2,894.10	3,009.87
10"	3,752.53	4,226.39	4,395.45	4,571.27	4,754.13

Bimonthly Watershed Management Fee ($/Meter Size)

Meter Size	Current	Proposed July 1			
		2019	2020	2021	2022
5/8"	$9.78	$10.29	$10.71	$11.14	$11.59
3/4"	11.69	12.30	12.80	13.32	13.86
1"	15.50	16.30	16.96	17.64	18.35
1.5"	25.02	26.31	27.37	28.47	29.61
2"	36.45	38.32	39.86	41.46	43.12
3"	72.65	76.36	79.42	82.60	85.91
4"	125.99	132.42	137.72	143.23	148.96
6"	272.67	286.57	298.04	309.97	322.37
8"	463.17	486.77	506.25	526.50	547.56
10"	729.87	767.05	797.74	829.65	862.84

Fixed Charges - Private Fire Service Line

Fire Service Line Fixed Bimonthly Charge - Private

Line Size	Current	Proposed July 1			
		2019	2020	2021	2022
2"	$32.17	$36.06	$37.51	$39.02	$40.59
4"	76.35	90.57	94.20	97.97	101.89
6"	148.73	179.85	187.05	194.54	202.33
8"	242.73	295.81	307.65	319.96	332.76
10"	374.33	458.16	476.49	495.55	515.38

Find a bill calculator at: marinwater.org/rates

Exhibit "7"

MARIN MUNICIPAL WATER DISTRICT
ORDINANCE NO. 442

AN ORDINANCE AMENDING AND ADDING CERTAIN PROVISIONS OF TITLE 6, CHAPTER 6.01 OF THE MARIN MUNICIPAL WATER DISTRICT CODE, ENTITLED "WATER RATES AND CHARGES". THIS ORDINANCE IS ENACTED PURSUANT TO WATER CODE SECTION 375.

BE IT ORDAINED BY THE BOARD OF DIRECTORS OF THE MARIN MUNICIPAL WATER DISTRICT AS FOLLOWS:

SECTION 1. Purpose: The purpose of this ordinance is to enact changes to the rate structure, effective July 1, 2019, July 1, 2020, July 1, 2021, July 1, 2022, and July 1, 2023 which include: (1) an increase to the Bi-Monthly Fixed Service Charge, Fixed Watershed Management Fee and Fixed Private Fire Service Line Charges; (2) implementation of the Capital Maintenance Fee that will automatically increase or decrease according to the change in the Engineering News-Record Construction Cost Index and will not exceed 4% per annum; (3) adjustments to the Tier Rates for all customer classes; (4) changes to the Low Income Discount Program that enhance the availability of the program; and (5) the adoption of another element of the District's water conservation program pursuant to Water Code Section 375 by the creation of a Super Water Saver Program

SECTION 2. Section 6.01.020 of the Marin Municipal Water District Code entitled "Service charge" is amended to read as follows:

6.01.020 Service Charge. All consumers on metered service, and all consumers with off-meter services utilizing an alternate water supply but wishing to maintain a service commitment from the District, shall pay a bi-monthly service charge based upon the size of the meter serving the property to cover a portion of the District's operational costs. Except for service charges for private fire service lines, which are specified in Section 6.01.050, and service charges for hydrant meters, which are specified in Section 6.01.030, the bi-monthly rates and effective dates of the service charge are as follows:

Bi-monthly Service Charge ($/Meter Size)

Meter Size	*Effective 7/1/2019*	*Effective 7/1/2020*	*Effective 7/1/2021*	*Effective 7/1/2022*
5/8"	$39.66	$41.25	$42.90	$44.62
3/4"	50.74	52.77	54.89	57.09
1"	72.89	75.81	78.85	82.01
1-1/2"	128.27	133.41	138.75	144.30
2"	194.72	202.51	210.62	219.05
3"	405.17	421.38	438.24	455.77
4"	715.30	743.92	773.68	804.63
6"	1,568.15	1,630.88	1,696.12	1,763.97
8"	2,675.75	2,782.78	2,894.10	3,009.87
10"	4,226.39	4,395.45	4,571.27	4,754.13

All single-family residences with a meter larger than one-inch required due to private fire suppression systems, and/or due to low system pressure will be charged the one-inch meter rate.

Notwithstanding the above, consumers with properties where use of reclaimed water requires a water meter in addition to the meter required to provide potable water service to the same user shall be exempt from the service charge for the reclaimed water meter.

SECTION 3. Section 6.01.021 entitled "Watershed Management Fee" is amended to read as follows:

6.01.021 Watershed Management Fee. All consumers for Billing Codes 1 through 19, shall pay a bi-monthly Watershed Management Fee based upon the size of the meter serving the property to cover a portion of the District's watershed maintenance and operational costs. The bi-monthly rates and effective dates of the Watershed Management Fee are as follows:

Bi-monthly Watershed Management Fee ($/Meter Size)

Meter Size	*Effective 7/1/2019*	*Effective 7/1/2020*	*Effective 7/1/2021*	*Effective 7/1/2022*
5/8"	$10.29	$10.71	$11.14	$11.59
3/4"	12.30	12.80	13.32	13.86
1"	16.30	16.96	17.64	18.35
1-1/2"	26.31	27.37	28.47	29.61
2"	38.32	39.86	41.46	43.12
3"	76.36	79.42	82.60	85.91
4"	132.42	137.72	143.23	148.96
6"	286.57	298.04	309.97	322.37
8"	486.77	506.25	526.50	547.56
10"	767.05	797.74	829.65	862.84

SECTION 4. Section 6.01.023 entitled "Capital Maintenance Fee" is added to Chapter 6.01 to read as follows:

6.01.023 Capital Maintenance Fee. All consumers for Billing Codes 1 through 19, shall pay a Capital Maintenance Fee for each meter serving the property, based upon the size of the meter(s) serving the property, to cover a portion of the District's capital improvement program. The Capital Maintenance Fee shall be used to fund the District's capital improvement plan and may also be used to fund existing and future debt service payments.

(a) **Effective Date and Base Rate**: The Capital Maintenance Fee shall be effective July 1, 2019. The Capital Maintenance Fee Base Rate shall be as follows:

Capital Maintenance Fee
($/Meter Size)

Meter Size	*2019 Base Rate Amount*
5/8"	$163.50
3/4"	245.25
1"	408.74
1-1/2"	817.47
2"	1,307.95
3"	2,861.14
4"	5,150.05
6"	11,444.54
8"	19,619.21
10"	31,063.75

(b) **Annual Adjustment of the Capital Maintenance Fee:**

1. Beginning July 1, 2020, and each July 1, thereafter through and including July 1, 2023, the Capital Maintenance Fee Base amount will be increased or decreased according to the annual percentage change in the Engineering News-Record Construction Cost Index for the San Francisco area from December for the second prior calendar year to December for the calendar year (ENR-Index) preceding the adjustment. Annual increases in the Capital Maintenance Fee Base Rate shall not exceed four percent.

2. The formulas for adjusting the Capital Maintenance Fee Base Rate shall be as follows:

    a. For July 1, 2020: 2019 Base Rate multiplied by one plus the increase (not to exceed four percent) or decrease in the ENR-Index equals the 2020 Base Rate.

    b. For July 1, 2021: 2020 Base Rate multiplied by one plus the increase (not to exceed four percent) or decrease in the ENR-Index equals the 2021 Base Rate.

    c. For July 1, 2022: 2021 Base Rate multiplied by one plus the increase (not to exceed four percent) or decrease in the ENR-Index equals the 2022 Base Rate.

    d. For July 1, 2023: 2022 Base Rate multiplied by one plus the increase (not to exceed four percent) or decrease in the ENR-Index equals the 2023 Base Rate.

(c) **Collection.** The Capital Maintenance Fee will be collected on the bi-monthly bill from July 2019 through June 30, 2021. One sixth of the annual Capital Maintenance Fee Base Rate will be collected over each of the six bi-monthly billing periods beginning July 1, 2019 through June 30th, 2020. One sixth of the 2020 Base Rate will be collected on the bi-monthly bill commencing

July 1, 2020 through June 30, 2021. Thereafter, the Capital Maintenance Fee Base Rate will be collected in full on the annual property tax statement. The District will bill the Capital Maintenance Fee directly for tax exempt property owners who do not receive an annual property tax bill and/or property owners who do not remit annual property taxes to Marin County for the metered property.

SECTION 5. Section 6.01.024 entitled "Capital Maintenance Fee Adjustment for Upsized Residential Meters" is added to Chapter 6.01 to read as follows:

6.01.024 Capital Maintenance Fee Adjustment for Upsized Residential Meters. The legal owner of a single-family residential property with a water meter that has been upsized for non-consumption purposes (i.e., due to private fire suppression system and/or due to low system pressure) may qualify for an adjustment to the annual Capital Maintenance Fee.

(a) Upon written request of the legal owner of a single-family property, through a District supplied completed application form that is supported by documentation that verifies that a meter was upsized for non-consumption purposes, the District will review the documentation provided by the legal owner and determine whether the documentation supports reducing the legal owner's Capital Maintenance Fee by one meter size.

(b) If the District confirms that the property's minimum meter size (absent fire suppression and low system pressure demand) is less than the property's current meter size, the Capital Maintenance Fee for the property will be reduced downward by one meter size.

(c) A written determination of whether a reduction is granted or denied shall be made at the sole discretion of the General Manager or his or her designee and shall be final as to the District but subject to judicial review under Code of Civil Procedure Section 1094.5. In making the determination, the District will take into account the minimum meter size required for the property without the fire suppression system or low pressure demand.

(d) To ensure a consumer is in compliance with this section the District may perform a water audit of any property receiving the Adjustment for Upsized Residential Meters for non-consumption purposes.

SECTION 6. Section 6.01.025 of the Marin Municipal Water District Code entitled "Tiered commodity charge" is amended to read as follows:

6.01.025 Tiered Commodity Charge. All single-family residential consumers on metered service, Billing Code 1, shall pay a bi-monthly commodity charge for water consumption on a per one hundred cubic foot (CCF) basis. The bi-monthly amount of water allotted to each tier changes depending on when the water is used: summer (June through November) or winter (December through May). The bi-monthly rates and effective dates of the commodity charge are as follows:

Commodity Charge ($/CCF) Billing Code 1

Tiers	*Summer Use (CCF)*	*Winter Use (CCF)*	*Effective 7/1/2019*	*Effective 7/ 1/2020*	*Effective 7/ 1/2021*	*Effective 7/ 1/2022*
1	*0-26*	*0-21*	$4.19	$4.36	$4.54	$4.73
2	*27-59*	*22-48*	7.26	7.56	7.87	8.19
3	*60-99*	*49-80*	12.25	12.74	13.25	13.78
4	*100+*	*81+*	19.68	20.47	21.29	22.15

All single-family residential consumers with two legal living units not required to have separate meters pursuant to Section 11.04.070, and duplexes on metered service, Billing Code 2, shall pay a bi-monthly commodity charge for water consumption on a per CCF basis. The bi-monthly amount of water allotted to each tier changes depending on when the water is used: summer (June through November) or winter (December through May). The bi-monthly rates and effective dates of the commodity charge are as follows:

Commodity Charge ($/CCF) Billing Code 2

Tiers	*Summer Use (CCF)*	*Winter Use (CCF)*	*Effective 7/1/2019*	*Effective 7/ 1/2020*	*Effective 7/ 1/2021*	*Effective 7/ 1/2022*
1	*0-20*	*0-18*	$4.22	$4.39	$4.57	$4.76
2	*21-45*	*19-35*	7.38	7.68	7.99	8.31
3	*46-78*	*36-68*	12.19	12.68	13.19	13.72
4	*79+*	*69+*	19.13	19.90	20.70	21.53

All other multiple-unit residential consumers on metered service, Billing Codes 3, 4 and 5, shall pay a bi-monthly commodity charge for water consumption on a per CCF basis for each living unit. The bi-monthly amount of water allotted to each tier changes depending on when the water is used=: summer (June through November) or winter (December through May). The bi-monthly rates and effective dates of the commodity charge are as follows:

Commodity Charge ($/CCF) Billing Codes 3, 4, 5

Tiers	*Summer Use (CCF)*	*Winter Use (CCF)*	*Effective 7/1/2019*	*Effective 7/ 1/2020*	*Effective 7/ 1/2021*	*Effective 7/ 1/2022*
1	*0-10*	*0-10*	$4.27	$4.45	$4.63	$4.82
2	*11-20*	*11-18*	7.20	7.49	7.79	8.11
3	*21-28*	*19-26*	11.41	11.87	12.35	12.85
4	*29+*	*27+*	19.16	19.93	20.73	21.56

All nonresidential consumers on metered service, Billing Codes 6, 7 and 8, shall pay a bi-monthly commodity charge for water consumption on a per CCF basis. These consumers are provided a bi-monthly allotment of water (water budget) based on their defined water needs. The

bi-monthly amount of water allotted to each tier changes depending on when the water is used: summer (June through November) or winter (December through May). The bi-monthly rates and effective dates of the commodity charge are as follows:

Commodity Charge ($/CCF) Billing Codes 6, 7, 8

Tiers	*Percentages are of water budget allotment*		*Effective 7/1/2019*	*Effective 7/1/2020*	*Effective 7/1/2021*	*Effective 7/1/2022*
	Summer Use % of baseline	*Winter Use % of baseline*				
1	*0-85%*	*0-85%*	$4.09	$4.26	$4.44	$4.62
2	*86-150%*	*86-150%*	10.99	11.43	11.89	12.37
3	*over 150%*	*over 150%*	16.46	17.12	17.81	18.53

All single-family residential irrigation consumers, on metered service, Billing Code 19, shall pay a bi-monthly commodity charge for water consumption on a per CCF basis. These consumers are provided a bi-monthly allotment of water (water budget) based on their defined water needs. The bi-monthly amount of water allotted to each tier changes depending on when the water is used: summer (June through November) or winter (December through May). The bi-monthly rates and effective dates of the commodity charge are as follows:

Commodity Charge ($/CCF) Billing Code 19

Tiers	*Percentages are of water budget allotment*		*Effective 7/1/2019*	*Effective 7/1/2020*	*Effective 7/1/2021*	*Effective 7/1/2022*
	Summer Use % of baseline	*Winter Use % of baseline*				
1	*0-50%*	*0-50%*	$5.27	$5.49	$5.71	$5.94
2	*51-100%*	*51-100%*	6.29	6.55	6.82	7.10
3	*over 100%*	*over 100%*	10.94	11.38	11.84	12.32

If a single-family residential irrigation account was not in service in the 1986-87 fiscal year, the water use allotment per billing period will be based on that of the previous consumer's use for the 1986-87 fiscal year where records for such a consumer exist. If such records are not available, and where an estimated annual consumption for the service was established by the District at the time of service application, that estimated annual consumption will be used to develop the 1986-87 fiscal year water use allotment per billing period. If none of the aforementioned information is available, the District will estimate annual consumption for the service based on the water use of other, similar customers of the District.

For purposes of this section, "winter use" shall include consumption in the months of December through May, and "summer use" shall include consumption in the remaining months. The winter use schedule shall be applied on all bills for which the meter is read during the winter period.

The summer use schedule shall be applied to all consumption on bills for which the meter is read during the summer period.

SECTION 7. Section 6.01.050 of the Marin Municipal Water District Code entitled "Fire service line charge" is amended to read as follows:

6.01.050 Fire Service Line Charge. All consumers with a private fire service line where the private fire service line is utilized exclusively for fire suppression purposes, Billing Code 0, shall pay a bi-monthly Fire Service Line Charge based upon the size of the meter or lateral serving the property. The bi-monthly rates and effective dates of the Fire Service Line Charge are as follows:

Fire Service Line Charge ($/Meter or Lateral Size) Billing Code 0

Size of Meter or Lateral	*Effective 7/1/2019*	*Effective 7/1/2020*	*Effective 7/1/2021*	*Effective 7/1/2022*
2"	*$36.06*	*$37.51*	*$39.02*	*$40.59*
4"	*90.57*	*94.20*	*97.97*	*101.89*
6"	*179.85*	*187.05*	*194.54*	*202.33*
8"	*295.81*	*307.65*	*319.96*	*332.76*
10"	*458.16*	*476.49*	*495.55*	*515.38*

In addition, all consumption for testing and/or fire suppression registered on a detector check bypass meter shall be billed at twice the water rates for Billing Code 1 specified in Section 6.01.025.

SECTION 8. Section 6.01.060 of the Marin Municipal Water District Code entitled "Metered raw water commodity charge" is amended to read as follows:

6.01.060 Metered raw water Commodity Charge. All consumers on metered raw water service, Billing Code 9, shall pay a bi-monthly commodity charge for raw water consumption on a per CCF basis. The bi-monthly rates and effective dates of the commodity charge are as follows:

Commodity Charge ($/CCF) Billing Code 9

	Effective 7/1/2019	*Effective 7/1/2020*	*Effective 7/1/2021*	*Effective 7/1/2022*
All Uses	$3.82	$3.98	$4.14	$4.31

SECTION 9. Section 6.01.070 of the Marin Municipal Water District Code entitled "Metered recycled water rate" is amended to read as follows:

6.01.070 Metered recycled water rate. All consumers on metered recycled water service, Billing Code 10, shall pay a bi-monthly commodity charge for recycled water consumption on per CCF basis. These consumers are provided a bi-monthly allotment of water (water budget) based on their defined water needs. The bi-monthly rates and effective dates of the commodity charge are as follows

Recycled Water Commodity Charge ($/CCF) Billing Code 10

Tier	*Percentages are of water budget allotment or, if one is not in place, of 1986-87 consumption*	*Effective 7/1/2019*	*Effective 7/1/2020*	*Effective 7/1/2021*	*Effective 7/1/2022*
1	*0-100%*	$3.27	$3.41	$3.55	$3.70
2	*101-150%*	10.20	10.61	11.04	11.49
3	*over 150%*	18.94	19.70	20.49	21.31

SECTION 10 Section 6.01.125 of the Marin Municipal Water District Code entitled Super Water Save Program is added to read as follows:

6.01.125 Super water saver program.

(a) A consumer may qualify for the Super Water Saver Program if they are one of the 3000 single-family residential customers with the lowest water consumption during each bi-monthly billing cycle. Qualifying customers will receive a bi-monthly credit of $8.00 on their next bi-monthly bill. To qualify for the program, the following shall be met:

(1) Account must be Single-Family Residential (Billing Code 1), primary residence, and with active service at the time of eligibility for the credit; and

(2) Customer must have water service in their name and be on service at the same address for the previous six consecutive bi-monthly invoices; and

(3) Water usage must be a minimum of 1 CCF per invoice for the previous six consecutive bi-monthly invoices and one of the 3000 single-family residential customers with the lowest water consumption during each bi-monthly billing cycle over the previous six consecutive bi-monthly invoice cycles.

(b) Qualifying Accounts;

(1) The District will evaluate customer usage each billing cycle and will apply the credit to qualifying accounts on a rolling 12-month assessment of an account's

consumption during that time.

SECTION 11. Section 6.01.150 of the Marin Municipal Water District Code entitled "Low income discount" is amended to read as follows:

6.01.150 Low income discount.
(a) A single-family residential consumer with a meter size no larger than one inch and a water service account in his or her name may qualify for a waiver of the service charge specified in Section 6.01.020 and the Watershed Management Fee in Section 6.01.021 if he/she shows proof of having installed low-volume shower heads and faucet washers and having an annual household income at or below eighty percent of the federal Department of Housing and Urban Development low income limit for Marin County.

(b) The District reserves the right to allot a total maximum dollar amount to be waived per fiscal year under the Low-Income Discount Program. The initial annual maximum amount is $300,000 and may be changed at any time by a resolution of the Board of Directors.

SECTION 12. Findings: The Board of Directors, after considering all of the information, documentation, protests and testimony presented at its May 28, 2019 meeting and all of the comments and protests lodged in relation thereto, finds as follows:

1. Water is a finite and precious resource.
2. California Constitution Article X, Section 2 and California Water Code Section 100 provide that because of conditions prevailing in the State of California (the "State"), it is the declared policy of the State that the general welfare requires that the water resources of the State shall be put to beneficial use to the fullest extent of which they are capable, the waste or unreasonable use of water shall be prevented, and the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and the public welfare.
3. Pursuant to California Water Code Section 106, it is the declared policy of the State that the use of water for domestic use is the highest use of water and that the next highest use is for irrigation.
4. California Water Code Section 375 *et seq.* authorizes water suppliers to adopt and enforce a comprehensive water conservation program and also to encourage water conservation through rate structure design. The Board finds a tiered rate structure and allocating costs according to usage encourages conservation as does having a Super Water Saver Program.
5. The District is committed to efficiently providing high quality, reliable water service at the lowest possible rates for our customers, while protecting the water resources and public health of the Marin County community. As the oldest municipal water district in California, it is critically important that the District continually reinvests in the assets it holds and keeps pace with inflation and other cost increases. Each year the District evaluates its infrastructure needs, programs, and operations and maintenance costs for the ensuing fiscal year.

6. The District hired Carollo Engineers to determine how best to recover those projected costs over a five-year period beginning July 1, 2017. Carollo created the District's May 2017 Cost of Service Analysis, which served as the basis for the District's 2017 rate increases.
7. The District hired Raftelis Financial Consultants Inc. to update Carollo's 2017 Cost of Service Analysis Study, review the District's current rate structure and revenue requirements to determine rates that are compliant with Proposition 218. Based on the 2017 Carollo Cost of Service analysis and Raftelis' 2019 MMWD Water Financial Plan and Rates, the District has determined that the rate increases effective beginning July 1, 2019 are necessary to (a) recover current and projected costs of operations and maintenance, including increases in purchased wholesale water costs,(b) fund capital infrastructure improvements needed to provide safe and reliable drinking water; (c) maintain the operational and financial stability of the District; (d) avoid operational deficits and depletion of financial reserves and (e) promote water conservation. The 2017 Carollo Cost of Service Analysis and the Raftelis 2019 Water Financial Plan and Rates (Updated 2019 COSA) serve as the basis of the District rates effective July 1, 2019, 2020, 2021, 2022 and 2023.
8. For more than 20 years the District has been primarily using bond funding for capital projects with no specific, continual, annual, budget allocation for capital projects from water revenues, otherwise known as pay-as-you-go.
9. Given the many years of bond funding of the District's capital program, the Board finds that it is time to transition to generally a pay-as-you-go approach to funding the capital program. The implementation of the Capital Maintenance Fee (CMF) which will be used to fund the District's capital program and may also be used to fund existing and future debt service payments and will enable the District to fund capital improvements through rates while saving District consumers approximately $171 million in interest payments over a 40 year period. The CMF will be increased or decreased each year according to the change in the ENR-Index and will not exceed a 4% increase in any fiscal year.
10. The new CMF will annually, directly fund $16.5 million out of $241 million in planned capital improvements over the next 10 years. It is necessary to continually invest in the District's infrastructure to reliably provide high quality water, which is essential to public health and the Marin County economy. These expenditures represent significant and necessary improvements to the District's aging infrastructure and contribute to the continued health and resiliency of the District's water system.
11. Approximately 80% of the District's costs to operate and maintain the water system are fixed, meaning the costs remain the same regardless of water sales. The proposed increases will allow the District to recover its costs and to continue to provide safe, reliable drinking water to its customers, avoid budget deficits and continue to invest in our infrastructure and maintain our high service levels.
12. At the February 28, 2019, Finance Committee meeting, the draft Updated 2019 Cost of Service Analysis (COSA) prepared by Raftelis Financial Consultants Inc. was presented which included five years of proposed increases to water service rates, fees and charges. The 2017 Carollo Cost of Service Analysis was also presented to the Finance Committee.

13. On March 19, 2019, the Board authorized issuance of the notice to be mailed to property owners and ratepayers, in accordance with article XIII D, Section (6) of the California Constitution. A total of 78,229 notices were mailed to property owners and ratepayers on April 8 & 9, 2019, informing them of the proposed water rate increases effective July 1, 2019, July 1, 2020, July 1, 2021, July 1, 2022, and July 1, 2023, the porposed implementation of a Capital Maintenance Fee that would automatically increase or decrease according to the change in the ENR-Index and the May 28, 2019 majority protest hearing on those proposed rates.
14. On April 25, 2019, District staff conducted a public workshop in Mill Valley, California on the proposed rate increases. Approximately 21 people attended the workshop. On May 15, 2019, District staff conducted a second public workshop in San Rafael, California on the proposed rate increases. Approximately 10 people attended the workshop.
15. At the submission of this ordinance **1079** valid protest letters have been received by the District (28,672 valid protests needed to constitute a majority).
16. In California, rate setting must meet the requirements of California Constitution article XIII D, Section 6 (commonly referred to as Proposition 218) which requires that the District's water rates and charges not exceed the cost of providing water service. The District's 2017 Carollo COSA and the Updated 2019 COSA are the analytical tools that identify the District's costs to provide water service, proportionately allocate those costs based on usage and impacts to the District's water system and evaluate and develop all rates and charges. The proposed rate changes, (i.e., increasing the bi-monthly fixed Service Charge, dedicated fixed Watershed Management Fee, Fixed Private Fire Service Line Charges, Tiered Rate Charges for all customer classes and implementing a new Capital Maintenance Fee) require a review of all of the District's variable Commodity Charge tier allotments and rates.
17. Based on the 2017 and Updated 2019 COSA, the District's water service rates to respective customer classes, fees and charges are structured to proportionally allocate the cost of providing water service and are billed on a bi-monthly basis. The rate structure has seven customer classes: (1) Single-Family; (2) Multi- Family; (3) Duplex; (4) Commercial; (5) Irrigation; (6) Recycled Water; and (7) Raw Water, i.e., customers who receive untreated water. The rate structure for the District's water service has four components: (1) a fixed Service Charge; (2) a variable volumetric Commodity Charge (i.e., tiered rates); (3) a fixed Watershed Management Fee and (4) a fixed Capital Maintenance Fee.
18. The Fixed Service Charge is based on the size of the water meter (in inches) serving a property and is calculated to recover a significant portion of the District's fixed costs, such as billing and collections, customer service, meter reading, meter maintenance, and meter related capital and infrastructure. Depending on the customer class, the Tier Rates consists of three or four tiers which impose higher rates per unit of water usage as the level of water consumption increases, with one unit equal to 100 cubic feet ("1CCF") or 748 gallons, and is calculated to recover a portion of the District's fixed costs and its variable costs of providing water service.
19. For Single-Family, Multi-Family, and Duplex customers, the amount of water allotted to each tier changes depending on when the water is used: summer (June through November) or winter (December through May). While residential accounts are

provided tier allotments, Commercial, Irrigation and Recycled Water, customers are provided an allotment of water ("water budget") based on their defined water needs. Raw water is billed at a flat rate per CCF. This difference in structure is appropriate because non-residential demands vary significantly from customer to customer, whereas residential demands are relatively homogenous. Customers who use more water place greater demands and burdens on the District's water system and scarce resources. The tiered rate structure is designed to recover the incremental costs incurred by the District as a result this higher usage and its impacts on the water system and sources of supply.

20. In addition to its public water supply costs, the District also has obligations to preserve the ecological health of its watershed and downstream ecosystems. The Watershed Management Fee is based on the size of a meter serving a property (in inches) and is designed to recover watershed maintenance and vegetation management costs which are water supply costs because they maintain water sources in healthy condition in compliance with law.
21. The District also imposes a bi-monthly Fire Service Line Charge as a condition of extending or initiating water service (1) by the installation of a private fire suppression system, and (2) upon the request of the customer or property owner for the delivery of water to a property for fire service protection. The rates for the bi-monthly Fire Service Line Charge are established on the basis of the size of the meter or fire service lateral through which water is delivered (in inches) and are calculated to recover the cost of providing water to such properties for private fire service protection.
22. This ordinance establishes a new fixed Capital Maintenance Fee to fund the District's Capital Improvement Program and proceeds of which is dedicated to maintaining, upgrading and rehabilitating and building resiliency into the District's existing and aging assets. A portion of the Capital Maintenance Fee will be dedicated to fund fire reduction efforts on the District's watershed. The capital costs to be funded by the Capital Maintenance Fee are for basic infrastructure improvements that are required to provide system capacity in the system. Capacity in the system is represented by the capacity of primary potable meters and therefore the capital costs will be collected based on equivalent meter units (EMUs). EMU represent the total capacity of the water system and are a measure of the demand each customer can place on the system.
23. The Capital Maintenance Fee is based on the size of the meter servicing the property. Using meter size to apportion costs is an accepted industry standard for infrastructure-related fees. Meter size represents the potential demand any one meter can generate on the system. This is important because water systems are sized based on potential demand, not current usage. Usage is variable, but potential demand is not.
24. As reflected in the Updated 2019 COSA historically, capital project costs have been recovered through the District's water rates. The District has elected to unbundle the capital costs from the water rates, which will now represent the O&M costs of the water system. The unbundling of rates will convey to users the true costs of various service components and continue to equitably pass on the costs of infrastructure needed to provide services to users.

    The capital costs to be funded are for basic infrastructure improvements that are required to provide capacity in the system. Capacity in the system is represented by the capacity of meters and therefore the capital costs will be collected bi-monthly for the

first to fiscal years and annually on the tax roll thereafter based on equivalent meter units (EMUs). EMUs represent the total capacity of the water system and are a measure of the demand each customer can place on the system.

For example, a customer with a larger meter size has the capacity for significantly higher water demand as opposed to a smaller meter. In turn, the water system as a whole – including transmission and distribution lines, storage tanks, treatment facilities, and reservoirs, etc. – is required to have higher capacity to account for customers with larger meters. Water systems are built to provide the required capacity, or the amount of water its customers are capable of demanding. Utilizing EMUs as the basis of the CMF is therefore a reasonable method of allocating capital costs.

25. Private Fire Service Lines are excluded from the Capital Maintenance Fee. Private Fire Service Lines by their very nature are used infrequently, if ever. The District's water system is sized to provide water service to customers during peak demand that occurs from on-going water usage during the hottest months of the year in August, September and October. Sizing the District's water system to meet peak day/peak hour demand is the basis of the design of the District's water system. The very infrequent, short term use in the case of Private Fire Service Lines for life safety emergencies does not materially impact the overall design of the system or the capacity needed to meet peak demand.
26. The same rationale that serves as the basis for excluding Private Service Lines, also supports the Capital Maintenance Fee Adjustment for Upsized Residential Meters. To meet peak day/peak hour demand the District's sizing of its water system during the hottest months of the year does not take into account very infrequent short term use of upsized residential meters required to be installed due to a fire suppression system or due to low system pressure.
27. Typically, 75% of the District's annual water supply comes from more than 21,000 acres of protected watershed on Mt. Tamalpais and in the grassy hills of west Marin. Rainfall from these watersheds flows into seven reservoirs and is then treated at one of the District's potable water treatment plants before being delivered to residential and commercial customers. The District has developed local surface water supplies, and implemented both conservation programs and a recycled water program, to maximize the use of local resources and increase water supply reliability. The remaining 25% of the District's annual water supply is imported from the Sonoma County Water Agency ("SCWA"), recycled water and water savings resulting from the District's water conservation program. SCWA water originates from Lake Sonoma and Lake Mendocino and is released into the Russian River.
28. Sound financial operation of the District's water system requires that the revenues it generates to be sufficient to meet the expenditures or cash obligations of the utility. The revenue needs are defined as the revenues that must be recovered through its water service rates, fees and charges to cover annual expenditures, less any offsetting non-rate revenues.
29. The monies used to cover the costs of the Low-Income Discount Program, Water Rate for People with Medical Disabilities and Super Water Saver Program shall be funded through the District's non-rate revenue collected from leases, permits, parking and watershed passes. Thus these rate discounts are not funded from rates imposed on other customer.

30. California Constitution article XIII D, Section 6 ("Article XIII D") requires that before imposing any increase of its water service fees, the District shall provide written notice (the "Notice") by mail of: (1) the proposed increases to such rates, fees, and charges to the record owner of each parcel upon which the rates and fees are proposed for imposition (2) the amount of the rates, fees, and charges proposed to be imposed on each parcel; (3) the basis upon which the rates, fees, and charges were calculated; (4) the reason for the rates, fees, and charges; and (5) the date, time, and location of a public hearing (the "Hearing") on the proposed rates, fees, and charges.
31. Pursuant to Article XIII D such Notice must be provided to the affected property owners not less than forty-five days prior to the Hearing on the proposed rates, fees and charges.
32. The District did provide such Notice to the affected property owners and customers of the proposed Water Service Charges in compliance with Article XIII D.
33. Attached hereto as Exhibit A is proof of such mailing.
34. There are 57,342 identified parcels that receive water service from the District, of which a majority would be 28,671.
35. The Hearing was held on this day, May 28, 2019.
36. At the Hearing, the District Board heard and considered all oral testimony, written materials, and written protests concerning the establishment and imposition of the proposed rate increases for the water service fees and charges, entered such written protests into the record of such Hearing and at the close of the Hearing, the District did not receive written protests against the establishment and imposition of the proposed rate increases for the water service fees and charges from a majority of the affected property owners or customers directly liable for the payment of the water service fees and charges.
37. As explained in the Notice and the District's 2017 Carollo and 2019 Updated COSA, the rate increases are to pay for water service actually provided to the property identified in the Notice and not being used for general governmental purposes.
38. The revenues from water service rates, fees, and charges do not exceed the costs required to provide such water service.
39. The revenues collected from water service fees and charges have been and will be used only to pay for the water services for which they were collected.
40. The water service rates, fees and charges are not standby charges, but are imposed for water immediately available to the property subject to the imposition of the fees and charges and are enacted under the Board's authority contained in Water Code Sections 375 and 71616.
41. The District's Updated 2019 COSA (Updated 2019 COSA) is predicated on demand projections of about 22,651 acre feet per year. In any given year, demand could fluctuate based upon a variety of factors, including but not limited to climatic conditions.
42. This project has been reviewed for compliance with the California Environmental Quality Act (CEQA) and qualifies for an exemption under Section 15061(b) (3) of the State CEQA Guidelines inasmuch as there is no possibility that implementation of the amendment to Ordinance No. 442 may have a significant effect on the environment, and therefore, is not subject to CEQA. The Board further finds and determines that the adoption of the fees and charges established by this Ordinance are exempt from the

requirements of the California Environmental Quality Act pursuant to Section 21080(b) (8) of the Public Resources Code and Section 15273(a) of the State CEQA Guidelines because they are necessary and reasonable to fund the administration, operation, maintenance and improvements of the District water system.

SECTION 13. Severability: If any section, subsection, sentence, clause, phrase, portion or part of this ordinance is for any reason held to be invalid or unconstitutional by any court of competent jurisdiction, such section shall not affect the validity of the remaining portions of this code. The Board of Directors hereby declares that it would have adopted this ordinance and each section, subsection, sentence, clause, phrase, part or portion thereof, irrespective of the fact that any one or more sections subsections, sentences, clauses, phrases, parts or portions be declared invalid or unconstitutional and, to that end, declares the provisions of this ordinance severable from one another.

SECTION 14. Effective Date: This ordinance shall take effective immediately upon its adoption, but the rates adopted by it shall take effect as provided above.

SECTION 15. Reservation of Powers: Nothing in this Ordinance shall prevent the District from exercising any of its powers under the California Water Code or other applicable law including but not limited to its power to declare a water shortage emergency or a threat of water shortage and to adopt ordinance, resolutions, rules or regulations in response thereto.

PASSED AND ADOPTED this 28th day of May 2019 by the following vote of the Board:

AYES:

NOES:

ABSENT:

_____

President, Board of Directors

ATTEST:

_____

Secretary

Exhibit "8"

MARIN MUNICIPAL WATER DISTRICT

ITEM NO. 3
MEETING DATE: June 27, 2019
MEETING: Board of Directors

STAFF REPORT

SUBJECT: Capital Maintenance Fee Payment Plan for Local Governmental Agencies : proposed Board Policy No. 52

SUBMITTED BY: Charles Duggan Jr. Administrative Services Division Manager/Treasurer
Administrative Services Division

RECOMMENDED ACTION: Approve

EXECUTIVE SUMMARY:

Local public agencies such as schools, cities, and towns often budget biannually and/or have fiscal plans stretching out for several years making unexpected new expenditures very challenging to address. To assist with implementation of the District's newly created Capital Maintenance Fee (CMF) a payment plan policy has been developed for the Board's consideration.

The District's CMF will begin July 1, 2019 and appear on an agency's bimonthly billing statement beginning in August, 2019.

The policy would allow local governmental agencies to defer a maximum of two years of initial CMF payments and then establish a payment plan not to exceed a term of five years. Interest for outstanding balances will be charged at the District's Local Agency Investment Fund (LAIF) rate plus 1%.

The District will be working with agencies in reducing future charges through meter downsizing, or through water conservation site assessment and implementation measures. It is anticipated that local public agencies will need additional time for CMF deferrals that would be warranted providing those agencies working with the District and pursuing and implementing water conservation changes. Consequently, the proposed policy would also authorize the General Manager to extend any CMF deferral period of an additional two years provided the local public agency can demonstrate they are working on efforts to downsize their meter sizing or similar efforts that may reduce the CMF fee.

STRATEGIC PLAN ALIGNMENT:

The requested action aligns with the district's Strategic Plan Goal 2 (Financial Stewardship) and Objective 1 (Ensure financial planning is sufficient to address MMWD needs and risks).

REVIEWED BY:					
	A.S.D Manager/Treasurer	X	NA		
	General Counsel	X	NA		
	General Manager	X	NA		

Attachment: No. 1: Draft Board Policy No. 52

MARIN MUNICIPAL WATER DISTRICT

BOARD POLICY

No.: 52

Date: June 27, 2019

SUBJECT: CAPITAL MAINTENANCE FEE PAYMENT PLAN FOR LOCAL GOVERNMENTAL AGENCIES

The Board of Directors, recognizing that local public agencies often have multi-year budgeting processes, is establishing a Payment Plan Program during the initial implementation phase of the Capital Maintenance Fee (CMF). The initial implementation phase of the CMF shall be from July 1, 2019 through June 30, 2021, and during that period local public agencies may request a deferral of the CMF. The General Manager shall have the authority to extend CMF deferrals up to an additional two years if the agency can demonstrate they are working on efforts to downsize their meter sizing or similar efforts that may reduce the CMF fee.

Between July 1, 2019 and June 30, 2021, requests by local governmental agencies for CMF deferrals or payment plans may be approved by the General Manager, or his/her designee, providing the following conditions are met:

1. Local public agencies request to defer payments for CMF charges, for Fiscal Years 2020 and 2021 only. Requests will be made in writing and stipulate the requested length of deferral and length of time for repayment.
2. Payments plans shall not exceed five years. An applicant may elect to make payments over a shorter time period.
3. The agency requesting a deferral shall execute a payment plan agreement with the District and commit to a repayment schedule.
4. At the end of the deferral period, an agency will then pay the total deferred amount, with interest, according to the amortization schedule established in writing in the payment plan agreement.
5. Interest will accrue and will be charged from the time the deferred payments are owed until the time all deferred amounts are paid.
6. Interest will be charged on the unpaid balance at a rate that is 1% above that which the District receives on its Local Agency Investment Fund (LAIF).
7. If payments are late by more than 10 working days the District may cancel the payment plan and bill the agency for all amounts owed on the agency's next bi-monthly bill.

Exhibit "9"

Table 2-2: Projected Water Usage

Water Usage	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Single Family Residential (ccf)						
Tier 1	4,403,423	4,403,423	4,403,423	4,403,423	4,403,423	4,403,423
Tier 2	1,102,903	1,102,903	1,102,903	1,102,903	1,102,903	1,102,903
Tier 3	297,418	297,418	297,418	297,418	297,418	297,418
Tier 4	178,955	178,955	178,955	178,955	178,955	178,955
Total	**5,982,699**	**5,982,699**	**5,982,699**	**5,982,699**	**5,982,699**	**5,982,699**
Duplex Residential (ccf)						
Tier 1	55,844	55,844	55,844	55,844	55,844	55,844
Tier 2	10,212	10,212	10,212	10,212	10,212	10,212
Tier 3	2,695	2,695	2,695	2,695	2,695	2,695
Tier 4	1,086	1,086	1,086	1,086	1,086	1,086
Total	**69,837**	**69,837**	**69,837**	**69,837**	**69,837**	**69,837**
Multi-Family Residential (ccf)						
Tier 1	958,467	958,467	958,467	958,467	958,467	958,467
Tier 2	160,887	160,887	160,887	160,887	160,887	160,887
Tier 3	23,098	23,098	23,098	23,098	23,098	23,098
Tier 4	6,198	6,198	6,198	6,198	6,198	6,198
Total	**1,148,650**	**1,148,650**	**1,148,650**	**1,148,650**	**1,148,650**	**1,148,650**
Commercial (ccf)						
Tier 1	890,178	890,178	890,178	890,178	890,178	890,178
Tier 2	140,161	140,161	140,161	140,161	140,161	140,161
Tier 3	113,953	113,953	113,953	113,953	113,953	113,953
Total	**1,144,292**	**1,144,292**	**1,144,292**	**1,144,292**	**1,144,292**	**1,144,292**
Irrigation (ccf)						
Tier 1	551,364	551,364	551,364	551,364	551,364	551,364
Tier 2	75,890	75,890	75,890	75,890	75,890	75,890
Tier 3	86,182	86,182	86,182	86,182	86,182	86,182
Total	**713,436**	**713,436**	**713,436**	**713,436**	**713,436**	**713,436**
Single Family Irrigation (ccf)						
Tier 1	2,942	2,942	2,942	2,942	2,942	2,942
Tier 2	1,786	1,786	1,786	1,786	1,786	1,786
Tier 3	3,388	3,388	3,388	3,388	3,388	3,388
Total	**8,116**	**8,116**	**8,116**	**8,116**	**8,116**	**8,116**
Institutional (ccf)						
Tier 1	586,113	586,113	586,113	586,113	586,113	586,113
Tier 2	16,537	16,537	16,537	16,537	16,537	16,537
Tier 3	3,940	3,940	3,940	3,940	3,940	3,940
Total	**606,590**	**606,590**	**606,590**	**606,590**	**606,590**	**606,590**
Recycled Water (ccf)						
Tier 1	150,835	150,835	150,835	150,835	150,835	150,835
Tier 2	14,301	14,301	14,301	14,301	14,301	14,301
Tier 3	28,087	28,087	28,087	28,087	28,087	28,087
Total	**193,223**	**193,223**	**193,223**	**193,223**	**193,223**	**193,223**
Raw Water (ccf)	**70,000**	**72,000**	**72,000**	**72,000**	**72,000**	**72,000**
Total - Usage (ccf)	**9,936,843**	**9,938,843**	**9,938,843**	**9,938,843**	**9,938,843**	**9,938,843**
Total - Potable, Recycled, Raw (AF)	**22,812**	**22,816**	**22,816**	**22,816**	**22,816**	**22,816**
Total - Potable and Recycled (AF)	**22,651**	**22,651**	**22,651**	**22,651**	**22,651**	**22,651**
Total - Recycled (AF)	**444**	**444**	**444**	**444**	**444**	**444**

Exhibit "10"

would allow MMWD to access significant new volumes of supply through expanded imports from SCWA and additional volume in storage from indirect potable reuse and watershed management. These resiliency options scored well in the reliability and project readiness criteria. The average yield from this alternative is about 13,400 AFY and the average annual cost is approximately $40.6M.

Expand Existing Programs

After the previously described alternatives were developed, the Expand Existing Programs alternative was developed to present an option without major infrastructure changes and to explore how MMWD's existing efforts could be expanded to increase its water supply incrementally. This alternative includes Enhanced Conservation (WE01), Santa Rosa Plain Conjunctive Use (ES07) and Watershed Management (EO05). These options all score well in reliability, environmental stewardship, technical complexity, public support, and project readiness because they are all expansions of practices that MMWD already has in place. The average year yield of this alternative is 1,200 AFY, with an increased dry year yield of 2,000 AFY. The total annual project cost for this alternative is approximately $10.4M.

3.1 Summary

Detailed costs and yields for each of the alternatives can be found in **Table 3-1** below.

Table 3-1: Cost, Yield, and Included Resiliency Options for Alternatives

Options to Include in Alternatives	Minimize Infrastructure	Dry Year Actions	Maximize Reuse	Maximize Resiliency	Expand Existing Programs
WE01 Enhanced Conservation	X	X		X	X
RU13 Regional IPR			X	X	
SC01 SCWA Kastania Pump Station Upgrade	X			X	
ES07 Santa Rosa Plain Conjunctive Use	X				X
WP04 Spot Market Transfer		X			
EO03 Watershed Management				X	X
Total Dry Year Yield (AFY)	***3,900***	***6,000***	***7,900***	***11,000***	***2,000***
Total Average Year Yield (AFY)	***5,300***	***1,000***	***7,900***	***13,400***	***1,200***
Capital Costs ($M)	***$5.9***	***$48.2***	***$359.3***	***$497.0***	***$133.8***
Cost of Water ($M)	***$5.0***	***$3.1***	***N/A***	***$4.3***	***$0.7***
O&M Costs ($M/Yr)	***$0.8***	***$0.8***	***$7.9***	***$8.7***	***$0.6***
Total Annual Cost ($M/Yr)	***$8.4***	***$8.6***	***$26.2***	***$40.6***	***$10.4***

Exhibit "11"

			Reliability						Technical Complexity	Environmental Stewardship	Local Control	Institutional Complexity	Public Support	Project Readiness
			Average Yield (score)	Reliability Under Futures										
	Cost ($/AFY)	Average Yield (AFY)		Uncertainty	Drought/ Climate Change	BT or SG Out	Ignacio Out	Lake WQ Issue	1 to 5	1 to 3	1 to 3	1 to 3	1 to 3	0-3
WE01 Conservation	$ 990	1,000	2	1	1	1	1	1	5	3	3	3	3	3
WE02 Residential Rainwater and Graywater Use	$ 600	60	1	1	1	1	1	1	2	3	3	2	3	2
RU01 DPR SASM	$ 2,300	1,600	2	1	3	1	1	1	2	3	3	1	1	2
RU02 DPR CMSA	$ 2,400	2,200	2	1	3	1	1	1	2	3	3	1	1	2
RU03 DPR Las Gallinas	$ 4,500	900	2	1	3	1	1	1	2	3	3	1	1	2
RU04 DPR Through Lakes SASM	$ 3,100	1,600	2	1	3	0	1	1	2	2	3	1	2	2
RU05 DPR Through Lakes CMSA	$ 2,600	2,200	2	1	3	0	1	1	2	2	3	1	2	2
RU06 DPR Through Lakes Las Gallinas	$ 5,800	900	2	1	3	0	1	1	2	2	3	1	2	2
RU07 IPR SASM	$ 3,600	1,600	2	1	3	0	1	0	3	2	3	3	2	3
RU08 IPR CMSA	$ 3,000	2,300	2	1	3	0	1	0	3	2	3	3	2	3
RU09 IPR Las Gallinas	$ 5,500	900	2	1	3	0	1	0	3	2	3	3	2	3
RU10 RW SASM	$ 3,000	100	1	1	2	1	1	1	5	3	3	3	3	3
RU11 RW CMSA	$ 2,800	200	1	1	2	1	1	1	5	3	3	3	3	3
RU12 RW RBSD	$ 6,300	30	1	1	2	1	1	1	5	3	3	3	3	3
RU13 Max IPR	$ 3,300	7,900	3	1	3	0	1	0	3	2	3	3	2	3
SC01 SCWA Kastania Pump Station	$ 1,100	4,300	3	1	2	1	0	1	5	2	2	2	2	3
SC02 SCWA Pipeline	$ 1,300	4,300	3	1	2	1	0	1	5	2	2	2	2	3
SC03 Expand SCWA/NMWD Transfer Facilities	$ 1,400	4,300	3	1	2	1	0	1	5	2	2	2	2	3
ES01 Reservoir Excavation/Dredging	$ 15,500	1,000	2	1	2	0	1	0	4	1	3	2	2	3
ES03 Raise Soulajule Dam	$ 2,100	4,000	3	1	3	0	1	1	3	1	3	1	1	2
ES04 Local GW Ross Valley	$ 2,600	400	1	0	1	1	1	1	5	3	3	3	3	1
ES05 Local GW Upper Lagunitas Watershed	$ 3,900	300	1	0	1	1	1	0	5	3	3	3	3	1
ES06 Petaluma Valley Conjunctive Use	$ 6,100	200	1	1	2	1	0	1	5	2	2	2	2	2
ES07 Santa Rosa Plain Conjunctive Use	$ 2,600	300	1	1	3	1	0	1	5	3	2	2	2	2
ES08 Expand Los Vaqueros	$ 7,200	1,400	2	1	2	1	1	1	5	1	2	1	1	2
ES09 Gravel Quarry Storage	$ 2,200	1,900	2	1	2	1	1	1	2	3	3	1	2	1
WP01 EBMUD Pipe	$ 2,500	1,700	2	1	1	1	0	1	5	1	2	2	1	3
WP02 Yuba County Transfer	$ 2,300	2,500	2	1	2	1	0	1	5	2	1	2	2	2
WP03 Humboldt County Transfer	$ 28,600	500	1	0	2	1	0	1	4	1	1	1	1	1
WP04 Spot Market Transfer	$ 3,400	1,700	2	1	3	1	1	1	5	2	2	2	1	3
WP05 North Bay Aqueduct	$ 3,000	5,000	3	1	2	1	0	1	4	1	1	2	2	2
DS01 Desal Bridge	$ 2,600	4,200	3	1	3	1	0	1	3	1	3	1	1	2
DS02 Desal RBSD	$ 2,900	4,200	3	1	3	1	1	1	3	1	3	1	1	3
DS03 Desal Ocean	$ 3,500	4,200	3	1	3	1	1	1	3	1	3	1	1	2
DS04 Regional Desal	$ 4,500	4,000	3	1	3	1	1	1	3	1	1	1	1	3
DS05 Skid Mount/Packaged System Desal	$ 3,500	1,100	2	1	3	1	1	1	3	1	3	1	1	3
EO01 Fog Capture	$ 25,000	10	1	1	1	1	1	1	1	2	3	3	2	1
EO02 Cloud Seeding	$ 7,400	200	1	1	1	0	0	0	1	1	3	3	2	3
EO03 Watershed Management	$ 24,200	200	1	1	1	1	1	1	4	3	3	3	3	3

Exhibit "12"

MMWD Water Resources Plan 2040
Resiliency Options - Draft

Resiliency Option: Emerging Option - Watershed Management (EO03)

1. Description

This option involves managing watershed lands to maximize supply availability. This would also provide fuels management benefits for wildfire mitigation. Based on a 2015 report from the Sierra Nevada Adaptive Management Project (SNAMP), it was assumed that thinning vegetation by 8% in 5% of the watersheds contributing to MMWD's water supply will result in an estimated increase in runoff of 5% for those areas. Cost determined using management action 23 in MMWD's 2016 Draft Biodiverstiy, Fire, and Fuels Integrated Plan (BFIPP). This option is an ancillary benefit to the existing fire protection program; it is assumed that this option could have a partner agency with 25% matching funds.

2. Facilities Required

None

3. Sizing and Costs

Project Element	Units	Size/Number	Units	Quantity	Facility Cost
Forest Thinning	acres	10,800			$ 132,840,000

Raw Construction Cost	$	132,840,000
Probable Capital Cost	**$**	**132,840,000**
Annualized Capital Cost (3% over 30 yrs)	$	6,777,000
Annual O&M	$	-
Total Annual Cost	**$**	**6,777,000**
MMWD Share (75%)	**$**	**5,080,000**
Yield (AFY)		210
Annual Cost per Acre-Foot	**$**	**24,200**

4. Yield and Reliability

Source: Watershed runoff

Average Year Yield (AFY): 210

Dry Year Yield (AFY): 110

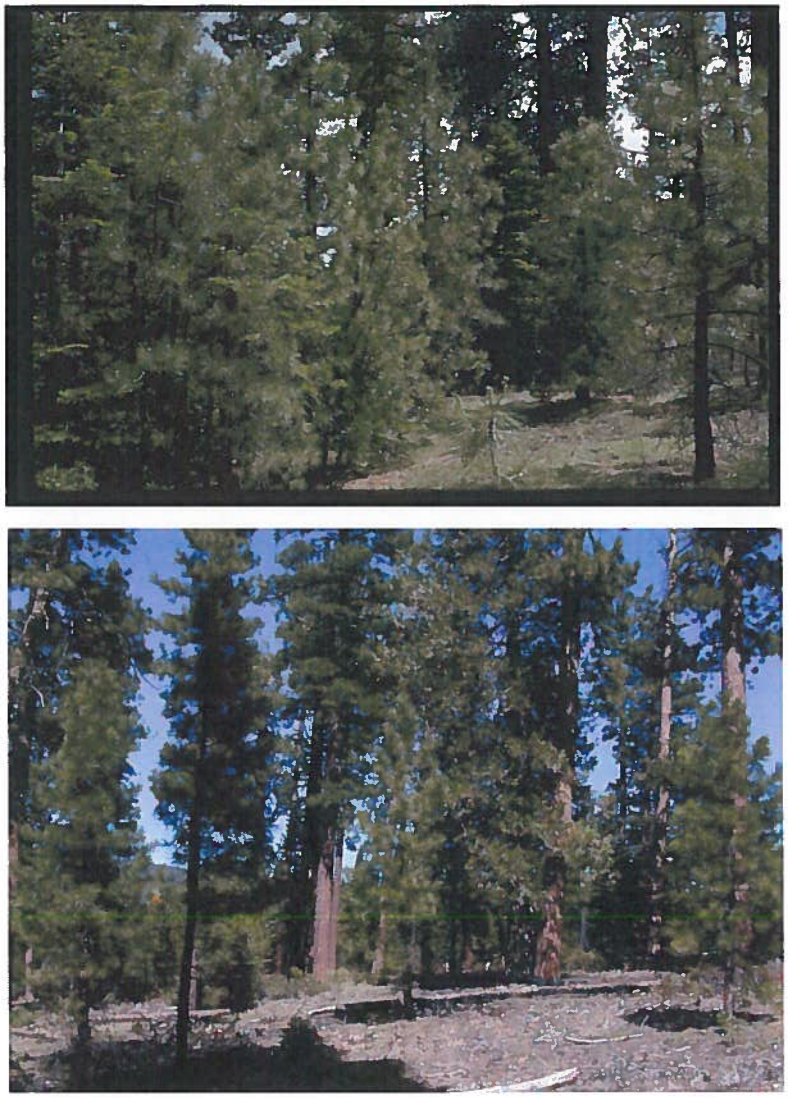
Seasonality: Annual

Potential Reliability Concerns: Reliability will be linked to quality of thinning. Poor thinning may prevent benefits of increased runoff or may induce landslides.

5. Implementation Considerations

Impementation of this option could be a coordinated effort with the district's BFFIP. Funding may be available for such projects that have both water supply and fire management benefits. It is estimated that this option could be implemented in 2 years.

6. Conceptual Map/Schematic



Source: fsl.orst.edu

Exhibit "13"

MMWD Water Resources Plan 2040
Resiliency Options - Draft

Resiliency Option: Water Use Efficiency - Enhanced Conservation (WE01)

1. Description

MMWD has committed to implementing Conservation Program A. This resiliency option would increase the level of conservation by implementing additional conservation measures and increasing the penetration rate of those measures. Option 1 involves implementing the measures under Conservation Programs B and C. These measures include:

1) Public Info & School Education - SMWSP
2) Indoor and Outdoor Surveys (CII)
3) Replace CII Inefficient Equipment
4) Efficient Toilet Replacement Project - CII
5) Urinal Rebates - CII
6) Plumber Initiated UHET and HEU Retrofit Program
7) HE Faucet Aerator/Showerhead Giveaway - CII
8) Direct Install UHET, Showerheads, Faucet Aerators - SF/MF
9) Submeters Incentives
10) Turf Removal - MF, CII

CII = Commercial, Industrial, Institutional

Option 2 includes increasing the penetration rate of select measures up to 2% of accounts. Option 3 includes increasing the penetration rate of the remaining measures. While all three options for enhanced conservation are included below, it was assumed that Marin would enhance conservation up to the 1,000 AFY in savings in Option 3.

2. Facilities Required

There are no facilities required for this supply option. However, implementing additional conservation measures will require financial investments in staff time, public outreach, and conservation measure implementation. Further, increased conservation would result in reduced revenue.

3. Costs

Average Annual Costs*

	Option 1	Option 2	Option 3**
Admin Costs	$115,000	$490,000	$580,000
Other Costs (Rebates, fixtures, etc.)	$460,000	$1,900,000	$2,300,000
TOTAL UTILITY COSTS	$575,000	$2,390,000	$2,880,000
Yield (AFY)	265	670	1,000
Annual Cost per Acre-Foot	$270	$1,080	$990

*Costs reflect those over and above the investment required for implementing Program A and represent Marin's portion of the total costs.

** Total customer costs for Option 3 above Program A are $2.6M, which is equivalent to $860/AF.

4. Yield and Reliability

Source: Potable Water
Average Year Yield (AFY): 1,000
Dry Year Yield (AFY): 1,000
Seasonality: None

Potential Reliability Concerns: Reduction levels may fluctuate given level of customer involvement

5. Implementation Considerations

As MMWD customers become more efficient in their water use, demand hardens and it becomes more difficult to further reduce demand. In addition, conservation, while effective at reducing demand, is not effective at mitigating catastrophic events. It is estimated that this option could be implemented in 1 year.

6. Conceptual Map/Schematic

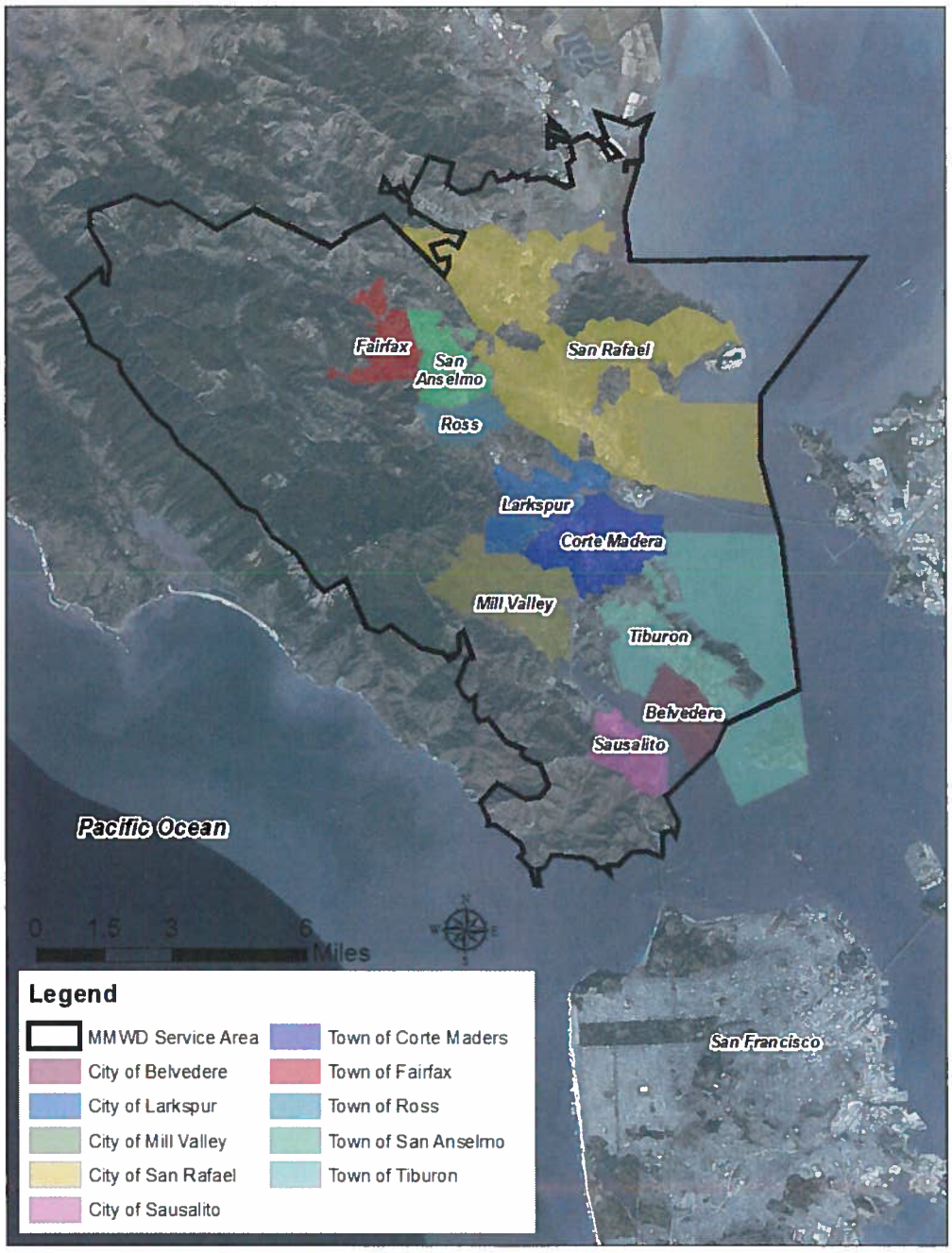


Exhibit "14"

MMWD Water Resources Plan 2040
Resiliency Options - Draft

Resiliency Option: Storage - Santa Rosa Plain Conjunctive Use (ES07)

1. Description

The DWR investigation of groundwater in the Santa Rosa Plain determined that there was about 3,900,000 AF of groundwater in storage. The basin covers an area of about 116,000 acres including the cities and communities of Rohnert Park, Sebastopol, Santa Rosa, and Windsor. This option would involve partnering with a city/agency that draws water from the Santa Rosa Plain Groundwater Basin and engage in an in-lieu transfer. Based on the below table, the Cities of Rohnert Park and Santa Rosa would be the most likely candidates for exchange.

	Wet Year	
Customer	**Groundwater Pumped (AFY)**	**SCWA Supply (AFY)**
City of Petaluma	194	9,421
City of Rohnert Park	766	3,840
City of Santa Rosa	792	20,808
City of Sonoma	80	2,111
Town of Windsor	50	404
Valley of the Moon Water District	327	2,589

For costing, it was assumed that MMWD would partner with Rohnert Park, where Rohnert Park would reduce pumping by 500 AFY in wet and normal years and take 500 AFY of MMWD SCWA supply (MMWD would pay SCWA to deliver its contracted amount of 5300 AFY + 500 AFY). In dry years (assumed to be one every 3 years), Rohnert Park would forgo 900 AF (90% recovery of 1,000 AF) of SCWA supply which would be delivered to MMWD with existing infrastructure.

2. Facilities Required

None; however additional capacity may be required depending on MMWD's allocation at the time the concept is implemented.

3. Sizing and Costs

Project Element	Units	Size/Number	Units	Quantity	Facility Cost
Cost of Water			AF	1000	$500,000

Administrative Costs for Program Initiation	$	1,000,000
Probable Capital Cost	**$**	**1,000,000**
Annualized Capital Cost (3% over 30 yrs)	$	51,000
Annual Program Administration (5%)	$	50,000
Annual Cost of Water (2 out of every 3 years)	$	330,000
Total Annual Cost	**$**	**431,000**
Yield (AFY)		300
Annual Cost per Acre-Foot	**$**	**1,400**

4. Yield and Reliability

Source:	Sonoma County Water Agency
Average Year Yield (AFY):	0
Dry Year Yield (AFY):	900 (Assumes 90% recovery rate)
Seasonality:	Annual
Potential Reliability Concerns:	Minimal. Infrastructure would be susceptible to seismic activity.

5. Implementation Considerations

Implementing this option would change the timing of when MMWD receives SCWA water, not necessarily the amount. The district could either send some of the 5,300 AFY of water it must purchase from SCWA, or purchase water in addition to that to store in the basin. Coordination with the City of Rohnert Park would be required to determine if additional wells/pumping capacity is needed for the City to pump additional groundwater. It is estimated that this option could be implemented in 2 years.

6. Conceptual Map/Schematic

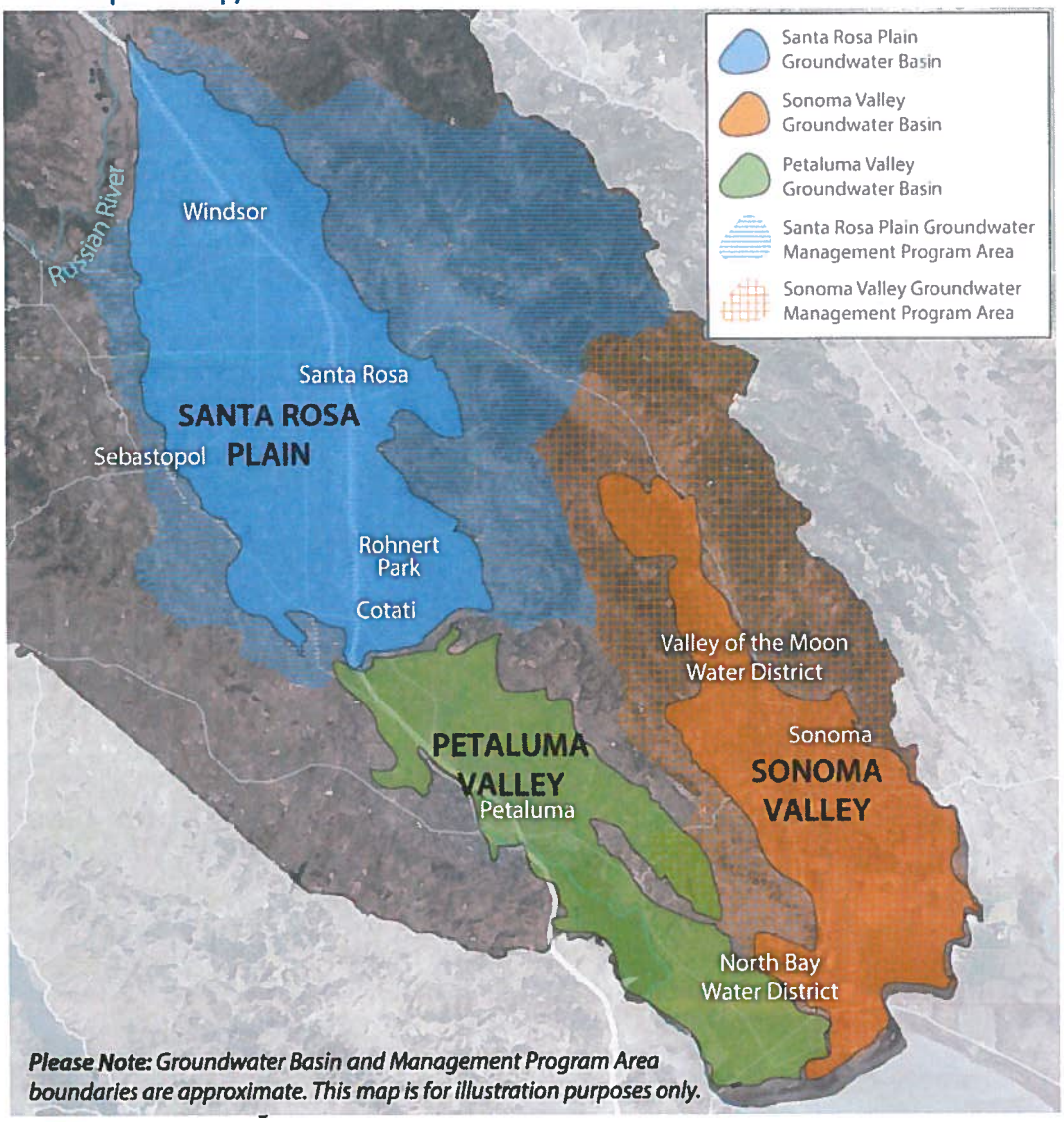


Exhibit “15”

APPENDIX C – SINGLE FAMILY WATER DEMAND FACTORS BY SERVICE AREA

Exhibit C-1 summarizes the average annual single family water use factors for each of the District's designated service areas. The averages are calculated based on annual water usage within each service area for the two-year period of 2016 and 2017, as determined by District staff.

Exhibit C-1
Marin Municipal Water District
Water Usage Factors for Single Familiy Dwellings

Service Area No.	Service Area Name	Average Annual Water Usage (AF) (1)	SF Dwelling Connection Fee ($/SFD) (2)
AREA 1 - SAN GERONIMO			
1	RAILROAD AV	0.20	$6,836
2	S.G. VALLEY DR	0.24	$8,203
3	MEADOW WY	0.26	$8,887
4	S.G. 6 TANK	0.15	$5,127
5	DRAKE & TAMAL	0.24	$8,203
6	L-7 TANK	0.21	$7,178
7	L-6 TANK	0.25	$8,545
8	L-5 TANK	0.17	$5,811
9	LAGUNITAS DR	0.16	$5,469
12	SMITH SADDLE TANK	See Area 3	
13	LAGUNITAS 2	n/a	n/a
14	BOTTINI RD REGULATOR	0.09	$3,076
51	SYLVAN WY PUMP	0.19	$6,494
52	FIR WY PUMP	0.18	$6,152
54	W-1 PRESSURE PUMP	0.25	$8,545
55	TAMARACK RD REGULATOR	0.26	$8,887
56	SG-4 TANK	0.16	$5,469
57	SG-5 REGULATOR	0.18	$6,152
58	SG-5 TANK	n/a	n/a
59	BUCKEYE PUMP	0.17	$5,811
60	MADRONE PUMP	0.18	$6,152
61	W-5 TANK	0.15	$5,127
AREA 2 - FAIRFAX			
1	FAIRFAX GATEHOUSE	0.21	$7,178
2	OAK MANOR DR	0.22	$7,520
3	FAIRFAX MANOR	0.17	$5,811
4	OLEMA RD	0.20	$6,836
5	SUMMER & FORREST AV	n/a	n/a
7	CASCADES	0.19	$6,494
8	DEER PARK	0.21	$7,178
9	HAWTHORNE HILLS	See Area 3	
10	FAWN RIDGE RD	See Area 3	
12	SMITH SADDLE TANK	See Area 3	
13	CENTER BL	See Area 3	
14	HILLSIDE AV	0.21	$7,178
51	BAY RD TANK	0.15	$5,127
52	FAIRFAX MANOR	0.20	$6,836
53	CASCADES TOP TANK	0.23	$7,861
54	SCOTT TANK	0.20	$6,836
55	OAK MANOR 1ST TANK	0.20	$6,836
56	OAK MANOR TOP TANK	0.27	$9,229
AREA 3 - SAN ANSELMO			
1	SAN FRANCISCO BL	0.21	$7,178
2	ARROYO AV	0.21	$7,178
3	FAIRFAX MANOR	See Area 2	

Exhibit C-1
Marin Municipal Water District
Water Usage Factors for Single Familiy Dwellings

Service Area No.	Service Area Name	Average Annual Water Usage (AF) (1)	SF Dwelling Connection Fee ($/SFD) (2)
4	BOLINAS AV	0.23	$7,861
5	GREENFIELD AV	0.21	$7,178
6	BALTUS CT	0.38	$12,989
7	DEER HOLLOW RD	0.29	$9,912
8	VAN WINKLE DR	0.43	$14,698
9	HAWTHORNE HILLS	0.19	$6,494
10	FAWN RIDGE	0.16	$5,469
12	SMITH SADDLE TANKS	n/a	n/a
13	CENTER BL	0.17	$5,811
14	HILLSIDE AV	See Area 2	
51	SEQUOIA TANK	0.21	$7,178
52	OAK AVENUE TANK	0.36	$12,305
53	MANN TANK	0.17	$5,811
54	FAWN DRIVE TANK	0.28	$9,570
55	DE BURGH DR REGULATOR	0.26	$8,887
56	OAK MANOR TOP	See Area 2	
57	OAK SPRINGS	0.25	$8,545
58	TIMOTHY AV REG	0.20	$6,836
60	REDWOOD RD REG	0.21	$7,178
61	WOODSIDE DR REG	0.19	$6,494
62	SUMMIT AV TANK	0.53	$18,116
63	TOMAHAWK TANK	0.30	$10,254
AREA 4 - ROSS AND KENTFIELD			
1	MAGNOLIA AV	See Area 5	
2	LAGUNITAS RD	0.50	$17,090
3	GRANTON PARK	0.35	$11,963
4	BOLINAS AV	See Area 3	
5	LAUREL GROVE AV	0.40	$13,672
6	KENT WOODLANDS GRAV	0.60	$20,508
7	KENT WOODLANDS 1ST	0.45	$15,381
8	EVERGREEN TANK	0.44	$15,039
9	CROWN RD TANK	0.39	$13,330
10	S RIDGEWOOD TANK	0.46	$15,723
11	WINSHIP PARK	0.41	$14,014
12	None	0.59	$20,166
51	WINSHIP TANK	0.35	$11,963
52	OAK AV TANK	See Area 3	
53	WINSHIP- MESA VISTA	0.62	$21,192
54	MESA VISTA-DEL MESA	0.72	$24,610
55	DEL MESA TANK	0.60	$20,508
56	GOODHILL-INDIAN FIRE TL TKS	0.54	$18,457
57	KENT FIRE TRAIL TANK	0.53	$18,116
58	KENT FIRE TL UPPER TNK	0.52	$17,774
59	UPPER RD TANK	2.03	$69,386
60	Hillside Av	0.50	$17,090
AREA 5 - CORTE MADERA AND LARKSPUR			
1	MAGNOLIA AV	0.25	$8,545

Exhibit C-1
Marin Municipal Water District
Water Usage Factors for Single Familiy Dwellings

Service Area No.	Service Area Name	Average Annual Water Usage (AF) (1)	SF Dwelling Connection Fee ($/SFD) (2)
2	LAGUNITAS RD	See Area 4	
3	MURRAY PARK	0.28	$9,570
4	DOHERTY DR	0.26	$8,887
5	MILLARD RD	0.21	$7,178
6	CRESCENT RD	0.19	$6,494
7	MEADOWSWEET DR	0.20	$6,836
8	HILLVIEW GARDENS	See Area 10	
9	CORTE MADERA 1ST TANK	0.20	$6,836
10	MADERA GARDENS	0.23	$7,861
11	CM SHOPPING CENTER	n/a	n/a
12	MADRONE WOODLANDS	0.24	$8,203
13	CHAPMAN BOOSTER PUMP	See Area 6	
14	SCOTT HIGHLANDS	See Area 6	
15	BELLE RIVE PLACE	0.27	$9,229
16	MADERA PARK TANK	0.25	$8,545
51	CORTE MADERA 2ND TANK	0.18	$6,152
52	CORTE MADERA TOP TANK	0.18	$6,152
63	MADERA PK PRESSURE SYSTM	0.23	$7,861
AREA 6 - MILL VALLEY			
2	MILL VALLEY FIRE DEPT	0.23	$7,861
3	CASCADE RESERVOIR	0.28	$9,570
4	BOLSA TANK	0.27	$9,229
5	SYCAMORE TANK	0.21	$7,178
6	CAMINO ALTO	n/a	n/a
7	ALMONTE BL	See Area 7	
8	SABELLAS RESTAURANT	0.11	$2,365
9	LOMITA DR	0.22	$7,520
10	SML LOWER TANK	0.25	$8,545
11	SML UPPER TANK	0.25	$8,545
12	LAVERNE AV	0.24	$8,203
13	CHAPMAN BOOSTER	0.32	$10,938
14	SCOTT HIGHLANDS*	0.35	$11,963
15	ALTA VISTA AV	1.12	$38,282
20	STRAWBERRY DR	See area 9	
21	SHELTER RIDGE	0.11	$3,760
22	SHELTER RIDGE SOUTH	See Area 21	
23	ELINOR AV TANK	0.28	$9,570
51	SUMMIT TOP TANKS	0.29	$9,912
52	SLIDE GULCH TANKS	0.38	$12,989
53	MINE RIDGE TANKS	0.20	$6,836
54	KINGS WAY REGULATOR	0.15	$5,127
55	CAMP TAM 3" REGULATOR	0.17	$5,811
56	CAMP TAM 1" REG	0.13	$4,443
57	FERN CANYON	0.23	$7,861
58	MARIN TERRACE TANKS	0.21	$7,178
59	EDGEWOOD TANK	0.24	$8,203
60	THROCKMORTON BOOSTER	0.21	$7,178
61	LAPACHET TANK	0.24	$8,203

Exhibit C-1
Marin Municipal Water District
Water Usage Factors for Single Familiy Dwellings

Service Area No.	Service Area Name	Average Annual Water Usage (AF) (1)	SF Dwelling Connection Fee ($/SFD) (2)
62	FAIRVIEW PARK	0.19	$6,494
63	SHELTER RIDGE PRESS SYS	See Area 21	
AREA 7 - TAMALPAIS VALLEY			
1	MARIN AV - SHORELINE HY	0.21	$7,178
3	MARIN CITY GRAV	See Area 8	
5	SYCAMORE AV	See Area 6	
6	CAMINO ALTO	See Area 6	
7	ALMONTE BL	0.20	$6,836
9	COUNTYVIEW DR	0.18	$6,152
51	TAM WOODS 1ST TANK	0.19	$6,494
52	TAM WOODS TOP TANK	0.20	$6,836
58	MARIN TERRACE TANKS	See Area 6	
59	COUNTYVIEW TANK	0.16	$5,469
60	MARINVIEW 3-A	0.17	$8,881
61	LAGUNA/	0.23	$7,861
AREA 8 - SAUSALITO			
1	SAUSALITO 1ST LIFT TANK	0.14	$4,785
2	MARINSHIP	0.13	$4,443
3	MARIN CITY	0.15	$5,127
7	ALMONTE BL	See Area 7	
8	MARINA VISTA GRAVITY	0.30	$10,254
51	MONTE MAR VISTA TANK	0.21	$7,178
52	ROMER TANK	0.21	$7,178
53	SPENCER AV REGULATOR	0.34	$11,621
54	CLOUD VIEW TANK	0.26	$8,887
55	BEACON HILL TANK	0.22	$7,520
56	BOULEVARD TANK	0.19	$6,494
57	MARIN CITY TANK	0.15	$5,127
58	CHANNING WY	n/a	n/a
59	MARINA VISTA HIGH LEVEL	0.18	$6,152
60	COOPER LANE REGULATOR	0.42	$14,356
61	WOLFBACK RIDGE TANKS	0.20	$6,836
AREA 9 - E CORTE MADERA, TIBURON, BELVEDERE, AND STRAWBERRY			
1	NAVAL NET DEPOT	0.40	$13,672
2	REED RANCH RD	0.40	$13,672
3	TRESTLE GLEN BL	0.28	$9,570
5	NORTH KNOLL DR	0.26	$8,887
6	BEL AIR	0.29	$9,912
7	MEADOWSWEET DR	See Area 5	
8	COMSTOCK DR	0.33	$11,279
9	WASHINGTON CT	0.28	$9,570
11	HARBOR DR	0.21	$7,178
12	GOLDEN HIND PASSAGE	0.23	$7,861
13	GRANADA DR	0.22	$7,520
14	WINWARD DR	0.27	$9,229
15	WESTWARD DR	0.27	$9,229

Exhibit C-1
Marin Municipal Water District
Water Usage Factors for Single Familiy Dwellings

Service Area No.	Service Area Name	Average Annual Water Usage (AF) (1)	SF Dwelling Connection Fee ($/SFD) (2)
16	JAMAICA DR	0.34	$11,621
17	PENINSULA DR	0.30	$10,254
18	HILARITA HOUSING	0.17	$5,811
19	MAR WEST ST	0.19	$6,494
20	STRAWBERRY DR	0.28	$9,570
21	HILARITA HOUSING	n/a	n/a
51	TIBURON TOP TANK	0.50	$17,090
52	COVE RD	0.48	$16,407
53	HILL HAVEN TANK	0.44	$15,039
54	MARINERO CIRCLE REG	0.16	$5,469
55	BELLA VISTA REG	0.27	$9,229
56	ROUND HILL RD	0.62	$21,192
57	WILKINS COURT REG	0.40	$13,672
58	SUGAR LOAF TANK	0.51	$17,432
59	SAN RAFAEL AV	0.54	$18,457
60	MARINER HIGHLANDS TANK	0.27	$9,229
61	RICHARDSON DR PRESS SYS	0.30	$10,254
62	LOS ALTOS PUMP	0.66	$22,559
63	RING MOUNTAIN	0.57	$19,483
AREA 10 - GREENBRAE			
1	LUCKY DR	0.23	$7,861
2	HUTCHINSON QUARRY	0.09	$3,076
3	SAN QUENTIN	0.16	$5,469
4	ELISEO DR	0.29	$9,912
5	LAUREL GROVE AV	See Area 4	
6	BON AIR APARTMENTS	0.18	$6,152
8	HILLVIEW GARDENS	0.31	$10,596
10	MADERA GARDENS	See Area 5	
14	E FRANCISCO BL	See Area 11	
15	GREENBRAE BOARDWALK	0.11	$3,760
52	VIA LA PAZ	0.29	$9,912
53	TIOGA LN REGULATOR	0.09	$3,076
54	VISTA GRANDE REGULATOR	0.29	$9,912
55	DEL MESA TANKS	See Area 4	
56	BRET HARTE TANK	See Area 11	
70	COURTWRIGHT TANK	See Area 11	
76	BRET HARTE TANK REG	0.36	$12,305
AREA 11 - SAN RAFAEL			
1	SUN VALLEY	0.23	$7,861
2	MOORE HILL	0.17	$5,811
3	E SAN RAFAEL ASSESS DIST	0.17	$5,811
4	DUBOIS ST	0.19	$6,494
5	GREENFIELD AV	See Area 3	
6	GRAND AV	0.26	$8,887
7	SAN RAFAEL HIGH SCHOOL	0.24	$8,203
8	PICNIC VALLEY	0.18	$6,152
9	MCNEAR TANK	See Area 12	

Exhibit C-1
Marin Municipal Water District
Water Usage Factors for Single Familiy Dwellings

Service Area No.	Service Area Name	Average Annual Water Usage (AF) (1)	SF Dwelling Connection Fee ($/SFD) (2)
10	GLENWOOD TANK	See Area 12	
11	LOS RANCHITOS TANK	See Area 13	
12	LOCH LOMOND	0.37	$12,647
13	CENTER BL	See Area 3	
14	E FRANCISCO BL	n/a	n/a
15	MAIN-MANZANITA DR	0.33	$11,279
16	HACIENDA REGULATOR	0.17	$5,811
51	SEQUOIA TANK	See Area 3	
52	FAIRHILLS 1ST LIFT	0.34	$11,621
53	WINSHIP-MESA VISTA	0.23	$7,861
54	FAIRHILLS TOP	0.34	$11,621
55	RAFAEL HIGHLANDS	0.24	$8,203
56	BRET HARTE TANK	0.30	$10,254
57	FAIRHILLS DR REGULATOR	0.39	$13,330
58	STEWART TANK	0.59	$20,166
59	CHULA VISTA	0.20	$6,836
60	OAK WOODLANDS TANK	0.26	$8,887
61	DOMINICAN HEIGHTS TANK	0.25	$8,545
62	HIND TANK	0.50	$17,090
63	BRODEA WY REGULATOR	0.19	$6,494
64	MARGARITA DR REGULATOR	0.61	$20,850
65	HIND PUMP REGULATOR	0.29	$9,912
66	SEAVIEW AV REGULATOR	0.51	$17,432
67	LOS ROBLES DR REGULATOR	0.21	$7,178
68	ESTATES CT REGULATOR	0.20	$6,836
70	COURTWRIGHT TANK	0.21	$7,178
71	ROSE ST REGULATOR	0.20	$6,836
72	ALTENA ST REGULATOR	0.26	$8,887
73	BAYSIDE ACRES TANK	0.42	$14,356
75	HIGHLAND VISTA PUMP	0.24	$8,203
76	BRET HARTE TANK REGULATOR	See Area 10	
77	NONE	n/a	n/a
AREA 12 - GLENWOOD AND MCNEAR'S POINT			
9	MCNEAR TANK	0.32	$10,938
10	GLENWOOD TANK	0.25	$8,545
15	MAIN & MANZANITA	See Area 11	
51	SAN MARINO DR	0.30	$10,254
52	LOCKWOOD DR TANK	0.25	$8,545
53	MCNEAR DR PUMP	0.27	$9,229
54	KNIGHT DR PUMP	0.32	$10,938
AREA 13 - SANTA VENETIA, LOS RANCHITOS, HAMILTON AIR FORCE BASE			
1	NORTHGATE SHOPPING CTR	See Area 14	
2	FREITAS PY REGULATOR	See Area 14	
3	TERRA LINDA - AIR BASE LINE	0.18	$6,152
4	ST VINCENT'S SCHOOL	0.13	$4,443
5	NORTHGATE INDUSTRIAL PARK	n/a	n/a
6	AIR BASE TANK	n/a	n/a

Exhibit C-1
Marin Municipal Water District
Water Usage Factors for Single Familiy Dwellings

Service Area No.	Service Area Name	Average Annual Water Usage (AF) (1)	SF Dwelling Connection Fee ($/SFD) (2)
8	SAN RAFAEL MEADOWS	0.20	$6,836
9	CIVIC CENTER	0.19	$6,494
10	SANTA VENETIA TANK	0.20	$6,836
11	LOS RANCHITOS	0.42	$14,356
12	MEADOW-MABRY REGULATORS	0.21	$7,178
13	SMITH RANCH RD	0.09	$3,076
14	NONE	n/a	n/a
15	CONTEMPO MARIN	0.15	$5,127
16	MCINNIS PARK	n/a	n/a
AREA 14 - TERRA LINDA			
1	NORTHGATE SHOPPING CTR	0.23	$7,861
2	FREITAS PY REGULATOR	n/a	n/a
3	TERRA LINDA-AIR BASE	See Area 13	
4	DEL GANADO RD	0.22	$7,520
5	TL MEADOW APTS	0.19	$6,494
6	TRELLIS DR	0.22	$7,520
7	DEER HOLLOW RD	See Area 3	
8	TERRA LINDA TANK	0.21	$7,178
9	LOS GAMOS DR	See Area 8	
10	PARK RIDGE RD	See Area 15	
11	LOS RANCHITOS	See Area 13	
12	SMITH SADDLE TANK	See Area 3	
13	QUAIL HILL	0.14	$4,785
51	ELDA DR PUMP	0.29	$9,912
54	FAWN DR TANK	See Area 3	
AREA 15 - MARINWOOD			
1	MT TENAYA DR	0.29	$9,912
2	FREITAS PY REGULATOR	See Area 14	
3	QUIETWOOD DR	0.25	$8,545
4	ST VINCENT'S SCHOOL	See Area 13	
5	TWELVEOAK HILL DR	0.25	$8,545
7	MARIN COUNTY FARM	0.23	$7,861
10	PARK RIDGE RD	0.26	$8,887
14	NONE	n/a	n/a
15	MILLER CREEK TOWNHOUSES	0.12	$4,102
16	MILLER CREEK TANK	0.27	$9,229
17	LUCAS VALLEY ESTATES	0.37	$12,647
52	SKYVIEW TERRACE	0.30	$10,254
53	SWIG TANK	0.80	$27,344

Notes:

(1) Based on the average annual water usage within each service area from 2016 and 2017, as compiled by District staff. n/a = Not Available.

(2) Single family connection fee for each dwelling unit, based on the 2018 base connection fee of $34,180 per acre-foot.

Exhibit "16"

MARIN MUNICIPAL
WATER DISTRICT

220 Nellen Avenue Corte Madera CA 94925-1169
marinwater.org

MARIN MUNICIPAL WATER DISTRICT
SCHEDULE OF RATES, FEES AND CHARGES

Effective October 25, 2018

TABLE OF CONTENTS

SECTION 1: WATER METER, SERVICE INSTALLATION, PRIVATE FIRE TAP FEES, CHARGES, AND CONNECTION FEES

1.1 Service Installations

1.1.1 Service Installations by District

Customers may request the District to install domestic water service lines. The charges for service installations by the District are as follows:

Meter Size	Fee
5/8" x ¾"	$7,040
¾"	$7,060
1"	$7,110
1-1/2"	$7,720

Prices shown above are for standard meter installations only and do not include, vaults or vault box lids. Additional costs may apply. The customer is responsible for any plumbing modifications downstream of the water meter.

1.1.2 Service Installations by Customer

The District reserves the right to decline a customer's request for service installations by the District. In the event the District declines to perform service installations, or the customers opts to hire a licensed contractor directly to perform the work. The installation shall be according to District Plans and Standard Specifications. In such cases, the District will prepare an estimate of District costs including, but not limited to, construction management, materials, inspection, administrative services, and meter setting, for the customer. In addition, the customer is responsible to pay a Performance Guarantee and provide a 2-year Maintenance Guarantee. When payment is received, a work order will be issued to District staff to begin coordination and inspection of the work. The customer is responsible to pay the total District costs for this work and the customer is responsible for obtaining an Encroachment Permit, compliance with the Permit, and all surface restoration conditions of the Permit.

1.2 Meter Installations by District

Customers may request the District to install or replace (downsize or upsize) water meters. It is the customer's responsibility to ensure that any upsizing or downsizing of the meter will not have any adverse effects to the customer's water system as it relates to water pressure, fire protection or ability to successfully serve the demand of the home or business.

The charges for meter installations by District are as follows:

Service Description	Fee
Increase from 5/8" meter to ¾" meter with no change to the water service	$290
Upgrade to 1" meter wherein the water service was previously upgraded to 1" by the District and does not require further upgrade	$2,690
Upgrade water meter and water service as part of a District pipeline replacement project:	
1" meter	$2,690
1-1/2" meter	$3,570
Kill Old Tap (Requires additional street opening)	$3,550
Reduce size of water meter, no service upgrade:	
¾" reduced to 5/8"	$203
1" reduced to 5/8"	$269
1" reduced to 3/4"	$305
1-1/2" reduced to 1"	$863
1-1/2" reduced to 3/4"	$874
1-1/2" reduced to 5/8"	$839
2" reduced to 1"	$863
2" reduced to 1-1/2", residential	$1,388
2" reduced to 1-1/2", commercial	$2,038

Prices shown above are for standard meter installations only and do not include vaults or vault box lids. Additional costs may apply and will be included in the charge to the customer. The customer is responsible for any plumbing modifications downstream of the water meter.

1.3 Meter Relocation

Customers may request the District relocate their water meters and service. The District will prepare a cost estimate for the customer. When payment is received, a work order will be issued to District staff to begin coordination and installation.

The District reserves the right to decline a customer's request for meter relocation by the District. In the event the District declines to perform the meter relocation or the customers opts to hire a licensed contractor directly to perform the work, then the installation shall be according to District Plans and Standard Specifications. In such cases, the District will prepare an estimate of District costs including, but not limited to, construction management, materials, inspection, administrative services, and meter setting, for the customer. In addition, the customer is responsible to pay a Performance Guarantee and provide a 2-year Maintenance Guarantee. When payment is received, a work order will be issued to District staff to begin

coordination and inspection of the work. The customer is responsible to pay the total District costs for this work and the customer is responsible for obtaining an Encroachment Permit, compliance with the Permit, and all surface restoration conditions of the Permit. The customer is responsible for any plumbing modifications downstream of the water meter.

1.4 Charges Related to Inspection of Single Detector Check Valves on Private Fire Tap Services

NFPA regulations require single detector check valves (SDCV) on private fire tap services to be inspected once every five years. District does not conduct these inspections. However, to facilitate the inspection, the District must turn off the valve serving the SDCV to temporarily stop the supply of water, and then turn the valve back on once the inspection is complete. Based on the result of the inspection of the SDCV, additional District services may be required. Charges for facilitating inspect of SDCV's are as follows:

Service Description	Fee
If the SDCV passes the inspection:	
a. SDCV re-buried in place	$680
b. SDCV placed in vault with adjacent District meter box	$1,150
If the SDCV fails the inspection:	
a. SDCV replaced with new buried SDCV	$1,800
b. SDCV replaced with above-ground assembly	$1,440

1.5 Connection Fees

Connection fees are one time charges the District assesses for new customers wishing to connect to the District's water system and existing customers wishing to increase usage. The fee reflects the estimated reasonable cost of capacity used to meet the demands of these customers. The connection fee recovers a fair and proportional share of the cost of the District's infrastructure investments made by existing users that provide existing water system capacity.

Connection Fee (effective 10/25/2018) = $34,180 per AF of estimated annual water demand.

SECTION 2: ADMINISTRATIVE CHARGES

2.1 Pipeline Extension Application Fees

Customer's applying for extension of District pipelines are assessed the following charges.

2.1.1 Residential Use

First Unit:	$1,620
Next 9 Units:	$60 per unit
More than 9 Units:	Estimated costs of engineering services

2.1.2 All other uses

First Unit:	$1,620
Additional Units:	Estimated costs of engineering services

2.2 Other Fees

Variance filing fee:	$560
Administrative fees:	$100/hr
Valve turn on/off (non-emergency):	$120 per field visit

Exhibit "17"

MARIN MUNICIPAL
WATER DISTRICT

220 Nellen Avenue Corte Madera CA 94925-1169
marinwater.org

MARIN MUNICIPAL WATER DISTRICT
SCHEDULE OF RATES, FEES AND CHARGES

Effective July 1, 2019

TABLE OF CONTENTS

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1-1/2"	$7,720

Prices shown above are for standard meter installations only and do not include, vaults or vault box lids or paving. A paving deposit up to $16,000 will be required and additional costs may apply on all District installations. The customer is responsible for any plumbing modifications downstream of the water meter.

1.1.2 Service Installations by Customer

The District reserves the right to decline a customer's request for service installations by the District. In the event the District declines to perform service installations, or the customers opts to hire a licensed contractor directly to perform the work. The installation shall be according to District Plans and Standard Specifications. In such cases, the District will prepare an estimate of District costs including, but not limited to, construction management, materials, inspection, administrative services, and meter setting, for the customer. In addition, the customer is responsible to pay a Performance Guarantee and provide a 2-year Maintenance Guarantee. When payment is received, a work order will be issued to District staff to begin coordination and inspection of the work. The customer is responsible to pay the total District costs for this work and the customer is responsible for obtaining an Encroachment Permit, compliance with the Permit, and all surface restoration conditions of the Permit.

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Connection Fee (effective 7/1/2019) = $34,453 per AF of estimated annual water demand.

SECTION 2: ADMINISTRATIVE CHARGES

2.1 Pipeline Extension Application Fees

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2.1.2 All other uses

First Unit:	$1,620
Additional Units:	Estimated costs of engineering services

2.2 Other Fees

Variance filing fee:	$560
Administrative fees:	$100/hr
Valve turn on/off (non-emergency):	$120 per field visit

Exhibit "18"

FROM OUR PARTNER AGENCY

MMWD REPORT: WHAT WE ARE DOING TO MANAGE WILDFIRE RISK ON MT. TAM

POSTED ON SEPTEMBER 27, 2018

Report from the Marin Municipal Water District –

The Mt. Tamalpais Watershed is the primary source of the drinking water supplied to the county by the Marin Municipal Water District (MMWD). But MMWD responsibilities on the mountain extend far beyond capturing, storing and delivering water.

As the largest public land manager on Mt. Tam, MMWD has been working for more than 20 years to reduce wildfire risk and help protect our communities. They built and permanently maintain 1,000 acres of fuel breaks, focusing on neighborhoods on the perimeter of the watershed. MMWD also coordinates with neighboring property owners to encourage them to maintain 100 feet of defensible space around their homes, including areas that cross the property boundaries into MMWD lands.

Through the Resilient Forests Project, MMWD is implementing innovative forest management techniques. This includes using light-on-the-land tracked mowers to clear dense underbrush, reducing the accumulated fuel load while also restoring the health of our forests. In 2018 alone, they invested $1 million in contract labor to help manage fuel breaks, forests and invasive weeds on the watershed – equivalent to 20 full-time positions – and expect to triple that investment over the next five years. In addition, MMWD works with PG&E to identify and remove high-risk trees along power lines within watershed lands.

They have also invested in firefighting equipment, developed training programs, and conduct regular fire response drills for all watershed rangers and maintenance staff, working closely with Marin County Fire and our local fire departments to manage fire risks and respond to emergencies. MMWD has expanded community outreach for Red Flag and other critical fire weather events through improved signage and social media alerts.

In addition to the work on Mt. Tam, since 1997 MMWD invested more than $100 million in pipeline and other infrastructure improvements though our fire flow program to help ensure our water is there when needed most. All of these efforts wouldn't be possible without customer support, as the watershed management fee and the fire flow parcel fee on property tax bills help to fund this important work.

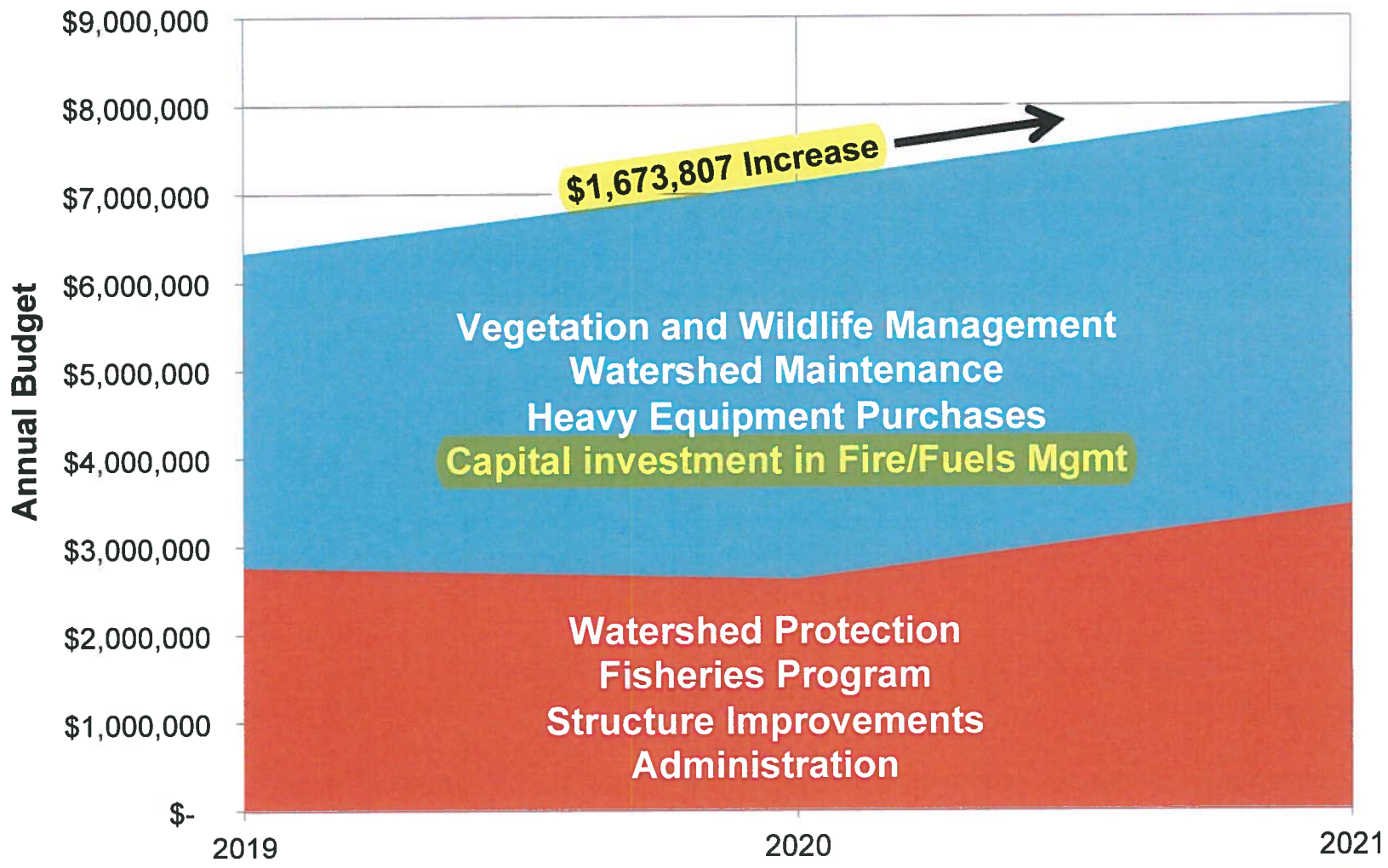
—

Editor's Note. This content represents the words and content supplied by our partner agency. As such, views expressed in this article do not necessarily reflect the opinions or policies of the Marin County Bicycle Coalition.

Exhibit "19"

MARIN MUNICIPAL WATER DISTRICT

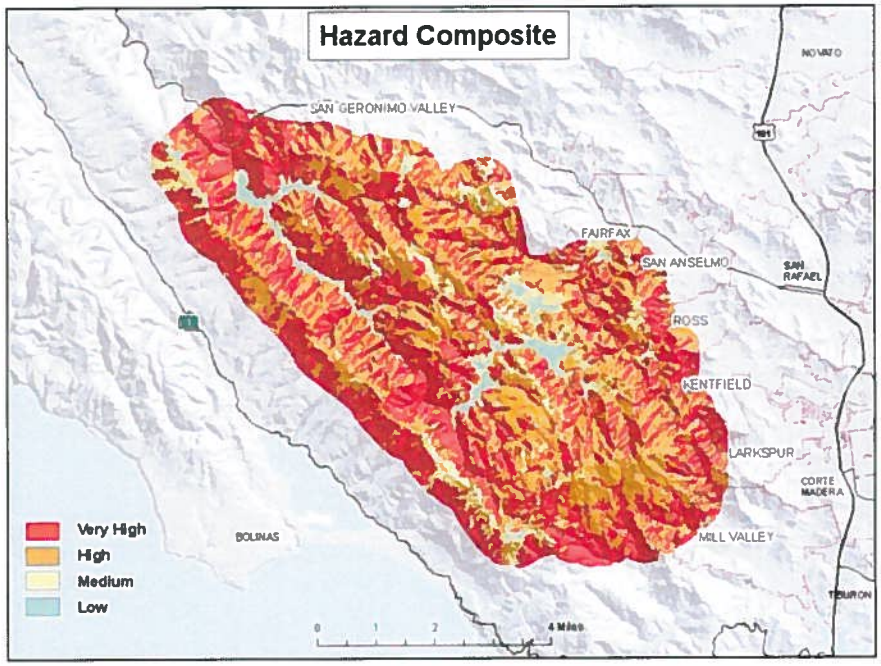
Watershed Budget Increases



MARIN MUNICIPAL WATER DISTRICT

Watershed Wildfire Risk

- Over 13,000 structures are within 1 mile of watershed and 25,000 structures within 2 miles.
- The Watershed is rated by the CPUC as a Tier 3 Fire Risk.
- The Watershed is also rated as High to Very High under CalFire's Fire Hazard Severity Zones.
- Increased Fuel Loads - due to forest diseases (Sudden Oak Death), invasive plants, encroachment of Douglas fir, and fire suppression (last major fire Mill Fire - 1945).
- Potential impacts to water supply infrastructure and water quality.

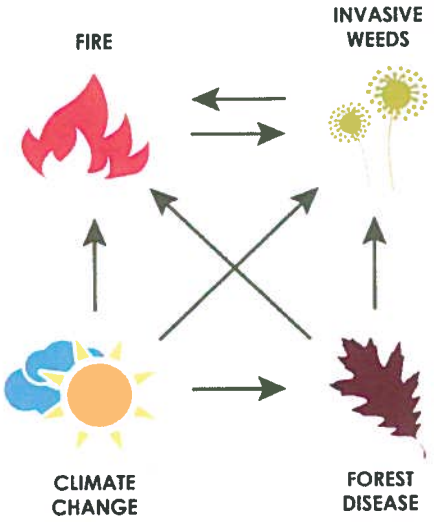


MARIN MUNICIPAL WATER DISTRICT

Fire Fuels Reduction

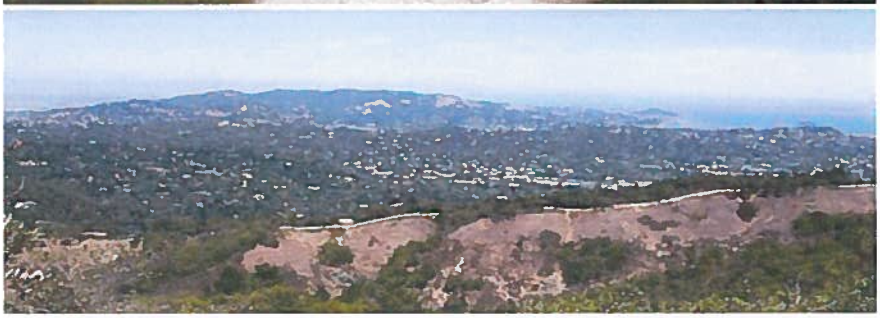
MARIN MUNICIPAL WATER DISTRICT

Approaches to Reducing Wildfire Risk



- **Maintenance and Construction of Fuel Breaks** (1000 acres) primary, secondary, wide area, and defensible space.
- **Emergency Access** (100 miles) fire road clearance and road maintenance.
- **Fire Response** wildland fire-fighting capabilities, Type 3 engine and water tanker, and MERA.
- **Vegetation Management** resilient forest project, invasive species, prescribed burns, Douglas fir thinning and the *Draft Biodiversity, Fire, and Fuels Integrated Plan* (BFFIP).
- **Agency Coordination** Marin County Fire, Office of Emergency Services, PG&E, Conservation Corps North Bay, and FireSafe Marin.

Exhibit "20"



Marin Municipal Water District

Biodiversity, Fire, and Fuels Integrated Plan

March 2019

PANORAMA
ENVIRONMENTAL, INC.
717 Market Street, Suite 650 San Francisco, CA 94103 650-373-1200 www.panoramaenv.com

ES.6 BFFIP COSTS AND ANNUAL WORK PLAN

Management action targets are established in an Annual Work Plan, which allow the District to make the greatest gains toward achieving Plan goals with limited resources.

ES.6.1 Costs

The total cost to fully implement the BFFIP is approximately $13.5 million over 5 years. The total cost is a combination of the cost to implement 5 years of inventorying, monitoring, and planning management actions ($936,300), the total 5-year cost to implement the vegetation management actions ($11,508,840), and the total initial capital cost to implement the Plan ($1,000,000) (all in 2019 dollars). When fully implemented, annual operational costs are anticipated to be 200 percent greater than current levels.

Table ES-4 summarizes the projected yearly costs of implementing the BFFIP. The costs are based upon the work to be completed in each year, presented in this Plan by management action.

Table ES-4 Yearly BFFIP Costs

Management Actions	Total Associated Cost					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Inventorying, Monitoring, and Planning Management Actions	$137,700	$107,500	$161,100	$246,400	$283,600	**$936,300**
Vegetation Management Actions	$1,773,100	$2,134,780	$2,372,480	$2,543,500	$2,778,378	**$11,508,840**
Capital Costs	$200,000	$200,000	$200,000	$200,000	$200,000	**$1,000,000**
Total	**$2,110,800**	**$2,442,280**	**$2,733,580**	**$2,989,900**	**$3,261,978**	**$13,445,140**

ES.6.2 Anticipated Outcomes After Initial 5 Years of Implementation

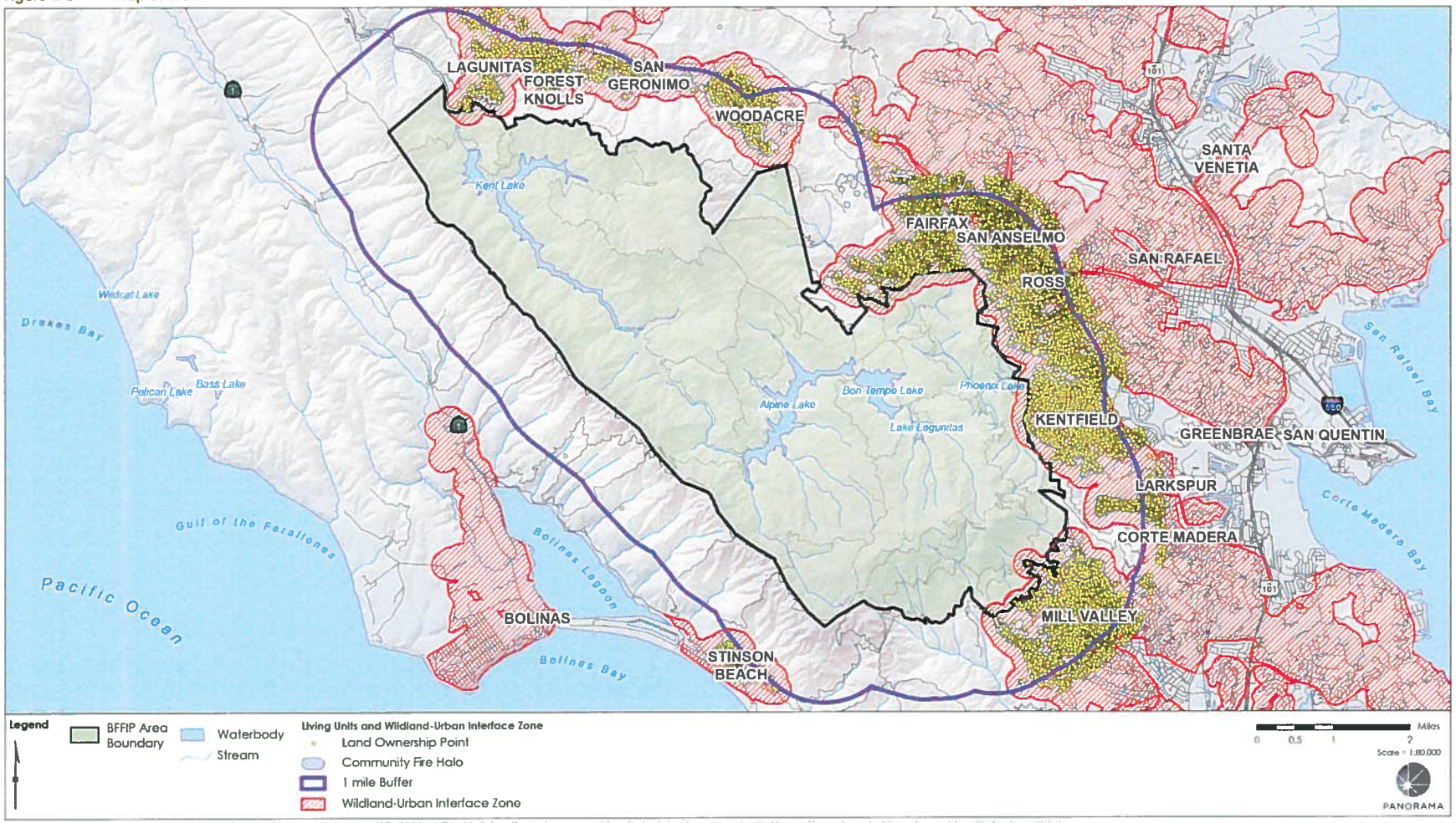
After the initial 5 years of implementing the BFFIP at the levels identified in the annual work plans, the District expects to accomplish the following:

1. Built linear fuelbreak system and defensible space will expand by 11 percent to approximately 500 acres. Total planned fuelbreak system will be 88 percent complete.
2. Cyclical fuelbreak maintenance actions (brushing and weed suppression) will increase by 33 percent to ensure design standards are maintained throughout the expanded system.
3. Early detection weed patrols will not increase but rapid response treatments of detected small weed patches will increase by 300 percent. It is anticipated this treatment will slow the rate of weed spread throughout the Mount Tamalpais Watershed.

4. Approximately 180 acres of diseased forest and oak woodland habitat will be treated to improve wildfire resiliency, reestablish desired stand structure, and enhance ecosystem function. This amount is approximately 5 percent of the anticipated need that occurs in terrain that is operationally accessible.
5. Up to 17 broadcast burns, totaling 550 acres, will be conducted in forest, oak woodland, and grassland habitats as part of multi-benefit projects designed to improve wildfire resiliency, reestablish desired stand structure, and enhance ecosystem function.
6. Douglas-fir encroachment will be managed on approximately 620 acres of oak woodlands and/or grasslands, which will yield both wildfire risk reduction and habitat improvement benefits. A portion of these acres may include repeat treatments of the same sites rather than unique projects.
7. Approximately 505 gross acres of broom in the Ecosystem Restoration Zone will be targeted for complete elimination. This amount is a 72 percent increase over the planned 2017 levels of effort. Presuming EDRR efforts are successful at containing broom to its current extent in the Ecosystem Restoration Zone, the total acres of unmanaged broom will decrease from 690 acres in 2017 to 478 acres in 5 years.
8. The level of effort exerted for yellow starthistle control will increase by 140 percent with the intent of achieving a reduction in cover and preventing further spread.
9. The level of effort exerted for goatgrass control will increase by 9 percent with the infestation likely to remain unchanged or exhibit modest decreases.
10. Ten rare plant populations will be re-established or enhanced.
11. Two wet meadow restoration projects will be initiated.

Exhibit "21"

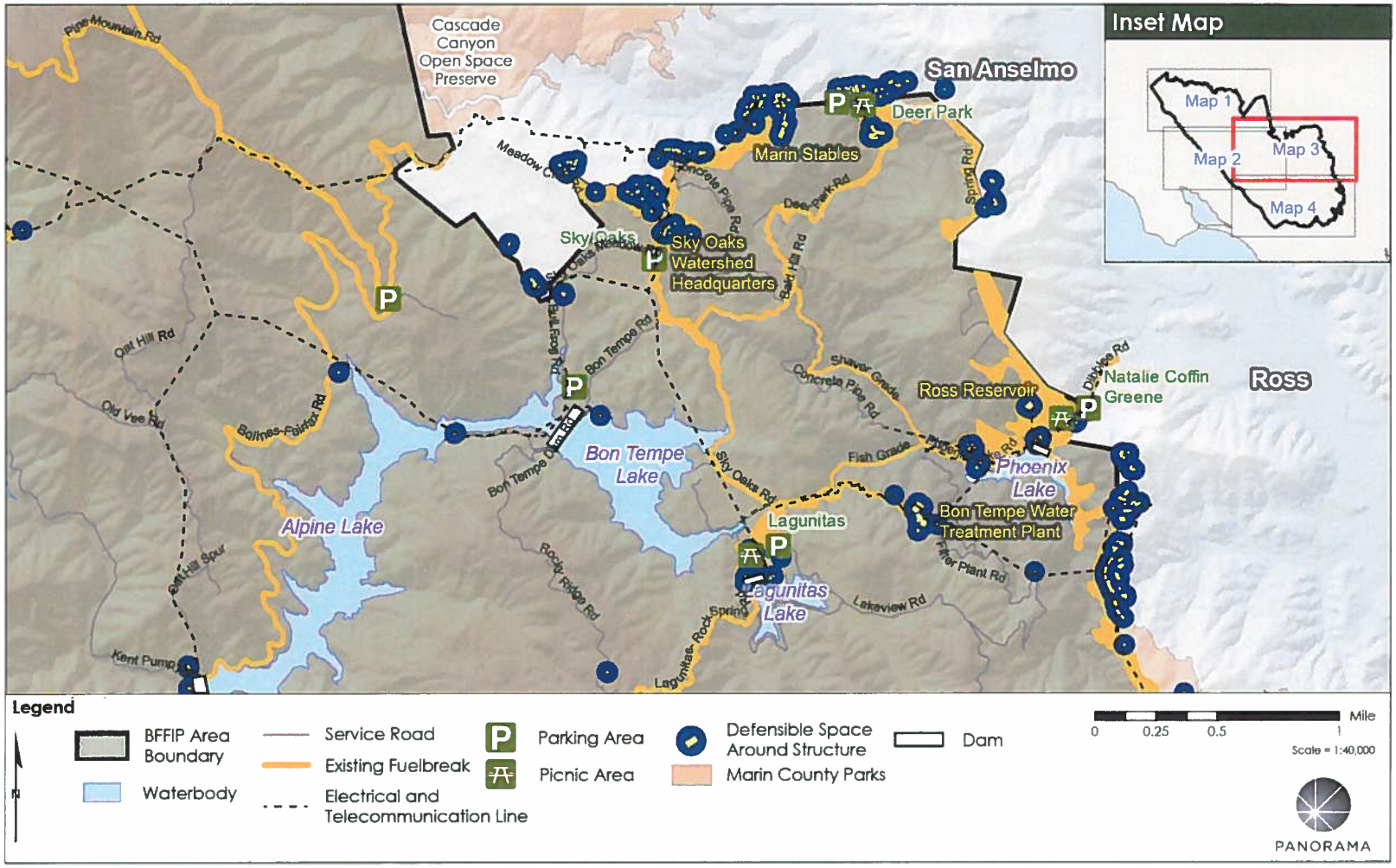
Figure 2-3 Map of WUI



Sources: (ESRI 2017; Marin Municipal Water District; Sky Oaks Watershed HQ 2014; USGS, 2012; Fire Departments and Fire Districts in Marin County; California Department of Forestry and Fire Protection, 2015)

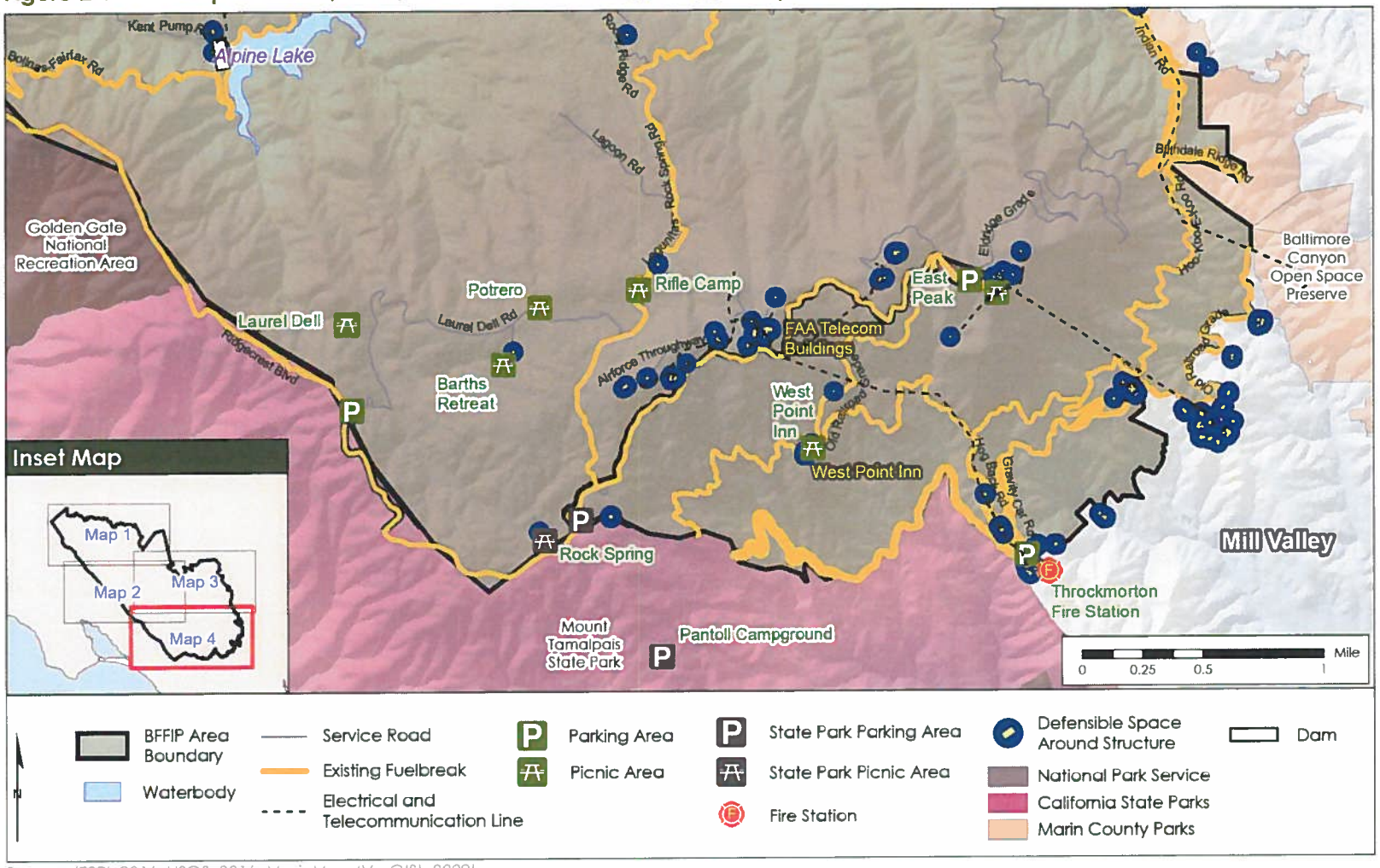
Exhibit "22"

Figure 2-6 Map of Roads, Trails, and Facilities in the Mount Tamalpais Watershed (Map 3 of 4)



Source: (ESRI, 2016; USGS, 2016; MarinMap (VarGIS), 2009)

Figure 2-7 Map of Roads, Trails, and Facilities in the Mount Tamalpais Watershed (Map 4 of 4)



Source: (ESRI, 2016; USGS, 2016; MarinMap (VarGIS), 2009)

Exhibit "23"

Draft Marin Municipal Water District

Wildfire Protection and Habitat Improvement Plan

Safeguarding Our Communities and Environment

August 2012

Prepared for the Marin Municipal Water District

Prepared by Leonard Charles and Associates

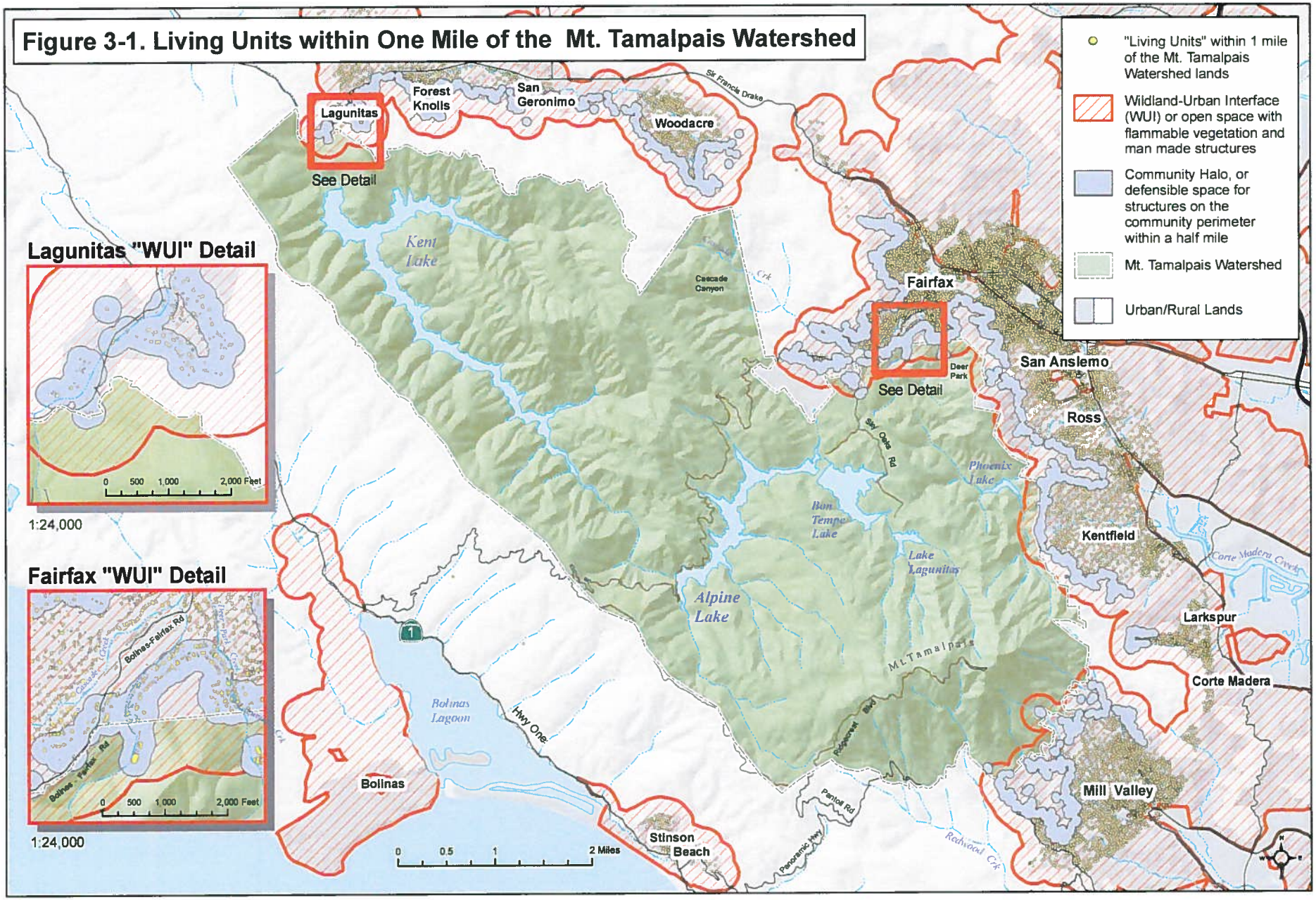


Figure 3-1. Using a Geographic Information System, approximately 11,600 parcels with a "Living Unit" value of one or greater, and within one mile of the Mt. Tamalpais Watershed, were identifed. The total number of all structures in this area is approximately 13,200. The Marin County Fire Department has indentified these areas as being within the Wildland-Urban Interface (WUI) zone. There are limited areas of MMWD land that are WUI, primarily along its north and east boundaries.

Figure 2-2. The Marin Municipal Water District owns and manages land that does not runoff to reservoirs including (clockwise) that below Kent Lake (Lagunitas Creek), in Cascade Canyon, Deer Park and below Phoenix Lake (Corte Madera Creek) and south of Mt. Tamalpais (Larkspur Creek, Arroyo Corte Madera del Presidio and Redwood Creek).

Exhibit "24"

MARIN COUNTY
LOCAL AGENCY FORMATION COMMISSION
Regional Service Planning / Subdivision of the State of California

COUNTYWIDE WATER SERVICE STUDY

Municipal Service Review / Government Code Section 56430

Affected Governmental Agencies
Bolinas Community Public Utility District
Inverness Public Utility District
Marin Municipal Water District
Muir Beach Community Services District
North Marin Water District
- Novato and Point Reyes Station
Stinson Beach County Water District

Final Report /
Accepted by the Commission
January 2016

5.0 Organizational Structure

5.1 Governance

MMWD's governance authority is codified under California's Municipal Water District Act of 1911 ("principal act") and empowers the District to provide a limited purpose of municipal services upon approval by LAFCO. MMWD – which is currently one of 37 municipal water districts currently operating in California – is presently authorized to provide three specific services within its jurisdictional boundary: (a) domestic water; (b) non-potable water; and (c) recreation. All other latent powers enumerated under the principal act would need to be activated by LAFCO before MMWD would be allowed to initiate; similarly divesture of existing powers would also require prior approval from LAFCO.

LAFCO approval is needed for MMWD to activate a latent power or divest itself from an existing service.

A list comparing active and latent power authorities under the principal act follows.

Active Service Powers

- potable / non potable water
- public recreation

Latent Service Powers

- hydroelectric power
- fire protection
- solid waste/garbage
- storm drainage
- wind/solar power [163]

MMWD has been governed since its formation in 1912 as an independent special district. The original governing board composition totaled 13 and was divided between five elected members and eight appointed members from the then seven incorporated communities (Belvedere, Larkspur, Ross, Mill Valley, San Anselmo, San Rafael, and Sausalito) and the County of Marin. The composition was subsequently amended to its current five-member organization with directors elected by electoral district to staggered four-year terms with members receiving a $145 meeting stipend. MMWD currently meets on the first and third Tuesday at 7:30 P.M. of each month at the District's Administrative Office at 220 Nellen Avenue in Corte Madera. A current listing of Board members with respective backgrounds and continuous service follows.

MMWD Board Roster / As of January 1, 2015
Table 4-93 (MMWD)

Member	Position	Background	Years on Board
Jack Gibson	President	Attorney	20
Armando Quintero	Vice President	Educator	5
Larry Bragman	Member	Attorney	1
Cynthia Koehler	Member	Attorney	10
Larry Russell	Member	Engineer	10
		Average Years of Board Experience	9.2

163 MMWD's latent authority to provide wind or solar power subject to LAFCO approval is specific to the District and codified under California Water Code Section 71664.