



**NOTICE OF SPECIAL MEETING
BOARD OF DIRECTORS**

MEETING DATE: Tuesday, May 28, 2019

TIME: 7:30 p.m.

LOCATIONS: 1) MMWD Board Room, 220 Nellen Ave., Corte Madera, CA 94925
2) Halcyon Hotel, 245 Columbine St, Denver, CO (Director Koehler)

AGENDA

ITEM	RECOMMENDATION	APPROX. START
<input type="checkbox"/> CALL TO ORDER		7:30 p.m.
<input type="checkbox"/> ADOPT AGENDA		7:32 p.m.
<input type="checkbox"/> DIRECTORS' AND GENERAL MANAGER'S ANNOUNCEMENTS		7:35 p.m.
<input type="checkbox"/> REGULAR CALENDAR		
1. Ordinance No. 442 amending provisions of Title 6 of the MMWD Code, Increasing Water Rates, Fees and Charges and the threshold for the Affordability Program, adding a Capital Maintenance Fee and a Super Water Saver Program: a. Public Hearing b. Resolution No. 8538 Re: Environmental Review of Ordinance No. 442 c. Ordinance No. 442	Conduct Approve Adopt	7:40 p.m.
<input type="checkbox"/> PUBLIC EXPRESSION*		

ADA NOTICE AND HEARING IMPAIRED PROVISIONS: The board room is equipped with sound amplifying units for use by the hearing impaired. The units operate in conjunction with the room's sound system. You may request the personal sound amplifier from the Board Secretary for use during meetings.

In accordance with the Americans with Disabilities Act and California Law, it is the policy of the Marin Municipal Water District to offer its public programs, services, and meetings in a manner that is readily accessible to everyone, including those with disabilities. If you are disabled and require a copy of a public hearing notice, an agenda, and/or agenda packet in an appropriate alternative format, or if you require other accommodation, please contact Stephanie Eichner-Gross at (415) 945-1448, at least two days in

MMWD BOARD OF DIRECTORS: Larry Bragman, Jack Gibson, Cynthia Koehler, Armando Quintero, Larry Russell

**Anyone wishing to speak on an item other than those listed on this agenda will be recognized at this time. We ask any person wishing to be heard to come to the podium to address the board and state your name and address for the public record. A 3-minute limit is customary; however the board chair may adjust the actual time allotted to accommodate the number of speakers.*

***All matters listed on the consent calendar are considered to be routine and will be enacted by a single action of the board, unless specific items are removed from the consent calendar during adoption of the agenda for separate discussion and action.*

advance of the meeting. Advance notification within this guideline will enable the district to make reasonable arrangements to ensure accessibility.

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INFORMATION PACKETS ARE AVAILABLE FOR REVIEW AT THE CIVIC CENTER LIBRARY, CORTE MADERA LIBRARY, FAIRFAX LIBRARY, MILL VALLEY LIBRARY, MMWD OFFICE, AND MMWD WEBSITE (MARINWATER.ORG)

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FUTURE BOARD MEETINGS:

Tuesday, June 4 Regular Meeting, 7:30 p.m.	MMWD Board Room
Tuesday, June 18 Regular Meeting, 7:30 p.m.	MMWD Board Room
Thursday, June 18 Special Meeting (Watershed), 1:30 p.m.	MMWD Board Room
Friday, June 21 Special Meeting (Operations), 9:30 a.m.	MMWD Board Room



STAFF REPORT

- SUBJECT:** Proposed Changes to Title 6 – Water Service Rates and Charges of the Marin Municipal Water District Code
- SUBMITTED BY:** Charles M. Duggan Jr., Administrative Services Division Manager/Treasurer
Ben Horenstein, General Manager
- RECOMMENDED ACTION:**
1. Conduct the Public Hearing on the Proposed Rates;
 2. Approve Resolution 8538 Regarding CEQA Review of Ordinance No. 442; and
 3. Adopt Ordinance No. 442 Amending Section 6 Pertaining to Water Service Rates and Charges of the Marin Municipal Water District Code (Rate Ordinance)

BACKGROUND: The District retained Raftelis Financial Consultants, Inc. to update the Carollo 2017 Cost of Service Analysis Study and to review the District’s current rate structure and revenue requirements to determine rates that are in line with the District’s policy objectives. The resultant draft report: *Water Financial Plan and Rates: Update to the May 2017 Cost of Service Analysis Study (Updated 2019 COSA)* was presented to the Board on February 19, 2019. To ensure that all rates, charges, and fees are reflective of the costs to provide that service, the main objectives that informed the Updated 2019 COSA include:

- Ensure revenue sufficiency to fund operating and maintenance (O&M) costs and reserve requirements
- Determine a separate capital maintenance fee (CMF) to fully fund capital improvement plan (CIP) costs
- Maintain the current tiers to minimize customer impacts
- Develop rates that are fair and equitable to the District’s customers

Based on that evaluation, the District has determined that rate increases are necessary to recover current and projected costs of operations and maintenance; to ensure water quality through continued investment in the watershed, which includes addressing wildfire risks; and to fund the capital infrastructure improvements needed to provide high quality, safe and reliable drinking water.

For general operations and maintenance costs, and to keep pace with inflation, the Rate Ordinance includes four percent revenue increases in each of the next four fiscal years.

For more than 20 years the District has been primarily using bond funding for investments in maintaining its capital infrastructure. The proposed rate changes would result in \$16.5 million

(2019 dollars), generated annually through a new Capital Maintenance Fee, to directly support the \$241 million in planned capital improvement program investments the over the next ten years (\$208 million in 2019 dollars). This approach will structurally stabilize the District’s budget by balancing the current \$10 million in annual debt service payments, resulting from prior bond funding, with the new \$16.5 million cash funding for a more balanced and sustainable approach.

Operating Costs and Capital Improvement Program

As mentioned above, the Rate Ordinance includes four percent revenue increases in each of the next four fiscal years. While cost increases are largely market driven and therefore not uniform, operating costs as a whole have been projected to rise at 4% annually during that time. The operating budget covers expenses in the following areas: Personnel Services, General and Administration, Materials and Supplies, Operations, and Debt Service.

Additionally, approximately 80% of the District’s costs to operate and maintain the system are fixed, meaning the costs remain the same regardless of water sales. The proposed increases will allow us to recover the District’s costs and to continue to provide safe, reliable drinking water to the District’s customers, avoid budget deficits and continue to invest in the District’s infrastructure and maintain the District’s high service levels.

The new rates will help to annually, directly fund \$16.5M (2019 dollars) out of \$241M in planned capital improvements over the next ten years (approximately \$208 million in 2019 dollars), including \$20 million in water treatment plant upgrades, \$50 million in pipeline replacements, and \$29 million for replacement and rehabilitation of storage tanks. The need to continually invest in the District’s infrastructure to reliably provide high quality water is the basis for the proposed rate increase. These expenditures represent significant and necessary improvements to the District’s aging infrastructure to preserve the health of the District’s water system and watershed.

Capital Improvement Projects to be completed over the next ten years are described in Attachment 3 and summarized below:

1. **Treatment Plants:** Upgrading the clarifiers at the San Geronimo and Bon Tempe Water Treatment Plants to withstand a seismic event, and installing an emergency generator at the San Geronimo Water Treatment Plant.
2. **Pipeline Replacement:** Replacing 50 miles of failing pipeline, including 1 mile of a 100-year old cast iron water main along Sir Francis Drake in Kentfield, in coordination with the county’s Sir Francis Drake Road Rehabilitation Project.
3. **Storage Tanks:** Replacing the 100-year old Ross Reservoir, a deteriorating, 1-million-gallon water storage facility with a new a new, larger facility to enhance water quality and improve reliability, and meet emergency, and rehabilitating the District’s Smith Saddle Storage Tanks.

4. **Control Systems:** Upgrading the electronic control and communication systems between treatment plants, pump stations, storage tanks, control valves and reservoirs used to control and monitor the treatment, production and distribution of water.
5. **Watershed:** Fire and Fuels Management through the Biodiversity, Fire, and Fuels Integrated Plan (BFFIP) implementation to maintain the quality of the watershed and to protect the water supply from catastrophic events such as wild fires; minor structures; residence improvements; road repair and improvements; natural capital and green infrastructure.

Proposition 218 Rate Setting and Cost of Service

In California, rate setting must meet the requirements of California Constitution article XIID, Section 6 (commonly referred to as Proposition 218), which requires that there be a nexus between the cost of providing water service and the District's water rates and charges. The Updated 2019 COSA along with the 2017 Carollo COSA are the analytical tools that serve as the bases of the proposed rate increases. The Updated 2019 COSA identifies the District's costs to provide water service, allocates those costs based on usage and impacts to the District's water system, and evaluates all the rates and charges. The proposed rate increases require a review of all of the District's variable Commodity Charge tier allotments and rates.

The District's fixed Service Charges, fixed Watershed Management Fees, fixed Fire Line Service Charge and Tiered Rate Charges are structured to proportionally allocate the cost of providing water service to the District's customers and are currently billed on a bi-monthly basis. The District's rate structure has eight customer classes: (1) Single-Family; (2) Duplex; (3) Multi-Family; (4) Commercial; (5) Irrigation; (6) Recycled Water; (7) Institutional; and (8) Raw Water, i.e., customers who receive untreated water. The past rate structure for District's water service has three components: (1) a fixed Service Charge; (2) Tier Rate; and (3) fixed Watershed Management Fee. The Capital Maintenance Fee is a new component proposed in the Updated 2019 COSA. The Capital Maintenance Fee is based on meter size, will automatically increase or decrease according to the change in the Engineering News-Record Construction Cost Index and will not exceed 4% annually.

Fixed Service Charge

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

Tier Rates (Commodity Charges)

Depending on the customer class, the tier rates consist of three or four tiers which impose higher rates for each unit of water usage and increase as the level of water consumption increases. One unit of water is equal to 748 gallons or one CCF (hundred cubic feet) and the tier rates are set to recover a portion of District's fixed and variable costs of providing water

service. 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 a defined amount of water in each tier (tier allotments), Commercial, Irrigation, Recycled Water, and Raw Water customers are provided an allotment based on their defined water needs. 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. Customers who use more water place greater demands and burdens on the District's water system and resources. The tiered rates are designed to recover the incremental costs incurred by MMWD as a result of this higher usage and its impacts. Based on the unique nature of the customer category of Raw Water (only two users) and the current usage patterns, a flat rate structure is proposed for this class.

Watershed Management Fee

The Watershed Management Fee helps to preserve the ecological health of the District's watershed and downstream ecosystems in direct support of maintaining the high quality of source water for our customers. The Watershed Management Fee is a fixed charge based on the size of a water meter serving a property and is designed to assist in recovering a range of watershed costs, including: watershed maintenance and regulatory compliance costs.

Private Fire Service Line Charge

In addition to the Fixed Service Charges, Watershed Management Fee and Tier Rates (Commodity Charges) described here, MMWD also imposes a fixed bi-monthly Fire Service Line 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 bi-monthly Fire Service Line 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 new proposed Capital Maintenance Fee will annually provide \$16.5 million (2019 dollars) to directly support the \$241 million (\$208 million in 2019) in planned capital improvements over the next ten years, including fire reduction efforts on the district's watershed. It may also be used to fund existing or future debt service payments. It is vital to continually invest in the District's infrastructure to reliably provide the high quality water which is essential to public health and the Marin County economy. As noted in the earlier section detailing capital improvements, these expenditures represent significant and necessary improvements to the District's aging infrastructure and will support additional investments in the watershed primarily to address the risks associated with wildfires.

The Rate Ordinance specifies that the Capital Maintenance Fee will be collected on the bimonthly water bill for two years and then transition to the property tax statement. Collection of this fee on the Property Tax bill is consistent with the collection method used by the District over the last 22 years for the Fire Flow fee.

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.

From 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 annually on the tax roll 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.”

Affordability

To address the affordability of the proposed rates the Rate Ordinance includes an increase to the qualifying threshold to participate in the District’s Low Income Waiver Program. For example, currently customers in a four-person household and income equal to or less than 60% of the Federal Housing and Urban Development low income for Marin County may apply to have fixed Service Charge and Watershed fee waived through our Low Income Discount

program. The proposed Rate Ordinance increases the eligibility number to 80%. To qualify for the existing discount, a 4-person household cannot exceed an annual gross income of \$70,440. The proposal contained in the draft ordinance raises the annual gross income level that would qualify for the discount to \$103,320. The Ordinance includes an annual, maximum, dollar amount to be waived per year under the Low Income Discount program of \$300,000, which can be changed by a resolution of the board. The Low Income Discount Program will be funded by non-rate revenues.

Super Water Saver

The Rate Ordinance includes a new Super Water Saver program to benefit the 3,000 single family residential customers with the lowest water consumption during each bi-monthly billing cycle. Qualifying customers will receive bi-monthly credits of \$8.00.

Key elements of the program include:

- Account must be Single Family, primary residence, and open/active at the time of the credit.
- Customer must have water service in their name and be on service at the same address for six consecutive bi-monthly invoices.
- Water usage must be a minimum of 1 CCF per invoice and in the top 3000 water conserving single family residential customers over the previous six consecutive bi-monthly invoice cycles.
- Customer usage will be evaluated each billing cycle and the credit will be applied on a rolling 12-month assessment of their consumption during that time period.
- The credit will automatically appear on the monthly bill after the qualifications are met.

The Super Water Saver Program will also be funded by non-rate revenues.

Summary

The attached proposed Ordinance No. 442 contains many salient provisions including updates since the Proposition 218 Notice was mailed. Some of these include:

1. The statement that water is a finite and precious resource.
2. Rates are based on the costs associated with providing the service and determined through industry rate setting standards.
3. Increases existing rates, fees, charges for four fiscal years 2020-2023.
4. Creates the Capital Maintenance Fee (CMF) and indexes it to the Engineering New-Record Construction Cost Index, up to a maximum of 4% per year, for five fiscal years, 2020-2024.
5. The Capital Maintenance Fee will be charged on the bimonthly bill for two years and then transition to the property tax statement for collection.
6. A section for a Capital Maintenance Fee adjustment for residential meters upsized for non-consumption purposes to allow a single family property owner to request a

reduced fee if all qualifications are met.

7. Provides for a balance between debt funding and cash funding the Capital Improvement Program with \$10 million in debt payments and \$16.5 million in pay-as-you-go, 40% debt and 60% cash.
8. Increases the qualifying threshold for low income assistance to 80% of the Marin County median income.
9. Creates the Super Water Saver program to credit \$8 per bill to the 3000 single family residential customers who use the smallest amount of water.

Proposed Rates for 2019/2020, 2020/2021, 2021/2022, 2022/2023, and 2023/2024

The proposed rates for July 1, 2019; July 1, 2020; July 1, 2021; July 1, 2022; and July 1, 2023 would be reflected in billing starting in August or September of the designated year. The proposed water service rates, fees and charges to be effective July 1, 2019; July 1, 2020; July 1, 2021; July 1, 2022; and July 1, 2023 are included in Ordinance No. 442 Amending Section 6 Pertaining to Water Service Rates and Charges of the Marin Municipal Water District Code.

RECOMMENDATION: Staff recommends that the Board conducts the public hearing, approves Resolution 8538 and adopts Ordinance No. 442 Amending Section 6 Pertaining to Water Service Rates and Charges of the Marin Municipal Water District Code.

STRATEGIC PLAN ALIGNMENT: The requested action aligns with the District’s Strategic Goal 2: Financial Stewardship – We will prudently manage the public resources entrusted to us and Strategy 1: Ensure financial planning is sufficient to address MMWD needs and risks.

ATTACHMENTS:

1. Resolution 8538 Regarding CEQA Review of Ordinance No. 442 with attached draft NOE.
2. Ordinance No. 442 Amending Title 6, Chapter 6.01 Pertaining to Water Service Rates and Charges of the Marin Municipal Water District Code.
3. 10 Year Capital Improvement Plan

RESOLUTION NO. 8538

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE MARIN MUNICIPAL WATER DISTRICT REGARDING ENVIRONMENTAL REVIEW OF ORDINANCE NO. 442 AMENDING PROVISIONS OF DISTRICT CODE TITLE 6 INCREASING WATER RATES, FEES AND CHARGES, INCREASING THE THRESHOLD FOR THE AFFORDABILITY PROGRAM, ADDING A CAPITAL MAINTENANCE FEE AND A SUPER SAVER PROGRAM AND DETERMINING THAT ORDINANCE NO. 442 IS EXEMPT FROM THE PROVISIONS OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

WHEREAS, the District's water supply is limited to water captured in its seven reservoirs; water transported from the Russian River via the North Marin aqueduct; and recycled water produced at the Las Gallinas Valley Sanitary District Plant (for a variety of non-potable purposes); and

WHEREAS, staff has advised the Board that to meet its expenses and fund operational and capital programs, rate increases are necessary; and

WHEREAS, attached as Exhibit A and incorporated herein as if fully set forth is the proposed rate ordinance, Ordinance No. 442; and

WHEREAS, the Board and staff have held multiple public meetings regarding a proposed rate increases and adjustments that would:

1. Increase in water rates, fees and charges effective July 1, 2019, July 1, 2020, July 1, 2021 and July 1 2022 and July 1, 2023 as described in Exhibit A;
2. Increase the qualifying threshold for low income assistance to 80% of the federal Department of Housing and Urban Development low income limit for Marin County;
3. Implement a Capital Maintenance Fee; and
4. Create a Super Water Saver Program.

WHEREAS, in compliance with the California Environmental Quality Act (CEQA), the Board has determined that Ordinance No. 442 falls within the statutory exemption set forth in Public Resources Code section 21080, subdivision (b)(8).

NOW, THEREFORE, THE BOARD OF DIRECTORS RESOLVES AS FOLLOWS:

1. The Board of Directors finds as follows:
 - A. The Board hereby finds that Ordinance No. 442 is enacted for the purpose of meeting operating expenses, purchasing or leasing supplies, equipment, and materials, meeting financial reserve needs and requirements, and obtaining funds for capital projects necessary to maintain service within existing service areas.
 - B. The exemption contained in Public Resources Codes Section 21080(b)(8) applies to Ordinance No. 442 because, as described in the staff report and presentations for this meeting and the Rate Workshops held on April 25, 2019 and May 15, 2019, in Ordinance No. 442 and in all of the public meetings and documents, tape recordings, writings, public discussions, PowerPoint presentations, staff reports and media created to date and offered in public meetings of both the Board of Directors and the District Finance Committee, rate increases and the implementation of a Capital Maintenance Fee described herein, are necessary to recover current and projected costs of operations and

maintenance, including increases in purchased wholesale water, and capital infrastructure improvements needed to provide safe and reliable drinking water; maintain the operational and financial stability of the District; and avoid operational deficits and depletion of financial reserves.

- C. The draft Notice of Exemption, attached hereto as Exhibit “B” and incorporated herein as if fully set forth, is adequate for the Board’s purposes of determining that Ordinance No. 442 is exempt from the provisions of CEQA pursuant to Public Resources Code Section 21080(b)(8).

THE BOARD FURTHER RESOLVES AND DIRECTS STAFF TO FILE A NOTICE OF EXEMPTION FOR ORDINANCE NO. 442, WHEN THE SAME IS APPROVED BY THE BOARD OF DIRECTORS.

PASSED AND ADOPTED this 28th day of May 2017 by the following vote of the Board.

AYES:
NOES:
ABSENT:

Larry Bragman
President, Board of Directors

ATTEST:
Stephanie Eichner-Gross
Secretary

Exhibit A –Ordinance No. 442
Exhibit B – Draft Notice of Exemption

EXHIBIT A

Ordinance No. 442

Notice of Exemption

EXHIBIT B



Filing Requested By and When Filed Return To:

Marin Municipal Water District
220 Nellen Avenue
Corte Madera, California 94925
Attn: Michael Ban, Division Manager Engineering &
Environmental Services

Project Title: Marin Municipal Water District Ordinance No. 442

Project Location – City: Belvedere, Corte Madera, Fairfax,
Larkspur, Mill Valley, Ross, San Anselmo,
San Rafael, Sausalito, Tiburon, and
unincorporated portions of Marin County

Project Location – County: Marin

Project Description: Ordinance No. 442 is an ordinance amending Section 6 increasing water rates, fees and charges, increasing the threshold for the affordability program, implementing a Capital Maintenance Fee and creating a Super Water Saver Program. The purpose of the ordinance is to enact increases in water rates, fees, and charges effective July 1, 2019, July 1, 2020, July 1, 2021, July 1 2022 and July 1, 2023.

The Ordinance also:

1. Increases the qualifying threshold for low income assistance to 80% of the HUD low income limit for Marin County;
2. Implements a Capital Maintenance Fee; and
3. Creates a Super Water Saver Program.

Public Agency Approving Project: Marin Municipal Water District

Name of Person or Agency Carrying Out Project: Marin Municipal Water District

CEQA Exemption Status: Statutory Exemption, Section 15273, Rates, Tolls, Fares, and Charges (Public Resources Code Section 21080(b)(8)).

Findings for Exemption: As set forth in Section 21080(b)(8) of the Public Resources Code, the California Environmental Quality Act (CEQA) does not apply to the establishment, modification, structuring, restructuring, or approval of rates by public agencies if such rate changes are made for specified purposes and the record of the proceeding includes written findings setting forth with specificity the basis for the claim of exemption. Section 15273 of the Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines) was adopted to provide further instruction on implementation of this statutory exemption. Section 15273 states:

- (a) CEQA does not apply to the establishment, modification, structuring, restructuring, or approval of rates, tolls, fares, and other charges by public agencies which the public agency finds are for the purpose of:
 - (1) Meeting operating expenses
 - (2) Purchasing or leasing supplies, equipment, or materials,
 - (3) Meeting financial reserve needs and requirements,
 - (4) Obtaining funds for capital projects, necessary to maintain service within existing service areas, or
 - (5) Obtaining funds necessary to maintain such intra-city transfers as are authorized by city charter.
- (b) Rate increases to fund capital projects for the expansion of a system remain subject to CEQA. The agency granting the rate increase shall act either as the lead agency if no other agency has prepared environmental documents for the capital project or as a responsible agency if another agency has already complied with CEQA as the lead agency.

- (c) The public agency shall incorporate written findings in the record of any proceeding in which an exemption under this section is claimed setting forth with specificity the basis for the claim of exemption.
- (a) **CEQA does not apply to the establishment, modification, structuring, restructuring, or approval of rates, tolls, fares, and other charges by public agencies which the public agency finds are for the purpose of:**

(a)(1) ***Meet operating expenses.***

MMWD operates a system that involves the collection, purchase, treatment, and delivery of potable water, as well as the delivery of recycled water for non-potable uses. Operation of the system, regardless of the quantity of water collected, treated, delivered, or recycled, carries certain fixed and variable costs associated with the system's overall operation.

Ordinance No. 442 will be enacted for the purpose of meeting operating expenses, purchasing or leasing supplies, equipment, and materials, meeting financial reserve needs and requirements, and obtaining funds for capital projects necessary to maintain service within existing service areas.

The rate increases are necessary to recover current and projected costs of operations and maintenance, including increases in purchased wholesale water, and capital infrastructure improvements needed to provide safe and reliable drinking water; maintain the operational and financial stability of the District; and avoid operational deficits and depletion of financial reserves.

Additionally, approximately 80% of our costs to operate and maintain the system are fixed, meaning the costs remain the same regardless of water sales. 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.

Proposed Capital Improvement Projects over the next 10 years include, but are not limited to:

- Treatment Plants: Completing seismic and other upgrades of the San Geronimo and Bon Tempe water treatment plants to ensure high quality water and strengthen their ability to survive a major earthquake.
- Pipeline Replacement: On-going replacement of aging, leak prone and undersized pipe, including replacing over 1 mile of a major transmission line dating to 1920 along Sir Francis Drake in Kentfield, in coordination with a county re-paving project.
- Storage Tanks: Projects include replacing Ross Reservoir, a deteriorating, 1-million-gallon water storage facility constructed in the 1920s with a new a new, larger facility to enhance water quality, improve reliability, and meet emergency needs, and replacing other storage tanks that have reached the end of their useful life.
- Control Systems: Upgrading the electronic control and communication systems between treatment plants, pump stations, storage tanks, control valves and reservoirs used to control and monitor the treatment, production and distribution of water.
- Corrosion Control: On-going recoating of storage tanks for corrosion protection, and maintain and enhance MMWD's cathodic protection system, which currently protects over 400 miles of water distribution pipelines.
- Watershed: Repairing roads, restoring trails and enhancing winter habitat for endangered salmon in Lagunitas Creek.

(a)(2) ***Purchasing or leasing supplies, equipment, or materials,***

Operating the water collection, treatment, and delivery system involves the purchase, lease, and rental of supplies, equipment, and materials. The rate increase will be utilized in part to fund the higher costs of purchasing or leasing supplies, equipment, and materials.

(a)(3) ***Meeting financial reserve needs and requirements,***

In addition to having sufficient funds for the cost of essential functions and programs and capital improvements, the District has a board policy to maintain unrestricted/undesignated cash reserves equal to six months of operating budget. The rate increase will be utilized in part to meet financial reserve needs and requirements.

- (a)(4) **Obtaining funds for capital projects, necessary to maintain service within existing service areas.**
The rate increase includes funds to maintain and replace the District’s infrastructure as necessary to ensure the continued delivery of reliable, high-quality water.
- (a)(5) **Obtaining funds necessary to maintain such intra-city transfers as are authorized by city charter.**
The District is not considered a “city” as that term is defined in the state of California and does not engage in intra-city transfers as that term is applied with regard to CEQA Guidelines Section 15273. The District is a special District created under Water Code Section 71000 et seq.
- (b) **Rate increases to fund capital projects for the expansion of a system remain subject to CEQA. The agency granting the rate increase shall act either as the Lead Agency if no other agency has prepared environmental documents for the capital project or as a Responsible Agency if another agency has already complied with CEQA as the Lead Agency.**
The District’s rate increase will fund the on-going operation and maintenance of the water collection, treatment, and delivery systems to serve water demand. Maintenance of the overall water system includes the repair and replacement of facilities to safeguard existing water supplies, infrastructure, and programs to ensure a reliable water supply into the future. At such time as facilities are scheduled for repair or replacement, a review of the specific activity will be conducted in accordance with the CEQA Guidelines to assess the potential for impacts associated with the specific activity.
- The rate increase does not include funding for the construction or modification of facilities or the purchase of water that would expand the District’s existing service area or increase the supply of water in future years beyond that identified as necessary to meet demand.
- (c) **The public agency shall incorporate written findings in the record of any proceeding in which an exemption under this section is claimed setting forth with specificity the basis for the claim of exemption.**
The basis for the foregoing findings is contained in the administrative record for the rate increase that is maintained by Charles M. Duggan Jr., A.S. Division Manager/Treasurer, which includes but is not limited to:
1. The District’s 2017 Cost of Service Analysis by Carollo Engineers & the Raftelis 2019 update entitled MMWD Water Financial Plan and Rates;
 2. Ordinance No. 442;
 3. Resolution No. 8538;
 4. The District’s Proposition 218 Notice to Customers; and
 5. The District’s A.S. Division Manager/Treasurer’s Rate Binder (including electronically stored documents).

Project Approval: The Marin Municipal Water District Board of Directors approved Ordinance 442, which is considered project approval as defined by Section 15352 of the Guidelines for Implementation of the California Environmental Quality Act, at a meeting of the Board of Directors on May 28, 2019.

Lead Agency Contact Person: Michael Ban, Marin Municipal Water District

Telephone: (415) 945-1435

Michael Ban
Division Manager Engineering & Environmental Services

Date

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:

<i>Bi-monthly Service Charge (\$/Meter Size)</i>				
<u>Meter Size</u>	<u>Effective 7/1/2019</u>	<u>Effective 7/1/2020</u>	<u>Effective 7/1/2021</u>	<u>Effective 7/1/2022</u>
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)

<u>Meter Size</u>	<u>Effective 7/1/2019</u>	<u>Effective 7/1/2020</u>	<u>Effective 7/1/2021</u>	<u>Effective 7/1/2022</u>
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)

<u>Meter Size</u>	<u>2019 Base Rate Amount</u>
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

<u>Tiers</u>	<u>Summer Use (CCF)</u>	<u>Winter Use (CCF)</u>	<u>Effective 7/1/2019</u>	<u>Effective 7/1/2020</u>	<u>Effective 7/1/2021</u>	<u>Effective 7/1/2022</u>
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

<u>Tiers</u>	<u>Summer Use (CCF)</u>	<u>Winter Use (CCF)</u>	<u>Effective 7/1/2019</u>	<u>Effective 7/1/2020</u>	<u>Effective 7/1/2021</u>	<u>Effective 7/1/2022</u>
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

<u>Tiers</u>	<u>Summer Use (CCF)</u>	<u>Winter Use (CCF)</u>	<u>Effective 7/1/2019</u>	<u>Effective 7/1/2020</u>	<u>Effective 7/1/2021</u>	<u>Effective 7/1/2022</u>
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

<u>Tiers</u>	<i>Percentages are of water budget allotment</i>		<i>Effective</i>	<i>Effective</i>	<i>Effective</i>	<i>Effective</i>
	<i>Summer Use</i>	<i>Winter Use</i>	<u>7/1/2019</u>	<u>7/1/2020</u>	<u>7/1/2021</u>	<u>7/1/2022</u>
	<i>% of baseline</i>	<i>% of baseline</i>				
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

<u>Tiers</u>	<i>Percentages are of water budget allotment</i>		<i>Effective</i>	<i>Effective 7/</i>	<i>Effective 7/</i>	<i>Effective 7/</i>
	<i>Summer Use</i>	<i>Winter Use</i>	<u>7/1/2019</u>	<u>1/2020</u>	<u>1/2021</u>	<u>1/2022</u>
	<i>% of baseline</i>	<i>% of baseline</i>				
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

<i>Size of Meter or Lateral</i>	<i>Effective 7/1/2019</i>	<i>Effective 7/1/2020</i>	<i>Effective 7/1/2021</i>	<i>Effective 7/1/2022</i>
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

	<i>Effective 7/1/2019</i>	<i>Effective 7/1/2020</i>	<i>Effective 7/1/2021</i>	<i>Effective 7/1/2022</i>
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

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



Restricted Information

Dashboard > Display

Today's Date: 04/08/2019

Mailing Group Summary Information

Mailing Group ID: 237987088 Mailer's Job #: 00660770 Open Date: 04-08-2019
Preparer: --GINNYS PRINTING PO of Mailing Finance No: 480420 Close Date:
Description: 660770_IMAGEX Submission Type: Mail.dat

PS # 337449985, FIN - Transaction # 201909810515070M0 (processed by SYSTEM on 04/08/2019 10:51:50 AM) Cancel | Confirmation Page | Container List | Piece-Weight Information

PS Form 3600-R - First-Class Mail and First-Class Package Service - Permit Imprint

Final

Postage Summary

Account Holder: GINCOP INC 8410B TUSCANY WAY BLDG 5 AUSTIN, TX 78754 -4818
Mailing Agent: GINNYS PRINTING 8410 TUSCANY WAY STE B AUSTIN, TX 78754 -4824
Mail Owner: MMWD 220 NELLEN AVE CORTE MADERA, CA 94925 -1105
Contact: MARIA CARDENAS (512) 689 - 8512 bruce.mcdougall@1touchpoint.com

Account Number: 1123368
Permit: Permit Imprint 1264 Processing Category: Letters (may include postcards)
Statement FS Fee Waiver %: 100% CRID: 1975199 CRID: 1975199 CRID: 4689669
Post Office Of Mailing: AUSTIN TX 78710-9998 Mailer's Mailing Date: 04/08/2019
Post Office of Permit: AUSTIN TX 78710-9998
Mailer Declared Weight of Single Piece: 0.0563 lbs. Mailer Declared Total Pieces: 76,862 pcs. Mailer Declared Total Weight: 4,327.3306 lbs.
USPS Determined Weight of Single Piece: 0.0563 lbs. USPS Determined Total Weight: 4,327.3306 lbs.
Sequencing Date: Address Matching Date - 04/02/2019 Address Matching Date - 04/02/2019 Automation: Carrier Route:

No of Containers: 1' MM Trays 6 2' MM Trays 301 2' EMM Trays Flat Trays Sacks Pallets 6 Other

Customer Reference ID.: 660770 IMAGEX
Move Update Method: NCOALink NSA: NO
Political Mail: NO Official Election Mail: NO
Mailpieces contain Only contents that are not required to be mailed FCM: NO Round Trip Only: 1 DVD/CD or other Disk: NO
Incentive/Discount Claimed: NO AB Testing Claimed: NO Type of Fee: N/A
Mail Arrival Date and Time: 04/08/2019 10:52 Payment Date and Time: 04/08/2019 10:51

Comments:
Container Grouping ID:
Copal Mailing Type:
SSF TID Number:

Part A: Automation Prices

Table with 10 columns: Line Number, Title, Description, Price, Quantity, Subtotal Postage, Discount Total*, Fee Total, Postage. Rows include 5-Digit Letters, AADC Letters, Mixed AADC Letters, and Full Service Intelligent Mail Option.

Part B: Nonautomation Prices

Line Number	Title	Description	Price	Quantity	Subtotal Postage	Discount Total*	Fee Total	Postage	
B5	Nonpresorted/Single-Piece*	Letters	0.500	441pcs.	\$ 220.5000	\$ 0.0000	\$ 0.0000	\$ 220.5000	
								Part B Total (Add lines B1-B18)	\$ 220.5000
								Total Postage From All Parts	\$ 29,517.57
For Extra Services and Other Fees								Total From Attached Form 3540-S	N/A
								Total Postage	\$ 29,517.57

* May contain both Full Service Intelligent Mail and other discount - see Instructions page for additional information.

USPS Use Only

Perform Verification:	Verification data not available at this time.		
One Pass/Two Pass Verification			
Received:	Error Percentage:	Additional Postage:	\$ 0.00
A/R/C:	Cost Avoidance:	Verifying Employee's Name:	
Total Additional Postage:	\$ 0.00	Number of Reworked Pieces:	

This mailing has been inspected concerning:
(1) eligibility for postage prices claimed;
(2) proper preparation (and presort where required);
(3) proper completion of postage statement; and
(4) payment of annual fee (if required).

This postage statement was verified and accepted under the PostalOne! program. No postal signature or round stamp is required.

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- Privacy Policy ›
- Terms of Use ›
- FOIA ›
- No FEAR Act EEO Data ›

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- Postal Inspectors ›
- Inspector General ›
- Postal Explorer ›

Account Summary by Date

04/09/19 11:17 to 04/09/19 13:37

April 9, 2019

Account	Pieces	Postage	Add On	Total
IMAGEX, INC.	1367	749.150	.000	749.150
Grand Total:	1367	749.150	.000	749.150

ATTACHMENT 3
DRAFT FISCAL YEAR 2019/2020 AND
2020/2021

CAPITAL IMPROVEMENT PROGRAM BUDGET

The District's Capital Improvement Program (CIP) consists of the Two-year Capital Improvement Program Budget and the Ten-year Capital Improvement Program Budget. The Ten-year CIP guides long-range policy, prioritizes and schedules capital projects for the ten year period, and establishes a basis for generating the financial resources to complete these capital projects.

The first two years of expenditures in the Ten-year CIP comprise the District's Two-year CIP Budget. By adopting the Two-Year CIP Budget, the Board authorizes the initiation of project expenditures in fiscal years 2020 and 2021.

Capital assets are real or personal property that has a unit acquisition cost equal to or greater than \$2,000 and an estimated life greater than one year. Most assets only achieve their useful life as the result of periodic maintenance or repairs. Normal routine upgrade, maintenance and repairs, including the purchase of replacement parts, are funded through the Operating Budget. Capital assets are acquired by the District through a capital outlay purchase from the Operating Budget or through the CIP Budget. A capital outlay is usually for the purchase of a single asset, such as the purchase of a new vehicle or a piece of equipment.

Capital improvement projects are generally defined as follows:

1. Nonrecurring rehabilitation, replacement or major repair with a minimum cost of \$2,000. These generally include:
 - a. Repaving of facility access roads.
 - b. Installation of a new roof.
 - c. Repainting and coating of reservoirs, storage tanks and major equipment.
 - d. A major water meter replacement project.
 - e. Rehabilitation or replacement of existing facilities and equipment, which are not routine maintenance.
2. Construction of a Public Works project in accordance with California Labor Code Section 1720 with a minimum cost of \$2,000.
3. Significant one-time investments in tangible goods, the benefit of which will accrue over several years. Examples include large initial investments or improvements in technology and software, or the purchase of a new telephone system.
4. Engineering studies and services that lead to, or are directly related to, capitalized facilities. These include professional design services, and preparation of asset management plans, master plans, and capital improvement plans.

Non-capitalized projects include recurring, normal and routine maintenance projects. Examples include water facilities leak repairs, repair of potholes and fencing, spot roof patching, annual equipment maintenance, annual and on-going water meter replacement, engineering studies and

plans that do not lead to or are not related to capitalized facilities, such as the Urban Water Management Plan and on-going and routine computer hardware and software upgrades not related to the CIP.

The Ten-year CIP total amount is \$241,379,000. The first two years of expenditures in the ten-year CIP comprise the District’s Two-year CIP Budget and total \$43,277,000.

**Two-Year CIP Budget
FYs 20 and 21**

Expenditures	FY 2019-2020	FY 2020-2021	Total
Pipelines and Storage	\$11,045,000	\$13,818,000	\$24,863,000
Treatment Plants	\$4,575,000	\$2,340,000	\$6,915,000
Watershed ¹	\$3,288,000	\$2,824,000	\$6,112,000
General Improvements	<u>\$2,689,000</u>	<u>\$2,698,000</u>	<u>\$5,387,000</u>
Grand Total	\$21,597,000	\$21,680,000	\$43,277,000

1 RENEWAL AND REPLACEMENT

1.1 Cathodic Protection (A1A01)

When the corrosion protection program began in the early 1960s, the District was responding to an average of 1,400 water system leaks and breaks per year. This was an average of 4 per day. Most of these leaks and breaks occurred on metallic piping systems. To address this problem, the District established a corrosion protection program in 1962. Leaks and breaks on the District’s water system have declined to approximately 200 per year. Much of this decline can be attributed to the District’s corrosion control program. The goal of the program is to eliminate corrosion as a limiting factor in the life of District facilities.

The District currently has 6,872 corrosion test stations. Of these, 5,160 use sacrificial anodes (passive) to control corrosion. The remaining test stations are part of the 140 systems that utilize impressed current from rectifiers to provide corrosion control. In total, the corrosion test stations protect approximately 431 miles of piping (49% of all District piping), 112 metallic storage tanks and three treatment facilities. For comparison, in 1990 there were approximately 2,800 corrosion test stations protecting 224 miles of piping and 50 metallic storage tanks.

Passive systems on piping are monitored on a six-year cycle; passive systems for storage tank interiors are monitored annually; and impressed current systems are monitored semi-annually. The semi-annual maintenance for impressed current systems provides only for testing of the rectifier and a remote test station. Full system checks of impressed current systems are performed on a six year cycle. Maintenance work provides the data from which other corrosion capital projects are planned. These projects include: Corrosion Test Station Rehabilitation, Cathodic Protection System Corrections, Rectifier Anode Replacement, and the Tank Recoating program.

¹ Watershed includes all projects conducted on the District’s watershed including dams, reservoirs, road and slide repairs, vegetation management and habitat improvements.

Corrosion Test Station Rehabilitation Program. The typical design life of magnesium anodes is 20 years. Magnesium anodes gradually dissolve over their design life as they provide a protective current to the pipeline or structure. Once an anode is depleted, it needs to be replaced in order to maintain the effectiveness of the cathodic protection system. Maintaining the operation of cathodic protection systems is a cost-effective means of preventing premature failure and/or replacement. This program supports annual replacement of approximately 150-200 anodes as determined by periodic testing.

FY 20 \$90,000
FY 21 \$94,000

Cathodic Protection System Corrections. This program addresses the replacement of failed flange insulating kits and clearing of contacts with foreign structures. Electrical isolation of dissimilar metals and foreign structures (e.g. other utility conduits, abandoned piping etc.) is critical to the effectiveness of the District's cathodic protection systems. Electrical isolation is achieved through the use of short sections of PVC pipe (typically three feet long) or flange insulating kits. PVC pipe has proven to be an excellent insulator, and to date, there have been no failures (electrical shorting) of PVC insulators. However, flange-insulating kits have failed. Failure to replace faulty insulators causes cathodic protection systems to lose their effectiveness resulting in premature and unnecessary pipeline failures. Approximately 10 flange insulating kits are replaced each year.

FY 20 \$160,000
FY 21 \$166,000

Rectifier Anode (ground bed) Replacement. The typical design life for rectifier ground beds is 30 years. Similar to magnesium anodes, these ground beds gradually dissolve over their design life as they provide protective current to the pipeline or structure; and once depleted, need to be replaced in order to maintain effectiveness of the rectifier system. The annual budget for this program is \$50,000, which will fund replacement of two rectifier ground beds.

FY 20 \$50,000
FY 21 \$52,000

Tank Recoating Program. In addition to providing metallic pipeline protection, the Corrosion Control program also protects the District's 107 metallic storage tanks and 10 hydro-pneumatic pressure tanks. Corrosion protection of these facilities is provided by a system of anodes suspended in the storage tanks and buried near the tanks, and/or protective coatings applied to the interior and exterior of the tanks.

Coatings and linings are an integral part of corrosion control, as they provide a barrier between the structure and a corrosive environment. Over time, the coatings and linings deteriorate and require spot repair or complete removal. To monitor this deterioration, corrosion control staff performs periodic surveys of tank coatings. The surveys determine which tanks are in need of coating repair and provide data for future coating maintenance projects. Corrosion control staff also work with water quality staff to ensure that interior tank coatings and linings are in compliance with State Water Resources Control Board drinking water requirements. Prioritization of tanks requiring re-

coating is based on maintaining water quality and the current requirement for interior cathodic protection. In some cases, a tank cannot be removed from service without significant temporary storage or distribution system upgrades. In order to continue achieving the benefits of the corrosion protection program, steel tanks should ideally be recoated on 20-25 year intervals. The current recoating rate exceeds 40 years, and is primarily dictated by the ability to remove a tank from service and funding. The current tank recoating priority list is shown in the table below.

Tank Recoating Priority List

Priority	Tank	Capacity (MG)	Year Constructed	Coating Age (yrs)
1	Smith Saddle 1	5.00	1961	58
2	Smith Saddle 2	5.00	1961	58
3	Escalle	1.00	1970	49
4	Scott Highlands	0.25	1968	51
5	Conifer Way	0.50	1968	51
6	Greenbrae	1.50	1956	63
7	Mill Valley	5.00	1967	52
8	Loch Lomond	1.00	1954	65
9	Hawthorne Upper	2.00	1928	46
10	Canyon Village	1.50	1975	44
11	Mine Ridge	0.25	1995	24
12	Fairfax Grade	0.50	1957	62
13	Wolfback Ridge 1	0.25	1997	22
14	Wolfback Ridge 2	0.25	1997	22

The recoating of Smith Saddle Tank #1 is scheduled to begin in FY 21, funded through the A1A11 Storage Tanks, as significant repairs in addition to recoating are expected. Smith Saddle Tank #2 is scheduled for recoating in FY25. The storage tank recoating program has largely been deferred to meet budgetary constraints and prioritize other storage tank replacements, such as Ross Reservoir.

FY 20 \$375,000

FY 21 \$390,000

1.2 Distribution Pipelines (A1A02A) and Transmission Pipelines (A1A03)

The District has approximately 884 miles of potable distribution and transmission system piping in service. Over 1.2 miles is from the 1800s. Approximately 14 miles is more than 100 years old. However, most of the existing installed pipes do not last this long. About 51% of the District piping system is comprised of modern long life welded steel or PVC. Over 336 miles of the District’s pipe system is comprised of pipe materials that are problematic and prone to failure, such as galvanized threaded steel pipe (GTP – 20 miles), lock converse joint pipe (LCP – 6 miles), and cast iron pipe (CI – 310 miles). These pipe materials total over 38% of the District’s water system. The remaining 11% of system piping is not necessarily leak prone but presents other inherent risks such as asbestos cement pipe and concrete cylinder pipe. Water main breaks result in treated water loss, damage to public and private infrastructure, public disruption, and divert District resources. Cast iron pipe can be particularly problematic because the failure mode is often catastrophic and usually releases a significant amount of water.

Pipeline Replacement Program. The objective of this program is to maintain and improve the level of service, quality and safety of the District’s distribution and transmission piping system. Projects in this program provide for replacement of worn and deteriorated transmission and distribution system piping. Pipeline segments are selected for inclusion in this program based primarily on leak history with consideration of other factors discussed below. A segment’s leak history is the primary indicator used to assess pipe condition and remaining service life. The District maintains records of all leaks and leak repairs. Staff utilizes the District’s GIS to identify pipe segments with a significant leak rate (generally ≥ 1 leak/year/1,000 ft pipe). The segments identified through this process are added to the pipeline replacement (leak) list. Pipe segments on the leak list undergo a thorough investigation to determine their complete leak history, year installed, type of pipe material, as-installed details and potential real property issues. Pipeline replacements are prioritized primarily based on leak rate and risk related to damages to the environment or property in the event of a main break. Special consideration is given to pipelines in close proximity to salmonid bearing streams. Finally, when given adequate notification, the District endeavors to replace pipeline segments in advance of planned street work that coincide with pipe segments on the pipeline replacement list or that may be disturbed by the construction. The FY 20 budget for pipeline replacement is \$2,300,000, with \$2,184,000 budgeted for FY 21 and will support replacement of approximately 2.8 miles of pipe.

FY 20 \$2,300,000
FY 21 \$2,184,000

Some of the planned locations of pipes to be replaced in FYs 20 and 21 are shown in the table below. The remainder will be developed at the beginning of each fiscal year.

**Pipeline Replacement Locations for
FYs 20 and 21**

Town	Street(s)	Pipe Length (ft)	Install Year
Kentfield	Sir Francis Drake, from Manor Road to Ross Terrace	5,300	1920s
San Rafael	3 rd St, from Irwin St to 4 th St	4,000	1920s
Larkspur	Piedmont Road, Baltimore Ave, Shady Lane	1,000	1900s
Ross	Easement near Mesa Vista Tank	1,000	1948
Ross	Ross Reservoir Bypass	450	1971
Fairfax	Bolinas-Fairfax Road, from Deer Park Villa to Sir Francis Drake Blvd	3,000	1921
TOTAL LENGTH		14,750	

1.3 Fire Flow Improvement Program

On May 17, 2012, the District Board approved the Fire Flow Improvement Program (FFIP) which extended the Fire Flow Fee of \$75 per year for nineteen years, and provides \$4.5M annually for investment in fire flow improvement projects. The FFIP proposes to replace 52 miles of fire-flow

deficient pipe, comprising 49 miles of distribution piping and 3 miles of transmission piping. The locations of pipes to be replaced during FY 20 and FY 21 are shown in the table below, which shows a total of 28,200 feet (5.3 miles) of undersized pipe to be replaced.

**FFIP Replacement Locations for
FY 20 and FY 21**

Town	Street(s)	Pipe Length (ft)	Install Year
Corte Madera	Meadow Valley, Sausalito, Montecito	2,100	1946
Ross	Baywood Ave	2,600	1933
San Rafael	5 th Ave	6,400	1927
Fairfax	Oak Manor Dr, Rock Ridge Road, Gregory Dr	4,500	1952
Mill Valley	Morningsun Dr, Highland, Wisteria	3,300	1953
San Anselmo	Hawthorne Ave, Bennit Ave, Suffield Ave, Valley Road	3,500	1936
Sausalito	Vista Clara Road, Cloud View Road	5,800	1929
TOTAL LENGTH		28,200	

FY 20 \$4,500,000

FY 21 \$4,500,000

The pipeline replacement program and Fire Flow Improvement Program in combination are scheduled to replace a total of 8 miles of pipe over FYs 20 and 21, which represents an annual replacement rate of 0.5%. At this rate, it will take over 200 years to replace all of the District’s pipelines. We anticipate increasing the rate of replacement in future years, pending available funding, with the goal of achieving a replacement rate of 1.0%.

1.4 Treatment Plants (A1A04)

The District’s three water treatment facilities are an essential element in providing high-quality water for our customers. The oldest facility is the Bon Tempe Water Treatment Plant, constructed in the 1950s. This plant annually provides about 25% of the District’s potable water supply and has a maximum short term capacity of 20 million gallons per day (mgd). The largest facility is the San Geronimo Water Treatment Plant, originally constructed in 1962, and upgraded in 1972. This facility is located in the San Geronimo Valley, has a maximum short term capacity of 35 mgd, and annually provides over 50% of the District’s potable water supply. The Ignacio Treatment Plant was constructed in 1975 and comprises a pump station, emergency generator, and chemical treatment facilities to condition water imported from the Sonoma County Water Agency. Imported water annually provides about 25% of the District’s potable water supply.

Capital projects at the treatment plants address three main functional areas: Structure, primary treatment unit processes, and secondary unit processes. The primary structural features of the Bon Tempe and San Geronimo treatment plants are concrete structures such as mixing chambers, circular up-flow clarifiers, filter basins, clear-wells, backwash water ponds, chemical rooms, the pipe galleries and the control rooms. These structures contain the various mechanical and electrical

elements of the treatment process and therefore must be maintained structurally sound and resistant to seismic events. Capital projects that target the unit processes at the treatment plants are identified via a collaborative process with input from the Superintendent of Water Treatment, the Maintenance department and Engineering. The Capital projects typically seek to extend the life, improve the reliability and functionality of the unit processes. Capital projects are evaluated on a number of criteria including reliability, consequence of failure, cost and feasibility. Once the capital projects are identified, they are typically budgeted, designed and implemented by an engineer with a water quality background with assistance from other District engineering staff or consulting resources as required.

Capital work at the treatment plants is guided by the Treatment Plant Master Plan, completed in September 2015, and includes seismic and process upgrades to both facilities. The Treatment Plant Filter Seismic Upgrade at both San Geronimo and Bon Tempe Treatment Plants was completed in 2018, bringing the filters at these facilities up to code to withstand a major earthquake. Specific activities to be conducted at San Geronimo Treatment Plant over the next two years include:

San Geronimo Treatment Plant – Clarifier Seismic Upgrade. Clarifiers perform an essential process in water treatment and treatment plant water production would be severely limited if the clarifiers were inoperable. The two clarifiers at San Geronimo Treatment Plant were constructed in 1961 and 1972 and consequently do not meet current seismic standards. This project includes the replacement of the clarifier mechanisms to ensure that the clarifiers can withstand a major seismic event.

San Geronimo Treatment Plant Emergency Generator. San Geronimo Treatment Plant is the District’s largest water treatment plant, providing drinking water to nearly 50% of the District’s service area. The District’s other two sources of drinking water, Ignacio Treatment Plant and Bon Tempe Treatment Plant, each have emergency power that will allow for continuous delivery of water during a power outage. In light of recent wildfire disasters in Northern California, PG&E has put customers on notice that in the event of a major storm event, PG&E may preemptively shutoff power to sections of their power grid in an effort to prevent wildfire. SGTP does not have an emergency power source, and a prolonged outage of power to the plant could result in the District being unable to meet drinking water demand. This project will install an emergency generator at SGTP that will allow the plant continued operation in the event of a power outage.

The FY 20 and FY 21 budgets for this category are shown below:

FY 20	\$4,525,000
FY 21	\$2,288,000

1.5 Reservoir/Dam Facilities (A1A05)

The District’s seven reservoirs supply about 75% of the water used by our customers. Six of the reservoirs were formed by constructing earth fill dams across naturally occurring valleys. The embankments range in height from about 50 feet, at the oldest reservoir, Lake Lagunitas, to over 225 feet at Kent Lake. The seventh reservoir, Lake Alpine, was formed by placing a 140 foot high concrete gravity dam across a narrow canyon on upper Lagunitas Creek.

While some of the reservoirs are over 100 years old, the major facilities were mostly constructed within the last 60 years. CIP projects in this category consist mainly of maintaining reservoir system appurtenances such as control valves, dam instrumentation and aeration systems. The total FY 20 and 21 budget for this category is described below.

FY 20 \$400,000

FY 21 \$572,000

In addition to capital repairs to the dams, two specific projects of interest in this budget category are described as follows.

Soulajule Environmental Enhancement. The Regional Board is requiring the District to implement a study plan to investigate the potential for methylmercury bioaccumulation and production in Soulajule Reservoir and its downstream water body, Arroyo Sausal. The Regional Board made this directive as part of the implementation plan for the Walker Creek Watershed Mercury Total Maximum Daily Load (TMDL) that was established to protect impacts to wildlife and is not related to drinking water quality or drinking water regulations. Mercury is negatively impacting the beneficial uses of many waters of the state by making fish unsafe for human and wildlife consumption. The District completed and submitted the *Soulajule Reservoir Mercury and Bioaccumulation Study* in 2013, and is conducting ongoing follow up studies. This project anticipates the potential need to identify effective methylmercury control measures including the potential need to install a Hypolimnetic aeration system at Soulajule Reservoir. The project is budgeted in FY 20 for \$100,000 and FY 21 at \$260,000.

Soulajule Grazing Waiver Compliance. Regional Water Quality Control Board has required the District to participate in the grazing waiver program. One element they have requested is a plan to prevent cattle accessing the reservoir. This project seeks to install fencing and water troughs for cattle.

1.6 Buildings and Grounds (A1A06)

This program provides miscellaneous pavement replacement at District facilities, fencing repair and vandalism deterrent projects, retaining wall repair and replacement, and capital repairs to the Administration Building office and Corporation Yard.

The Administrative Office Building (AOB) was constructed in 1962 and the Corporation Yard was constructed in 1965. With nearly 50 years of use, both of these structures are in significant need of upgrading. A comprehensive review to determine all of the work needed was completed in 2016. Changes are needed to both buildings to bring the interior and exterior into compliance with the Americans with Disabilities Act. Other needed improvements include renovating interior wall and ceiling finishes, replacing inefficient windows and other improvements necessary to resist inclement weather, upgrading the HVAC system, replacing floor and carpeting, upgrading electrical and lighting areas, reconfiguring offices and workstations, installation of fire sprinklers, sewer lateral replacement, and upgrading the kitchen. The District replaced the roof in summer 2015 on an emergency basis.

Administration Building and Yard/Warehouse Improvements. Pursue development of a Facility

Master Plan for the administrative building and yard/warehouse facilities based on the comprehensive review that was completed in 2015. A facility master plan will serve as a roadmap to identify necessary facility improvements and projects. This project is budgeted for \$250,000 in FY20 and \$350,000 in FY21 for master plan development and implementation of improvement projects.

FY 20 \$550,000

FY 21 \$603,000

1.7 Transmission Pumps (A1A07) and Distribution Pumps (A1A08)

The District has 94 active potable pump stations containing 196 pumps in service. Eleven stations and 37 pumps are classified as transmission pumps. These facilities include the District's largest pumping stations and are used to move untreated water between reservoirs, treated and untreated water to and from treatment plants and treated water to the transmission system. The transmission pumps are critical to the treatment and distribution of water to our customers. Many of these pumps are heavily used and log many hours of operating time. In addition, the transmission pumps often cost more than \$100,000 and require six months or more of lead time for delivery. The District closely monitors the operation and performance of these pumps. Replacement or overhaul of these pumps and motors are required every 10 to 20 years to assure their reliable and efficient operation. Due to their size and heavy use, the energy savings produced by regularly overhauling these pumps and motors often results in significant operating cost savings to the District. The pump/motors selected for overhaul/replacement are chosen based upon performance testing, operating hours and age/years since the last overhaul.

The remaining 83 stations and 159 pumps are classified as distribution pumps. These smaller stations deliver treated water to higher elevation neighborhoods throughout the District. The distribution pumps generally log fewer hours, have standby pumping capacity and are more readily available than the larger transmission pumps. As a result, these pumps are generally operated until they fail and are no longer repairable. The expected life of these pumps and motors is about 50 years.

Two critical pump station upgrades are planned over FY20 and FY21. Upgrades to these pump stations have been prioritized due to known performance and capacity issues and the large number of customers that could be impacted if either pump station was unable to adequately convey water.

Tocaloma Pump Station Upgrade. Built in 1961 and located in Nicasio, Tocaloma Pump Station annually conveys approximately 30% of the District's water supply, from Nicasio Reservoir (and, when used, Soulajule Reservoir) to the San Geronimo Treatment Plant. This project includes the rehabilitation of electrical components that are obsolete and challenging to source replacement parts. This project is budgeted for \$250,000 in FY20 and \$520,000 in FY21.

Federal Works Pump Station Upgrade. Located in Corte Madera, Federal Works Pump Station was built in 1943 as part of the World War II effort. The pumps are far below efficiency levels and unable to meet peak demand. This pump station upgrade will include performing a detailed condition assessment to evaluate efficiency and capacity issues and upgrading pump station components to meet current system needs. This project is budgeted for \$15,000 in FY20 and \$520,000 in FY21.

The combined FY 20 and 21 budget for both categories (A1A07 and A1A08) is presented below.

FY 20 \$550,000
FY 21 \$1,336,000

1.8 Control Systems (A1A09)

The Supervisory Control and Data Acquisition (SCADA) System and process control systems are used to control and monitor flows of water throughout the District using approximately 193 remote sites and the central control facility at the Corporation Yard. The SCADA system is the District's computer system for gathering and analyzing real time data about the District's water distribution and treatment systems. Remote sites include pump station, storage tank, control valve, and reservoir sites. In addition, SCADA and process control systems are used at the District's two surface water treatment plants (San Geronimo and Bon Tempe) and water quality plant (Ignacio). Systems at these facilities are used to control and monitor the treatment, production, and distribution of water.

SCADA System – Replace Hardware/Software. The District's Supervisory Control and Data Acquisition (SCADA) system is a computer system used to monitor and control the District's water delivery and treatment system. SCADA is a critical component of the District's operations, and not a single drop of water is moved without the use of SCADA. The SCADA system is comprised of hardware, such as computers and servers, human machine interface (HMI) software, communication interface, and electronic field connection controllers, which are either remote terminal units (RTUs) or programmable logic controllers (PLCs). The SCADA system hardware and software communicates with approximately 200 RTUs and PLCs that are located at various sites, such as treatment plants, pump stations, and tanks, throughout the District's water system. The RTUs and PLCs send data from the field to the SCADA hardware and software, and this data is used to help operations and engineering treat and deliver water to the District's 190,000 customers.

The District project to upgrade the existing SCADA system is currently underway, with an expected completion date of May 2020. Ongoing capital maintenance of this system is expected to occur over the next ten year period rather than large reinvestment in 10 years.

FY 20 \$85,000
FY 21 \$88,000

1.9 Control Valves (A1A10)

The District has 571 control valves in its transmission and distribution system. These valves have an expected useful life span of approximately 50 years. The valves receive yearly maintenance and are overhauled every 10 years. Each year, a few control valves are selected for replacement usually due to excessive corrosion and/or deterioration of the piping and vault.

FY 20 \$50,000
FY 21 \$52,000

1.10 Storage Tanks (A1A11)

MMWD has 130 storage tanks with a capacity of 82 million gallons. These tanks are of vastly different ages and a variety of materials (redwood, welded steel, bolted steel, riveted steel, concrete), all requiring differing maintenance and capital investment. The oldest tank, the Forbes Reservoir, originally constructed in 1894, received a new liner and cover in 2015. There are eight riveted steel tanks which date before 1930. Most of the District's tanks are of welded steel construction. In the past 10 years, the Capital Program has aggressively replaced redwood tanks which are nearing the end of their useful life as described below. The FY 20 and 21 budgets for this category are described below.

FY 20 \$2,170,000

FY 21 \$4,212,000

Ross Valley Tank Replacement (D11056). This project includes the replacement of the 1MG Ross Reservoir, constructed in the 1920s, with 4 MG of storage at the current site. This project will replace an undersized and deteriorated facility that has reached the end of its useful life. This project will also greatly improve the District's ability to meet the operational and emergency storage needs of the area. This project is budgeted in FY 20 at \$500,000 and FY 21 at \$1,560,000 to complete design of a replacement tank and perform an environmental review of the site.

Smith Saddle Tanks Rehabilitation. Located in Fairfax, Smith Saddle Tanks were constructed in 1961 and last recoated in 1983. These tanks provide critical transmission storage after treatment at San Geronimo Treatment Plant and prior to distribution in San Rafael and central Marin. Both tanks will require extensive repairs due to delayed tank recoating. This project will include a detailed condition assessment of each tank to further define the scope of capital repairs needed, and subsequently performing the necessary repairs.

Pine Mountain Tunnel Water Quality Improvement. Built in 1919 to convey water to customers in Fairfax from the Alpine Dam system, Pine Mountain Tunnel has served as a transmission storage tank on the Fairfax Transmission Line since 1971. This project will improve water quality and circulation in the tank with a continued evaluation of long-term solutions to address any ongoing water quality issues.

Redwood tank replacement program. This program funds replacement of redwood storage tanks that often present water quality challenges, are seismically vulnerable², and leak. Since 2001, this program has replaced approximately 47 redwood storage tanks. There are seven (7) redwood tanks that remain. The tanks are prioritized from the combination of their field condition rating and their storage adequacy rating. The table below lists the remaining tanks to be replaced:

² Redwood tanks are mounted on concrete piers which will not support the tanks in a seismic event. Replacement tanks are constructed of bolted steel or welded steel which meet modern seismic building standards and are properly anchored to resist earthquake forces.

**List of Remaining Redwood Tanks
Needing Replacement**

Tank Name	City/Location	Capacity (gal)	Year Installed
Bolsa	Mill Valley	200,000	1978
Winship Park	Ross	30,000	1980
Scenic Avenue	San Anselmo	20,000	1981
Madera Park	Corte Madera	100,000	1963
Courtwright	Greenbrae	50,000	1973
Hind #1	San Rafael	100,000	1978
Hind #2	San Rafael	200,000	1958

It is anticipated this program will be completed by FY25.

1.11 Meters (A1A13)

The District has six potable water production flow meters. These measure production from the three potable treatment facilities. These meters are sent out for factory calibration bi-annually and are replaced as necessary. The District has flow transmitters at all of its 98 potable and reclaimed water pump stations. These meters are replaced at time of failure. This program also provides for annual replacement of District service meters.

FY 20 \$250,000

FY 21 \$260,000

1.12 Fire Chiefs Fund (A1A14)

This program annually funds replacements and improvements requested by the Marin County Fire Chiefs Association, and typically includes the installation or relocation of fire hydrants.

FY 20 \$150,000

FY 21 \$156,000

1.13 Asset Management Program (A1A16)

This program annually funds the development and implementation projects driven by the asset management program. Funding will support efforts associated with the condition assessment program, driving the decision-making process behind the capital program, and will include software solutions and integrations with current IT infrastructure environments, such as GIS and SAP.

FY 20 \$300,000

FY 21 \$156,000

1.14 Recycled Water (A1C03)

Over the next two years, the District's Las Gallinas Recycled Water Treatment Plant will be decommissioned and the District will initiate recycled water purchases through Las Gallinas Valley Sanitary District once a new recycled water treatment facility expansion is constructed. Capital investments relating to system integration with Las Gallinas Valley Sanitary District are expected.

FY 20 \$50,000
FY 21 \$52,000

2 Watershed

2.1 Minor Structures (A1E01)

This program includes projects that will further the District's goal of protecting watershed function while facilitating the informed and responsible use of the lands held in public trust. In FY20, the District will collaborate with the Town of Ross to reorganize and improve the Phoenix Lake Gateway and team with OneTam to make facility upgrades at the Rock Spring Gateway. The former will improve parking, install additional interpretive signage and repair aging structures at the highly utilized site. At the Rock Spring Gateway, the District will support OneTam by installing additional interpretive and educational kiosks and signage to educate and inform visitors. In FY21, the District will complete a review of sanitation stations across the watershed and continue planning for the installation of improved sanitation facilities at the Lake Lagunitas picnic area.

FY 20 \$ 45,000
FY 21 \$114,000

2.2 Watershed – Ranger Residence Improvement (A1E02)

The six District ranger residences are vital infrastructure elements that establish an official District presence on watershed lands and enable staffing of critical resources for emergency and enforcement activities. The purpose of the Ranger Residence Improvement program is to incrementally upgrade these critical assets and ensure their long-term function. The District successfully completed renovations at the Porteous and Phoenix Dam residences in 2017 and 2018 and the proposed FY20 and FY21 projects include replacement of the antiquated Alpine Dam residence water system, renovation of the Lake Lagunitas residence, and repairs to the Soulajule residence.

FY 20 \$ 55,000
FY 21 \$541,000

2.3 Watershed – Road Repair and Improvement (A1E05)

The District manages a network of fire and access roads that are essential to watershed protection,

water production, and recreation. This system of roads provides the link between District operation and maintenance staff and the dams, treatment plants, water mains, storage reservoirs, and other critical assets that keep the system running. The Road Repair and Improvement program of the CIP acknowledges the importance of establishing and maintaining connectivity between critical assets and will make select investments to increase the resiliency of access roads in a cost-effective manner. Expenditures for FY20 include permitting, design, and construction for culvert and road improvement projects that need immediate attention. Expenditures for FY20 and FY21 also include development of a programmatic permitting approach for maintaining access roads and over 700 culverts. This plan is expected to decrease future costs by consolidating environmental planning, compliance, and reporting efforts associated with culvert replacement actions. This program also includes paving of high-use access roads such as Sky Oaks road, Lagunitas Picnic parking area, and various ranger residence driveways.

FY 20 \$165,000

FY 21 \$354,000

2.4 Watershed – Natural Capital & Green Infrastructure (A1E07)

The District owns and manages over 18,000 acres of land along the wildland and urban interface. From a water supply and fire protection perspective these lands represent a significant holding of natural capital that provides direct and indirect services to adjacent communities and water supply operations. The Mt. Tamalpais watershed's location, topography and flora and fauna all combine to provide water capture, filtration, run-off, and storage that are essential to the water system. The management of vegetation assemblages is a key component of this natural capital as it mitigates the potential for catastrophic fire that could impair water quality and/or destroy adjacent communities. The Natural Capital and Green Infrastructure program acknowledges the importance of investing in natural capital to support ecosystem services and includes \$1,000,000 per year to address fire and fuels management across District lands. Additional projects included in this program include the habitat restoration planning along Lagunitas Creek and the restoration of serpentine soils and vegetation assemblages on Azalea Hill.

FY 20 \$1,075,000

FY 21 \$1,191,000

3 Split-Funding Projects (A1F06)

Watershed management and restoration goals of the District frequently align with state and federal agencies dedicated to endangered species protection, water quality improvements, and catastrophic fire mitigation. The Split-Funding program includes projects and programs that are partially funded by outside agencies and the District through executed grant agreements. The primary split-funding project in the 2-year CIP is the Lagunitas Creek Winter Habitat and Floodplain Enhancement project, which will be completed in FY20. The total FY20 project cost of \$1,548,000 is being funded with \$960,000 of District funds and \$588,000 from three separate grant agreements. The Lagunitas Creek Winter Habitat and Floodplain Enhancement project is a part of ongoing watershed protection measures to stabilize and improve Lagunitas Creek salmonid populations by increasing the winter habitat carrying capacity for coho salmon and steelhead trout in Lagunitas Creek. The project involves modifying the Lagunitas Creek streambed at a number of locations to enhance and restore existing floodplain and in-stream habitat. The total project cost including both District capital funding and grant funding is budgeted.

FY 20 \$1,548,000

FY 21 \$0

4 Information Technology

The Information Technology Capital Improvement Projects are a blend of planned upgrades and new initiatives. Information Technology serves the business technology needs of MMWD, enabling business users to carry out their work efficiently, effectively, and securely. These include: (1) planning, operation, and support of the District's physical technology infrastructure, and (2) planning, design, operations, and maintenance of software applications. MMWD's enterprise systems typically require an upgrade every four to seven years. Additionally, new features can be implemented which help us do a better job of meeting the mission of the District. The FY 20 and 21 budget includes upgrades to Enterprise System Software—SAP.

FY 20 \$500,000

FY 21 \$520,000

5 Capital Purchase Expenditures

The Capital Purchase Expenditures include purchase of capital equipment. The FY 20 and 21 budget includes lab equipment, survey equipment, office furniture and 15 vehicles.

FY 20 \$1,254,000

FY 21 \$1,330,000

10-Year Capital Improvement Program

Fund Center/Project	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29	Total
A1A01 Replacements - Cathodic Protection											
Cathodic Protection System Corrections	\$ 160	\$ 166	\$ 173	\$ 180	\$ 187	\$ 195	\$ 202	\$ 211	\$ 219	\$ 228	\$ 1,921
Corrosion Test Station Rehabilitation	\$ 90	\$ 94	\$ 97	\$ 101	\$ 105	\$ 109	\$ 114	\$ 118	\$ 123	\$ 128	\$ 1,081
Cathodic Protection of Existing Pipelines	\$ 45	\$ 47	\$ 49	\$ 51	\$ 53	\$ 55	\$ 57	\$ 59	\$ 62	\$ 64	\$ 540
Cathodic Protection Remote Monitoring	\$ 30	\$ 31	\$ 32	\$ 34	\$ 35	\$ 36	\$ 38	\$ 39	\$ 41	\$ 43	\$ 360
Rectifier Anode Replacement	\$ 50	\$ 52	\$ 54	\$ 56	\$ 58	\$ 61	\$ 63	\$ 66	\$ 68	\$ 71	\$ 600
A1A01 Subtotal	\$ 375	\$ 390	\$ 406	\$ 422	\$ 439	\$ 456	\$ 474	\$ 493	\$ 513	\$ 534	\$ 4,502
A1A02A Replacements - Distribution Pipelines											
D15046 Sir Francis Drake Blvd (Kentfield) PRP	\$ 1,000	\$ 520	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,520
Larkpur PRP (various streets/projects)	\$ 600	\$ 624	\$ 757	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,981
Pipeline Replacement Program	\$ 700	\$ 1,040	\$ 433	\$ 1,350	\$ 3,159	\$ 5,718	\$ 5,947	\$ 6,580	\$ 8,211	\$ 9,252	\$ 42,389
Service Laterals Renewals	\$ 550	\$ 572	\$ 595	\$ 619	\$ 643	\$ 669	\$ 696	\$ 724	\$ 753	\$ 783	\$ 6,603
Fireline Lateral Renewals	\$ 50	\$ 52	\$ 54	\$ 56	\$ 58	\$ 61	\$ 63	\$ 66	\$ 68	\$ 71	\$ 600
A1A02A Subtotal	\$ 2,900	\$ 2,808	\$ 1,839	\$ 2,025	\$ 3,861	\$ 6,448	\$ 6,706	\$ 7,369	\$ 9,033	\$ 10,106	\$ 53,094
A1A03 Replacements - Transmission Pipelines											
Valve Replacement Program	\$ 100	\$ 104	\$ 108	\$ 112	\$ 117	\$ 122	\$ 127	\$ 132	\$ 137	\$ 142	\$ 1,201
A1A03 Subtotal	\$ 100	\$ 104	\$ 108	\$ 112	\$ 117	\$ 122	\$ 127	\$ 132	\$ 137	\$ 142	\$ 1,201
A1A04 Replacements - Treatment Facilities											
SGTP Clarifier Mechanism Seismic Upgrade	\$ 4,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000
SGTP Flow meter Replacement	\$ 250	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250
SGTP Backup Generator	\$ -	\$ 2,080	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,080
BTPP Clarifier Mechanism Seismic Upgrade	\$ -	\$ -	\$ -	\$ 281	\$ 2,223	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,504
BTPP Fill, Settle, Draw Washwater Basin 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 438	\$ 4,049	\$ -	\$ -	\$ -	\$ 4,487
SGTP Fill, Settle, Draw Washwater Basin 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 197	\$ 2,395	\$ -	\$ 2,592
SGTP Fill, Settle, Draw Washwater Basin 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 197	\$ -	\$ 2,491	\$ 2,688
Preventative Maintenance Projects	\$ 200	\$ 208	\$ 216	\$ 225	\$ 234	\$ 243	\$ 253	\$ 263	\$ 274	\$ 285	\$ 2,401
Bon Tempe Sludge Pond Fencing	\$ 75	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75
A1A04 Subtotal	\$ 4,525	\$ 2,288	\$ 216	\$ 506	\$ 2,457	\$ 681	\$ 4,302	\$ 658	\$ 2,669	\$ 2,775	\$ 21,078
A1A05 Replacements - Reservoir/Dam Facilities											
Miscellaneous Replacements - Reservoir/Dam Facilities	\$ 200	\$ 208	\$ 216	\$ 225	\$ 234	\$ 243	\$ 253	\$ 263	\$ 274	\$ 285	\$ 2,401
Soulajule Environmental Enhancement	\$ 100	\$ 260	\$ 108	\$ 337	\$ 3,276	\$ 487	\$ 127	\$ 132	\$ 137	\$ 142	\$ 5,105
Soulajule Grazing Waiver	\$ 100	\$ 104	\$ 487	\$ 112	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 803
A1A05 Subtotal	\$ 400	\$ 572	\$ 811	\$ 675	\$ 3,510	\$ 730	\$ 380	\$ 395	\$ 411	\$ 427	\$ 8,310
A1A06 Replacements - Building and Grounds											
Administration Building and Yard/Warehouse Improvements	\$ 250	\$ 364	\$ 379	\$ 394	\$ 409	\$ 426	\$ 443	\$ 461	\$ 479	\$ 498	\$ 4,102
Office & Yard Building Capital Repairs	\$ 100	\$ 104	\$ 108	\$ 112	\$ 117	\$ 122	\$ 127	\$ 132	\$ 137	\$ 142	\$ 1,201
Pavement Replacement at Various Facilities	\$ 50	\$ 52	\$ 54	\$ 56	\$ 58	\$ 61	\$ 63	\$ 66	\$ 68	\$ 71	\$ 600
Fencing/Vandalism Deterrent at Facilities	\$ 50	\$ 52	\$ 54	\$ 56	\$ 58	\$ 61	\$ 63	\$ 66	\$ 68	\$ 71	\$ 600
Retaining Wall Replacement	\$ 30	\$ 31	\$ 32	\$ 34	\$ 35	\$ 36	\$ 38	\$ 39	\$ 41	\$ 43	\$ 360
Emergency Gen Shed Improvements	\$ -	\$ -	\$ -	\$ 28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 28
Security Project - Cyberlock, Cameras, Key Cards, Intrusion Alarms	\$ -	\$ -	\$ -	\$ 169	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 169
Pedestrian Crossing Warning Signal	\$ 30	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30
Corporation Yard Building Security Cameras	\$ 40	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40
A1A06 Subtotal	\$ 550	\$ 603	\$ 627	\$ 849	\$ 679	\$ 706	\$ 734	\$ 763	\$ 794	\$ 826	\$ 7,130

10-Year Capital Improvement Program

Fund Center/Project	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29	Total
A1E01 Watershed - Minor Structures I/R/R											
Phoenix Gateway	\$ 15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15
Rock Spring Gateway	\$ 10	\$ 10	\$ 27	\$ 174	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 222
Alpine Dam Historic Preservation (Block Houses)	\$ 20	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20
Sanitation Stations	\$ -	\$ 52	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 52
Lake Lagunitas Flush Toilets	\$ -	\$ 52	\$ 395	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 447
Boat Ramps	\$ -	\$ -	\$ 16	\$ 67	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 84
Dipsea Trail Water Fountain	\$ -	\$ -	\$ -	\$ 28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 28
Gravity Car Gateway	\$ -	\$ -	\$ -	\$ 28	\$ 175	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 204
Bon Tempe Accessible Fishing Pier and Boat Dock (ADA)	\$ -	\$ -	\$ -	\$ -	\$ 35	\$ 219	\$ -	\$ -	\$ -	\$ -	\$ 254
Lake Lagunitas Picnic Ground Rehabilitation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 91	\$ 316	\$ -	\$ -	\$ -	\$ 408
Fish Grade Materials Storage Building	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 34	\$ 213	\$ 248
Sky Oaks Ranger Station Upgrades	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 584	\$ 584
Misc Non-water system Minor Structure Capital Repairs	\$ -	\$ -	\$ -	\$ -	\$ 47	\$ 49	\$ 51	\$ 53	\$ 55	\$ 57	\$ 310
A1E01 Subtotal	\$ 45	\$ 114	\$ 438	\$ 298	\$ 257	\$ 359	\$ 367	\$ 53	\$ 89	\$ 854	\$ 2,874
A1E02 Watershed - Ranger Residence Improvements											
Soulajule Residence Repairs	\$ 25	\$ 26	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 51
Lake Lagunitas Residence Repairs	\$ 30	\$ 359	\$ 43	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 432
Alpine Dam Residence Water System Upgrade	\$ -	\$ 73	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 73
Sky Oaks Residence Repairs	\$ -	\$ 31	\$ 162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 193
Nicasio Residence Repairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 821	\$ -	\$ 821
Misc Ranger Residence Repairs	\$ -	\$ 52	\$ 108	\$ 112	\$ 117	\$ 122	\$ 127	\$ 132	\$ 137	\$ 142	\$ 1,049
A1E02 Subtotal	\$ 55	\$ 541	\$ 314	\$ 112	\$ 117	\$ 122	\$ 127	\$ 132	\$ 958	\$ 142	\$ 2,619
A1E04 Watershed - Trail Repair and Improvement											
Cataract Trail Rehabilitation	\$ -	\$ -	\$ -	\$ -	\$ 117	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 117
Grassy Slope/Continental Cove Road to Trail	\$ -	\$ -	\$ -	\$ -	\$ 117	\$ 182	\$ -	\$ -	\$ -	\$ -	\$ 299
Concrete Pipe Road to Trail	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 127	\$ 197	\$ -	\$ -	\$ 324
Misc Trail Improvements/Rehabilitation	\$ -	\$ 52	\$ 54	\$ 84	\$ 117	\$ 122	\$ 127	\$ 132	\$ 103	\$ 142	\$ 932
A1E04 Subtotal	\$ -	\$ 52	\$ 54	\$ 84	\$ 351	\$ 304	\$ 253	\$ 329	\$ 103	\$ 142	\$ 1,673
A1E05 Watershed - Road Repair and Improvements											
Filter Plant Road Culvert Repairs	\$ 15	\$ 68	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 83
Culvert & Stream Enhancements Planning/Compliance	\$ 100	\$ 52	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 152
Culvert & Stream Crossing Repairs	\$ 50	\$ 52	\$ 324	\$ 394	\$ 409	\$ 487	\$ 506	\$ 526	\$ 547	\$ 569	\$ 3,866
Kent Pump Road Culverts	\$ -	\$ 78	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 78
Lagunitas Picnic Parking Lot	\$ -	\$ 57	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 57
Soulajule Residence Driveway	\$ -	\$ 16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16
Sky Oaks Residence Driveway	\$ -	\$ 16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16
Lagunitas Residence Driveway	\$ -	\$ 16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16
Slurry Seal & Restripe Sky Oaks Road	\$ -	\$ -	\$ 32	\$ 197	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 229
Misc Non-water system Road Repairs	\$ -	\$ -	\$ 54	\$ 84	\$ 88	\$ 91	\$ 95	\$ 99	\$ 103	\$ 107	\$ 720
Gravity Car Parking Lot	\$ -	\$ -	\$ -	\$ 67	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 67
Water System Road Repair	\$ -	\$ -	\$ -	\$ 169	\$ 175	\$ 182	\$ 190	\$ 197	\$ 205	\$ 213	\$ 1,333
Re-pave Soulajule Road	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 274	\$ -	\$ -	\$ -	\$ -	\$ 274
Sky Oaks Road & Filter Plant Road Widening Project	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 190	\$ 329	\$ -	\$ -	\$ 519
A1E05 Subtotal	\$ 165	\$ 354	\$ 411	\$ 911	\$ 673	\$ 1,034	\$ 981	\$ 1,151	\$ 855	\$ 890	\$ 7,425

10-Year Capital Improvement Program

Fund Center/Project	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29	Total
A1E07 Watershed - Natural Capital and Green Infrastructure											
Misc Habitat Restoration & Revegetation Projects	\$ -	\$ -	\$ 54	\$ 56	\$ 58	\$ 61	\$ 139	\$ 145	\$ 68	\$ 71	\$ 653
Lagunitas Booster Bank Stabilization & Habitat Planning	\$ 15	\$ 31	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 46
Lagunitas Creek Habitat Project Planning	\$ 10	\$ 16	\$ 27	\$ 28	\$ 29	\$ 30	\$ 32	\$ 33	\$ 34	\$ 36	\$ 275
Azalea Hill Restoration Planning	\$ 50	\$ 104	\$ 54	\$ 28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 236
Fire & Fuels Management	\$ 1,000	\$ 1,040	\$ 1,082	\$ 1,125	\$ 1,170	\$ 1,217	\$ 1,265	\$ 1,316	\$ 1,369	\$ 1,423	\$ 12,006
A1E07 Subtotal	\$ 1,075	\$ 1,191	\$ 1,217	\$ 1,237	\$ 1,258	\$ 1,308	\$ 1,436	\$ 1,494	\$ 1,471	\$ 1,530	\$ 13,216
A1F06 Reimbursable - Split Grant Funding											
FRGP Winter Habitat Implementation Phase 1	\$ 210	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 210
FRGP Winter Habitat Implementation Phase 2	\$ 1,228	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,228
SWRCB Winter Habitat 319h	\$ 110	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 110
A1F06 Subtotal	\$ 1,548	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,548
A2A Fire Flow Improvement Program											
Fire Flow Improvement Program	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 45,000
A2A Subtotal	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 45,000
A4B Information Technology - IT											
A4B Information Technology - IT	\$ 500	\$ 520	\$ 541	\$ 562	\$ 585	\$ 608	\$ 633	\$ 658	\$ 684	\$ 712	\$ 6,003
A4B Subtotal	\$ 500	\$ 520	\$ 541	\$ 562	\$ 585	\$ 608	\$ 633	\$ 658	\$ 684	\$ 712	\$ 6,003
Capital Equipment Purchases											
	\$ 1,254	\$ 1,330	\$ 1,622	\$ 1,687	\$ 1,755	\$ 1,825	\$ 1,898	\$ 1,974	\$ 2,053	\$ 2,135	\$ 17,533
Pipelines and Storage	\$ 11,045	\$ 13,818	\$ 15,381	\$ 15,929	\$ 11,238	\$ 16,375	\$ 15,015	\$ 15,435	\$ 15,394	\$ 16,541	\$ 146,171
Treatment Plants	\$ 4,575	\$ 2,340	\$ 216	\$ 506	\$ 2,457	\$ 681	\$ 4,302	\$ 658	\$ 2,669	\$ 2,775	\$ 21,180
Watershed	\$ 3,288	\$ 2,824	\$ 3,245	\$ 3,318	\$ 6,165	\$ 3,857	\$ 3,543	\$ 3,553	\$ 3,887	\$ 3,985	\$ 37,665
General Improvements	\$ 2,689	\$ 2,698	\$ 3,423	\$ 3,588	\$ 3,703	\$ 3,668	\$ 4,005	\$ 3,968	\$ 4,332	\$ 4,291	\$ 36,364
TOTAL	\$ 21,597	\$ 21,680	\$ 22,265	\$ 23,341	\$ 23,563	\$ 24,581	\$ 26,865	\$ 23,614	\$ 26,281	\$ 27,593	\$ 241,379