



**DATE:** May 14, 2019  
**TO:** Mayor and City Council  
**FROM:** Director of Public Works  
**SUBJECT:** Recommended FY 2020 and FY 2021 Recycled Water Rates and Connection Fees

**RECOMMENDATION**

That Council receives this report and provides comments.

**SUMMARY**

The City is implementing Phase I of the Recycled Water Project, which will provide a locally sustainable and drought-proof supply of recycled water to customers for irrigation and industrial uses. Recycled water deliveries to customers are anticipated to begin in March 2020. Therefore, a recycled water rate structure needs to be established and included in the Master Fee Schedule for Fiscal Year 2020.

Staff has prepared a cost of service analysis for providing recycled water service to calculate appropriate rates and charges for FY 2020 and FY 2021. This report provides an overview of cost of service issues, revenue requirements, and a recommended recycled water service rate. The recommended recycled water rate structure would include a uniform volume charge of \$5.16 per hundred cubic feet (CCF), which pays for the costs associated with recycled water production and deliveries, and a fixed bimonthly water service fee for recycled water, which is proposed to be the same rate as the water service fee for potable water. Staff is proposing the same rate for FY 2020 and FY 2021. The recommended recycled water commodity rate at \$5.16 per CCF is 25.8% lower than the current potable water rate at \$6.95 per CCF for the first 200 CCF of usage. The proposed recycled water rate structure is anticipated to result in an annual cost savings for Phase I customers ranging from 17% to 36%, or an average savings of approximately 30% for all Phase I customers.

Due to the lack of sufficient data to calculate a supportable recycled water connection fee, at this time, staff is proposing to use the same connection fee that is charged for potable water connections for new Hayward water customers who will be connecting to the recycled water system. Further analysis will be conducted as the system comes online and begins deliveries of recycled water.

## **BACKGROUND**

The City is implementing the Recycled Water Project to deliver disinfected tertiary treated recycled water for irrigation and industrial uses. The use of recycled water will reduce the demand for potable water and improve the reliability and availability of potable water, while providing a sustainable and drought-resistant water supply for customers that connect to the recycled water system. Customers include parks, schools, businesses, and industrial parks within a three-mile radius of the Water Pollution Control Facility (WPCF). Recycled water deliveries to customers are anticipated to begin in March 2020.

Recycled water rates are established to pay for the costs of treatment and delivery of recycled water to customers and are determined through an assessment of revenue requirements and anticipated recycled water purchase volumes. The proposed bimonthly recycled water bills would consist of two parts: 1) the fixed service fee, which pays for services that do not vary with the volume of recycled water purchased, such as meter maintenance; and 2) the recycled water usage fee, which pays for costs associated with water consumption, such as the pipeline maintenance and energy related expenses.

Connection fees are fees paid by those wishing to connect a new development to the recycled water system to pay for improvement and expansion of the recycled water systems to accommodate the development. Existing water customers that will be converted to recycled water for irrigation needs would not be required to pay a connection fee since a potable water connection fee was paid in their initial water set up. The City intends to develop a Recycled Water Master Plan to guide implementation of future phases. Once the costs of expanding the use of recycled water are better known, connection fees may be adjusted appropriately.

In order to meet the requirements of Proposition 218, a Recycled Water Enterprise Fund would be established and operated as separate enterprise to ensure that revenues are commensurate with the costs of operating the Recycled Water Program. Revenue and expenses for delivering recycled water will be tracked separately from water and sewer transactions.

## **DISCUSSION**

Staff recommends a rate structure that offers an incentive to recycled water customers while adequately recovering costs over the life of the project. In general, the cost of service analysis considered the following principles for developing potable water rates.

### Factors Considered in Recycled Water Rate Analysis

#### *Operating, Maintenance, and Replacement Costs*

The operating, maintenance and replacement costs ensure the recycled water system remains robust, well maintained, and capable of delivering recycled water where and when it is needed under normal operating conditions. Treatment, storage, and pump station and pipeline operation and maintenance costs were developed by staff. Capital replacement costs

allow the renewal of infrastructure as it reaches the end of its useful life. The total annual operating cost is estimated at \$654,000.

*Debt Service*

The City executed a financing agreement with the State Water Resources Control Board in the form of a low-interest Clean Water State Revolving Fund loan. The debt service cost incorporated into the FY 2020 and 2021 rate calculation is an average of the first two years of principal and interest payments. The total annual debt service cost is estimated at \$759,000, which is the average of the first year of \$639,068 and second year at \$824,771. Going forward, staff will utilize the actual annual debt service cost.

*Transfer from Water Fund*

Recycled water use delays the increasing costs of water and wastewater by improving water supply reliability, conserving potable water supplies, and reducing wastewater discharges to the environment. Staff recommends a \$600,000 water operating fund transfer to offset the recycled water expenditures as a result of the potential savings and benefits of recycled water use.

*Recycled Water Consumption*

Staff has developed demand projections for the quantity of recycled water to be delivered to customers. However, like potable water consumption, it is difficult to estimate recycled water usage since consumption, especially irrigation demand, varies based on climate conditions and other factors. Staff's best estimate is that the project will deliver about 260,000 gallons per day (gpd), or nearly 126,900 hundred cubic feet (CCF) per year.

Summary of Revenue Requirements

The following table summarizes the revenue requirements to be recovered from recycled water customers. At this time, staff recommends that 100% of the costs be allocated to the volumetric rate, because of the low number of meters, allocating a portion of the costs to the fixed rate results in a disproportionately high service fee.

<b>Description</b>	<b>Amount</b>
Employee Services, Maintenance and Supplies	\$ 312,600
Capital Replacement	\$ 182,800
Debt Service <sup>(1)</sup>	\$ 758,900
Total Operating Costs	\$1,254,300
Transfer from Water Operating Fund	(\$ 600,000)
Recycled Water Revenue Requirement	\$ 654,300

<sup>(1)</sup> Average of first two years of repayment

Proposed Recycled Water Rates

*Recycled Water Service Fees*

The fixed bimonthly service fee pays for costs that do not vary with recycled water consumption, such as on-going fixed costs like customer billing. Staff is proposing to charge the same meter fees as potable water. The following table summarizes the proposed bimonthly service fees for all meter sizes in use.

*Proposed Bimonthly Water Service Fees*

Meter Size	Proposed Fee FY 2020	Proposed Fee FY 2021
5/8"	\$28.00	\$32.00
3/4"	\$38.07	\$43.51
1"	\$57.67	\$65.91
1 1/2"	\$126.27	\$144.31
2"	\$222.25	\$254.00
3"	\$560.88	\$641.00
4"	\$1,111.08	\$1,269.80
6"	\$1,960.00	\$2,240.00
8"	\$2,713.38	\$3,101.00

*Recycled Water Usage Rate*

Staff is proposing a uniform tier commodity rate at \$5.16 per CCF in FY 2020 and FY 2021, which would yield revenues of about \$654,000 annually. The recommended recycled water commodity rate at \$5.16 per CCF is 25.8% lower than the current potable water rate at \$6.95 per CCF for the first 200 CCF and 37.8% lower than potable water rate at \$8.29 for over 200 CCF. The following table summarizes usage rate difference between non-residential and the proposed recycled water rate.

*Usage Rate Difference*

Current Non-Residential Rate (\$/CCF)	Proposed Recycled Water Rate (\$/CCF)	% Difference
\$6.95 (1-200 CCF)	\$5.16	25.8%
\$8.29 (200+ CCF)		37.8%

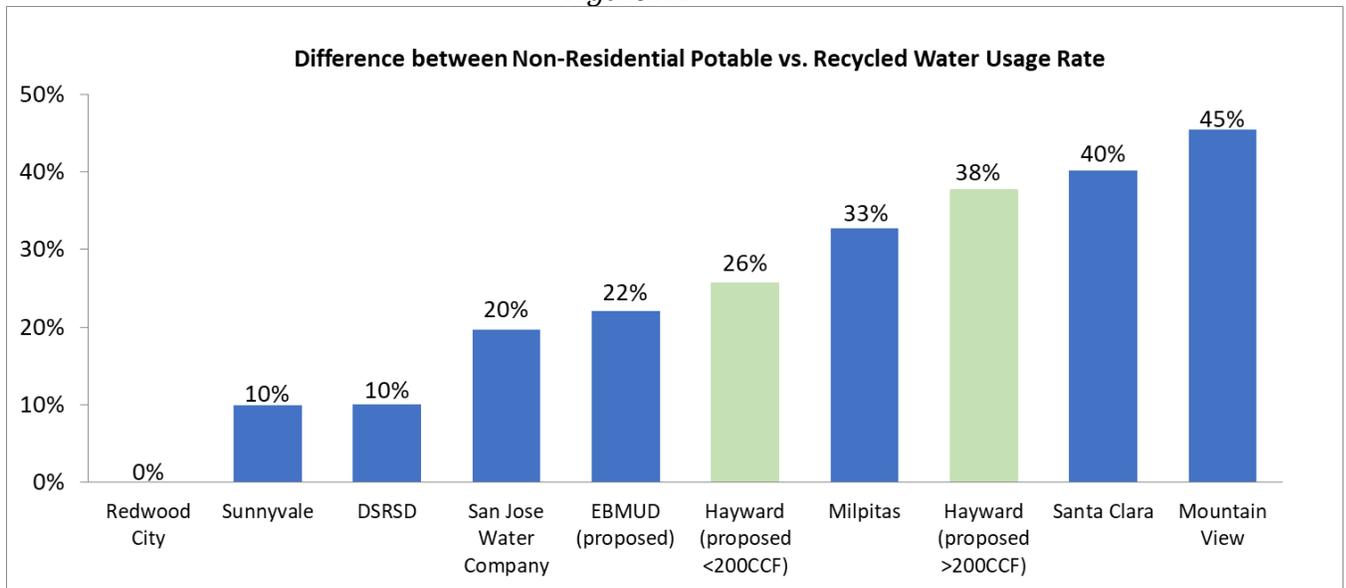
*Recycled Water Connection Fee*

At this time, the vast majority of recycled water customers are existing water customers who are being retrofitted to use recycled water at no upfront cost to the customer. There may be a handful of new customers who will be required to connect to the recycled water system as required by the City's Recycled Water Use Ordinance. Due to the lack of sufficient data to calculate a supportable recycled water connection fee, staff is proposing to use the same connection fee for potable water for the minimal number of new recycled water customers. Appropriate connection fees will be calculated after development of Recycled Water Master Plan.

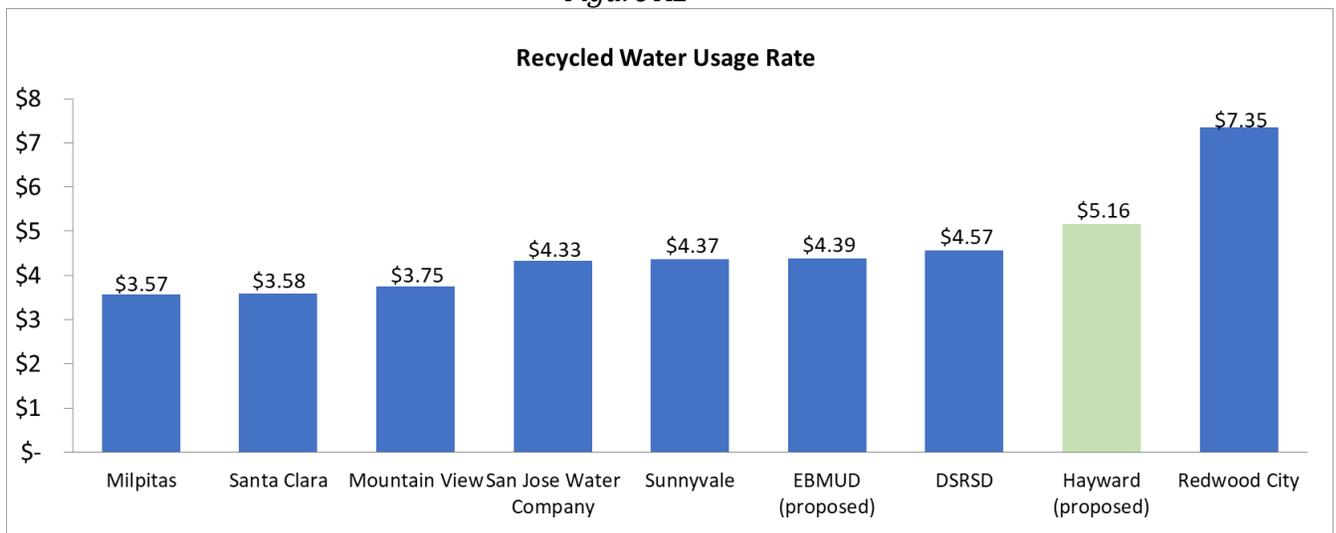
*Comparisons with Other Water Agencies*

Figure A1 and A2 below show how Hayward’s proposed recycled water usage rate compares to other nearby agencies. The proposed FY 2020 and FY 2021 rates would place Hayward in the mid to high-range of reduction from non-residential potable usage rate at 26% for the first 200 CCF and at 38% for over 200 CCF. Other nearby agencies reduction differences range from 0% to 45%, with an average reduction of 22%. It must be noted that most of the compared agencies charge the same fixed bimonthly service fee as potable water.

*Usage Rate Difference between Potable and Recycled Water  
Figure A1*



*Figure A2*



**ECONOMIC IMPACT**

The recommended recycled water commodity rate at \$5.16 per CCF is 25.8% lower than the current potable water rate at \$6.95 per CCF for the first 200 CCF, and 37.8% lower than potable water rate at \$8.29 for over 200 CCF. The proposed recycled water rate structure is anticipated to result in an annual cost savings for Phase I customers ranging from 17% to 36%, or an average savings of approximately 30%, based on their average irrigation demand.

## **FISCAL IMPACT**

### *Recycled Water Fund*

A Recycled Water Enterprise Fund would be operated as a separate enterprise with its rate structure in FY 2020 Budget. Revenue and expense for delivering recycled water would be tracked separately from water and sewer transactions. While the expenses and revenues in the Recycled Water Fund would be modest initially, they would increase as new customers are added and future project phases are implemented.

The proposed rates are expected to generate about \$179,000 and \$654,000, including service charges, in FY 2020 and FY 2021 respectively. Staff anticipates a \$150,000 transfer from the Water Fund to working capital in FY 2020, and a \$600,000 transfer from the Water Fund in FY 2021, due in large part to the \$693,000 repayment of the low-interest Clean Water State Revolving Fund loan. The Water Fund is projecting a \$196K and a \$65K surplus in FY 2020 and FY 2021, respectively. It must be noted that the fiscal impacts discussed are based on current projections, and as always, are subject to change based on a variety of factors such as consumption trends, new regulations, and future changes in water rates. Attachment II illustrates the working capital balances projected through FY 2024.

## **STRATEGIC INITIATIVES**

This agenda item does not relate to strategic initiatives.

## **SUSTAINABILITY FEATURES**

The use of recycled water will reduce the demand for drinking water and improve the reliability and availability of drinking water, while providing a sustainable and drought-proof water supply for some irrigation uses. It will also reduce the volume of wastewater and associated nutrients and residual pollutants discharged to San Francisco Bay, which is required to meet increasingly stringent discharge regulations.

## **ENVIRONMENTAL REVIEW**

The California Environmental Quality Act (CEQA) includes an exemption for revisions to rates and charges that are for the purpose of: 1) meeting operating expenses; 2) purchasing or leasing supplies, equipment, and materials; 3) meeting financial reserve requirements; or 4) obtaining funds for capital projects necessary to maintain services and system reliability within existing service areas. No additional CEQA review is required.

## **PUBLIC CONTACT**

With the City Council's concurrence with the proposed recycled water rates, staff will implement the legal noticing requirements of Proposition 218, which mandates written notice of the proposed rates to all affected property owners at least forty-five days in advance of the public hearing, currently scheduled for July 2, 2019. In instances where a party other than the property owner is the account holder of record, notice will also be sent to that party. The notice describes the proposed rates. The notice will also discuss the property owners' right to protest the rates. Council may not take action on the rates if a majority of affected property owners file written protests. Staff will also post the information on the City's website and publish the required notice in the newspaper.

### **NEXT STEPS**

Council is scheduled to consider the recycled water rate and hold a public hearing at its July 2 meeting. If adopted, the rates would be effective on October 1, 2019 and October 1, 2020; however, as a practical matter, recycled water rates would be implemented in March 2020.

*Prepared by:*                 Elli Lo, Management Analyst  
  Marilyn Mosher, Senior Management Analyst

*Recommended by:*     Alex Ameri, Director of Public Works

Approved by:



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Kelly McAdoo, City Manager

## Recycled Water Maintenance &amp; Operations Fund 630

	FY 2018 Actual	FY 2019 Adjusted	FY 2019 Est. Actual	FY 2020 Proposed	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected
<b>Beginning Fund Balance</b>			0	0	195,800	261,333	221,772	212,649
<b>Program Revenues</b>								
Water Sales	0	0	0	165,000	597,300	639,111	683,849	731,718
Service Charges	0	0	0	14,250	56,700	56,700	56,700	56,700
Installation Fees	0	0	0	0	0	0	0	0
Other Revenues	0	0	0	0	0	0	0	0
Interest	0	0	0	0	0	0	0	0
Transfers In	0	0	0	150,000	600,000	600,000	600,000	600,000
<b>Total Revenues</b>	0	0	0	329,250	1,254,000	1,295,811	1,340,549	1,388,418
<b>Expenditures</b>								
Personnel	0	0	0	126,755	299,299	314,300	328,400	343,200
Non-Personnel	0	0	0	6,700	706,368	838,271	838,471	838,771
Water Purchases	0	0	0	0	0	0	0	0
Transfers Out	0	0	0	0	182,800	182,800	182,800	182,800
<b>Total Expenditures</b>	0	0	0	133,455	1,188,467	1,335,371	1,349,671	1,364,771
<b>Annual Surplus/(Shortfall)</b>	0	0	0	195,795	65,533	(39,560)	(9,123)	23,647
<b>Ending Fund Balance</b>	0	0	0	195,795	261,333	221,772	212,649	236,296