

# COUNTY OF MAUI DEPARTMENT OF WATER SUPPLY WATER RATE STUDY

November 19, 2020



Received at BFED meeting on 02/17/2021  
from Committee Chair Rawlins-Fernandez



# TOPICS FOR TODAY'S MEETING

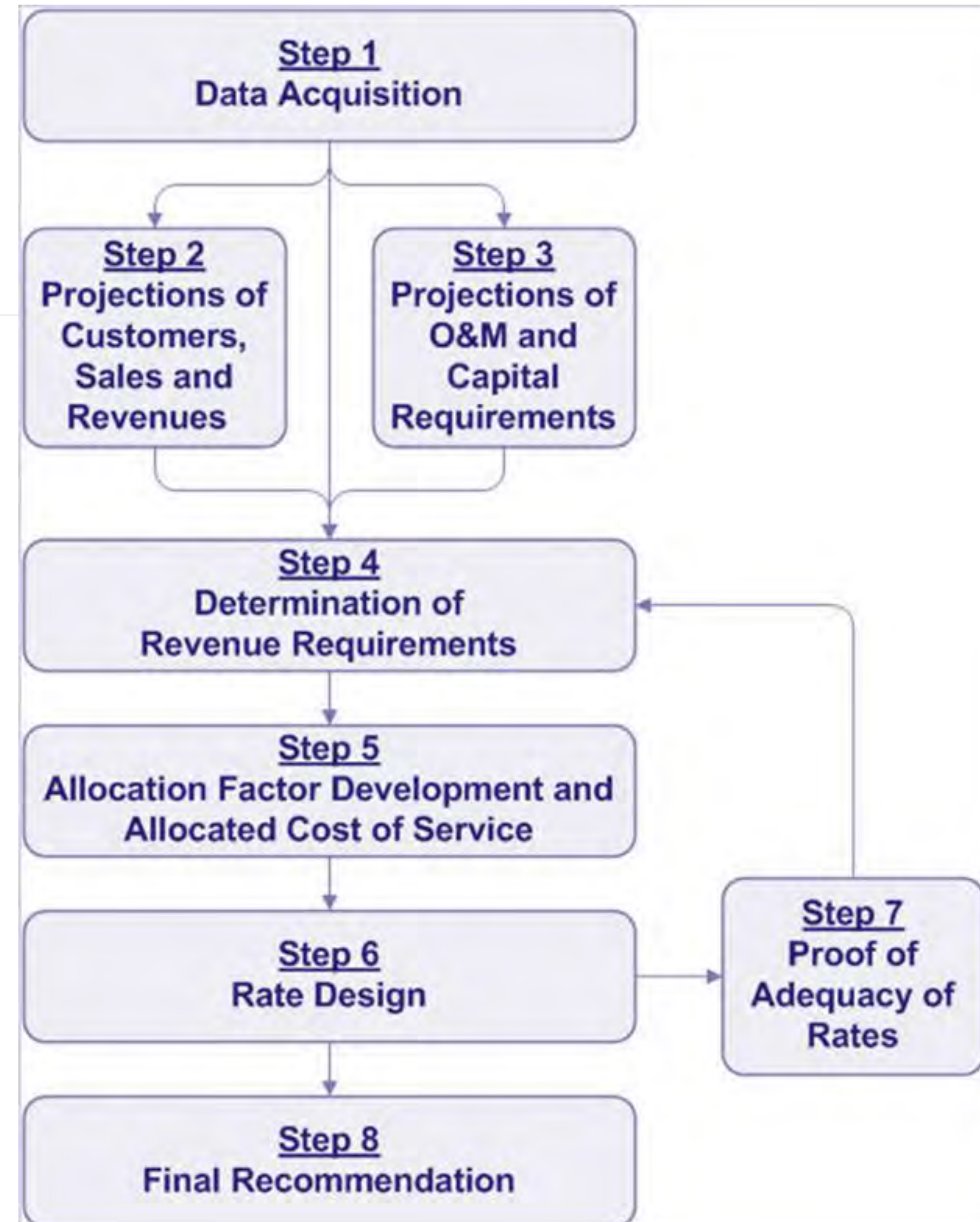
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- How rates are developed
- Key assumptions
- Results of analyses to date
- Future rate study considerations
  - Customer class subsidies
  - Alternative rate structures

# WATER RATE STUDY

## HOW RATES ARE DEVELOPED

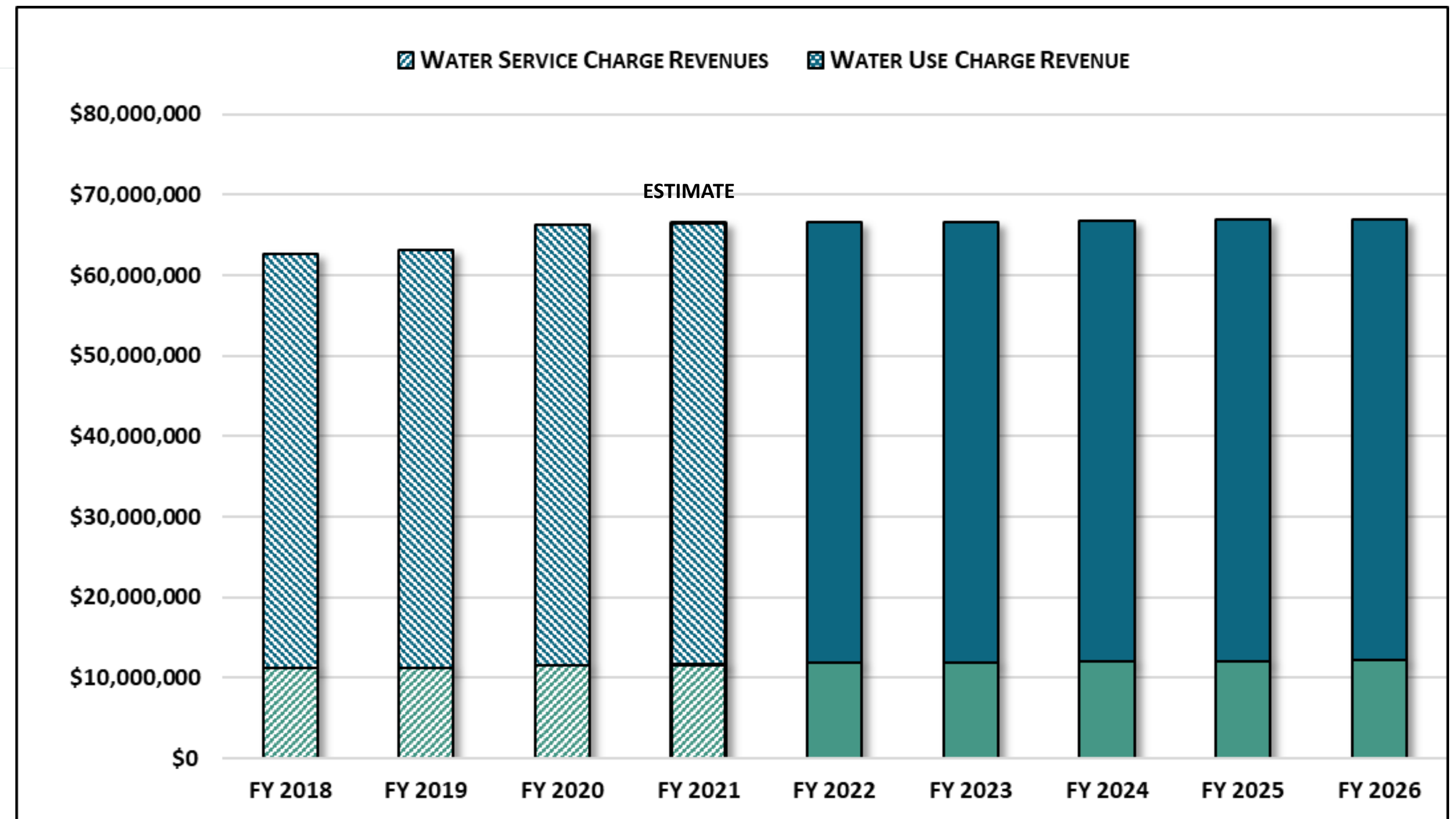
- **Set rate levels sufficient to:**
  - Pay ongoing operational needs and existing debt service obligations
  - Fund adequate level of capital spending for system sustainability
  - Achieve financial performance metrics in line with industry standards
- **Assign water system costs to customer classes in proportion to demand placed on system**
- **Establish fixed and variable rate components that align with revenue needs and DWS conservation goals**



# WATER RATE STUDY – REVENUE REQUIREMENTS

## REVENUE FORECAST ASSUMPTIONS

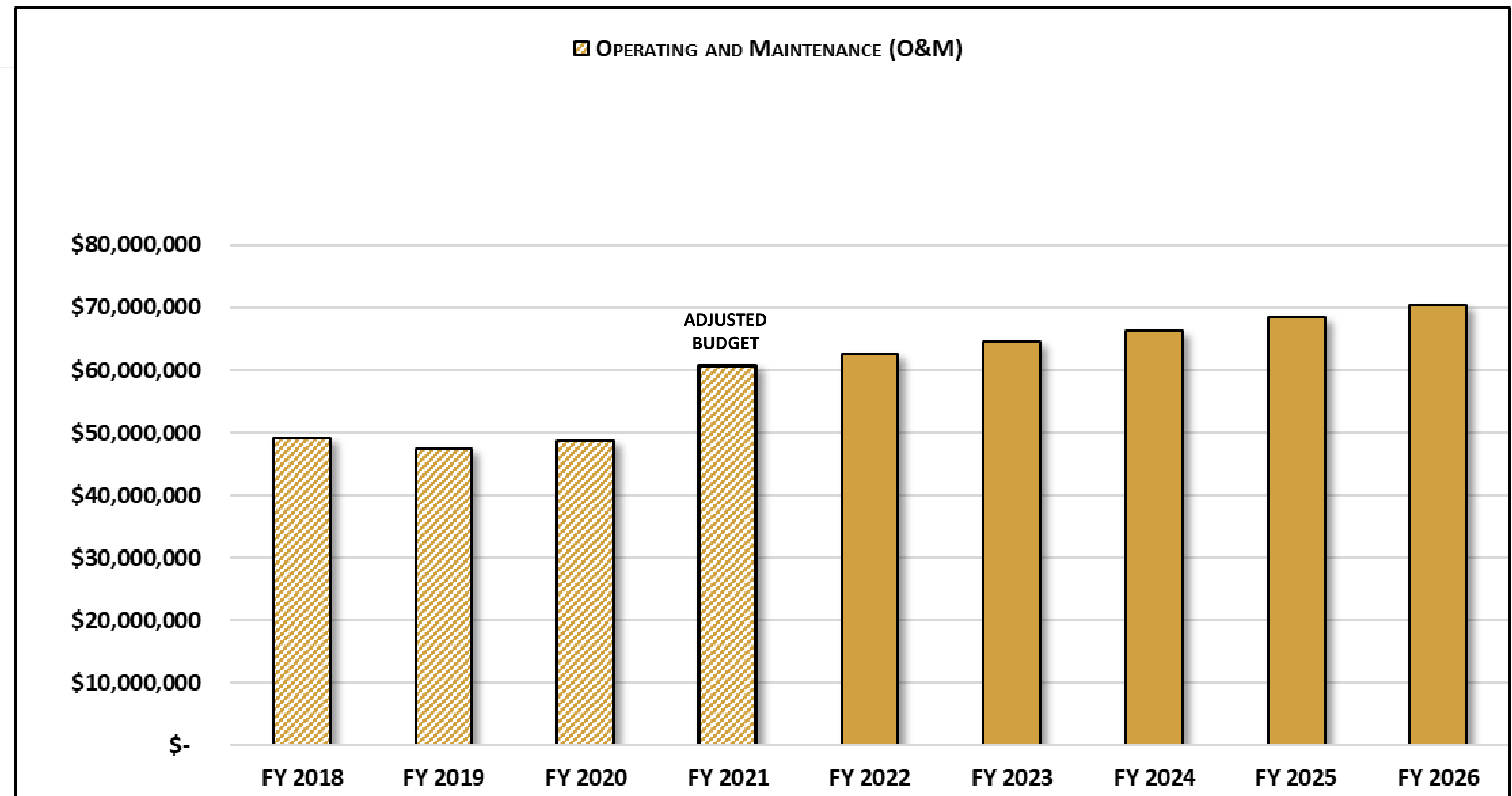
- **Water rate revenue 3-year historical average performance (FYs 2018-2020)**
  - Total system average annual **customer** growth rate was 0.67%; projected to continue FYs 2021-2026 at historical rate
  - Total system average annual **water sales** growth rate was 1.80%; projected to remain flat FYs 2021-2026
  - Historical water revenue adjustments
    - FY 2018-2019 0%
    - FY 2020 3%
    - FY 2021 (current year) 0%
  - Total system average annual **revenue** growth was 2.91%; projected to increase 0.15% per year at existing rates (FYs 2021-2026)



# WATER RATE STUDY

## OPERATING & MAINTENANCE FORECAST ASSUMPTIONS

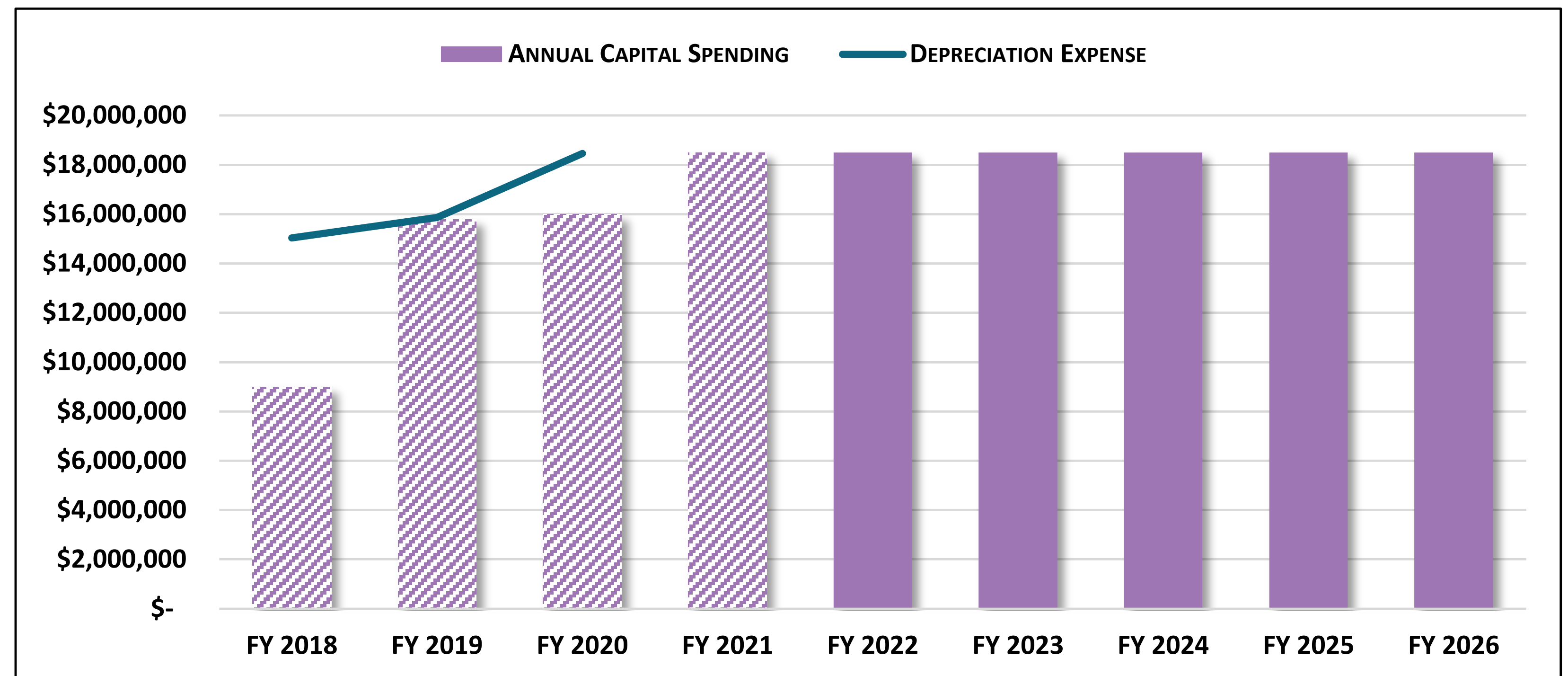
- Historical O&M expense has been flat over the last 3 years at about \$48 million.
- FY 2021 budget is \$63M or 29% increase over FY 2020 expenditures.
  - Adjusted to \$60.8M to reflect estimated 10% staff vacancies
- Future projections assume 3% annual escalation and adjustment for staff vacancies.



# WATER RATE STUDY

## CAPITAL FORECAST ASSUMPTIONS

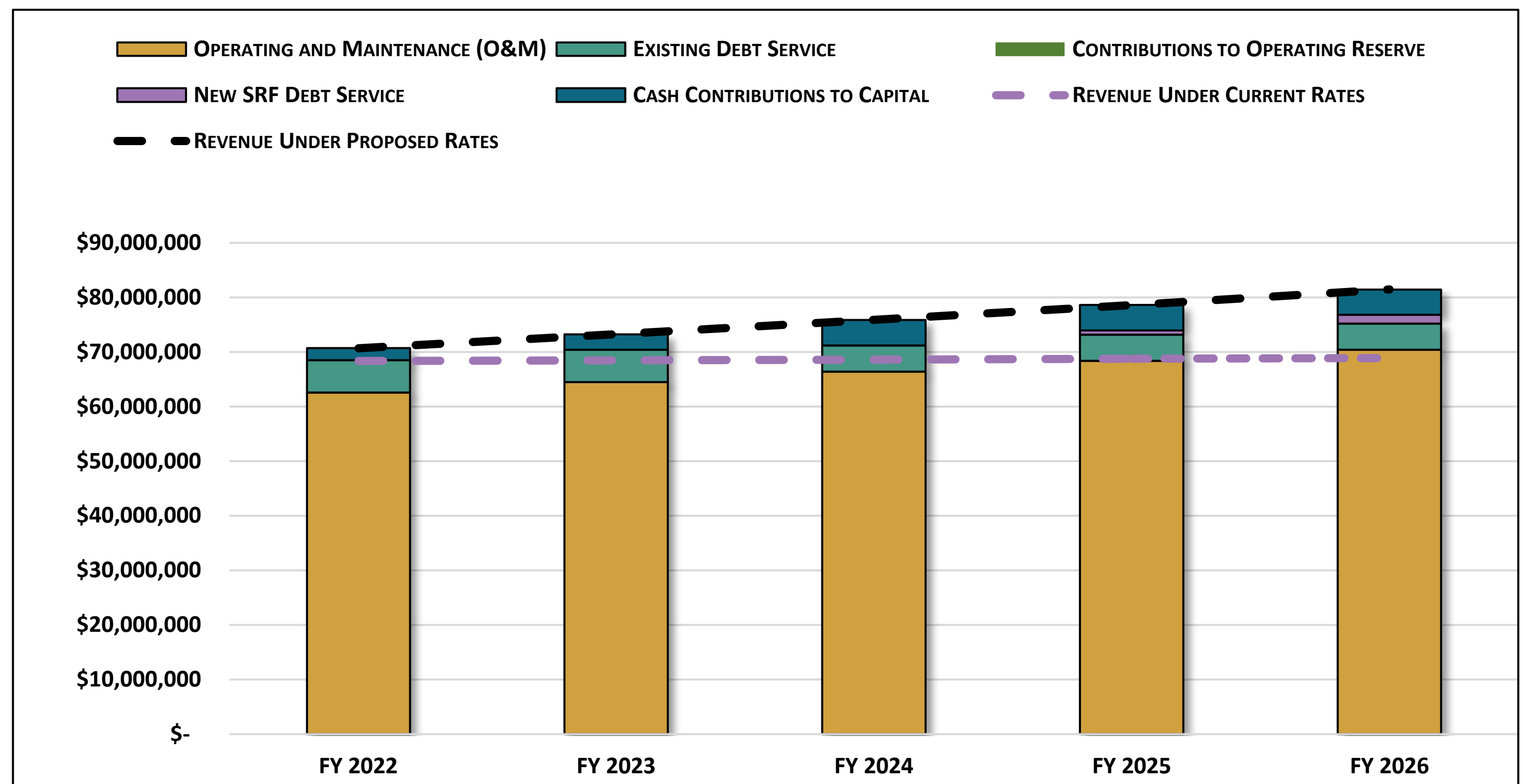
- Historical capital spending has averaged \$13.6M over past 3 years (FYs 2018-2020)
- Historical depreciation expense has averaged \$16.5M over past 3 years
- Average annual capital spending projected at \$18.5M FYs 2021-2026
  - Equals FY 2020 actual depreciation expense of \$18.5M



# WATER RATE STUDY

## PROJECTED REVENUE REQUIREMENT

- **Rate adjustment strategy of 3.5% annual increases FYs 2022-2026 provides for:**
  - Forecasted O&M expense and existing debt service obligations
  - Average annual capital spending projected to be \$18.5M per year
  - Capital funding assumes grants, cash reserves and \$27.5M of new SRF debt issuances over 5 years
  - Debt service coverage target of 1.20 met FYs 2022-2026



# WATER RATE STUDY

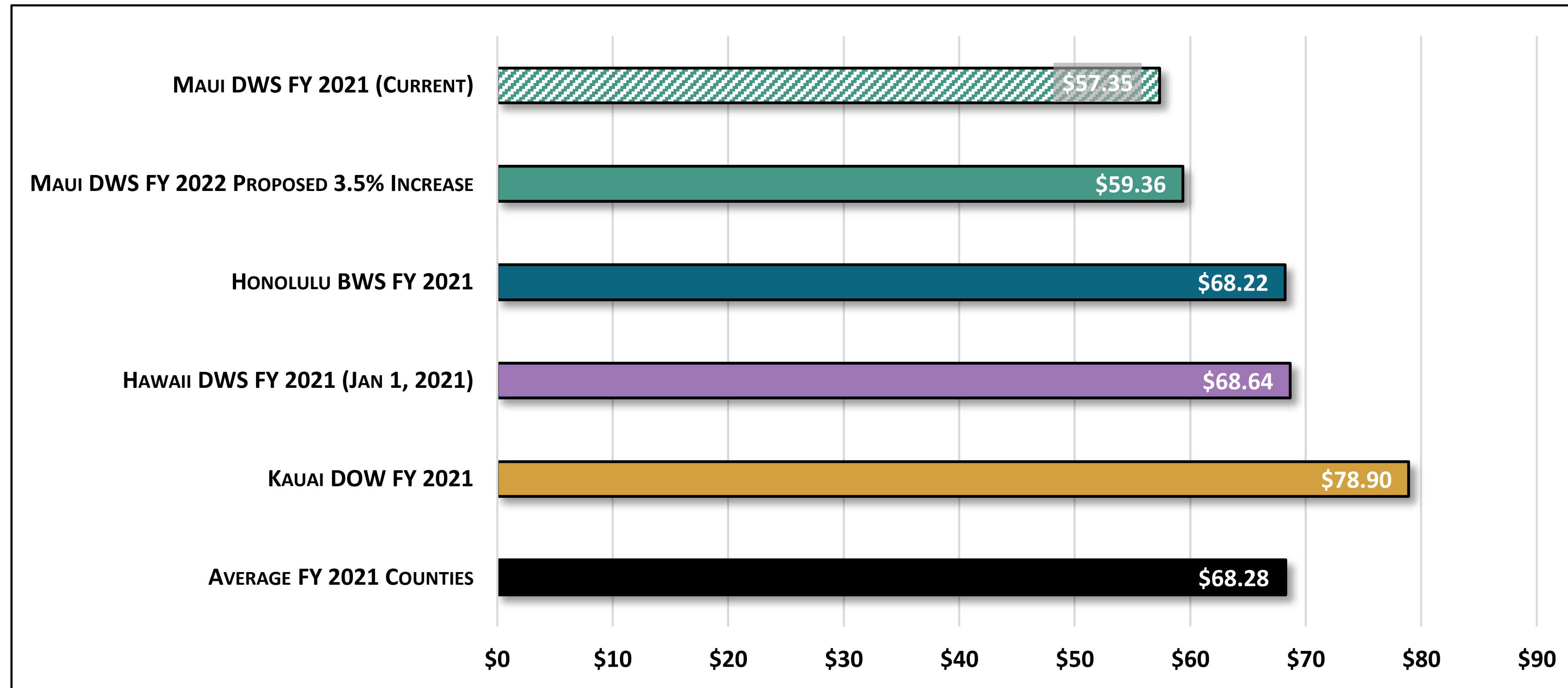
## SUMMARY REVENUE REQUIREMENT RESULTS

- Analysis indicates need for annual rate increases of 3.5% per year over 5 years (FYs 2022-2026)
- Projected average annual capital spending
  - Capital spending is a driver for rate increases
  - Assumes \$18.5M per year FYs 2021-2026
  - Compares to FY 2020 actual depreciation expense of \$18.5M
- Debt service coverage target of 1.20 met in FYs 2022-2026 assuming 3.5% per year rate increases



# WATER RATE STUDY

## RESIDENTIAL MONTHLY BILL COMPARISON



• Assumes Single Family 5/8-inch meter and average use per account of 12,000 gallons per month

# WATER RATE STUDY

## COST OF SERVICE RESULTS

- General Rates subsidizing Single Family and Agriculture classes
- Revenue generation from Water Service Charge and Water Usage Charge
  - Existing rates: 18% / 82%
  - Cost of service: 21% / 79%
  - Compares to industry standard of 25% to 40% from fixed water service charges

Line No.	Customer Classes	Test Year: FY 2022	
		Revenue under Existing Rates	Revenue under Cost of Service
1	General Rates - Single Family		
2	Water Service Charge Revenues	\$7,239,945	\$7,991,335
3	Water Usage Charge Revenues	17,887,696	20,427,761
4	Subtotal	\$25,127,641	\$28,419,096
5	Projected Revenues as Percent of Cost-of-Service		88.4%
6			
7	General Rates - All Other		
8	Water Service Charge Revenues	\$4,296,142	\$5,949,145
9	Water Usage Charge Revenues	35,549,065	28,860,932
10	Subtotal	\$39,845,207	\$34,810,078
11	Projected Revenues as Percent of Cost-of-Service		114.5%
12			
13	Agriculture		
14	Water Service Charge Revenues	\$219,993	\$743,978
15	Water Usage Charge Revenues	1,160,210	4,275,795
16	Subtotal	\$1,380,203	\$5,019,773
17	Projected Revenues as Percent of Cost-of-Service		27.5%
18			
19	Non-Potable Agriculture		
20	Water Service Charge Revenues	\$56,645	\$31,168
21	Water Usage Charge Revenues	144,525	603,504
22	Subtotal	\$201,170	\$634,673
23	Projected Revenues as Percent of Cost-of-Service		31.7%
24			
25	Total	\$66,554,221	\$68,883,619
26	Projected Revenues as Percent of Cost-of-Service		96.6%
27	Projected Rate Increase Required		3.50%
28			
29	Water Service Charges - % of Total	18%	21%
30	Water Usage Charges - % of Total	82%	79%
		100%	100%

# WATER RATE STUDY

## FUTURE CONSIDERATIONS FOR CUSTOMER CLASS SUBSIDIES

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- What are Cost of Service objectives?
  - Continue all existing subsidies
  - Continue only agriculture subsidies
  - Phase in to Cost of Service over time
  - Move immediately to Cost of Service

# WATER RATE STUDY

## FUTURE CONSIDERATIONS FOR ALTERNATIVE RATE STRUCTURES

- What are DWS rate structure objectives?
  - Revenue Stability
  - Conservation
  - Affordability
  - Ease of Administration

Rate Structures	Sample Rate Objectives			
	Revenue Stability	Conservation	Customer Affordability	Ease of Administration
Separate Residential/Commercial Classes		X	X	
Inverted Block		X		
Uniform or Flat Rate	X			X
Seasonal		X		
High Monthly Charge	X			
Low Monthly Charge			X	



# DISCUSSION



## BFED Committee

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**From:** Lesley J. Milner  
**Sent:** Wednesday, February 17, 2021 1:15 PM  
**To:** BFED Committee  
**Cc:** Yvette Bouthillier  
**Subject:** FW: Water Rate Study  
**Attachments:** Water Rate Study.pdf

Yvette,  
Can you please upload to Granicus when the Chair gavel in? Mahalo!  
-Lesley

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**From:** Sarah D. Pajimola <sarah.pajimola@mauicounty.us>  
**Sent:** Wednesday, February 17, 2021 1:14 PM  
**To:** Lesley J. Milner <Lesley.Milner@mauicounty.us>; Keani N. Rawlins <Keani.Rawlins@mauicounty.us>  
**Cc:** Zhantell K. Lindo <Zhantell.Lindo@mauicounty.us>; MahinaMalamalama M. Poepoe <MahinaMalamalama.Poepoe@mauicounty.us>; Todd S. Yamashita <Todd.Yamashita@mauicounty.us>  
**Subject:** Water Rate Study

Supervising Legislative Analyst  
Vice Chair Keani Rawlins-Fernandez  
Maui County Council