

On March 16, 2020, Governor David Y. Ige issued a Supplementary Emergency Proclamation related to COVID-19 which suspended Chapter 92 of the Hawai‘i Revised Statutes (“HRS”), relating to Public Agency Meetings and Records (commonly referred to as the Sunshine Law) to the extent necessary in order to enable boards to conduct business in-person or through remote technology without holding meetings open to the public. Boards shall consider reasonable measures to allow public participation consistent with social distancing practices, such as providing notice of meetings, allowing the submission of written testimony on items which have been posted on an agenda, live streaming of meetings, and posting minutes of meetings online. No board deliberation or action shall be invalid, if such measures are not taken.

In accordance with the Governor’s Proclamations including the stay-at-home order and the Mayor’s Proclamations and Emergency Rules, the Board of Water Supply public hearing will be conducted as follows:

- The public hearing will be held via remote technology to be consistent with social distancing practices and stay-at-home orders.
- Board members and/or resource individuals will appear via remote technology.
- The public hearing will continue to be noticed pursuant to HRS Chapter 92.
- Written and oral testimony on the proposed Rules will continue to be accepted.
  - Written testimony may be submitted to Edie Ignacio-Neumiller, the Commission Support Clerk via email at [eineumiller@kauaiwater.org](mailto:eineumiller@kauaiwater.org) by the close of business the day before the public hearing is scheduled or mailed to the Board of Water Supply at 4398 Pua Loke Street, Lihu‘e, Kaua‘i, Hawai‘i 96766 with attention to the Commission Support Clerk. The public is asked to please provide sufficient time if mailing in public testimony.
  - Oral testimony may be submitted by leaving a voice message at (808) 245-5412.
  - The Commission Support Clerk will provide electronic copies of public testimony received, if any, to the Board members prior to the start of the public hearing.
- The public hearing will comply with HRS Chapter 92 and be posted to the Board’s website at [http://www.kauaiwater.org/cp\\_waterboard\\_agendas.asp](http://www.kauaiwater.org/cp_waterboard_agendas.asp).

The proposed rule will be available to view on the Kaua'i Department of Water’s website, [www.kauaiwater.org](http://www.kauaiwater.org). A copy of the proposed rule will be mailed to any interested person who requests a copy and pays the required fees for the copy and the postage. Requests may be made by calling the Commission Support Clerk at (808) 245-5406 or via email at [eineumiller@kauaiwater.org](mailto:eineumiller@kauaiwater.org). Requests may also be made up to and including the date of the public hearing.

# BOARD OF WATER SUPPLY of the COUNTY OF KAUA‘I

## FINANCE COMMITTEE MEETING

Board Room, Second Floor, Department of Water  
4398 Pua Loke Street, Līhu‘e, Kaua‘i, Hawai‘i 96766

Friday, August 14, 2020  
8:00 a.m. or soon thereafter

**PUBLIC ACCESS: +1-415-655-0001 United States Toll**

**Access code: 126 880 7688**

**Password: 4398#**

- A. CALL TO ORDER
- B. ROLL CALL
- C. ACCEPTANCE OF AGENDA
- D. OLD BUSINESS
  - 1. *Manager’s Report No. 17-29* - Discussion and Possible Action on the Financial Management Planning and Water Rate Study for the Department of Water for Fiscal Year 2020 through Fiscal Year 2024 (*Update*)
- E. ADJOURNMENT

### PUBLIC TESTIMONY

The Board is required to afford all interested persons an opportunity to present testimony on any agenda item. At each Board meeting, the Board will accept oral and written testimony on any agenda item at item E Correspondence/Announcements/Public Testimony.

If any member of the public wishes to submit written testimony, please submit the written testimony to Edie Ignacio-Neumiller, the Commission Support Clerk via email at [eineumiller@kauaiwater.org](mailto:eineumiller@kauaiwater.org) at least two (2) business days prior to the meeting and the Commission Support Clerk will provide copies to the Board members or bring eight (8) copies with you the day of the meeting.

### SPECIAL ASSISTANCE

If you need an auxiliary aid/service, other accommodation due to a disability, or an interpreter for non-English speaking persons, please contact Edie Ignacio-Neumiller at (808) 245-5406 or [eineumiller@kauaiwater.org](mailto:eineumiller@kauaiwater.org) as soon as possible. Requests made as early as possible will allow adequate time to fulfill your request. Upon request, this notice is available in alternate formats such as large print, braille, or electronic copy.

# DEPARTMENT OF WATER

County of Kaua'i

*"Water has no Substitute – Conserve It!"*

## MANAGER'S REPORT No. 17-29 (Update)

August 14, 2020

Re: Discussion and Possible Action on the Financial Management Planning and Water Rate Study for the Department of Water for Fiscal Year 2020 through Fiscal Year 2024

**RECOMMENDATION:** It is recommended that the Board review and discuss the options provided below and approve Option 1.

**FUNDING:** N/A.

### **BACKGROUND:**

The Board of Water Supply (Board) of the Department of Water (DOW) approved a contract with Raftelis Consultants, Inc. on January 1, 2016 to assist the DOW in the analysis of the DOW's Financial Management Plan and conduct a five year Water Rate Study after the last Water Rate Study ended on June 30, 2016.

The DOW staff and consultants worked together to review and address the DOW's operational and financial needs. The study objectives were identified below as follows:

- Adequate revenues to meet the ongoing operating and capital costs with emphasis on allocation between fixed and variable sources to ensure revenue stability and equity amongst customer classes.
- Funding of DOW capital outlay for ongoing replacement and rehabilitation capital projects.
- Development of a comprehensive financial plan that will provide for effective implementation of capital projects and recovery of operations and maintenance costs for the overall stability of DOW and reserves to meet DOW's risk management practices.
- Design water rates with minimum overall impact that is fair and equitable to customers.

Raftelis conducted two separate workshops attended by DOW staff and Board members. A draft of the DOW's Financial Plan and Rate Model was developed and the proposed rates were presented to the Board for discussion and approval on February 24, 2017. It was referred to the Finance Committee for further deliberation.

There were two Finance Committee meetings held to discuss the proposed financial plan and water rates. The second Finance Committee meeting concluded with a decision to defer the rate study while the Facilities Reserve Charge (FRC) Rule amendment was discussed at the Board level. It was approved and implemented effective as of September 9, 2017.

Within the Water Rate Study deferral period, there were Department decisions and actions that affected the proposed plan. The CIP projects were re-evaluated, reprioritized, and new projects were added to the list. On May 2, 2019, the DOW was approved with \$14,000,000.00 in State grants for the top three priority CIP projects. The Water Rate Study was again updated and reevaluated.

The closing of the FY 2019 prompted another update in the Rates Financial Model. The staff provided the actual Operating & Capital Expenses as of June 30, 2019 including encumbrances and/or PO rollovers to the FY 2020 budget and Unrestricted Fund Balance (unaudited) as of 6/30/19. The Consultants received the most recent data and the DOW staff felt that they were ready to give their recommendation to the Board.

The prolonged rate study as explained in the sequence of events above prompted the Department to change the Water Rate Study period. It was initially proposed to cover the fiscal years 2017-2021 (July 1, 2016 – June 30, 2021) so it was resubmitted to be changed to FY 2020-2024. The Board approved the change on May 24, 2019.

The DOW coordinated another workshop presentation for the new set of Board Members in order to educate and familiarize them with the Water Rate Study approach, principles, financial goals, pricing objectives, financial plan development, cost of service allocation, and rate design. The goal was to provide the Board an opportunity to understand the basis for the recommendations that would be forthcoming at the conclusion of the Water Rate Study.

On November 4, 2019, the Department submitted the proposed water rate increases as follows; 7.0% increase on February 1, 2020 and proposed increases of 7.0% on July 1, 2021, July 1, 2022, and July 1, 2023 but new concerns were raised that prompted the Department to realign the DOW's Reserve Funds with the policies of the County of Kauai.

In response, the DOW revised the reserve fund policies including the change in budget methodology of presenting the DOW's available funds for budget planning purposes. The result increased the DOW's beginning funds, which was a component of the Water Rate Study projections thus a reduced proposed rate increase was anticipated.

With a new perspective, the Department had all the data to update the financial model but unfortunately, the COVID 19 pandemic hit the economy globally and the economic impact just invalidated all the studies that the Department completed. The data that we used in the study are no longer applicable, the projections are off the chart and the timing of implementing a water rate increase is just not right.

We are now facing many uncertainties; when does the economy come back and what would be the normal economy when it stabilizes back? Can the DOW sustain its operations without a water rate increase? How long?

The options below are for the Board's review and consideration.

**OPTIONS:**

**Option 1: Terminate the Water Rate Study and start fresh with a new data when ready.**

Pros: The DOW will start with a fresh data and projections will be more accurate when the new normal phase is in place.

Cons: The DOW will need to re-procure and request new funding to execute a new contract.

**Option 2: Suspend the Water Rate Study and resume when it is viable to do so.**

Pros: This option will provide flexibility for the Department to resume where we left off.

Cons: It will require updated data because the current data used is obsolete and no longer viable.

**Option 3: Continue with the Water Rate Study, incorporate the results of the Revised Board Policy on the DOW's Reserve Funds and update the Financial Model with a revised management plan.**

Pros: The DOW will resubmit an updated water rate increase proposal for review and approval by the Board.

Cons: It is objectionable considering the current economic conditions.

MY/ein

Attachment: Budget Summary  
Raftelis Financial Consultants, Inc. Water Rates Presentation – November 4, 2019  
Water Cost of Service and Rate Study Draft Report – November 2019  
Comparative Customer Data Chart  
Metered Consumption Chart

Mgrrp/August 2020/17-29/Discussion and Possible Action on the Financial Management Planning and Water Rate Study for the Department of Water for Fiscal Year 2020 through Fiscal Year 2024 (4-27-18, 7-27-18, 8-31-18, 5-24-19, 11-4-19, 8-14-20):ein

## Fund Balance Projections

Fund Balance Projections								
	Water Utility General Fund	Water Utility Emergency Reserve	Water Utility Debt Reserve	WURF (30% of Previous Years' Last Audited Operating Revenue)	**Facility Reserve Charge Fund	Bond Fund	State Revolving Fund	TOTAL
<b>Cash, Investments &amp; Receivables as of 5/31/2020</b>	\$50,404,995	\$0	\$0	\$9,300,000	\$2,000,383	\$9,928,026	\$0	\$71,633,404
Encumbrances - PO & Contracts (-)	\$16,494,674	\$0	\$0		\$709,103	\$3,733,219	\$0	\$20,936,995
Current Liabilities, excluding Debt (-)	\$4,454,579							\$4,454,579
<b>Estimated Available Resources for Budget Appropriation - 7/1/20</b>	<b>\$29,455,743</b>	<b>\$0</b>	<b>\$0</b>	<b>\$9,300,000</b>	<b>\$1,291,280</b>	<b>\$6,194,807</b>	<b>\$0</b>	<b>\$46,241,830</b>
Revenues	\$31,563,000	\$0	\$0		\$640,291	\$35,000	\$0	\$32,238,291
Non- Revenue Cash - Inflow	\$0						\$0	\$0
Transfers In	\$0	\$0	\$0			\$0	\$0	\$0
Transfers (Out)	\$0	\$0	\$0			\$0		\$0
<b>Adjusted Balance</b>	<b>\$61,018,743</b>	<b>\$0</b>	<b>\$0</b>	<b>\$9,300,000</b>	<b>\$1,931,571</b>	<b>\$6,229,807</b>	<b>\$0</b>	<b>\$78,480,121</b>
Operating Expenses	\$27,808,367	\$0	\$0		\$0	\$0	\$0	\$27,808,367
Short Term Debt - Principal Repayment	\$5,160,541	\$0	\$0		\$0			\$5,160,541
Miscellaneous Capital Purchases - TFFE	\$1,280,502	\$0	\$0					\$1,280,502
New Capital Outlay - CIP	\$20,251,962				\$675,000	\$6,000,000	\$0	\$26,926,962
Supplemental Budget # 1								\$0
Interfund Transfer								\$0
<b>Estimated Ending Balance - 6/30/21</b>	<b>\$6,517,371</b>	<b>\$0</b>	<b>\$0</b>	<b>\$9,300,000</b>	<b>\$1,256,571</b>	<b>\$229,807</b>	<b>\$0</b>	<b>\$17,303,750</b>

Note 1: FRC fund balance is not sufficient to fund the Proposed Capital Outlay - Expansion Projects. An Interfund transfer through a Manager's Report will be required in order to proceed with any of the FRC Capital Outlay - Expansion projects.

## Revenue Summary

		FY 2016-2017 Actual	FY 2017-2018 Actual	FY 2018-2019 Actual	FY 2019-2020 Budget	FY 2020-2021 Proposed
<b>REVENUES</b>						
<b>Water Utility Fund</b>		<b>\$32,006,961</b>	<b>\$30,832,569</b>	<b>\$36,894,780</b>	<b>\$34,762,769</b>	<b>\$31,563,000</b>
10-00-00-400-000	Water Sales	\$28,445,143	\$27,910,121	\$27,959,468	\$26,929,850	\$22,993,488
10-00-00-405-000	Revenue from Public Fire Protection	\$2,133,294	\$2,136,510	\$2,174,298	\$2,136,510	\$2,174,298
10-00-00-410-000	Other Water Revenue	\$335,888	\$395,067	\$348,905	\$250,000	\$300,000
10-00-00-430-000	Federal Grants (FEMA)	\$0	\$0	\$32,228	\$828,535	\$828,535
10-00-00-432-000	State Grants	\$330,405	\$0	\$3,754,453	\$3,800,000	\$4,500,000
10-00-00-440-000	Capital Contributions - Cash Receipts	\$619,529	\$604,085	\$586,575	\$611,874	\$560,679
10-00-00-440-010	Capital Contributions - Non - Cash Receipts	\$0	\$0	\$0	\$0	\$0
10-00-00-453-000	Net Increase / Decrease in Fair Value of Investments	-\$294,918	-\$807,073	\$1,150,866	\$0	\$0
10-00-00-461-000	Investment Income	\$417,287	\$567,364	\$812,034	\$200,000	\$200,000
10-00-00-470-000	Gain or Loss on Disposal of Capital Assets	\$18,554	\$18,554	\$0	\$5,000	\$5,000
10-00-00-480-000	Gain or Loss from the Retirement of Debt	\$0	\$0	\$0	\$0	\$0
10-00-00-490-000	Miscellaneous Revenues	\$1,781	\$7,940	\$75,953	\$1,000	\$1,000
<b>Water Utility Fund Bond and Loan Proceeds</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
10-00-00-498-300	WU Bond Proceeds	\$0	\$0	\$0	\$0	\$0
10-00-00-499-600	WU/ Loan Proceeds - SRF Loan	\$0	\$0	\$0	\$0	\$0
<b>FRC Fund</b>		<b>\$613,657</b>	<b>\$1,093,629</b>	<b>\$696,519</b>	<b>\$662,232</b>	<b>\$640,291</b>
20-00-00-424-000	Facility Reserve Charge	\$348,145	\$834,735	\$437,130	\$400,000	\$400,000
20-00-00-430-000	Federal Grants	\$265,512	\$258,894	\$259,389	\$262,232	\$240,291
20-00-00-453-000	Net Increase / Decrease in Fair Value of Investments	\$0	\$0	\$0	\$0	\$0
20-00-00-461-000	Investment Income	\$0	\$0	\$0	\$0	\$0
<b>Bond Fund</b>		<b>\$60,752</b>	<b>\$151,726</b>	<b>\$225,696</b>	<b>\$35,000</b>	<b>\$35,000</b>
30-00-00-453-000	Net Increase / Decrease in Fair Value of Investments	-\$229,160	-\$104,183	-\$13,847	-\$30,000	-\$30,000
30-00-00-461-000	Investment Income (Net of custodial fees & other investment cost)	\$289,912	\$255,909	\$239,543	\$65,000	\$65,000
<b>SRF Fund</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
60-00-00-430-000	SRF - Federal Grants	\$0	\$0	\$0	\$0	\$0
60-00-00-453-000	Net Increase / Decrease in Fair Value of Investments	\$0	\$0	\$0	\$0	\$0

## Operating Expense Summary

		FY 2016-2017 Actuals	FY 2017 - 2018 Actual	FY 2018-2019 Budget	FY 2018 - 2019 Actual	FY 2019-2020 Budget	FY 2020-2021 Proposed Budget
<b>OPERATING EXPENSES</b>							
<b>Water Utility Fund</b>		<b>\$21,895,366</b>	<b>\$22,846,711</b>	<b>\$29,484,540</b>	<b>\$22,640,351</b>	<b>\$29,527,971</b>	<b>\$27,808,367</b>
510-010	Salaries & Wages (Regular & Compensated Leave)	\$4,935,361	\$5,243,958	\$6,458,998	\$5,329,149	\$7,065,711	\$6,394,682
510-020	Temporary Assignment	\$41,924	\$55,428	\$61,386	\$86,571	\$71,000	\$60,500
510-030	Overtime	\$579,324	\$491,073	\$519,000	\$497,658	\$486,000	\$477,000
510-040	Standby Pay	\$182,192	\$196,342	\$181,594	\$192,126	\$195,000	\$195,000
520-040	Vacation & Compensatory Time Pay out	\$0	\$0	\$100,000	\$21,812	\$100,000	\$100,000
530-010	FICA Taxes	\$404,526	\$431,116	\$560,055	\$447,135	\$605,705	\$552,879
530-020	Retirement Contributions	\$2,269,719	\$2,157,977	\$1,382,436	\$1,108,853	\$1,731,996	\$1,723,724
530-030	Life and Health Insurance	\$465,933	\$471,557	\$484,247	\$517,237	\$611,045	\$643,445
530-040	Workers Compensation	\$2,954	\$15,215	\$0	\$0	\$0	\$0
530-050	Unemployment Compensation	\$0	\$0	\$15,000	\$0	\$15,000	\$0
530-060	Post Employment Benefits (OPEB)	\$968,000	\$988,943	\$1,011,000	\$1,223,378	\$1,077,000	\$1,077,000
540-010	Professional Services - General	\$504,191	\$939,740	\$3,910,401	\$1,534,881	\$3,643,351	\$3,531,801
540-020	Professional Services - Accounting and Auditing	\$58,805	\$75,132	\$106,800	\$58,668	\$106,800	\$106,800
541-010	Other Services - General	\$47,367	\$33,676	\$60,878	\$33,209	\$64,478	\$50,988
541-020	Other Services - Billing Costs	\$199,586	\$147,184	\$206,658	\$143,393	\$206,658	\$179,418
542-010	Public Relations - General	\$62,009	\$97,148	\$111,300	\$78,061	\$80,089	\$115,725
542-020	Procurement Advertising	\$10,069	\$12,550	\$10,000	\$0	\$10,000	\$10,000
543-000	Communication Services	\$118,711	\$112,178	\$120,360	\$111,602	\$127,144	\$130,444
544-000	Freight and Postage Services	\$338	\$7,840	\$16,370	\$3,891	\$16,370	\$14,370
545-000	Rentals and Leases	\$114,527	\$44,311	\$153,075	\$80,159	\$131,075	\$131,075
546-000	Insurance	\$69,109	\$279,240	\$1,195,000	\$62,466	\$395,000	\$155,000
547-000	County Service Charge	\$2,133,294	\$2,136,510	\$2,133,294	\$2,174,298	\$2,136,510	\$2,174,298
551-000	Utility Services	\$2,709,416	\$2,724,216	\$2,877,540	\$2,730,889	\$2,862,624	\$2,863,878
560-000	Repairs and Maintenance - Water System	\$43,342	\$312,502	\$221,000	\$151,433	\$221,000	\$211,000
561-000	Repairs and Maintenance - Other than Water System	\$708,299	\$380,061	\$627,150	\$452,061	\$700,750	\$704,900
562-000	Office Supplies	\$13,196	\$20,307	\$22,000	\$20,307	\$22,000	\$22,000
563-000	Operating Supplies	\$565,140	\$758,364	\$1,252,050	\$962,750	\$1,356,300	\$941,800
564-000	Fuel	\$82,695	\$81,993	\$115,500	\$101,324	\$115,500	\$122,500
565-000	Bulk Water Purchase	\$1,009,005	\$847,634	\$1,810,176	\$1,225,770	\$1,816,176	\$1,820,176
570-010	Books, Publications, Subscriptions, and Memberships	\$23,701	\$34,110	\$30,045	\$10,807	\$32,845	\$70,500
570-020	Books, Publications, Subscriptions, and Memberships - Board	\$600	\$375	\$1,025	\$450	\$1,095	\$1,095
571-010	Training and Development	\$74,294	\$48,120	\$127,580	\$72,074	\$80,880	\$83,600
572-010	Travel and Per Diem	\$40,817	\$45,273	\$84,570	\$46,443	\$106,610	\$55,660
572-020	Travel and Per Diem - Board	\$8,862	\$8,783	\$17,490	\$6,139	\$20,970	\$0
573-010	Meeting Expense	\$2,288	\$3,702	\$26,400	\$8,683	\$37,290	\$19,877
573-020	Meeting Expense - Board	\$5,680	\$5,054	\$14,075	\$7,609	\$9,952	\$0



## Operating Expense Summary

		FY 2016-2017 Actuals	FY 2017 - 2018 Actual	FY 2018-2019 Budget	FY 2018 - 2019 Actual	FY 2019-2020 Budget	FY 2020-2021 Proposed Budget
<b>OPERATING EXPENSES</b>							
582-000	Interest Expense	\$3,440,092	\$3,639,100	\$3,460,087	\$3,139,065	\$3,268,048	\$3,067,232
<b>Water Utility Fund - Bond and Loan Proceeds and Repayment</b>		<b>\$4,717,296</b>	<b>\$4,884,833</b>	<b>\$4,883,749</b>	<b>\$4,883,749</b>	<b>\$5,017,034</b>	<b>\$5,160,541</b>
682-000	Debt Principal Repayment	\$4,717,296	\$4,884,833	\$4,883,749	\$4,883,749	\$5,017,034	\$5,160,541
<b>Water Utility Fund - Non Budgetary Operating Expenses</b>		<b>\$7,482,384</b>	<b>\$7,674,658</b>	<b>\$8,014,750</b>	<b>\$6,906,633</b>	<b>\$8,014,750</b>	<b>\$7,252,653</b>
580-000	Depreciation	\$6,821,400	\$6,931,203	\$7,314,750	\$6,153,980	\$7,314,750	\$6,500,000
581-000	Amortization	\$660,984	\$743,456	\$700,000	\$752,653	\$700,000	\$752,653
580-000	Inflows/Outflows	-\$41,932	-\$41,932	-\$41,932	-\$41,932	-\$41,932	-\$41,932

*Items 601, 602 and 682 are balance sheet items that are tracked as revenues and expenses for convenience during the year.*

## Operating Expense Detail

		FY 2016-2017 Actuals	FY 2017 - 2018 Actual	FY 2018-2019 Budget	FY 2018-2019 Actual	FY 2019-2020 Budget	FY 2020-2021 Proposed Budget
<b>OPERATING EXPENSES (Detail)</b>							
<b>Water Utility Fund Operating Expenses</b>		<b>\$21,895,366</b>	<b>\$22,846,711</b>	<b>\$29,484,540</b>	<b>\$22,640,351</b>	<b>\$29,527,971</b>	<b>\$27,808,367</b>
<b>510-010</b>	<b>Salaries and Wages (includes compensated annual leaves and comp time.)</b>	<b>\$4,935,361</b>	<b>\$5,243,958</b>	<b>\$6,458,998</b>	<b>\$5,329,149</b>	<b>\$7,065,711</b>	<b>\$6,394,682</b>
0-01-10-510-010	WU - Admin - Admin - Salaries and Wages	\$561,707	\$614,324	\$908,186	\$655,545	\$916,128	\$667,182
0-02-10-510-010	WU - IT - Admin - Salaries and Wages	\$160,362	\$194,141	\$245,649	\$193,677	\$214,258	\$206,503
0-10-40-510-010	WU - Qual - Purification - Salaries and Wages	\$216,663	\$227,789	\$233,339	\$235,476	\$241,893	\$254,442
0-20-10-510-010	WU - Eng - Admin - Salaries and Wages	\$243,947	\$229,591	\$306,930	\$195,246	\$358,838	\$219,011
0-21-10-510-010	WU - Const - Admin - Salaries and Wages	\$344,275	\$323,479	\$550,332	\$364,817	\$718,049	\$477,881
0-22-10-510-010	WU - Plan - Admin - Salaries and Wages	\$425,186	\$448,385	\$522,927	\$462,861	\$536,606	\$468,708
0-30-20-510-010	WU - Bill - Collection - Salaries and Wages	\$461,920	\$477,987	\$570,078	\$458,705	\$542,886	\$544,666
0-31-10-510-010	WU - Acctg - Admin - Salaries and Wages	\$406,898	\$447,502	\$503,168	\$454,216	\$506,989	\$622,746
0-40-30-510-010	WU - Ops - Source - Salaries and Wages	\$248,045	\$321,729	\$349,097	\$301,732	\$418,864	\$464,124
0-40-40-510-010	WU - Ops - Purification - Salaries and Wages	\$185,999	\$187,861	\$252,491	\$143,360	\$216,457	\$227,005
0-40-50-510-010	WU - Ops - PowerAndPump - Salaries and Wages	\$164,471	\$177,370	\$208,607	\$187,056	\$205,007	\$197,017
0-40-60-510-010	WU - Ops - TandD - Salaries and Wages	\$1,515,888	\$1,593,799	\$1,808,196	\$1,676,459	\$2,189,736	\$2,045,398
<b>510-020</b>	<b>Temporary Assignment</b>	<b>\$41,924</b>	<b>\$55,428</b>	<b>\$61,386</b>	<b>\$86,571</b>	<b>\$71,000</b>	<b>\$60,500</b>
0-01-10-510-020	WU - Admin - Admin - Temporary Assignment	\$2,845	\$10,814	\$2,000	\$9,395	\$2,000	\$2,000
0-02-10-510-020	WU - IT - Admin - Temporary Assignment	\$1,105	\$221	\$500	\$2,365	\$500	\$500
0-10-40-510-020	WU - Qual - Purification - Temporary Assignment	\$1,415	\$870	\$1,500	\$1,105	\$1,500	\$1,500
0-20-10-510-020	WU - Eng - Admin - Temporary Assignment	\$4,218	\$6,009	\$6,000	\$6,705	\$8,500	\$1,000
0-21-10-510-020	WU - Const - Admin - Temporary Assignment	\$0	\$1,081	\$5,000	\$0	\$5,000	\$2,000
0-22-10-510-020	WU - Plan - Admin - Temporary Assignment	\$825	\$1,534	\$10,000	\$5,646	\$5,000	\$5,000
0-30-20-510-020	WU - Bill - Collection - Temporary Assignment	\$5,227	\$3,358	\$5,000	\$5,554	\$5,000	\$5,000
0-31-10-510-020	WU - Acctg - Admin - temporary Assignment	\$4,383	\$4,034	\$12,000	\$9,090	\$10,000	\$10,000
0-40-30-510-020	WU - Ops - Source - Temporary Assignment	\$983	\$2,892	\$886	\$6,506	\$3,000	\$3,000
0-40-40-510-020	WU - Ops - Purification - Temporary Assignment	\$1,296	\$885	\$500	\$2,089	\$1,500	\$1,500
0-40-50-510-020	WU - Ops - PowerAndPump - Temporary Assignment	\$2,090	\$3,866	\$3,000	\$5,770	\$4,000	\$4,000
0-40-60-510-020	WU - Ops - TandD -Temporary Assignment	\$17,537	\$19,865	\$15,000	\$32,346	\$25,000	\$25,000
<b>510-030</b>	<b>Overtime</b>	<b>\$579,324</b>	<b>\$491,073</b>	<b>\$519,000</b>	<b>\$497,658</b>	<b>\$486,000</b>	<b>\$477,000</b>
0-01-10-510-030	WU - Admin - Admin - Overtime	\$38,214	\$23,340	\$30,000	\$24,219	\$30,000	\$30,000
0-02-10-510-030	WU - IT - Admin - Overtime	\$48,774	\$44,622	\$30,000	\$33,358	\$30,000	\$30,000
0-10-40-510-030	WU - Qual - Purification - Overtime	\$1,398	\$270	\$2,000	\$207	\$2,000	\$3,000
0-20-10-510-030	WU - Eng - Admin - Overtime	\$23,767	\$18,322	\$25,000	\$8,088	\$10,000	\$10,000
0-21-10-510-030	WU - Const - Admin - Overtime	\$14,375	\$8,770	\$35,000	\$10,832	\$25,000	\$15,000
0-22-10-510-030	WU - Plan - Admin - Overtime	\$9,952	\$13,708	\$30,000	\$12,016	\$15,000	\$15,000
0-30-20-510-030	WU - Bill - Collection - Overtime	\$62,631	\$53,150	\$50,000	\$65,850	\$60,000	\$60,000
0-31-10-510-030	WU - Acctg - Admin - Overtime	\$79,401	\$51,231	\$60,000	\$49,116	\$60,000	\$60,000
0-40-30-510-030	WU - Ops - Source - Overtime	\$5,447	\$11,081	\$6,000	\$3,711	\$6,000	\$6,000
0-40-40-510-030	WU - Ops - Purification - Overtime	\$40,341	\$27,233	\$50,000	\$35,655	\$30,000	\$30,000
0-40-50-510-030	WU - Ops - PowerAndPump - Overtime	\$11,770	\$8,534	\$1,000	\$15,224	\$8,000	\$8,000
0-40-60-510-030	WU - Ops - TandD - Overtime	\$243,255	\$230,812	\$200,000	\$239,383	\$210,000	\$210,000
<b>510-040</b>	<b>Standby Pay</b>	<b>\$182,192</b>	<b>\$196,342</b>	<b>\$181,594</b>	<b>\$192,126</b>	<b>\$195,000</b>	<b>\$195,000</b>

## Operating Expense Detail

		FY 2016-2017 Actuals	FY 2017 - 2018 Actual	FY 2018-2019 Budget	FY 2018-2019 Actual	FY 2019-2020 Budget	FY 2020-2021 Proposed Budget
<b>OPERATING EXPENSES (Detail)</b>							
0-01-10-510-040	WU - Admin - Admin - Standby Pay	\$390	\$0	\$0	\$0	\$0	\$0
0-40-40-510-040	WU - Ops - Purification - Standby Pay	\$9,692	\$8,827	\$11,594	\$8,338	\$10,000	\$10,000
0-40-50-510-040	WU - Ops - PowerAndPump - Standby Pay	\$0		\$0	\$0	\$0	\$0
0-40-60-510-040	WU - Ops - TandD - Standby Pay	\$172,110	\$187,515	\$170,000		\$185,000	\$185,000
<b>520-040</b>	<b>Vacation &amp; Compensatory Time Payout</b>		<b>\$0</b>	<b>\$100,000</b>	<b>\$21,812</b>	<b>\$100,000</b>	<b>\$100,000</b>
0-01-10-520-040	WU - Admin - Admin - Vacation Payout	\$0	\$0	\$90,000	\$21,812	\$90,000	\$90,000
0-01-10-520-040	WU - Admin - Admin - Compensatory Time Payout	\$0	\$0	\$10,000	\$0	\$10,000	\$10,000
<b>530-010</b>	<b>FICA Taxes</b>	<b>\$404,526</b>	<b>\$431,116</b>	<b>\$560,055</b>	<b>\$447,135</b>	<b>\$605,705</b>	<b>\$552,879</b>
0-01-10-530-010	WU - Admin - Admin - FICA	\$42,473	\$49,319	\$79,574	\$49,371	\$80,182	\$61,137
0-02-10-530-010	WU - IT - Admin - FICA	\$15,046	\$17,844	\$21,125	\$20,666	\$18,724	\$18,131
0-10-40-530-010	WU - Qual - Purification - FICA	\$15,903	\$17,033	\$18,118	\$17,640	\$18,773	\$19,809
0-20-10-530-010	WU - Eng - Admin - FICA	\$19,670	\$18,751	\$25,852	\$15,553	\$28,866	\$17,596
0-21-10-530-010	WU - Const - Admin - FICA	\$25,930	\$24,299	\$45,160	\$27,352	\$57,226	\$37,858
0-22-10-530-010	WU - Plan - Admin - FICA	\$29,733	\$32,783	\$43,064	\$33,338	\$42,580	\$37,386
0-30-20-530-010	WU - Bill - Collection - FICA	\$37,253	\$37,160	\$47,818	\$39,089	\$46,503	\$46,639
0-31-10-530-010	WU - Acctg - Admin - FICA	\$34,451	\$36,269	\$44,000	\$39,291	\$44,140	\$52,995
0-40-30-530-010	WU - Ops - Source - FICA	\$16,976	\$23,031	\$27,233	\$22,091	\$32,732	\$36,194
0-40-40-530-010	WU - Ops - Purification - FICA	\$18,411	\$16,763	\$24,066	\$14,514	\$19,734	\$20,541
0-40-50-530-010	WU - Ops - PowerAndPump - FICA	\$12,093	\$13,213	\$16,264	\$14,807	\$16,601	\$15,990
0-40-60-530-010	WU - Ops - TandD - FICA	\$136,584.49	\$144,652	\$167,779	\$153,423	\$199,645	\$188,603
<b>530-020</b>	<b>Retirement Contributions</b>	<b>\$2,269,719</b>	<b>\$2,157,977</b>	<b>\$1,382,436</b>	<b>\$1,108,853</b>	<b>\$1,731,996</b>	<b>\$1,723,724</b>
0-01-10-530-020	WU - Admin - Admin - Retirement Contributions	\$208,649	\$211,494	\$189,085	\$124,236	\$220,688	\$181,004
0-02-10-530-020	WU - IT - Admin - Retirement Contributions	\$77,652	\$90,218	\$52,468	\$45,213	\$53,847	\$56,881
0-10-40-530-020	WU - Qual - Purification - Retirement Contributions	\$81,033	\$86,847	\$44,999	\$44,593	\$53,986	\$62,146
0-20-10-530-020	WU - Eng - Admin - Retirement Contributions	\$95,413	\$90,700	\$64,207	\$39,532	\$83,014	\$55,203
0-21-10-530-020	WU - Const - Admin - Retirement Contributions	\$129,751	\$123,801	\$112,163	\$69,885	\$164,571	\$118,771
0-22-10-530-020	WU - Plan - Admin - Retirement Contributions	\$162,517	\$173,925	\$106,956	\$89,626	\$122,453	\$117,290
0-30-20-530-020	WU - Bill - Collection - Retirement Contributions	\$190,999	\$196,161	\$118,765	\$97,206	\$133,735	\$146,320
0-31-10-530-020	WU - Acctg - Admin - Retirement Contributions	\$177,864	\$181,912	\$109,282	\$93,877	\$126,938	\$166,259
0-40-30-530-020	WU - Ops - Source - Retirement Contributions	\$93,803	\$124,873	\$67,637	\$58,380	\$94,130	\$113,550
0-40-40-530-020	WU - Ops - Purification - Retirement Contributions	\$97,591	\$86,107	\$59,771	\$38,743	\$56,751	\$64,441
0-40-50-530-020	WU - Ops - PowerAndPump - Retirement Contributions	\$64,478	\$69,547	\$40,395	\$38,375	\$47,742	\$50,164
0-40-60-530-020	WU - Ops - TandD - Retirement Contributions	\$889,969	\$722,391	\$416,707	\$369,187	\$574,142	\$591,696
<b>530-030</b>	<b>Life and Health Insurance</b>	<b>\$465,933</b>	<b>\$471,557</b>	<b>\$484,247</b>	<b>\$517,237</b>	<b>\$611,045</b>	<b>\$643,445</b>
0-01-10-530-030	WU - Admin - Admin - Life and Health Insurance	\$47,537	\$40,981	\$85,347	\$53,981	\$66,949	\$55,213
0-02-10-530-030	WU - IT - Admin - Life and Health Insurance	\$12,297	\$12,118	\$26,713	\$16,226	\$17,340	\$23,145
0-10-40-530-030	WU - Qual - Purification - Life and Health Insurance	\$10,315	\$9,803	\$9,939	\$10,508	\$10,334	\$10,940
0-20-10-530-030	WU - Eng - Admin - Life and Health Insurance	\$20,246	\$17,893	\$31,013	\$16,851	\$20,790	\$20,034
0-21-10-530-030	WU - Const - Admin - Life and Health Insurance	\$14,190	\$30,814	\$34,221	\$36,660	\$62,003	\$54,910
0-22-10-530-030	WU - Plan - Admin - Life and Health Insurance	\$49,590	\$50,263	\$36,602	\$55,763	\$60,173	\$67,261
0-30-20-530-030	WU - Bill - Collection - Life and Health Insurance	\$33,712	\$34,828	\$31,952	\$44,203	\$47,861	\$61,712
0-31-10-530-030	WU - Acctg - Admin - Life and Health Insurance	\$43,734	\$40,495	\$35,799	\$40,366	\$47,784	\$49,379

## Operating Expense Detail

		FY 2016-2017 Actuals	FY 2017 - 2018 Actual	FY 2018-2019 Budget	FY 2018-2019 Actual	FY 2019-2020 Budget	FY 2020-2021 Proposed Budget
<b>OPERATING EXPENSES (Detail)</b>							
0-40-30-530-030	WU - Ops - Source - Life and Health Insurance	\$31,115	\$36,403	\$29,698	\$30,314	\$35,386	\$30,902
0-40-40-530-030	WU - Ops - Purification - Life and Health Insurance	\$13,189	\$10,857	\$11,974	\$9,186	\$12,311	\$20,034
0-40-50-530-030	WU - Ops - PowerAndPump - Life and Health Insurance	\$18,299	\$17,419	\$14,477	\$18,333	\$19,397	\$19,184
0-40-60-530-030	WU - Ops - TandD - Life and Health Insurance	\$171,709	\$169,682	\$136,512	\$184,846	\$210,717	\$230,730
<b>530-040</b>	<b>Workers Compensation</b>	<b>\$2,954</b>	<b>\$15,215</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>530-050</b>	<b>Unemployment Compensation</b>	<b>\$0</b>	<b>\$0</b>	<b>\$15,000</b>	<b>\$0</b>	<b>\$15,000</b>	<b>\$0</b>
0-01-10-530-050	WU - Admin - Admin - Unemployment Compensation	\$0	\$0	\$15,000	\$0	\$15,000	\$0
<b>530-060</b>	<b>Post-Employment Benefits (OPEB)</b>	<b>\$968,000</b>	<b>\$988,943</b>	<b>\$1,011,000</b>	<b>\$1,223,378</b>	<b>\$1,077,000</b>	<b>\$1,077,000</b>
0-01-10-530-060	WU - Admin - Admin - OPEB	\$97,166	\$96,114	\$142,155	\$134,576	\$139,642	\$112,368
0-02-10-530-060	WU - IT - Admin - OPEB	\$35,687	\$40,279	\$38,450	\$48,458	\$32,659	\$34,779
0-10-40-530-060	WU - Qual - Purification - OPEB	\$37,260	\$38,782	\$36,523	\$47,644	\$36,871	\$42,853
0-20-10-530-060	WU - Eng - Admin - OPEB	\$46,200	\$42,699	\$48,042	\$42,234	\$54,696	\$36,886
0-21-10-530-060	WU - Const - Admin - OPEB	\$60,564	\$55,679	\$86,141	\$75,284	\$109,450	\$80,485
0-22-10-530-060	WU - Plan - Admin - OPEB	\$74,128	\$77,670	\$81,852	\$95,758	\$81,793	\$78,940
0-30-20-530-060	WU - Bill - Collection - OPEB	\$89,537	\$89,274	\$89,232	\$106,848	\$82,750	\$91,733
0-31-10-530-060	WU - Acctg - Admin - OPEB	\$83,277	\$84,057	\$78,759	\$102,064	\$77,278	\$104,884
0-40-30-530-060	WU - Ops - Source - OPEB	\$42,914	\$56,533	\$54,643	\$62,815	\$63,846	\$78,168
0-40-40-530-060	WU - Ops - Purification - OPEB	\$45,130	\$36,916	\$39,521	\$41,476	\$32,994	\$38,232
0-40-50-530-060	WU - Ops - PowerAndPump - OPEB	\$30,286	\$31,407	\$32,652	\$41,478	\$31,248	\$33,182
0-40-60-530-060	WU - Ops - TandD - OPEB	\$325,850	\$339,533	\$283,029	\$424,743	\$333,773	\$344,488
<b>540-010</b>	<b>Professional Services - General</b>	<b>\$504,191</b>	<b>\$939,740</b>	<b>\$3,910,401</b>	<b>\$1,534,881</b>	<b>\$3,643,351</b>	<b>\$3,531,801</b>
0-01-10-540-010	WU - Admin - Admin - Professional Services - General	\$38,695	\$22,257	\$365,800	\$135,925	\$371,300	\$503,800
0-02-10-540-010	WU - IT - Admin - Professional Services - General	\$2,600	\$118,547	\$160,000	\$95,363	\$220,000	\$60,000
0-10-40-540-010	WU - Qual - Purification - Professional Services - General	\$7,448	\$22,940	\$63,600	\$61,812	\$106,050	\$36,400
0-20-10-540-010	WU - Eng - Admin - Professional Services - General	\$111,932	\$277,009	\$425,000	\$296,451	\$405,000	\$615,000
0-21-10-540-010	WU - Const - Admin - Professional Services - General	\$0	\$93,146	\$500,000	\$625,038	\$700,000	\$50,000
0-22-10-540-010	WU - Plan - Admin - Professional Services - General	\$272,638	\$359,646	\$1,635,000	\$237,171	\$1,635,000	\$1,785,000
0-30-20-540-010	WU - Bill - Collection - Professional Services - General	\$0	\$1,802	\$230,000	\$26,245	\$0	\$100,000
0-31-10-540-010	WU - Acctg - Admin - Professional Services - General	\$70,879	\$44,393	\$206,000	\$56,877	\$206,000	\$381,600
0-40-60-540-010	WU - Ops - TandD - Professional Services - General	\$0	\$0	\$325,001	\$0	\$1	\$1
<b>540-020</b>	<b>Professional Services - Accounting and Auditing</b>	<b>\$58,805</b>	<b>\$75,132</b>	<b>\$106,800</b>	<b>\$58,668</b>	<b>\$106,800</b>	<b>\$106,800</b>
0-31-10-540-020	WU - Acctg - Admin - Professional Services - Accounting and Auditing	\$58,805	\$75,132	\$106,800	\$58,668	\$106,800	\$106,800
<b>541-010</b>	<b>Other Services</b>	<b>\$47,367</b>	<b>\$33,676</b>	<b>\$60,878</b>	<b>\$33,209</b>	<b>\$64,478</b>	<b>\$50,988</b>
0-01-10-541-010	WU - Admin - Admin - Other Services	\$4,908	\$167	\$2,178	\$1,966	\$2,178	\$1,188
0-30-20-541-010	WU - Bill - Collection - Other Services	\$24,513	\$23,715	\$35,100	\$20,918	\$35,100	\$26,700
0-31-10-541-010	WU - Acctg - Admin - Other Services	\$16,954	\$9,154	\$21,600	\$10,031	\$25,200	\$21,600
0-40-60-541-010	WU - Ops - TandD - Other Services	\$993	\$640	\$2,000	\$294	\$2,000	\$1,500
<b>541-020</b>	<b>Billing Costs</b>	<b>\$199,586</b>	<b>\$147,184</b>	<b>\$206,658</b>	<b>\$143,393</b>	<b>\$206,658</b>	<b>\$179,418</b>
0-30-20-541-020	WU - Bill - Collection - Billing Costs	\$199,586	\$147,184	\$206,658	\$143,393	\$206,658	\$179,418
<b>542-010</b>	<b>Public Relations - General</b>	<b>\$62,009</b>	<b>\$97,148</b>	<b>\$111,300</b>	<b>\$78,061</b>	<b>\$80,089</b>	<b>\$115,725</b>
0-01-10-542-010	WU - Admin - Admin - Public Relations - General	\$62,009	\$97,148	\$111,300	\$78,061	\$80,089	\$115,725
<b>542-020</b>	<b>Procurement Advertising</b>	<b>\$10,069</b>	<b>\$12,550</b>	<b>\$10,000</b>	<b>\$0</b>	<b>\$10,000</b>	<b>\$10,000</b>

## Operating Expense Detail

		FY 2016-2017 Actuals	FY 2017 - 2018 Actual	FY 2018-2019 Budget	FY 2018-2019 Actual	FY 2019-2020 Budget	FY 2020-2021 Proposed Budget
<b>OPERATING EXPENSES (Detail)</b>							
0-01-10-542-020	WU - Admin - Admin - Procurement Advertising	\$10,069	\$12,550	\$10,000	\$0	\$10,000	\$10,000
<b>543-000</b>	<b>Communication Services</b>	<b>\$118,711</b>	<b>\$112,178</b>	<b>\$120,360</b>	<b>\$111,602</b>	<b>\$127,144</b>	<b>\$130,444</b>
0-02-10-543-000	WU - IT - Admin - Communication Services	\$82,517	\$74,898	\$82,260	\$76,667	\$86,060	\$83,360
0-02-50-543-000	WU - IT - PowerAndPump - Communication Services	\$0	\$0	\$38,100	\$34,720	\$41,084	\$47,084
0-40-50-543-000	WU - Ops - PowerAndPump - Communication Services	\$36,194	\$37,280	\$0	\$215	\$0	\$0
<b>544-000</b>	<b>Freight and Postage</b>	<b>\$338</b>	<b>\$7,840</b>	<b>\$16,370</b>	<b>\$3,891</b>	<b>\$16,370</b>	<b>\$14,370</b>
0-01-10-544-000	WU - Admin - Admin - Freight and Postage	\$0	\$6,503	\$12,870	\$2,113	\$12,870	\$12,870
0-02-10-544-000	WU - IT - Admin - Freight and Postage	\$0	\$30	\$500	\$5	\$500	\$0
0-10-40-544-000	WU - Qual - Purification - Freight and Postage	\$338	\$1,306	\$3,000	\$1,772	\$3,000	\$1,500
<b>545-000</b>	<b>Rentals and Leases</b>	<b>\$114,527</b>	<b>\$44,311</b>	<b>\$153,075</b>	<b>\$80,159</b>	<b>\$131,075</b>	<b>\$131,075</b>
0-01-10-545-000	WU - Admin - Admin - Rentals and Leases	\$20,000	\$20,000	\$52,900	\$20,594	\$50,900	\$50,900
0-02-10-545-000	WU - IT - Admin - Rentals and Leases	\$24,697	\$19,597	\$30,175	\$20,661	\$30,175	\$30,175
0-40-60-545-000	WU - Ops - TandD - Rentals and Leases	\$69,831	\$4,713	\$70,000	\$38,903	\$50,000	\$50,000
<b>546-000</b>	<b>Insurance</b>	<b>\$69,109</b>	<b>\$279,240</b>	<b>\$1,195,000</b>	<b>\$62,466</b>	<b>\$395,000</b>	<b>\$155,000</b>
0-01-10-546-000	WU - Admin - Admin - Insurance	\$69,109	\$279,240	\$1,195,000	\$62,466	\$395,000	\$155,000
<b>547-000</b>	<b>County Service Charge</b>	<b>\$2,133,294</b>	<b>\$2,136,510</b>	<b>\$2,133,294</b>	<b>\$2,174,298</b>	<b>\$2,136,510</b>	<b>\$2,174,298</b>
0-00-10-547-000	WU - County Service Charge	\$2,133,294	\$2,136,510	\$2,133,294	\$2,174,298	\$2,136,510	\$2,174,298
<b>551-000</b>	<b>Utility Services</b>	<b>\$2,709,416</b>	<b>\$2,724,216</b>	<b>\$2,877,540</b>	<b>\$2,730,889</b>	<b>\$2,862,624</b>	<b>\$2,863,878</b>
0-01-10-551-000	WU - Admin - Admin - Utility Services	\$146,400	\$135,454	\$177,540	\$174,681	\$162,624	\$163,878
0-40-50-551-000	WU - Ops - PowerAndPump - Utility Services	\$2,563,016	\$2,588,761	\$2,700,000	\$2,556,208	\$2,700,000	\$2,700,000
<b>560-000</b>	<b>Repairs and Maintenance - Water System</b>	<b>\$43,342</b>	<b>\$312,502</b>	<b>\$221,000</b>	<b>\$151,433</b>	<b>\$221,000</b>	<b>\$211,000</b>
0-40-50-501-000	WU - Ops - Powerand Pump - Emergency Repairs	\$0	\$0	\$0	\$0	\$0	\$0
0-40-50-560-000	WU - Ops - Source - Repairs and Maintenance - Water System	\$8,292	\$5,730	\$50,000	\$40,658	\$50,000	\$40,000
0-40-60-560-000	WU - Ops - TandD - Repairs and Maintenance - Water System	\$35,050	\$306,772	\$171,000	\$110,775	\$171,000	\$171,000
<b>561-000</b>	<b>Repairs and Maintenance - Other than Water System</b>	<b>\$708,299</b>	<b>\$380,061</b>	<b>\$627,150</b>	<b>\$452,061</b>	<b>\$700,750</b>	<b>\$704,900</b>
0-01-10-561-000	WU - Admin - Admin - Repairs and Maintenance - Other than Water System	\$12,158	\$21,555	\$0	\$18,987	\$0	\$0
0-02-10-561-000	WU - IT - Admin - Repairs and Maintenance - Other than Water System	\$486,797	\$252,860	\$397,150	\$355,365	\$488,750	\$90,700
0-10-40-561-000	WU - Qual - Purification - Repairs and Maintenance - Other than Water System	\$1,464	\$1,714	\$2,000	\$3,796	\$3,000	\$4,000
0-21-40-561-000	WU - Const - Admin - Repairs and Maintenance - Other than Water System						\$40,000
0-22-10-561-000	WU - Plan - Admin - Repairs and Maintenance - Other than Water System						\$6,500
0-30-20-561-000	WU - Bill-Collection - Repairs and Maintenance - Other than Water System						\$280,000
0-31-10-561-000	WU - Acctg - Admin - Repairs and Maintenance - Other than Water System						\$13,700
0-40-60-561-000	WU - Ops - TandD - Repairs and Maintenance - Other than Water System	\$207,879	\$103,933	\$228,000	\$73,912	\$209,000	\$270,000
<b>562-000</b>	<b>Office Supplies</b>	<b>\$13,196</b>	<b>\$20,307</b>	<b>\$22,000</b>	<b>\$20,307</b>	<b>\$22,000</b>	<b>\$22,000</b>
0-31-10-562-000	WU - Accounting - Admin - Office Supplies	\$13,196	\$20,307	\$22,000	\$20,307	\$22,000	\$22,000
<b>563-000</b>	<b>Operating Supplies</b>	<b>\$565,140</b>	<b>\$758,364</b>	<b>\$1,252,050</b>	<b>\$962,750</b>	<b>\$1,356,300</b>	<b>\$941,800</b>
0-01-10-563-000	WU - Admin - Admin - Operating Supplies	\$1,517	\$727	\$5,000	\$3,651	\$5,000	\$5,000
0-02-10-563-000	WU - IT - Admin - Operating Supplies	\$66,131	\$75,827	\$61,000	\$58,465	\$61,000	\$61,000
0-10-40-563-000	WU - Qual - Purification - Operating Supplies	\$6,868	\$12,779	\$15,000	\$24,910	\$15,000	\$18,000
0-20-10-563-000	WU - Eng - Admin - Operating Supplies	\$115	\$341	\$300	\$147	\$300	\$300
0-21-10-563-000	WU - Const - Admin - Operating Supplies	\$3,230	\$3,665	\$4,500	\$5,243	\$4,500	\$4,500
0-22-10-563-000	WU - Plan - Admin - Operating Supplies	\$346	\$2,956	\$1,250	\$332	\$1,000	\$500

## Operating Expense Detail

		FY 2016-2017 Actuals	FY 2017 - 2018 Actual	FY 2018-2019 Budget	FY 2018-2019 Actual	FY 2019-2020 Budget	FY 2020-2021 Proposed Budget
<b>OPERATING EXPENSES (Detail)</b>							
0-30-20-563-000	WU - Bill - Collection - Operating Supplies	\$2,520	\$2,547	\$3,500	\$2,688	\$4,500	\$4,500
0-31-10-563-000	WU - Acctg - Admin - Operating Supplies	\$2,776	\$2,664	\$2,500	\$2,184	\$3,000	\$6,000
0-40-30-563-000	WU - Ops - Source - Operating Supplies	\$38,008	\$49,962	\$75,000	\$52,877	\$60,000	\$60,000
0-40-40-563-000	WU - Ops - Purification - Operating Supplies	\$34,245	\$48,115	\$78,000	\$115,070	\$101,000	\$91,000
0-40-50-563-000	WU - Ops - PowerAndPump - Operating Supplies	\$36,568	\$22,616	\$95,000	\$53,144	\$185,000	\$35,000
0-40-60-563-000	WU - Ops - TandD - Operating Supplies	\$251,688	\$268,781	\$250,000	\$590,894	\$255,000	\$255,000
0-40-50-563-010	WU - Ops - PowerAndPump - Operating Supplies - Invty. Stock	\$1,857	\$6,580	\$15,000	\$53,144	\$15,000	\$15,000
0-40-60-563-010	WU - Ops - TandD - Operating Supplie - Invty. Stock	\$119,269	\$260,804	\$646,000	\$0	\$646,000	\$386,000
<b>564-000</b>	<b>Fuel</b>	<b>\$82,695</b>	<b>\$81,993</b>	<b>\$115,500</b>	<b>\$101,324</b>	<b>\$115,500</b>	<b>\$122,500</b>
0-40-60-564-000	WU - Ops - TandD - Fuel	\$82,695	\$81,993	\$115,500	\$101,324	\$115,500	\$122,500
<b>565-000</b>	<b>Bulk Water Purchase</b>	<b>\$1,009,005</b>	<b>\$847,634</b>	<b>\$1,810,176</b>	<b>\$1,225,770</b>	<b>\$1,816,176</b>	<b>\$1,820,176</b>
0-40-30-565-000	WU - Ops - Source - Bulk Water Purchase (Reclass)	\$1,009,005	\$847,634	\$1,810,176	\$1,225,770	\$1,816,176	\$1,820,176
<b>570-010</b>	<b>Books, Publications, Subscriptions, and Memberships</b>	<b>\$23,701</b>	<b>\$34,110</b>	<b>\$30,045</b>	<b>\$10,807</b>	<b>\$32,845</b>	<b>\$70,500</b>
0-01-10-570-010	WU - Admin - Admin - Books, Publications, Subscriptions, and Memberships	\$21,958	\$33,290	\$26,685	\$9,237	\$26,685	\$25,240
0-02-10-570-010	WU - IT - Admin - Books, Publications, Subscriptions, and Memberships	\$0	\$0	\$500	\$318	\$500	\$39,200
0-10-40-570-010	WU - Qual - Purification - Books, Publications, Subscriptions, and Memberships	\$0	\$0	\$0	\$0	\$0	\$0
0-20-10-570-010	WU - Eng - Admin - Books, Publications, Subscriptions, and Memberships	\$0	\$0	\$200	\$0	\$0	\$0
0-21-10-570-010	WU - Const - Admin - Books, Publications, Subscriptions, and Memberships	\$1,543	\$820	\$1,550	\$1,052	\$1,550	\$1,550
0-22-10-570-010	WU - WRP - Admin - Books, Publications, Subscriptions, and Memberships	\$0	\$0	\$0	\$0	\$3,000	\$3,400
0-30-20-570-010	WU - Bill - Collection - Books, Publications, Subscriptions, and Memberships	\$0	\$0	\$350	\$0	\$350	\$350
0-31-10-570-010	WU - Acctg - Admin - Books, Publications, Subscriptions, and Memberships	\$200	\$0	\$760	\$200	\$760	\$760
<b>570-020</b>	<b>Books, Publications, Subscriptions, and Memberships - Board</b>	<b>\$600</b>	<b>\$375</b>	<b>\$1,025</b>	<b>\$450</b>	<b>\$1,095</b>	<b>\$1,095</b>
0-01-10-570-020	WU - Admin - Admin - Books, Publications, Subscriptions, and Memberships - B	\$600	\$375	\$1,025	\$450	\$1,095	\$1,095
<b>571-010</b>	<b>Training and Development</b>	<b>\$74,294</b>	<b>\$48,120</b>	<b>\$127,580</b>	<b>\$72,074</b>	<b>\$80,880</b>	<b>\$83,600</b>
0-01-10-571-010	WU - Admin - Admin - Training and Development	\$12,209	\$14,460	\$51,700	\$33,039	\$13,500	\$23,500
0-02-10-571-010	WU - IT - Admin - Training and Development	\$9,363	\$4,390	\$12,000	\$2,615	\$12,000	\$2,000
0-10-40-571-010	WU - Qual - Purification - Training and Development	\$0	\$0	\$1,500	\$0	\$0	\$1,600
0-20-10-571-010	WU - Eng - Admin - Training and Development	\$705	\$705	\$1,130	\$375	\$1,130	\$500
0-21-10-571-010	WU - Const - Admin - Training and Development	\$5,341	\$1,010	\$6,250	\$1,285	\$6,250	\$6,250
0-22-10-571-010	WU - Plan - Admin - Training and Development	\$14,565	\$14,740	\$20,000	\$11,050	\$18,000	\$16,000
0-30-20-571-010	WU - Bill - Collection - Training and Development	\$75	\$0	\$3,000	\$550	\$3,000	\$3,000
0-31-10-571-010	WU - Acctg - Admin - Training and Development	\$517	\$638	\$2,000	\$1,075	\$2,000	\$5,750
0-40-60-571-010	WU - Ops - TandD - Training and Development	\$31,519	\$12,177	\$30,000	\$22,085	\$25,000	\$25,000
<b>572-010</b>	<b>Travel and Per Diem</b>	<b>\$40,817</b>	<b>\$45,273</b>	<b>\$84,570</b>	<b>\$46,443</b>	<b>\$106,610</b>	<b>\$55,660</b>
0-01-10-572-010	WU - Admin - Admin - Travel and Per Diem	\$28,504	\$35,131	\$38,600	\$26,873	\$59,880	\$55,660
0-02-10-572-010	WU - IT - Admin - Travel and Per Diem	\$0	\$0	\$0	\$0	\$0	\$0
0-20-10-572-010	WU - Eng - Admin - Travel and Per Diem	\$20	\$2,357	\$3,760	\$0	\$1,880	\$0
0-21-10-572-010	WU - Const - Admin - Travel and Per Diem	\$213	\$0	\$5,000	\$0	\$5,000	\$0
0-22-10-572-010	WU - Plan - Admin - Travel and Per Diem	\$8,100	\$4,463	\$22,300	\$7,547	\$25,600	\$0
0-30-20-572-010	WU - Bill - Collection - Travel and Per Diem	\$0	\$0	\$4,425	\$1,365	\$3,765	\$0
0-31-10-572-010	WU - Acc - Admin - Travel and Per Diem	\$0	\$0	\$4,485	\$3,675	\$4,485	\$0
0-40-60-572-010	WU - Ops - TandD - Travel and Per Diem	\$3,980	\$3,321	\$6,000	\$6,983	\$6,000	\$0

## Operating Expense Detail

		FY 2016-2017 Actuals	FY 2017 - 2018 Actual	FY 2018-2019 Budget	FY 2018-2019 Actual	FY 2019-2020 Budget	FY 2020-2021 Proposed Budget
<b>OPERATING EXPENSES (Detail)</b>							
<b>572-020</b>	<b>Travel and Per Diem - Board</b>	<b>\$8,862</b>	<b>\$8,783</b>	<b>\$17,490</b>	<b>\$6,139</b>	<b>\$20,970</b>	<b>\$0</b>
0-01-10-572-020	WU - Admin - Admin - Travel and Per Diem - Board	\$8,862	\$8,783	\$17,490	\$6,139	\$20,970	\$0
<b>573-010</b>	<b>Meeting Expense</b>	<b>\$2,288</b>	<b>\$3,702</b>	<b>\$26,400</b>	<b>\$8,683</b>	<b>\$37,290</b>	<b>\$19,877</b>
0-01-10-573-010	WU - Admin - Admin - Meeting Expense	\$2,034	\$3,544	\$13,500	\$4,158	\$26,440	\$19,877
0-02-10-573-010	WU - IT - Admin - Meeting Expense						\$0
0-20-10-573-010	WU - Eng - Admin - Meeting Expense	\$254	\$0	\$1,050	\$0	\$1,050	\$0
0-21-10-573-010	WU - Const - Admin - Meeting Expense	\$0	\$158	\$3,250	\$0	\$3,250	\$0
0-22-10-573-010	WU - WRP - Admin - Meeting Expense	\$0	\$0	\$0	\$0	\$5,950	\$0
0-30-20-573-010	WU - Bill - Collection - Meeting Expense	\$0	\$0	\$0	\$0	\$0	\$0
0-31-10-573-010	WU - Acctg - Admin - Meeting Expense	\$0	\$0	\$600	\$0	\$600	\$0
0-40-60-573-010	WU - Ops - TandD - Meeting Expense	\$0	\$0	\$8,000	\$4,525	\$0	\$0
<b>573-020</b>	<b>Meeting Expense - Board</b>	<b>\$5,680</b>	<b>\$5,054</b>	<b>\$14,075</b>	<b>\$7,609</b>	<b>\$9,952</b>	<b>\$0</b>
0-01-10-573-020	WU - Admin - Admin - Meeting Expense - Board	\$5,680	\$5,054	\$14,075	\$7,609	\$9,952	\$0
<b>582-000</b>	<b>Interest Expense</b>	<b>\$3,440,092</b>	<b>\$3,639,100</b>	<b>\$3,460,087</b>	<b>\$3,139,065</b>	<b>\$3,268,048</b>	<b>\$3,067,232</b>
0-00-00-582-000	WU - Interest Expense	\$3,440,092	\$3,639,100	\$3,460,087	\$3,139,065	\$3,268,048	\$3,067,232
<b>Water Utility Fund Bond and Loan Repayment</b>		<b>\$4,717,296</b>	<b>\$4,884,833</b>	<b>\$4,883,749</b>	<b>\$4,883,749</b>	<b>\$5,017,034</b>	<b>\$5,160,541</b>
<b>682-000</b>	<b>Debt Principal Repayment</b>	<b>\$4,717,296</b>	<b>\$4,884,833</b>	<b>\$4,883,749</b>	<b>\$4,883,749</b>	<b>\$5,017,034</b>	<b>\$5,160,541</b>
0-00-00-682-000	WU - Debt Principal Repayment	\$4,717,296	\$4,884,833	\$4,883,749	\$4,883,749	\$5,017,034	\$5,160,541
<b>Water Utility Fund - Non Cash Operating Expenses</b>		<b>\$7,440,452</b>	<b>\$7,632,727</b>	<b>\$7,972,818</b>	<b>\$6,864,701</b>	<b>\$7,972,818</b>	<b>\$7,210,721</b>
0-00-90-580-000	WU - Depreciation - Depreciation	\$6,821,400	\$6,931,203	\$7,314,750	\$6,153,980	\$7,314,750	\$6,500,000
0-00-90-581-000	WU - Depreciation - Amortization	\$660,984	\$743,456	\$700,000	\$752,653	\$700,000	\$752,653
0-00-90-582-000	WU - Bond Inflows & Outflows	-\$41,932	-\$41,932	-\$41,932	-\$41,932	-\$41,932	-\$41,932

## New Capital Outlay

		FY 2016- 2017 Actual	FY 2017- 2018 Actual	FY 2018- 2019 Budget	FY 2018- 2019 Actual	FY 2019 - 2020 Budget	Proposed Budget FY 2020- 2021
<b>CAPITAL Outlay (New Appropriations)</b>		<b>\$1,175,237</b>	<b>\$471,275</b>	<b>\$1,915,000</b>	<b>\$51,024</b>	<b>\$1,918,000</b>	<b>\$1,280,502</b>
<b>Water Utility Fund (Misc. Capital Purchases - Replacement)</b>		<b>\$470,491</b>	<b>\$407,020</b>	<b>\$1,267,000</b>	<b>\$44,125</b>	<b>\$915,000</b>	<b>\$1,092,302</b>
10-01-00-604-999	WU-Admin-RandR Capital Purchases	\$0	\$0	\$90,000	\$0	\$0	\$0
10-02-00-604-999	WU-IT-RandR Capital Purchases	\$50,588	\$216,357	\$427,000	\$44,025	\$565,000	\$112,302
10-10-40-604-999	WU-Qual-Purification-RandR Capital Purchases	\$0	\$0	\$37,000	\$0	\$0	\$40,000
10-21-00-604-999	WU-Const/Admin/Capital Purchases	\$1,669	\$39,491	\$10,000	\$100	\$10,000	\$10,000
10-30-00-604-999	WU-Fiscal-RandR Capital Purchases	\$0	\$0	\$33,000	\$0	\$0	\$159,000
10-40-00-604-999	WU-Ops-RandR Capital Purchases	\$418,234	\$151,172	\$670,000	\$0	\$340,000	\$771,000
<b>Water Utility Fund (Misc. Capital Purchases - New)</b>		<b>\$704,746</b>	<b>\$64,256</b>	<b>\$648,000</b>	<b>\$6,899</b>	<b>\$1,003,000</b>	<b>\$188,200</b>
10-01-00-605-999	WU-Admin-RandR Capital Purchases	\$0	\$0	\$0	\$0	\$0	\$0
10-02-00-605-999	WU-IT-Expansion Capital Purchases	\$35,567	\$0	\$310,000	\$6,899	\$425,000	\$160,000
10-10-40-605-999	WU-Qual-Expansion Capital Purchases	\$0	\$0	\$0	\$0	\$0	\$0
10-21-00-605-999	WU-Const/Admin/Capital Purchases	\$1,021	\$0	\$10,000	\$0	\$100,000	\$10,000
10-30-00-605-999	WU-Fiscal-RandR Capital Purchases	\$596,689	\$54,384	\$0	\$0	\$0	\$0
10-31-00-605-999	WU-Const/Admin/Capital Purchases	\$0	\$0	\$0	\$0	\$3,000	\$0
10-40-00-605-999	WU-Ops-Expansion Capital Purchases	\$71,469	\$9,872	\$328,000	\$0	\$475,000	\$18,200
<b>CAPITAL OUTLAY - CIP (New Appropriations)</b>		<b>\$1,229,143</b>	<b>\$1,428,714</b>	<b>\$5,325,000</b>	<b>\$8,372,336</b>	<b>\$6,530,001</b>	<b>\$26,926,962</b>
<b>Water Utility Fund (Capital Outlay - Rehabilitation &amp; Replacement- Design)</b>		<b>\$13,994</b>	<b>\$355,061</b>	<b>\$170,000</b>	<b>\$119,523</b>	<b>\$370,000</b>	<b>\$345,000</b>
10-20-00-604-000	WU/Eng-Permit Fees	\$0	\$0	\$20,000	\$3,138	\$20,000	\$10,000
10-20-00-604-001	WU-Eng-ALLR-KW-07 Paua Valley Tank Repair	\$0	\$51,764	\$0	\$16,539	\$0	\$85,000
10-20-00-604-006	WU-Eng-34%R-PLH-28 Hanamaulu Main (Hoohana Street)	\$0	\$0	\$0	\$0	\$0	\$0
10-20-00-604-007	WU-Eng-ALLR-WK-11a Upper Wailua Houselots Main Rpl	\$0	\$0	\$0	\$0	\$0	\$0
10-20-00-604-009	WU-Eng-ALLR-Hanapepe Stream Crossing	\$0	\$0	\$0	\$0	\$0	\$0
10-20-00-604-013	WU-Eng-ALLR-PLH-32 Rice St Kapule Intersection	\$0	\$0	\$0	\$0	\$0	\$0
10-20-00-604-120	WU-Eng-Kilauea 1.0 MG tank (RR 10%)	\$3,740	\$2,671	\$0	\$0	\$0	\$0
10-20-00-604-146	WU-Eng-Hanapepe-Eleele Connecting Pipeline HE-1 and HE-10 (RR 12%)	\$10,254	\$71,960	\$0	\$12,999	\$0	\$0
10-20-00-604-147	WU-Eng-Rehabilitate Puupilo Steel tank	\$0	\$0	\$0	\$0	\$0	\$0
10-20-00-604-148	WU-Eng-Kuhio Hwy (Hardy-Oxford) 16" Main Replace (R&R 56% of \$100K)	\$0	\$0	\$0	\$1,283	\$0	\$0
10-20-00-604-149	WU-Eng-Kuhio Hwy (N. Papalooa to Waikaea Canal) Main Replace (RR 56%)	\$0	\$0	\$0	\$0	\$0	\$0
10-20-00-604-150	WU-Eng-Makanui and Kuai Road Main Replacement (RR 37%)	\$0	\$0	\$0	\$0	\$0	\$0
10-20-00-604-151	KP-14a Koloa 6" and 12" Main Replacement plus additional area (Wailani and Waihothono)	\$0	\$0	\$0	\$0	\$0	\$0
10-20-00-604-152	WU-Eng-Hoona, Hoone, Pane Road main replacement (RR 37%)	\$0	\$0	\$0	\$0	\$0	\$0
10-20-00-604-157	Kilauea Wells MCC rehab	\$0	\$228,666	\$0			\$250,000
10-20-00-604-163	WU-Eng-ALLR-18-8 Limahuli Stream and Mānoa Stream Water Line Repairs	\$0	\$0	\$0	\$85,564	\$350,000	\$0
10-20-00-604-162	WU-Eng-17-13 & 14, Engineering Services for Islandwide Vulnerability and Resiliency Assessment.	\$0	\$0	\$150,000			\$0
10-20-00-604-169	Baseyard MP Ph 1	\$0	\$0	\$0	\$0	\$0	\$0
<b>Water Utility Fund (Misc. Capital Purchases - Expansion)</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
10-20-00-605-017	18" Cane Haul Road Main						
10-20-00-605-xxx	Kuhio Hwy (Hardy-Oxford) 16" Main replacement (EXP 44% of \$150K)						
10-20-00-605-xxx	Kilauea 1.0 MG tank (EXP 90%)						
<b>Water Utility Fund (Capital Projects - R&amp;R - Construction)</b>		<b>\$315,299</b>	<b>\$5,650</b>	<b>\$5,155,000</b>	<b>\$3,564,521</b>	<b>\$5,255,000</b>	<b>\$17,705,000</b>



## New Capital Outlay

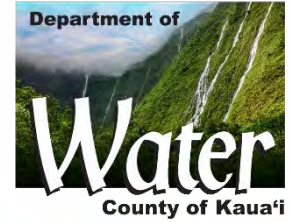
		FY 2016- 2017 Actual	FY 2017- 2018 Actual	FY 2018- 2019 Budget	FY 2018- 2019 Actual	FY 2019 - 2020 Budget	Proposed Budget FY 2020- 2021
10-21-00-604-017	WU/Cns/1.45%R-18In Cane Haul Main (1.45% RR of \$3.15M)	\$0	\$0	\$0	\$0	\$0	\$0
10-21-00-604-029	WU/Const/Capital Outlay/09-01, Yamada Tank, Clearwell & connecting PL	\$0	\$0	\$0	\$0	\$0	\$13,200,000
10-21-00-604-033	WU-Cns-ALLR-13-07, Koloa Well D Repairs (s/b 20, per Dustin)	\$315,299	\$5,650	\$0	\$0	\$0	\$0
10-21-00-604-035	WU-Cns-ALLR-XX-YY, HE-14, Eleele Booster Rehab	\$0	\$0	\$0	\$1,073,665	\$0	\$0
10-21-00-604-102	WU-Cns-44%R-10-01 Ani-01b-Anini Rd WL DOW-Princvl	\$0	\$0	\$0	\$0	\$0	\$0
10-21-00-604-132	WU-Cns-ALLR-13-05 Kolo Road Main (Kilauea School)	\$0	\$0	\$0	\$0	\$0	\$0
10-21-00-604-146	WU/Cns/78%RR/15-07/HE-01,HE-10, Reorganize Wtr Sys. PL connecting Hanapepe & Eleele (6" Main Repl) Ph I (County R/W)(78%RR of \$1.9M)	\$0	\$0	\$0	\$2,490,856	\$0	\$0
10-21-00-604-001	Paua Valley Tank Repair	\$0	\$0	\$1,400,000	\$0	\$1,400,000	\$0
10-21-00-604-157	Kilauea 1&2 MCC (engineer's estimate - \$2.576M)	\$0	\$0	\$3,755,000	\$0	\$3,755,000	\$3,755,000
10-21-00-604-167	Kukuiofono Tank Demo					\$100,000	\$750,000
10-21-00-604-XXX	02-06, WKK-15 - Construct Kilauea 466 Tank, 1.0MG, Puu Pane Well 3 (R&R - 10%) (Total= \$5M)					\$0	\$0
<b>Water Utility Fund (Capital Outlay - Rehabilitation &amp; Replacement- Operations)</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1</b>	<b>\$2,201,962</b>
10-40-00-604-166	SWTP - Water Treatment Delivery Agreement with Grove Farm - R&R	\$0	\$1,050	\$0		\$1	\$2,201,962
<b>Water Utility Fund (Capital Projects - Exp - Construction)</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,302,856</b>	<b>\$0</b>	<b>\$0</b>
10-21-00-605-118	WU/Const/Capital Outlay/WK-39-Kapaa Homestead Well No. 4 (100% Expansion)	\$0	\$0	\$0	\$750,000	\$0	\$0
10-21-00-605-146	WU/Cns/22%EXP/15-07/HE-01,HE-10, Reorganize Wtr Sys. PL connecting Hanapepe & Eleele (6" Main Repl) Ph I (County R/W)(22%EXP of \$1.9M)	\$0	\$0	\$0	\$0	\$0	\$0
10-21-00-605-146	WU/Cns/100%EXP/15-07/HE-01,HE-10, Reorganize Wtr Sys. PL connecting Hanapepe & Eleele (6" Main Repl) Ph II State R/W)	\$0	\$0	\$0	\$1,552,856	\$0	\$0
10-21-00-605-017	Kapaia Cane Haul Road 18" Main (98.55% Exp) \$3,241,350	\$0	\$0	\$0	\$0	\$0	\$0
<b>FRC Fund (Capital Projects - Expansion - Design )</b>		<b>\$33,657</b>	<b>\$190,102</b>	<b>\$0</b>	<b>\$85,510</b>	<b>\$680,000</b>	<b>\$450,000</b>
20-20-00-605-006	FRC-Eng-66%E-PLH-28 Hanamaulu Main (Hoohana Street)	\$0	\$0	\$0		\$0	\$0
20-20-00-605-010	FRC-Eng-ALLE-Wailua Homesteads 538 1.0 MG Tank	\$0	\$0	\$0		\$0	\$0
20-20-00-605-014	FRC-Eng-ALLE-Purchase Water System 1	\$0	\$0	\$0		\$0	\$0
20-20-00-605-016	FRC-Eng-ALLE-Poipu 1 MG Storage Tank	\$0	\$0	\$0		\$0	\$0
20-20-00-605-018	FRC-Eng-ALLE-H-08 Hanalei Well 2	\$0	\$0	\$0		\$0	\$0
20-20-00-605-019	FRC-Eng-E-Kapaia SWTP Expansion	\$0	\$0	\$0		\$0	\$0
20-20-00-605-120	FRC-Eng-Kilauea 1.0 MG tank (EXP 90%)	\$33,657	\$0	\$0		\$0	\$0
20-20-00-605-148	FRC-Eng-Kuhio Hwy (Hardy-Oxford) 16" Main replacement (EXP 44% of \$150K)	\$0	\$0	\$0		\$0	\$0
20-20-00-605-149	FRC-Eng-Kuhio Hwy (N. Papaloa to Waikaea Canal) Main Replacement (EXP 44%)	\$0	\$0	\$0		\$0	\$0
20-20-00-605-150	FRC-Eng-Makanui and Kuai Road Main Replacement (EXP 63%)	\$0	\$0	\$0		\$0	\$0
20-20-00-605-151	KP-14A Koloa 6" & 12" Main Repla + add'l area (Wailani & Waihihinou Rds, prt of KP-14 (Exp 50%))	\$0	\$0	\$0		\$0	\$0
20-20-00-605-152	FRC-Eng-Hoona, Hoone, Pane Road main replacement (EXP 63%)	\$0	\$0	\$0		\$0	\$0
20-20-00-605-154	FRC-Eng-Drill and Test Kilauea Well #3 (EXP)	\$0	\$2,760	\$0		\$0	\$0
20-20-00-605-155	FRC-Eng-Wainiha Well #4 (EXP)	\$0	\$0	\$0		\$160,000	\$0
20-20-00-605-156	FRC-Eng-land acquisition for Kilauea Well #3	\$0	\$0	\$0		\$0	\$0
20-20-00-605-156	FRC-Eng-land acquisition for jelly factory booster pump	\$0	\$0	\$0		\$0	\$0
20-20-00-605-156	FRC-Eng-land acquisition for Poipu tank	\$0	\$0	\$0		\$0	\$0
20-20-00-605-153	FRC-Eng-Haena 0.2 MG tank	\$0	\$187,342	\$0	\$85,510	\$30,000	\$0

## New Capital Outlay

		FY 2016- 2017 Actual	FY 2017- 2018 Actual	FY 2018- 2019 Budget	FY 2018- 2019 Actual	FY 2019 - 2020 Budget	Proposed Budget FY 2020- 2021
20-20-00-605-156	FRC-Eng-land acquisition for SWTP expansion	\$0	\$0	\$0		\$0	\$0
20-20-00-605-118	Develop Kapaa Well No. 4 site improvements (production well)		\$0	\$0		\$450,000	\$450,000
20-20-00-605-117	UH Experiment Station Tank - land acquisition		\$0	\$0		\$0	\$0
20-20-00-605-168	Kalaheo System Improvements - recertify plans/permits		\$0	\$0		\$40,000	\$0
<b>FRC Fund (Capital Projects - Expansion - Construction)</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$225,000</b>	<b>\$225,000</b>
20-21-00-605-017	FRC-Eng-ALLE-18IN Cane Haul Road Main	\$0	\$0	\$0	\$0	\$0	\$0
20-21-00-605-029	FRC-Cns-56%E-09-01 Yamada Tank Clearwell, Conn Pip	\$0	\$0	\$0	\$0	\$0	\$0
20-21-00-605-102	WU/Const/Capital Outlay/10-01 Ani-01b anini Rd. WL DOW -Princevl (56% Exp)	\$0	\$0	\$0	\$0	\$0	\$0
20-21-00-605-116	WU/Const/Capital Outlay/WK-08-Kapaa Homestead 313' 1.0 MG Tank (Ornellas) (0% RR of \$10M)	\$0	\$0	\$0	\$0	\$0	\$0
20-21-00-605-161	Hanapepe River Bridge, Kaunualii Hwy. Rt. 50, HI STP SR50 (1) Project, Hanapepe, Kauai, HI	\$0	\$0	\$0	\$0	\$225,000	\$225,000
20-21-00-605-XXX	02-06, WKK-15 - Construct Kilauea 466 Tank, 1.0MG, Puu Pane Well 3 (Expansion - 90%)					\$0	\$0
<b>Bond Fund (Capital Projects - R&amp;R - Construction)</b>		<b>\$866,193</b>	<b>\$877,902</b>	<b>\$0</b>	<b>\$1,623,383</b>	<b>\$0</b>	<b>\$0</b>
30-21-00-604-101	BAB-Cns-ALLR-10-01 Ani01a-Anini Kalihiwai 6IN Main	\$0	\$0	\$0	\$0	\$0	\$0
30-21-00-604-102	BAB-Cns-44%R-10-01 Ani-01b-Anini Rd WL DOW-Princvl	\$0	\$0	\$0	\$0	\$0	\$0
30-21-00-604-107	BAB-Cns-ALLR-XX-YY KP-09-MCC Chlor KoloaWell16-A,E	\$0	\$877,902	\$0	\$1,623,383	\$0	\$0
30-21-00-604-109	BAB-Cns-19%R-XX-YYLO-08LO-10-Koloa Al.-Piko, Lawai	\$0	\$0	\$0	\$0	\$0	\$0
30-21-00-604-112	BAB-Cns-40%R-11-02 PLH-01a Grove Farm Tanks 1 - 2	\$0	\$0	\$0	\$0	\$0	\$0
30-21-00-604-114	BAB-Cns-ALLR-XX-YY PLH-39a-Lihue Baseyard Imprvmt	\$605,698	\$0	\$0	\$0	\$0	\$0
30-21-00-604-120	BAB-Cns-10%R-0206WKK15-Kilauea 466 Tnk Puu Pane W3	\$0	\$0	\$0	\$0	\$0	\$0
30-21-00-604-129	BAB-Cns-ALLR-11-10 8IN WL Halewili, Kaum to HHale	\$260,495	\$0	\$0	\$0	\$0	\$0
30-21-00-604-136	BAB-Cns-11%R-XX-YY H-05 Weke Anae Hee 6-8IN Mains	\$0	\$0	\$0	\$0	\$0	\$0
30-21-00-604-017	BAB-Cns-Kapaia Cane Haul Road 18" main (1.45% R&R - \$3,241,350))	\$0	\$0	\$0	\$0	\$0	\$0
<b>Bond Fund (Capital Projects: Expansion - Design)</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
30-20-00-605-139	BAB-Eng-ALLE-Moloaa Tank Site Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
30-20-00-605-140	BAB-Eng-ALLE-Koloa Well F Land Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
<b>Bond Fund (Capital Projects - Expansion - Construction)</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$676,543</b>	<b>\$0</b>	<b>\$6,000,000</b>
30-21-00-605-102	BAB-Cns-56%E-10-01 Ani-01b-Anini Rd WL DOW-Princvl	\$0	\$0	\$0	\$0	\$0	\$0
30-21-00-605-106	BAB-Cns-50%E-03-04 K05a-Kalaheo Tank 0.5MG 886FT	\$0	\$0	\$0	\$0	\$0	\$0
30-21-00-605-109	BAB-Cns-81%E-XX-YYLO-08LO-10-Koloa Al.-Piko, Lawai	\$0	\$0	\$0	\$0	\$0	\$0
30-21-00-605-110	BAB-Cns-ALLE-WK-08-Kapaa Homestead Tank (Ornellas)	\$0	\$0	\$0	\$0	\$0	\$0
30-21-00-605-112	BAB-Cns-60%E-11-02 PLH-01a Grove Farm Tanks 1 - 2	\$0	\$0	\$0	\$0	\$0	\$0
30-21-00-605-118	BAB-Cns-ALLE-WK-39-Kapaa Homestead Well No. 4	\$0	\$0	\$0	\$676,543	\$0	\$0
30-21-00-605-120	BAB-Cns-90%E-0206WKK15-Kilauea 466 Tnk Puu Pane W3	\$0	\$0	\$0	\$0	\$0	\$0
30-21-00-605-136	BAB-Cns-89%E-XX-YY H-05 Weke Anae Hee 6-8IN Mains	\$0	\$0	\$0	\$0	\$0	\$0
30-21-00-605-029	BAB-Cns-CO-09-01 Kalaheo 1111' & 1112' WS Improv Pkg A,B,C	\$0	\$0	\$0	\$0	\$0	\$6,000,000
30-21-00-605-017	BAB-Cns-CO-Kapaia Cane Haul Road 18" Main (98.55% Exp \$3,241,350)	\$0	\$0	\$0	\$0	\$0	\$0
<b>SRF Fund (Capital Projects - R&amp;R - Construction)</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
60-21-00-604-029	WU/Const/Capital Outlay/09-01, Kalaheo 1111' & 1222' Water System Improvements (Package A: 0% Yamada Tank, Package B: 34% Clearwell, Package C: 94 %Pipeline) (Total \$19.2M) <b>Cumulative 52% R&amp;R/48% Expansion - \$ 9,984,000</b>						\$0

## New Capital Outlay

		FY 2016- 2017 Actual	FY 2017- 2018 Actual	FY 2018- 2019 Budget	FY 2018- 2019 Actual	FY 2019 - 2020 Budget	Proposed Budget FY 2020- 2021
60-21-00-604-114	SRF-Cns-ALLR-X-YY PLH-39a-Lihue Baseyard Imprvmts	\$0	\$0	\$0	\$0	\$0	\$0



# COUNTY OF KAUAI DEPARTMENT OF WATER

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## Finance Committee Meeting

November 4, 2019

# AGENDA

- » Study Objectives
- » Financial Plan
  - › Key Assumptions
  - › Revenue and Expenses
  - › Proposed Revenue Adjustments
- » Rate Design
- » Customer Impacts
- » Next Steps
- » Q&A

# STUDY OBJECTIVES

- » Adequate funding of the water utility's ongoing operation and capital needs
  - › Overall financial stability and adequate reserves
  - › Minimize overall impacts
- » Development of water rates that
  - › Provide revenue stability
  - › Are fair and equitable to customers

# KEY ASSUMPTIONS

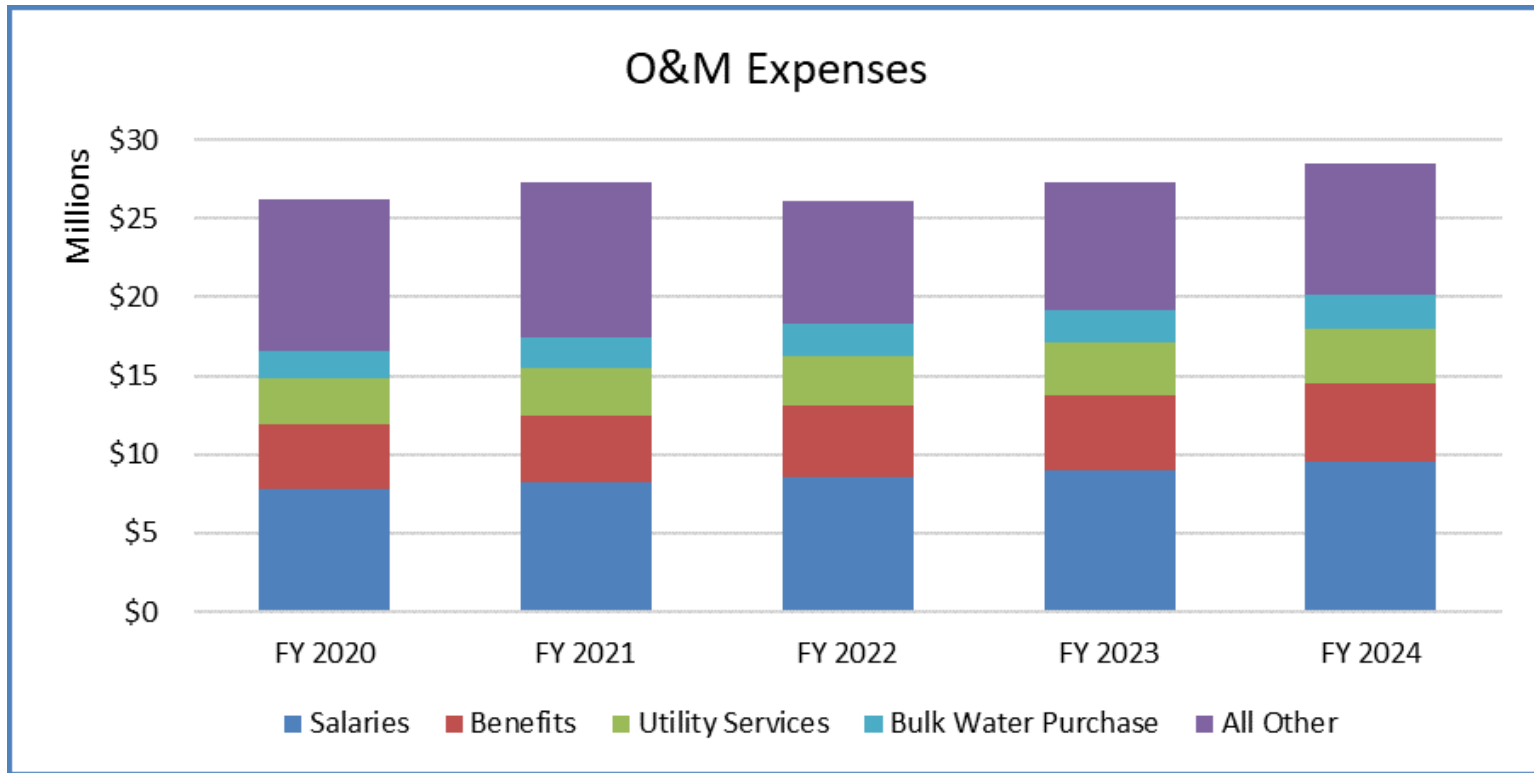
- » Inflation Factors:
  - › General (CPI) – 3% per year
  - › Salaries, benefits, and utilities – 5% per year
    - Retirement benefits – 24% of salaries
  - › Chemicals and capital – 4% per year
- » Miscellaneous revenue growth rate – 0% per year
- » Customer growth rate – 0.05% per year (~10 new accounts per year)

# KEY ASSUMPTIONS (CONT'D)

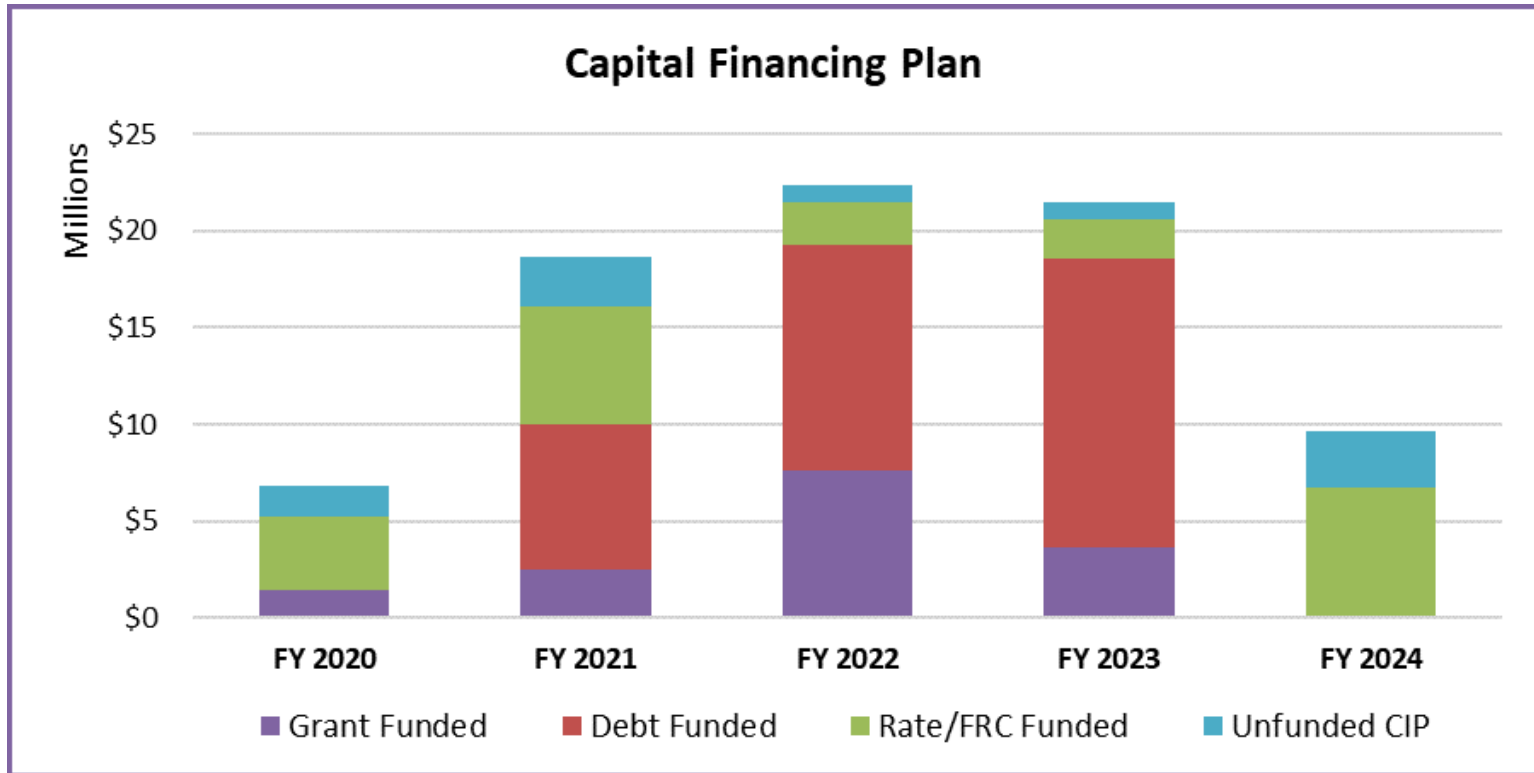
- » Financing assumptions:
  - › Bonds – 5% interest, 30 year term, 2% issuance cost
  - › SRF Loan – 1.75% interest, 20 year term
- » Reserve interest rate – 1.5% in FY 2020 and 2% per year thereafter



# O&M EXPENSES

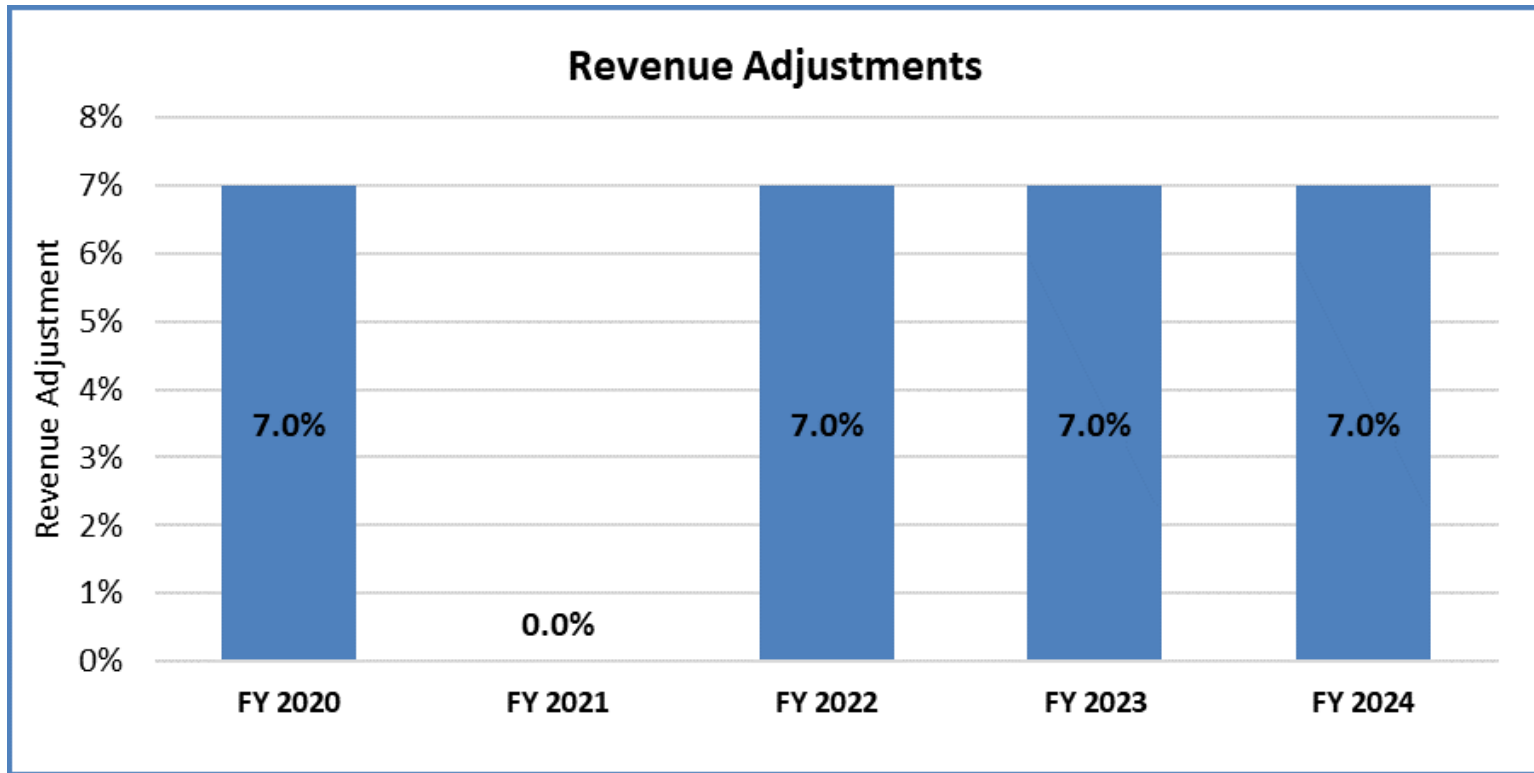


# CIP FINANCING PLAN



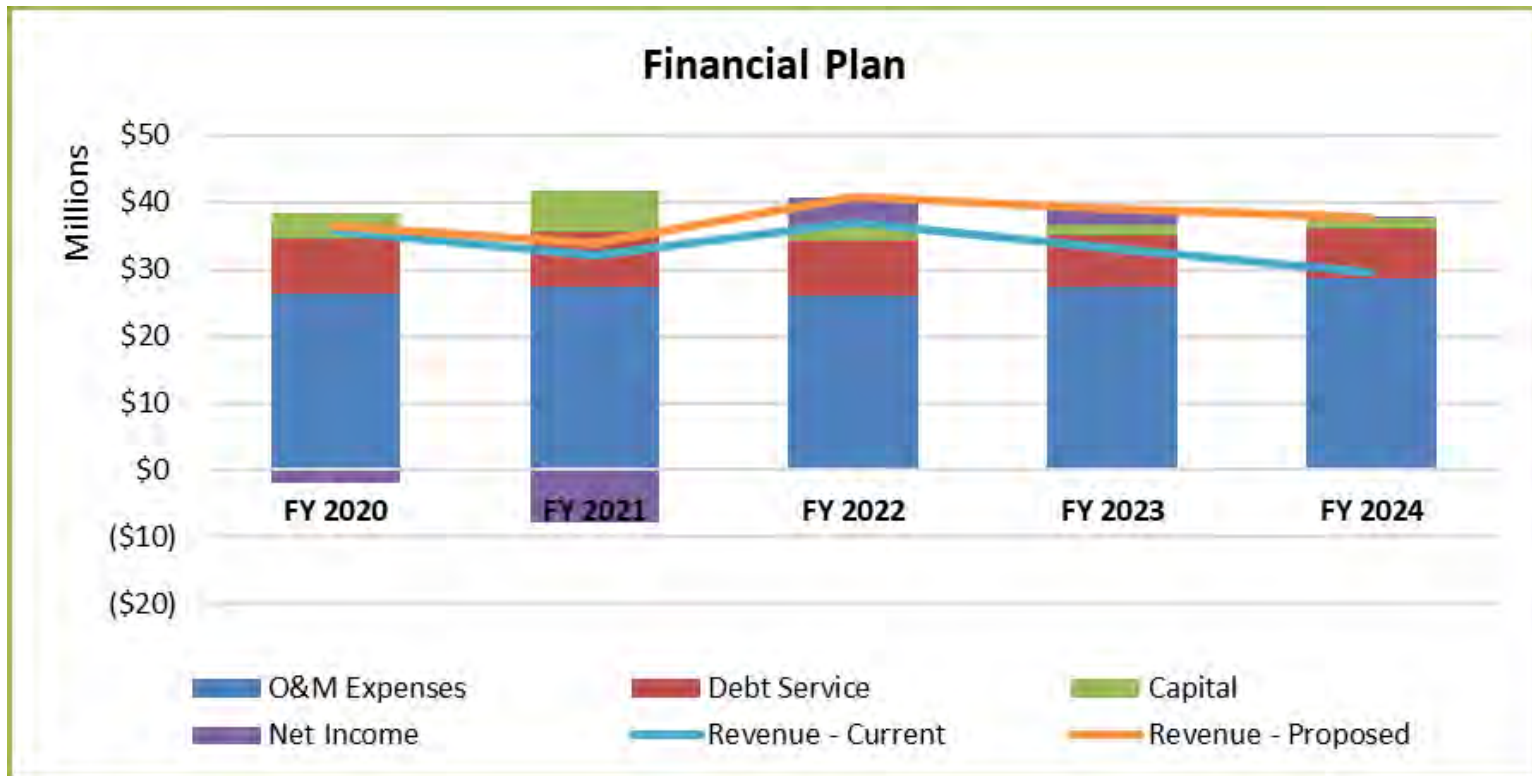
Assume \$15M (inflated dollars) in grant funding in FY 2020-FY 2024 and \$26.6M (inflated dollars) in SRF Loan funding in FY 2022-2023.

# PROPOSED REVENUE ADJUSTMENTS



Assume rates effective February 1, 2020 and every July 1 starting July 1, 2021

# FINANCIAL PLAN

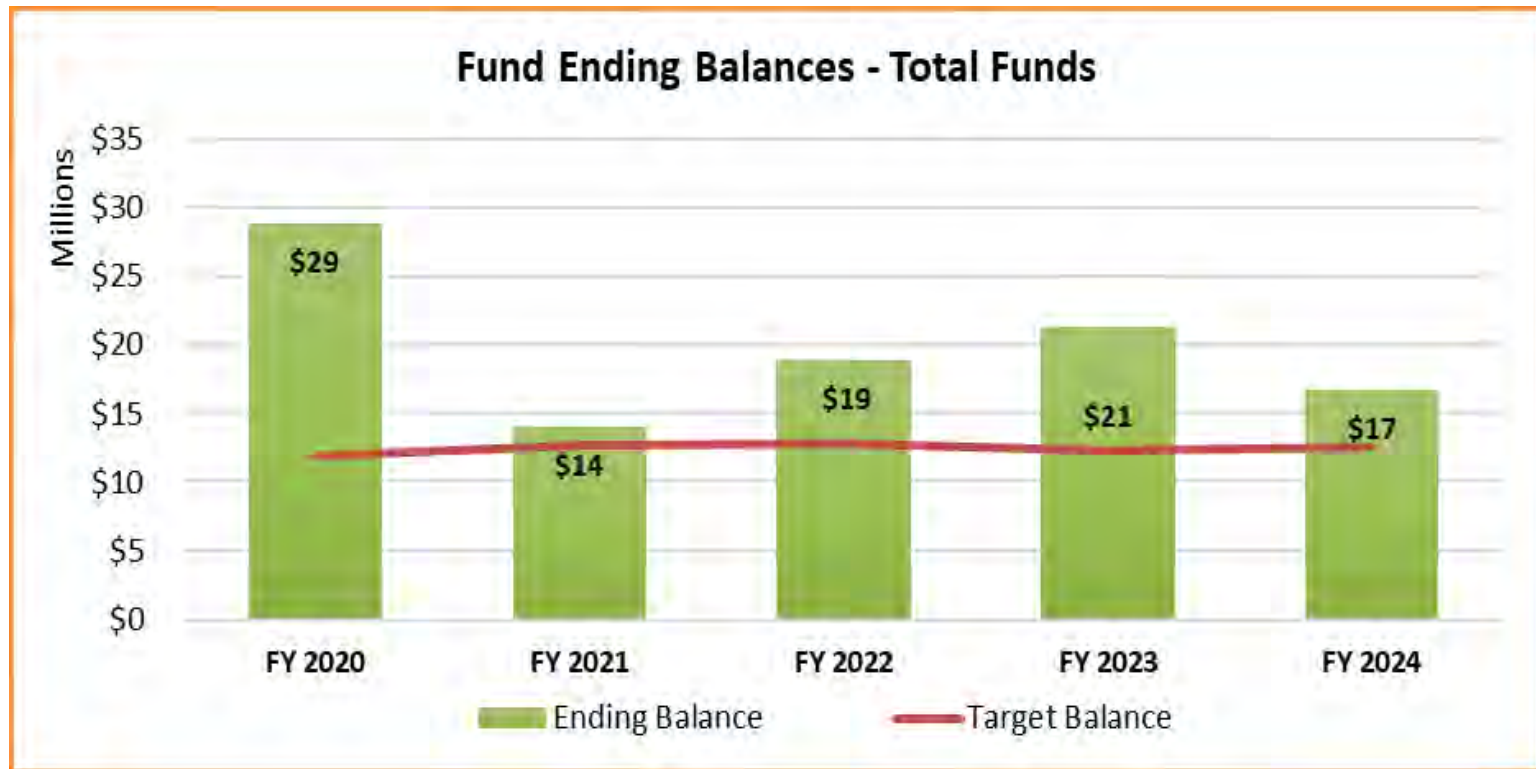


Revenue dipped in FY 2021 due to projected amount of State Grants received.

# CURRENT TARGET RESERVE

- » Utility Fund
- » Emergency Reserve Fund
  - › 25% of prior year's operating expenses, net of interest expense, depreciation and amortization, and non-cash expenses
  - › \$1M for insurance deductible
- » Debt Reserve Fund
  - › 50% of annual debt service budget

# ENDING FUND BALANCE



# RATE DESIGN

# EXISTING WATER RATES

## » Monthly service charge + 5-tier consumption rate

- › Tiers are based on meter size
- › Agriculture customers have uniform rate of \$2.20/kgal
- › Power adjustment rate of \$0.12/kgal for everyone

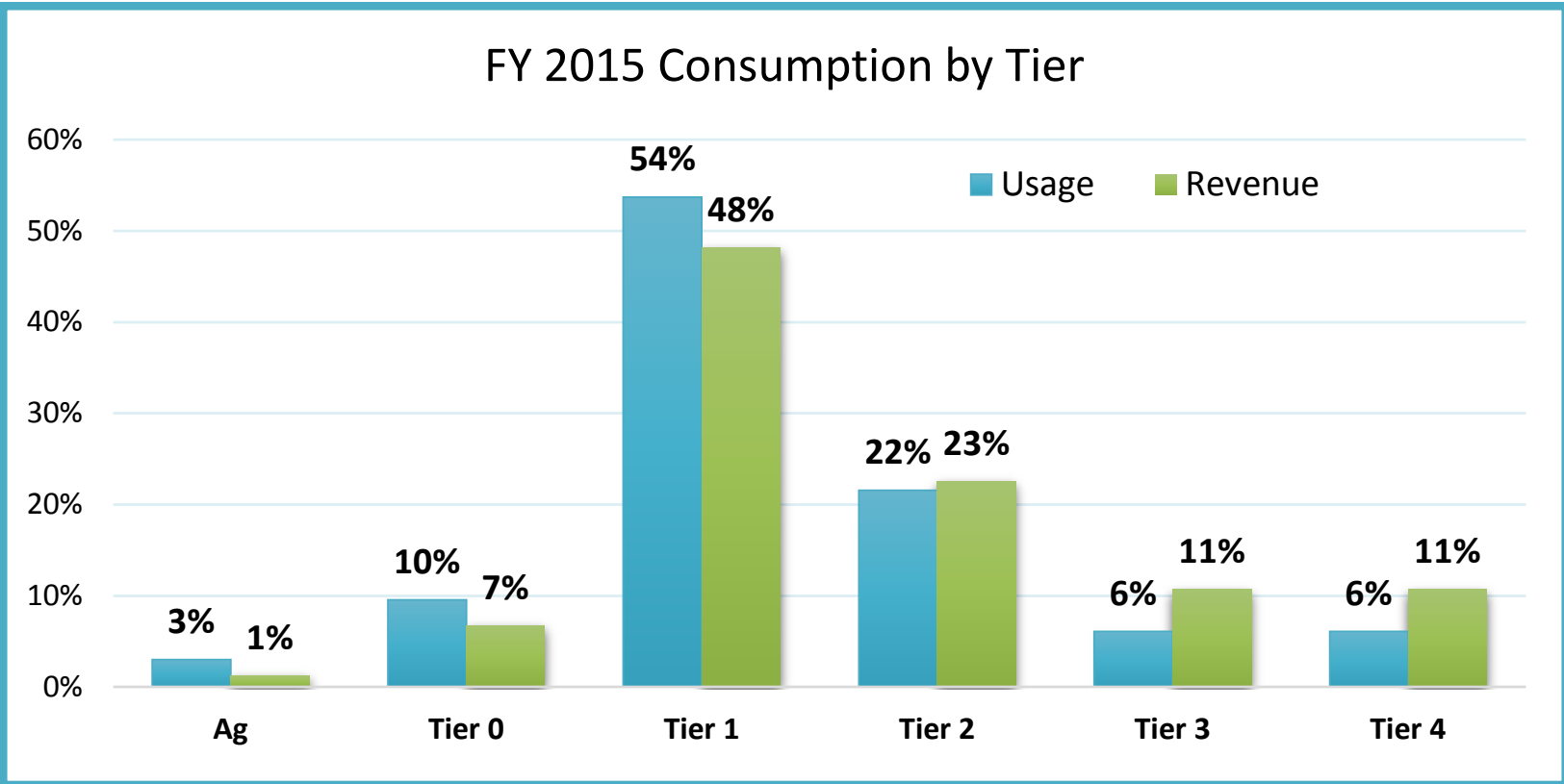
Meter Size	No. of Meters	Meter Charge	Tier 0 Min	Tier 1	Tier 2	Tier 3	Tier 4
			\$3.80	\$4.85	\$5.65	\$9.50	\$10.00
5/8"	20,784	\$17.75	1	7	14	18	18 +
3/4"	108	\$24.75	2	29	57	65	65 +
1"	211	\$36.50	3	68	137	175	175 +
1 1/2"	209	\$65.50	10	169	337	387	387 +
2"	199	\$100.00	12	400	750	925	925 +
3"	53	\$181.00	50	600	1,200	1,750	1,750 +
4"	40	\$297.00	175	1,000	2,500	2,750	2,750 +
6"	59	\$587.00	225	4,000	7,500	10,000	10,000 +
8"	56	\$934.00	250	1,000	2,500	12,500	12,500 +



# FY 2015 CUSTOMER DATA

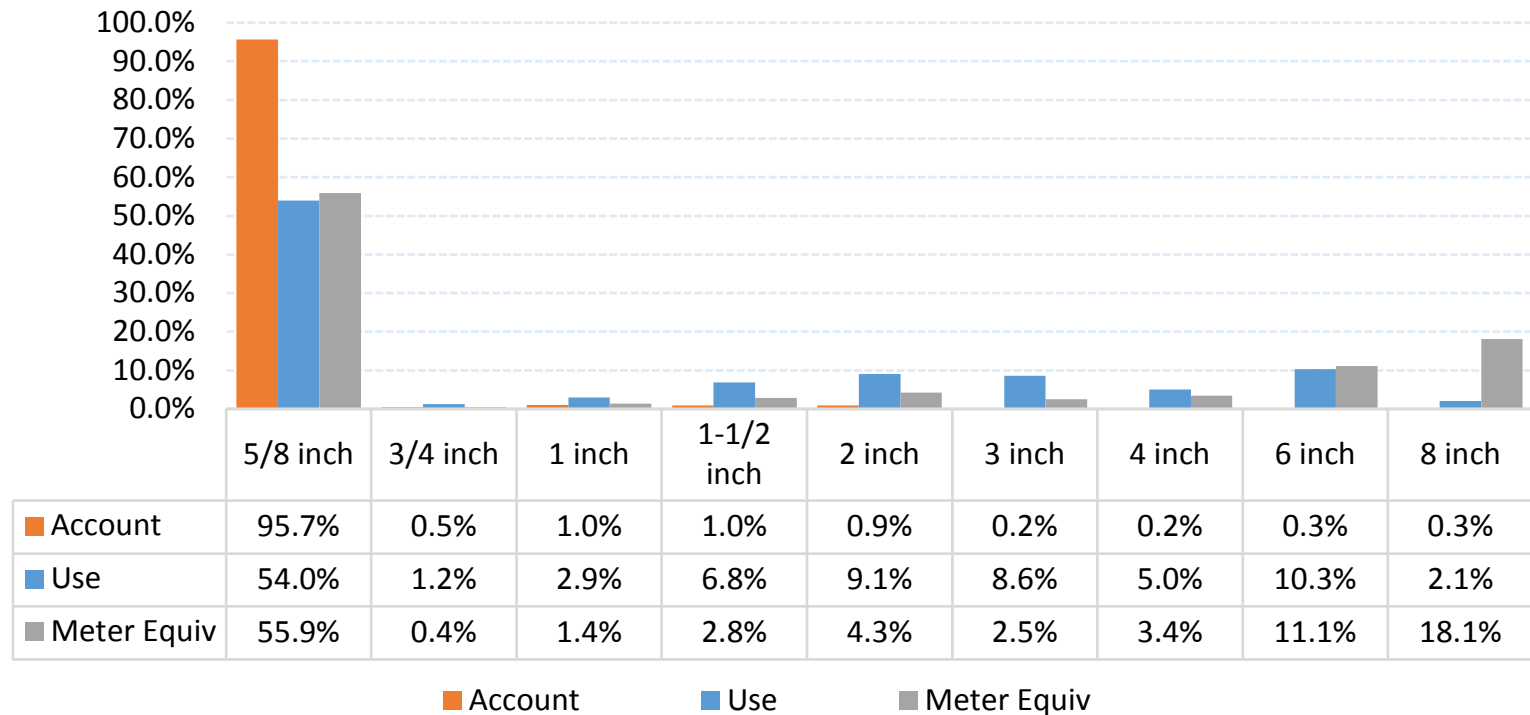
Meter Size	Usage (kgal)	Number of Meters	Average Monthly Use (kgal)
5/8 inch	2,160,717	20,784	9
3/4 inch	48,851	108	38
1 inch	117,981	211	47
1-1/2 inch	273,491	209	109
2 inch	362,748	199	152
3 inch	343,110	53	539
4 inch	200,570	40	418
6 inch	411,961	59	582
8 inch	82,843	56	123
<b>TOTAL</b>	<b>4,002,272</b>	<b>21,719</b>	<b>15</b>

# FY 2015 CUSTOMER DATA



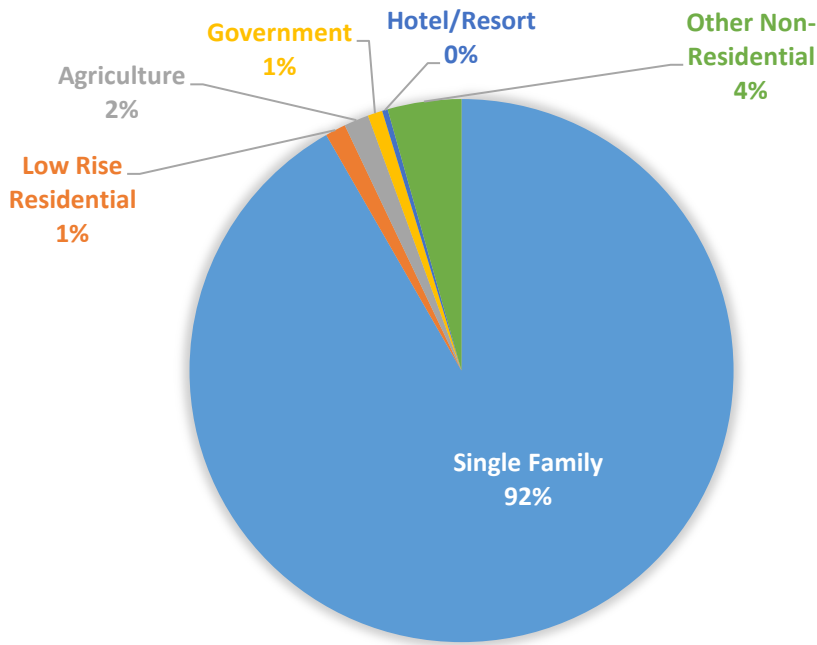
# FY 2015 CUSTOMER DATA

FY 2015 Account v. Use

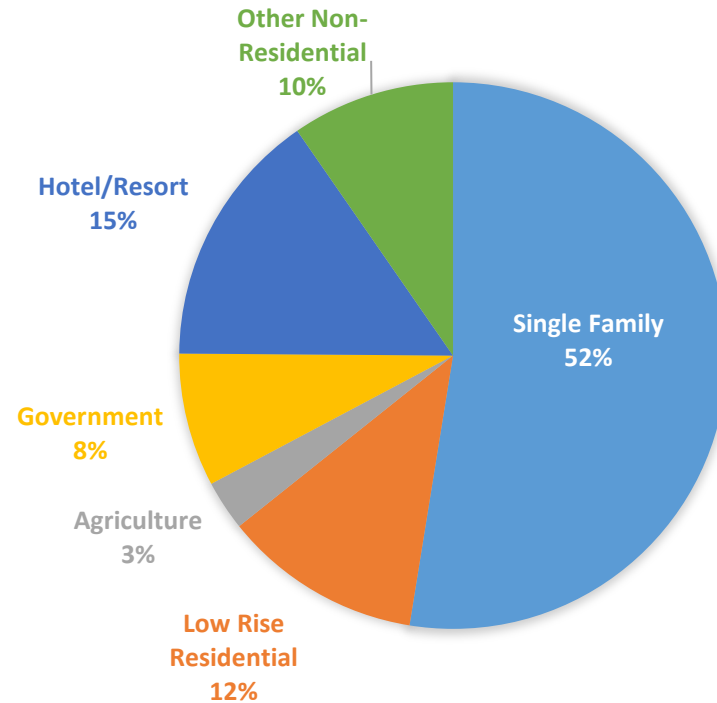


# FY 2015 CUSTOMER DATA

## FY 2015 WATER ACCOUNT BY CLASS



## FY 2015 WATER CONSUMPTION BY CLASS



# PROPOSED RATE STRUCTURE

- » Meter charges based on AWWA capacity factors ratios
- » Volumetric rates differentiated by customer class (not meter size)
  - › Single Family Residential customers have 3 tiers
    - Tier 1: 0 to 7 kgal per month (represents the indoor essential use to be provided at the lowest rate)
    - Tier 2: 8 to 10 kgal per month (additional 3 kgal is for average outdoor use)
    - Tier 3: over 10 kgal per month
  - › All other customers have uniform rate

# PROPOSED MONTHLY METER CHARGES – FY 2020

- » Current fixed charge revenue is ~19% without Tier 0 revenue, ~26% with Tier 0 revenue
- » Proposed fixed charge revenue is retained at ~26%
- » Meter ratios based on AWWA hydraulic capacities

Meter Size	Meter Ratio	Meter Component	Billing Component	Total Monthly Charges + Tier 0	Current 0	Difference
5/8"	1.00	\$16.11	\$7.56	<b>\$23.67</b>	\$21.55	\$2.12
3/4"	1.50	\$24.16	\$7.56	<b>\$31.72</b>	\$32.35	(\$0.63)
1"	2.50	\$40.26	\$7.56	<b>\$47.82</b>	\$47.90	(\$0.08)
1 1/2"	5.00	\$80.53	\$7.56	<b>\$88.09</b>	\$103.50	(\$15.41)
2"	8.00	\$128.84	\$7.56	<b>\$136.40</b>	\$145.60	(\$9.20)
3"	17.50	\$281.84	\$7.56	<b>\$289.40</b>	\$371.00	(\$81.60)
4"	31.50	\$507.31	\$7.56	<b>\$514.87</b>	\$962.00	(\$447.13)
6"	65.00	\$1,046.83	\$7.56	<b>\$1,054.39</b>	\$1,442.00	(\$387.61)
8"	120.00	\$1,932.60	\$7.56	<b>\$1,940.16</b>	\$1,884.00	\$56.16

# PROPOSED MONTHLY PRIVATE FIRE METER CHARGES – FY 2020

Meter Size	Meter Ratio	Meter Component	Billing Component	Total Monthly Charges	Current Charges	Difference
2"	0.06	\$10.34	\$7.56	<b>\$17.90</b>	\$28.25	(\$10.35)
3"	0.16	\$30.04	\$7.56	<b>\$37.60</b>	\$49.00	(\$11.40)
4"	0.34	\$64.02	\$7.56	<b>\$71.58</b>	\$80.00	(\$8.42)
6"	1.00	\$185.96	\$7.56	<b>\$193.52</b>	\$166.00	\$27.52
8"	2.13	\$396.29	\$7.56	<b>\$403.85</b>	\$283.00	\$120.85

# PROPOSED VOLUME RATES

- » Water rates are comprised of 3 components:
  - › Water supply cost – lower cost water would be allocated to Ag and lower tiers
    - Groundwater (~80% of total water)
    - Purchased water (~20% of total water)
  - › Base delivery cost – all system costs to provide water at average rate of use
  - › Peaking cost – costs to provide peak capacity in the water system



# PROPOSED VOLUME RATES – FY 2020

Customer Class	Monthly Tier (kgal)	Supply Unit Cost	Base Delivery Unit Cost	Peaking Unit Cost	Total Rate (\$/kgal)	Current Rate (\$/kgal)	Difference
SFR							
Tier 1	0 to 7	\$1.72	\$1.45	\$0.67	<b>\$3.84</b>	Varies	
Tier 2	8 to 10	\$1.72	\$1.45	\$2.02	<b>\$5.19</b>	Varies	
Tier 3	Over 10	\$2.06	\$1.45	\$5.38	<b>\$8.90</b>	Varies	
Agricultural		\$1.72	\$1.45	\$0.00	<b>\$3.17</b>	\$2.20	\$0.97
All Other		\$1.83	\$1.45	\$2.02	<b>\$5.30</b>	Varies	

Note: Included in the rate is \$0.75/kgal for power cost. If in the future, the power cost is higher, the DOW will pass through the increases to all customers.

# CUSTOMER IMPACTS – FY 2020

Based on most recent bill in 2019

Meter Size	Monthly Usage (kgal)	Current Fixed + Tier 0	Current Commodity	Current Total Bill	Proposed Fixed	Proposed Commodity	Proposed Total Bill	Difference Total Bill
5/8" - Res	173	\$21.55	\$1,656.65	<b>\$1,678.20</b>	\$23.67	\$1,493.15	<b>\$1,516.82</b>	(\$161.38)
1"	104	\$47.90	\$518.65	<b>\$566.55</b>	\$47.82	\$551.20	<b>\$599.02</b>	\$32.47
1 1/2"	59	\$103.50	\$237.65	<b>\$341.15</b>	\$88.09	\$312.70	<b>\$400.79</b>	\$59.64
2"	735	\$145.60	\$3,774.55	<b>\$3,920.15</b>	\$136.40	\$3,895.50	<b>\$4,031.90</b>	\$111.75
3"	701	\$371.00	\$3,238.15	<b>\$3,609.15</b>	\$289.40	\$3,715.30	<b>\$4,004.70</b>	\$395.55
4"	2,334	\$962.00	\$11,538.35	<b>\$12,500.35</b>	\$514.87	\$12,370.20	<b>\$12,885.07</b>	\$384.72
6"	3,868	\$1,442.00	\$17,668.55	<b>\$19,110.55</b>	\$1,054.39	\$20,500.40	<b>\$21,554.79</b>	\$2,444.24
8"	2,598	\$1,884.00	\$13,043.50	<b>\$14,927.50</b>	\$1,940.16	\$13,769.40	<b>\$15,709.56</b>	\$782.06
Ag - 5/8"	774	\$17.75	\$1,702.80	<b>\$1,720.55</b>	\$23.67	\$2,453.58	<b>\$2,477.25</b>	\$756.70

# CUSTOMER IMPACTS – FY 2020

Meter Size 5/8"		Customer Impacts - Residential						
Monthly Usage (kgal)	Current Fixed + Tier 0	Current Commodity	Current Total Bill	Proposed Fixed	Proposed Commodity	Proposed Total Bill	Difference Total Bill	Difference Total Bill
4	\$21.55	\$14.55	<b>\$36.10</b>	\$23.67	\$15.36	<b>\$39.03</b>	\$2.93	8.1%
6	\$21.55	\$24.25	<b>\$45.80</b>	\$23.67	\$23.04	<b>\$46.71</b>	\$0.91	2.0%
8	\$21.55	\$34.75	<b>\$56.30</b>	\$23.67	\$32.07	<b>\$55.74</b>	(\$0.56)	-1.0%
10	\$21.55	\$46.05	<b>\$67.60</b>	\$23.67	\$42.45	<b>\$66.12</b>	(\$1.48)	-2.2%
12	\$21.55	\$57.35	<b>\$78.90</b>	\$23.67	\$60.25	<b>\$83.92</b>	\$5.02	6.4%
15	\$21.55	\$78.15	<b>\$99.70</b>	\$23.67	\$86.95	<b>\$110.62</b>	\$10.92	11.0%
20	\$21.55	\$126.65	<b>\$148.20</b>	\$23.67	\$131.45	<b>\$155.12</b>	\$6.92	4.7%
30	\$21.55	\$226.65	<b>\$248.20</b>	\$23.67	\$220.45	<b>\$244.12</b>	(\$4.08)	-1.6%

Meter Size 5/8"		Customer Impacts - Non-Residential					
Monthly Usage (kgal)	Current Fixed + Tier 0	Current Commodity	Current Total Bill	Proposed Fixed	Proposed Commodity	Proposed Total Bill	Difference Total Bill
4	\$21.55	\$14.55	<b>\$36.10</b>	\$23.67	\$21.20	<b>\$44.87</b>	\$8.77
6	\$21.55	\$24.25	<b>\$45.80</b>	\$23.67	\$31.80	<b>\$55.47</b>	\$9.67
8	\$21.55	\$34.75	<b>\$56.30</b>	\$23.67	\$42.40	<b>\$66.07</b>	\$9.77
10	\$21.55	\$46.05	<b>\$67.60</b>	\$23.67	\$53.00	<b>\$76.67</b>	\$9.07
12	\$21.55	\$57.35	<b>\$78.90</b>	\$23.67	\$63.60	<b>\$87.27</b>	\$8.37
15	\$21.55	\$78.15	<b>\$99.70</b>	\$23.67	\$79.50	<b>\$103.17</b>	\$3.47
20	\$21.55	\$126.65	<b>\$148.20</b>	\$23.67	\$106.00	<b>\$129.67</b>	(\$18.53)
30	\$21.55	\$226.65	<b>\$248.20</b>	\$23.67	\$159.00	<b>\$182.67</b>	(\$65.53)

# CUSTOMER IMPACTS – FY 2020

Meter Size 3/4"		Customer Impacts - Non-Residential					
Monthly Usage (kgal)	Current Fixed + Tier 0	Current Commodity	Current Total Bill	Proposed Fixed	Proposed Commodity	Proposed Total Bill	Difference Total Bill
12	\$32.35	\$48.50	<b>\$80.85</b>	\$31.72	\$63.60	<b>\$95.32</b>	\$14.47
20	\$32.35	\$87.30	<b>\$119.65</b>	\$31.72	\$106.00	<b>\$137.72</b>	\$18.07
40	\$32.35	\$193.10	<b>\$225.45</b>	\$31.72	\$212.00	<b>\$243.72</b>	\$18.27
75	\$32.35	\$465.15	<b>\$497.50</b>	\$31.72	\$397.50	<b>\$429.22</b>	(\$68.28)
100	\$32.35	\$715.15	<b>\$747.50</b>	\$31.72	\$530.00	<b>\$561.72</b>	(\$185.78)
120	\$32.35	\$915.15	<b>\$947.50</b>	\$31.72	\$636.00	<b>\$667.72</b>	(\$279.78)

Meter Size 1"		Customer Impacts - Non-Residential					
Monthly Usage (kgal)	Current Fixed + Tier 0	Current Commodity	Current Total Bill	Proposed Fixed	Proposed Commodity	Proposed Total Bill	Difference Total Bill
15	\$47.90	\$58.20	<b>\$106.10</b>	\$47.82	\$79.50	<b>\$127.32</b>	\$21.22
25	\$47.90	\$106.70	<b>\$154.60</b>	\$47.82	\$132.50	<b>\$180.32</b>	\$25.72
50	\$47.90	\$227.95	<b>\$275.85</b>	\$47.82	\$265.00	<b>\$312.82</b>	\$36.97
100	\$47.90	\$496.05	<b>\$543.95</b>	\$47.82	\$530.00	<b>\$577.82</b>	\$33.87
150	\$47.90	\$828.60	<b>\$876.50</b>	\$47.82	\$795.00	<b>\$842.82</b>	(\$33.68)
200	\$47.90	\$1,316.10	<b>\$1,364.00</b>	\$47.82	\$1,060.00	<b>\$1,107.82</b>	(\$256.18)

# CUSTOMER IMPACTS – FY 2020

Meter Size 1 1/2"				Customer Impacts - Non-Residential			
Monthly Usage (kgal)	Current Fixed + Tier 0	Current Commodity	Current Total Bill	Proposed Fixed	Proposed Commodity	Proposed Total Bill	Difference Total Bill
35	\$103.50	\$121.25	<b>\$224.75</b>	\$88.09	\$185.50	<b>\$273.59</b>	\$48.84
80	\$103.50	\$339.50	<b>\$443.00</b>	\$88.09	\$424.00	<b>\$512.09</b>	\$69.09
120	\$103.50	\$533.50	<b>\$637.00</b>	\$88.09	\$636.00	<b>\$724.09</b>	\$87.09
200	\$103.50	\$946.30	<b>\$1,049.80</b>	\$88.09	\$1,060.00	<b>\$1,148.09</b>	\$98.29
300	\$103.50	\$1,511.30	<b>\$1,614.80</b>	\$88.09	\$1,590.00	<b>\$1,678.09</b>	\$63.29
375	\$103.50	\$2,081.35	<b>\$2,184.85</b>	\$88.09	\$1,987.50	<b>\$2,075.59</b>	(\$109.26)

Meter Size 2"				Customer Impacts - Non-Residential			
Monthly Usage (kgal)	Current Fixed + Tier 0	Current Commodity	Current Total Bill	Proposed Fixed	Proposed Commodity	Proposed Total Bill	Difference Total Bill
75	\$145.60	\$305.55	<b>\$451.15</b>	\$136.40	\$397.50	<b>\$533.90</b>	\$82.75
150	\$145.60	\$669.30	<b>\$814.90</b>	\$136.40	\$795.00	<b>\$931.40</b>	\$116.50
240	\$145.60	\$1,105.80	<b>\$1,251.40</b>	\$136.40	\$1,272.00	<b>\$1,408.40</b>	\$157.00
350	\$145.60	\$1,639.30	<b>\$1,784.90</b>	\$136.40	\$1,855.00	<b>\$1,991.40</b>	\$206.50
500	\$145.60	\$2,446.80	<b>\$2,592.40</b>	\$136.40	\$2,650.00	<b>\$2,786.40</b>	\$194.00
775	\$145.60	\$4,096.80	<b>\$4,242.40</b>	\$136.40	\$4,107.50	<b>\$4,243.90</b>	\$1.50

# CUSTOMER IMPACTS – FY 2020

Meter Size 3"		Customer Impacts - Non-Residential					
Monthly Usage (kgal)	Current Fixed + Tier 0	Current Commodity	Current Total Bill	Proposed Fixed	Proposed Commodity	Proposed Total Bill	Difference Total Bill
150	\$371.00	\$485.00	<b>\$856.00</b>	\$289.40	\$795.00	<b>\$1,084.40</b>	\$228.40
300	\$371.00	\$1,212.50	<b>\$1,583.50</b>	\$289.40	\$1,590.00	<b>\$1,879.40</b>	\$295.90
600	\$371.00	\$2,667.50	<b>\$3,038.50</b>	\$289.40	\$3,180.00	<b>\$3,469.40</b>	\$430.90
800	\$371.00	\$3,797.50	<b>\$4,168.50</b>	\$289.40	\$4,240.00	<b>\$4,529.40</b>	\$360.90
1,000	\$371.00	\$4,927.50	<b>\$5,298.50</b>	\$289.40	\$5,300.00	<b>\$5,589.40</b>	\$290.90
1,200	\$371.00	\$6,057.50	<b>\$6,428.50</b>	\$289.40	\$6,360.00	<b>\$6,649.40</b>	\$220.90

Meter Size 4"		Customer Impacts - Non-Residential					
Monthly Usage (kgal)	Current Fixed + Tier 0	Current Commodity	Current Total Bill	Proposed Fixed	Proposed Commodity	Proposed Total Bill	Difference Total Bill
300	\$962.00	\$606.25	<b>\$1,568.25</b>	\$514.87	\$1,590.00	\$2,104.87	\$536.62
700	\$962.00	\$2,546.25	<b>\$3,508.25</b>	\$514.87	\$3,710.00	\$4,224.87	\$716.62
1,100	\$962.00	\$4,566.25	<b>\$5,528.25</b>	\$514.87	\$5,830.00	\$6,344.87	\$816.62
1,500	\$962.00	\$6,826.25	<b>\$7,788.25</b>	\$514.87	\$7,950.00	\$8,464.87	\$676.62
2,000	\$962.00	\$9,651.25	<b>\$10,613.25</b>	\$514.87	\$10,600.00	\$11,114.87	\$501.62
2,700	\$962.00	\$14,376.25	<b>\$15,338.25</b>	\$514.87	\$14,310.00	\$14,824.87	(\$513.38)

# CUSTOMER IMPACTS – FY 2020

Meter Size 6"				Customer Impacts - Non-Residential			
Monthly Usage (kgal)	Current Fixed + Tier 0	Current Commodity	Current Total Bill	Proposed Fixed	Proposed Commodity	Proposed Total Bill	Difference Total Bill
1,000	\$1,442.00	\$3,758.75	<b>\$5,200.75</b>	\$1,054.39	\$5,300.00	\$6,354.39	\$1,153.64
1,500	\$1,442.00	\$6,183.75	<b>\$7,625.75</b>	\$1,054.39	\$7,950.00	\$9,004.39	\$1,378.64
2,600	\$1,442.00	\$11,518.75	<b>\$12,960.75</b>	\$1,054.39	\$13,780.00	\$14,834.39	\$1,873.64
4,000	\$1,442.00	\$18,308.75	<b>\$19,750.75</b>	\$1,054.39	\$21,200.00	\$22,254.39	\$2,503.64
6,000	\$1,442.00	\$29,608.75	<b>\$31,050.75</b>	\$1,054.39	\$31,800.00	\$32,854.39	\$1,803.64
9,000	\$1,442.00	\$52,333.75	<b>\$53,775.75</b>	\$1,054.39	\$47,700.00	\$48,754.39	(\$5,021.36)

Meter Size 8"				Customer Impacts - Non-Residential			
Monthly Usage (kgal)	Current Fixed + Tier 0	Current Commodity	Current Total Bill	Proposed Fixed	Proposed Commodity	Proposed Total Bill	Difference Total Bill
275	\$1,884.00	\$121.25	<b>\$2,005.25</b>	\$1,940.16	\$1,457.50	\$3,397.66	\$1,392.41
600	\$1,884.00	\$1,697.50	<b>\$3,581.50</b>	\$1,940.16	\$3,180.00	\$5,120.16	\$1,538.66
900	\$1,884.00	\$3,152.50	<b>\$5,036.50</b>	\$1,940.16	\$4,770.00	\$6,710.16	\$1,673.66
1,500	\$1,884.00	\$6,462.50	<b>\$8,346.50</b>	\$1,940.16	\$7,950.00	\$9,890.16	\$1,543.66
2,000	\$1,884.00	\$9,287.50	<b>\$11,171.50</b>	\$1,940.16	\$10,600.00	\$12,540.16	\$1,368.66
3,000	\$1,884.00	\$16,862.50	<b>\$18,746.50</b>	\$1,940.16	\$15,900.00	\$17,840.16	(\$906.34)

# NEXT STEPS

- » Finalize financial plan
- » Finalize rate structure
- » Finalize water rates
- » Prepare water rate report



# Q & A

# DEPARTMENT OF WATER COUNTY OF KAUA'I

## Water Cost of Service and Rate Study

Draft Report / November 2019

October 22, 2019

Mr. Bryan Wienand  
Manager and Chief Engineer, P.E.  
Department of Water  
County of Kaua'i

**Subject: Water Cost of Study and Rate Study Report**

Dear Mr. Wienand,

Raftelis is pleased to provide this report to the County of Kaua'i Department of Water (Department) for the Water Cost of Service and Rate Study. This report presents the analyses, rationales, and methodologies utilized in the study to determine water rates that meet industry standards and the Department's goals and objectives.

The study involved a comprehensive review of the Department's current water rate structure, long-term financial plan, cost requirements, and alternative rate structures to determine proposed water rates that are in line with the Department's policy objectives. The main objectives that informed the study include:

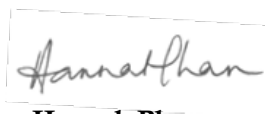
- » Adequately recovering all costs to maintain the Department's financial sufficiency
- » Evaluating alternative rate structures and tier definitions
- » Minimizing customer impacts due to changes in rate structure

We are confident that the proposed rates developed during this study are fair and equitable for the Department's customers and are compliant with industry standards. It was a pleasure working with you and your team, and we wish to express our gratitude for the support you and other Department staff provided to us during the study. If you have any questions, please do not hesitate to call me at 626-827-8931.

Sincerely,  
*Raftelis*



**Sudhir Pardiwala**  
*Executive Vice President*



**Hannah Phan**  
*Manager*

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# 1 Executive Summary

## Study Background

The County of Kaua'i Department of Water (Department) engaged Raftelis to conduct the cost of service and rate study for its water utility in early 2016. The Department last completed a water rate study in 2011. The Department wants to ensure that its rates will adequately fund the capital improvements and fairly and equitably recover costs for providing water service to its customers.

The major objectives that informed the study include the following:

- » Ensure revenue sufficiency to fund operating and maintenance (O&M) costs, capital improvement plan (CIP) costs, and reserve requirements
- » Evaluate alternative rate structures
- » Minimize customer impacts due to changes in rate structure
- » Develop rates that are fair, equitable, and defensible, and compatible with the billing system

This executive summary provides an overview of the study and its results, including recommendations for proposed water rates beginning February 1, 2020. The study period is between FY 2020<sup>1</sup> through FY 2024.

## Department Background

The Department's water utility provides sufficient, high-quality water to a population of approximately 72,000 people residing on the island of Kaua'i through nine separate water systems. The water systems consist of 50 pump stations, 19 booster pump stations, 58 storage tanks, and over 400 miles of pipelines – all of which are operated and maintained by Department staff. The Department sources approximately 80 percent of the total water supply through groundwater and purchases approximately 20 percent via surface water.

The Department operates as a semi-autonomous enterprise department of the County of Kaua'i, under the direction of the Board of Water Supply and derives all of its revenue from water sales with no direct subsidy from, or contributions to, the County of Kaua'i General Fund.

## Current Rates

The Department's current water rates include the following components:

- » Monthly meter charge by meter size
- » Monthly fire service charge by private fire line size
- » Five-tiered consumption rate based on meter size for all customers by thousand gallon (kgal) of water usage

**Table 1-1** shows the current fixed charges, which include the monthly meter charge and monthly fire service charge.

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<sup>1</sup> FY 2019 is the year starting July 1, 2018 and ending June 30, 2019.

**Table 1-1: Current Monthly Fixed Charges (\$/meter or line size)**

A	B	C	D
Line	Meter/Line Size	Meter Charge	Fire Service Charge
1	5/8"	\$17.75	N/A
2	3/4"	\$24.75	N/A
3	1"	\$36.50	N/A
4	1-1/2"	\$65.50	N/A
5	2"	\$100.00	\$28.25
6	3"	\$181.00	\$49.00
7	4"	\$297.00	\$80.00
8	6"	\$587.00	\$166.00
9	8"	\$934.00	\$283.00

Table 1-2 shows the current consumption rates by tiers. All customers are charged based on a five-tiered rate structure based on their meter size.

**Table 1-2: Current Consumption Rates (\$/kgal)**

A	B	C
Line	Customer/Tiers	Current Consumption Rate (\$/kgal)
1	Tier 0	\$3.80
2	Tier 1	\$4.85
3	Tier 2	\$5.65
4	Tier 3	\$9.50
5	Tier 4	\$10.00
6		
7	Agricultural	\$2.20

Table 1-3 shows the current monthly tier block for each meter size per kgal. All customers are charged the Tier 0 minimum regardless of actual water used.

**Table 1-3: Current Monthly Tier Blocks (kgal/month)**

A	B	C	D	E	F	G
Line	Meter Size	Tier 0 (Minimum)	Tier 1	Tier 2	Tier 3	Tier 4
1	5/8"	1	7	14	18	18 +
2	3/4"	2	29	57	65	65 +
3	1"	3	68	137	175	175 +
4	1-1/2"	10	169	337	387	387 +
5	2"	12	400	750	925	925 +
6	3"	50	600	1,200	1,750	1,750 +
7	4"	175	1,000	2,500	2,750	2,750 +
8	6"	225	4,000	7,500	10,000	10,000 +
9	8"	250	1,000	2,500	12,500	12,500 +

## Process and Approach

The process and approach Raftelis utilized in the study to determine water rates is informed by the Department's policy objectives and the current water system and rates. The resulting financial plan, cost of service analysis, and rate design process take all factors into consideration and follow five key steps, outlined below, to determine proposed rates that fulfill the Department's objectives, meet industry standards, and comply with relevant regulations.

### Step 1: Long-Term Financial Plan

The first step of the study is to develop a long-term financial plan that projects the water utility's revenues, expenses, capital project financing, annual debt service, and reserve funding. The financial plan is used to determine the revenue adjustments, which allow the water utility to recover sufficient revenues to fund all operating and capital expenses and reserves for a five-year planning period.

### Step 2: Revenue Requirement Determination for Test Year

After completing the long-term financial plan, the rate-making process can begin by determining the revenue requirement for the test year, also known as the rate-setting year. The test year for this study is FY 2020. The revenue requirement should sufficiently fund the utility's O&M costs, annual debt service, CIP costs, and reserve funding as projected based on the utility's FY 2020 budget.

### Step 3: Cost of Service Analysis

The annual cost of providing water service, or the revenue requirement, is then distributed to customer classes and tiers commensurate with their use of and burden on the system. A cost of service analysis involves the following steps:

1. Functionalize costs – the different components of the revenue requirement are categorized into functions such as supply, transmission and distribution (T&D), customer service and billing, etc.
2. Allocate to cost causation components – the functionalized costs are then allocated to cost causation components such as supply, base delivery, peaking, etc.
3. Develop unit costs – unit costs for each cost component are determined using appropriate units of service for each component.
4. Distribute cost causation components – the cost causation components are allocated to each customer class and tier using the unit costs in proportion to their demand and burden on the system.

A cost of service analysis considers both the average water demand and peak demand. Peaking costs are incurred during periods of peak consumption, most often coinciding with summertime water usage. There are additional capacity-related costs associated with designing, constructing, operating, maintaining, and replacing facilities to meet peak demand. These peaking costs are allocated to the different customer classes based on each respective class's water consumption patterns. The patterns of usage impose additional costs for the utility and are used to determine the expense of the peaking-related facilities.

### Step 4: Rate Design and Calculation

After allocating the revenue requirement to each customer class and tier, the rate design and calculation process can begin. Rates do more than simply recover costs; within the legal framework and industry standards, properly designed rates should support and optimize for the Department's policy objectives. Rates also act as a public



information tool in communicating these policy objectives to customers. This process also includes a rate impact analysis for all proposed water rates and sample customer bill impacts.

### Step 5: Administrative Record Preparation and Rate Adoption

The final step in a rate study is to develop the administrative record in preparation for the rate adoption process. The administrative record, also known as the study report, documents the results of the rate study and presents the methodologies, rationale, justifications, and calculations utilized to determine the proposed rates. A thorough and methodological administrative record serves two important functions: maintaining defensibility in a stringent legal environment and communicating the rate adoption process to customers and important stakeholders.

## Results and Recommendations

One key objective for the study is to evaluate alternative rate structures and tier definitions. Raftelis worked closely with Department staff to develop various rate structures and analyze the impacts of those alternatives. The recommendations for changes to the rate structure are as follows:

- » Single Family Residential (SFR): recommend three-tier rate structure. The first tier is at 7 kgal per month, which represents the estimated indoor water needs for an average family. The second tier is at 10 kgal per month, which includes some irrigation or outdoor water needs for an average family. The third tier represents all water usage above 10 kgal per month.
- » All Other Customers: recommend uniform rate for simplicity and equity purposes.

Additionally, Raftelis recommends that the Department implement the following revenue adjustments:

- » 7 percent revenue adjustment starting February 1, 2020
- » 7 percent revenue adjustment starting July 1, 2021
- » 7 percent revenue adjustment starting July 1, 2022
- » 7 percent revenue adjustment starting July 1, 2023

The Department’s current water rates are only sufficient to cover O&M expenses and a portion of the debt service; the revenue adjustments will allow the Department to adequately fund annual debt service and a portion of its CIP through water rates.

## Proposed Rates

Table 1-4, Table 1-5, and Table 1-6 show the proposed rate schedule over the next five fiscal years for the monthly meter charges, monthly fire line service charges, and consumption rates, respectively.

**Table 1-4: Proposed Meter Charges (\$/meter size)**

A	B	C	D	E	F
Line	Meter Size	February 2020	July 2021	July 2023	July 2023
1	5/8"	\$23.67	\$25.33	\$27.11	\$29.01
2	3/4"	\$31.72	\$33.95	\$36.33	\$38.88
3	1"	\$47.82	\$51.17	\$54.76	\$58.60
4	1-1/2"	\$88.09	\$94.26	\$100.86	\$107.93
5	2"	\$136.40	\$145.95	\$156.17	\$167.11
6	3"	\$289.40	\$309.66	\$331.34	\$354.54

7	4"	\$514.87	\$550.92	\$589.49	\$630.76
8	6"	\$1,054.39	\$1,128.20	\$1,207.18	\$1,291.69
9	8"	\$1,940.16	\$2,075.98	\$2,221.30	\$2,376.80

**Table 1-5: Proposed Fire Line Service Charges (\$/line size)**

A	B	C	D	E	F
Line	Fire Line Size	February 2020	July 2021	July 2023	July 2023
1	2"	\$17.90	\$19.16	\$20.51	\$21.95
2	3"	\$37.60	\$40.24	\$43.06	\$46.08
3	4"	\$71.58	\$76.60	\$81.97	\$87.71
4	6"	\$193.52	\$207.07	\$221.57	\$237.08
5	8"	\$403.85	\$432.12	\$462.37	\$494.74
6	10"	\$17.90	\$19.16	\$20.51	\$21.95

**Table 1-6: Proposed Consumption Rates (\$/kgal)**

A	B	C	D	E	F	G
Line	Customer Class	Monthly Tiers (kgal)	February 2020	July 2021	July 2023	July 2023
1	Single Family					
2	Tier 1	0 to 7	\$3.84	\$4.11	\$4.40	\$4.71
3	Tier 2	8 to 10	\$5.19	\$5.56	\$5.95	\$6.37
4	Tier 3	10+	\$8.90	\$9.53	\$10.20	\$10.92
5						
6	Agricultural		\$3.17	\$3.40	\$3.64	\$3.90
7	All Other Customers		\$5.30	\$5.68	\$6.08	\$6.51

COMPARATIVE CUSTOMER DATA  
 FY 2015 Customer Data (used for the rate study)

<b>Count of Meter size</b>			
<b>Row Labels</b>	<b>2015</b>	<b>2019</b>	<b>2020</b>
5/8 inch	20,784	23,393	23,354
3/4 inch	108	131	129
1 inch	211	231	231
1-1/2 inch	209	223	228
2 inch	199	188	179
3 inch	53	53	53
4 inch	40	17	16
6 inch	59	10	10
8 inch	56	3	3
<b>Grand Total</b>	<b>21,719</b>	<b>24,249</b>	<b>24,203</b>

<b>Sum of Consumption in kgals</b>			
<b>Row Labels</b>	<b>2015</b>	<b>2019</b>	<b>2020</b>
5/8 inch	2,160,717	2,038,340	2,066,429
3/4 inch	48,851	49,751	48,774
1 inch	117,981	113,915	112,623
1-1/2 inch	273,491	299,518	272,880
2 inch	362,748	338,303	301,766
3 inch	343,110	372,898	361,694
4 inch	200,570	205,049	160,781
6 inch	411,961	428,230	375,467
8 inch	82,843	56,705	52,533
<b>Grand Total</b>	<b>4,002,272</b>	<b>3,902,709</b>	<b>3,752,947</b>

<b>Sum of Total charges</b>			
<b>Row Labels</b>	<b>2015</b>	<b>2019</b>	<b>2020</b>
5/8 inch		16,616,739	16,969,896
3/4 inch		335,941	331,219
1 inch		722,814	707,824
1-1/2 inch		1,910,283	1,763,625
2 inch		2,080,121	1,782,326
3 inch		2,151,761	2,089,303
4 inch		1,100,808	840,278
6 inch		2,461,264	2,141,644
8 inch		336,725	313,177
<b>Grand Total</b>	<b>-</b>	<b>27,716,456</b>	<b>26,939,292</b>

METERED CONSUMPTION (000 GALLONS) MONTHLY COMPARATIVE CHART  
 For Fiscal Years 2019, 2020 & 2021  
 (expressed in thousands)

