2021 Rate-Setting
COVID-19 Revenue Impact Estimates & Reserves Management

King County Wastewater Treatment
MWPAAC Rates & Finance

November 5, 2020

2021 Rate-Setting	Topic
August 6	Capital Funding Analysis
September 3	Operating Forecast
October 1	Rate Plan Strategy
November 5	COVID-19 Revenue Impact Estimates & Reserves Management
December 3	Adopted 2021-2022 Biennial Budget & 2022 Rate-Setting Goals
January 2021	Rate-Setting 101

Agenda

Current Status Revenue Impact Estimates

Relative Scale of WTD Revenue Sources

Findings from the Limited Data

WTD Billing Structure – Impact on Revenue Timing

Assumptions Used to Estimate Revenue Impacts

Estimated Net Revenue Impact through the 2021-2022 Biennium

WTD Reserves Summary

Current Status of Revenue Impact Sensitivity Forecast

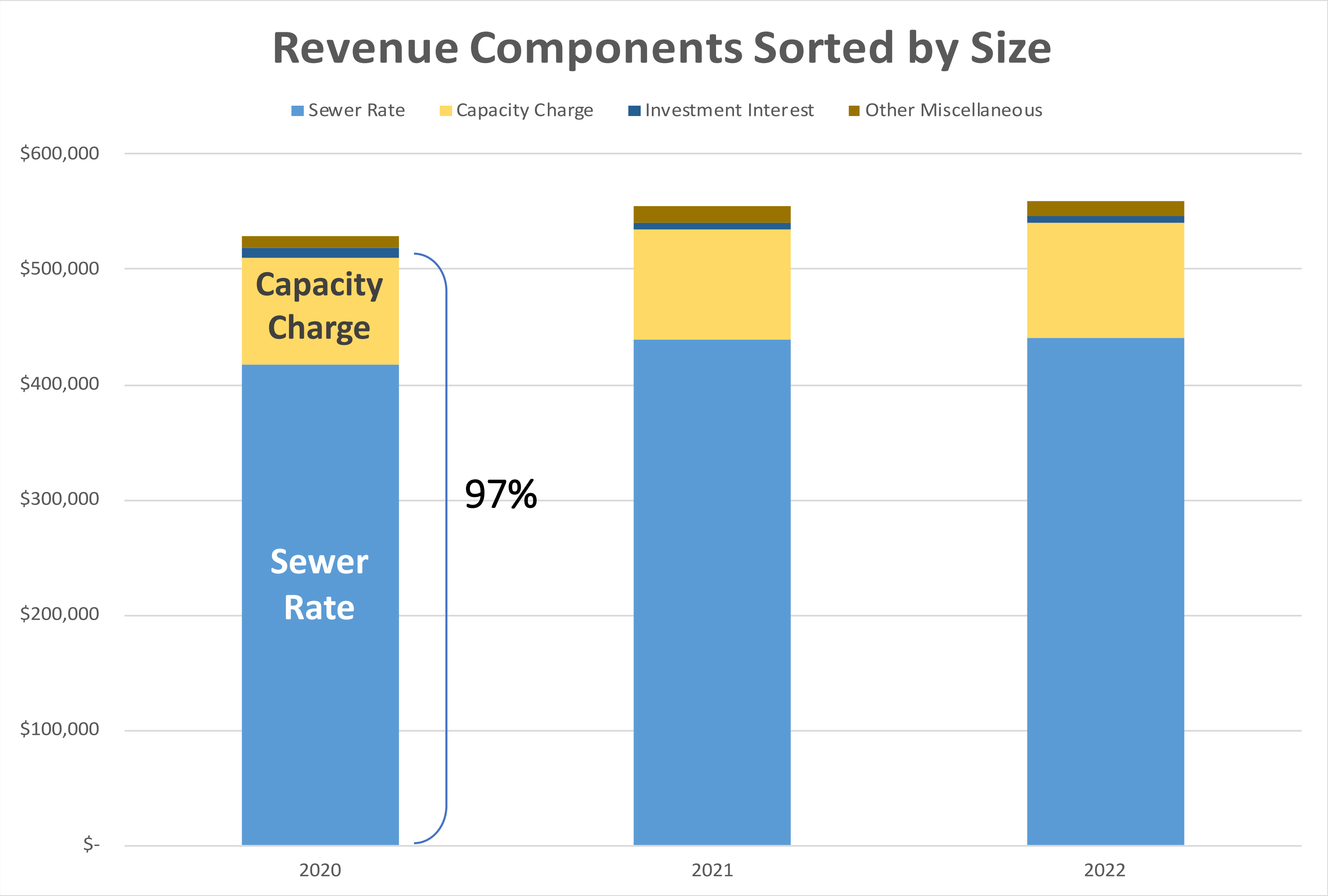
	Quarter 1	Quarter 2 2020			Quarter 3 2020			Quarter 4 2020		
COVID-19 Revenue Impact Estimates Timeline	March	April	May	June	July	August	September	October	November	December
Stay Home Stay Healthy Order										
Early Sensitivity (What-if) Analysis										
Q2 Data Available - Revenue Impact Estimates Prepared										
Memo with Findings to RWQC										
Early Q3 Data (64% of anticipated RCEs reported)										
MWPAAC R&F Committee Meeting										

Estimated revenue impacts were prepared in August based on Quarter 2 RCE data

Early Q3 data is in line with the assumed impact to Quarter 3 RCEs resulting in no update to sewer rate revenue estimates

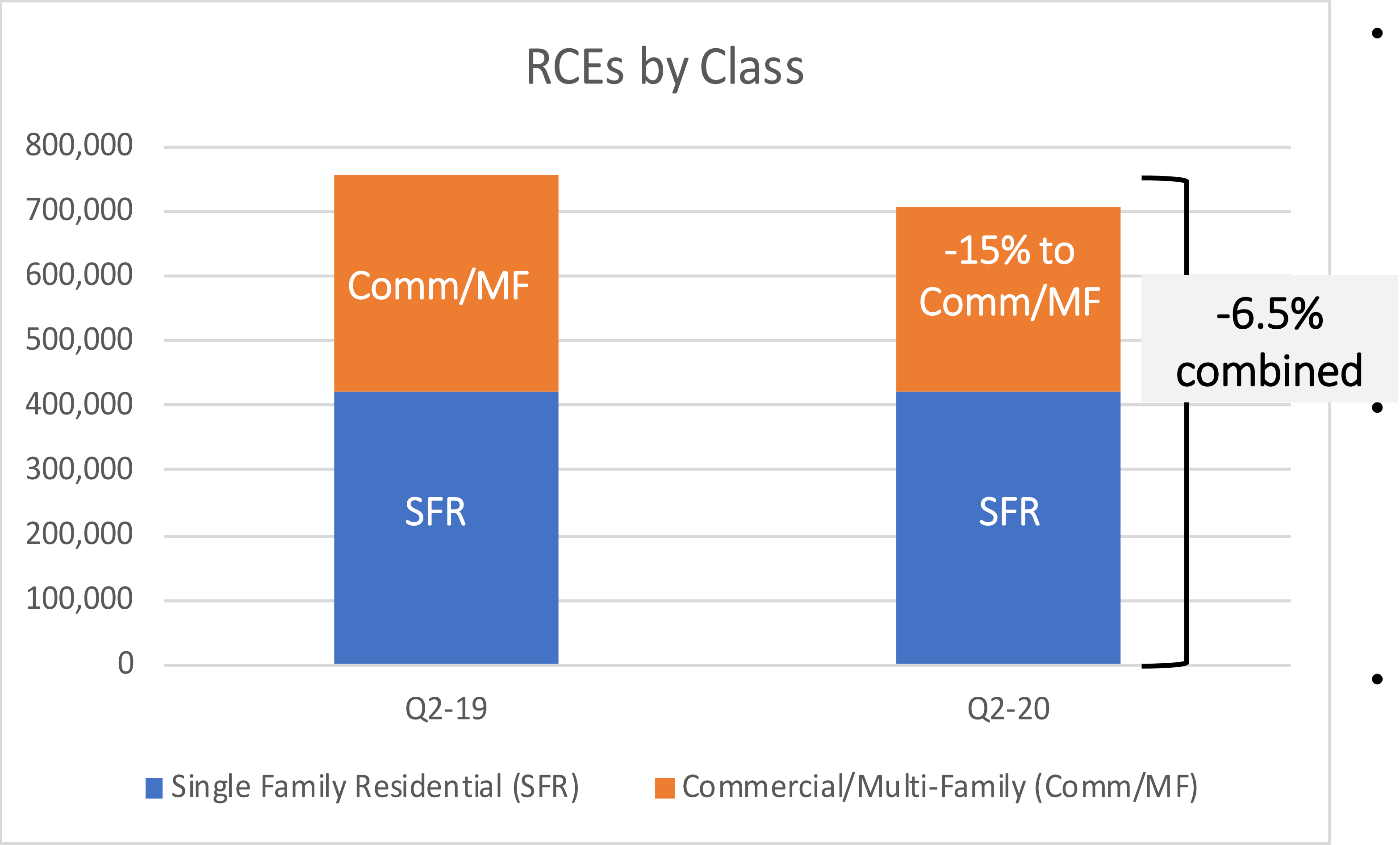
Capacity charge prepayments have rebounded and assumptions could be revised to reflect higher prepayments in 2020

Relative Scale of WTD Revenue Sources



The sewer rate, capacity charge, and investment earnings make up 97% of total revenues and are the focus of the COVID19 revenue impact estimates.

Findings from the Limited Data – Sewer Rate



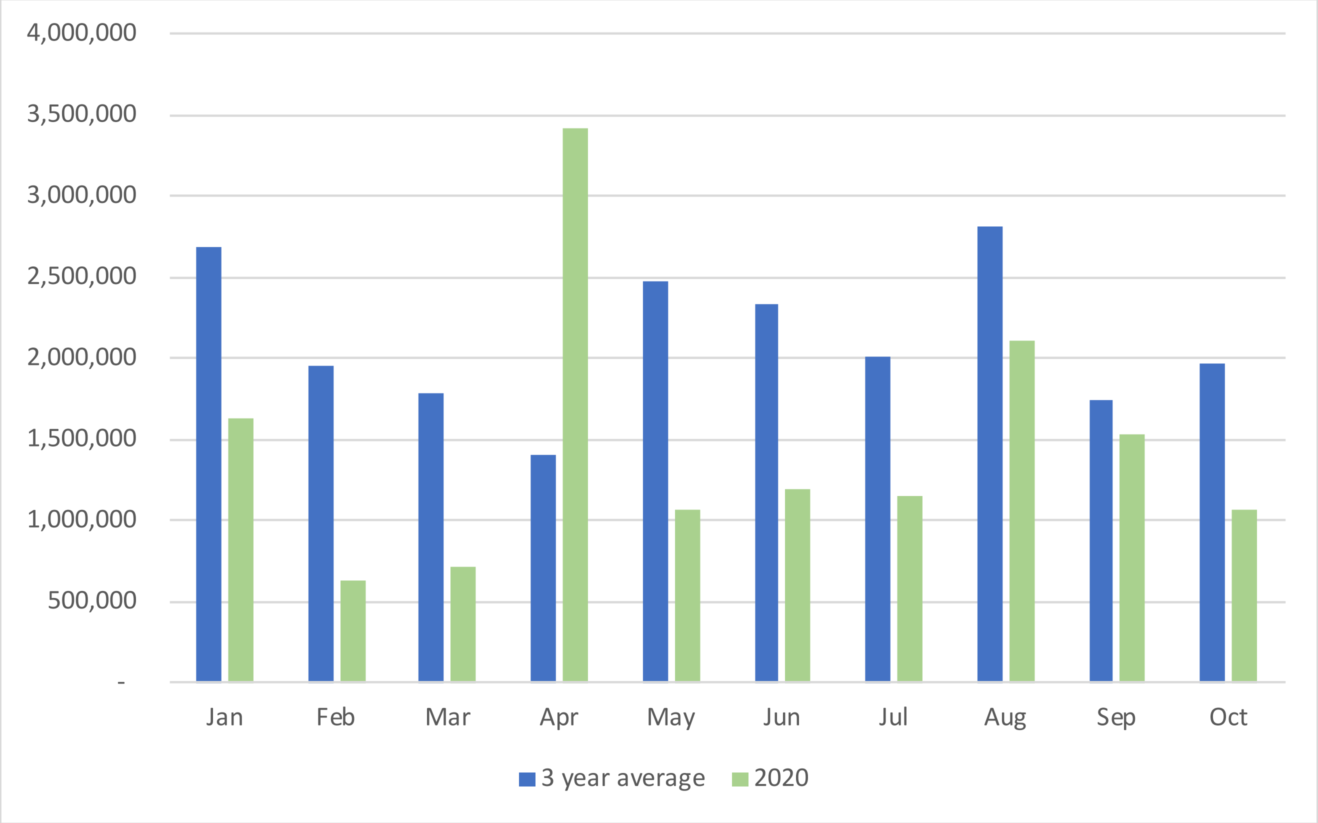
- **Single Family Residential (SFR)** makes up **55%** of the customer base and are billed as **one unit regardless of water use**. The remaining **45%** of RCEs (Residential Customer Equivalents) are comprised of **Commercial and Multi-Family (Comm/MF)** customers in a combined rate class.
- The Comm/MF class is billed based on reported water use, so any **COVID19-driven reductions to Commercial water use** will impact the flow-converted RCEs and resulting sewer rate revenue.
- **Multi-Family water use is not expected to decline** as residents spend more time in their homes during the pandemic, tempering the Commercial decline in this combined rate class.

Findings from the Limited Data – Capacity Charge

Capacity charge revenue is made up of two kinds of payments, a fifteen-year payment plan structure (~85% of capacity charge revenue), and payment of the full amount upfront (~15% of total capacity charge revenue).

Ongoing payments are stable while prepayments vary significantly year to year and are difficult to forecast since they are discretionary.

Prepayments 3 Year Average Compared to 2020



- Outside of a single large account prepayment in April (requested in March ahead of the closures, processed in April), 2020 prepayments are down as compared to the three-year average including 2017-2019.
- Of note, prepayments were down in Q1 ahead of the mandatory closure impacts, indicating 2020 was potentially going to be one of the lower prepayment years to begin with for this highly variable revenue source.
- Prepayments are seeing some recovery with the added months of August through October but remain below the 3-year average.

WTD Billing Structure – Impact on Revenue Timing 1 of 3

	2020				2021	
	Q1-20	Q2-20	Q3-20	Q4-20	Q1-21	Q2-21
Single Family Residential				**Reported**		**Billed**
Commercial / Multi-Family	**Four quarter average**					**Billed**

- In contrast to the retail agencies that read meters and bill either monthly or bimonthly, RCE reporting and billing is on a quarterly cycle.
- Billings for the Single-Family Residential class are based on RCEs reported in the quarter before the previous one (e.g., Q2 billing is based on Q4 reported).
- The Commercial and Multi-Family (Comm/MF) billing structure includes additional delay. Billings are based on a four-quarter rolling average of RCEs with the intent to minimize variability of billings to the agencies.

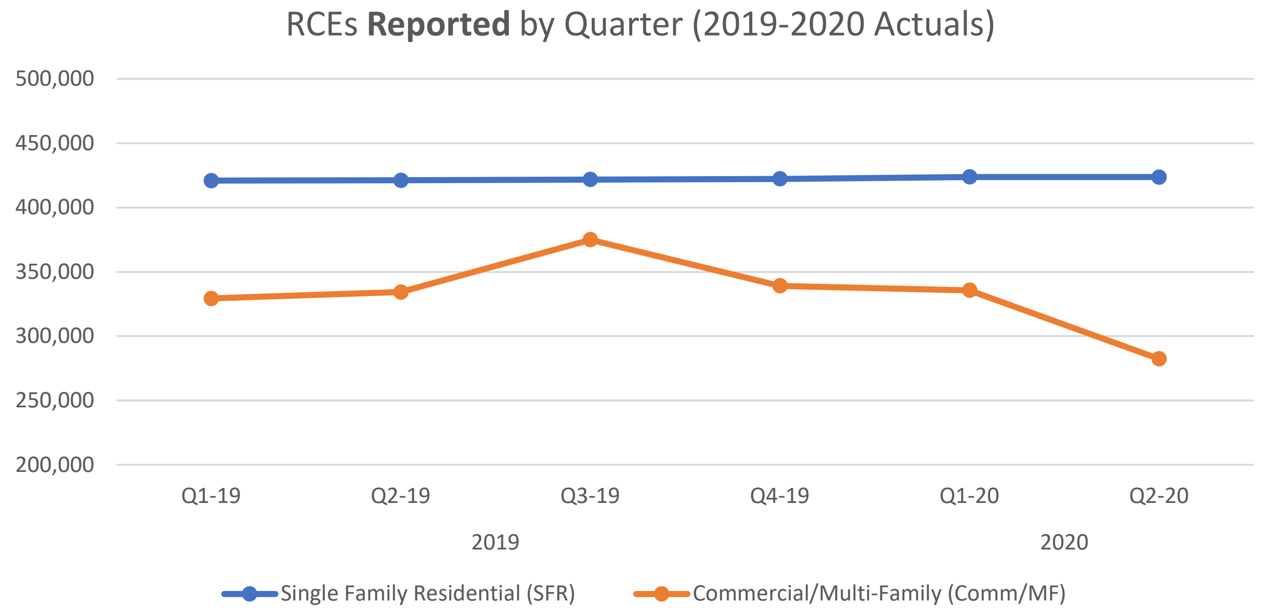
WTD Billing Structure – Impact on Revenue Timing 2 of 3

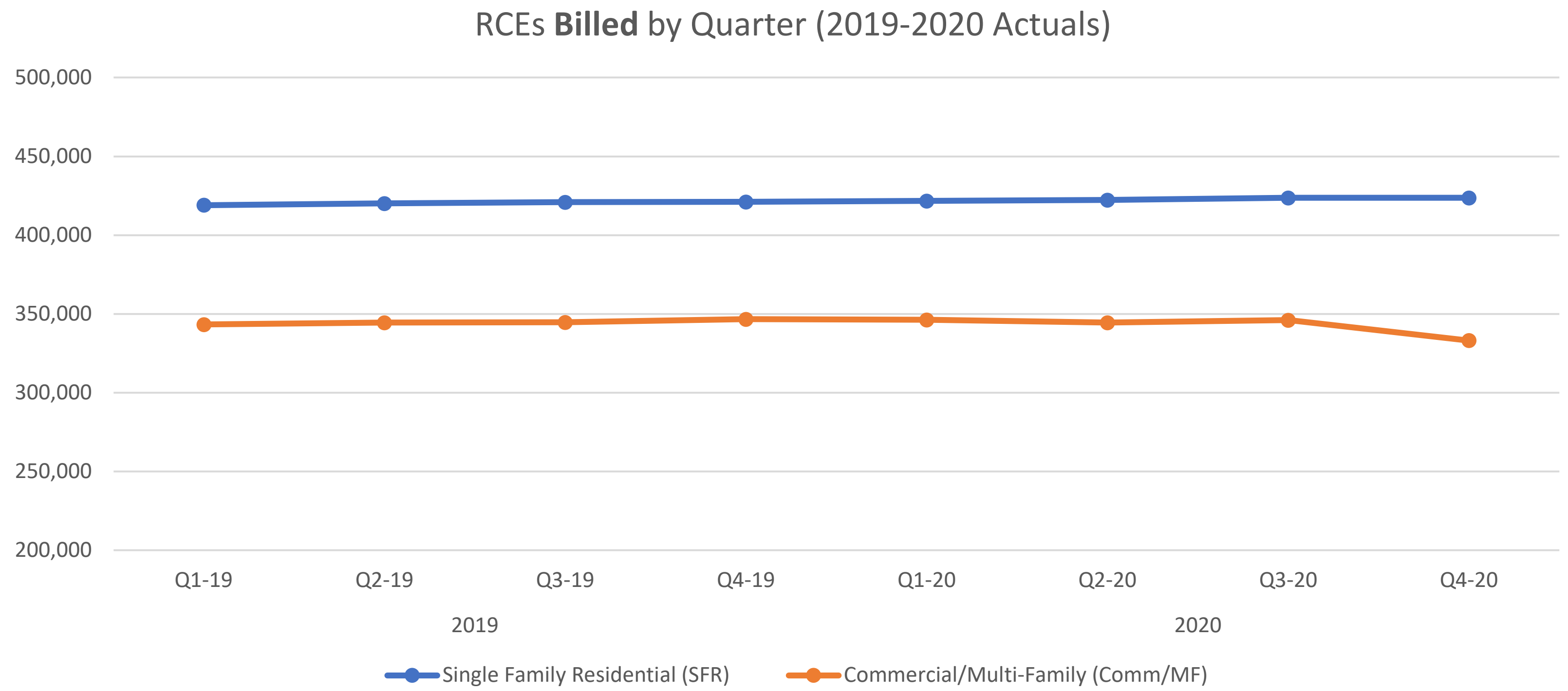
This evaluation of potential COVID-19 impacts focuses on 2020 projected year-end and the 2021-2022 biennium. The following table summarizes the RCE reporting period for each billing cycle.

Billing Basis	Q1	Q2	Q3	Q4
2020	1 quarter of 2018 **3 quarters of 2019**	All 2019	3 quarters of 2019 **1 quarter of 2020**	2 quarters of 2019 **2 quarters of 2020**
2021	1 quarter of 2019 **3 quarters of 2020**	**4 quarters of 2020**	**3 quarters of 2020** 1 quarter of 2021	**2 quarters of 2020** 2 quarters of 2021
2022	**1 quarter of 2020** 3 quarters of 2021	All 2021	3 quarters of 2021 1 quarter of 2022	2 quarters of 2021 2 quarters of 2022

WTD Billing Structure

Impact on Revenue Timing 3 of 3





Assumptions Used to Estimated Revenue Impacts

Rather than evaluating economic indicators and relationships, the future of commercial activity is driven primarily by mandatory closures in addition to changes in elective economic behavior in response to the pandemic. Behind any forecasting of how the phases in Washington State might progress, are assumptions about the trend in current cases reported, timing of a vaccine, impact of a vaccine, and then the timing of an economic recovery to pre-pandemic activity and measures.

Because these variables cannot reasonably be forecast, general assumptions have been utilized as follows

	Revenue Projection Assumptions		
	2020	**2021**	**2022**
Single Family Residences (SFRs)	300 new customers each quarter in Jul-Dec (lowest of last 5 years)	300 new customers per quarter	300 new customers per quarter
Commercial / Multi-Family (MF)	15% reduction from 2019 levels in Jul-Dec	10% reduction from 2019 levels	Return to 2019 levels
Capacity Charge Ongoing Billings	3% Year-over-Year growth in Sept-Dec (2020's lowest, in Aug)	3% Year-over-Year growth	3% Year-over-Year growth
Capacity Charge Prepayments	$631k monthly in Aug-Dec (2020's lowest, in Feb)	Return to 2015 levels (lowest of last 5 years)	No growth from 2021

Estimated Net Revenue Impact 1 of 2

The estimated economic impacts include both negative revenue outcomes as well as opportunities for savings on the cost side.

While low interest rates impact earnings on cash balances, they similarly reduce the interest rates WTD pays to borrow money.

- WTD was able to issue long-term, fixed rate bonds at a record low interest rate of 2.49% in July. This bond sale included refinancing some of our short-term bonds with significant savings based on lower interest rates than forecast in the rate plan.
- A conservative reduction to the 2021 and 2022 forecast interest rates (1.0% lower rate) to reflect the changed conditions generates significant projected savings in the biennium.

Operating expenditure savings of $6.9m are projected for 2020. Any adjustments to the biennial operating expenditures will be integrated when the budget is adopted.

[Summary Table Next Slide]

Estimated Net Revenue Impact 2 of 2

Annual cash flow projections of both the estimated revenue impacts and the mitigating savings as incremental adjustments to the adopted rate plan.

Net Operating Forecast ($'000s)	2020	2021	2022	'20-'22 Total
Variances Post Rate Adoption				
Operating Expenditures	(6,989)	0	0	(6,989)
Debt Service	(9,894)	(8,956)	(9,439)	(28,290)
Total	(16,883)	(8,956)	(9,439)	**(35,279)**
Estimated COVID19 Impact				
Sewer Rate Revenue	(653)	(23,271)	(19,614)	(43,538)
Capacity Charge Revenue	(5,734)	(2,501)	(3,512)	(11,747)
Other Revenue	(2,037)	(2,308)	(3,479)	(7,823)
Total	(8,424)	(28,080)	(26,605)	**(63,109)**
Net impact through 2022				**(27,830)**

While there is a $63m projected revenue shortfall, the net impact of the mitigating savings from reduced operating expenditures and lower debt service results in a projected $27.8m of net impact to address in the financial plan.

Use of Reserves

Uncommitted operating reserves are sufficient to absorb the remaining projected net revenue shortfall after the mitigating savings. If the shortfall turns out to be larger than projected, the Rate Stabilization Reserve (RSR) account funds are also available

WTD Reserves Available for COVID-19 Mitigation ($'000s)	2019 Ending
Water Quality Operating Reserve Uncommitted [1]	$ 36,045
Estimated Net Revenue Impact through 2022	(27,830)
Remaining Balance	$ 8,215
Rate Stabilization Reserve Account	$ 46,250
2022 Projected Debt Service Coverage	1.45x

[1] Excludes Liquidity Reserve Account (10% of operating expenditures) and Waterworks Grant carryforward appropriation.

Summary of WTD's Reserves

Reserve Name	Policy Goal or Purpose	Establishment	AWWA's Description
Liquidity Reserve	10% of operating expenses (equivalent to 36 "days" of cash) plus $5 million of ending cash balance in the capital fund	In 2012 by Motion 13798	Maintaining adequate operating reserves enhance a system's ability to manage potential risks, provides the ability to manage fluctuations in revenue, and the ability to meet working capital needs
Capital Emergency Reserve	$15 million for "unanticipated system repairs or equipment replacement in the event of a natural disaster or some unforeseen system failure"	In 2012 by Motion 13798	Even with the most diligent capital planning efforts, utilities must be prepared for unplanned or accelerated capital projects
Rate Stabilization Reserve	Allow WTD to "adopt a multiyear sewer rate to provide stable costs to sewer customers" and "ensure that adequate funds are available to sustain the rate through completion of the rate cycle"	In 1999 by the RWSP adopted by Ordinance 13680	When specifically included in a utility's bond indenture, rate stabilization reserves can be used to help meet debt service coverage requirements during times of revenue shortfalls
Parity Bonds Debt Service Reserve	Amount equivalent to the maximum annual debt service on outstanding senior lien debt (revenues bonds and WIFIA loans)	Bond covenants adopted by Bond Ordinances (most recent 19112)[1]	Most often, a debt service reserve fund (DSRF) is established as a legal covenant of a debt issuance and is used in whole or in part to pay debt service in the event of a revenue shortfall
SRF Loans Debt Service Reserve	Amount equivalent to the average annual debt service of each loan	Loan agreements adopted by individual ordinances[2]	

[1] Springing amendment from Ordinance 18588 (2017) established that when bonds issued post ammendment represent 51% of the total the reserve can be reduced or eliminated

[2] Loan agreements starting with Rainier Valley in 2018 do not require reserves anymore

Key Take-aways

- Q2 RCE data shows a 15% reduction to the Commercial and Multi-Family RCE customer base
- Early Q3 data indicates continued 15% reduction to flow-based RCEs
- The billing cycle results in a significant delay from RCE reduction to revenue impact, primarily due to the historical rolling average billing basis for flow-based RCEs
- There are unexpected material savings mitigating some of the revenue impacts, primarily in debt service based on historically low interest rates
- The estimated net revenue shortfall including mitigating savings can be absorbed by uncommitted operating reserve balance, at the scale it is currently projected, without risk to the target debt service coverage

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Courtney Black
Rates, Capital & Debt Management
Unit Supervisor
coblack@kingcounty.gov
(206) 798-8428