

Recycled Water and Recharge Rates

Workshop 5 – October 16, 2019



Workshop Agenda

1. Project Status
2. Recycled Water and Recharge Water Cost of Service
3. Rate Structure Alternatives
4. Next Steps



Project Status and Recap



Inland Empire Utilities Agency
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IEUA Funding Strategy: Based upon a comprehensive and integrated approach

- ✓ Draft Analysis Complete
- ✓ Tech Memo Distributed
- ✓ Draft Recycled and Recharge Analysis Complete



- ☐ On hold pending sampling study

- ✓ Draft Analysis Complete
- ✓ Tech Memo Distributed



- ✓ Draft Analysis Complete
- ☐ On hold pending sampling study

Wastewater Rates and Connection Fees: Implementing inflationary increases pending sampling study.

- Monthly EDU Rates and Wastewater Connection Fees will be increased by 3-percent consistent with the biennial budget

Monthly EDU Rates	
<i>Current Rate (7/1/2019)</i>	\$20.00
FY 2020/21	\$20.60
FY 2021/22	\$21.22

Wastewater Connection Fee per EDU	
<i>Current Rate (7/1/2019)</i>	\$6,955
FY 2020/21	\$7,164
FY 2021/22	\$7,379

- Flow and loads study results will be used to update EDU assumptions
- Exhibit J will be updated in unison with monthly EDU rates and connection fees

Water Rates and One-Water Connection Fees: Proposed update based on study results.

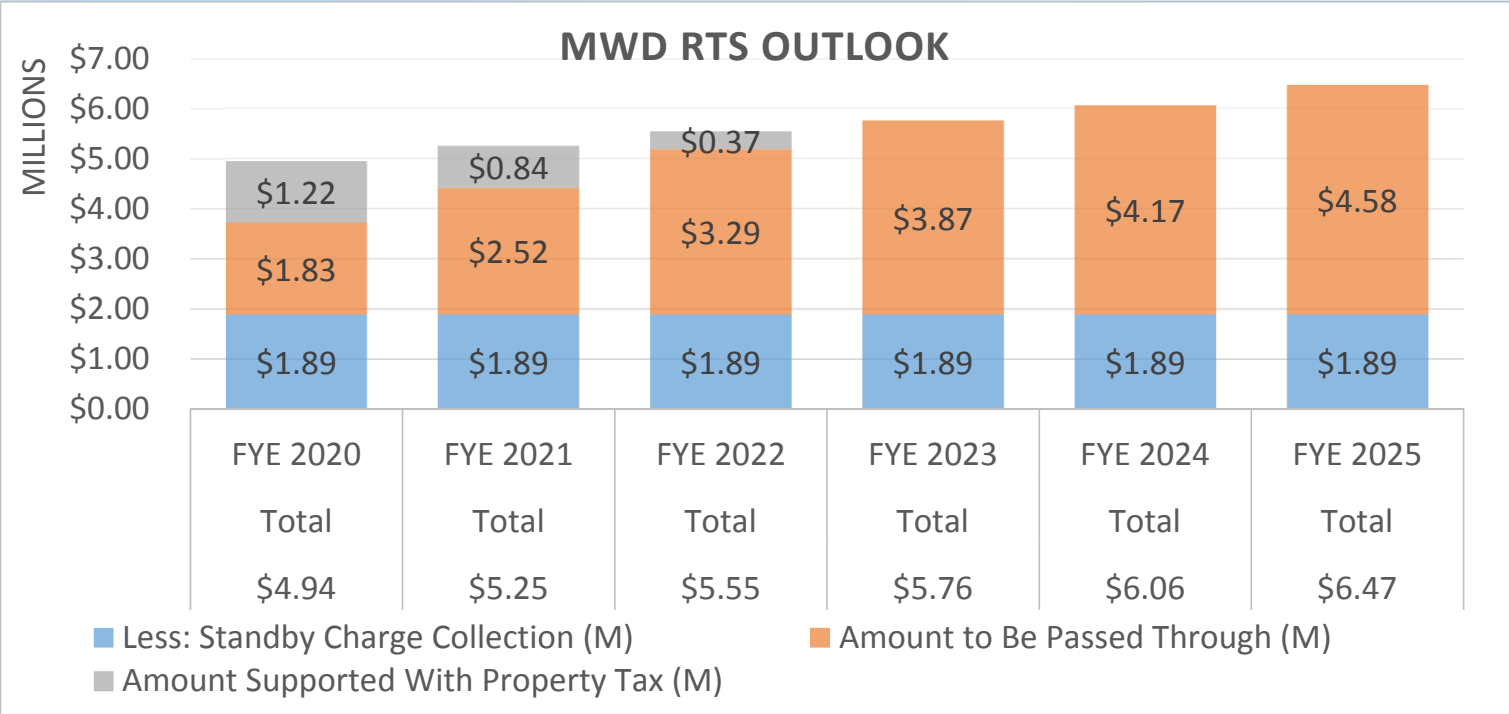
- Monthly MEU Rates increase at 2-percent per year
- Continue Readiness to Serve (RTS) pass-through phase-in
- Initial increase of \$107 per MEU based on updated analysis
- 3% Inflationary increases thereafter

Monthly MEU Rates	
Current Rate (7/1/2019)	\$1.04
FY 2020/21	\$1.06
FY 2021/22	\$1.08
FY 2022/23	\$1.10
FY 2023/24	\$1.12
FY 2024/25	\$1.14

One-Water Connection Fee per MEU	
Current Rate (7/1/2019)	\$1,684
FY 2020/21	\$1,791
FY 2021/22 to FY 2024/25	+ inflation

MWD Readiness to Serve Pass-through: Continued phase-in to full pass-through by FYE 2023

Projected MWD average annual increase of approximately 5.4%





Direct Recycled and Recharge Rates Update



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Recycled Water Fund (WC): Records activities associated with recycled water deliveries, capital, and planning

- The Recycled Water Policy Principles reaffirmed in 2015 by member agencies committed IEUA to:
 - “maintain a financially viable recycled water program with rates that incentivize use of all available recycled water and provide funding to achieve full cost-of-service for the recycled water program”
- The system has been built based on the 2005 Recycled Water Implementation plan, the 2007 Three-Year Business Plan, and the 2015 Integrated Water Resources Plan

Recharge Water Fund (RW): Records activities associated with the groundwater recharge program

- Joint effort between the Chino Basin Watermaster (Watermaster), the Chino Basin Water Conservation District, the San Bernardino County Flood Control District, IEUA operates and maintains 19 groundwater recharge basins
- Watermaster supports operations, capital, and debt service expenses, net of IEUA's pro-rata share
 - IEUA's rates and other revenues support expenses not reimbursed by Watermaster

Nearly \$180 million in Cost Savings from Grants and Low-Cost Financing

Recycled Water and Recharge Water systems benefit from:

- \$140 million in grant funding
- \$40* million savings with use of low interest State Revolving Fund loan financing

*Compared to a 30-year 3.6% fixed rate bond

Statutory Requirements: The proposed rates need to comply with the requirements of Proposition 26

- Direct Use and Recharge rates are considered charges for a specific service and are therefore not subject to tax approval requirements
- **However:** The rates charged must be proportional to the specific level of service provided to each user to maintain that status
- The Agency needs to establish a clear nexus between the level of service that each user receives and the fees or rates that they are charged

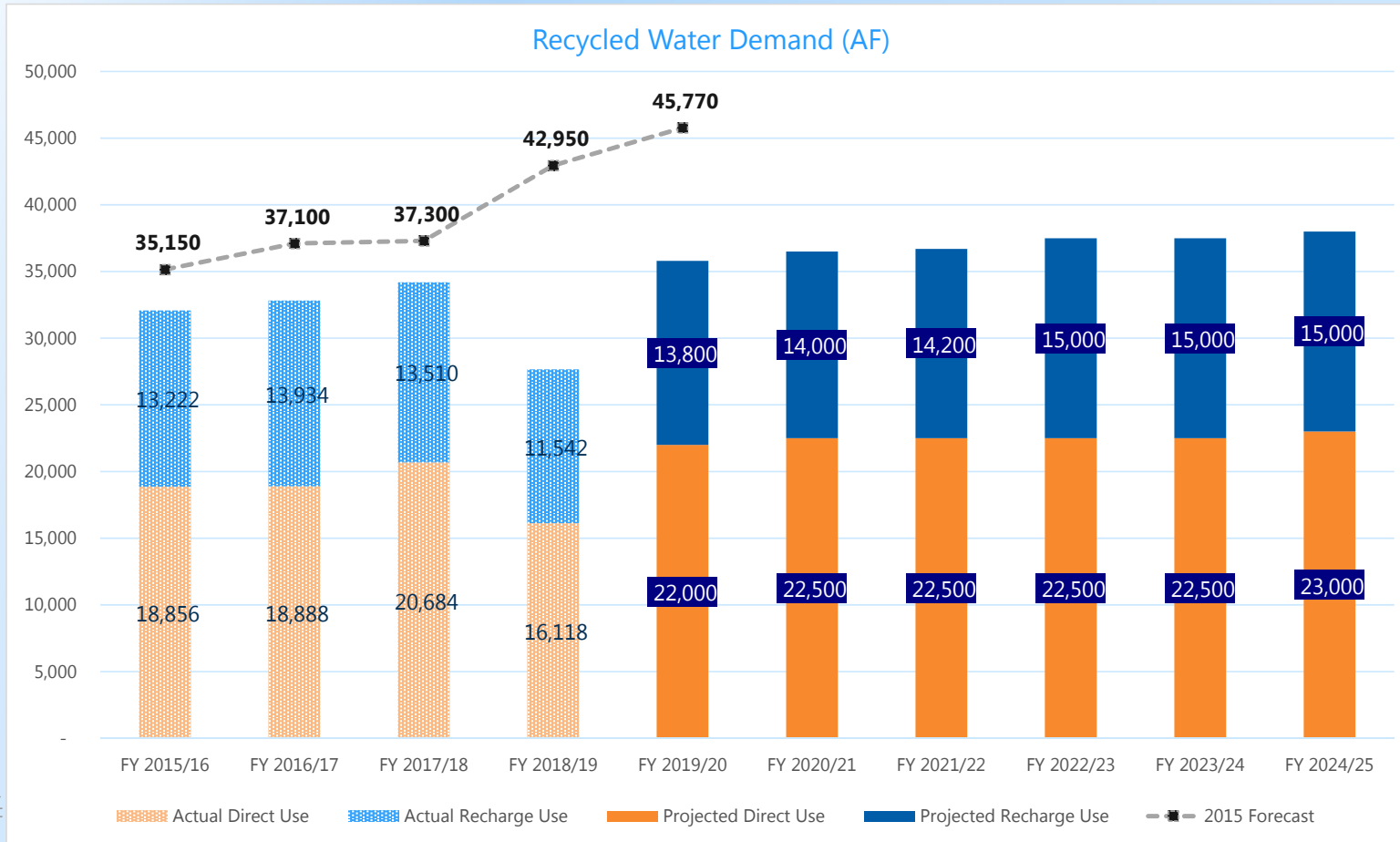
Baseline Assumptions

- Capital projects based on the adopted Ten-Year Capital Improvement Plan FYs 2019/20 – 2028/29
- Excludes recycled intertie projects, Jurupa Community Service District (JCSD) and City of Pomona
- Excludes Chino Basin Program (CBP)

Recycled and Recharge Rates Update: Detailed cost of service analysis of the direct use and recharge programs

- Assess revenue requirements based on updated financial information, capital improvement plans (CIP), and projected usage
- Develop rates for full cost recovery for each service
 - Direct Use & Recharge
- Develop proposed rates based on:
 - Current rate structure
 - Alternative rate structures - Include a fixed component to align cost structure and reduce revenue volatility

Recycled and Recharge Usage:



- ~\$11 million in revenue shortfalls due to lower than projected deliveries between FYs 2015/16 – 2018/19

Current Rate Structure: Volumetric rates per acre foot of water delivered

- Direct Use rate – Applied to all direct use and recharge deliveries
 - Current rate adopted July 1, 2019
- Recharge surcharge – Applied to all recharge deliveries
 - Current rate adopted October 1, 2015

Direct Use Recycled Water Rate

Current: \$490.00 per AF

Recharge Surcharge

Current: \$60.00 per AF
Total Recharge Rate: \$550.00 per AF

Expenses: Each fund tracks specific expenses

Recycled Water (WC) Fund

Operating Expenses

- Employment, Utilities, Materials, Other Costs

Non Operating Expenses

- Capital Improvements, Debt Service

Support to Recharge Water

- Non-reimbursable operating expenses, Transfer for operations support costs

Recharge Water (RW) Fund

Operating Expenses

- Employment, Utilities, Materials, Other Costs

Non Operating Expenses

- Capital Improvements, Debt Service

Updated Cost of Service Analysis: Recharge related costs are combined for rate setting purposes

Recycled Water (WC) Fund

Operating Expenses

- Employment, Utilities, Materials, Other Costs

Non Operating Expenses

- Capital Improvements, Debt Service

Proposed rates include full cost recovery of all recharge expenses (less offsets) through the Recharge Surcharge

Recharge Water (RW) Fund

Operating Expenses

- Employment, Utilities, Materials, Other Costs

Non Operating Expenses

- Capital Improvements, Debt Service

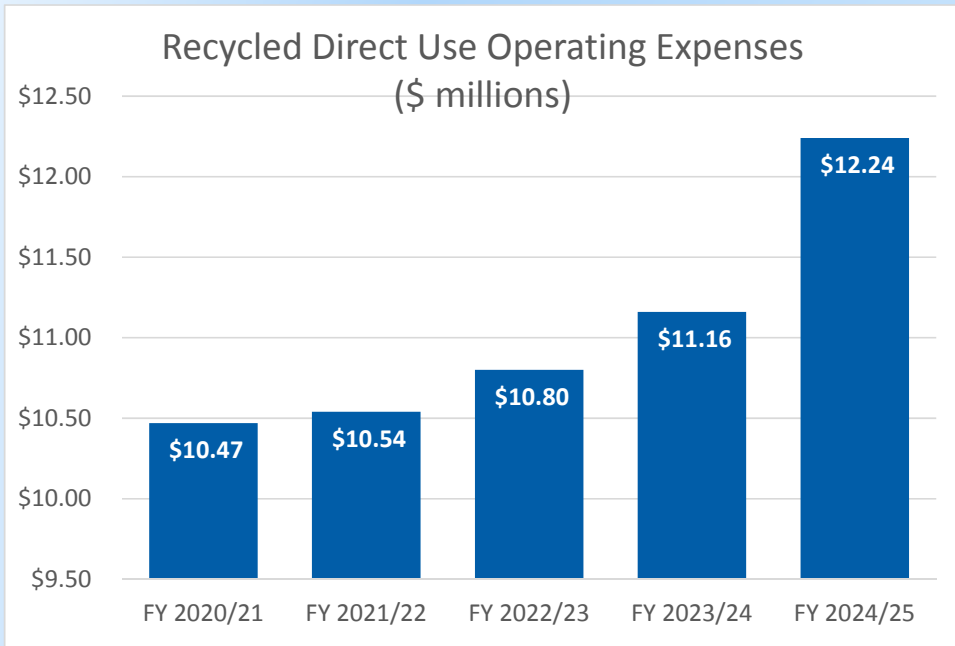
Support to Recharge Water

- Non-reimbursable operating expenses

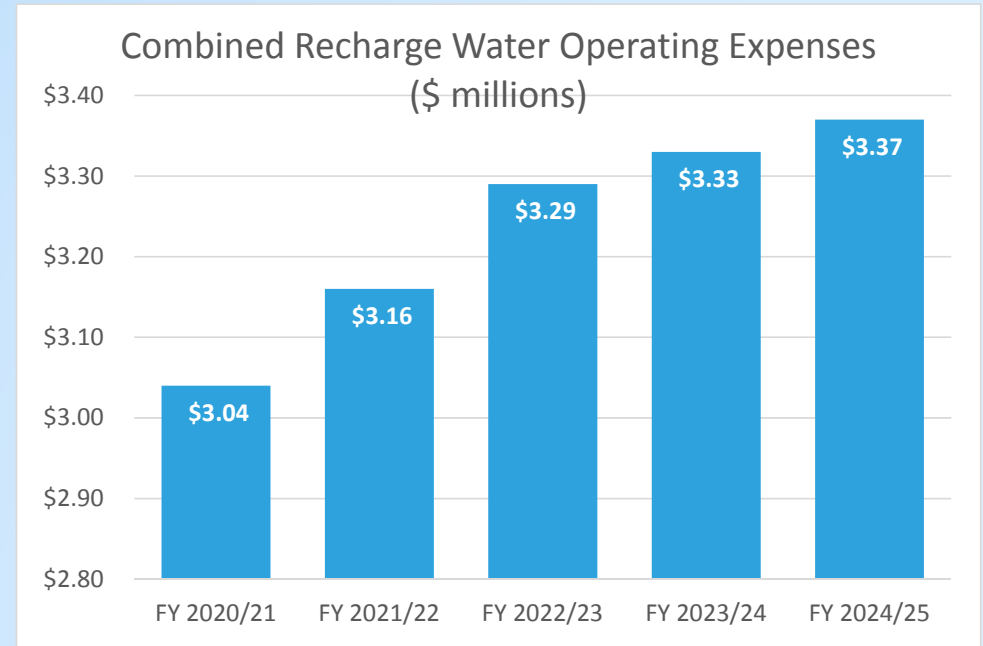


Operating Expenses: Increases driven primarily by inflation

Recycled Water (WC) Fund



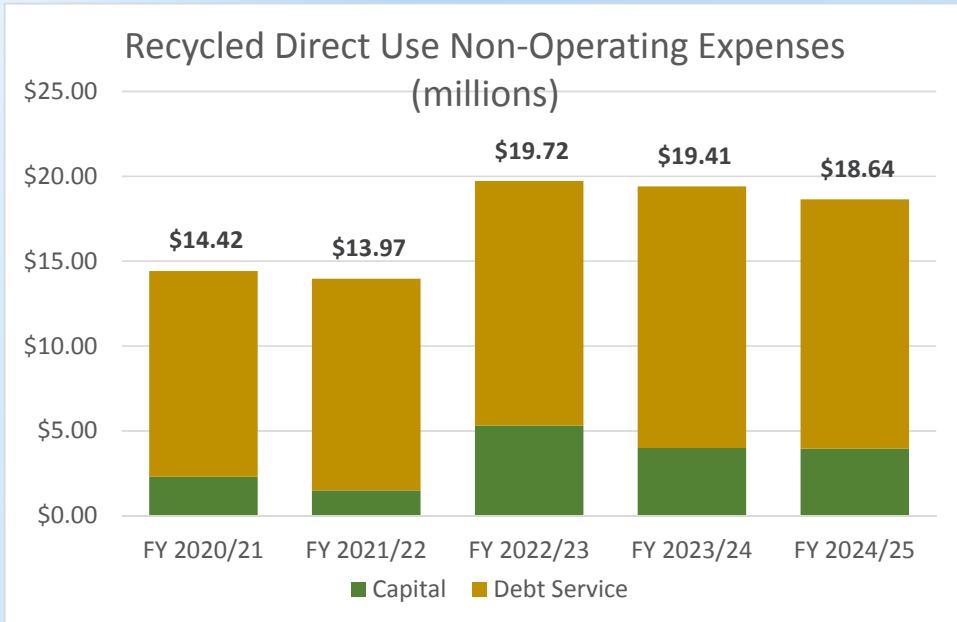
Recharge Water (RW) Fund



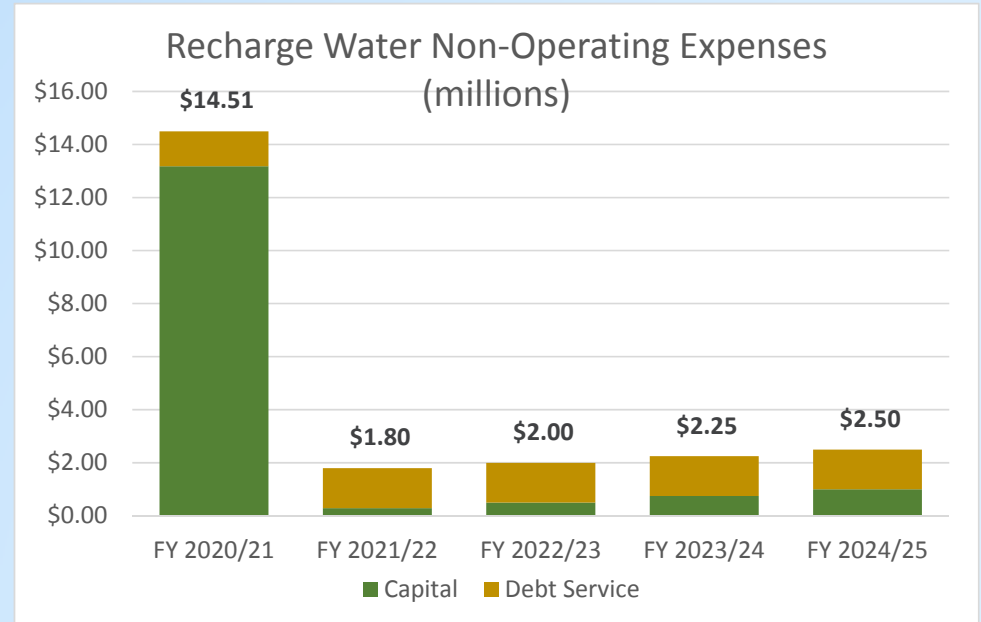
Additional detail shown in **Reference Tables A: Operating Expenses**

Non-Operating Expenses: related to capital investments and debt service

Recycled Water (WC) Fund



Recharge Water (RW) Fund



Additional detail shown in **Reference Tables B: Non-Operating Expenses**

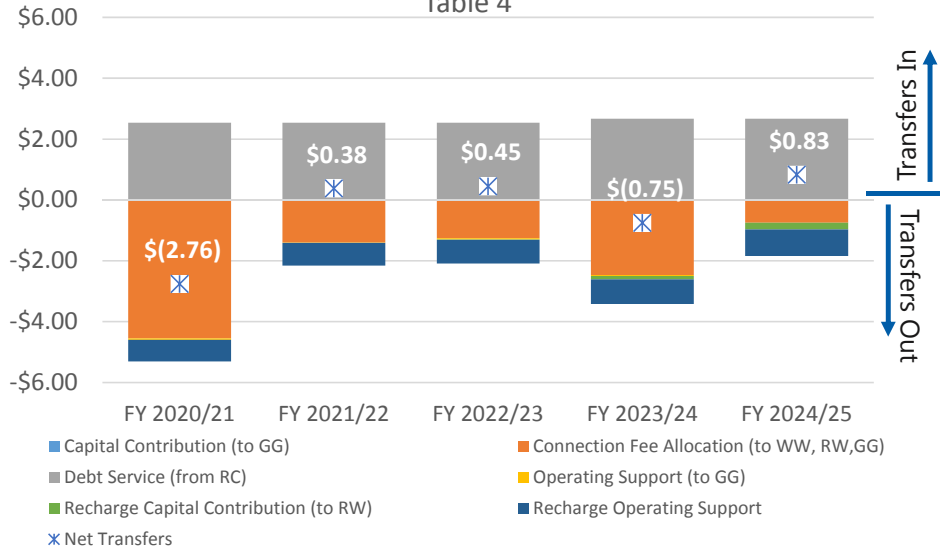
Major Capital Projects

(\$ Millions)	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
<u>Recycled Water Capital Projects</u>					
EN15002 1158 Reservoir Site Cleanup	\$1.0				
EN17032 RP-4 Outfall Repair from Mission Blvd.		1.0	4.0		
EN19003 RP-1 Outfall Parallel Line			0.2	1.9	1.0
EN22009 Recycled Water Asset Management		0.5	1.0	2.0	3.0
Total Major Recycled Water Projects	\$1.0	\$1.5	\$5.2	\$3.9	\$4.0
<u>Recharge Water Capital Projects</u>					
RW15003 Recharge Master Plan Updates	\$9.7				
RW15004 Lower Day Basin RMPU Improvements	3.4				
EN22008 Groundwater Recharge Asset Mgmt.		0.3	0.5	0.7	1.0
Total Major Recharge Projects	\$13.1	\$0.3	\$0.5	\$0.7	\$1.0

Transfers: Inter-fund transfers support related costs in other funds

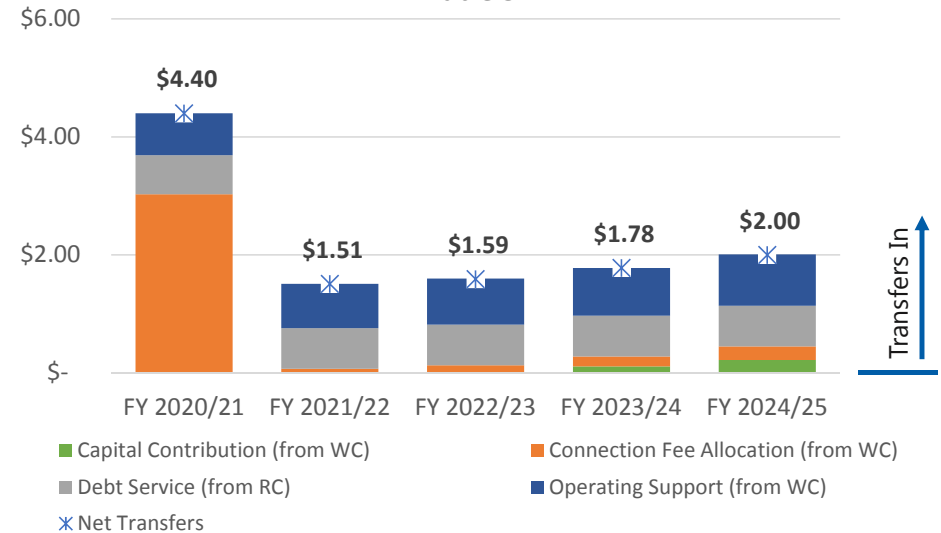
Recycled Water (WC) Fund

Recycled Direct Use Transfers (millions)
Table 4



Recharge Water (RW) Fund

Recharge Water Transfers (millions)
Table 5

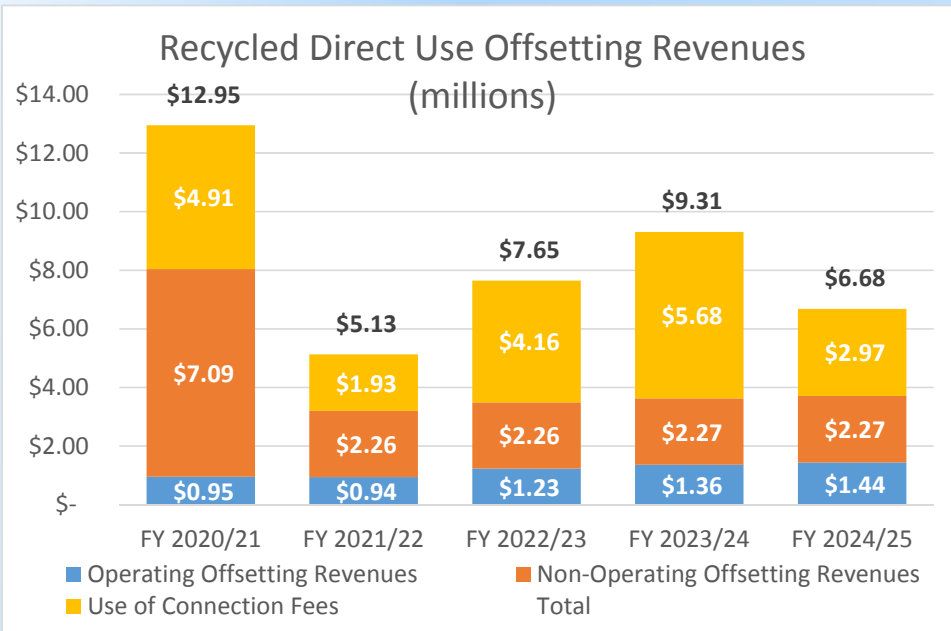


GG: Administrative Services Fund
 RC: Regional Wastewater Capital Improvement Fund
 WW Water Resources Fund

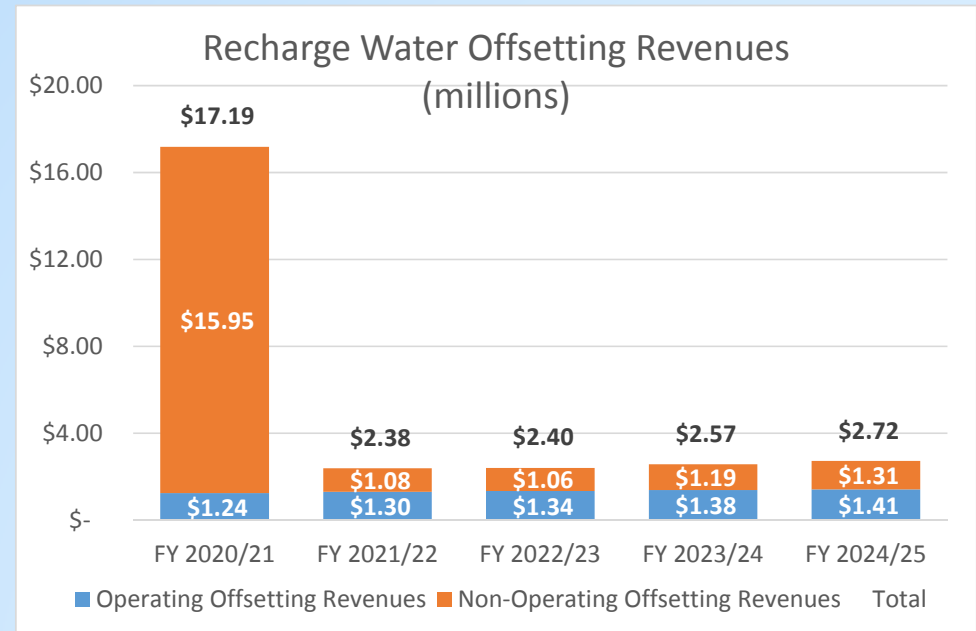
Additional detail shown in **Reference Tables C: Transfers**

Offsetting Revenues:

Recycled Water (WC) Fund



Recharge Water (RW) Fund



Includes interest earnings, property taxes, loans, grants, and capital cost reimbursements

*Additional detail shown in **Reference Tables D: Offsetting Revenue***

User Rates: Need to collect all annual revenue requirements less offsetting revenues

Operating Expenses

+ Capital Projects

+ Debt Service

+ Reserve Requirements

- Offsetting Revenues

User Rate Revenues

Direct Use Revenue Requirements: Rate adjustments of 3% per year are needed to keep pace with CIP and inflationary cost increases

TM Table 9: Required Recycled Water Direct Use Rate Revenues

(\$ Millions)	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Total Expenses	\$27.65	\$24.13	\$30.08	\$31.32	\$30.05
Remove Operation Support to Recharge Water	(0.71)	(0.75)	(0.78)	(0.81)	(0.87)
Remove Capital Support to Recharge Water	0.00	0.00	(0.01)	(0.11)	(0.22)
Less: Offsetting Revenues	(\$12.95)	(\$5.13)	(\$7.65)	(\$9.31)	(\$6.68)
Contribution to (Use of) Reserves	\$4.44	\$0.84	\$(1.54)	\$(0.40)	\$(0.67)
Required Revenues from Direct Usage Rates	\$18.42	\$19.09	\$20.09	\$20.70	\$21.61

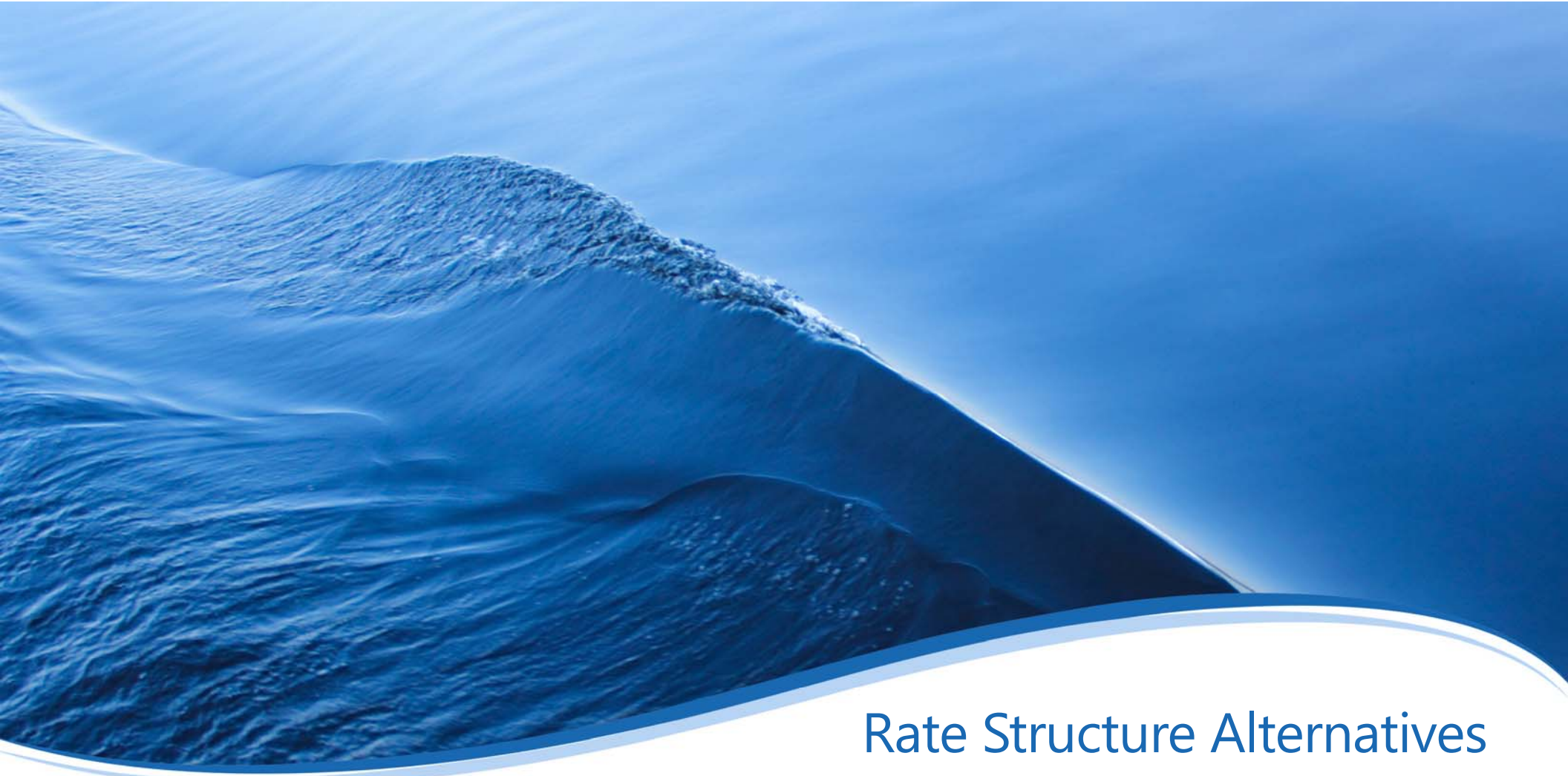
Note: Presented totals may vary from values above due to rounding for presentation purposes.

Recharge Revenue Requirements: Increases are needed to phase-in full cost recovery for the Recharge Water Program

TM Table 10: Required Recharge Water Rate Revenues

\$ Millions	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Total Expenses	\$13.14	\$3.46	\$3.70	\$3.79	\$3.88
Plus: Operations Previously Supported by WC	0.71	0.75	0.78	0.81	0.87
Plus: Capital Previously Supported by WC	-	-	0.01	0.11	0.22
Less: Offsetting Revenues	(\$17.19)	(\$2.38)	(\$2.40)	(\$2.57)	(\$2.72)
Contribution to (Use of) Reserves	4.35	(0.60)	(0.52)	(0.27)	-
Required Revenues from Direct Usage Rates	\$1.01	\$1.23	\$1.57	\$1.88	\$2.24

Note: Presented totals may vary from values above due to rounding for presentation purposes.



Rate Structure Alternatives



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Rate Structure Alternatives: Three rate structure alternatives have been evaluated

- Current Rate Structure
 1. Retain current volumetric rate structure with per AF charges for direct and recharge use
- Alternative Rate Structures
 2. Fixed based on 3-year rolling average total use
 3. Fixed based on EDUs
- The recharge surcharge is the same for all options since all recharge debt service costs are covered by Watermaster and inter-fund transfers

Current Rate Structure: Rates per AF are calculated by dividing revenue requirements by projected usage

Calculated Direct Use Rates

TM Table 11: Recycled Water Direct Use Rate

WC Rate Calculation	Current Rates	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Required Revenues from Rates (\$Millions)		\$18.42	\$19.09	\$20.09	\$20.70	\$21.61
Projected Demands (AF)		36,500	36,700	37,500	37,500	38,000
Recycled Water Rate per AF	\$490	\$505	\$520	\$536	\$552	\$569

Calculated Recharge Rates

TM Table 12: Recharge Water Surcharge Rate

RW Rate Calculation	Current Rates	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Required Revenues from Rates (\$Millions)		\$1.01	\$1.23	\$1.57	\$1.88	\$2.24
Projected Demands (AF)		14,000	14,200	15,000	15,000	15,000
Recharge Surcharge Rate per AF	\$60	\$72	\$87	\$105	\$125	\$149
Direct Usage Rate per AF	\$490	\$505	\$520	\$536	\$552	\$569
Total Recharge Rate per AF	\$550	\$577	\$607	\$641	\$677	\$718

Fixed Rate Component: Annual debt service less offsetting revenues and transfers

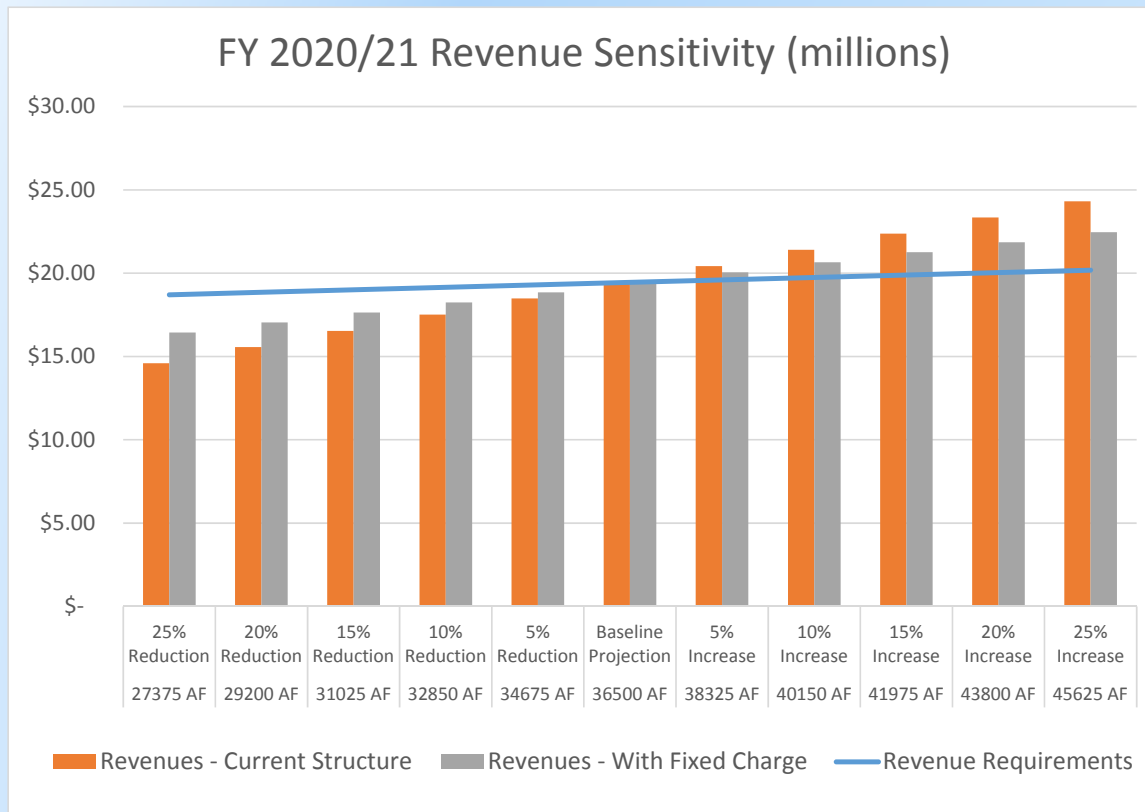
- Recycled Water fund receives offsetting revenues for debt service from:
 - Property Taxes
 - Transfers from Regional Wastewater Capital Improvement (RC) fund
- Connection Fees for eligible debt service help smooth year-to-year changes in fixed revenue collection

TM Table 13: Direct Use Fixed Charge Revenue Requirement

RW Fixed Charge Revenues, (\$ Millions)	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Debt Service	\$9.12	\$9.47	\$9.42	\$9.41	\$9.18
Short Term Inter-Fund Loan	3.00	3.00	5.00	6.00	5.50
Fixed Offsetting Revenues and Transfers					
Property Tax - Debt and Capital	\$(2.17)	\$(2.17)	\$(2.17)	\$(2.17)	\$(2.17)
Transfer from RC Debt Service	(2.54)	(2.54)	(2.54)	(2.67)	(2.67)
Connection Fees for Debt Service	-	(0.10)	(1.63)	(2.25)	(1.15)
Fixed Rate Revenue Requirement	\$7.41	\$7.66	\$8.08	\$8.32	\$8.69

Note: Presented totals may vary from values above due to rounding for presentation purposes.

Fixed Rate Component: Will help to stabilize revenues for IEUA and costs for member agencies



- During times of **low usage**, the fixed charges will hold revenues higher to cover a greater share of fixed costs
- During times of **high usage**, the fixed charges will mitigate a portion of cost increases for member agencies

Alternative Rate Structure: Will set a specific amount of fixed costs to recover each year

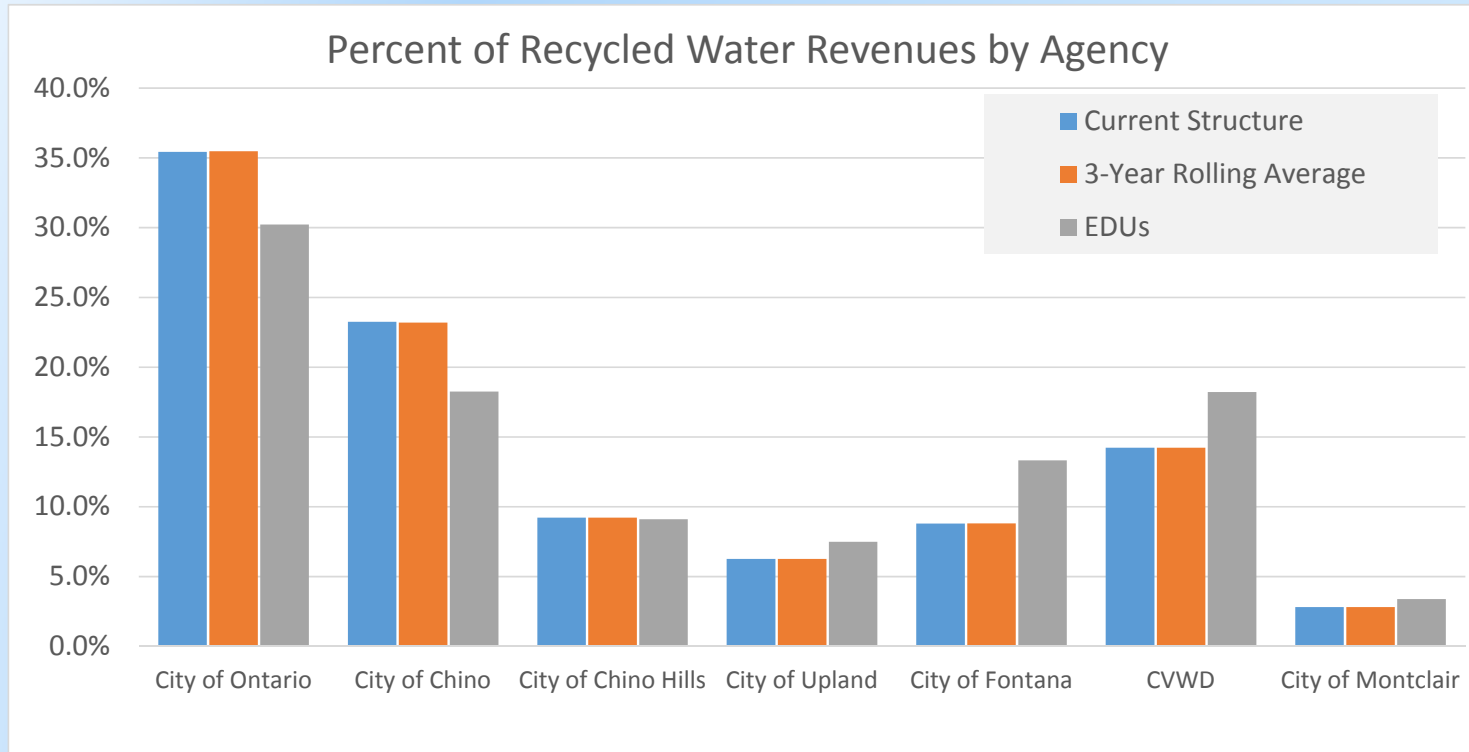
- Volumetric rates would be calculated based on the total revenue requirements **less** fixed revenue requirements

TM Table 18: Direct Use Variable Revenue Requirement

Budget Item	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Total Revenue Requirement	\$18.42	\$19.09	\$20.09	\$20.70	\$21.61
Less: Fixed Rate Revenue Requirement	\$(7.41)	\$(7.66)	\$(8.08)	\$(8.32)	\$(8.69)
Variable Rate Revenue Requirement	\$11.01	\$11.43	\$12.01	\$12.38	\$12.92
Recycled & Recharge Water Demands (AF)	36,500	36,700	37,500	37,500	38,000
Direct Recycled Variable Water Rate (\$/AF)	\$302	\$311	\$320	\$330	\$340
Recharge Surcharge (\$/AF)	\$72	\$87	\$105	\$125	\$149
Total Recharge Variable Rate (\$/AF)	\$374	\$398	\$425	\$455	\$489

- The fixed costs for each year would be apportioned to each member agency based on their share of 3-year Rolling Average, or EDUs in the previous fiscal year

Member Agency Impacts: Revenues under each fixed charge option assessed by member agency



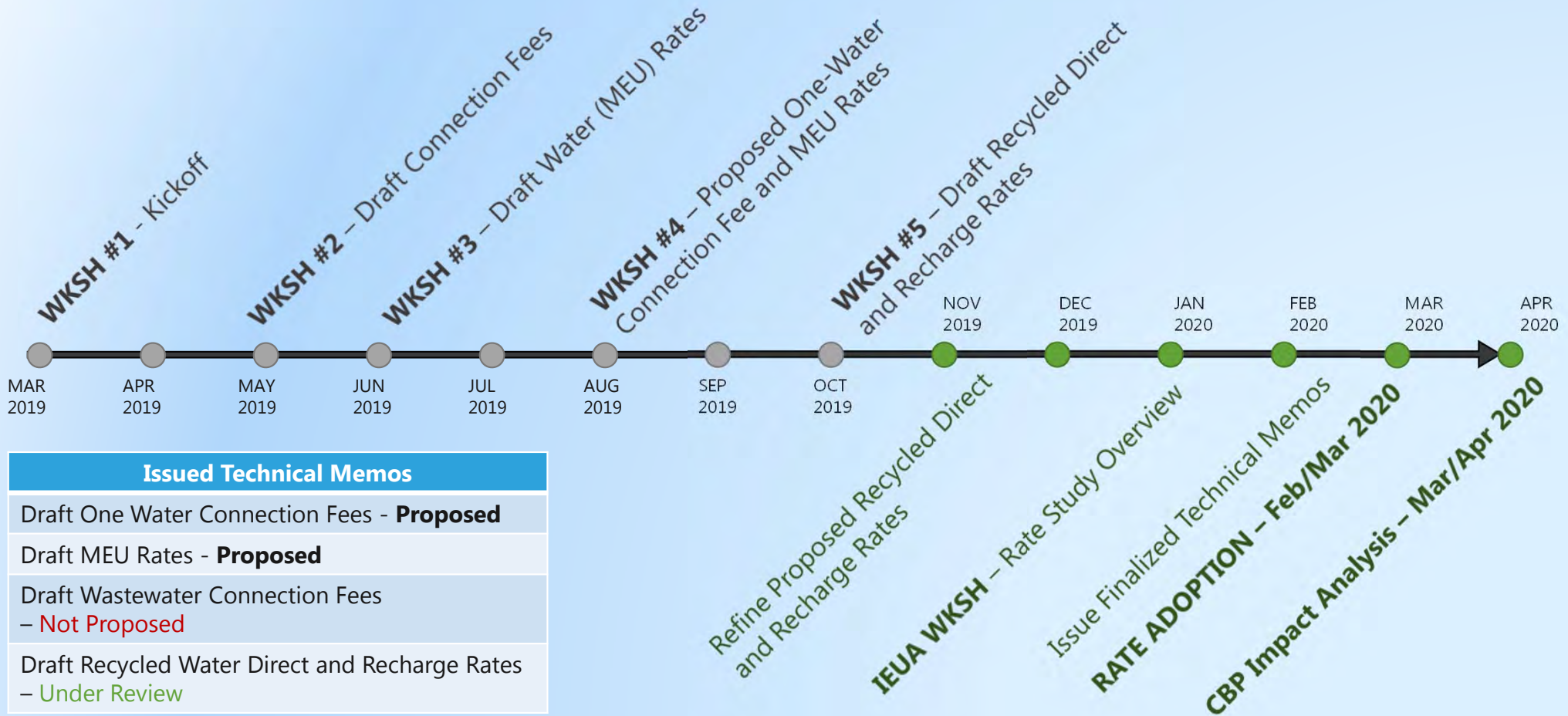
- Options using rolling average consumption have a relatively small impact on the amount of revenue from each agency
- Allocation based on EDUs could lead to moderate shifts by agency

Note: Actual revenues by agency would vary as they would reflect actual rather than projected consumption

Next Steps:

1. Consider Direct Use Recycled Water and Recharge Water rate structure alternatives
2. Finalize completed analyses
 - One Water Connection Fees
 - Water Resources MEU Rates
 - Direct Use Recycled and Recharge Water Rates
3. Adoption of rate adjustments Feb/Mar 2020
4. Develop long-term projections to assess the impact of the CBP on all rate

Timeline



Issued Technical Memos

Draft One Water Connection Fees - **Proposed**

Draft MEU Rates - **Proposed**

Draft Wastewater Connection Fees
- **Not Proposed**

Draft Recycled Water Direct and Recharge Rates
- **Under Review**



Reference Tables

Reference Tables A: Operating Expenses

Tech Memo Table 2: Recycled Water Operating Expenses

Operating Expenses - Recycled Water	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Total - Recycled Water Direct Use Activity	\$10.47	\$10.54	\$10.80	\$11.16	\$12.24
Total - Recycled Water Recharge Activity	\$1.25	\$1.31	\$1.37	\$1.34	\$1.30
Total Recycled Water Operating Expenses	\$11.71	\$11.85	\$12.16	\$12.50	\$13.54

Tech Memo Table 3: Recharge Water Operating Expenses

Operating Expenses - Recharge Water Fund	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Total - Recharge Water Fund	\$1.79	\$1.86	\$1.92	\$1.99	\$2.08
Recharge Expenses from Recycled Water Fund (See Table 2)	\$1.25	\$1.31	\$1.37	\$1.34	\$1.30
Total Recharge Operating Expenses	\$3.04	\$3.17	\$3.29	\$3.33	\$3.38

Note: Presented totals may vary from values above due to rounding for presentation purposes.

Reference Tables B: Non-Operating Expenses

**Tech Memo Table 3:
Recycled Water Non-Operating Expenses**

Non-Operating Expenses - Recycled Water Direct Use	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Debt Service	\$12.12	\$12.47	\$14.42	\$15.41	\$14.68
Capital	2.30	1.50	5.31	4.00	3.96
Total Recycled Water Non-Operating	\$14.42	\$13.97	\$19.72	\$19.41	\$18.64

**Tech Memo Table 6:
Recharge Water Non-Operating Expenses**

Non-Operating Expenses - Recharge Water	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Debt Service	\$1.32	\$1.51	\$1.50	\$1.50	\$1.50
Capital	13.18	0.29	0.50	0.75	1.00
Total Recharge Water Non-Operating	\$14.51	\$1.80	\$2.00	\$2.25	\$2.50

Note: Presented totals may vary from values above due to rounding for presentation purposes.

Reference Tables C: Transfers

**Tech Memo Table 4:
Recycled Water Fund Transfers**

Transfers	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Transfer In/(Out) - Recycled Water - Direct Usage Activity					
Capital Contribution (to Administrative fund)	\$(0.02)	\$(0.01)	\$(0.01)	\$(0.02)	\$(0.03)
Connection Fee Allocation (to Water Resources, Recharge Water, Administrative funds)	(4.53)	(1.39)	(1.25)	(2.45)	(0.72)
Debt Service (from Regional Wastewater funds)	2.54	2.54	2.54	2.67	2.67
Operating Support (to Administrative fund)	(0.05)	(0.01)	(0.04)	(0.03)	-
Subtotal - Recycled Water Direct Usage	\$(2.06)	\$1.13	\$1.24	\$0.17	\$1.92
Transfer In/(Out) - Recycled Water - Recharge Activity					
Capital Contribution (to Recharge Water fund)	\$-	\$-	\$(0.01)	\$(0.11)	\$(0.22)
Operating Support (to Recharge Water fund)	(0.71)	(0.75)	(0.78)	(0.81)	(0.87)
Subtotal - Recycled Water Recharge	\$(0.71)	\$(0.75)	\$(0.79)	\$(0.92)	\$(1.09)
Total Net Recycled Water Fund Transfers	\$(2.76)	\$0.38	\$0.45	\$(0.75)	\$0.83

**Tech Memo Table 5:
Recharge Water Fund Transfers**

Transfer In/(Out) - Recharge Water	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Capital Contribution (from Recycled Water)	\$-	\$-	\$0.01	\$0.11	\$0.22
Connection Fee Allocation (from Recycled Water)	3.03	0.07	0.12	0.17	0.23
Debt Service (from Regional Wastewater Capital)	0.66	0.69	0.69	0.69	0.69
Operating Support (from Recycled Water)	0.71	0.75	0.78	0.81	0.87
Total Recharge Water Transfers	\$4.40	\$1.51	\$1.59	\$1.78	\$2.00

Note: Presented totals may vary from values above due to rounding for presentation purposes.

Reference Tables D: Offsetting Revenues

Tech Memo Table 6: Offsetting Operating Revenues

Offsetting Operating Revenues	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Operating Revenues - Recycled Water Direct Use					
Interest Revenue	\$0.95	\$0.94	\$1.23	\$1.36	\$1.44
Subtotal Recycled Water	\$0.95	\$0.94	\$1.23	\$1.36	\$1.44
Operating Revenues - Recharge Water					
Cost Reimbursement from Watermaster	\$1.08	\$1.11	\$1.14	\$1.18	\$1.21
Interest Revenue	0.16	0.19	0.20	0.20	0.20
Subtotal Recharge Water	\$1.24	\$1.30	\$1.34	\$1.37	\$1.41
Total Offsetting Operating Revenues	\$2.19	\$2.24	\$2.57	\$2.75	\$2.85

Note: Presented totals may vary from values above due to rounding for presentation purposes.

Reference Tables D (continued): Offsetting Revenues

**Tech Memo Table 8:
Use of Connection Fees**

Use of Connection Fees	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Projected Connection Fee Revenue	\$6.42	\$6.67	\$6.93	\$7.20	\$7.48
Eligible Recycled Water Projects	\$0.38	\$0.44	\$1.28	\$0.98	\$1.10
Transfer to Recharge Water Fund for Eligible Projects	3.03	0.07	0.12	0.17	0.23
Transfer to Water Resources Fund for Eligible Projects	1.45	1.31	1.11	2.26	0.47
Transfer to General Administrative Fund for Eligible Projects	0.04	0.01	0.03	0.02	0.02
Use for Debt Service	-	0.10	1.63	2.25	1.15
Total Connection Fees to be Used	\$4.91	\$1.93	\$4.16	\$5.68	\$2.97

**Tech Memo Table 7:
Offsetting Non-Operating Revenues**

Offsetting Non-Operating Revenues	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Non-Operating Revenues - Recycled Water Direct Use					
Property Tax	\$2.17	\$2.17	\$2.17	\$2.17	\$2.17
Connection Fees	6.42	6.67	6.93	7.20	7.48
Loans	3.48	-	-	-	-
Grants	1.35	-	-	-	-
Capital Cost Reimbursement	0.09	0.09	0.09	0.09	0.10
Subtotal Recycled Water	\$13.51	\$8.93	\$9.19	\$9.46	\$9.75
Non-Operating Revenues - Recharge Water					
Loans	3.76	0.14	-	-	-
Grants	11.52	-	-	-	-
Capital Cost Reimbursement	0.66	0.94	1.06	1.19	1.31
Subtotal Recharge Water	\$15.95	\$1.08	\$1.06	\$1.19	\$1.31
Total Non-Operating Offsetting Revenues	\$29.45	\$10.01	\$10.25	\$10.65	\$11.06

Note: Presented totals may vary from values above due to rounding for presentation purposes.