



Introduction to the Regional Wastewater Reclamation Department Rate Workbook

I. HOW TO USE THIS JOB AID

This job aid was created to assist users of the Regional Wastewater Reclamation Department’s Rate Workbook to understand the details of the document so they may use it to inform their decision making processes. The job aid includes a glossary of key terms and an explanation of the data included in the workbook.

II. GLOSSARY OF KEY TERMS

Calculated Flow Estimate (CCF) – The overall average discharge per customer of the wastewater system measured in CCFs or one hundred cubic feet per CCF.

Debt Service – The cash required to pay back the principal and interest of the outstanding debt.

Prepayment – The process of paying down or eliminating debt.

Revenues – Monies received as income, primarily from system user and utility fees.

Operations and Maintenance Costs – Costs incurred to operate and maintain the system, including salaries and wages, repairs, and administrative costs.

Population Growth – The increase in number of residents or system users within the service area. This data is sourced from the University of Arizona Economic and Business Research Center, report, which is published quarterly.

Rate Factor – The planned change in a base rate, fee, or expense.

Transfers Out – The movement of monies from one fund to another to cover the costs of operation or debt service.

III. OVERVIEW OF THE RWRD RATE WORKBOOK

RATE WORKBOOK COLUMNS:

- A** **Actuals** – The audited financial results for the department and other data points expensed over the course of a fiscal year.
- B** **Adopted Budget** – The annual budget adopted by the Board of Supervisors for the department.
- C** **Forecasted** – A projection of future revenues, expenditures, population, or usage values based on historic and current economic, financial and demographic information.
- D** **Future Fiscal Year Assumptions** – The data assumptions used for forecasting future fiscal year’s.

	A Actuals FY19-20	B Adopted Budget FY20-21	C Forecasted FY20-21	D	Assumptions		
					FY21-22	FY22-23	FY23-24
Customers	284,446	282,526	287,433		290,307	292,891	295,292
Population Growth - UA Estimates	1.0123	1.0075	1.0105		1.0100	1.0089	1.0082
Volume Rate	3.6287	3.6287	3.6287		3.6287	3.6287	3.6287
Rate factor - Volume Fee	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
Service Charge Rate	13.0000	13.0000	13.0000		13.0000	13.0000	13.0000
Rate factor - Flat Service Charge	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
Rate factor - Connection Fee	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
Rate factor - O&M Expenses	1.0000	1.0000	1.0000		1.0483	1.0100	1.0100
CCF - Calculated Flow Estimate	9.2649	9.3359	9.1954		9.1035	9.0124	9.0124
Rate factor - Volume	0.9505	0.9900	0.9925		0.9900	0.9900	1.0000

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RATE FACTORS: The factors shown effect the forecasted rates calculated in the report. A factor greater than 1 signifies a rate increase; a factor of less than 1 signifies a rate decrease; and a factor of 1 signifies that the rate has neither increased nor decreased.

APPENDIX B

Regional Wastewater Reclamation Department Enterprise Fund
Financial Projections - Rating Agency Ratio 1.2 or above and Unrestricted Cash Greater than Three Months of Operating Expenses
Fiscal Years 2020 through 2025

February 2021 CURRENT FORECAST

	A	B	C	D	Assumptions	
	Actuals FY19-20	Adopted Budget FY20-21	Forecasted FY20-21		FY21-22	FY22-23
1 Customers	284,446	282,526	287,433		290,307	292,891
2 Population Growth - UA Estimates	1.0123	1.0075	1.0105		1.0100	1.0089
3 Volume Rate	3.6287	3.6287	3.6287		3.6287	3.6287
4 Rate factor - Volume Fee	1.0000	1.0000	1.0000		1.0000	1.0000
5 Service Charge Rate	13.0000	13.0000	13.0000		13.0000	13.0000
6 Rate factor - Flat Service Charge	1.0000	1.0000	1.0000		1.0000	1.0000
7 Rate factor - Connection Fee	1.0000	1.0000	1.0000		1.0000	1.0000
8 Rate factor - O&M Expenses	1.0000	1.0000	1.0000		1.0483	1.0100
9 CCF - Calculated Flow Estimate	9.2649	9.3359	9.1954		9.1035	9.0124
10 Rate factor - Volume	0.9505	0.9900	0.9925		0.9900	0.9900

Factor	Item #	Description
Forecasted Customers	C,1	Calculated by multiplying the total customers shown in the FY20 Actuals (A, 1) and the predicted population growth rate (C, 2).
Population Growth	C,2	The predicted rate of growth.
Volume Rate	A,3	The current residential user fee rate.
Rate Factor – Volume Fee	C,4	The planned change to the volume rate.
Service Charge Rate	C,5	The current monthly service charge for all system users.
Rate Factor – Flat Service Charge	C,6	The planned change to the service charge rate.
Rate Factor – Connection Fee	C,7	The planned change to the connection fee rate.
Rate Factor – O&M Expenses	C,8	The planned change in the operation and maintenance expenses, (a rate of 1.01 equates to a 1% increase).
CCF – Calculated Flow Estimate	C,9	The overall average system discharge.
Rate Factor - Volume	C,10	The planned change in volume, (a rate of .99 equates to a 1% decrease in volume.)



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REVENUES: The revenues shown comprise the income received from various sources including system user fees, connection fees, administrative fees, interest and other miscellaneous sources.

	A	B	C	D	
	Actuals FY19-20	Adopted Budget FY20-21	Forecasted FY20-21	Forecasted FY21-22	Forecasted FY22-23
System Revenues:					
11 Volumetric User Fee	114,796,559	116,335,019	115,069,576	115,078,736	114,941,907
12 Fixed User Administrative Fee	44,373,576	44,074,056	44,839,499	45,287,894	45,690,956
Sanitation Fees	689,246	675,000	700,000	675,000	675,000
13 Total Sewer Utility Service	159,859,381	161,084,075	160,609,075	161,041,629	161,307,863
14 Sewer Connection Revenue	16,244,806	14,500,000	15,250,000	15,000,000	15,000,000
15 Interest	3,796,587	2,180,000	1,175,027	2,110,000	894,748
16 Other Income including Biogas	692,728	1,037,771	855,214	1,543,172	1,543,172
Total Revenues	180,593,502	178,801,846	177,889,316	179,694,801	178,745,783

Revenue Type	Item #	Description
Volumetric User Fee	11	The fees for future years are calculated by multiplying the number of Customers (Row 1) x the Volume Rate (Row 3) x the Calculated Flow Estimate (Row 9) x 12 months.
Fixed User Administrative Fee	12	The fees for future years are calculated by multiplying the number of Customers (Row 1) x the Service Charge rate (Row 5) X 12 months.
Sanitation Fees	13	The fees for future years are calculated based on the budget assumptions.
Sewer Connection Revenue	14	The revenue for future years are calculated based on the budget assumptions.
Interest	15	Interest amounts are based on the prior year's ending cash balance.
Other Income including Biogas	16	Other income for future years are based on the budget assumptions.

NOTE: The formulas to calculate future year values are subject to rounding variances.

DEBT SERVICE COSTS: The debt service costs shown represent the amount required to pay the principal and interest on the outstanding debt.

	A	B	C	D	
Operations and Maintenance Costs	81,357,616	82,551,844	82,827,730	86,542,052	87,407,473
Net Revenues	99,235,886	96,250,002	95,061,586	93,152,749	91,338,310
Existing Debt Service - Senior Debt	-	-	-	-	-
17 Existing Debt Service - Subordinate Debt	61,564,119	64,990,600	64,990,600	63,044,007	59,950,447
Total Existing Debt Service Payments	61,564,119	64,990,600	64,990,600	63,044,007	59,950,447
18 Proposed Debt Service	-	400,000	1,238,115	3,910,750	5,498,944
Total Debt Service Payments	61,564,119	65,390,600	66,228,715	66,954,757	65,449,391
19 Rating Agency Ratio	1.61	1.47	1.44	1.39	1.40
20 Net Revenues after Debt Service Payments	37,671,767	30,859,402	28,832,871	26,197,993	25,888,919

Debt Service Type	Item #	Description
Existing Debt Service – Subordinate Debt	17	The debt service on existing debt excluding any planned prepayments.
Proposed Debt Service	18	The amount of forecasted debt service for new issuance of debt (Row 31).
Rating Agency Ratio	19	Calculated net revenues divided by total debt service payments. NOTE: the required ratio is 1.2; the goal is at least 1.30.
Net Revenues after Debt Service Payments	20	Revenues after operating expenses and debt service payments.

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TRANSFERS: Transfers represent the movement of monies from one fund to another to cover various costs of operation or debt service.

21	Transfers out - COPs 2020A	A	-	B	(10,041,667)	C	(10,041,667)	D	-	
	Transfer out - SDF		-		-		-		(5,000,000)	(5,000,000)
23	Debt Service Reserve (Obligations) Transfer		(5,882,375)		(3,450,000)		(4,606,875)		(3,690,556)	(3,835,556)
	Operating Transfer In - Debt Reserve		11,502,572		9,471,369		9,280,084		1,852,194	-
	Other Operating Transfers Out		(515,929)		(454,840)		(1,694,942)		(290,399)	(290,399)
	Prepayment of 2009 WIFA Loans		(2,997,871)		-		-		-	-
	Prepayment of 2010 Obligations		(19,664,275)		-		-		-	-
	Prepayment of 2011 Obligations		-		(24,413,625)		(23,770,274)		-	-
	Prepayment of 2012 Obligations		-		(10,192,375)		(9,897,521)		(21,377,750)	-
	Prepayment of 2014 Obligations		-		-		-		-	(8,243,813)
	Prepayment of 2016 Obligations		-		-		-		-	(8,076,812)

Factor	Item #	Description
Transfers out – COPs 2020A	21	The transfers out to cover debt service on Certificates of Participation (COPs) issued for Wastewater.
Transfer out - SDF	22	The forecasted use of System Development Funds for capital projects.
Debt Service Reserve (Obligations) Transfer	23	Each new debt issue requires a reserve equal to half of maximum annual debt service.
Operating Transfer in – Debt Reserve	24	The release of debt service reserve when an issue is paid off.
Other Operating Transfer Out	25	Typically consists of payments to other departments for services (e.g. the Summer Youth Program).
Prepayments of 2009-2016 Obligations	26	The planned defeasance of existing debt with excess cash to reduce interest expense.

BALANCES:

27	Net Changes in Assets and Liabilities	A	(4,819,199)	B	(1,323,615)	C	(11,370)	D	(65,480)	(842,973)
	Subtotal		10,491,371		(14,443,020)		(16,807,362)		(2,373,998)	(400,633)
28	Beginning Unrestricted Cash Balance		66,723,819		82,883,105		82,883,105		56,159,862	53,093,194
	Change in Restrictions of Cash		5,667,915		(700,000)		(9,915,881)		(692,669)	(186,765)
29	Ending Unrestricted Cash Balance		82,883,105		67,740,085		56,159,862		53,093,194	52,505,796

Debt Service Type	Item #	Description
Net Changes in Assets and Liabilities	27	Change in sources and uses of cash.
Beginning Unrestricted Cash Balance	28	Prior year’s ending unrestricted cash balance.
Ending Unrestricted Cash Balance	29	For prior fiscal year equal to the audited balance sheet accounts for current asset cash and cash equivalents.

PLANNED DEBT:

30	CIP Projections	A	45,462,746	B	45,150,000	C	45,150,000	D	48,000,000	49,000,000
31	Sewer Revenue debt		40,000,000		40,000,000		60,000,000		40,000,000	40,000,000
32	COPs debt		-		-		-		-	-

Debt Service Type	Item #	Description
CIP Projections	30	Based on planned CIP projects, which are paid for primarily by debt and some System Development Funds.
Sewer Revenue Debt	31	Planned debt issues to pay for CIP projects shown on Row 30 (CIP Projections).
COPs Debt	32	Planned issuance of certificates of participation for Wastewater capital projects.