Water Rate & Fee Study: Cost of Service, Rate and Design

Agenda Item C.1
Finance and Administration Committee
February 27, 2024

Background: System & Customer Peaking Characteristics

The District follows the San Diego Water Agencies Standards (SDWAS).

	System		Peaking	
System Peaking	Factor	Base	Max Day	Max Hour
Base	1.00	100%	0%	0%
Max Day	2.25	44%	56%	0%
Max Hour	3.80	26%	33%	41%

Each customer class's usage has different peaking patterns.

	2019 Study		2024 Study	
Customer Class	detail	class	detail	class
General Treated	1.21	1.21	1.61	1.61
General Treated - AG	1.33	1.55	1.70	2.06
PSAWR Treated	1.44	1.55	1.70	2.06
General Untreated	1.33	1.55	2.05	2.06
PSAWR Untreated	1.68	1.55	2.21	2.06
Construction	3.75	3.75	1.80	1.80

Background: Capital Allocation

	$M	Customer Service	Meter Capacity	SDCWA Fixed	Emer. Stor & Supp Reliablty	Treated Base Supply	Untreated Base Supply	Treatment	PSAWR Discount	Base	Max Day	Max Hour	Pumping	General	Total Req.	Notes
		Fixed			Variable											
Supply	$ 27						0%			44%	56%				100%	SDWAS max day
Pumping	$ 5									44%	56%				100%	SDWAS max day
Transmission & Distribution	$ 31									26%	33%	41%			100%	SDWAS max hour
Treatment	$ 4					0%				100%					100%	
Storage	$ 1									44%	56%				100%	SDWAS max day
Meter Maintenance	$ 2		100%												100%	
subtotal		**0%**	**2%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**38%**	**41%**	**18%**	**0%**	**0%**	100%	Subtotal (calculation)
General & Admin	$ 21	0%	2%	0%	0%	0%	0%	0%	0%	38%	41%	18%	0%	0%	100%	reallocated back based on su
2024 Study Capital Allocation	$ 91	**0%**	**2%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**38%**	**41%**	**18%**	**0%**	**0%**	100%	Total (calculation)

This is a summary for discussion purposes only. The study will show substantially more detail and include all the steps taken to get here.

The system's capital asset allocation is determined using 13 cost causation components (columns above).

This will be used in determining each customer class's proportional benefit and cost of the system (following slides).

Cost of Service (and Revenue Req.): Summary

			Fixed			Variable											
			Customer Service	Meter Capacity	SDCWA Fixed	Emer. Stor & Supp Reliablty	Treated Base Supply	Untreated Base Supply	Treatment	PSAWR Discount	Base	Max Day	Max Hour	Pumping	General	Total Req.	Notes
	Purchased Water Costs																
1	MWD Readiness-to-Serve Charge	-$119k			100%											100%	
2	MWD Capacity Charge	$120k			100%											100%	
3	Customer Service Charge	$328k			100%											100%	
4	Infrastructure Access Charge	$562k			100%											100%	
5	Supply Reliability Charge	$481k				100%										100%	
6	Emergency Storage Charge	$646k				100%										100%	
7	SDCWA Untreated Costs (Treated	$4,659k					100%									100%	
8	SDCWA Untreated Costs (Untreat	$477k						100%								100%	
9	SDCWA Untreated Costs (Contrac	$526k						100%								100%	
10	SDCWA Treatment Costs	$1,553k							100%							100%	
11	Transportation Costs (Treated Usa	$734k					100%									100%	
12	Transportation Costs (Untreated U	$75k						100%								100%	
13	Transportation Costs (Contract Us	$83k						100%								100%	
14	PSAWR Discount (Credit)	-$79k						46%		54%						100%	specific for contract
15	PSAWR Discount (Contract)	-$124k						46%		54%						100%	specific for contract
16	**Subtotal Purchased Water**	**$9,921k**															

Customer service: costs that are incurred to provide billing and customer service
Meter Capacity: costs that are associated with maintenance and capital costs of meters
SDWCA Fixed: fixed costs that are incurred to purchase water from SDWCA
ES & SR: fixed costs from SDCWA related to emergency storage (ES) and supply reliability (SR)
Treated Base Supply: variable costs that are incurred to purchase treated water from SDCWA
Untreated Base Supply: variable costs that are incurred to purchase untreated water from SDCWA
Treatment: variable costs that are incurred to purchase treated water from SDCWA
PSWAR Discount: credit received from SDCWA for PSAWR water purchases
Base Delivery costs: costs that are associated with providing service under average conditions
Peaking: costs (maximum day and maximum hour) – costs that are associated with meeting the peak demand in excess of the average rate of use
Pumping: energy costs that are associated with pumping water to the District
General: costs that cannot be readily assigned to one of the other cost causation factors

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Cost of Service (and Revenue Req.): Summary (cont'd)

			Fixed		Variable												Notes
			Customer Service	Meter Capacity	SDCWA Fixed	Emer. Stor & Supp Reliablty	Treated Base Supply	Untreated Base Supply	Treatment	PSAWR Discount	Base	Max Day	Max Hour	Pumping	General	Total Req.	
	Other O&M Expenses																
17	Admin and General	$3,221k	20%	60%											20%	100%	
18	Facilities Maint.	$689k		0%							26%	33%	41%			100%	SDWAS max hr
19	Meter Maint.	$866k		100%												100%	
20	Pumping Facilities	$2,587k												100%		100%	
21	Supply	$116k									100%					100%	
22	Systems	$1,829k		0%							26%	33%	41%			100%	SDWAS max hr
23	Trans. and Dist.	$1,726k									26%	33%	41%			100%	SDWAS max hr
24	Treatment	$31k									44%	56%	0%			100%	SDWAS max day
25	**Subtotal Other O&M Expenses**	**$11,064k**	8%	36%	0%	0%	0%	0%	0%	0%	16%	18%	22%	0%	0%	100%	
25	**Debt Service**																
26	Chase Bank Loan	$379k	0%	2%	0%	0%	0%	0%	0%	0%	38%	41%	18%	0%	0%	100%	capital
27	Proposed Debt Service	$-	0%	2%	0%	0%	0%	0%	0%	0%	38%	41%	18%	0%	0%	100%	capital
28	**Total Debt Service**	**$379k**															
29	Rate Funded Capital	$6,441k	0%	2%	0%	0%	0%	0%	0%	0%	38%	41%	18%	0%	0%	100%	capital
30	**Total Revenue Requirements**	**$28,151k**															

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31	**Less: Revenue Offsets**																
32	Pass-through revenue	$410k	8%	36%	0%	0%	0%	0%	0%	0%	16%	18%	22%	0%	0%	100%	O&M
33	Other Revenues	$247k	8%	36%	0%	0%	0%	0%	0%	0%	16%	18%	22%	0%	0%	100%	O&M
34	Interest Income	$513k	0%	2%	0%	0%	0%	0%	0%	0%	38%	41%	18%	0%	0%	100%	capital
35a	Property Taxes (contract custome	$353k						100%								100%	specific for contract
35b	Property Taxes (remainder)	$2,844k	0%	2%	0%	0%	0%	0%	0%	0%	38%	41%	18%	0%	0%	100%	capital
36	Other Operating Revenue	$43k	8%	36%	0%	0%	0%	0%	0%	0%	16%	18%	22%	0%	0%	100%	O&M
37	Capacity Fee Revenue	$161k	0%	2%	0%	0%	0%	0%	0%	0%	38%	41%	18%	0%	0%	100%	capital
38	Other Non-Operating Income	$7k	8%	36%	0%	0%	0%	0%	0%	0%	16%	18%	22%	0%	0%	100%	O&M
38	Contract Revenue	$167k	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	specific for contract
39	**Total Revenue Offsets**	**$4,745k**															
40																	
41	**Less: Adjustments**																
42	Adjustment for Cash Balance	$2,962k	0%	2%	0%	0%	0%	0%	0%	0%	38%	41%	18%	0%	0%	100%	capital
43	Adjustment for Mid-Year Increase	$-	0%	2%	0%	0%	0%	0%	0%	0%	38%	41%	18%	0%	0%	100%	capital
44	**Total Adjustments**	**$2,962k**															

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Cost of Service (and Revenue Req.): Summary (cont'd)

			Fixed			Variable											
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45																	
46	**Revenue Requirement from Rates**	**$20,616k**	3%	14%	4%	5%	26%	3%	8%	-1%	8%	9%	9%	13%	0%	100%	
	Reallocation of Base & Peaking Costs to Meter			+X								-31%	-31%			0%	
			3%	19%	4%	5%	26%	3%	8%	-1%	8%	6%	6%	13%	0%	100%	
	2024 Study		26.3%			73.7%										100%	
	2019 Study		26.1%			73.9%										100%	

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Cost of Service: Distribution to Customer Classes

Fixed			Variable										
Customer Service	Meter Capacity	SDCWA Fixed	Emer. Stor & Supp Reliablty	Treated Base Supply	Untreated Base Supply	Treatment	PSAWR Discount	Base	Max Day	Max Hour	Pumping	General	Total Req.

Allocated evenly across all accounts

Allocated across 2025 meter equivalent units (MEUs). Meter size costs scaled up based AWWA factors.

Allocated across projected 2025 meter equivalent units (MEUs). Meter size costs scaled up based SDCWA factors.

Consider: fire detector meter charge?

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Meter Size	Meter Capacity Ratio	SDCWA Fixed Ratio	Customer Service	Meter Capacity	SDCWA Fixed	Total Fixed Charge	Current Charge	Dollar Difference
3/4" or smaller	1.00	1.00	$5.08	$ 29.41	$ 6.71	**$ 41.20**	$ 38.47	$ 2.73
1"	1.67	1.60	$5.08	$ 49.11	$ 10.74	**$ 64.93**	$ 59.35	$ 5.58
1 1/2"	3.33	3.00	$5.08	$ 97.94	$ 20.13	**$ 123.15**	$ 110.91	$ 12.24
2"	5.33	5.20	$5.08	$ 156.76	$ 34.89	**$ 196.73**	$ 176.11	$ 20.62
3"	10.00	9.60	$5.08	$ 294.10	$ 64.42	**$ 363.60**	$ 366.16	$ (2.56)
4"	16.67	16.40	$5.08	$ 490.26	$ 110.04	**$ 605.39**	$ 648.23	$ (42.84)
6"	33.33	30.00	$5.08	$ 980.24	$ 201.30	**$ 1,186.62**	NA	NA

Cost of Service: Distribution to Customer Classes

Fixed			Variable										
Customer Service	Meter Capacity	SDCWA Fixed	Emer. Stor & Supp Reliablty	Treated Base Supply	Untreated Base Supply	Treatment	PSAWR Discount	Base	Max Day	Max Hour	Pumping	General	Total Req.

Allocated across all unit sales, excluding PSAWR sales

Allocated across all treated unit sales

Allocated across all untreated unit sales

Allocated across all PSAWR unit sales

Allocated across all unit sales

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Customer Class / Tier	Emer. Stor & Supp	Treated Base Supply	Untreated Base Supply	Treatment	PSAWR Discount	Base
General Treated	$ 0.71	$ 3.50	$ -	$ 1.01	$ -	$ 0.93
General Treated - AG	$ 0.71	$ 3.50	$ -	$ 1.01	$ -	$ 0.93
PSAWR Treated	$ -	$ 3.50	$ -	$ 1.01	$ (0.72)	$ 0.93
General Untreated	$ 0.71	$ -	$ 3.50	$ -	$ -	$ 0.93
PSAWR Untreated	$ -	$ -	$ 3.50	$ -	$ (0.72)	$ 0.93
Construction Treated	$ 0.71	$ 3.50	$ -	$ 1.01	$ -	$ 0.93

Cost of Service: Customer Class Peaking

Fixed					Variable								
Customer Service	Meter Capacity	SDCWA Fixed	Emer. Stor & Supp Reliablty	Treated Base Supply	Untreated Base Supply	Treatment	PSAWR Discount	Base	Max Day	Max Hour	Pumping	General	Total Req.

Option 1:
Peaking is relevant and split between 3 distinct customer classes

Customer Class / Tier	Peaking	Total Proposed	Current Rate	Dollar Difference
General Treated	$ 1.45	$ 7.60	$ 7.25	$ 0.35
General Treated - AG	$ 1.85	$ 8.00	$ 7.69	$ 0.31
PSAWR Treated	$ 1.85	$ 6.57	$ 6.37	$ 0.20
General Untreated	$ 1.85	$ 6.99	$ 6.88	$ 0.11
PSAWR Untreated	$ 1.85	$ 5.56	$ 5.56	$ -
Construction Treated	$ 1.62	$ 7.77	$ 9.80	$ (2.03)

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Option 2:
Reevaluate peaking factors using a longer timeframe

Option 3:
Peaking is irrelevant / system is uniform

Customer Class / Tier	Peaking	Total Proposed	Current Rate	Dollar Difference
General Treated	$ 1.49	$ 7.64	$ 7.25	$ 0.39
General Treated - AG	$ 1.49	$ 7.64	$ 7.69	$ (0.05)
PSAWR Treated	$ 1.49	$ 6.21	$ 6.37	$ (0.16)
General Untreated	$ 1.49	$ 6.63	$ 6.88	$ (0.25)
PSAWR Untreated	$ 1.49	$ 5.20	$ 5.56	$ (0.36)
Construction Treated	$ 1.49	$ 7.64	$ 9.80	$ (2.16)

Cost of Service: Distribution to Customer Classes

Fixed			Variable										
Customer Service	Meter Capacity	SDCWA Fixed	Emer. Stor & Supp Reliablty	Treated Base Supply	Untreated Base Supply	Treatment	PSAWR Discount	Base	Max Day	Max Hour	Pumping	General	Total Req.

N/A

Allocated across all unit sales, excluding contract sales

Consider:
Approximately 3/4ths of pumping represents SDG&E, the remaining is RMWD maintenance, chemicals, permits, etc. Adjust rate design so that pumping only represents SDG&E?

Customer Class	Pumping Unit Rate
General Treated	$ 1.53
General Treated - AG	$ 1.53
PSAWR Treated	$ 1.53
General Untreated	$ 1.53
PSAWR Untreated	$ 1.53
Construction Treated	$ 1.53

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Rate Design

Consider: breakout SDCWA vs RMWD?

Customer Class / Tier	RMWD	SDCWA	Pumping
General Treated	$2.42	$5.22	$1.49
General Treated - AG	$2.42	$5.22	$1.49
PSAWR Treated	$2.42	$3.79	$1.49
General Untreated	$2.42	$4.21	$1.49
PSAWR Untreated	$2.42	$2.78	$1.49
Construction Treated	$2.42	$5.22	$1.49

Meter Size	RMWD	SDCWA
3/4" or smaller	$34.49	$6.71
1"	$54.19	$10.74
1 1/2"	$103.02	$20.13
2"	$161.84	$34.89
3"	$299.18	$64.42
4"	$495.34	$110.04
6"	$985.32	$201.30
8"	$1,573.52	$348.92
10"	$2,259.94	$523.38

RAMONA MUNICIPAL WATER DISTRICT RATES AND FEES

(effective 02-16-2024)

TABLE 1 - WATER SERVICE CONNECTIONS FEES

Sample Fees for Typical Single Family Residential (3/4-in Meter)				TOTAL
RMWD Capacity Charge (since 2/2024)	SDCWA System Charge (since 1/1/21)	SDCWA Water Treatment Charge (since 1/1/21)	Preliminary Application Evaluation Fee per application (since 2/2024)	Treated Service w/o Installation Charges
A	B	C	D	E=A+B+C+D
$ 6,546	$ 5,700	$ 159	$ 230	$ 12,635

TABLE 2 - WATER METER INSTALLATION CHARGES

Meter Size	Max GPM Flow	AWWA Ratio	SDCWA Capacity Charges	Meter Only (Drop-In)	Lateral Meter Installation Deposit
3/4"	25	1.0	$ 5,859	$ 1,014	$ 3,882
1"	35	1.7	$ 9,374	$ 1,390	$ 4,258
1 1/2"	70	3.3	$ 17,577	$ 1,985	$ 4,853
2"	100	5.3	$ 30,467	$ 2,287	$ 5,164

WATER SERVICE CHARGES

Meter Size	Monthly System Charge
5/8"	$ 38.47
3/4"	$ 38.47
1"	$ 59.35
1 1/2"	$ 110.91
2"	$ 176.11
3"	$ 366.16
4"	$ 648.23

WATER RATES

Water Rates	Cost Per Unit
General Treated Water	$ 7.25
General Treated - AG	$ 7.69
General Untreated Water	$ 6.88
Construction	$ 9.80
Electrical Pumping/Energy Treated Rate	$ 0.98
Electrical Pumping/Energy Untreated Rate	$ 0.98
PSAWR Treated Rate	$ 6.37
PSAWR Untreated Rate	$ 5.56

OTHER FEES AND CHARGES

Service	Cost
Availability Form	$100.00
Commitment Form	Included in Availability Form Fee
Preliminary Water or Sewer Application	$230 (water) /$100 (sewer)
Water System Evaluation*(Deposit)	$2,000.00
Sewer System Evaluation* (Deposit)	$2,000.00
Reimbursement Agmt**	$300.00
Research per hour	$100.00
Industrial Waste Permit (IWP)***	$600.00
IWP Annual Renewal***	$250.00
Unique IWP* (Deposit)	$2,000.00
Facilities Maps and drawings per sheet	$25.00
Parcel Maps per map	$25.00
Construction Meter Security Deposit****	$1,200.00
Miscellaneous copies up to 8 1/2 x 14 ($0.10 ea), Larger sizes ($0.15 ea), D size ($6.00 ea)	

* **$2,000 is minimum deposit. Amount may be greater based on evaluation.**
** **Reimbursement agreement fee for collecting is 10% of reimbursed amount.**
*** **Typical IWP fee but for unique situations a deposit may be required**
**** **Account Set Up Fee $20. Daily Rental Charge $1.75 ($52.50/month).**

WATER & SEWER NOTES:

1. RMWD Capacity Fee for treated water total $6,546 per 3/4" meter per Chapter 7.16 of RMWD L.C..
2. Lien Agreement Required for Black Canyon Zone's Treated Water Storage Per Chapter 7.16.015 of RMWD L.C.
3. RMWD calculates fees based on Legislative Code Section 7.28.030.
4. Deposit for projects requiring Fire Hydrants and Fire Department connections will be determined on a case by case basis.
5. Water and Sewer rates and charges are detailed in Chapter 7.84 of Code.
6. Single Family and Multifamily Water Class are at the Treated Water Rate.
7. Most Parcels in AD 82-1 have paid sewer connection fees at time of formation, approx. 27 parcels did not pay connection fees.

TABLE 3 - SEWER CONNECTION CHARGES PER EDU (Equivalent Dwelling Unit)

Sanitation District	Annexation	Capacity Charge	Inspection Fee per Clean-out	Total Charge	Monthly Service Charge	Yearly Service Charge (effective 7/1/20)
					68.46	$ 821.57
					64.98	$ 779.75

GENERAL INFORMATION

One unit of water = 100 cubic feet = 748 gallons
435.6 Units of water = 325,851 gal = 43,560 cubic feet = 1 acre foot
One sewer EDU = 200 GPD (gallons per day) of wastewater
Typical single family dwelling unit water use = 554 GPD of water

assessed after 23 days at 10% of balance and customers are given another 39 days to pay
Tagging $10.00, Set up $20.00, Unlock $50.00. A 24 hour drop box is located in the west

www.RMWD.org

Customer bill is comprised of the following:

1) Service Charge
2) Water rate
3) Pumping rate

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Recommendation

Review and discuss as appropriate.