

To: Brad Taylor, Medford Water
Beau Belikoff, Medford Water

From: Shawn Koorn, HDR
Kevin Lorentzen, HDR

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Subject: Partner City Cost of Service Comparative Analysis

1.0 Purpose

HDR has assisted Medford Water with the rate setting process on an annual basis for over a decade. A key partner in this process is the Partner Cities, who purchase water from Medford Water. This memo is intended to provide comparison of the Partner City cost of service results from the 2024/25 study and the current study test period for 2025/26. The comparison covers several exhibits from the cost of service analysis, including the Distribution Exhibits for the Base and Extra Capacity. Also included are cost of service summaries and a summary of rate base changes that are not directly available from the exhibits in the cost of service analysis.

2.0 Distribution Factors

The distribution factors that pertain to the Partner Cities are specifically Base-All and Extra Capacity (Day). Distribution factors are a means to proportionally distribute the costs of the utility consistent with the way customers impact the system. How customers are distributed costs are impacted both directly and indirectly. The distribution factors are directly linked to the customer's usage of water and indirectly by other customer's usage of water. There are several other distribution factors, but many do not change materially from year to year (e.g., customer/meters). The extra capacity hour factor is not included in this review as Partner Cities are not distributed any extra capacity hour costs and therefore are not included as a component of that distribution factor.

The Base-All distribution factor is the proportion of customer's consumption compared to total system consumption. As shown below in Table 1, the system total consumption increased 5.47% and among the different customer classes most increased at varying degrees compared to the 2024/25 rate study. Partner Cities consumption increased 8.32%, higher than the system average. As a result, the base distribution factor for Partner Cities increased by 0.65%. Table 1 below shows the Base-All distribution factor comparison for the 2024/25 and 2025/26 cost of service study.

Table 1

Customer Class	2024/25		2025/26	
	Base Consumption (MGD)	% of Total - ALL	Base Consumption (MGD)	% of Total - ALL
<u>Inside City</u>				
Single-Family Residential (Inside-City) - Schedule 2R	9.15	32.33%	9.67	32.39%
Nonresidential & Multifamily (Inside-City) - Schedule 2C	6.14	21.70%	6.22	20.82%
Irrigation (Inside-City)	1.40	4.96%	1.60	5.35%
Fire Standby Service (Inside-City) - Schedule 1	0.00	0.00%	0.00	0.00%
<u>Outside City</u>				
Single-Family Residential (Outside-City) - Schedule 4R	1.06	3.76%	1.10	3.70%
Nonresidential & Multifamily (Outside-City) - Schedule 4C	3.36	11.88%	3.53	11.82%
Irrigation (Outside City)	0.06	0.21%	0.06	0.20%
Fire Standby Service (Outside-City) - Schedule 3	0.00	0.00%	0.00	0.00%
<u>Wholesale</u>				
District Customers - Schedule 5	0.26	0.92%	0.24	0.82%
Partner Cities - Schedule 6	6.87	24.25%	7.44	24.91%
Pumping	0		0	
Total Consumption	28.31	100.00%	29.85	100.00%

The extra capacity distribution factor is a measure of each customer class's peak demand on the water system. The factor compares each customer class's demand, calculated as peak use less base use, to total demand. The extra capacity distribution factor for Partner Cities has decreased as a proportion of the total due to their lower demand on the system compared to the other customer classes. This is in part due to the average of the Partner Cities peaking factor for a two-year period, and the most recent two years being less than the prior two-year average. Table 2 below shows the comparison of the extra capacity distribution factor from the 2024/25 study and the 2025/26 study.

Table 2

Customer Class	2024/25		2025/26	
	Extra Capacity (MGD)	% of Total - ALL	Extra Capacity (MGD)	% of Total - ALL
<u>Inside City</u>				
Single-Family Residential (Inside-City) - Schedule 2R	9.79	36.17%	11.45	37.43%
Nonresidential & Multifamily (Inside-City) - Schedule 2C	3.36	12.44%	3.89	12.72%
Irrigation (Inside-City)	2.33	8.63%	2.82	9.21%
Fire Standby Service (Inside-City) - Schedule 1	0.48	1.77%	0.48	1.57%
<u>Outside City</u>				
Single-Family Residential (Outside-City) - Schedule 4R	1.15	4.27%	1.32	4.30%
Nonresidential & Multifamily (Outside-City) - Schedule 4C	1.94	7.16%	2.41	7.89%
Irrigation (Outside City)	0.09	0.32%	0.09	0.29%
Fire Standby Service (Outside-City) - Schedule 3	0.18	0.67%	0.18	0.59%
<u>Wholesale</u>				
District Customers - Schedule 5	0.21	0.79%	0.22	0.73%
Partner Cities - Schedule 6	7.51	27.78%	7.74	25.28%
Pumping	0.00	0.00%	0.00	0.00%
Total Consumption	27.05	100.00%	30.61	100.00%

3.0 Rate Base

Rate base is the amount of asset value for which the return on investment (rate base) is determined. Return on rate base is one of several components that when added together equal each customer's total distributed revenue requirement. Rate base is determined through an allocation process where system plant components are determined to serve base, extra capacity and customer. Table 3 provides a comparison of the 2024/25 rate base compared to the 2025/26 rate base.

Table 3

Calculation of Rate Base			
	FY 24/25	FY 25/26	% Change
Rate Base			
Source of Supply	\$7,947,505	\$7,785,655	-2.04%
Pumping	7,293,239	7,267,196	-0.36%
Treatment Facilities	54,132,015	88,247,383	63.02%
Transmission Distribution	80,452,837	123,854,577	53.95%
Reservoirs	8,460,603	8,347,637	-1.34%
General Plant	5,015,393	9,665,489	92.72%
Plant Before General	\$163,301,592	\$245,167,937	50.13%
Less Developer and SDC Funded	(\$86,298,026)	(\$116,259,014)	
Plus Inventory, Work in Progress and 45 Days O&M	\$4,745,445	\$4,772,104	
Net Plant in Service	\$81,749,011	\$133,681,027	63.53%
Allocated Rate Base			
(Only Base and Extra Capacity all)			
Base All	\$32,261,083	\$56,107,458	73.92%
Extra Capacity - All	21,089,751	45,203,009	114.34%
Total Allocated Rate Base (Base All & Extra Cap All)	\$53,350,834	\$101,310,467	89.89%
Distribution to Partner Cities			
Base All	24.25%	24.91%	
Extra Capacity - All	27.78%	25.28%	
Partner City Distributed Rate Base			
Base All	\$7,824,531	\$13,975,478	78.61%
Extra Capacity - All	5,857,903	11,428,063	95.09%
Distributed Rate Base	\$13,682,434	\$25,403,542	85.67%

As the table shows, the net plant in service, which is the value of the plant before being distributed to customer classes, increased by 63.53% while the amount of rate base distributed to the Partner Cities increased 85.67%. The increase in rate base is primarily the result of the distribution of rate base related to Base – All and Extra Capacity – All, which reflects the recent assets added to the system as “used and useful” since the prior study. It is also important to note that contributions increased significantly as well reflecting the portion of assets added to the system being in part growth related. In addition, the impact to rate base, and resulting return component, may continue to increase given the significant level of improvements being

developed that provide a benefit to Partner Cities, and thus they are allocated a proportional share of those costs.

4.0 Cost of Service Analysis

Another component included in each customer's distributed revenue requirement is O&M expenses. Table 4 provides a breakdown of the Partner Cities' distributed O&M expenses by Base-All, Extra Capacity Day, Actual Customer, and Direct Assignment. In total, the amount of expenses distributed to Partner Cities increased, which is a result of several factors. First, the overall O&M expenditures increased system wide since the prior study. This increase in O&M expenditures increases funds allocated to Base – All and Peak Day – All, which results in an increase in the funds distributed to each customer class, including Partner Cities.

During the 2024/25 rate study a change was made regarding transfers to the Water Supply and Treatment Fund. Prior to the 2024/25 rate study a transfer of funds was made to the Water Supply and Treatment Fund, and the resulting cost was distributed among all customer classes of service, including the Partner Cities. In 2024/25 that distribution of transfer costs was no longer allocated to the Partner Cities. As can be seen on the direct assignment line, where the transfer of funds was once shown, no costs were allocated to the Partner Cities for either 2024/25 or 2025/26.

Table 4

	Partner Cities		% Change
	FY 24/25	FY 25/26	
Base Allocation			
Base - All	\$1,228,602	\$1,493,255	21.54%
Extra-Capacity - Peak-Day ALL	411,870	507,373	23.19%
Actual Customer - All	1,648	1,939	17.65%
Direct Assignment	0	0	0.00%
Net Revenue Requirement	\$1,642,120	\$2,002,567	21.95%

5.0 Summary

Table 5 below provides the side-by-side comparison of the cost of service summary. Much of what was shown in the previous tables is summarized on this table, including O&M expenses and distributed rate base. Of note, is that the distribution of rate base has increased for the Partner Cities, and the rate of return increased from 5.40% to 5.65%. The return on rate base is a direct result of the increase in percent return on rate base and more significantly the infrastructure that has been under construction over the past few years being put into service. Last year's memo noted that the new infrastructure would have an impact on the Partner Cities rates in subsequent years. This again will likely be a factor in Partner Cities rates in the next few years as more system improvement projects are completed.

Based on this agreed upon approach of using the Utility Basis for the Partner Cities rate calculation, Partner Cities are not disturbed infrastructure costs (e.g., rate base) until they are placed into service. Since a significant amount of infrastructure that has been under construction is now in service and thus added to the existing rate base, the Partner City's return on rate base has increased, which is reflected in the Partner Cities increase in rates for this study.

As the previous tables showed, the Base – All, Peak Day – All, and Actual Customer – All distributed costs increased for the Partner Cities. Additionally, because of increased plant in service, the distributed rate base increased from the prior year. This results in an overall increase to Partner Cities cost of service of 26.8% as provided below in Table 5 below.

Table 5

	Partner Cities		% Change
	FY 24/25	FY 25/26	
Revenues at Present Rates	\$2,486,521	\$3,042,212	22.35%
Less: Allocated O&M Expenses	\$1,642,120	\$2,002,567	21.95%
Less: Allocated Ann. Depr. Expense [1]	388,207	549,353	41.51%
Total Allocated O&M & Ann. Depr. Exp.	\$2,030,327	\$2,551,920	25.69%
Net Income/(Loss)	\$456,194	\$490,292	7.47%
Distributed Rate Base	\$13,682,434	\$23,111,759	68.92%
Present Return on Rate Base	3.33%	2.12%	
Proposed Return Component	\$738,851	\$1,305,814	76.74%
Proposed Rate of Return	5.40%	5.65%	
Proposed Revenue	\$2,769,179	\$3,857,734	39.31%
Required \$ Change in Rates	\$282,657	\$815,522	
Required % Change in Rates	11.4%	26.8%	
[1] Annual Depreciation is Allocated and Distributed in the same manner as Rate Base			

Another impact of building new infrastructure along with the increased rate base, is an increase of annual depreciation expense. As shown in table 5, allocation of annual depreciation expense for the Partner Cities increased by 41.51% or \$161,146 from 2024/25.

There are three revenue requirement components that impact the Partner City rates, O&M expenses, annual depreciation expense, and return on rate base. As Table 5 shows each of those components have increased over the previous year. The impact of each of the revenue

requirement components has their own impact on the overall rate adjustment. Table 6 provides the relative impact of the three revenue requirement components.

Table 6 compares the FY 24/25 and FY 25/26 distributed costs to the Partner Cities as developed in the prior tables along with the change. In order to provide a relative change in the rates for each component, the far right column shows the proportion of the total increase by cost component. These percentages are then used to determine the proportion of the overall increase by each component. A key component of this comparison is also the change in revenue for Partner Cities from the prior study to account for changes in overall revenue levels.

Table 6

Partner Cities				
	FY 24/25	FY 25/26	\$ Change	Proportion of Total Allocated costs
Rate Components				
Allocated O&M Expenses	\$1,642,120	\$2,002,567	\$360,446	33.11%
Allocated Ann. Depr. Expense [1]	388,207	549,353	161,146	14.80%
Proposed Return Component	738,851	1,305,814	566,963	52.08%
Total Allocated Costs	\$2,769,179	\$3,857,734	\$1,088,556	
Adjustments to Account for Changes from last Year's Study				
Less Change in Revenues at Present Rates	\$2,486,521	\$3,042,212	(\$555,691)	
Plus 2023/24 Req. Change in Rates			\$282,657	
Net Changes from 2023/24			(\$273,034)	
Required \$ Change in Rates (Alloc. Costs Less Net Change from 2023/24)			\$815,521	
	Rate Component \$ Change	Proportion of Rate Component	Prorated Change per Rate Component	Rate Adjustment % Change Distribution
Allocated O&M Expenses	\$360,446	33.11%	270,038	8.9%
Allocated Ann. Depr. Expense [1]	\$161,146	14.80%	120,727	4.0%
Proposed Return Component	\$566,963	52.08%	424,756	14.0%
Total	1,088,556	100.0%	815,521	26.8%

As table 6 shows of the overall 26.8% rate adjustment for Partner Cities 8.9% is due to the increase in O&M expense, 4.0% is related to the increase in annual depreciation expense and 14.0% is related to return on rate base. The latter increase is driven by the capitalization of significant projects completed since the 2024/25 rate study. As noted, this level of project capitalization, and subsequent rate adjustment, was noted in the memos in prior years. It is also important to note that additional projects are likely to be completed prior to the next rate study which may also have similar impacts to the Partner City rates.

6.0 Future Estimated Rate Projections

As noted, the Partner Cities have been provided with estimated rate projections over the last several years as part of the implementation of the ongoing CIP. During the rate update, the Partner Cities requested further information on the projected annual and cumulative rate changes over the Study time period.

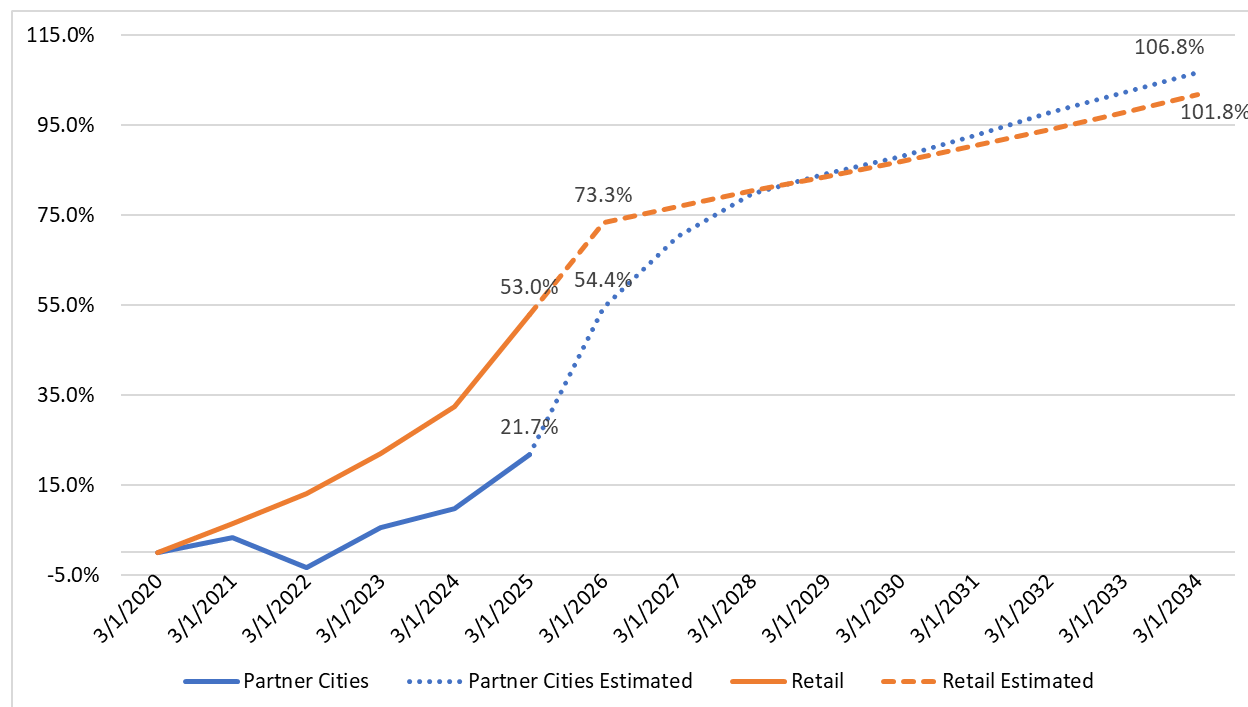
For the study, the projection was updated and revised in an attempt to provide more details and assumptions to develop the estimate of future rate projections. This included a projection of annual O&M expenses, annual depreciation expense, and return on rate base. Note, the analysis also includes ongoing work in progress that will be capitalized over the next couple of years that are currently being constructed.

Provided in Table 7 is the cumulative rate adjustment through FY 34/35 for Partner Cities. As noted, the capitalization of the ongoing, and planned, capital improvements result in the increase to rate base and subsequent estimated rate increases. These preliminary results are subject to changes in assumptions relating to operating and maintenance expenses, annual depreciation expense, capital improvement plans, and rate of return.

Table 7

	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	FY 30/31	FY 31/32	FY 32/33	FY 33/34	FY 34/35
Allocated O&M Expenses	\$2,002,567	\$2,072,657	\$2,145,200	\$2,220,282	\$2,297,991	\$2,378,421	\$2,461,666	\$2,547,824	\$2,636,998	\$2,729,293
Allocated Ann. Depr. Expense	549,353	689,913	1,040,108	1,113,437	1,169,979	1,245,780	1,326,221	1,396,144	1,463,549	1,510,023
Annual Capital (Prior Year Plan) ^[1]		29,567,500	25,165,000	15,425,000	11,894,000	15,945,000	16,921,000	14,708,700	14,179,000	9,776,000
Capitalization of Work in Progress		36,000,000	12,500,000							
Percent Allocable Partner Cities		20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Distributed Rate Base ^[2]	\$23,111,759	\$36,225,259	\$43,758,259	\$46,843,259	\$49,222,059	\$52,411,059	\$55,795,259	\$58,736,999	\$61,572,799	\$63,527,999
Rate of return	5.65%	5.65%	5.65%	5.65%	5.65%	5.65%	5.65%	5.65%	5.65%	5.65%
Return on Rate Base	\$1,305,814	\$2,046,727	\$2,472,342	\$2,646,644	\$2,781,046	\$2,961,225	\$3,152,432	\$3,318,640	\$3,478,863	\$3,589,332
Proposed Revenue ^[3]	\$3,857,734	\$4,980,437	\$5,657,649	\$5,980,362	\$6,249,017	\$6,585,426	\$6,940,319	\$7,262,609	\$7,579,410	\$7,828,648
Annual Rate Change	N/A	29.1%	28.5%	5.7%	4.5%	5.4%	5.4%	4.6%	4.4%	3.3%
% Cumulative Rate Change	N/A	29.1%	46.7%	55.0%	62.0%	70.7%	79.9%	88.3%	96.5%	102.9%
Notes: [1] Assumes all capital projects are used and useful in the following year [2] No SDC or grant contributions assumed [3] Assumes prior study rate of return of 5.65%										

The following graph provides a visual comparison of cumulative rate change between Partner Cities and retail customers historically and over the study time period.



Note, this transition of rates for both retail and Partner Cities is expected when using the utility basis approach for establishing rates. This is due to Medford Water funding project costs until they are “used and useful”. The projected rate estimates for Partner Cities reflects this transition as projects are completed and capitalized during this rate study, and subsequent rate studies.