
Water Shortage Surcharges

Agency: Elsinore Valley Municipal Water District (EVMWD)

Date: October 3, 2023

The District's Water Shortage Contingency Plan (WSCP) identifies six water shortage stages of reduced water supplies and corresponding water usage. Usage is identified in hundred cubic feet (HCF)¹. Stage 1 assumes a 10% reduction, with each subsequent stage projecting an additional 10% reduction in water usage, with Stage 6² being anything over 50%. When water shortage stages are enacted, and the conservation measures realize reductions in water usage, revenues will also reduce, causing the District not to meet its revenue requirements. As such, the District's WSCP includes the implementation of Water Shortage Surcharges (surcharges) to recover projected lost revenues from each water shortage stage. For the purposes of this analysis, Stage 6 assumes a 60% reduction in water usage.

The District Board may enact surcharges during water shortage events to recover the appropriate revenue to fund water system operations from a reduced volume of water sold. Therefore, the surcharges are higher than the District's current variable rates and increase for each water shortage stage. The most recent water rate study set rates through FY 2025 but did not include an update to the District's surcharges. Therefore, the proposed surcharges, by stage, derived herein are for the last two years of the previously approved water rates (FY 2024 and FY 2025) for the Elsinore Division and Temescal Division.

Elsinore Division FY 2024 Surcharges:

. Water use reductions for each stage were first applied pro-rata to the highest tiers of Residential (Tier 4) and Irrigation (Tier 3) usage. The usage within these two tiers has the highest potential for cuts and the most significant revenue loss to recover for developing surcharges. As more usage reductions are required to meet the water shortage stage, usage is reduced to each customer class and tier based on the priority shown in Table 1. Stage 6 represents a catastrophic loss in water supply where residential indoor water usage (Tier 1) would be impacted.

¹ One HCF = 748 gallons of water

² Stage 6 is for any required reductions over 50%. For deriving Stage 6 surcharges, 60% water reduction was used.

Table 1: Elsinore – FY 2024 Priority of Usage Reductions

Customer Class	Baseline Usage (HCF)	Priority
Residential		
Tier 1	4,163,178	<i>Final Reduction</i>
Tier 2	2,750,523	<i>3rd Reduction</i>
Tier 3	248,357	<i>2nd Reduction</i>
Tier 4	460,379	<i>1st Reduction</i>
Irrigation		
Tier 1	1,247,023	<i>3rd Reduction</i>
Tier 2	120,847	<i>2nd Reduction</i>
Tier 3	172,309	<i>1st Reduction</i>
Commercial	571,931	<i>4th Reduction</i>
Institutional	52,606	<i>4th Reduction</i>
Inter-Agency Wholesale		
Tier 1	113,933	<i>4th Reduction</i>
Tier 2	21,183	<i>2nd Reduction</i>
Construction	181,268	<i>3rd Reduction</i>
Total	10,103,537	

Table 2 identifies the total reduction in HCF needed to achieve each water shortage stage, and Table 3 summarizes where the reductions are assumed to occur from customer classes and tiers. For example, Stage 1 requires a reduction of 1,010,354 HCF. To achieve this reduction by applying the priority hierarchy in Table 1, water usage is first reduced within Residential Tier 4 and Irrigation Tier 3 proportionally. However, these two tiers represent 637,433 HCF, which is less than the required 10% reduction. Usage reductions are then applied pro-rata to the second priority (Residential – Tier 3, Irrigation – Tier 2, and Inter-Agency – Tier 2) until the reduction requirement is achieved or the next usage priority is reduced pro-rata. The 10% reduction is achieved with a 100% cutback in priority 1 usage and a 96.7% reduction applied to all priority 2 usage.

Table 2: Elsinore – FY 2024 Total Usage Reductions by Water Shortage Stage

Baseline Usage (HCF)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
	10.0%	20.0%	30.0%	40.0%	50.0%	60.0%
10,103,537	1,010,354	2,020,707	3,031,061	4,041,415	5,051,769	6,062,122

Table 3: Elsinore – FY 2024 Usage Reductions by Customer Class and Tier

% Reduction		FY 2024					
Customer Class	Baseline Usage (HCF)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	4,163,178	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%
Tier 2	2,750,523	0.0%	23.9%	48.1%	72.2%	96.4%	100.0%
Tier 3	248,357	96.7%	100.0%	100.0%	100.0%	100.0%	100.0%
Tier 4	460,379	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Irrigation							
Tier 1	1,247,023	0.0%	23.9%	48.1%	72.2%	96.4%	100.0%
Tier 2	120,847	96.7%	100.0%	100.0%	100.0%	100.0%	100.0%
Tier 3	172,309	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Commercial							
Institutional	571,931	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Institutional	52,606	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Inter-Agency Wholesale							
Tier 1	113,933	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Tier 2	21,183	96.7%	100.0%	100.0%	100.0%	100.0%	100.0%
Construction	181,268	0.0%	23.9%	48.1%	72.2%	96.4%	100.0%
Total (HCF)	10,103,537						
Usage Reduction (HCF)							
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	4,163,178	-	-	-	-	-	121,763
Tier 2	2,750,523	-	656,648	1,321,670	1,986,691	2,651,713	2,750,523
Tier 3	248,357	240,264	248,357	248,357	248,357	248,357	248,357
Tier 4	460,379	460,379	460,379	460,379	460,379	460,379	460,379
Irrigation							
Tier 1	1,247,023	-	297,709	599,214	900,719	1,202,225	1,247,023
Tier 2	120,847	116,909	120,847	120,847	120,847	120,847	120,847
Tier 3	172,309	172,309	172,309	172,309	172,309	172,309	172,309
Commercial							
Institutional	571,931	-	-	-	-	-	571,931
Institutional	52,606	-	-	-	-	-	52,606
Inter-Agency Wholesale							
Tier 1	113,933	-	-	-	-	-	113,933
Tier 2	21,183	20,493	21,183	21,183	21,183	21,183	21,183
Construction	181,268	-	43,275	87,102	130,929	174,756	181,268
Projected Usage Reduction	10,103,537	1,010,354	2,020,707	3,031,061	4,041,415	5,051,769	6,062,122

With reductions identified in Table 3, the remaining usage is summarized in Table 4. The corresponding reduced revenue for FY 2024 is shown in Table 5 by taking the usage in Table 4 and multiplying it by the proposed FY 2024 variable rates.

Table 4: Elsinore – FY 2024 Remaining Usage by Water Shortage Stage

Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	4,163,178	4,163,178	4,163,178	4,163,178	4,163,178	4,163,178	4,041,415
Tier 2	2,750,523	2,750,523	2,093,875	1,428,853	763,832	98,810	-
Tier 3	248,357	8,093	-	-	-	-	-
Tier 4	460,379	-	-	-	-	-	-
Irrigation							
Tier 1	1,247,023	1,247,023	949,314	647,809	346,304	44,798	-
Tier 2	120,847	3,938	-	-	-	-	-
Tier 3	172,309	-	-	-	-	-	-
Commercial	571,931	571,931	571,931	571,931	571,931	571,931	-
Institutional	52,606	52,606	52,606	52,606	52,606	52,606	-
Inter-Agency Wholesale							
Tier 1	113,933	113,933	113,933	113,933	113,933	113,933	-
Tier 2	21,183	690	-	-	-	-	-
Construction	181,268	181,268	137,993	94,166	50,339	6,512	-
Total Projected Water Sales (hcf)	10,103,537	9,093,183	8,082,830	7,072,476	6,062,122	5,051,769	4,041,415

Table 5: Elsinore – FY 2024 Projected Revenue and Potential Revenue Loss

Commodity Rates (\$/HCF)

Customer Class	FY 2024
Residential	
Tier 1	\$3.00
Tier 2	\$3.93
Tier 3	\$7.06
Tier 4	\$9.20
Irrigation	
Tier 1	\$3.90
Tier 2	\$7.49
Tier 3	\$10.50
Commercial	\$3.85
Institutional	\$3.85
Inter-Agency Wholesale	
Tier 1	\$3.26
Tier 2	\$5.81
Construction	\$6.72

Projected Commodity Revenue		FY 2024					
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	\$12,489,534	\$12,489,534	\$12,489,534	\$12,489,534	\$12,489,534	\$12,489,534	\$12,124,244
Tier 2	\$10,809,555	\$10,809,555	\$8,228,928	\$5,615,393	\$3,001,859	\$388,325	\$0
Tier 3	\$1,753,400	\$57,137	\$0	\$0	\$0	\$0	\$0
Tier 4	\$4,235,487	\$0	\$0	\$0	\$0	\$0	\$0
Irrigation							
Tier 1	\$4,863,390	\$4,863,390	\$3,702,325	\$2,526,454	\$1,350,584	\$174,713	\$0
Tier 2	\$905,144	\$29,495	\$0	\$0	\$0	\$0	\$0
Tier 3	\$1,809,245	\$0	\$0	\$0	\$0	\$0	\$0
Commercial	\$2,201,934	\$2,201,934	\$2,201,934	\$2,201,934	\$2,201,934	\$2,201,934	\$0
Institutional	\$202,533	\$202,533	\$202,533	\$202,533	\$202,533	\$202,533	\$0
Inter-Agency Wholesale							
Tier 1	\$371,422	\$371,422	\$371,422	\$371,422	\$371,422	\$371,422	\$0
Tier 2	\$123,073	\$4,011	\$0	\$0	\$0	\$0	\$0
Construction	\$1,218,121	\$1,218,121	\$927,312	\$632,795	\$338,277	\$43,760	\$0
Total Projected Commodity Revenue	\$40,982,838	\$32,247,132	\$28,123,987	\$24,040,065	\$19,956,143	\$15,872,221	\$12,124,244
Projected Revenue Loss <i>(Difference from Baseline)</i>		(\$8,735,706)	(\$12,858,851)	(\$16,942,773)	(\$21,026,695)	(\$25,110,617)	(\$28,858,594)
<i>% Revenue Loss</i>		-21.3%	-31.4%	-41.3%	-51.3%	-61.3%	-70.4%

In addition to revenue losses, the District will also reduce certain expenses, generating cost savings. Table 6 calculates the cost savings from reduced water use, and Table 7 reflects the FY 2024 net impact of revenue loss to be recovered from surcharges for each stage.

Table 6: Elsinore – FY 2024 Water Loss Expense – Cost Savings

Variable Purchased Water Expenses		FY 2024					
Auld Valley Pipeline WMWD (WREM 17)		\$13,447,933					
TVP Pipeline WMWD (WR24D)		\$9,227,719					
Total Variable Purchased Water Expenses		\$22,675,652					
Variable Purchased Water Unit Cost							
Variable Purchased Water Cost		\$22,675,652					
÷ Baseline Production (HCF)		10,103,537					
Variable Purchased Water Unit Cost (\$/hcf)		\$2.24					
Variable Water Cost Savings	Source	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Reduction in Usage (HCF)	Table 3	1,010,354	2,020,707	3,031,061	4,041,415	5,051,769	6,062,122
x Variable Water Unit Cost		\$2.24	\$2.24	\$2.24	\$2.24	\$2.24	\$2.24
Variable Water Cost Savings		\$2,263,192	\$4,526,385	\$6,789,577	\$9,052,769	\$11,315,961	\$13,579,154

Table 7: Elsinore – FY 2024 Net Impact from Water Shortage Stages

Net Impact from WSCP Stages	Source	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Lost Revenue	Table 5	(\$8,735,706)	(\$12,858,851)	(\$16,942,773)	(\$21,026,695)	(\$25,110,617)	(\$28,858,594)
Water Supply Cost Savings	Table 6	\$2,263,192	\$4,526,385	\$6,789,577	\$9,052,769	\$11,315,961	\$13,579,154
Total Revenue Loss		(\$6,472,514)	(\$8,332,466)	(\$10,153,196)	(\$11,973,926)	(\$13,794,656)	(\$15,279,440)
% Revenue Loss		-16%	-20%	-25%	-29%	-34%	-37%

The Elsinore FY 2024 surcharges are calculated by taking the revenue loss as a percentage of the **Projected Commodity Revenue**, as shown in Table 8. This percent increase is then applied to all base variable rates, maintaining the cost-of-service analysis developed for the District. **Error! Reference source not found.** identifies the surcharges for FY 2025 using the same approach shown for FY 2024.

Table 8: Elsinore – FY 2024 Elsinore Water Shortage Surcharges

% Increase	Source	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Net Revenue Loss	Table 7	\$6,472,514	\$8,332,466	\$10,153,196	\$11,973,926	\$13,794,656	\$15,279,440
Projected Commodity Revenue	Table 5	\$32,247,132	\$28,123,987	\$24,040,065	\$19,956,143	\$15,872,221	\$12,124,244
Net Revenue Loss / Projected Commodity Revenue		20.07%	29.63%	42.23%	60.00%	86.91%	126.02%
WSCP Surcharge		FY 2024					
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	\$3.00	\$0.61	\$0.89	\$1.27	\$1.81	\$2.61	\$3.79
Tier 2	\$3.93	\$0.79	\$1.17	\$1.66	\$2.36	\$3.42	\$4.96
Tier 3	\$7.06	\$1.42	\$2.10	\$2.99	\$4.24	\$6.14	\$8.90
Tier 4	\$9.20	\$1.85	\$2.73	\$3.89	\$5.53	\$8.00	\$11.60
Irrigation							
Tier 1	\$3.90	\$0.79	\$1.16	\$1.65	\$2.35	\$3.39	\$4.92
Tier 2	\$7.49	\$1.51	\$2.22	\$3.17	\$4.50	\$6.51	\$9.44
Tier 3	\$10.50	\$2.11	\$3.12	\$4.44	\$6.31	\$9.13	\$13.24
Commercial							
Institutional	\$3.85	\$0.78	\$1.15	\$1.63	\$2.32	\$3.35	\$4.86
Inter-Agency Wholesale	\$3.85	\$0.78	\$1.15	\$1.63	\$2.32	\$3.35	\$4.86
Construction							
Tier 1	\$3.26	\$0.66	\$0.97	\$1.38	\$1.96	\$2.84	\$4.11
Tier 2	\$5.81	\$1.17	\$1.73	\$2.46	\$3.49	\$5.05	\$7.33
Construction	\$6.72	\$1.35	\$2.00	\$2.84	\$4.04	\$5.85	\$8.47

Elsinore Division FY 2025 Surcharges:

The Elsinore FY 2025 water shortage surcharges use the same approach that was used for FY 2024. Table 9 identifies the usage for FY 2025 with the same priority reductions and Table 10 provides the total reduction needed for each shortage stage.

Table 9: Elsinore – FY 2025 Priority of Usage Reductions

Customer Class	Baseline Usage (HCF)	Priority
Residential		
Tier 1	4,194,402	<i>Final Reduction</i>
Tier 2	2,771,152	<i>3rd Reduction</i>
Tier 3	250,220	<i>2nd Reduction</i>
Tier 4	463,832	<i>1st Reduction</i>
Irrigation		
Tier 1	1,256,376	<i>3rd Reduction</i>
Tier 2	121,753	<i>2nd Reduction</i>
Tier 3	173,601	<i>1st Reduction</i>
Commercial	576,220	<i>4th Reduction</i>
Institutional	53,001	<i>4th Reduction</i>
Inter-Agency Wholesale		
Tier 1	113,933	<i>4th Reduction</i>
Tier 2	21,183	<i>2nd Reduction</i>
Construction	181,268	<i>3rd Reduction</i>
Total (HCF)	10,176,941	

Table 10: Elsinore – FY 2025 Total Usage Reductions by Water Shortage Stage

Baseline Usage (HCF)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
	10.0%	20.0%	30.0%	40.0%	50.0%	60.0%
10,176,941	1,017,694	2,035,388	3,053,082	4,070,776	5,088,471	6,106,165

Table 11 summarizes where the reductions are assumed to occur from customer classes and tiers by applying the priority hierarchy identified in Table 9.

Table 11: Elsinore – FY 2025 Usage Reductions by Customer Class and Tier

% Reduction		FY 2025					
Customer Class	Baseline Usage (HCF)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	4,194,402	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%
Tier 2	2,771,152	0.0%	23.9%	48.1%	72.2%	96.4%	100.0%
Tier 3	250,220	96.7%	100.0%	100.0%	100.0%	100.0%	100.0%
Tier 4	463,832	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Irrigation							
Tier 1	1,256,376	0.0%	23.9%	48.1%	72.2%	96.4%	100.0%
Tier 2	121,753	96.7%	100.0%	100.0%	100.0%	100.0%	100.0%
Tier 3	173,601	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Commercial							
Institutional	576,220	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Inter-Agency Wholesale							
Tier 1	113,933	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Tier 2	21,183	96.7%	100.0%	100.0%	100.0%	100.0%	100.0%
Construction	181,268	0.0%	23.9%	48.1%	72.2%	96.4%	100.0%
Total (HCF)	10,176,941						
Usage Reduction (HCF)							
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	4,194,402	-	-	-	-	-	123,626
Tier 2	2,771,152	-	661,579	1,331,648	2,001,718	2,671,787	2,771,152
Tier 3	250,220	242,013	250,220	250,220	250,220	250,220	250,220
Tier 4	463,832	463,832	463,832	463,832	463,832	463,832	463,832
Irrigation							
Tier 1	1,256,376	-	299,945	603,738	907,532	1,211,326	1,256,376
Tier 2	121,753	117,760	121,753	121,753	121,753	121,753	121,753
Tier 3	173,601	173,601	173,601	173,601	173,601	173,601	173,601
Commercial							
Institutional	576,220	-	-	-	-	-	576,220
Inter-Agency Wholesale							
Tier 1	113,933	-	-	-	-	-	113,933
Tier 2	21,183	20,488	21,183	21,183	21,183	21,183	21,183
Construction	181,268	-	43,276	87,106	130,937	174,768	181,268
Projected Usage Reduction	10,176,941	1,017,694	2,035,388	3,053,082	4,070,776	5,088,471	6,106,165

With reductions identified in Table 11, the remaining usage is summarized in Table 12. The corresponding reduced revenue for FY 2025 is shown in Table 13 by taking the usage in Table 12 and multiplying it by the proposed FY 2025 variable rates.

Table 12: Elsinore – FY 2025 Remaining Usage by Water Shortage Stage

Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	4,194,402	4,194,402	4,194,402	4,194,402	4,194,402	4,194,402	4,070,776
Tier 2	2,771,152	2,771,152	2,109,573	1,439,504	769,434	99,365	-
Tier 3	250,220	8,207	-	-	-	-	-
Tier 4	463,832	-	-	-	-	-	-
Irrigation							
Tier 1	1,256,376	1,256,376	956,431	652,638	348,844	45,050	-
Tier 2	121,753	3,993	-	-	-	-	-
Tier 3	173,601	-	-	-	-	-	-
Commercial	576,220	576,220	576,220	576,220	576,220	576,220	-
Institutional	53,001	53,001	53,001	53,001	53,001	53,001	-
Inter-Agency Wholesale							
Tier 1	113,933	113,933	113,933	113,933	113,933	113,933	-
Tier 2	21,183	695	-	-	-	-	-
Construction	181,268	181,268	137,992	94,162	50,331	6,500	-
Total Projected Water Sales (hcf)	10,176,941	9,159,247	8,141,553	7,123,859	6,106,165	5,088,471	4,070,776

Table 13: Elsinore – FY 2025 Projected Revenue and Potential Revenue Loss

Commodity Rates (\$/HCF)								
Customer Class	FY 2025							
Residential								
Tier 1		\$3.13						
Tier 2		\$4.11						
Tier 3		\$7.39						
Tier 4		\$9.62						
Irrigation								
Tier 1		\$4.08						
Tier 2		\$7.84						
Tier 3		\$10.98						
Commercial		\$4.03						
Institutional		\$4.03						
Inter-Agency Wholesale								
Tier 1		\$3.41						
Tier 2		\$6.07						
Construction		\$7.03						
Projected Commodity Revenue		FY 2025						
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	
Residential								
Tier 1	\$13,128,478	\$13,128,478	\$13,128,478	\$13,128,478	\$13,128,478	\$13,128,478	\$12,741,530	
Tier 2	\$11,389,435	\$11,389,435	\$8,670,345	\$5,916,360	\$3,162,375	\$408,390	\$0	
Tier 3	\$1,849,126	\$60,648	\$0	\$0	\$0	\$0	\$0	
Tier 4	\$4,462,064	\$0	\$0	\$0	\$0	\$0	\$0	
Irrigation								
Tier 1	\$5,126,014	\$5,126,014	\$3,902,240	\$2,662,761	\$1,423,282	\$183,803	\$0	
Tier 2	\$954,544	\$31,308	\$0	\$0	\$0	\$0	\$0	
Tier 3	\$1,906,139	\$0	\$0	\$0	\$0	\$0	\$0	
Commercial	\$2,322,167	\$2,322,167	\$2,322,167	\$2,322,167	\$2,322,167	\$2,322,167	\$0	
Institutional	\$213,594	\$213,594	\$213,594	\$213,594	\$213,594	\$213,594	\$0	
Inter-Agency Wholesale								
Tier 1	\$388,512	\$388,512	\$388,512	\$388,512	\$388,512	\$388,512	\$0	
Tier 2	\$128,581	\$4,217	\$0	\$0	\$0	\$0	\$0	
Construction	\$1,274,314	\$1,274,314	\$970,087	\$661,956	\$353,824	\$45,693	\$0	
Total Projected Commodity Revenue	\$43,142,966	\$33,938,686	\$29,595,422	\$25,293,827	\$20,992,232	\$16,690,637	\$12,741,530	
Projected Revenue Loss (Difference from Baseline)		(\$9,204,280)	(\$13,547,544)	(\$17,849,139)	(\$22,150,734)	(\$26,452,330)	(\$30,401,436)	
% Revenue Loss		-21.3%	-31.4%	-41.4%	-51.3%	-61.3%	-70.5%	

Table 14 calculates the cost savings from reduced water use, and Table 15 reflects the FY 2025 net impact of revenue loss to be recovered from surcharges for each stage.

Table 14: Elsinore – FY 2025 Water Loss Expense – Cost Savings

Variable Purchased Water Expenses		FY 2025					
Auld Valley Pipeline WMWD (WREM 17)		\$14,539,164					
TVP Pipeline WMWD (WR24D)		\$9,170,160					
Total Variable Purchased Water Expenses		\$23,709,324					
Variable Purchased Water Unit Cost							
Variable Purchased Water Cost		\$23,709,324					
÷ Baseline Production (HCF)		10,176,941					
Variable Purchased Water Unit Cost (\$/hcf)		\$2.33					
Variable Water Cost Savings	Source	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Reduction in Usage (HCF)	Table 11	1,017,694	2,035,388	3,053,082	4,070,776	5,088,471	6,106,165
x Variable Water Unit Cost		\$2.33	\$2.33	\$2.33	\$2.33	\$2.33	\$2.33
Variable Water Cost Savings		\$2,371,227	\$4,742,455	\$7,113,682	\$9,484,909	\$11,856,136	\$14,227,364

Table 15: Elsinore – FY 2025 Net Impact from Water Shortage Stages

Net Impact from WSCP Stages	Source	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Lost Revenue	Table 13	(\$9,204,280)	(\$13,547,544)	(\$17,849,139)	(\$22,150,734)	(\$26,452,330)	(\$30,401,436)
Water Supply Cost Savings	Table 14	\$2,371,227	\$4,742,455	\$7,113,682	\$9,484,909	\$11,856,136	\$14,227,364
Total Revenue Loss		(\$6,833,052)	(\$8,805,089)	(\$10,735,457)	(\$12,665,825)	(\$14,596,193)	(\$16,174,073)
% Revenue Loss		-16%	-20%	-25%	-29%	-34%	-37%

The Elsinore FY 2025 surcharges are calculated by taking the revenue loss as a percentage of the **Projected Commodity Revenue**, as shown in Table 16. This percent increase is then applied to all base variable rates, maintaining the cost-of-service analysis developed for the District.

Table 16: Elsinore – FY 2025 Elsinore Water Shortage Surcharges

% Increase	Source	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Net Revenue Loss	Table 15	\$6,833,052	\$8,805,089	\$10,735,457	\$12,665,825	\$14,596,193	\$16,174,073
Projected Commodity Revenue	Table 13	\$33,938,686	\$29,595,422	\$25,293,827	\$20,992,232	\$16,690,637	\$12,741,530
Net Revenue Loss / Projected Commodity Revenue		20.13%	29.75%	42.44%	60.34%	87.45%	126.94%

WSCP Surcharge		FY 2025					
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	\$3.13	\$0.64	\$0.94	\$1.33	\$1.89	\$2.74	\$3.98
Tier 2	\$4.11	\$0.83	\$1.23	\$1.75	\$2.48	\$3.60	\$5.22
Tier 3	\$7.39	\$1.49	\$2.20	\$3.14	\$4.46	\$6.47	\$9.39
Tier 4	\$9.62	\$1.94	\$2.87	\$4.09	\$5.81	\$8.42	\$12.22
Irrigation							
Tier 1	\$4.08	\$0.83	\$1.22	\$1.74	\$2.47	\$3.57	\$5.18
Tier 2	\$7.84	\$1.58	\$2.34	\$3.33	\$4.74	\$6.86	\$9.96
Tier 3	\$10.98	\$2.22	\$3.27	\$4.67	\$6.63	\$9.61	\$13.94
Commercial							
Institutional	\$4.03	\$0.82	\$1.20	\$1.72	\$2.44	\$3.53	\$5.12
Inter-Agency Wholesale							
Tier 1	\$3.41	\$0.69	\$1.02	\$1.45	\$2.06	\$2.99	\$4.33
Tier 2	\$6.07	\$1.23	\$1.81	\$2.58	\$3.67	\$5.31	\$7.71
Construction	\$7.03	\$1.42	\$2.10	\$2.99	\$4.25	\$6.15	\$8.93

Temescal Division FY 2024 Surcharges:

The proposed surcharges were developed for the Temescal Division by stage for FY 2024 and FY 2025. Water use reductions for each stage were first applied pro-rata to the highest tiers of Residential (Tier 4) and Irrigation (Tier 3) usage. The usage within these two tiers has the highest potential for cuts and the most significant revenue loss to recover for developing surcharges. As more usage reductions are required to meet the water shortage stage, usage is reduced to each customer class and tier based on the priority shown in Table 17.

Table 17: Temescal – FY 2024 Priority of Usage Reductions

Customer Class	Baseline	Priority
Residential		
Tier 1	64,852	<i>Final Reduction</i>
Tier 2	50,696	<i>3rd Reduction</i>
Tier 3	3,846	<i>2nd Reduction</i>
Tier 4	6,714	<i>1st Reduction</i>
Irrigation		
Tier 1	14,048	<i>3rd Reduction</i>
Tier 2	1,922	<i>2nd Reduction</i>
Tier 3	3,248	<i>1st Reduction</i>
Commercial	25,424	<i>4th Reduction</i>
Total (HCF)	170,750	

Table 18 identifies the total reduction in HCF needed to achieve each water shortage stage, and Table 19 summarizes where the reductions are assumed to occur from customer classes and tiers.

Table 18: Temescal – FY 2024 Total Usage Reductions by Water Shortage Stage

Baseline Usage (HCF)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
	10.0%	20.0%	30.0%	40.0%	50.0%	60.0%
170,750	17,075	34,150	51,225	68,300	85,375	102,450

Table 19: Temescal – FY 2024 Usage Reductions by Customer Class and Tier

% Reduction	FY 2024						
	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Customer Class							
Residential							
Tier 1	64,852	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tier 2	50,696	2.1%	28.5%	54.8%	81.2%	100.0%	100.0%
Tier 3	3,846	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tier 4	6,714	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Irrigation							
Tier 1	14,048	2.1%	28.5%	54.8%	81.2%	100.0%	100.0%
Tier 2	1,922	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tier 3	3,248	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Commercial	25,424	0.0%	0.0%	0.0%	0.0%	19.3%	86.4%
Total (HCF)	170,750						

Usage Reduction (HCF)							
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	64,852	-	-	-	-	-	-
Tier 2	50,696	1,053	14,423	27,793	41,163	50,696	50,696
Tier 3	3,846	3,846	3,846	3,846	3,846	3,846	3,846
Tier 4	6,714	6,714	6,714	6,714	6,714	6,714	6,714
Irrigation							
Tier 1	14,048	292	3,997	7,702	11,407	14,048	14,048
Tier 2	1,922	1,922	1,922	1,922	1,922	1,922	1,922
Tier 3	3,248	3,248	3,248	3,248	3,248	3,248	3,248
Commercial	25,424	-	-	-	-	4,901	21,976
Projected Usage Reduction	170,750	17,075	34,150	51,225	68,300	85,375	102,450

With reductions identified in Table 19, the remaining usage is summarized in Table 20. The corresponding reduced revenue for FY 2024 is shown in Table 21 by taking the usage in Table 20 and multiplying it by the proposed FY 2024 variable rates.

Table 20: Temescal – FY 2024 Remaining Usage by Water Shortage Stage

Customer Class	Baseline Usage (HCF)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	64,852	64,852	64,852	64,852	64,852	64,852	64,852
Tier 2	50,696	49,643	36,273	22,903	9,533	-	-
Tier 3	3,846	-	-	-	-	-	-
Tier 4	6,714	-	-	-	-	-	-
Irrigation							
Tier 1	14,048	13,756	10,051	6,346	2,641	-	-
Tier 2	1,922	-	-	-	-	-	-
Tier 3	3,248	-	-	-	-	-	-
Commercial	25,424	25,424	25,424	25,424	25,424	20,523	3,448
Total Projected Water Sales (HCF)	170,750	153,675	136,600	119,525	102,450	85,375	68,300

Table 21: Temescal – FY 2024 Projected Revenue and Potential Revenue Loss

Customer Class		FY 2024						
Residential								
	Tier 1		\$1.86					
	Tier 2		\$3.68					
	Tier 3		\$5.37					
	Tier 4		\$13.99					
Irrigation								
	Tier 1		\$3.22					
	Tier 2		\$5.99					
	Tier 3		\$15.38					
Commercial			\$3.12					
Projected Commodity Revenue			FY 2024					
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	
Residential								
	Tier 1	\$120,625	\$120,625	\$120,625	\$120,625	\$120,625	\$120,625	\$120,625
	Tier 2	\$186,561	\$182,686	\$133,484	\$84,282	\$35,080	\$0	\$0
	Tier 3	\$20,653	\$0	\$0	\$0	\$0	\$0	\$0
	Tier 4	\$93,929	\$0	\$0	\$0	\$0	\$0	\$0
Irrigation								
	Tier 1	\$45,235	\$44,295	\$32,365	\$20,435	\$8,506	\$0	\$0
	Tier 2	\$11,513	\$0	\$0	\$0	\$0	\$0	\$0
	Tier 3	\$49,954	\$0	\$0	\$0	\$0	\$0	\$0
Commercial								
		\$79,323	\$79,323	\$79,323	\$79,323	\$79,323	\$64,032	\$10,758
Total Projected Commodity Revenue		\$607,792	\$426,928	\$365,796	\$304,665	\$243,533	\$184,656	\$131,382
Projected Revenue Loss <i>(Difference from Baseline)</i>			(\$180,864)	(\$241,996)	(\$303,128)	(\$364,260)	(\$423,136)	(\$476,410)
<i>% Revenue Loss</i>			-29.8%	-39.8%	-49.9%	-59.9%	-69.6%	-78.4%

In addition to revenue losses, the District will also reduce certain expenses, generating cost savings. Table 22 calculates the cost savings from reduced water use, and Table 23 reflects the FY 2024 net impact of revenue loss to be recovered from surcharges for each stage.

Table 22: Temescal – FY 2024 Water Loss Expense – Cost Savings

Variable Water Production Expenses		FY 2024						
	Wells - Electricity		\$163,727					
	Wells - Chemical & Other Treatment		\$61,000					
Total Variable Water Production Expenses			\$224,727					
Variable Water Production Unit Costs								
	Variable Production Costs		\$224,727					
	÷ Baseline Production (HCF)		\$397,267					
Variable Production Costs (\$/HCF)			\$0.57					
Variable Water Cost Savings	Source	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	
	Reduction in Usage (HCF)	Table 19	17,075	34,150	51,225	68,300	85,375	102,450
	x Variable Water Unit Cost		\$0.57	\$0.57	\$0.57	\$0.57	\$0.57	\$0.57
Variable Water Cost Savings			\$9,733	\$19,466	\$29,198	\$38,931	\$48,664	\$58,397

Table 23: Temescal – FY 2024 Net Impact from Water Shortage Stages

Net Impact from WSCP Stages	Source	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Lost Revenue	Table 21	(\$180,864)	(\$241,996)	(\$303,128)	(\$364,260)	(\$423,136)	(\$476,410)
Water Supply Cost Savings	Table 22	\$9,733	\$19,466	\$29,198	\$38,931	\$48,664	\$58,397
Total Revenue Loss		(\$171,132)	(\$222,531)	(\$273,930)	(\$325,329)	(\$374,472)	(\$418,013)
% Revenue Loss		-28%	-37%	-45%	-54%	-62%	-69%

The Temescal FY 2024 surcharges are calculated by taking the revenue loss as a percentage of the **Projected Commodity Revenue**, as shown in Table 24. This percent increase is then applied to all base variable rates, maintaining the cost-of-service analysis developed for the District.

Table 24: Temescal – FY 2024 Temescal Water Shortage Surcharges

% Increase	Source	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Net Revenue Loss	Table 23	\$171,132	\$222,531	\$273,930	\$325,329	\$374,472	\$418,013
Projected Commodity Revenue	Table 21	\$426,928	\$365,796	\$304,665	\$243,533	\$184,656	\$131,382
Net Revenue Loss / Projected Commodity Revenue		40.08%	60.83%	89.91%	133.59%	202.79%	318.17%

WSCP Surcharges		FY 2024					
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	\$1.86	\$0.75	\$1.14	\$1.68	\$2.49	\$3.78	\$5.92
Tier 2	\$3.68	\$1.48	\$2.24	\$3.31	\$4.92	\$7.47	\$11.71
Tier 3	\$5.37	\$2.16	\$3.27	\$4.83	\$7.18	\$10.90	\$17.09
Tier 4	\$13.99	\$5.61	\$8.52	\$12.58	\$18.69	\$28.38	\$44.52
Irrigation							
Tier 1	\$3.22	\$1.30	\$1.96	\$2.90	\$4.31	\$6.53	\$10.25
Tier 2	\$5.99	\$2.41	\$3.65	\$5.39	\$8.01	\$12.15	\$19.06
Tier 3	\$15.38	\$6.17	\$9.36	\$13.83	\$20.55	\$31.19	\$48.94
Commercial	\$3.12	\$1.26	\$1.90	\$2.81	\$4.17	\$6.33	\$9.93

Temescal Division FY 2025 Surcharges:

The Temescal FY 2025 water shortage surcharges use the same approach that was used for FY 2024. Table 25 identifies the usage for FY 2025 with the same priority reductions and Table 26 provides the total reduction needed for each shortage stage.

Table 25: Temescal – FY 2025 Priority of Usage Reductions

Customer Class	Baseline	Priority
Residential		
Tier 1	64,852	<i>Final Reduction</i>
Tier 2	50,696	<i>3rd Reduction</i>
Tier 3	3,846	<i>2nd Reduction</i>
Tier 4	6,714	<i>1st Reduction</i>
Irrigation		
Tier 1	14,048	<i>3rd Reduction</i>
Tier 2	1,922	<i>2nd Reduction</i>
Tier 3	3,248	<i>1st Reduction</i>
Commercial	25,424	<i>4th Reduction</i>
Total (HCF)	170,750	

Table 26: Temescal – FY 2025 Total Usage Reductions by Water Shortage Stage

Baseline Usage (HCF)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
	10.0%	20.0%	30.0%	40.0%	50.0%	60.0%
170,750	17,075	34,150	51,225	68,300	85,375	102,450

Table 27 summarizes where the reductions are assumed to occur from customer classes and tiers by applying the priority hierarchy identified in Table 25.

Table 27: Temescal – FY 2025 Usage Reductions by Customer Class and Tier

% Reduction	FY 2025							
	Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential								
Tier 1	64,852	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tier 2	50,696	2.1%	28.5%	54.8%	81.2%	100.0%	100.0%	100.0%
Tier 3	3,846	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tier 4	6,714	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Irrigation								
Tier 1	14,048	2.1%	28.5%	54.8%	81.2%	100.0%	100.0%	100.0%
Tier 2	1,922	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Tier 3	3,248	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Commercial	25,424	0.0%	0.0%	0.0%	0.0%	19.3%	86.4%	
Total (HCF)	170,750							
Usage Reduction (HCF)								
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	
Residential								
Tier 1	64,852	-	-	-	-	-	-	-
Tier 2	50,696	1,053	14,423	27,793	41,163	50,696	50,696	50,696
Tier 3	3,846	3,846	3,846	3,846	3,846	3,846	3,846	3,846
Tier 4	6,714	6,714	6,714	6,714	6,714	6,714	6,714	6,714
Irrigation								
Tier 1	14,048	292	3,997	7,702	11,407	14,048	14,048	14,048
Tier 2	1,922	1,922	1,922	1,922	1,922	1,922	1,922	1,922
Tier 3	3,248	3,248	3,248	3,248	3,248	3,248	3,248	3,248
Commercial	25,424	-	-	-	-	4,901	21,976	
Projected Usage Reduction	170,750	17,075	34,150	51,225	68,300	85,375	102,450	

With reductions identified in Table 27, the remaining usage is summarized in Table 28. The corresponding reduced revenue for FY 2025 is shown in Table 29 by taking the usage in Table 28 and multiplying it by the proposed FY 2025 variable rates.

Table 28: Temescal – FY 2025 Remaining Usage by Water Shortage Stage

Customer Class	Baseline Usage (HCF)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	64,852	64,852	64,852	64,852	64,852	64,852	64,852
Tier 2	50,696	49,643	36,273	22,903	9,533	-	-
Tier 3	3,846	-	-	-	-	-	-
Tier 4	6,714	-	-	-	-	-	-
Irrigation							
Tier 1	14,048	13,756	10,051	6,346	2,641	-	-
Tier 2	1,922	-	-	-	-	-	-
Tier 3	3,248	-	-	-	-	-	-
Commercial	25,424	25,424	25,424	25,424	25,424	20,523	3,448
Total Projected Water Sales (HCF)	170,750	153,675	136,600	119,525	102,450	85,375	68,300

Table 29: Temescal – FY 2025 Projected Revenue and Potential Revenue Loss

Commodity Rate (\$/HCF)								
Customer Class	FY 2025							
Residential								
Tier 1		\$2.15						
Tier 2		\$4.25						
Tier 3		\$6.19						
Tier 4		\$16.12						
Irrigation								
Tier 1		\$3.72						
Tier 2		\$6.91						
Tier 3		\$17.73						
Commercial		\$3.60						
Projected Commodity Revenue		FY 2025						
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	
Residential								
Tier 1	\$139,432	\$139,432	\$139,432	\$139,432	\$139,432	\$139,432	\$139,432	
Tier 2	\$215,458	\$210,982	\$154,159	\$97,336	\$40,513	\$0	\$0	
Tier 3	\$23,807	\$0	\$0	\$0	\$0	\$0	\$0	
Tier 4	\$108,230	\$0	\$0	\$0	\$0	\$0	\$0	
Irrigation								
Tier 1	\$52,259	\$51,173	\$37,391	\$23,609	\$9,826	\$0	\$0	
Tier 2	\$13,281	\$0	\$0	\$0	\$0	\$0	\$0	
Tier 3	\$57,587	\$0	\$0	\$0	\$0	\$0	\$0	
Commercial	\$91,526	\$91,526	\$91,526	\$91,526	\$91,526	\$73,883	\$12,413	
Total Projected Commodity Revenue	\$701,579	\$493,113	\$422,508	\$351,903	\$281,298	\$213,315	\$151,845	
Projected Revenue Loss (Difference from Baseline)		(\$208,466)	(\$279,071)	(\$349,676)	(\$420,282)	(\$488,265)	(\$549,735)	
<i>% Revenue Loss</i>		<i>-29.7%</i>	<i>-39.8%</i>	<i>-49.8%</i>	<i>-59.9%</i>	<i>-69.6%</i>	<i>-78.4%</i>	

Table 30 calculates the cost savings from reduced water use, and Table 31 reflects the FY 2025 net impact of revenue loss to be recovered from surcharges for each stage.

Table 30: Temescal – FY 2025 Water Loss Expense – Cost Savings

Variable Water Production Expenses		FY 2025						
Wells - Electricity		\$171,910						
Wells - Chemical & Other Treatment		\$64,050						
Total Variable Water Production Expenses		\$235,960						
Variable Water Production Unit Costs								
Variable Production Costs		\$235,960						
÷ Baseline Production (HCF)		\$397,267						
Variable Production Costs (\$/HCF)		\$0.59						
Variable Water Cost Savings		Source	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Reduction in Usage (HCF)		Table 27	17,075	34,150	51,225	68,300	85,375	102,450
x Variable Water Unit Cost			\$0.59	\$0.59	\$0.59	\$0.59	\$0.59	\$0.59
Variable Water Cost Savings			\$10,074	\$20,149	\$30,223	\$40,297	\$50,371	\$60,446

Table 31: Temescal – FY 2025 Net Impact from Water Shortage Stages

Net Impact from WSCP Stages	Source	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Lost Revenue	Table 29	(\$208,466)	(\$279,071)	(\$349,676)	(\$420,282)	(\$488,265)	(\$549,735)
Water Supply Cost Savings	Table 30	\$10,074	\$20,149	\$30,223	\$40,297	\$50,371	\$60,446
Total Revenue Loss		(\$198,392)	(\$258,923)	(\$319,454)	(\$379,985)	(\$437,893)	(\$489,289)

The Temescal FY 2025 surcharges are calculated by taking the revenue loss as a percentage of the **Projected Commodity Revenue**, as shown in Table 32. This percent increase is then applied to all base variable rates, maintaining the cost-of-service analysis developed for the District.

Table 32: Temescal – FY 2025 Elsinore Water Shortage Surcharges

% Increase	Source	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Net Revenue Loss	Table 31	\$198,392	\$258,923	\$319,454	\$379,985	\$437,893	\$489,289
Projected Commodity Revenue	Table 29	\$493,113	\$422,508	\$351,903	\$281,298	\$213,315	\$151,845
Net Revenue Loss / Projected Commodity Revenue		40.23%	61.28%	90.78%	135.08%	205.28%	322.23%
WSCP Surcharges		FY 2025					
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Residential							
Tier 1	\$2.15	\$0.87	\$1.32	\$1.96	\$2.91	\$4.42	\$6.93
Tier 2	\$4.25	\$1.71	\$2.61	\$3.86	\$5.75	\$8.73	\$13.70
Tier 3	\$6.19	\$2.50	\$3.80	\$5.62	\$8.37	\$12.71	\$19.95
Tier 4	\$16.12	\$6.49	\$9.88	\$14.64	\$21.78	\$33.10	\$51.95
Irrigation							
Tier 1	\$3.72	\$1.50	\$2.28	\$3.38	\$5.03	\$7.64	\$11.99
Tier 2	\$6.91	\$2.79	\$4.24	\$6.28	\$9.34	\$14.19	\$22.27
Tier 3	\$17.73	\$7.14	\$10.87	\$16.10	\$23.96	\$36.40	\$57.14
Commercial	\$3.60	\$1.45	\$2.21	\$3.27	\$4.87	\$7.40	\$11.61