



City of Polk City, Iowa

Observations and Considerations for Regional Water

Matthew Stoffel, CFA
Senior Managing Consultant

December 11, 2023

PFM Financial
Advisors LLC

801 Grand Avenue
Suite 3300
Des Moines, IA

www.pfm.com



Table of Contents

- ◆ 28E/28F Timeline
- ◆ Mandatory Rate Principles (Schedule VI-2)
- ◆ CIWW Revenue Requirements
- ◆ City of Polk City Preliminary Cost Allocations
- ◆ City of Polk City Rate Projection Comparison
- ◆ Observations and Considerations



28E/28F Timeline

This timeline was provided on September 15th and continues to be amended as Member Agencies considering the 28E/F communicate what is practical for each member community.

- ❖ September/October – Communities review Agreement. Proofing of the draft and refinement of schedules will continue.
- ❖ October – List of Founding Agencies is established by October 15. Execution Version of the 28E/28F Agreement is distributed by October 31.
- ❖ November– Member Agencies pass a Resolution of Intent by November 15th.
- ❖ November – Interested Member Agencies initiate formal proceedings to form CIWW and to join the Execution Version of Final CIWW 28E/F Agreement.
- ❖ November 2023 to January 2024 – Interested Member Agencies publish required public notices.
- ❖ December 2023 to January 2024 – Member Agencies hold formal public hearings and pass final binding resolutions to join in formation to CIWW by adoption of the Execution Version of Final CIWW 28E/F Agreement.
- ❖ End of First Quarter 2024 – Member Agencies name Board Members and Board is seated.
- ❖ January 2025 – Operational Commencement of CIWW.



Mandatory Rate Principles (Schedule VI-2)

Cost/Expenditure Description	Base Costs	Extra-Capacity Costs	Allocated Capacity Costs	Member Agency Specific Expansion Costs
Allocation Based on:	Average Day	Maximum Day	Allocated System Capacity	Pro Rata Share of Growth
Variable Costs of Operating Leases	X			
Fixed Costs of Operating Leases	X	X		
CIWW Organizational Costs	X	X		
Joint Capital Debt Service	X	X		
Joint Capital Cash Funding	X	X		
Shared Growth Debt Service (9%)			X	
Shared Growth Cash Funding (9%)			X	
Allocated Growth Debt Service (91%)				X
Allocated Growth Cash Funding (91%)				X
Totals	\$XX	\$XX	\$XX	\$XX
Units	Total CIWW Volume Projected to be Produced for the year in MG	Total of Member Agencies' 5-year average MDD in MGD	Total of Member Agencies' Allocated Capacity in MGD	Member Agency Specific
Unit Cost	\$/ MG	\$/ MGD	\$/ MGD	\$/ Month
Charge Type	Variable	Fixed	Fixed	Fixed
	Uniform cost per unit applicable to all Member Agencies		Specific to each Member Agency	Specific to each Member Agency



CIWW Projected Revenue Requirements

	Year	1	2	3	4	5	6	7	8	9	10
Base Costs (Average Day)											
Variable Costs of Operating Leases		\$16,291,517	\$16,666,222	\$17,049,545	\$17,441,684	\$17,842,843	\$18,253,229	\$18,673,053	\$19,102,533	\$19,541,891	\$19,991,355
Fixed Costs of Operating Leases		\$14,883,709	\$15,767,751	\$16,130,409	\$16,501,409	\$16,859,781	\$17,247,556	\$17,644,250	\$18,050,068	\$18,465,219	\$18,889,919
CIWW Organizational Costs		\$2,596,289	\$1,768,289	\$1,768,289	\$1,768,289	\$276,000	\$276,000	\$276,000	\$276,000	\$276,000	\$276,000
Joint Capital Debt Service		\$1,111,827	\$1,111,662	\$1,110,630	\$1,110,392	\$1,110,370	\$1,110,006	\$1,108,753	\$1,109,371	\$1,108,510	\$1,036,645
Joint Capital Cash Funding		\$10,168,658	\$12,532,845	\$13,478,104	\$13,276,598	\$13,581,960	\$13,894,345	\$14,213,915	\$14,540,835	\$14,875,274	\$15,217,406
Total Base Costs		\$45,052,001	\$47,846,768	\$49,536,977	\$50,098,373	\$49,670,955	\$50,781,136	\$51,915,971	\$53,078,807	\$54,266,895	\$55,411,325
Annual Demand (MG)		20,336.41	20,804.15	21,282.64	21,772.14	22,272.90	22,785.18	23,309.24	23,845.35	24,393.79	24,954.85
Unit Cost per MG		\$2,215	\$2,300	\$2,328	\$2,301	\$2,230	\$2,229	\$2,227	\$2,226	\$2,225	\$2,220
Unit Cost per Kgal		\$2.22	\$2.30	\$2.33	\$2.30	\$2.23	\$2.23	\$2.23	\$2.23	\$2.22	\$2.22
Extra-Capacity Costs (Maximum Day)											
Fixed Costs of Operating Leases		\$12,079,532	\$12,797,015	\$13,091,347	\$13,392,447	\$13,683,301	\$13,998,017	\$14,319,971	\$14,649,330	\$14,986,265	\$15,330,949
CIWW Organizational Costs		\$2,107,133	\$1,435,133	\$1,435,133	\$1,435,133	\$224,000	\$224,000	\$224,000	\$224,000	\$224,000	\$224,000
Joint Capital Debt Service		\$902,353	\$902,218	\$901,380	\$901,188	\$901,170	\$900,874	\$899,857	\$900,359	\$899,660	\$841,335
Joint Capital Cash Funding		\$8,252,824	\$10,171,584	\$10,938,751	\$10,775,210	\$11,023,040	\$11,276,570	\$11,535,931	\$11,801,258	\$12,072,687	\$12,350,358
Total Extra-Capacity Costs		\$23,341,842	\$25,305,951	\$26,366,611	\$26,503,979	\$25,831,511	\$26,399,461	\$26,979,759	\$27,574,947	\$28,182,612	\$28,746,642
Maximum Day (5-year Average)		102.154	103.176	104.207	105.249	106.302	107.365	108.439	109.523	110.618	111.724
Unit Cost (\$ per MGD)		\$228,497	\$245,271	\$253,021	\$251,821	\$243,001	\$245,885	\$248,802	\$251,773	\$254,774	\$257,300
Member Agency Expansion Costs (Allocated Capacity)											
Shared Growth Debt Service (9%)		\$73,553	\$324,732	\$743,268	\$937,672	\$1,170,138	\$1,170,313	\$1,170,225	\$1,170,117	\$1,170,224	\$1,170,139
Shared Growth Cash Funding (9%)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Member Agency Expansion Costs (9%)		\$324,732	\$324,732	\$743,268	\$937,672	\$1,170,138	\$1,170,313	\$1,170,225	\$1,170,117	\$1,170,224	\$1,170,139
Member Agency Expansion Costs (Growth)											
Allocated Growth Debt Service (91%)		\$743,701	\$3,283,399	\$7,515,263	\$9,480,908	\$11,831,393	\$11,833,166	\$11,832,273	\$11,831,183	\$11,832,262	\$11,831,408
Allocated Growth Cash Funding (91%)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Member Agency Expansion Costs (91%)		\$743,701	\$3,283,399	\$7,515,263	\$9,480,908	\$11,831,393	\$11,833,166	\$11,832,273	\$11,831,183	\$11,832,262	\$11,831,408
Total Cost by Type											
Variable Costs of Operating Leases		\$16,291,517	\$16,666,222	\$17,049,545	\$17,441,684	\$17,842,843	\$18,253,229	\$18,673,053	\$19,102,533	\$19,541,891	\$19,991,355
Fixed Costs of Operating Leases		\$26,963,241	\$28,564,766	\$29,221,756	\$29,893,856	\$30,543,082	\$31,245,573	\$31,964,221	\$32,699,398	\$33,451,484	\$34,220,868
CIWW Organizational Costs		\$4,703,422	\$3,203,422	\$3,203,422	\$3,203,422	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
Joint Capital Debt Service		\$2,014,180	\$2,013,880	\$2,012,010	\$2,011,580	\$2,011,540	\$2,010,880	\$2,008,610	\$2,009,730	\$2,008,170	\$1,877,980
Joint Capital Cash Funding		\$18,421,483	\$22,704,429	\$24,416,855	\$24,051,809	\$24,605,000	\$25,170,915	\$25,749,846	\$26,342,093	\$26,947,961	\$27,567,764
Shared Growth Debt Service		\$73,553	\$324,732	\$743,268	\$937,672	\$1,170,138	\$1,170,313	\$1,170,225	\$1,170,117	\$1,170,224	\$1,170,139
Shared Growth Cash Funding		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Allocated Growth Debt Service		\$743,701	\$3,283,399	\$7,515,263	\$9,480,908	\$11,831,393	\$11,833,166	\$11,832,273	\$11,831,183	\$11,832,262	\$11,831,408
Allocated Growth Cash Funding		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Revenue Requirements		\$69,211,097	\$76,760,850	\$84,162,118	\$87,020,931	\$88,503,996	\$90,184,076	\$91,898,228	\$93,655,053	\$95,451,992	\$97,159,514
Average Estimated Effective Rate per Kgal		\$3.40	\$3.69	\$3.95	\$4.00	\$3.97	\$3.96	\$3.94	\$3.93	\$3.91	\$3.89



City of Polk City - Preliminary Cost Allocations

Year	1	2	3	4	5	6	7	8	9	10
Base Costs (Average Day)										
Annual Demand (MG)	199.61	204.20	208.90	213.70	218.62	223.65	228.79	234.05	239.43	244.94
Unit Cost per MG	\$2,215	\$2,300	\$2,328	\$2,301	\$2,230	\$2,229	\$2,227	\$2,226	\$2,225	\$2,220
Unit Cost per Kgal	\$2.22	\$2.30	\$2.33	\$2.30	\$2.23	\$2.23	\$2.23	\$2.23	\$2.22	\$2.22
Base Costs (Average Day)	\$442,203	\$469,635	\$486,225	\$491,736	\$487,540	\$498,437	\$509,576	\$520,990	\$532,651	\$543,884
Extra-Capacity Costs (Maximum Day)										
Maximum Day (5-year Average)	1.216	1.228	1.240	1.253	1.265	1.278	1.291	1.304	1.317	1.330
Unit Cost (\$ per MGD)	\$228,497	\$245,271	\$253,021	\$251,821	\$243,001	\$245,885	\$248,802	\$251,773	\$254,774	\$257,300
Total Extra-Capacity Costs	\$277,852	\$301,232	\$313,858	\$315,493	\$307,488	\$314,249	\$321,156	\$328,241	\$335,474	\$342,188
Member Agency Expansion Costs (Allocated Capacity)										
Shared Growth Debt Service (9%)	\$919	\$4,059	\$9,291	\$11,721	\$14,627	\$14,629	\$14,628	\$14,626	\$14,628	\$14,627
Shared Growth Cash Funding (9%)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Member Agency Expansion Costs (9%)	\$919	\$4,059	\$9,291	\$11,721	\$14,627	\$14,629	\$14,628	\$14,626	\$14,628	\$14,627
Member Agency Expansion Costs (Growth)										
Allocated Growth Debt Service (91%)	\$10,999	\$48,561	\$111,151	\$140,223	\$174,986	\$175,013	\$174,999	\$174,983	\$174,999	\$174,987
Allocated Growth Cash Funding (91%)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Member Agency Expansion Costs (91%)	\$10,999	\$48,561	\$111,151	\$140,223	\$174,986	\$175,013	\$174,999	\$174,983	\$174,999	\$174,987
Total Cost by Type										
Variable Costs	\$442,203	\$469,635	\$486,225	\$491,736	\$487,540	\$498,437	\$509,576	\$520,990	\$532,651	\$543,884
Fixed Cost	\$289,771	\$353,852	\$434,299	\$467,436	\$497,101	\$503,890	\$510,783	\$517,851	\$525,101	\$531,802
Total Cost	\$731,974	\$823,488	\$920,524	\$959,172	\$984,641	\$1,002,327	\$1,020,359	\$1,038,840	\$1,057,753	\$1,075,686
Variable Costs	60%	57%	53%	51%	50%	50%	50%	50%	50%	51%
Fixed Cost	40%	43%	47%	49%	50%	50%	50%	50%	50%	49%
Monthly Cost per Kgal	\$2.22	\$2.30	\$2.33	\$2.30	\$2.23	\$2.23	\$2.23	\$2.23	\$2.22	\$2.22
Fixed Cost per Month	\$24,148	\$29,488	\$36,192	\$38,953	\$41,425	\$41,991	\$42,565	\$43,154	\$43,758	\$44,317



City of Polk City – Rate Projection Comparison (current rate planning model)

CITY OF POLK CITY, IOWA

EXHIBIT 1

Water Enterprise Fund

Growth Assumptions	
Water Sales Growth	1.00%
Customer Growth (Meters per Year)	75
Operating Expenses	Various

WATER REVENUE ADJUSTMENTS					
1-Apr-17	10.00%	1-Apr-21	6.50%	1-Jul-25	10.00%
1-Apr-18	9.96%	1-Jul-22	3.00%	1-Jul-26	10.00%
1-Apr-19	10.03%	1-Jul-23	10.00%	1-Jul-27	10.00%
1-Apr-20	7.12%	1-Jul-24	10.00%	1-Jul-28	10.00%

	Audited	Audited	Audited	Budget	Budget	Projected	Projected	Projected	Projected	Projected
	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
	Apr-20	Apr-21	Apr-22	Apr-23	Apr-24	Apr-25	Apr-26	Apr-27	Apr-28	Apr-29
DMWW Rate/1,000 Gallons										
With Storage Rate 20	\$4.44	\$4.57	\$4.57	\$4.57	\$4.80	\$5.04	\$5.29	\$5.55	\$5.83	\$6.12
Purchased Capacity Rate 21	\$2.33	\$2.68	\$3.08	\$3.39	\$3.73	\$4.10	\$4.51	\$4.96	\$5.46	\$6.01
Purchased Water Percentage 22	53%	69%	68%	70%	70%	70%	70%	70%	70%	70%
Ave. \$\$ per 1,000 Gallons Purchased 23	\$2.88	\$3.04	\$3.54	\$3.55	\$3.91	\$4.25	\$4.60	\$4.96	\$5.35	\$5.75
Total Water Purchased (DMWW) 24	112,948	129,224	121,486	122,149	123,093	124,046	125,008	125,980	126,962	127,954
Total Water Produced (Polk City) 25	99,620	56,810	56,810	52,350	52,754	53,162	53,575	53,992	54,412	54,837
Total Water 26	212,568	186,034	178,296	174,499	175,847	177,208	178,583	179,972	181,375	182,791
Unaccounted for Water 27	38%	23%	24%	30%	30%	30%	30%	30%	30%	30%
Operating Expenses	33%	24%	0%	16%	10%	5%	9%	2%	5%	8%
Administration 28	\$224,667	\$369,795	\$355,424	\$445,050	\$485,400	\$500,452	\$516,044	\$532,198	\$548,934	\$566,275
Repair & Maintenance 29	16,814	27,396	26,085	61,500	59,000	59,000	59,000	59,000	59,000	59,000
DMWW Purchased Water 30	325,718	392,829	429,966	433,896	481,715	526,840	574,700	625,455	679,275	736,339
DMWW Miscellaneous	0	0	0	0	0	0	0	0	0	0
Sales Tax/Excise Tax Expense 31	50,867	67,007	80,894	83,000	93,000	93,000	93,000	93,000	93,000	93,000
Other Operational Expenses 32	<u>240,909</u>	<u>205,477</u>	<u>174,953</u>	<u>215,200</u>	<u>245,550</u>	<u>248,015</u>	<u>317,280</u>	<u>279,419</u>	<u>292,009</u>	<u>349,137</u>
Total Operating Expense 33	\$858,976	\$1,062,504	\$1,067,322	\$1,238,647	\$1,364,665	\$1,427,307	\$1,560,025	\$1,589,072	\$1,672,218	\$1,803,752



City of Polk City – Rate Projection Comparison (CIWW projections)

CITY OF POLK CITY, IOWA
Water Enterprise Fund

EXHIBIT 1

Growth Assumptions	
Water Sales Growth	1.00%
Max Day Demand Growth (5 year average)	1.00%
Customer Growth (Meters per Year)	75
Operating Expenses	Various

WATER REVENUE ADJUSTMENTS					
1-Apr-17	10.00%	1-Apr-21	6.50%	1-Jul-25	10.00%
1-Apr-18	9.96%	1-Jul-22	3.00%	1-Jul-26	10.00%
1-Apr-19	10.03%	1-Jul-23	10.00%	1-Jul-27	10.00%
1-Apr-20	7.12%	1-Jul-24	10.00%	1-Jul-28	10.00%

	Audited	Audited	Audited	Budget	Budget	Projected	Projected	Projected	Projected	Projected
	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
	Apr-20	Apr-21	Apr-22	Apr-23	Apr-24	Apr-25	Apr-26	Apr-27	Apr-28	Apr-29
DMWW Rate/1,000 Gallons										
With Storage Rate 20	\$4.44	\$4.57	\$4.57	\$4.57	\$4.71	\$4.95	\$5.20	\$5.46	\$5.73	\$6.02
Purchased Capacity Rate 21	\$2.33	\$2.68	\$3.08	\$3.39	\$3.59	\$3.95	\$4.35	\$4.79	\$5.27	\$5.80
Purchased Water Percentage 22	53%	69%	68%	70%	70%	70%	70%	70%	70%	70%
Base Costs (\$ per kgal) 23						\$2.22	\$2.30	\$2.33	\$2.23	\$2.23
Extra Capacity Costs (\$ per MGD) 24						\$228,497	\$245,271	\$253,021	\$251,821	\$243,001
CIWW 5 Year Average MDD (MGD) 25						1,216	1,228	1,240	1,252	1,265
Ave. \$\$ per 1,000 Gallons Purchased 26	\$2.88	\$3.04	\$3.54	\$3.55	\$3.89	\$4.15	\$4.51	\$4.87	\$5.24	\$5.63
Total Water Purchased (DMWW) 27	112,948	129,224	121,486	122,149	123,093	124,046	125,008	125,980	126,962	127,954
Total Water Produced (Polk City) 28	99,620	56,810	56,810	52,350	52,754	53,162	53,575	53,992	54,412	54,837
Total Water 29	212,568	186,034	178,296	174,499	175,847	177,208	178,583	179,972	181,375	182,791
Unaccounted for Water 30	38%	23%	24%	30%	30%	30%	30%	30%	30%	30%
Operating Expenses 31	33%	24%	0%	16%	10%	3%	11%	4%	3%	6%
Administration 31	\$224,667	\$369,795	\$355,424	\$445,050	\$485,400	\$500,452	\$516,044	\$532,198	\$548,934	\$566,275
Repair & Maintenance 32	16,814	27,396	26,085	61,500	59,000	59,000	59,000	59,000	59,000	59,000
DMWW Purchased Water 33	325,718	392,829	429,966	433,896	479,355	257,703	0	0	0	0
CIWW Cost Recovery 34						(91,750)	(187,721)	(192,038)	(196,455)	(200,973)
CIWW Base Costs (Variable) 35						196,701	410,741	419,335	404,466	407,625
CIWW Extra Capacity Costs (Fixed) 36						138,926	301,193	313,746	315,280	307,397
CIWW Expansion-Allocated (Fixed) 37						460	4,059	9,291	11,721	14,627
CIWW-Growth (Fixed) 38						5,500	48,561	111,151	140,223	174,986
Sales Tax/Excise Tax Expense 39	50,867	67,007	80,894	83,000	93,000	93,000	93,000	93,000	93,000	93,000
Other Operational Expenses 40	240,909	205,477	174,953	215,200	245,550	248,015	317,280	279,419	292,009	349,137
Total Operating Expense 41	\$858,976	\$1,062,504	\$1,067,322	\$1,238,646	\$1,362,305	\$1,408,007	\$1,562,159	\$1,625,101	\$1,668,177	\$1,771,074



Observations and Considerations

- ❖ Producer cost allocations based on 2023 budgets for DMWW and WDMWW. Fiscal Year 2023-2024 for Grimes and Polk City.
- ❖ City of Polk City Allocations Percentages based on 2018-2022 5 year average data:
 - 0.982% of Average Daily Demand
 - 1.190% of Maximum Daily Demand
 - 1.250% of Initial Capacity
 - 1.479% of Allocated Growth
- ❖ The asset transfer framework will change based on book value of assets as of December 31, 2024.
- ❖ Regional water appears to offer financial benefit for the City of Polk City. The City currently exceeds its purchased capacity on an annual basis, which increases the cost of water to the City for the next calendar year. The five year average and mandatory rate setting principals will lead to more predictable cost of water from one year to the next.
- ❖ However, the new framework will likely shift additional risk to the City as it relates to paying for water production under various weather cycles.