Memorandum

BURNS McDONNELL

Date: July 29, 2022

To: Mark Siefert

From: Dave Naumann

Subject: Financial Plan Sensitivities Regarding West Plant Project Costs – Updated 7.29

In the rate study published early in 2022, improvements in the Crest Hill sewer utility's west treatment plant were anticipated at a cost of about $45 million, financed through an Illinois Environmental Protection Agency (IEPA) state revolving loan over 20 years and an assumed interest rate of 1.0 percent. Crest Hill has typically qualified as a small/disadvantaged community IEPA incentives, which can lead to loan forgiveness, a lower interest rate, and up to a 30-year loan term. For the rate study, we assumed the loan would be financed without these incentives as they are not guaranteed, which reflects a relatively cautious and conservative approach to financial planning.

Crest Hill has received updated cost assumptions for the west plant project as well as additional clarification on construction engineering services and IEPA loan terms including contingency reserve requirements. Further, preliminary operation and maintenance costs for the new west plant have been estimated.

Table 1 summarizes the assumed costs and terms for the west plant project in the rate study as compared to the current understanding. As shown on Table 1, the all-in project cost for the west plant was assumed to be $45 million in the rate study. Current estimates of the project cost reflect $50.64 million in construction, but that excluded constructing engineering, and a contingency reserve required by the IEPA of 3% of the project. Further, because the construction cost of $50.64 million exceeds the maximum approved IEPA loan amount, the difference of $1.14 million will need to be funded from cash.

Table 1 – West Plant Project Cost Comparison

Line No.	Rate Study		Update	
1	Project Cost	45,000,000	Project Cost	50,640,000
2	Maximum Gross Loan Amount	45,000,000	Maximum Gross Loan Amount	49,500,000
3	Principal Forgiveness	-	Principal Forgiveness	5,000,000
4	Loan Amount	45,000,000	Loan Amount	44,500,000
5	Interest Rate	1.00%	Interest Rate	0.73%
6	Loan Duration	20	Loan Duration	30
7	First Year of Full P&I	2025	First Year of Full P&I	2027
8	Full Annual P&I Expense	2,493,700	Full Annual P&I Expense	1,657,100
9	Contingency - IEPA 3%	-	Contingency - IEPA 3%	1,519,200
10	Construction Engineering - Cash Funded	-	Construction Engineering - Cash Funded	3,720,300
11	Additional Cash Funding	-	Additional Cash Funding	1,140,000
12	Incremental O&M Cost	-	Incremental O&M Cost - 2027 $	243,900

The rate study had much more conservative estimates regarding loan terms. No principal forgiveness, a higher interest rate and a term of 20 years were assumed. Further, the loan repayment was assumed to start 2 years sooner in the rate study.

As shown on Line 8, the full annual principal and interest payment is projected to be less in the update by about $800,000 per year.

Table 2 compares these assumptions showing the annual impact to revenue requirements (i.e. cash obligations). For the rate study, the cost assumptions were simplistic, reflecting only the principal and interest payments for the loan. The payments on Line 1 assume interest payments for the first two years with full payments starting in 2025.

Table 2 – West Plant Project Cash Flow Impact

Line No.		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
	Rate Study											
1	Debt Service Expense	112,500	225,000	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	
2	Construction Engineering											
3	Cash Funded Project Costs											
4	Contingency (cash funded)											
5	Incremental O&M											
6	Total Cost	112,500	225,000	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	20,287,100
7	Total Cash	11,184,400	10,565,800	6,893,500	4,896,300	6,070,700	7,872,100	10,215,200	11,048,200	12,646,200	15,533,500	
	Update											
8	Debt Service Expense (a)	621	55,872	145,337	240,873	1,902,977	1,657,100	1,657,100	1,657,100	1,657,100	1,657,100	
9	Construction Engineering	400,000	830,075	830,075	830,075	830,075						
10	Cash Funded Project Costs					1,140,000						
11	Contingency (cash funded)					1,519,200						
12	Incremental O&M					243,900	248,700	253,600	258,600	263,700	268,900	
13	Total Cost	400,621	885,947	975,412	1,070,948	5,636,152	1,905,800	1,910,700	1,915,700	1,920,800	1,926,000	18,548,080
14	Total Cash	9,454,400	9,086,800	8,649,900	7,176,100	13,683,000	13,874,000	12,385,600	13,776,300	13,655,900	14,088,400	
	Comparison											
15	Annual Cost/ (Savings)	288,121	660,947	(1,518,288)	(1,422,752)	3,142,452	(587,900)	(583,000)	(578,000)	(572,900)	(567,700)	
16	Cumulative Cash Impact Cost / (Savings)		949,068	(569,220)	(1,991,972)	1,150,480	562,580	(20,420)	(598,420)	(1,171,320)	(1,739,020)	

(a) Reflects interest payments on anticipated draws in 2023 through 2027. Full principal and interest payments of ~ $1.6M are also expected to start in 2027.

The update reflects the benefit of $5 million in principal forgiveness, a lower interest rate, and a 30-year term, with full payments assumed to start in 2027. Further, the update reflects the construction engineering cost, cash funding for construction costs in excess of maximum IEPA loan amounts, and the IEPA 3% contingency. Note the contingency is assumed to be spent during the construction period. Further, an allowance for incremental O&M has been made to reflect an additional full time employee and higher electric and other operating expenses.

Line 15 of Table 2 shows the annual difference in the cost estimates used in the rate study and the current update. Fiscal Years 2023, 2024, and 2027 are anticipated to be higher than projected in the rate study. All other years indicate a savings that results from favorable loan terms and a

later start date for full repayment. Through 2032, a net savings of almost $1.7 million is anticipated.

For Crest Hill, the key question is how to fund higher expenses anticipated during FY2023, 2024, and 2027 before savings start to be realized. Our analysis indicates this funding may come from reserves. Or alternately, the City could consider a short term loan to cover these costs.

Beyond the impact of the west plant project, long-term financial planning involves assumptions about future conditions, revenues and costs that will need to be monitored. Key assumptions include:

- Growth in customers and usage
- Estimates of future operation and maintenance expense
- Estimates of future capital project costs

While we believe the utility can absorb the short term increase in costs, it is possible that unfavorable trends in assumptions above regarding customer growth and usage, O&M, or capital costs may prompt the plans to be adjusted in the future.

I'd be happy to discuss this further if you would find that helpful, just let me know.