



BLACK & VEATCH

APPENDIX D - PRICE
PROPOSAL

City of Hagerstown

Water and Wastewater Master Plan Project

January 22, 2026 | Proposal No. P1868.26



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Bid Form

Proposal No. P1868.26

Water and Wastewater Master Plan Project

Bidder Name: Black & Veatch

The Price Proposal shall include the following:

Cover Sheet

Category	Cost - Dollars
Project Management	\$72,145
Regulatory Assessment and Summary	\$70,600
Facility Evaluation (Water)	\$184,990
Facility Evaluation (Wastewater)	\$183,275
Alternatives Analysis and Project Identification (Water)	\$128,095
Alternatives Analysis and Project Identification (Wastewater)	\$192,820
Water Hydraulic Model	\$416,125
Wastewater Hydraulic Model	\$763,995
Capital Improvements Plan Update	\$155,710
Water Asset Management Plan	\$215,125
Wastewater Asset Management Plan	\$195,700
Water Master Plan	\$71,325
Wastewater Master Plan	\$124,385
*ArcGIS Updates	\$17,075
Overall Total (Base + alternate)	\$2,790,365

*ALTERNATE BID ITEM

Detailed Fee

Proposed Fee							
	Project Role	Project Director	Project Director	Project Manager	Senior Water Process Engineer - Emerging Contaminants	QA/QC	Water Process Engineer
	Billing Rate Title	Project Director/ Quality Control	Project Director/ Quality Control	Senior Engineer/Project Manager	Senior Engineer/Project Manager	Project Director/ Quality Control	Engineer II
	Additional Information	Priscilla Buchalla	Mike Hanna	Betsy Baldwin	Adam Feffer	Amanda Schwerman	Hanna Myers
	HOURS\ COST TOTALS IN USD \$:	38	77	507	6	120	300
	BILLING RATE IN USD \$\ MARKUP:	\$ 325.00	\$ 325.00	\$ 280.00	\$ 280.00	\$ 325.00	\$ 175.00
	CONTRACT TOTALS IN USD \$:	\$ 12,350.00	\$ 25,025.00	\$ 141,960.00	\$ 1,680.00	\$ 39,000.00	\$ 52,500.00
Task	Description						
Task 1	Task 1 - Project Management						
1/.01	Admin	27					
1/.02	Kickoff Meeting			4			
1/.03	Progress Meetings (every 2 weeks)	11	20	29			
1/.05	Invoices			27			
	Task 1 Subtotals	38	20	60			
Task 2	Task 2 - Regulatory Assessment and Summary						
2/.01	Master calendar with permit requirements			2			7
2/.02	Master list of current regulatory requirements			2			9
2/.03	Cybersecurity risk assessment						
2/.04	PFA/PFO risk assessment						7
2/.05	Regulatory Evaluation - Water		2		6	2	20
2/.06	Regulatory Evaluation - Wastewater		2	2		2	
2/.07	Regulatory Review Workshop		4	9			7
	Task 2 Subtotals		8	15	6	4	50
Task 3	Task 3 - Facility Evaluation (Water)						
3/.01	Facility Evaluation - Water			9			9
3/.02	WTP Walkthru			9			4
3/.03	Water PS (2-3 days) to identify major issues			16			
3/.04	Evaluate of Capacity and Condition			8			2
3/.05	Facility Evaluation - Wastewater			8			18
3/.06	Technical Memorandum - Water		4	4		4	13
3/.07	Facility Eval Workshop #1			7			9
	Task 3 Subtotals		4	61		4	55
Task 4	Task 4 - Facility Evaluation (Wastewater)						
4/.02	WWTP Walkthru to update plant condition (from "24 criticality work)			20			
4/.03	WW Pump Stations			20			
4/.04	Facility Evaluation - Wastewater			32			
4/.05	Technical Memorandum - Wastewater			18			
4/.06	Facility Eval Workshop # 2		9	13		4	
	Task 4 Subtotals		9	103		4	
Task 5	Task 5 - Water Alternatives Analysis and Project Identification						
5/.01	Id future improvements and upgrades and rehabilitation needs						11
5/.02	Develop treatment process alternatives			8			18
5/.03	Evaluate viable treatment process alternatives		2				9
5/.04	General and facility-specific recommendations						
5/.05	Sensitivity analyses of recommend alternatives						4
5/.06	Id asset replacement and/or rehabilitation projects						
5/.07	Draft Technical Memorandum		4	4		9	
5/.08	Final Technical Memorandum			3		4	
5/.09	Alternatives Analysis Workshop			7			
	Task 5 Subtotals		6	22		13	42

	Project Role	Senior Water Process Engineer	Senior Estttimator	Senior Electrical Engineer	Distribution System Modeling	Distribution System Modeling	Distribution System Modeling	Collection System Modeling	Wastewater Process Engineer	
		Billing Rate Title	Senior Engineer/Project Manager	Senior Estimator/Advisor	Techncial Specialist	Sr. Project Engineer/Estimator	Engineer III	Sr. Advisor	Senior Estimator/Advisor	Sr. Project Engineer/Estimator
		Additional Information	Amanda Canida	Danny Chadwick	Roland Kamdem	Ali Nakhli	Kaneel Shah	Kevin Laptos	Chris Ranck	Isaac Avilla
	HOURS\ COST TOTALS IN USD \$:	203	178	85	581	678	63	359	168	
	BILLING RATE IN USD \$ \ MARKUP:	\$ 280.00	\$ 305.00	\$ 245.00	\$ 235.00	\$ 195.00	\$ 370.00	\$ 305.00	\$ 235.00	
	CONTRACT TOTALS IN USD \$:	\$ 56,840.00	\$ 54,290.00	\$ 20,825.00	\$ 136,535.00	\$ 132,210.00	\$ 23,310.00	\$ 109,495.00	\$ 39,480.00	
Task	Description									
Task 1	Task 1 - Project Management									
1/.01	Admin									
1/.02	Kickoff Meeting									
1/.03	Progress Meetings (every 2 weeks)									
1/.05	Invoices									
	Task 1 Subtotals									
Task 2	Task 2 - Regulatory Assessment and Summary									
2/.01	Master calendar with permit requirements	2								
2/.02	Master list of current regulatory requirements	2								
2/.03	Cybersecurity risk assessment									
2/.04	PFA/PFO risk assessment	2								
2/.05	Regulatory Evaluation - Water	7								
2/.06	Regulatory Evaluation - Wastewater									
2/.07	Regulatory Review Workshop	7								
	Task 2 Subtotals	20								
Task 3	Task 3 - Facility Evaluation (Water)									
3/.01	Facility Evaluation - Water	4								
3/.02	WTP Walkthru	18								
3/.03	Water PS (2-3 days) to identify major issues									
3/.04	Evaluate of Capacity and Condition	2								
3/.05	Facility Evaluation - Wastewater	4								
3/.06	Technical Memorandum - Water	4								
3/.07	Facility Eval Workshop #1	7								
	Task 3 Subtotals	39								
Task 4	Task 4 - Facility Evaluation (Wastewater)									
4/.02	WWTP Walkthru to update plant condition (from '24 criticality work)			9						
4/.03	WW Pump Stations			36						
4/.04	Facility Evaluation - Wastewater			13						
4/.05	Technical Memorandum - Wastewater									
4/.06	Facility Eval Workshop # 2									
	Task 4 Subtotals			58						
Task 5	Task 5 - Water Alternatives Analysis and Project Identification									
5/.01	Id future improvements and upgrades and rehabilitation needs									
5/.02	Develop treatment process alternatives	7								
5/.03	Evaluate viable treatment process alternatives	7	89							
5/.04	General and facility-specific recommendations	4								
5/.05	Sensitivity analyses of recommend alternatives									
5/.06	Id asset replacement and/or rehabilitation projects	18								
5/.07	Draft Technical Memorandum									
5/.08	Final Technical Memorandum									
5/.09	Alternatives Analysis Workshop									
	Task 5 Subtotals	36	89							

		Staffing Summary							
	Project Role	Senior Wastewater Process Engineer	Engineering Manager - Conveyance	Staff Engineer - Civil	Project Engineer - Civil	Senior Planning Engineer - Flow Projections	Data Management Consultant	Condition Assessment Technical Specialist	GIS Lead
	Billing Rate Title	Sr. Process Engineer	Engineering Manager	Engineer III	Project Engineer	Senior Engineer/Project Engineer	Senior Technical Specialist	Senior Estimator/Advisor	Senior Engineer/Project Manager
	Additional Information	Chris Debarb	Brenda Hui	Ted Balabanski	Nashid Mirza	Katy Weidner	Alec Cannan	Ed Carpenetti	Brian Lendt
	HOURS\COST TOTALS IN USD \$:	169	62	877	613	89	276	126	229
	BILLING RATE IN USD \$\MARKUP:	\$ 355.00	\$ 255.00	\$ 195.00	\$ 220.00	\$ 280.00	\$ 315.00	\$ 305.00	\$ 280.00
	CONTRACT TOTALS IN USD \$:	\$ 59,995.00	\$ 15,810.00	\$ 171,015.00	\$ 134,860.00	\$ 24,920.00	\$ 86,940.00	\$ 38,430.00	\$ 64,120.00
Task	Description								
Task 1	Task 1 - Project Management								
1/.01	Admin							2	
1/.02	Kickoff Meeting								
1/.03	Progress Meetings (every 2 weeks)								
1/.05	Invoices								
	Task 1 Subtotals	2							
Task 2	Task 2 - Regulatory Assessment and Summary								
2/.01	Master calendar with permit requirements			9	18				
2/.02	Master list of current regulatory requirements			7	13				
2/.03	Cybersecurity risk assessment			11					
2/.04	PFA/PFO risk assessment								
2/.05	Regulatory Evaluation - Water								
2/.06	Regulatory Evaluation - Wastewater	4		4	9				
2/.07	Regulatory Review Workshop	9		7	13				
	Task 2 Subtotals	13		38	53				
Task 3	Task 3 - Facility Evaluation (Water)								
3/.01	Facility Evaluation - Water								
3/.02	WTP Walkthru			44	22			18	
3/.03	Water PS (2-3 days) to identify major issues			67	44			44	
3/.04	Evaluate of Capacity and Condition			67	67				
3/.05	Facility Evaluation - Wastewater			36	31				44
3/.06	Technical Memorandum - Water			18	13				
3/.07	Facility Eval Workshop #1			18	9				
	Task 3 Subtotals			250	186			62	44
Task 4	Task 4 - Facility Evaluation (Wastewater)								
4/.02	WWTP Walkthru to update plant condition (from '24 criticality work)	9		36	18			18	
4/.03	WW Pump Stations			53	36				
4/.04	Facility Evaluation - Wastewater	27		67	67				44
4/.05	Technical Memorandum - Wastewater	9		36	27				
4/.06	Facility Eval Workshop # 2	9		18	13				
	Task 4 Subtotals	54		210	161			62	44
Task 5	Task 5 - Water Alternatives Analysis and Project Identification								
5/.01	Id future improvements and upgrades and rehabilitation needs			13	9				
5/.02	Develop treatment process alternatives			9	4				
5/.03	Evaluate viable treatment process alternatives			7	2				
5/.04	General and facility-specific recommendations			7	2				
5/.05	Sensitivity analyses of recommend alternatives			7	2				
5/.06	Id asset replacement and/or rehabilitation projects			7	2				44
5/.07	Draft Technical Memorandum								
5/.08	Final Technical Memorandum								
5/.09	Alternatives Analysis Workshop			9	4				
	Task 5 Subtotals			59	25				

	Project Role	Senior Cybersecurity Analyst	Financial Planning and Risk Prioritization	Asset Management Engineer	Asset Management Senior Advisor	Project Controls	Accountant	Billing	CIP Optimization Specialist
		Senior Technical Specialist	Senior Technical Specialist	Technical Specialist	Sr. Advisor	Project Controls	Project Controls	Project Controls	Senior Technical Specialist
		Jim Shultz	Matt Powis	Alana Gilder	Ahmet Ozman	Hanna Braneff	Crayton Stoelzel	Jerri Garrison	Jeff Stillman
	HOURS\ COST TOTALS IN USD \$:	111	196	334	323	67	27	53	40
	BILLING RATE IN USD \$ \ MARKUP:	\$ 315.00	\$ 315.00	\$ 245.00	\$ 370.00	\$ 145.00	\$ 145.00	\$ 145.00	\$ 315.00
	CONTRACT TOTALS IN USD \$:	\$ 34,965.00	\$ 61,740.00	\$ 81,830.00	\$ 119,510.00	\$ 9,715.00	\$ 3,915.00	\$ 7,685.00	\$ 12,600.00
Task	Description								
Task 1	Task 1 - Project Management								
1/.01	Admin					67	27		
1/.02	Kickoff Meeting			2	2				
1/.03	Progress Meetings (every 2 weeks)				9				
1/.05	Invoices							53	
	Task 1 Subtotals			2	11	67	27	53	
Task 2	Task 2 - Regulatory Assessment and Summary								
2/.01	Master calendar with permit requirements								
2/.02	Master list of current regulatory requirements								
2/.03	Cybersecurity risk assessment	67							
2/.04	PFA/PFO risk assessment								
2/.05	Regulatory Evaluation - Water								
2/.06	Regulatory Evaluation - Wastewater								
2/.07	Regulatory Review Workshop								
	Task 2 Subtotals	67							
Task 3	Task 3 - Facility Evaluation (Water)								
3/.01	Facility Evaluation - Water	44							
3/.02	WTP Walkthru			9					
3/.03	Water PS (2-3 days) to identify major issues								
3/.04	Evaluate of Capacity and Condition								
3/.05	Facility Evaluation - Wastewater								
3/.06	Technical Memorandum - Water								
3/.07	Facility Eval Workshop #1								
	Task 3 Subtotals	44		9					
Task 4	Task 4 - Facility Evaluation (Wastewater)								
4/.02	WWTP Walkthru to update plant condition (from '24 criticality work)			9					
4/.03	WW Pump Stations								
4/.04	Facility Evaluation - Wastewater								
4/.05	Technical Memorandum - Wastewater								
4/.06	Facility Eval Workshop # 2								
	Task 4 Subtotals			9					
Task 5	Task 5 - Water Alternatives Analysis and Project Identification								
5/.01	Id future improvements and upgrades and rehabilitation needs								
5/.02	Develop treatment process alternatives								
5/.03	Evaluate viable treatment process alternatives								
5/.04	General and facility-specific recommendations								
5/.05	Sensitivity analyses of recommend alternatives		36	11					
5/.06	Id asset replacement and/or rehabilitation projects			11	18				
5/.07	Draft Technical Memorandum								
5/.08	Final Technical Memorandum								
5/.09	Alternatives Analysis Workshop								
	Task 5 Subtotals		36	22	18				

							Hours	Labor	Expense	Project Total
	Project Role	Asset Management Engineer	Collection System Modeler	Collection System Modeler	Lead Engineering Manager	Admin				
	Billing Rate Title	Sr. Project Engineer/Estimator	Sr. Project Engineer/Estimator	Engineer II	Senior Engineer/Project Manager	Clerical/Project Assistant				
	Additional Information	Nathan Hampton	Dai Jingjing	Madison McGuire	Celina Clement	Catherine Choo				
	HOURS\ COST TOTALS IN USD \$:	1,524	1,376	1,536	133	48	11,572			
	BILLING RATE IN USD \$ \ MARKUP:	\$ 235.00	\$ 235.00	\$ 175.00	\$ 280.00	\$ 150.00				
	CONTRACT TOTALS IN USD \$:	\$ 358,140.00	\$ 323,360.00	\$ 268,800.00	\$ 37,240.00	\$ 7,200.00	11,572	\$ 2,768,290.00	\$ 5,000.00	\$ 2,773,290.00
Task	Description									
Task 1	Task 1 - Project Management									
1/.01	Admin						121	\$ 22,405		\$ 22,405
1/.02	Kickoff Meeting						10	\$ 2,960		\$ 2,960
1/.03	Progress Meetings (every 2 weeks)			22	22		113	\$ 31,535		\$ 31,535
1/.05	Invoices						80	\$ 15,245		\$ 15,245
	Task 1 Subtotals		22	22			324	\$ 72,145		\$ 72,145
Task 2	Task 2 - Regulatory Assessment and Summary									
2/.01	Master calendar with permit requirements						38	\$ 8,060		\$ 8,060
2/.02	Master list of current regulatory requirements						33	\$ 6,920		\$ 6,920
2/.03	Cybersecurity risk assessment						78	\$ 23,250		\$ 23,250
2/.04	PFA/PFO risk assessment						9	\$ 1,785		\$ 1,785
2/.05	Regulatory Evaluation - Water						37	\$ 8,440		\$ 8,440
2/.06	Regulatory Evaluation - Wastewater						23	\$ 6,040		\$ 6,040
2/.07	Regulatory Review Workshop				6		62	\$ 16,105		\$ 16,105
	Task 2 Subtotals			6			280	\$ 70,600		\$ 70,600
Task 3	Task 3 - Facility Evaluation (Water)									
3/.01	Facility Evaluation - Water						66	\$ 19,075		\$ 19,075
3/.02	WTP Walkthru			8			132	\$ 30,775		\$ 30,775
3/.03	Water PS (2-3 days) to identify major issues			28			199	\$ 45,545		\$ 45,545
3/.04	Evaluate of Capacity and Condition						146	\$ 30,955		\$ 30,955
3/.05	Facility Evaluation - Water						141	\$ 32,670		\$ 32,670
3/.06	Technical Memorandum - Water Analysis						60	\$ 13,485		\$ 13,485
3/.07	Facility Eval Workshop #1						50	\$ 10,985	\$ 1,500	\$ 12,485
	Task 3 Subtotals		36				794	\$ 183,490		\$ 184,990
Task 4	Task 4 - Facility Evaluation (Wastewater)									
4/.02	WWTP Walkthru to update plant condition (from '24 criticality work)			4			123	\$ 30,375		\$ 30,375
4/.03	WW Pump Stations			27			216	\$ 50,820		\$ 50,820
4/.04	Facility Evaluation - Wastewater						250	\$ 61,855		\$ 61,855
4/.05	Technical Memorandum - Wastewater					4	94	\$ 21,795		\$ 21,795
4/.06	Facility Eval Workshop # 2						66	\$ 17,430		\$ 17,430
	Task 4 Subtotals		31		4		749	\$ 182,275		\$ 182,275
Task 5	Task 5 - Water Alternatives Analysis and Project Identification									
5/.01	Id future improvements and upgrades and rehabilitation needs						22	\$ 4,515		\$ 4,515
5/.02	Develop treatment process alternatives						39	\$ 8,760		\$ 8,760
5/.03	Evaluate viable treatment process alternatives						125	\$ 34,710		\$ 34,710
5/.04	General and facility-specific recommendations						22	\$ 4,500		\$ 4,500
5/.05	Sensitivity analyses of recommend alternatives			31			87	\$ 21,265		\$ 21,265
5/.06	Id asset replacement and/or rehabilitation projects			31			135	\$ 34,645		\$ 34,645
5/.07	Draft Technical Memorandum				18	4	39	\$ 10,985		\$ 10,985
5/.08	Final Technical Memorandum					2	9	\$ 2,440		\$ 2,440
5/.09	Alternatives Analysis Workshop				6		26	\$ 6,275		\$ 6,275
	Task 5 Subtotals		62	24	6		504	\$ 128,095		\$ 128,095

	Project Role	Project Director	Project Director	Project Manager	Senior Water Process Engineer - Emerging Contaminants	QA/QC	Water Process Engineer
	Billing Rate Title	Project Director/ Quality Control	Project Director/ Quality Control	Senior Engineer/Project Manager	Senior Engineer/Project Manager	Project Director/ Quality Control	Engineer II
	Additional Information	Priscilla Buchalla	Mike Hanna	Betsy Baldwin	Adam Feffer	Amanda Schwerman	Hanna Myers
	HOURS\ COST TOTALS IN USD \$:	38	77	507	6	120	300
	BILLING RATE IN USD \$\ MARKUP:	\$ 325.00	\$ 325.00	\$ 280.00	\$ 280.00	\$ 325.00	\$ 175.00
	CONTRACT TOTALS IN USD \$:	\$ 12,350.00	\$ 25,025.00	\$ 141,960.00	\$ 1,680.00	\$ 39,000.00	\$ 52,500.00
Task	Description						
Task 6	Task 6 - Wastewater Alternatives Analysis and Project Identification						
6/.02	Develop treatment process alternatives			8			
6/.03	Evaluate viable treatment process alternatives						
6/.04	General and facility-specific recommendations						
6/.05	Sensitivity analyses of recommend alternatives						
6/.06	Id asset replacement and/or rehabilitation projects			4		9	
6/.07	Draft Technical Memorandum			3		2	
6/.08	Final Technical Memorandum			7			
6/.09	Alternatives Analysis Workshop						
	Task 6 Subtotals			22		11	
Task 7	Task 7 - Water Hydraulic Model						
7/.01	Water Model Software Selection						
7/.02	Water Data Review & Gap Assessment			6			
7/.03	Water Demands						
7/.04	Water Model Methodology						
7/.05	Water SCADA Processing						
7/.06	Water Model Delineation						
7/.07	Water Model Network Update						
7/.08	Water Model Pump, Storage, and Controls Valve						
7/.09	Water Model Calibration						
7/.10	Water Model Baseline Capacity Assessment						
7/.11	Water Model Alternative Evaluation						
7/.12	Water Model CIP Summaries						
7/.13	Draft and Final Technical Memorandum		4	10		18	
7/.14	Water Hydraulic Model Workshop			6			
7/.15	Training for City staff on water and wastewater hydraulic model software						
	Task 7 Subtotals		4	22		18	
Task 8	Task 8 - Wastewater Hydraulic Model						
8/.01	Wastewater Model Software Selection			2			
8/.02	Wastewater Data Review & Gap Assessment			4			
8/.03	Wastewater Model Methodology						
8/.04	Wastewater Rainfall and SCADA Processing for WW Flow						
8/.05	Wastewater Model Delineation						
8/.06	Wastewater Model Network (All pipes)						
8/.07	Wastewater Model Pump Representation						
8/.08	Wastewater Model Calibration						
8/.09	Wastewater Model Baseline Capacity Assessment						
8/.10	Wastewater Model Alternative Evaluation						
8/.11	Wastewater Model CIP Summaries						
8/.12	Draft and Final Technical Memorandum		4	9		18	
8/.13	Wastewater Hydraulic Model Workshop			7			
8/.14	Training for City staff on water and wastewater hydraulic model software						
	Task 8 Subtotals		4	22		18	
Task 9	Task 9 - Capital Improvements Plan Update						
9/.03	Capital Improvement Plan - Water			18			9
9/.04	Capital Improvement Plan - Wastewater			18			
9/.05	Draft Technical Memorandum Capital Improvement Plan		4	9		9	11
9/.06	Final Technical Memorandum Capital Improvement Plan						9
9/.08	Capital Improvement Plan Workshop			18			4
	Task 9 Subtotals		4	63		9	33

	Project Role	Senior Water Process Engineer	Senior Estimator	Senior Electrical Engineer	Distribution System Modeling	Distribution System Modeling	Distribution System Modeling	Collection System Modeling	Wastewater Process Engineer
	Billing Rate Title	Senior Engineer/Project Manager	Senior Estimator/Advisor	Technical Specialist	Sr. Project Engineer/Estimator	Engineer III	Sr. Advisor	Senior Estimator/Advisor	Sr. Project Engineer/Estimator
	Additional Information	Amanda Canida	Danny Chadwick	Roland Kamdem	Ali Nakhli	Kaneel Shah	Kevin Laptos	Chris Ranck	Isaac Avilla
	HOURS\COST TOTALS IN USD \$:	203	178	85	581	678	63	359	168
	BILLING RATE IN USD \$\MARKUP:	\$ 280.00	\$ 305.00	\$ 245.00	\$ 235.00	\$ 195.00	\$ 370.00	\$ 305.00	\$ 235.00
	CONTRACT TOTALS IN USD \$:	\$ 56,840.00	\$ 54,290.00	\$ 20,825.00	\$ 136,535.00	\$ 132,210.00	\$ 23,310.00	\$ 109,495.00	\$ 39,480.00
Task	Description								
Task 6	Task 6 - Wastewater Alternatives Analysis and Project Identification								
6/02	Develop treatment process alternatives		89	27					44
6/03	Evaluate viable treatment process alternatives								18
6/04	General and facility-specific recommendations								9
6/05	Sensitivity analyses of recommend alternatives								
6/06	Id asset replacement and/or rehabilitation projects								4
6/07	Draft Technical Memorandum								
6/08	Final Technical Memorandum								
6/09	Alternatives Analysis Workshop								
	Task 6 Subtotals		89	27					75
Task 7	Task 7 - Water Hydraulic Model								
7/01	Water Model Software Selection				18	4	4		
7/02	Water Data Review & Gap Assessment				44	44	4		
7/03	Water Demands				27	9	9		
7/04	Water Model Methodology				9	9	4		
7/05	Water SCADA Processing				111	133	2		
7/06	Water Model Delineation				4	9	2		
7/07	Water Model Network Update				27	111	2		
7/08	Water Model Pump, Storage, and Controls Valve				18	18	2		
7/09	Water Model Calibration				133	133	9		
7/10	Water Model Baseline Capacity Assessment				22	27	2		
7/11	Water Model Alternative Evaluation				44	53	4		
7/12	Water Model CIP Summaries				9	22	2		
7/13	Draft and Final Technical Memorandum				53	53	9		
7/14	Water Hydraulic Model Workshop				18	9	4		
7/15	Training for City staff on water and wastewater hydraulic model software				44	44	4		
	Task 7 Subtotals				581	678	63		
Task 8	Task 8 - Wastewater Hydraulic Model								
8/01	Wastewater Model Software Selection							13	
8/02	Wastewater Data Review & Gap Assessment							4	
8/03	Wastewater Model Methodology							4	
8/04	Wastewater Rainfall and SCADA Processing for WW Flow							13	
8/05	Wastewater Model Delineation							31	
8/06	Wastewater Model Network (All pipes)							87	
8/07	Wastewater Model Pump Representation							22	
8/08	Wastewater Model Calibration							102	
8/09	Wastewater Model Baseline Capacity Assessment							16	
8/10	Wastewater Model Alternative Evaluation							20	
8/11	Wastewater Model CIP Summaries							7	
8/12	Draft and Final Technical Memorandum							27	
8/13	Wastewater Hydraulic Model Workshop							4	
8/14	Training for City staff on water and wastewater hydraulic model software							9	
	Task 8 Subtotals							359	
Task 9	Task 9 - Capital Improvements Plan Update								
9/03	Capital Improvement Plan - Water	7							
9/04	Capital Improvement Plan - Wastewater								
9/05	Draft Technical Memorandum Capital Improvement Plan	4							
9/06	Final Technical Memorandum Capital Improvement Plan	2							
9/08	Capital Improvement Plan Workshop	4							
	Task 9 Subtotals	17							

	Project Role	Senior Wastewater Process Engineer	Engineering Manager - Conveyance	Staff Engineer - Civil	Project Engineer - Civil	Senior Planning Engineer - Flow Projections	Data Management Consultant	Condition Assessment Technical Specialist	GIS Lead
	Billing Rate Title	Sr. Process Engineer	Engineering Manager	Engineer III	Project Engineer	Senior Engineer/Project Engineer	Senior Technical Specialist	Senior Estimator/Advisor	Senior Engineer/Project Manager
	Additional Information	Chris Debarb	Brenda Hui	Ted Balabanski	Nashid Mirza	Katy Weidner	Alec Cannan	Ed Carpenetti	Brian Lendt
	HOURS\COST TOTALS IN USD \$:	169	62	877	613	89	276	126	229
	BILLING RATE IN USD \$\MARKUP:	\$ 355.00	\$ 255.00	\$ 195.00	\$ 220.00	\$ 280.00	\$ 315.00	\$ 305.00	\$ 280.00
	CONTRACT TOTALS IN USD \$:	\$ 59,995.00	\$ 15,810.00	\$ 171,015.00	\$ 134,860.00	\$ 24,920.00	\$ 86,940.00	\$ 38,430.00	\$ 64,120.00
Task	Description								
Task 6	Task 6 - Wastewater Alternatives Analysis and Project Identification								
6/.02	Develop treatment process alternatives	27		89	44				
6/.03	Evaluate viable treatment process alternatives	9		44	27				
6/.04	General and facility-specific recommendations	4		18	13				
6/.05	Sensitivity analyses of recommend alternatives								44
6/.06	Id asset replacement and/or rehabilitation projects	9		18	13				
6/.07	Draft Technical Memorandum			13	7				
6/.08	Final Technical Memorandum			9	7				
6/.09	Alternatives Analysis Workshop								
	Task 6 Subtotals	49		191	111				44
Task 7	Task 7 - Water Hydraulic Model								
7/.01	Water Model Software Selection								
7/.02	Water Data Review & Gap Assessment								9
7/.03	Water Demands					89			
7/.04	Water Model Methodology								
7/.05	Water SCADA Processing								
7/.06	Water Model Delineation		9						
7/.07	Water Model Network Update		9						44
7/.08	Water Model Pump, Storage, and Controls Valve		9						
7/.09	Water Model Calibration		17						
7/.10	Water Model Baseline Capacity Assessment								
7/.11	Water Model Alternative Evaluation								
7/.12	Water Model CIP Summaries								
7/.13	Draft and Final Technical Memorandum		18						
7/.14	Water Hydraulic Model Workshop								
7/.15	Training for City staff on water and wastewater hydraulic model software								
	Task 7 Subtotals		62			89			53
Task 8	Task 8 - Wastewater Hydraulic Model								
8/.01	Wastewater Model Software Selection								
8/.02	Wastewater Data Review & Gap Assessment								
8/.03	Wastewater Model Methodology								
8/.04	Wastewater Rainfall and SCADA Processing for WW Flow								
8/.05	Wastewater Model Delineation								
8/.06	Wastewater Model Network (All pipes)								
8/.07	Wastewater Model Pump Representation								
8/.08	Wastewater Model Calibration								
8/.09	Wastewater Model Baseline Capacity Assessment								
8/.10	Wastewater Model Alternative Evaluation								
8/.11	Wastewater Model CIP Summaries								
8/.12	Draft and Final Technical Memorandum								
8/.13	Wastewater Hydraulic Model Workshop								
8/.14	Training for City staff on water and wastewater hydraulic model software								
	Task 8 Subtotals								
Task 9	Task 9 - Capital Improvements Plan Update								
9/.03	Capital Improvement Plan - Water			13	7				
9/.04	Capital Improvement Plan - Wastewater			13	7				
9/.05	Draft Technical Memorandum Capital Improvement Plan			9	4				
9/.06	Final Technical Memorandum Capital Improvement Plan			9	4				
9/.08	Capital Improvement Plan Workshop			4	2				
	Task 9 Subtotals			48	24				

	Project Role	Senior Cybersecurity Analyst	Financial Planning and Risk Prioritization	Asset Management Engineer	Asset Management Senior Advisor	Project Controls	Accountant	Billing	CIP Optimization Specialist
	Billing Rate Title	Senior Technical Specialist	Senior Technical Specialist	Technical Specialist	Sr. Advisor	Project Controls	Project Controls	Project Controls	Senior Technical Specialist
	Additional Information	Jim Shultz	Matt Powis	Alana Gilder	Ahmet Ozman	Hanna Braneff	Crayton Stoezel	Jerri Garrison	Jeff Stillman
	HOURS\COST TOTALS IN USD \$:	111	196	334	323	67	27	53	40
	BILLING RATE IN USD \$\MARKUP:	\$ 315.00	\$ 315.00	\$ 245.00	\$ 370.00	\$ 145.00	\$ 145.00	\$ 145.00	\$ 315.00
	CONTRACT TOTALS IN USD \$:	\$ 34,965.00	\$ 61,740.00	\$ 81,830.00	\$ 119,510.00	\$ 9,715.00	\$ 3,915.00	\$ 7,685.00	\$ 12,600.00
Task	Description								
Task 6	Task 6 - Wastewater Alternatives Analysis and Project Identification								
6/.02	Develop treatment process alternatives								
6/.03	Evaluate viable treatment process alternatives								
6/.04	General and facility-specific recommendations		36	11					
6/.05	Sensitivity analyses of recommend alternatives			11	18				
6/.06	Identify asset replacement and/or rehabilitation projects								
6/.07	Draft Technical Memorandum								
6/.08	Final Technical Memorandum								
6/.09	Alternatives Analysis Workshop								
	Task 6 Subtotals		36	22	18				
Task 7	Task 7 - Water Hydraulic Model								
7/.01	Water Model Software Selection								
7/.02	Water Data Review & Gap Assessment								
7/.03	Water Demands								
7/.04	Water Model Methodology								
7/.05	Water SCADA Processing								
7/.06	Water Model Delineation								
7/.07	Water Model Network Update								
7/.08	Water Model Pump, Storage, and Controls Valve								
7/.09	Water Model Calibration								
7/.10	Water Model Baseline Capacity Assessment								
7/.11	Water Model Alternative Evaluation								
7/.12	Water Model CIP Summaries								
7/.13	Draft and Final Technical Memorandum								
7/.14	Water Hydraulic Model Workshop								
7/.15	Training for City staff on water and wastewater hydraulic model software								
	Task 7 Subtotals								
Task 8	Task 8 - Wastewater Hydraulic Model								
8/.01	Wastewater Model Software Selection								
8/.02	Wastewater Data Review & Gap Assessment								
8/.03	Wastewater Model Methodology								
8/.04	Wastewater Rainfall and SCADA Processing for WW Flow								
8/.05	Wastewater Model Delineation								
8/.06	Wastewater Model Network (All pipes)								
8/.07	Wastewater Model Pump Representation								
8/.08	Wastewater Model Calibration								
8/.09	Wastewater Model Baseline Capacity Assessment								
8/.10	Wastewater Model Alternative Evaluation								
8/.11	Wastewater Model CIP Summaries								
8/.12	Draft and Final Technical Memorandum								
8/.13	Wastewater Hydraulic Model Workshop								
8/.14	Training for City staff on water and wastewater hydraulic model software								
	Task 8 Subtotals								
Task 9	Task 9 - Capital Improvements Plan Update								
9/.03	Capital Improvement Plan - Water		44	22	9				18
9/.04	Capital Improvement Plan - Wastewater		44	22	9				18
9/.05	Draft Technical Memorandum Capital Improvement Plan		18	4	9				4
9/.06	Final Technical Memorandum Capital Improvement Plan			7					
9/.08	Capital Improvement Plan Workshop		18	2	9				
	Task 9 Subtotals		124	57	36				40

	Project Role	Asset Management Engineer	Collection System Modeler	Collection System Modeler	Lead Engineering Manager	Admin	Hours	Labor	Expense	Project Total
	Billing Rate Title	Sr. Project Engineer/Estimator	Sr. Project Engineer/Estimator	Engineer II	Senior Engineer/Project Manager	Clerical/Project Assistant				
	Additional Information	Nathan Hampton	Dai Jingjing	Madison McGuire	Celina Clement	Catherine Choo				
	HOURS\ COST TOTALS IN USD \$:	1,524	1,376	1,536	133	48	11,572			
	BILLING RATE IN USD \$\ MARKUP:	\$ 235.00	\$ 235.00	\$ 175.00	\$ 280.00	\$ 150.00				
	CONTRACT TOTALS IN USD \$:	\$ 358,140.00	\$ 323,360.00	\$ 268,800.00	\$ 37,240.00	\$ 7,200.00	11,572	\$ 2,768,290.00	\$ 5,000.00	\$ 2,773,290.00
Task	Description									
Task 6	Task 6 - Wastewater Alternatives Analysis and Project Identification									
6/02	Develop treatment process alternatives						328	\$ 82,960		\$ 82,960
6/03	Evaluate viable treatment process alternatives						98	\$ 21,945		\$ 21,945
6/04	General and facility-specific recommendations						91	\$ 23,940		\$ 23,940
6/05	Sensitivity analyses of recommend alternatives			26			99	\$ 26,225		\$ 26,225
6/06	Id asset replacement and/or rehabilitation projects			26	9	4	96	\$ 22,220		\$ 22,220
6/07	Draft Technical Memorandum				6	2	33	\$ 7,545		\$ 7,545
6/08	Final Technical Memorandum				6		29	\$ 6,935		\$ 6,935
6/09	Alternatives Analysis Workshop			6			6	\$ 1,050		\$ 1,050
	Task 6 Subtotals			58	21	6	780	\$ 192,820		\$ 192,820
Task 7	Task 7 - Water Hydraulic Model									
7/01	Water Model Software Selection						26	\$ 6,490		\$ 6,490
7/02	Water Data Review & Gap Assessment						107	\$ 24,600		\$ 24,600
7/03	Water Demands	200					334	\$ 83,350		\$ 83,350
7/04	Water Model Methodology						22	\$ 5,350		\$ 5,350
7/05	Water SCADA Processing						246	\$ 52,760		\$ 52,760
7/06	Water Model Delineation						24	\$ 5,730		\$ 5,730
7/07	Water Model Network Update						193	\$ 43,345		\$ 43,345
7/08	Water Model Pump, Storage, and Controls Valve						47	\$ 10,775		\$ 10,775
7/09	Water Model Calibration						292	\$ 64,855		\$ 64,855
7/10	Water Model Baseline Capacity Assessment						51	\$ 11,175		\$ 11,175
7/11	Water Model Alternative Evaluation						101	\$ 22,155		\$ 22,155
7/12	Water Model CIP Summaries						33	\$ 7,145		\$ 7,145
7/13	Draft and Final Technical Memorandum				18	4	187	\$ 46,300		\$ 46,300
7/14	Water Hydraulic Model Workshop						37	\$ 9,145	\$ 1,500	\$ 10,645
7/15	Training for City staff on water and wastewater hydraulic model softw			6			98	\$ 21,450		\$ 21,450
	Task 7 Subtotals	200		6	18	4	1,798	\$ 414,625		\$ 416,125
Task 8	Task 8 - Wastewater Hydraulic Model									
8/01	Wastewater Model Software Selection	18					33	\$ 8,755		\$ 8,755
8/02	Wastewater Data Review & Gap Assessment	9	9				26	\$ 6,570		\$ 6,570
8/03	Wastewater Model Methodology	9	9				22	\$ 5,450		\$ 5,450
8/04	Wastewater Rainfall and SCADA Processing for WW Flow	9	78				100	\$ 24,410		\$ 24,410
8/05	Wastewater Model Delineation	284	284				599	\$ 142,935		\$ 142,935
8/06	Wastewater Model Network (All pipes)	416	416				919	\$ 222,055		\$ 222,055
8/07	Wastewater Model Pump Representation	83	83				188	\$ 45,720		\$ 45,720
8/08	Wastewater Model Calibration	278	342				722	\$ 176,810		\$ 176,810
8/09	Wastewater Model Baseline Capacity Assessment	27	13				56	\$ 14,280		\$ 14,280
8/10	Wastewater Model Alternative Evaluation	40	40				100	\$ 24,900		\$ 24,900
8/11	Wastewater Model CIP Summaries	22	4				33	\$ 8,245		\$ 8,245
8/12	Draft and Final Technical Memorandum	89	53		18	4	222	\$ 56,915		\$ 56,915
8/13	Wastewater Hydraulic Model Workshop	13	18	6			48	\$ 11,515		\$ 11,515
8/14	Training for City staff on water and wastewater hydraulic model softw	27	27				63	\$ 15,435		\$ 15,435
	Task 8 Subtotals	1,324	1,376	6	18	4	3,131	\$ 763,995		\$ 763,995
Task 9	Task 9 - Capital Improvements Plan Update									
9/03	Capital Improvement Plan - Water			58			205	\$ 51,050		\$ 51,050
9/04	Capital Improvement Plan - Wastewater			58			189	\$ 47,515		\$ 47,515
9/05	Draft Technical Memorandum Capital Improvement Plan			18		4	107	\$ 27,415		\$ 27,415
9/06	Final Technical Memorandum Capital Improvement Plan			11		4	46	\$ 9,010		\$ 9,010
9/08	Capital Improvement Plan Workshop			18			79	\$ 20,720		\$ 20,720
	Task 9 Subtotals			163		8	626	\$ 155,710		\$ 155,710

	Project Role	Project Director	Project Director	Project Manager	Senior Water Process Engineer - Emerging Contaminants	QA/QC	Water Process Engineer
	Billing Rate Title	Project Director/ Quality Control	Project Director/ Quality Control	Senior Engineer/Project Manager	Senior Engineer/Project Manager	Project Director/ Quality Control	Engineer II
	Additional Information	Priscilla Buchalla	Mike Hanna	Betsy Baldwin	Adam Feffer	Amanda Schwerman	Hanna Myers
	HOURS\COST TOTALS IN USD \$:	38	77	507	6	120	300
	BILLING RATE IN USD \$\MARKUP:	\$ 325.00	\$ 325.00	\$ 280.00	\$ 280.00	\$ 325.00	\$ 175.00
	CONTRACT TOTALS IN USD \$:	\$ 12,350.00	\$ 25,025.00	\$ 141,960.00	\$ 1,680.00	\$ 39,000.00	\$ 52,500.00
Task	Description						
Task 10	Task 10 - Water Asset Management Plan						
10/.01	Asset Management Plan - Water						27
10/.02	Systems Inventory						
10/.03	Field Visits - Included in Task 3						
10/.04	Criticality Analysis						
10/.05	AM Gap Analysis						18
10/.06	Results Workshop			4			4
10/.07	Improvement Roadmap						
10/.08	Asset Management Workshop			9			
10/.09	Asset Management Plan		4			9	
	Task 10 Subtotals		4	13		9	49
Task 11	Task 11 - Wastewater Asset Management Plan						
11/.02	System Inventory						
11/.04	Criticality Analysis						
11/.05	AM Gap Analysis						
11/.06	Results Workshop			6			
11/.07	Improvement Roadmap						
11/.08	Asset Management Workshop			9			
11/.09	Asset Management Plan		4			9	
	Task 11 Subtotals		4	15		9	
Task 12	Task 12 - Water Master Plan						
12/.02	Draft Master Plan		4	10		13	44
12/.03	Final Master Plan		2	18		4	18
12/.06	Master Plan Workshop			12			9
	Task 12 Subtotals		6	40		17	71
Task 13	Task 13 - Wastewater Master Plan						
13/.02	10.5 MGD Re-Rating			9			
13/.03	Draft Master Plan		4	18		4	
13/.04	Final Master Plan			9			
13/.06	Master Plan Workshop			13			
	Task 13 Subtotals		4	49		4	

	Project Role	Senior Water Process Engineer	Senior Estimator	Senior Electrical Engineer	Distribution System Modeling	Distribution System Modeling	Distribution System Modeling	Collection System Modeling	Wastewater Process Engineer
	Billing Rate Title	Senior Engineer/Project Manager	Senior Estimator/Advisor	Technical Specialist	Sr. Project Engineer/Estimator	Engineer III	Sr. Advisor	Senior Estimator/Advisor	Sr. Project Engineer/Estimator
	Additional Information	Amanda Canida	Danny Chadwick	Roland Kamdem	Ali Nakhli	Kaneel Shah	Kevin Laptos	Chris Ranck	Isaac Avilla
	HOURS\ COST TOTALS IN USD \$:	203	178	85	581	678	63	359	168
	BILLING RATE IN USD \$ \ MARKUP:	\$ 280.00	\$ 305.00	\$ 245.00	\$ 235.00	\$ 195.00	\$ 370.00	\$ 305.00	\$ 235.00
	CONTRACT TOTALS IN USD \$:	\$ 56,840.00	\$ 54,290.00	\$ 20,825.00	\$ 136,535.00	\$ 132,210.00	\$ 23,310.00	\$ 109,495.00	\$ 39,480.00
Task	Description								
Task 10	Task 10 - Water Asset Management Plan								
10/.01	Asset Management Plan - Water	22							
10/.02	Systems Inventory								
10/.03	Field Visits - Included in Task 3	18							
10/.04	Criticality Analysis								
10/.05	AM Gap Analysis	9							
10/.06	Results Workshop	4							
10/.07	Improvement Roadmap								
10/.08	Asset Management Workshop								
10/.09	Asset Management Plan								
	Task 10 Subtotals	53							
Task 11	Task 11 - Wastewater Asset Management Plan								
11/.02	System Inventory								
11/.04	Criticality Analysis								
11/.05	AM Gap Analysis								
11/.06	Results Workshop								
11/.07	Improvement Roadmap								
11/.08	Asset Management Workshop								
11/.09	Asset Management Plan								
	Task 11 Subtotals								
Task 12	Task 12 - Water Master Plan								
12/.02	Draft Master Plan	18							
12/.03	Final Master Plan	7							
12/.06	Master Plan Workshop	13							
	Task 12 Subtotals	38							
Task 13	Task 13 - Wastewater Master Plan								
13/.02	10.5 MGD Re-Rating								44
13/.03	Draft Master Plan								27
13/.04	Final Master Plan								9
13/.06	Master Plan Workshop								13
	Task 13 Subtotals								93

	Project Role	Senior Wastewater Process Engineer	Engineering Manager - Conveyance	Staff Engineer - Civil	Project Engineer - Civil	Senior Planning Engineer - Flow Projections	Data Management Consultant	Condition Assessment Technical Specialist	GIS Lead
	Billing Rate Title	Sr. Process Engineer	Engineering Manager	Engineer III	Project Engineer	Senior Engineer/Project Engineer	Senior Technical Specialist	Senior Estimator/Advisor	Senior Engineer/Project Manager
	Additional Information	Chris Debarb	Brenda Hui	Ted Balabanski	Nashid Mirza	Katy Weidner	Alec Cannan	Ed Carpenetti	Brian Lendt
	HOURS\ COST TOTALS IN USD \$:	169	62	877	613	89	276	126	229
	BILLING RATE IN USD \$ \ MARKUP:	\$ 355.00	\$ 255.00	\$ 195.00	\$ 220.00	\$ 280.00	\$ 315.00	\$ 305.00	\$ 280.00
	CONTRACT TOTALS IN USD \$:	\$ 59,995.00	\$ 15,810.00	\$ 171,015.00	\$ 134,860.00	\$ 24,920.00	\$ 86,940.00	\$ 38,430.00	\$ 64,120.00
Task	Description								
Task 10	Task 10 - Water Asset Management Plan								
10/.01	Asset Management Plan - Water								
10/.02	Systems Inventory								
10/.03	Field Visits - Included in Task 3								
10/.04	Criticality Analysis								
10/.05	AM Gap Analysis						44		
10/.06	Results Workshop						9		
10/.07	Improvement Roadmap						9		
10/.08	Asset Management Workshop						9		
10/.09	Asset Management Plan						67		
	Task 10 Subtotals						138		
Task 11	Task 11 - Wastewater Asset Management Plan								
11/.02	System Inventory								
11/.04	Criticality Analysis								
11/.05	AM Gap Analysis						44		
11/.06	Results Workshop						9		
11/.07	Improvement Roadmap						9		
11/.08	Asset Management Workshop						9		
11/.09	Asset Management Plan						67		
	Task 11 Subtotals						138		
Task 12	Task 12 - Water Master Plan								
12/.02	Draft Master Plan								
12/.03	Final Master Plan								
12/.06	Master Plan Workshop								
	Task 12 Subtotals								
Task 13	Task 13 - Wastewater Master Plan								
13/.02	10.5 MGD Re-Rating	27		9	9				
13/.03	Draft Master Plan	13		36	18				
13/.04	Final Master Plan	4		18	13				
13/.06	Master Plan Workshop	9		18	13				
	Task 13 Subtotals	53		81	53				

	Project Role	Senior Cybersecurity Analyst	Financial Planning and Risk Prioritization	Asset Management Engineer	Asset Management Senior Advisor	Project Controls	Accountant	Billing	CIP Optimization Specialist
	Billing Rate Title	Senior Technical Specialist	Senior Technical Specialist	Technical Specialist	Sr. Advisor	Project Controls	Project Controls	Project Controls	Senior Technical Specialist
	Additional Information	Jim Shultz	Matt Powis	Alana Gilder	Ahmet Ozman	Hanna Braneff	Crayton Staelzel	Jerri Garrison	Jeff Stillman
	HOURS\ COST TOTALS IN USD \$:	111	196	334	323	67	27	53	40
	BILLING RATE IN USD \$ \ MARKUP:	\$ 315.00	\$ 315.00	\$ 245.00	\$ 370.00	\$ 145.00	\$ 145.00	\$ 145.00	\$ 315.00
	CONTRACT TOTALS IN USD \$:	\$ 34,965.00	\$ 61,740.00	\$ 81,830.00	\$ 119,510.00	\$ 9,715.00	\$ 3,915.00	\$ 7,685.00	\$ 12,600.00
Task	Description								
Task 10	Task 10 - Water Asset Management Plan								
10/.01	Asset Management Plan - Water								
10/.02	Systems Inventory			11	9				
10/.03	Field Visits - Included in Task 3								
10/.04	Criticality Analysis			6	9				
10/.05	AM Gap Analysis			22	36				
10/.06	Results Workshop			9	9				
10/.07	Improvement Roadmap				9				
10/.08	Asset Management Workshop			2	4				
10/.09	Asset Management Plan			22	18				
	Task 10 Subtotals			72	94				
Task 11	Task 11 - Wastewater Asset Management Plan								
11/.02	System Inventory			7	9				
11/.04	Criticality Analysis			9	9				
11/.05	AM Gap Analysis			22	36				
11/.06	Results Workshop			4	9				
11/.07	Improvement Roadmap			22	9				
11/.08	Asset Management Workshop				4				
11/.09	Asset Management Plan			22	18				
	Task 11 Subtotals			86	94				
Task 12	Task 12 - Water Master Plan								
12/.02	Draft Master Plan			11	6				
12/.03	Final Master Plan								
12/.06	Master Plan Workshop			11	6				
	Task 12 Subtotals			22	12				
Task 13	Task 13 - Wastewater Master Plan								
13/.02	10.5 MGD Re-Rating			11	6				
13/.03	Draft Master Plan			11	22				
13/.04	Final Master Plan				6				
13/.06	Master Plan Workshop			11	6				
	Task 13 Subtotals			33	40				

	Project Role	Asset Management Engineer	Collection System Modeler	Collection System Modeler	Lead Engineering Manager	Admin	Hours	Labor	Expense	Project Total
	Billing Rate Title	Sr. Project Engineer/Estimator	Sr. Project Engineer/Estimator	Engineer II	Senior Engineer/Project Manager	Clerical/Project Assistant				
	Additional Information	Nathan Hampton	Dai Jingjing	Madison McGuire	Celina Clement	Catherine Choo				
	HOURS\ COST TOTALS IN USD \$:	1,524	1,376	1,536	133	48	11,572			
	BILLING RATE IN USD \$\ MARKUP:	\$ 235.00	\$ 235.00	\$ 175.00	\$ 280.00	\$ 150.00				
	CONTRACT TOTALS IN USD \$:	\$ 358,140.00	\$ 323,360.00	\$ 268,800.00	\$ 37,240.00	\$ 7,200.00	11,572	\$ 2,768,290.00	\$ 5,000.00	\$ 2,773,290.0
Task	Description									
Task 10	Task 10 - Water Asset Management Plan									
10/01	Asset Management Plan - Water						49	\$ 10,885		\$ 10,885
10/02	Systems Inventory			32			52	\$ 11,625		\$ 11,625
10/03	Field Visits - Included in Task 3						18	\$ 5,040		\$ 5,040
10/04	Criticality Analysis			70			85	\$ 17,050		\$ 17,050
10/05	AM Gap Analysis			108			237	\$ 57,140		\$ 57,140
10/06	Results Workshop			38			77	\$ 17,960		\$ 17,960
10/07	Improvement Roadmap			40			58	\$ 13,165		\$ 13,165
10/08	Asset Management Workshop			16	6		46	\$ 11,805		\$ 11,805
10/09	Asset Management Plan			189			309	\$ 70,455		\$ 70,455
	Task 10 Subtotals	493 6					931	\$ 215,125		\$ 215,12
Task 11	Task 11 - Wastewater Asset Management Plan									
11/02	System Inventory			32			48	\$ 10,645		\$ 10,645
11/04	Criticality Analysis			70			88	\$ 17,785		\$ 17,785
11/05	AM Gap Analysis			108			210	\$ 51,470		\$ 51,470
11/06	Results Workshop			38			66	\$ 15,475		\$ 15,475
11/07	Improvement Roadmap			40			80	\$ 18,555		\$ 18,555
11/08	Asset Management Workshop			16	6		44	\$ 11,315		\$ 11,315
11/09	Asset Management Plan			189			309	\$ 70,455		\$ 70,455
	Task 11 Subtotals	493 6					845	\$ 195,700		\$ 195,70
Task 12	Task 12 - Water Master Plan									
12/02	Draft Master Plan			34		4	144	\$ 32,530		\$ 32,530
12/03	Final Master Plan			27		4	80	\$ 17,425		\$ 17,425
12/06	Master Plan Workshop			24	6		81	\$ 19,370	\$ 2,000	\$ 21,370
	Task 12 Subtotals	85 6 8					305	\$ 69,325		\$ 71,32
Task 13	Task 13 - Wastewater Master Plan									
13/02	10.5 MGD Re-Rating						115	\$ 31,095		\$ 31,095
13/03	Draft Master Plan			33		4	190	\$ 46,790		\$ 46,790
13/04	Final Master Plan			24		4	87	\$ 19,445		\$ 19,445
13/06	Master Plan Workshop			24	6		113	\$ 27,055		\$ 27,055
	Task 13 Subtotals	81 6 8					505	\$ 124,385		\$ 124,385

GIS Fee Sheet

GIS Update 100 Hours - Staffing Summary							
	Project Role	GIS Analyst	GIS Specialist - Triad	GIS Lead			
	Billing Rate Title	Technician/ Analyst GWF	*Triad Rate	Senior Engineer/ Project Manager			
	Additional Information	Rutuja Bhasme	Josh Amos	Dave Nelson			
	BILLING RATE IN USD \$:	\$ 115.00	\$ 180.00	\$ 280.00	Hours	Total \$	Average Rate \$/Hour
Task	Description						
Task 1	GIS Update	45	35	20	100	\$17,075.00	\$170.75

Overview of Description Additional Services

Black & Veatch proposes that the following additional services be considered to improve the efficiency and quality of the Project. The Additional Services – Staffing Summary indicates for each of the below tasks the key personnel and hourly cost per discipline.

1. **Dynamic Asset Management Plan:** City of Hagerstown will receive a Dynamic Master Plan based in PowerBI that will allow its staff to proactively prioritize its CIP every fiscal year. This will result in time and cost savings as the City will have certainty that its capital investments are assigned to the assets that will maximize risk reduction at the lowest possible cost. The Plan will also be adaptive to the requirements of the regulatory agencies, environmental, social and capital needs, maximizing the City's sustainability benefits to the people served by the Hagerstown Utilities Department.
2. **CIP Prioritization Optimization Tool:** Following the initial CIP Update planned for in the Master Plan. A CIP Prioritization Optimization Tool will allow the City to view a more dynamic graphic of an optimized CIP and compare various "what if?" scenarios (e.g. annual budget of \$5M versus \$10M) and view the associated impact on risk reduction over time directly. This is complementary to the Dynamic Asset Management Plan.
3. **GIS Utility Network – Data Readiness Assessment (Phase 0):** Building upon the City's recent Esri Geospatial Roadmap assessment, this initial planning task will confirm the City's interest, desired complexity, and readiness for establishment of an ESRI ArcGIS Utility Network. This task will include strategic planning, data readiness assessment and development of a water and wastewater prototype. This task is a suggested precursor to scope Additional Service #4.
4. **GIS Utility Network Implementation (Phase 1):** Building upon the Data Readiness Assessment and prototypes in Phase 0, this phase begins with pilot migration of data to ensure rules, subnetworks, and workflows function effectively. The production deployment, system integrations, operational workflows, training, and continuous improvement complete the transition to a fully operational, network aware GIS that supports modeling, asset management, and long term utility planning.
5. **Computerized Maintenance Management System Improvements:** Following the initial review of the functionality of MVPOne in the Project this task will identify capability gaps, and tailor workflows to increase efficiency and data reliability.
6. **Inclusion of Edgemont Reservoir and W. M. Breichner WTP in the Master Plan:** This task would incorporate the historical Edgemont Reservoir and W.M. Breichner WTP into the Master Plan and provide recommendations for use, or rehabilitation/repurposing of these assets and identification of funding for the recommended alternative(s).
7. **Source Water Analysis for a Secondary Intake for R.C. Wilson WTP or a new WTP:** The City has pursued alternate

This can be done during the initial stages of the Master Plan Project or following its completion, however there are efficiencies if this phase is completed in parallel with the GIS update phase of the Project.

water sources and treatments plant locations to augment drinking water production and reduce reliance upon the single intake on the Potomac River. This task will add to the Master Plan a source water study with recommendations.

- 8. Surveying:** Some land surveying is required for the geo-location of features in the GIS update and hydraulic model. Black & Veatch will work closely with Triad Engineering, a subcontractor for this proposal, to determine the survey scope after assessment of as-builts and model data.
- 9. Flow Monitoring:** Typically, wastewater hydraulic models would be built upon the data from a year of flow monitoring in the collections system. Due to the tight time frame for completion of the Master Plan flow monitoring would not be feasible but could be completed in parallel or following completion of the Project to improve the calibration of the wastewater hydraulic model.
- 10. Data Center Owner's Advisor:** This task brings the Black & Veatch experience working with municipalities to negotiate with prospective data centers, planning for increased drinking water, emerging contaminants from blow down and power demand, as well as an inside understanding of the siting and design of data centers. This will support the City and Washington County in making informed decisions on data center placement and impacts on long term water and wastewater sustainability.

Additional Staffing Summary

	Additional Services - Staffing Summary						
	Project Role	Project Director	Project Director	Project Manager	Senior Water Process Engineer - Emerging Contaminants	QA/QC	Water Process Engineer
	Billing Rate Title	Project Director/ Quality Control	Project Director/ Quality Control	Senior Engineer/Project Manager	Senior Engineer/Project Manager	Project Director/ Quality Control	Engineer II
	Additional Information	Priscilla Buchalla	Mike Hanna	Betsy Baldwin	Adam Feffer	Amanda Schwerman	Hanna Myers
	BILLING RATE IN USD \$\MARKUP:	\$ 325.00	\$ 325.00	\$ 280.00	\$ 280.00	\$ 325.00	\$ 175.00
Task	Description						
Task 1	Task 1 - Dyanmic Asset Management Plan						
1/.01			X	X			
Task 2	Task 2 - CIP Prioritization Optimization Tool						
2/.01			X	X			
Task 3	Task 3 - GIS Utility Network - Data Readiness Assessment (Phase 0)						
3/.01			X	X			
Task 4	Task 4 - GIS Utility Network - Implementation (Phase 1)						
4/.01			X	X			
Task 5	Task 5 - Computerized Maintenance Management System Improvements						
5/.01			X	X			
Task 6	Task 6 - Inclusion of Edgemont Reservoir and W.M. Breichner WTP in the Master Plan						
6/.01			X	X			
Task 7	Task 7 - Source Water Analysis for Secondary Intake for R.C. Willson WTP or possible new WTP						
7/.01			X	X	X		X
Task 8	Task 8 - Flow Monitoring						
8/.01			X	X			
Task 9	Task 9 - Surveying						
9/.01			X	X			
Task 10	Task 10 - Data Center Owner's Advisor						
10/.01			X	X	X		

	Additional Services - Staffing Summary								
	Project Role	Senior Water Process Engineer	Senior Estimator	Senior Electrical Engineer	Distribution System Modeling	Distribution System Modeling	Distribution System Modeling	Collection System Modeling	Wastewater Process Engineer
	Billing Rate Title	Senior Engineer/Project Manager	Senior Estimator/Advisor	Technical Specialist	Sr. Project Engineer/Estimator	Engineer III	Sr. Advisor	Senior Estimator/Advisor	Sr. Project Engineer/Estimator
	Additional Information	Amanda Canida	Danny Chadwick	Roland Kamdem	Ali Nakhli	Kaneel Shah	Kevin Laptos	Chris Ranck	Isaac Avilla
	BILLING RATE IN USD \$ \MARKUP:	\$ 280.00	\$ 305.00	\$ 245.00	\$ 235.00	\$ 195.00	\$ 370.00	\$ 305.00	\$ 235.00
Task	Description								
Task 1	Task 1 - Dyanmic Asset Management Plan								
1/01									
Task 2	Task 2 - CIP Prioritization Optimization Tool								
2/01									
Task 3	Task 3 - GIS Utility Network - Data Readiness Assessment (Phase 0)								
3/01									
Task 4	Task 4 - GIS Utility Network - Implementation (Phase 1)								
4/01									
Task 5	Task 5 - Computerized Maintenance Management System Improvements								
5/01									
Task 6	Task 6 - Inclusion of Edgemont Reservoir and W.M. Breichner WTP in the Master Plan								
6/01				X					
Task 7	Task 7 - Source Water Analysis for Secondary Intake for R.C. Willson WTP or possible new WTP								
7/01		X	X	X	X	X	X		
Task 8	Task 8 - Flow Monitoring								
8/01					X	X	X	X	
Task 9	Task 9 - Surveying								
9/01									
Task 10	Task 10 - Data Center Owner's Advisor								
10/01				X	X	X	X	X	

	Additional Services - Staffing Summary								
	Project Role	Senior Wastewater Process Engineer	Engineering Manager - Conveyance	Staff Engineer - Civil	Project Engineer - Civil	Senior Planning Engineer - Flow Projections	Data Management Consultant	Data Management Consultant	Condition Assessment Technical Specialist
	Billing Rate Title	Sr. Process Engineer	Engineering Manager	Engineer III	Project Engineer	Senior Engineer/Project Engineer	Senior Technical Specialist	Sr. Advisor	Senior Estimator/Advisor
	Additional Information	Chris Debarb	Brenda Hui	Ted Balabanski	Nashid Mirza	Katy Weidner	Alec Cannan	Ben Cownie	Ed Carpenetti
	BILLING RATE IN USD \$ \MARKUP:	\$ 355.00	\$ 255.00	\$ 195.00	\$ 220.00	\$ 280.00	\$ 315.00	\$ 370.00	\$ 305.00
Task	Description								
Task 1	Task 1 - Dyanmic Asset Management Plan								
1/.01				X	X		X	X	
Task 2	Task 2 - CIP Prioritization Optimization Tool								
2/.01				X	X		X	X	
Task 3	Task 3 - GIS Utility Network - Data Readiness Assessment (Phase 0)								
3/.01				X	X		X	X	
Task 4	Task 4 - GIS Utility Network - Implementation (Phase 1)								
4/.01				X	X		X		
Task 5	Task 5 - Computerized Maintenance Management System Improvements								
5/.01					X		X		
Task 6	Task 6 - Inclusion of Edgemont Reservoir and W.M. Breichner WTP in the Master Plan								
6/.01				X	X				X
Task 7	Task 7 - Source Water Analysis for Secondary Intake for R.C. Willson WTP or possible new WTP								
7/.01		X							
Task 8	Task 8 - Flow Monitoring								
8/.01		X	X	X					
Task 9	Task 9 - Surveying								
9/.01			X	X	X				
Task 10	Task 10 - Data Center Owner's Advisor								
10/.01						X			

	Additional Services - Staffing Summary							
	Project Role	GIS Lead	Senior Cybersecurity Analyst	Financial Planning and Risk Prioritization	Asset Management Engineer	Asset Management Senior Advisor	GIS Analyst	Deputy GIS Lead
	Billing Rate Title	Senior Engineer/Project Manager	Senior Technical Specialist	Senior Technical Specialist	Technical Specialist	Sr. Advisor	Staff Engineer/Analyst GWF	Senior Engineer/Project Manager
	Additional Information	Brian Lendt	Jim Shultz	Matt Powis	Alana Gilder	Ahmet Ozman	Rutuja Bhasme	Dave Nelson
BILLING RATE IN USD \$\MARKUP:		\$ 280.00	\$ 315.00	\$ 315.00	\$ 245.00	\$ 370.00	\$ 115.00	\$ 280.00
Task	Description							
Task 1	Task 1 - Dyanmic Asset Management Plan							
1/.01					X	X		
Task 2	Task 2 - CIP Prioritization Optimization Tool							
2/.01								
Task 3	Task 3 - GIS Utility Network - Data Readiness Assessment (Phase 0)							
3/.01		X						
Task 4	Task 4 - GIS Utility Network - Implementation (Phase 1)							
4/.01		X					X	X
Task 5	Task 5 - Computerized Maintenance Management System Improvements							
5/.01					X	X		
Task 6	Task 6 - Inclusion of Edgemont Reservoir and W.M. Breichner WTP in the Master Plan							
6/.01					X	X		
Task 7	Task 7 - Source Water Analysis for Secondary Intake for R.C. Willson WTP or possible new WTP							
7/.01								
Task 8	Task 8 - Flow Monitoring							
8/.01								
Task 9	Task 9 - Surveying							
9/.01								
Task 10	Task 10 - Data Center Owner's Advisor							
10/.01								

	Additional Services - Staffing Summary						
	Project Role	Project Controls	Accountant	Billing	CIP Optimization Specialist	Asset Management Engineer	Collection System Modeler
	Billing Rate Title	Project Controls	Project Controls	Project Controls	Senior Technical Specialist	Sr. Project Engineer/Estimator	Sr. Project Engineer/Estimator
	Additional Information	Hanna Braneff	Crayton Stoelzel	Jerri Garrison	Jeff Stillman	Nathan Hampton	Dai Jingjing
	BILLING RATE IN USD \$\MARKUP:	\$ 145.00	\$ 145.00	\$ 145.00	\$ 315.00	\$ 235.00	\$ 235.00
Task	Description						
Task 1	Task 1 - Dyanmic Asset Management Plan						
1/.01		X	X	X			
Task 2	Task 2 - CIP Prioritization Optimization Tool						
2/.01		X	X	X	X		
Task 3	Task 3 - GIS Utility Network - Data Readiness Assessment (Phase 0)						
3/.01		X	X	X			
Task 4	Task 4 - GIS Utility Network - Implementation (Phase 1)						
4/.01		X	X	X			
Task 5	Task 5 - Computerized Maintenance Management System Improvements						
5/.01		X	X	X			
Task 6	Task 6 - Inclusion of Edgemont Reservoir and W.M. Breichner WTP in the Master Plan						
6/.01		X	X	X			
Task 7	Task 7 - Source Water Analysis for Secondary Intake for R.C. Willson WTP or possible new WTP						
7/.01		X	X	X			
Task 8	Task 8 - Flow Monitoring						
8/.01		X	X	X			
Task 9	Task 9 - Surveying						
9/.01		X	X	X			
Task 10	Task 10 - Data Center Owner's Advisor						
10/.01		X	X	X		X	X

	Additional Services - Staffing Summary						
	Project Role	Collection System Modeler	Lead Engineering Manager	Admin	Asset Management Advisor	Senior Water Protection and Management Engineer	Dam Advisor
	Billing Rate Title	Engineer II	Senior Engineer/Project Manager	Clerical/Project Assistant	Sr. Advisor	Senior Engineer/Project Manager	Project Director/Quality Control
	Additional Information	Madison McGuire	Celina Clement	Catherine Choo	Phil Crossland	Drew Ackerman	Jeff Bair
	BILLING RATE IN USD \$\MARKUP:	\$ 175.00	\$ 280.00	\$ 150.00	\$ 370.00	\$ 275.00	\$ 335.00
Task	Description						
Task 1	Task 1 - Dyanmic Asset Management Plan						
1/.01		X		X			
Task 2	Task 2 - CIP Prioritization Optimization Tool						
2/.01		X		X			
Task 3	Task 3 - GIS Utility Network - Data Readiness Assessment (Phase 0)						
3/.01		X		X			
Task 4	Task 4 - GIS Utility Network - Implementation (Phase 1)						
4/.01		X		X			
Task 5	Task 5 - Computerized Maintenance Management System Improvements						
5/.01		X		X	X		
Task 6	Task 6 - Inclusion of Edgemont Reservoir and W.M. Breichner WTP in the Master Plan						
6/.01		X		X		X	X
Task 7	Task 7 - Source Water Analysis for Secondary Intake for R.C. Willson WTP or possible new WTP						
7/.01				X		X	
Task 8	Task 8 - Flow Monitoring						
8/.01		X		X			
Task 9	Task 9 - Surveying						
9/.01		X		X			
Task 10	Task 10 - Data Center Owner's Advisor						
10/.01		X	X	X			

	Additional Services - Staffing Summary									
	Project Role	Stormwater Planning Engineer	Water Resources/Hydr ology Engineer	Geotechnical Engineer	O&M Advisor	Dam Engineer	Hydraulic Structures Engineer	Staff Engineer/G eologist	Project Engineer/ Geologist	Project Surveyor
	Billing Rate Title	Sr. Project Engineer/Estima tor	Senior Engineer/Projec t Manager	Project Engineer	Sr. Advisor	Senior Estimator/A dvisor	Sr. Project Engineer/Es timator	*Triad Rate	*Triad Rate	*Triad Rate
	Additional Information	Amy Dietz	Pablo Gonzalez	Liz Todd	Simon Watson	Scarlett Kitts	David Woodward	-	-	-
	BILLING RATE IN USD \$\MARKUP:	\$ 235.00	\$ 275.00	\$ 220.00	\$ 370.00	\$ 305.00	\$ 275.00	\$ 115.00	\$ 130.00	\$ 105.00
Task	Description									
Task 1	Task 1 - Dyanmic Asset Management Plan									
1/.01										
Task 2	Task 2 - CIP Prioritization Optimization Tool									
2/.01										
Task 3	Task 3 - GIS Utility Network - Data Readiness Assessment (Phase 0)									
3/.01										
Task 4	Task 4 - GIS Utility Network - Implementation (Phase 1)									
4/.01										
Task 5	Task 5 - Computerized Maintenance Management System Improvements									
5/.01	X									
Task 6	Task 6 - Inclusion of Edgemont Reservoir and W.M. Breichner WTP in the Master Plan									
6/.01	X X X X X									
Task 7	Task 7 - Source Water Analysis for Secondary Intake for R.C. Willson WTP or possible new WTP									
7/.01	X X X X									
Task 8	Task 8 - Flow Monitoring									
8/.01										
Task 9	Task 9 - Surveying									
9/.01	X X X									
Task 10	Task 10 - Data Center Owner's Advisor									
10/.01										

	Additional Services - Staffing Summary						
	Project Role	Senior Survey Technician	Licensed Surveyor	Survey Crew (2 person)	GIS Specialist - Triad Engineering	Staff Engineer/G eologist	
	Billing Rate Title	*Triad Rate	*Triad Rate	*Triad Rate	*Triad Rate	*Triad Rate	
	Additional Information	-	Ron Bidle	-	Josh Amos	Stephen Gyursin	
BILLING RATE IN USD \$\MARKUP:		\$ 95.00	\$ 150.00	\$ 170.00	\$ 180.00	\$ 170.00	
Task	Description						
Task 1	Task 1 - Dyanmic Asset Management Plan						
1/.01							
Task 2	Task 2 - CIP Prioritization Optimization Tool						
2/.01							
Task 3	Task 3 - GIS Utility Network - Data Readiness Assessment (Phase 0)						
3/.01					X		
Task 4	Task 4 - GIS Utility Network - Implementation (Phase 1)						
4/.01					X		
Task 5	Task 5 - Computerized Maintenance Management System Improvements						
5/.01							
Task 6	Task 6 - Inclusion of Edgemont Reservoir and W.M. Breichner WTP in the Master Plan						
6/.01							
Task 7	Task 7 - Source Water Analysis for Secondary Intake for R.C. Willson WTP or possible new WTP						
7/.01				X		X	
Task 8	Task 8 - Flow Monitoring						
8/.01							
Task 9	Task 9 - Surveying						
9/.01		X	X	X		X	
Task 10	Task 10 - Data Center Owner's Advisor						
10/.01							

2026 Rate Sheet

CONFIDENTIAL Black & Veatch Billing Rates and Expense Schedule for Hagerstown, City of Calendar Year 2026	
HOURLY BILLING RATES (see Client Billings and Notes) Title/Description/Hourly Billing Rate (\$USD)	
Principal	\$425.00
Sr. Advisor	\$370.00
Sr. Process Engineer	\$355.00
Quality Control/Project Director	\$325.00
Senior Technical Specialist	\$315.00
Senior Estimator/Advisor	\$305.00
Senior Engineer/Project Manager	\$280.00
Engineering Manager	\$255.00
Technical Specialist	\$245.00
Sr. Project Engineer/Estimator	\$235.00
Project Engineer	\$220.00
Engineer III	\$195.00
Engineer II	\$175.00
Engineer I	\$135.00
Clerical/Project Assistant	\$150.00
Project Controls	\$145.00
Technician/Analyst GWF	\$115.00
Staff Engineer GWF	\$90.00
Client Billings: Client shall pay to Engineer for the performance of the Services the sum of the following amounts unless the compensation is otherwise stated in the specific task assignment.	
1. Labor will be billed as actual hours charged to this project by Black & Veatch personnel and in accordance with the rates above.	
2. Expenses for travel and lodging will be billed at actual cost. These expenses include cost such as air-fare, personal mileage, lodging, meals, motor vehicles rental, telephone, special rental equipment, etc.	
3. Any other professionals not specifically identified above will be placed in the most appropriate category above based on function and experience.	
Notes:	
1. Billing rates are subject to annual adjustment annually.	
2. This Rate Sheet contains information that may be privileged, confidential and exempt from disclosure under applicable law. Any unauthorized disclosure, copying, or distribution of this document or any of its contents is prohibited.	

Assumptions

1. Work under this project will be at the direction of OWNER. Scope and budget are estimated based on our current understanding and anticipation of the requirements. Scope and budget will be adjusted in coordination with the OWNER Project Manager as work progresses.
2. No sampling, testing, subsurface investigation is anticipated is anticipated but can be provided as an additional service.
3. The range of rates for GIS personnel has been included in the 100-hour GIS Update Bid Alternate. These roles, as well as Civil Engineers, Project and Engineering Management staff will be used following the GIS gap analysis and confirmation of the GIS update scope. Depending upon the final scope of GIS update services, additional discipline staff may be required for completion of the scope.
4. Drawings are available from the City for the development of GIS mapping. Where possible field verification will be included in facility assessment site visits. An additional service for surveying system features is included in the case that elevations need to be confirmed for items like weirs and inverts.
5. The asset management system does not include any geographic information.
6. The current asset management system is primarily only populated with equipment located at the water plant, wastewater plant, and water pump stations. For these sites the information including pumps, motors, electrical equipment and generators. Limited features of the water distribution and collection system (including wastewater pump stations) are included in the asset management system.
7. Conservative level of effort for hydraulic modeling have been assumed based upon the following:
 - a. Approximately 125 miles of pipe (gravity and force mains) in the collection system and no existing wastewater hydraulic model.
 - b. Approximately 430 miles of water distribution system pipes, 8 finished water storage tanks, 4 water pump stations and 1 backwash tank at the RC Willson WTP.
 - c. SCADA data is available on the water distribution and wastewater collections system and no temporary monitoring or testing is needed.
 - d. Due to limited information on the accuracy of the water hydraulic model, typical level of effort for model development, using experience for similar projects, based upon hours per mile have been used.
8. The point of entry for the water systems serving Williamsport, Funkstown, and Smithsburg will be included in the hydraulic model using the annual average usage/purchase or purchased allocation, whichever is greater.
9. Agreement on the scope of GIS model updates, and the execution of the GIS model update will be prioritized during the project initiation for use in the water and wastewater hydraulic modeling.
10. The Edgemont Reservoir and W.M. Breichner WTP were not included in the base fee for the Water and Wastewater Master Plan but can be provided as an additional service.

- 11.** Key personnel listed in the Master Plan fee, GIS Update bid alternative and Additional Services Staffing Summary have been based upon expected scope, the personnel used for actual execution may vary slightly and will bill rates
- 12.** Global workforce (GWF) personnel have been included in the GIS Update bid alternative and the 2026 rate sheet. Additional global workforce personnel may be utilized to meet budget and schedule requirements in the master plan scope of services.
- 13.** Draft deliverables will be provided in Microsoft Word. The final combined water and wastewater Master Plan will be provided in Adobe PDF with five hard copies.



BLACK & VEATCH