



City of Ann Arbor
Water Treatment Plant Alternatives Analysis
RFP No. 881
Level of Effort
Fee (Revised - Scope Rev D.1)

Task No.	Task Description	Salary Rate	Project Team Member Level of Effort (hours)											B&V Total Hours	Fee			
			PD	PM	LPE	SME/WTP	SME/SH	SME/S	SME/S	ES	ES	QC	PC		AP/CAD	Total Fee B&V Labor	Direct Expenses	Total
1.025		\$76	\$76	\$48	\$65	\$65	\$55	\$65	\$60	\$45	\$32	\$60	\$32	\$29				
2.9		Inflation adjustment	\$77.90	\$49.20	\$66.63	\$66.63	\$56.38	\$66.63	\$61.50	\$46.13	\$32.80	\$61.50	\$32.80	\$29.73				
		Bill rate (based on salary multiplier at left)	\$226	\$143	\$193	\$193	\$163	\$193	\$178	\$134	\$95	\$178	\$95	\$86				
000	Project Management & Administration																	
010	Project Management & Administration		6	16									12	16	50	\$6,159		\$6,159
020	Project Factsheet		1	4										2	7	\$969		\$969
030	Summary Final Report		2	32	4	2	2		2			6		8	58	\$8,620	\$500	\$9,120
040	Council/Planning Commission Presentation and Meetings		2	2	4	1	2					1		4	16	\$2,553		\$2,553
Subtotal - PM&A			11	54	8	3	4	0	2	0	0	7	12	30	131	\$ 18,302	\$ 500	\$ 18,802
Phase I - Source of Supply and Reliability Evaluation																		
100A	Source of Supply and System Reliability Alternatives Evaluation - Reconnaissance Level Evaluations																	
101A	Data Gathering and Review		1		4	4	4								13	\$2,654		\$2,654
105A	Project Initiation Meeting		8		8	8		8						2	34	\$6,617	\$2,000	\$8,617
110A	Connection to DWSD		4		8			16				1			29	\$5,719		\$5,719
120A	Treatment Capacity near City Wellfield		2		8			16				1			27	\$5,267		\$5,267
130A	Existing Treatment Facility Improvements		4		40	4	40					1			89	\$18,412		\$18,412
140A	Decision Analysis				32										32	\$6,183		\$6,183
150A	Workshop #1 (Day 1)		9		9		8	8						2	36	\$7,256	\$2,000	\$9,256
Subtotal - Phase IA			28	0	109	16	52	48	0	0	0	3	0	4	260	\$ 52,108	\$ 4,000	\$ 56,108
100B	Source of Supply and System Reliability Alternatives Evaluation - Planning Level (if required based on on outcome of Phase IA)																	
010B	Additional Project Management and Administration for Phase IB		1	2									1	2	6	\$779		\$779
110B	Connection to DWSD		2		24			16		80	1				123	\$15,968		\$15,968
120B	Treatment Capacity near City Wellfield		2		24			16		80	1				123	\$15,968		\$15,968
130B	Existing Treatment Facility Improvements		2		16	6	6				1				31	\$6,205		\$6,205
140B	Decision Analysis				24										24	\$4,637		\$4,637
150B	Review Meeting		9		9			8						2	28	\$5,490	\$1,500	\$6,990
160B	Hybrid Source of Supply/Reliability Alternatives (Optional)		2		40			8		8	2				60	\$10,844		\$10,844
Subtotal - Phase IB			18	2	137	6	6	48	0	0	168	5	1	4	395	\$ 59,891	\$ 1,500	\$ 61,391
Phase II - Preferred Alternative Detailed Evaluation and Development (based on Existing Treatment Facility Development)																		
200	Alternatives Screening and Preliminary Evaluations																	
210	Workshop #1 (continuation from Phase IA or IB as applicable)		17	8	17	16	8							2	68	\$12,838	\$2,000	\$14,838
220	Structured Decision Model Development				30										30	\$5,796		\$5,796
230	Applied Turbidity Evaluation					32									32	\$6,183		\$6,183
300	Facility Plan Alternatives Development																	
310	Precipitive Softening Analysis				16	72			2		1		1		92	\$17,535		\$17,535
320	Plant 1 Service Life Extension Alternatives		4	24	4			2	4		1		1	40	\$6,257		\$6,257	
330	Plant 1 Pretreatment Alternatives				80				4		1		1	86	\$16,257		\$16,257	
340	Solids Management Alternatives					80			4		1		1	86	\$13,879		\$13,879	
350	Future Treatment Options and Regulatory Compliance				60			4	4		1		1	70	\$13,106		\$13,106	
360	Facility Visits and Vendor Presentations (Allowance for use at City direction)				28	3		3					2	36	\$6,697	\$6,000	\$12,697	
400	Facility Plan Alternatives Evaluation																	
410	Plant 1 Pretreatment Alternatives Ranking (during Workshop 2)														0	\$0		\$0
420	Solids Management Alternatives Ranking (during Workshop 2)														0	\$0		\$0
430	Future Treatment Alternatives Ranking (during Workshop 2)														0	\$0		\$0
440	Workshop #2 (Day 1)		8	9	9	8	8						2	44	\$7,856	\$2,300	\$10,156	
500	Facility Plan Alternatives Integration and Consensus Building																	
510	Workshop #2 (continuation)		8	9	9	8	8						2	44	\$7,856	\$900	\$8,756	
600	Document Facility Plan Solutions																	
610	Facility Site Layout and Opinions of Probable Cost		2	24	24		16		6		2		16	90	\$13,668		\$13,668	
620	Implementation Schedule and Phasing		4	16	8	2	4				2		2	38	\$6,302		\$6,302	
Subtotal - Preferred Alternative Evaluation and Development			43	90	285	141	124	0	9	24	0	9	0	31	756	\$ 134,229	\$ 11,200	\$ 145,429
Total - Phase PM&A, Phase IA, and Phase II			82	144	402	160	180	48	11	24	0	19	12	65	1,147	\$ 204,639	\$ 15,700	\$ 220,339
700	Additional Optional Project Tasks																	
710	Develop Pilot Testing Plan			4	32	32		7	2		1	1	2	81	\$14,898		\$14,898	
720	Basin 1 CFD Analysis			2	5				60		4		1	72	\$10,077	\$25	\$10,102	
TOTAL - Additional Optional Tasks			0	6	37	32	0	0	7	62	0	5	1	3	153	\$ 24,975	\$ 25	\$ 25,000

Project Team Member Legend

- PD - Project Director (Dave Koch)
- PM - Project Manager (Ben Whitehead)
- LPE - Lead Process Engineer (Chris Tadanier)
- SME/WTP - Subject Matter Expert/Water Treatment Processes (Doug Elder)
- SME/SH - Subject Matter Expert/Solids Handling (Trish Scanlan)
- SME/S - Subject Matter Expert/Support (climate change, O&M, etc.)
- ES - Engineering Support (modeling, estimating, CFD analysis, etc.)
- QC - Quality Control (support staff)
- PC - Project Controls (support staff)
- AP/CAD - Administrative Professionals/CAD (support staff)