City of Seguin
Water Model & Master Plan Update
2/18/2014
Detailed Cost Breakdown

Project Fee Summary	
Basic	$ 159,670
Special	$ -
Total Project	$ 159,670

Basic Services

		Project Role	Principal / QC	Project Manager	Project Engineer	GIS Analyst	Design Engineer	Total Hours	Total Labor Effort	Total Expense Effort	Total Sub Effort	Total Effort
Task A: Population and Water Demand Projections												
	A1.	Project Kick-Off Meeting	2	4	4		2	12	$ 1,890	$ 290	$ -	$ 2,180
	A2.	Data Collection & Review		6	12			18	$ 2,250	$ 160	$ -	$ 2,410
	A3.	Meet with City Planning Department	2	4	4	2		12	$ 1,710	$ 290	$ -	$ 2,000
	A4.	Develop and Distribute Population and Non-residential Growth Projections	1	12	24	8		45	$ 5,400	$ 390	$ -	$ 5,790
	A5.	Review and Evaluate Historical Water Usage Data	1	4	12			17	$ 2,160	$ 150	$ -	$ 2,310
	A6.	Develop Design Criteria for Water Demand Projections	1	4	6			11	$ 1,520	$ 100	$ -	$ 1,620
	A7.	Develop and Distribute Existing Demands	1	6	12	8		27	$ 3,150	$ 230	$ -	$ 3,380
	A8.	Develop and Distribute Water Demand Projections	1	12	20	4		37	$ 4,640	$ 320	$ -	$ 4,960
	A9.	Develop TM-1 – Population and Water Demand Projections	1	8	12	4		25	$ 3,140	$ 220	$ -	$ 3,360
	A10.	Progress Meeting #1 - Population and Water Demand Projections	2	4	4	2		12	$ 1,710	$ 290	$ -	$ 2,000
	A11.	Finalize TM-1 – Population and Water Demand Projections	1	4	6	2		13	$ 1,690	$ 300	$ -	$ 1,990
		TASK A TOTAL	**13**	**68**	**116**	**30**	**2**	**229**	**$ 29,260**	**$ 2,740**	**$ -**	**$ 32,000**
Task B: Water Model Development and Calibration												
	B1.	Conduct Temporary Pressure Testing	1	4	8	2		15	$ 1,900	$ 1,510	$ -	$ 3,410
	B2.	Water Model Evaluation and Selection Workshop	2	6	6			14	$ 2,080	$ 310	$ -	$ 2,390
	B3.	Construct Water Model	1	16	40	2		59	$ 7,250	$ 510	$ -	$ 7,760
	B4.	Obtain and Evaluate SCADA Data	1	4	8			13	$ 1,730	$ 120	$ -	$ 1,850
	B5.	Develop Diurnal Demand Curves	1	4	8			13	$ 1,730	$ 120	$ -	$ 1,850
	B6.	Conduct EPS Model Calibration	2	16	40			58	$ 7,310	$ 500	$ -	$ 7,810
	B7.	Develop TM-2 – Water Model Development and Calibration	1	8	12	4		25	$ 3,140	$ 220	$ -	$ 3,360
	B8.	Progress Meeting #2 - Water Model Development and Calibration	2	4	4	2		12	$ 1,710	$ 290	$ -	$ 2,000
	B9.	Finalize TM-2 – Water Model Development and Calibration	1	4	6	2		13	$ 1,690	$ 300	$ -	$ 1,990
		TASK B TOTAL	**12**	**66**	**132**	**12**		**222**	**$ 28,540**	**$ 3,880**	**$ -**	**$ 32,420**
Task C: Hydraulic Analyses and System Evaluation											$ -	
	C1.	Perform Modeling of Existing Water System	1	8	16	2		27	$ 3,400	$ 230	$ -	$ 3,630
	C2.	Conduct Fire Flow Analysis for Existing System	1	4	8	2		15	$ 1,900	$ 130	$ -	$ 2,030
	C3.	Evaluate Pressure Plane Delineation	1	8	12	2		23	$ 2,980	$ 200	$ -	$ 3,180
	C4.	Evaluate TCEQ Capacity Requirements Compliance	1	8	16			25	$ 3,230	$ 220	$ -	$ 3,450
	C5.	Progress Meeting #3 – Existing System Analysis	2	4	4	2		12	$ 1,710	$ 290	$ -	$ 2,000
	C6.	Identify Requirements for System Improvements	1	4	8			13	$ 1,730	$ 120	$ -	$ 1,850
	C7.	Evaluate Pumping, Storage, and Production Capacity for Future Needs	1	8	16			25	$ 3,230	$ 220	$ -	$ 3,450
	C8.	Utilize Buildout Model to Determine Sizing of Water System Improvements	4	24	40	4		72	$ 9,410	$ 620	$ -	$ 10,030
	C9.	Progress Meeting #4 – Water System Improvement Alternatives	2	4	4	2		12	$ 1,710	$ 290	$ -	$ 2,000
	C10.	Utilize 5-year and 10-year Water System Model to Determine Phasing of Water System Improvements	4	24	40	4		72	$ 9,410	$ 620	$ -	$ 10,030
		TASK C TOTAL	**18**	**96**	**164**	**18**		**296**	**$ 38,710**	**$ 2,940**	**$ -**	**$ 41,650**
Task D: Capital Improvement Plan and Master Plan Report												
	D1.	Develop Capital Improvement Plan (CIP) Costs, Phasing Plan & Mapping	6	24	48	8	8	94	$ 12,450	$ 800	$ -	$ 13,250
	D2.	Progress Meeting #5 – Capital Improvements Plan	2	4	4	2		12	$ 1,710	$ 290	$ -	$ 2,000
	D3.	Prepare Draft Water Master Plan Report	2	16	32	8		58	$ 7,130	$ 500	$ -	$ 7,630
	D4.	Progress Meeting #6 – Draft Water Master Plan Report	2	4	4	2		12	$ 1,710	$ 290	$ -	$ 2,000
	D5.	Revise and Finalize Water Master Plan Report	1	8	16	4		29	$ 3,570	$ 1,090	$ -	$ 4,660
	D6.	City Council Presentation	4	4	2			10	$ 1,790	$ 280	$ -	$ 2,070
		TASK D TOTAL	**17**	**60**	**106**	**24**	**8**	**215**	**$ 28,360**	**$ 3,250**	**$ -**	**$ 31,610**
Task E: Water Model Training & Software Purchase												
	E1.	Purchase Selected Software		4				4	$ 650	$ 11,540	$ -	$ 12,190
	E2.	Prepare Model Training Material	1	8	8			17	$ 2,380	$ 360	$ -	$ 2,740
	E3.	Water Model Training Workshop	8	8				16	$ 3,150	$ 620	$ -	$ 3,770
	E4.	Follow-up Coordination	8	8				16	$ 3,150	$ 140	$ -	$ 3,290
		TASK E TOTAL	**17**	**28**	**8**			**53**	**$ 9,330**	**$ 12,660**	**$ -**	**$ 21,990**
		Total Basic Services Hours	**77**	**318**	**526**	**84**	**10**	**1015**	**$ 134,200**	**$ 25,470**		**$ 159,670**