

EXHIBIT 4-B - MODFLOW Detailed Budget

Task/Subtask	HH Labor Total	Right on Q	Travel Costs	Other Direct Costs	Total Cost
Task A. Data Compilation					
A.1 Well database	\$ 200	\$ 2,560	\$ -	\$ -	\$ 2,760
A.2 Production Database	\$ 200	\$ 2,560	\$ -	\$ -	\$ 2,760
A.3 Streamflow	\$ 200	\$ 2,560	\$ -	\$ -	\$ 2,760
A.4 Precipitation	\$ 200	\$ 640	\$ -	\$ -	\$ 840
A.5 Land use and soils	\$ 200	\$ 640	\$ -	\$ -	\$ 840
Task A Total	\$ 1,000	\$ 8,960	\$ -	\$ -	\$ 9,960
Task B. Create Modflow Grid and Layering					
B.1 Create Modflow Grid Cell	\$ 800	\$ 800	\$ -	\$ -	\$ 1,600
B.2 Create Model Layering	\$ 800	\$ 1,280	\$ -	\$ -	\$ 2,080
B.3 Set Active Grid	\$ 800	\$ 1,600	\$ -	\$ -	\$ 2,400
Task B Total	\$ 2,400	\$ 3,680	\$ -	\$ -	\$ 6,080
Task C. Select MODFLOW Packages and create input files					
C.1 Set up SFR Package	\$ 1,600	\$ 1,280	\$ -	\$ -	\$ 2,880
C.2 Create Pump File	\$ 300	\$ 1,280	\$ -	\$ -	\$ 1,580
C.3 Create Initial Head File	\$ 300	\$ 1,280	\$ -	\$ -	\$ 1,580
C.4 Create HOBS file	\$ 300	\$ 1,280	\$ -	\$ -	\$ 1,580
C.5 Create General-Head Boundary Package	\$ 300	\$ 1,280	\$ -	\$ -	\$ 1,580
C.6 Create UZF Package	\$ 1,600	\$ 1,280	\$ -	\$ -	\$ 2,880
C.7 Create Wells Package	\$ 300	\$ 1,280	\$ -	\$ -	\$ 1,580
C.8 Create GHB Package	\$ 300	\$ 1,280	\$ -	\$ -	\$ 1,580
C.9 Create Lake Package for Dams	\$ 800	\$ 1,280	\$ -	\$ -	\$ 2,080
Task C Total	\$ 5,800	\$ 11,520	\$ -	\$ -	\$ 17,320

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Task D. Parameterization					
D.1 Set paramaters for layers	\$ 800	\$ 1,280	\$ -	\$ -	\$ 2,080
D.2 Set Stream Segment and Reach Parameters	\$ 800	\$ 1,280	\$ -	\$ -	\$ 2,080
D.3 Create Parameter Zone Files	\$ 800	\$ 1,280	\$ -	\$ -	\$ 2,080
D.4 Create Precipitation/Recharge factors	\$ 800	\$ 640	\$ -	\$ -	\$ 1,440
Task D Total	\$ 3,200	\$ 4,480	\$ -	\$ -	\$ 7,680
Task E. Make Initial MODFLOW Steady State Runs, Tests, Diagnostics, and Errors					
E.1 Set up initial steady state MODFLOW simulations	\$ 800	\$ 1,280	\$ -	\$ -	\$ 2,080
E.2 Debug parameter files/packages to make sucessful steady state MODFLOW test runs intersection of water table to springs, wetlands, and streams	\$ 800	\$ 1,280	\$ -	\$ -	\$ 2,080
Task E Total	\$ 2,400	\$ 3,840	\$ -	\$ -	\$ 6,240
Task F. Calibrate MODFLOW and Report					
F.1. Calibrate steady state MODFLOW Model to historic streamflow and groundwater head data	\$ 1,600	\$ 2,560	\$ -	\$ -	\$ 4,160
F.2 Calibration and Model Parameter Report.	\$ 800	\$ 2,560	\$ -	\$ -	\$ 3,360
Task F Total	\$ 2,400	\$ 5,120	\$ 540	\$ -	\$ 8,060
Task G. Create and Calibrate GSFLOW					
G.1 Intigrate MODFLOW and PRMS model into GSFLOW Framework	\$ 4,000	\$ 640	\$ -	\$ -	\$ 4,640
G.2 Calibrate GSFLOW	\$ 4,000	\$ 640	\$ -	\$ -	\$ 4,640
Task G Total	\$ 8,000	\$ 1,280	\$ 540	\$ -	\$ 9,820
Task H. Report Results					
I.1. Report GSFLOW Model Development, Calibration to Historical Period, and Historical Results Report	\$ 1,600	\$ 3,200	\$ -	\$ -	\$ 4,800
Task I Total	\$ 1,600	\$ 3,200			\$ 4,800
	\$ 26,800	\$ 42,080	\$ 1,080		\$ 69,960