

DEER CREEK AND TULE RIVER AUTHORITY
REMOTE SENSING AND WATER BALANCE ANALYSIS MODEL

ATTACHMENT 6: BUDGET

The proposed Budget for the Deer Creek and Tule River Authority Remote Sensing and Water Balance Analysis Model includes a budget per task as identified in Attachment 5: Work Plan. Following is a summary of the proposed budget for this project.

Project Task	Budgeted Amount
Task 1: Develop Field Boundaries and Crop Assignments	\$10,579
Task 2: NDVI Imagery Review, Selection, and Analysis	\$9,644
Task 3: Develop Local Root Zone Model Parameters	\$6,698
Task 4: Configure and Run Model	\$11,198
Task 5: Model Calibration and Validation	\$16,166
Task 6: Identify and Prepare Specific Data Deliverables	\$11,350
Task 7: Phase 2 Initial Training and Management Set-up	\$15,050
DCTRA Administrative Fee:	\$2,714
Total Project Budget:	\$83,399

Note: A funding match is not proposed for this project

ENCLOSURES:

- Budget Breakdown including Administrative Fees from DCTRA and sub-consultant fees based upon labor categories, hourly rates, and labor time estimates

Deer Creek & Tule River Authority LGA Grant Application - Remote Sensing and Water Balance Analysis Model

ESTIMATED PROJECT FEE SUMMARY - JULY 13, 2012

Preparer Name: D. DE GROOT

	DCTRA Staff	Sub Consultant - 4Creeks, Inc./Davids Engineering								
Hourly Rate:	Fixed Cost	Principal Engineer	Senior Engineer	Associate Engineer	Engineer II	Engineer I	Tech. Project	Secretarial	PM	TOTAL
	5%	\$180	\$149	\$138	\$120	\$108	\$80	\$72	\$115	

PROJECT GOAL - IMPLEMENT BASIN OBJECTIVES: GROUNDWATER BASIN UNDERSTANDING & INFORMATION DISSEMINATION

Task 1: Develop Field Boundaries and Crop Assignments

Assemble and Combine data sets		1	8			16				\$3,100.00
Assign Crop method Categories		1	8			8				\$2,236.00
Assign Soil Textures			2			4				\$730.00
Prepare Progress Report once data has been collected:		3	9	2					4	\$2,617.00
Reimbursable Costs (Gas Mileage, printing/copies)		100								\$100.00
Administration Fees (manage invoicing, project management)			8					2	4	\$1,796.00
SUB-TOTAL:	\$528.95	105	35	2	0	28	0	2	8	\$10,579.00

Task 2: NDVI Imagery Review, Selection, and Analysis

Review available imagery Data		1	2			8				\$1,342.00
Select imagery data and calculate NDVI			2			16				\$2,026.00
Extract NDVI values by field			10	4		8				\$2,906.00
Prepare Progress Report once data has been inputed and analyzed:		3	2	2					4	\$1,574.00
Reimbursable Costs (Gas Mileage, printing/copies)		0								\$0.00
Administration Fees (manage invoicing, project management)			8					2	4	\$1,796.00
SUB-TOTAL:	\$482.20	4	24	6	0	32	0	2	8	\$9,644.00

Task 3: Develop Local Root Zone Model Parameters

Evaluate soil and hydraulic parameters		1	2	4		8				\$1,894.00
Review available information and estimate crop and irrigation method parameters		1	6							\$1,074.00
Prepare Progress Report once data has been inputed and analyzed:		3	4	2					4	\$1,872.00
Reimbursable Costs (Gas Mileage, printing/copies)										\$0.00
Administration Fees (manage invoicing, project management)		2	6					2	4	\$1,858.00
SUB-TOTAL:	\$334.90	7	18	6	0	8	0	2	8	\$ 6,698.00

Task 4: Configure and Run Model

Prepare and Load Data sets,			6	12		8				\$3,414.00
Perform initial run and check calculations, summarize results		2	12	12						\$3,804.00
Prepare Progress Report once Report has been completed:		3	4	2					4	\$1,872.00
Reimbursable Costs (Gas Mileage, printing/copies)		250								\$250.00
Administration Fees (manage invoicing, project management)		2	6					2	4	\$1,858.00
SUB-TOTAL:	\$559.90	257	28	26	0	8	0	2	8	\$11,198.00

Task 5: Model Calibration and Validation

Compare total ET to SEBAL, adjust parameters, re-run model		4	16	24						\$6,416.00
Compare applied water from model results to target amounts		4	16	24						\$6,416.00
Prepare Final Progress Report :		3		2					4	\$1,276.00
Reimbursable Costs (Gas Mileage, printing/copies)		200								\$200.00
Administration Fees (manage invoicing, project management)		2	6					2	4	\$1,858.00
SUB-TOTAL:	\$808.30	213	38	50	0	0	0	2	8	\$16,166.00

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ESTIMATED PROJECT FEE SUMMARY - JULY 13, 2012

Preparer Name: D. DE GROOT

	DCTRA Staff	Sub Consultant - 4Creeks, Inc./Davids Engineering							TOTAL	
	Fixed Cost	Principal Engineer	Senior Engineer	Associate Engineer	Engineer II	Engineer I	Tech. Project	Secretarial		PM
Hourly Rate:	5%	\$180	\$149	\$138	\$120	\$108	\$80	\$72	\$115	
Task 6: Identify and Prepare Specific Data Deliverables										
Identify specific fluxes and storage volumes of interest, spatial scale for aggregation, and time scale for deliverables		2	24	6						\$4,764.00
Assemble spreadsheets and or databases containing data		2	8	8						\$2,656.00
Prepare Final Progress Report :		3	4	2					4	\$1,872.00
Reimbursable Costs (Gas Mileage, printing/copies)		200								\$200.00
Administration Fees (manage invoicing, project management)		2	6					2	4	\$1,858.00
SUB-TOTAL:	\$567.50	209	42	16	0	0	0	2	8	\$11,350.00
Task 7: Phase 2 Initial Training and Management Set-up										
Prepare for Workshop		2	2	2						\$934.00
Training Sessions with DCTRA Staff			4	8						\$1,700.00
Final Report of Model with Instruction Manual			40	8						\$7,064.00
Prepare Final Progress Report once presentation data have been completed:		2	6	2		8			4	\$2,854.00
Reimbursable Costs (Gas Mileage, printing/copies)		1000								\$1,000.00
Administration Fees (manage invoicing, project management)			6					2	4	\$1,498.00
SUB-TOTAL:	\$752.50	1004	58	20	0	8	0	2	8	\$15,050.00
TOTAL PROJECT COSTS:	\$2,714.25	586	143	90	0	76	0	10	40	\$80,685.00

DCTRA Staff	\$2,714.25
Sub-Consultant (4Creeks, Inc.)	\$80,685.00
Total Requested Grant Amount:	\$83,399.25