

FUNCTION: DOCID: OE PDA 09000000052 11/18/08 02:38:14 PM
STATUS: REJCT BATID: ORG:

OPEN END PURCHASE ORDER INPUT FORM

OE DATE: 11 18 08 ACCT PD: 05 09 BFY: 09 ACTION: E BUYER: PK PRINT: Y
VENDOR#: 840976632 RESP AGENCY: PDA ORG:
NAME: WEST DIVIDE WATER CONSERVANCY RESP PERSON: KIRK RUSSELL
DBA: SHIP/BILL: PD1 PD1 ST PAYS FRT: N
ADDRESS: PO BOX 203 DEL BLDG/RM: FOB/SELM: D 9
RIFLE CO 81650 DEL DATE: 08 31 09 CONF:
CONTACT: SPEC INTRUC: TEXT:
REQUESTER: STEVEN SHULL BID NUMBER: DISC:
REQUESTER PHONE: 303 866 3441 PA NUMBER: LINK: Y

LN	REF RX	LN	FND AGY	ORG/SUB	APPR	PGM	FUNC	OBJ/SUB	GBL	RPTG	JOB/PROJ
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A--*HP03-DOCUMENT ERRORS DETECTED H--A037E-INVALID GRANT BUDGET LINE

H--HFL6E-GVAL ENTRY MISSING

FUNCTION: DOCID: OE PDA 09000000052 11/18/08 02:38:19 PM
STATUS: REJCT BATID: ORG: 001-001 OF 001

LN	REF RX	LN	COMMODITY CODE	TOTAL COST	I/D	ACCT LN	TEXT
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DESCRIPTION

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WATER SUPPLY RESERVE GRANT-WEST DIVIDE WATER CONSERVANCY DIS
POTENTIAL RES SITES IN THE CRYSTAL RIV WATERSHED.

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03-

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05-

840976632 #

September 30, 2008



West Divide Water Conservancy District, Board of Directors
109 West Fourth Street
P.O. Box 1478
Rifle, CO 81650-1478

RE: Scope of Services; Feasibility and Design Assessment of Off-Channel Reservoir Sites in the Crystal River Watershed

Dear West Divide Board of Directors:

Pursuant to your request, we have prepared the following Scope of Services to assess the feasibility and preliminary design of three off-channel reservoir sites in the Crystal River Watershed located in Pitkin County, Colorado. The reservoirs would be cooperatively developed by West Divide and the property owners, and would supply water for agricultural uses, domestic uses, and instream flow uses within the Crystal River watershed (Attachment A).

It is our understanding that West Divide was recently awarded \$40,000 from the Colorado River Basin Account for the project. These funds are available through the Colorado Water Conservation Board (CWCBB) Water Supply Reserve Account. Further, we understand that matching funds totaling \$15,000 will be contributed by West Divide.

STUDY BACKGROUND

The Crystal River is over-appropriated. Natural water supplies are in-sufficient to satisfy irrigation, residential, and instream flow demands. The lower portion of the river is commonly dry during late summer. Many existing residential water users located in un-incorporated areas do not have a legal water supply.

West Divide currently provides augmentation water to about 20 existing water users in the Crystal River watershed, extending from locations near the Town of Carbondale to above the Town of Redstone. This regional augmentation program was adjudicated by the Water Court in Case No. 99CW320 and has historically used water from Ruedi Reservoir to augment the out-of-priority depletions of its customers. Augmentation contracts for these contractees were granted prior to 2004, at a time when the Colorado

Division of Water Resources determined that the Crystal River watershed could be included within the District's decreed regional augmentation program. The augmentation program allowed individual water users to obtain well permits for residential properties; such permits would otherwise be difficult to secure.

In 2004, the Colorado Division of Water Resources administratively determined that the Crystal River portion of the District's regional augmentation program service area could no longer be operated without injury to senior water rights. As a result of this determination, approximately 20 existing water users no longer have a legal water supply. In addition, it is currently very difficult for other rural residents in the area to obtain well permits or a legal water supply.

Supporters of the project include Jason and Jayme Sewell, who are the owners of agricultural land within the Crystal River watershed. The proposed water storage sites that are the subject of this application are located on the Sewell's Property.

STUDY OBJECTIVES

This project will facilitate the construction of one or more small off-channel reservoirs on the Sewell Property. The project's primary and cooperative water supply objectives are:

1. Develop in-basin augmentation water supplies for approximately 20 existing West Divide contractees who no longer have a legal water supply.
2. Provide supplemental late season irrigation water for use on the Sewell Property.
3. Develop in-basin augmentation supplies for potential future West Divide customers, to the extent that water storage may exceed the demands for the above objectives.
4. Provide water for instream flow maintenance of the Crystal River.

This project is intended to develop multi-purpose water supplies that can be used in a coordinated and cooperative manner to optimize benefits within the Crystal River watershed. The proposed storage sites have been reviewed in the field to identify site conditions that may impact construction. No fatal flaws were identified during these site reviews.

Crystal River water rights that are adjudicated to the West Divide Water Conservancy and to the Colorado River Water Conservancy District have been reviewed. It has been determined that these conditional water rights will likely provide a viable and reliable source of supply to the proposed storage facilities.

Water right administration of the Crystal River has been reviewed with the Division of Water Resources. From this review it has been determined that the reservoir sites are in a location that can satisfy the water supply objectives outlined in item 3 above. A preliminary discussion of permit requirements has been

beld with Pitkin County representatives. No fatal flaws from a permitting standpoint have been identified at this time.

Crystal River water demands have been quantified in several recent studies. In 2003 and in 2005, Grand River Consulting evaluated potential water demands in the Crystal River watershed, under a contract with the Colorado River District. These studies concluded that as much as 12,000 acre feet of additional water could be required to meet existing irrigation demands in drought years, and that instream flow demands are even greater. Based on these assessments it is clear that the demand for water in the Crystal River watershed will exceed any supply that can be provided by the off-channel reservoirs that will be evaluated in this project.

WORK TASKS

Three off-channel reservoir sites on the Sewell Property will be evaluated. The primary work tasks outlined below will be completed. We propose to complete the four following primary work tasks:

Task 1 – Topographic Survey. Digital topographic information (5 foot contour intervals) will be developed for the reservoir sites and related construction areas.

Task 2 – Identify Storage Alternatives. Up to three sizes of storage facilities will be configured for each of the three site locations. Different embankment heights and grading plans will be used to develop the storage alternatives. Active and total storage capacity, in acre feet, will be estimated for each alternative.

Task 3 – Screen Storage Alternatives. The project cooperators will review the storage alternatives and select those alternatives that warrant further consideration.

Task 4 – Preliminary Design. Preliminary designs will be developed for each alternative that has been selected for further consideration. The designs will identify the project specifications (embankment quantities, capacity of outlet facilities, etc.) at a level of detail that will support the development of detailed costs estimates for the alternatives. Preliminary designs for all related facilities (supply ditches, spillways, pump facilities, etc.) will also be developed.

Task 5 – Construction Cost Estimates. Cost estimates will be developed for each selected alternative based upon local unit construction costs, material costs, and the experience of the design engineer. Operational costs (including pumping if necessary) will also be estimated.

Task 6 – Water Rights and Water Supply. Physical and legal water supplies available to the reservoirs will be evaluated. This evaluation will assess the average and firm yield of each alternative, and will provide recommendations regarding water right actions that may be required to develop the potential reservoirs.

Task 7 – Environmental and Permitting. An environmental review of each reservoir site will be completed. The review will identify any sensitive environmental issues (wildlife migration corridors, slope instability, endangered species, etc.). The environmental review will identify the specific permits that will be required, the anticipated difficulty (if any) associated with permitting, and will specifically consider the review criteria in Pitkin County 1041 regulations. Mitigation opportunities will be identified where appropriate.

Task 8 – Report Preparation / Deliverables. Study results will be fully documented in a final Feasibility and Design Report. Results of the topographic survey will also be delivered in digital format to the project sponsors.

STUDY TEAM

We propose that a multidisciplinary study team be assembled to complete the feasibility study. Grand River Consulting will provide project management and will also be responsible for water availability, stream flow assessments and a water rights evaluation. Grand River will also participate in the assessment of environmental issues where needed.

Sopris Engineering will conduct the topographic survey and will complete the preliminary project design and cost estimates for the reservoir storage.

ERO Resources will be primarily responsible for environmental review including permitting requirements.

Please see Attachment B for consultant hourly rates and associated fees.

SCHEDULE

The proposed implementation schedule for this study is outlined in Table 1 on the next page. Please note that this schedule may be modified as directed by West Divide.

Commencement of the project is contingent upon the execution date of the CWCB Water Supply Reserve Account Award Contract. The total time frame for project completion is estimated at six months from the executed CWCB contract date. The estimated time for completion of each work task is noted in Table 1. Please note that some work tasks may overlap concurrently.

Table 1 Project Schedule Crystal River Project	
Work Task	Time for Task Completion
Task 1 – Topo Survey	Effort will take one month
Task 2 – Identify Storage Alternatives	Effort will take two months
Task 3 – Screen Storage Alternatives	Effort will take one month
Task 4 – Preliminary Design	Effort will take one month
Task 5 – Construction Cost Estimates	Effort will take one month
Task 6 – Water Rights and Water Supply	Effort will take one month
Task 7 – Environmental and Permitting	Effort will take one month
Task 8 – Report Preparation / Deliverables	Effort will take one month

STUDY COST

We estimate a total project cost of \$55,000. The cost estimates are summarized in Table 2 below. We propose to bill on a time and materials basis, pursuant to the current rate schedule of each consultant.

Table 2 Project Costs Crystal River Project				
Work Task	Grand River	Sopris	ERO	Sub-Total
Task 1 – Topo Survey	\$ -	\$ 11,500	\$ -	\$ 11,500
Task 2 – Identify Storage Alts.	\$ 3,000	\$ 500	\$ -	\$ 3,500
Task 3 – Screen Storage Alts.	\$ 3,000	\$ 500	\$ -	\$ 3,500
Task 4 – Preliminary Design	\$ -	\$ 14,850	\$ -	\$ 14,850
Task 5 – Construction Cost Estimates	\$ -	\$ 6,650	\$ -	\$ 6,650
Task 6 – Water Rights and Water Supply	\$ 4,800	\$ -	\$ -	\$ 4,800
Task 7 – Environmental and Permitting	\$ 2,200	\$ -	\$ 5,000	\$ 7,200
Task 8 – Report Preparation / Deliverables	\$ 3,000	\$ -	\$ -	\$ 3,000
Project Management	\$ -	\$ -	\$ -	\$ -
Total =	\$ 16,000	\$ 34,000	\$ 5,000	\$ 55,000

Total project costs would not exceed \$55,000 without prior approval from the project sponsors.

We hope this scope of services is in-line with your expectations. If you have any questions or require any additional information at this time, please do not hesitate to contact us.

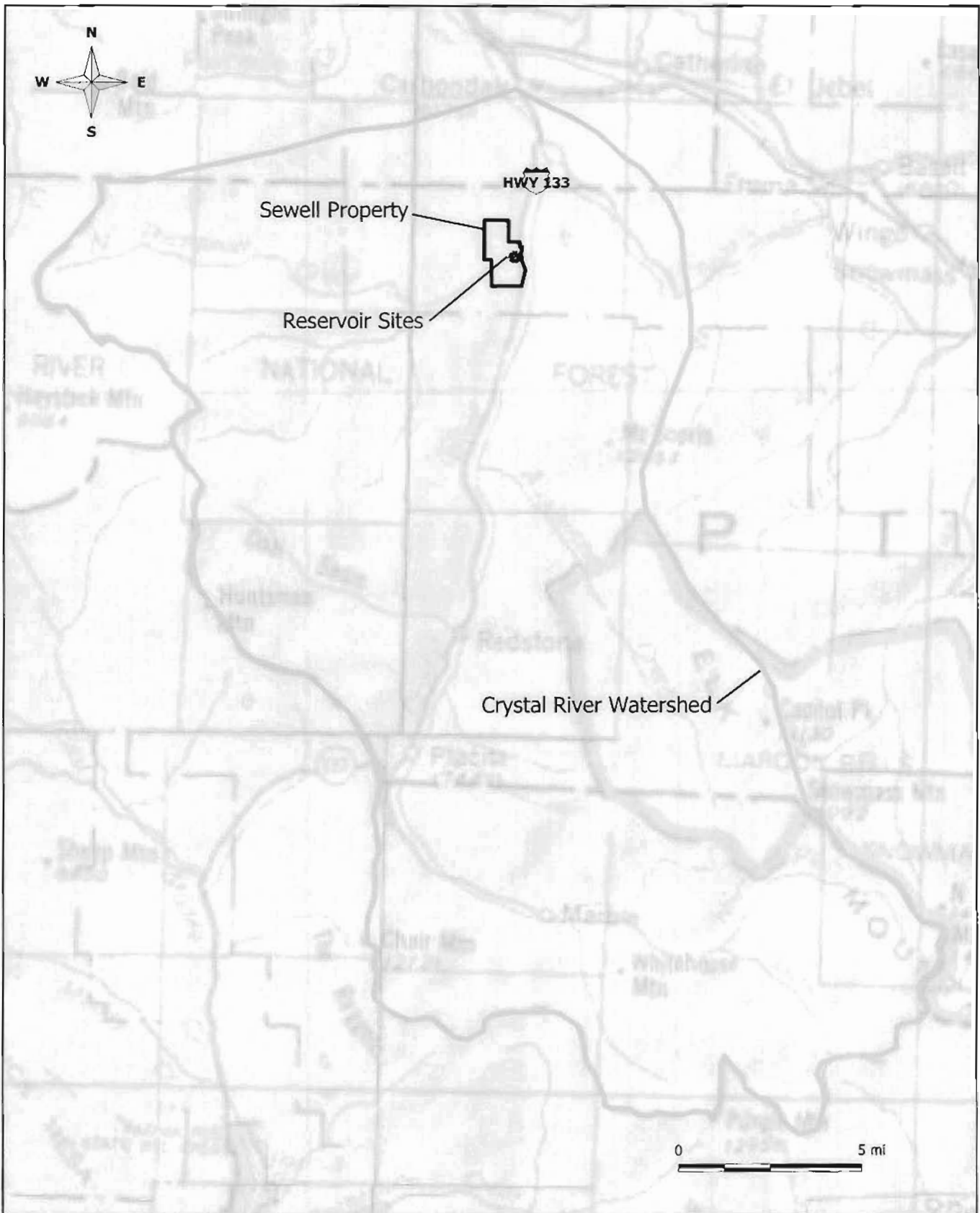
Sincerely,

GRAND RIVER CONSULTING CORPORATION

A handwritten signature in black ink, appearing to read "Kerry D. Sundeen", written over a faint dotted line.

Kerry D. Sundeen
Hydrologist

KDS/eod
Enclosures



Attachment A Study Area and Vicinity Map

Date: 05/09/2008

File: Sewell prop map.map

GrandRiver
Consulting Corporation
2700 West Avenue, Suite 200, St. Paul, MN 55108

ATTACHMENT B



GRAND RIVER CONSULTING CORPORATION
PROFESSIONAL FEE SCHEDULE
Effective January 1, 2008

POSITION		HOURLY RATE
Principal Hydrologist		\$150.00
Professional Engineer		150.00
Hydrologist / Water resource Specialist		75.00
Autocad / GIS Specialist)		60.00
Draftsman		50.00
Clerical		35.00
Expert Testimony		150.00
EXPENSES		RATE
Mileage	2 Wheel	.50/mile
	4 Wheel	.60/mile
Copies		.10/copy
Plotted Drawings		15.00/sheet

Sopris Engineering, LLC
Schedule of Hourly Rates

Effective January, 2008

Total project charges are based on hourly rates, plus direct job expenses as follows:

Personnel Charges

Principal Engineer, Principal Surveyor	\$170.00/hr.
Project Manager	\$120.00/hr.
Project Engineer (P.E.), Survey Manager (L.S.)	\$105.00/hr.
Design and/or Field Engineer, Survey Supervisor	\$90.00/hr.
Technician, Field Observer, Party Chief	\$80.00/hr.
Technical Typist, Clerical	\$50.00/hr.
Three-man Survey Crew	\$160.00/hr.
Two-man Survey Crew	\$140.00/hr.
Robotic Survey Crew	\$140.00/hr.
GPS Survey Crew	\$180.00/hr.
Courtroom Expert Testimony	\$250.00/hr.
Court and Deposition Preparation	\$170.00/hr.
Deposition	\$200.00/hr.

Computer Charges

Computer Plots	\$20.00/ca.
Online Research	Additional \$20.00/ hr

Miscellaneous Charges

Photocopies	\$0.15/ea.
Blackline/Blueline prints	\$1.50/ea.
Mylar Sepias	\$20.00/ca.
Vehicle Milcage	\$0.50/mi.
Overnight Delivery (in state)	as charged
Overnight Delivery (out of state)	as charged
Custom Billing Forms	\$20.00/hr

Outside Consultants or sub-Contractors Billed at Our Cost plus 10%

Other Direct Project Expenses Billed at Our Cost

Travel Expenses:

Airfare, lodging, meals, car rental, telephone, parking fees, etc.

502 Main Street • Suite A3 Carbondale, CO 81623 (970) 704-0311 Fax (970) 704-0313
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SOPRIS ENGINEERING • LLC

civil consultants

2008 Schedule of Fees



Labor	Position	2008 Hourly Rate
Craig Sommers	Scientist/Economist	\$155.00
Richard Trenholme	Environmental Scientist	\$155.00
Steve Dougherty	Senior Ecologist	\$145.00
Mike Galloway	Senior Hydrogeologist	\$135.00
Mark DeHaven	Senior Natural Resource Specialist	\$130.00
Dave Shaw	Engineer	\$125.00
Barbara Galloway	Senior Hydrologist	\$120.00
Norm Young	Engineer	\$120.00
Sheri Chapman	Senior Hydrogeologist	\$120.00
Ron Beane	Wildlife Biologist	\$115.00
Liz Tucker	Ecologist	\$110.00
Mary Powell	Natural Resource Specialist	\$110.00
Aleta Powers	Natural Resource Specialist	\$110.00
Jack Denman	Environmental Scientist	\$105.00
Paul Drury	Water Resource Engineer	\$100.00
Steve Hannula	Hydrologist	\$97.00
Karen Baud	Wildlife Biologist	\$94.00
Leigh Rouse	Ecologist	\$94.00
Steve Butler	Natural Resource Specialist	\$90.00
Andy Cole	Natural Resource Planner	\$88.00
Denise Larson	Ecologist	\$88.00
Bill Mangle	Natural Resource Planner	\$88.00
Brian Olmsted	Geologist	\$88.00
Craig Sovka	Geologist	\$88.00
Steve Mitchell	Environmental Scientist	\$83.00
Sadie Russo	Natural Resource Specialist	\$83.00
Garth Smith	GIS Specialist	\$83.00
Courtney Sockwell	Geologist	\$83.00
Stacey Antilla	Natural Resource Planner	\$80.00
Clint Henke	Natural Resource Specialist	\$78.00
David Hesker	Graphic Designer	\$78.00
Wendy Hodges	GIS Specialist	\$78.00
Jenelle Kreutzer	Ecologist	\$78.00
Sean Larmore	Senior Archaeologist	\$78.00
Jana Pedersen	GIS Specialist	\$78.00
Cindy Trujillo	Plant Ecologist	\$78.00
Gretchen Van Reyper	Ecologist	\$75.00
Sylvia Copeland	Wildlife Biologist	\$73.00
Moneka Worah	Natural Resource Specialist	\$70.00
Kathleen Croll	Archaeologist	\$65.00
Sarah Steivang	Graphic Designer	\$62.00
	Technical Editor	\$62.00
	Clerical I	\$62.00
	Clerical II	\$47.00
Ryan Dunham	Natural Resource Technician	\$45.00

Additional Expenses

Vehicle mileage:
\$0.55/mile

Black and white copies:
(8.5" x 11")
\$0.15/each

Color copies:
(8.5" x 11")
\$0.95/each

GPS Rental:
\$75/day

Other direct expenses,
including subcontractors:
COST + 3%