

Exhibit A
Scope of Work
Lake San Cristobal--Phase 3

Project Overview:

The Lake San Cristobal Water Activity Enterprise, formally known as the Project Oversight Committee, consisting of the Upper Gunnison Water Conservancy District, Hinsdale County and the Town of Lake City (hereafter known as the "Enterprise") plans to replace the existing boulder outlet control (installed and removed seasonally by Hinsdale County staff) with a series of pneumatically operated, remotely controlled outlet gates located at the present lake outlet.

Phase 3 consists of three tasks, H through J, and their respective sub tasks. These tasks are intended to begin following the completion of Phase 2 tasks. They are outlined as follows:

Task H. Final Design

- 1. Complete Report Revisions** – Based on comments from the POC (Project Oversight Committee) and applicable Agency reviews, all project reports will be revised and submitted as final documents to the appropriate local, and state agencies. The POC consists of the UGRWCD, Town of Lake City and Hinsdale County. This includes hydrologic and environmental analyses as identified during the public meeting process detailed below.
- 2. SCADA and Telemetry Design** – Supervisory Control and Data Acquisition (SCADA) is a series of electronic sensors which transmit continuous data about an operating system, in this case, remotely controlled outlet gates to monitor and control the lake level in Lake San Cristobal. In support of the completion of final drawings and specifications and based on POC input for operations, Buckhorn will complete the design of SCADA and telemetry components of the project. Mountain Peaks Controls will be consulted along with Obermeyer Hydro staff to integrate the operation of the Obermeyer gate to the operational requirements of the POC. The final design will then be incorporated into the final plans and specifications for project bidding at a date to be determined by the POC.
- 3. Final Drawings & Specifications** – After all design elements, especially the telemetry system, landscape and Obermeyer hydraulic gate components
- 4. Project Manual** – Preliminary and final project manuals will be developed and submitted for POC review and approval for ultimate bidding purposes. The manuals will be organized per POC requirements and submitted to the appropriate agencies for review and approval for project funding purposes.
- 5. Bid Documents** – In addition to the final project plans, specifications and project manuals, all required documents to prepare a public bid package will be completed to the satisfaction of the POC. That includes a final bid schedule based on the third opinion of probable cost.

6. **Opinion of Probable Cost # 3** – In support of the final design and construction schedule, Buckhorn Geotech will prepare and submit to the POC a final opinion of probable construction costs. That opinion will be based on then current market conditions and consultation with area contractors to obtain the most realistic construction costs possible.
7. **QA Review** – In addition to external review by our partnering sub-consultant, Boyle Engineering, we will seek review of the project plans and specifications by local contractors for constructability issues associated with the proposed Obermeyer gate structure. This will assure that the plans and specifications have sufficient scope and detail to be constructed at or below the opinion of probable cost provided in sub-task 6.
8. **QC Review** – Internal review, by Tom Gripentrog and Norm Aufderheide, who are independent of the design process, will assure that we have provided for all contingencies before releasing the project documents for external QA review as detailed above.

Task I. Public Facilitation

1. **Public Meetings** – At the direction of the POC, Buckhorn Geotech will assist in the presentation of the design drawings for public comment prior to finalization for bidding. This meeting is intended to provide interested parties education about the current operation of the lake's rock outlet as well as the proposed engineered outlet control structure. We estimate that a total of five (5) public meetings will be held to elicit public comments prior to issuing final project documents.
2. **Small Meetings** – This sub task is intended to present the design plans and specifications to selected stakeholders at the direction of the POC. It is intended that there will be up to five (5) meetings to provide more detailed technical information than the general public meetings listed above.
3. **Graphic Preparation** – In support of all proposed or required meetings, Buckhorn or its sub-consultant, Boyle Engineering, will prepare graphics of the outlet project.

Task J. Research and Development

1. **Model Design**– This sub task is intended to provide detailed design of the Obermeyer gate installation as intended at the Lake San Cristobal outlet. Design will include incorporating computer models to simulate the intended operation of the Obermeyer hydro gate as superimposed on actual photos of the current outlet. This model will assist the POC in the public facilitation meetings outlined above. By modeling the operation of the proposed Obermeyer control structure, interested parties can better understand the minimal impacts to the existing lake aesthetics that the structure will have.

2. **Model Construction & Testing** – If requested by the POC, this sub task is intended to build any scale models of the Obermeyer Hydro gate structure to support better public understanding of the project.
3. **Presentation to POC** – After development of the design and/or model as described above, buckhorn Geotech and its sub-consultants will present these items to the POC at their direction. That presentation can also be included in the public facilitation task above.

Project Schedule

Phase 3				
H. Final Design				Costs
1. Complete revisions to reports	DQ	30-Sep-09	21-Nov-09	16,740
2. SCADA & Telemetry Design	EK	30-Sep-09	15-Oct-09	5,400
2. Final Drawings & Specs.	DP	1-Oct-09	21-Nov-09	18,200
3. Prepare & Submit Project Manual	DQ	1-Oct-09	21-Nov-09	6,420
4. Prepare & Submit Bid Documents	DQ	1-Oct-09	21-Nov-09	8,000
5. Opinion of Probable Cost # 3	DQ	20-Nov-09		240
6. QA Review	NA/BOYLE	10-Nov-09	20-Nov-09	9,600
7. QC Review	EK	1-Nov-09	10-Nov-09	2,880
I. Public Facilitation				
1. Public Meetings (5)	DQ	11-Oct-09		12,600
2. Small Group Mtgs. (5)	DQ	15-Sep-09		12,600
3. Graphic Prep.	NL/CD	10-Sep-09	10-Oct-09	3,460
J. Research & Development				
1. Model Design	BGI	1-Oct-09		12,180
2. Model Construction/Testing	BGI	20-Nov-09		9,800
3. Presentation to POC	DQ/EK	15-Dec-09		2,840
Phase 3 Totals				120,960

Project Budget:

Below is an overview of the project budget. Please refer to the attached spreadsheet for a complete budget detailing the rates, hours and breakdown by tasks.

Phase 3

H. Final Design

1. Complete revisions to reports	\$16,740
2. SCADA & Telemetry Design	\$5,400
2. Final Drawings & Specs.	\$18,200
3. Prepare & Submit Project Manual	\$6,420
4. Prepare & Submit Bid Documents	\$8,000
5. Opinion of Probable Cost # 3	\$240
6. QA Review	\$9,600
7. QC Review	\$2,880

I. Public Facilitation

1. Public Meetings (5)	\$12,600
2. Small Group Mtgs. (5)	\$12,600
3. Graphic Prep.	\$3,460

J. Research & Development

1. Model Design	\$12,180
2. Model Construction/Testing	\$9,800
3. Presentation to POC	\$2,840

Phase 3 Subtotal

\$120,960

TOTAL ESTIMATED COST OF PROFESSIONAL SERVICES	\$ 225,315
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June 17, 2009

The project consists of three (3) phases. Phase 1 was completed in May 2008 and supported the POC's application for funding to CWCB. That phase was funded by the POC in a cost sharing agreement and totaled \$29,290.

Phase 2 of the project continues with the public information process and design as well as permitting with required agencies including the Colorado Division of Water Resources (CDWR), the US Army Corps of Engineers (USCOE) and the Bureau of Land Management (BLM). The total of that phase is \$75,265 and was funded by CWWB in 2008.

Phase 3 consists of the tasks as outlined to complete the design plans and project documents. That total is \$120,960 which was approved for funding by the CWCB in 2008 and for which funds are now being requested.

The total of the three (3) phases is \$225,315.

PAYMENT

Payment will be made based on actual expenditures and invoicing by the water activity sponsor. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 5 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed.

All products, data and information developed as a result of this grant must be provided to CWCB in hard copy and electronic format as part of the project documentation.

June 17, 2009

		PM/PE	PIC/QC	P Engr	Sr Designer	Staff Engr.	Dsngr.					
		\$ 120.00	\$ 140.00	\$ 105.00	\$ 100.00	\$ 95.00	\$ 85.00	Travel	Printing	Lodging		
Task Description	Phase 3 Total Cost							\$	\$	\$	Sub#1	Sub #2
H. Final Design												
1. Complete revisions to reports	\$16,740			48		60						6,000
2. SCADA & Telemetry Design	\$5,400	40							600			
2. Final Drawings & Specs.	\$18,200			60	80	40			100			
3. Prepare & Submit Project Manual	\$6,420			24		40			100			
4. Prepare & Submit Bid Documents	\$8,000			40		40						
5. Opinion of Probable Cost # 3	\$240	2										
6. QA Review	\$9,600										9,600	
7. QC Review	\$2,880	24										
I. Public Facilitation												
1. Public Meetings (5)	\$12,600		40	40				300	100	200	1,600	600
2. Small Group Mtgs. (5)	\$12,600		40	40				300	100	200	1,600	600
3. Graphic Prep.	\$3,460						36	300	100			
J. Research & Development												
1. Model Design	\$12,180	24	16		40		36					
2. Model Construction/Testing	\$9,800	24	16		24	24						
3. Presentation to POC	\$2,840	8	8			8						
Phase 3 Totals	\$120,960											
		122	120	252	144	212	72	900	1,100	400	12,800	7,200

DQ – Dan Quigley, DP – Dave Powers, EK – Eric Krch, NA – Norm Aufderheide, TG – Tom Gripentrog, CH – Chris Hazen, Boyle refers to Buckhorn’s subcontractor, Boyle Engineering who is performing Quality Assurance review for the project.