COLORADO
Colorado Water Conservation Board
Department of Natural Resources
1313 Sherman Street, Room 718
Denver, CO 80203

WSRF Grant – Southwest Basin – Upper San Juan
Integrated Water Mgmt Plan
POGG1 2020-3065

May 8, 2020

Mountain Studies Institute
PO Box 426
Silverton, CO 81443

Dear Grantee:

We are pleased to inform you that the Colorado Department of Natural Resources, Colorado Water Conservation Board (CWCB) has approved your request for funding for your project pursuant to the WSRF Grant Program and the Watershed Restoration Program. This letter authorizes you to proceed with the approved project in accordance with the terms of this Grant Award Letter.

Attached to this letter are the terms and conditions of your Grant. Please review these terms and conditions, as they are requirements of this Grant to which you agree by accepting the Grant Funds.

If you have any questions or concerns regarding the project, please contact Chris Sturm, Project Manager at 303-866-3441 or at Chris.Sturm@state.co.us. Please send all grant correspondence directly to the project manager and cc me on your invoice billing requests.

Thank you.

Sincerely,

//s//

Doriann Vigil
Program Assistant II
O 303-866-3441 ext. 3250
1313 Sherman Street, Rm. 719, Denver, CO 80203
Dori.vigil@state.co.us / cwcb.state.co.us

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STATE OF COLORADO

Department of Natural Resources

ORDER

Number: POGG1,PDAA,202000003065

Date: 5/5/20

Description:

PDAA CMS#160778 WSRF/WSR - Upper San Juan Integrated Wtr Mgm

Effective Date: 05/01/20

Expiration Date: 05/31/22

BUYER

Buyer:

Email:

VENDOR

MOUNTAIN STUDIES INSTITUTE
PO BOX 426
SILVERTON, CO 81433-0426

Contact: Carolyn Moller

Phone: 9702477071

*****IMPORTANT*****

The order number and line number must appear on all invoices, packing slips, cartons, and correspondence.

BILL TO

COLORADO WATER BOARD CONSERVATION
1313 SHERMAN STREET, ROOM 718
DENVER, CO 80203

SHIP TO

COLORADO WATER BOARD CONSERVATION
1313 SHERMAN STREET, ROOM 718
DENVER, CO 80203

SHIPPING INSTRUCTIONS

Delivery/Install Date: -

FOB: FOB Dest, Freight Allowed

VENDOR INSTRUCTIONS

EXTENDED DESCRIPTION

Line Item	Commodity/Item Code	UOM	QTY	Unit Cost	Total Cost	MSDS Req.
1	G1000		0	0.00	$42,957.00	☐

Description: PDAA WSRF - Upper San Juan Integrated Wtr Mgmt Plan

Service From: 05/01/20 Service To: 05/31/22

Line Item	Commodity/Item Code	UOM	QTY	Unit Cost	Total Cost	MSDS Req.
2	G1000		0	0.00	$85,914.00	☐

Description: PDAA WSR - Upper San Juan Integrated Wtr Mgmt Plan

Service From: 05/01/20 Service To: 05/31/22

TERMS AND CONDITIONS

https://www.colorado.gov/pacific/osc/small-dollar-grant-award-terms-conditions

DOCUMENT TOTAL = $128,871.00

EXHIBIT A - Scope of Work

GRANTEE: Mountain Studies Institute on behalf of the Upper San Juan Watershed Enhancement Partnership (WEP)
PRIMARY CONTACT: Aaron Kimple, Project Manager, akimple@mountainstudies.org
ADDRESS: 679 East 2nd Ave, Suite 8, Durango, CO 81301
PHONE: 970-387-5161
PROJECT NAME: Upper San Juan Basin Integrated Water Management Plan, Phase II
GRANT AMOUNT: $85,914 (Watershed Restoration Program) and $42,957 (Water Supply Reserve Fund) = $128,870 total

INTRODUCTION AND BACKGROUND

The project area is situated in the San Juan Basin on a subset of rivers and streams in Archuleta and Mineral counties, focusing primarily on the Upper San Juan from the Continental Divide to the confluence with Mill Creek. Additionally, the agricultural water needs assessment will expand into the Navajo and Rio Blanco basins.

The overall purpose of the project is to develop an understanding of the community's water-related values, agricultural irrigation structural needs, and environmental and recreational (E&R) water supply needs in the area, and to identify and evaluate opportunities for projects to benefit the diversity of water users present in the upper San Juan River basin.

This process will evaluate current and future water needs using both community input and scientific analysis, with the ultimate goal of outlining an assessment that can prioritize projects and methods to meet those needs. Informed by coordinated efforts from Phase I (2018-2019), Phase II of the project will develop an assessment to analyze and model needs for environmental, recreational, and agricultural water uses as well identify projects that benefit multiple user groups. This assessment will inform the development of an integrated water management plan and potentially project implementation in Phase III.

OBJECTIVES

The primary objective of Phase II of this project is to develop technical information necessary to identify environmental and recreation water supply needs, agricultural irrigation structural needs, and to begin identifying opportunities for cooperative projects to address the multiple water uses in the project area.

The outcomes of Phase II will be:

1. An understanding of the hydrology of the upper San Juan watershed project area and the interactions between stream flows, environmental and recreational attributes, and consumptive uses under existing and potential future conditions – including forest health and climate change;
2. An inventory of agricultural structural needs, such as ditch/diversion improvements and other measures that have the potential to improve irrigation and irrigation efficiency;
3. An understanding of E&R water supply needs and gaps;
4. A well-coordinated process that informs and incorporates input from stakeholders and the community as a whole

5. A work scope for Phase III management plan.

TASKS

TASK 1 – Coordination & Stakeholder Engagement
Subtask 1.1: Meeting Facilitation, Project Management
Subtask 1.2: Coordination, Stakeholder Engagement
Subtask 1.3: Community Outreach, Project Support
Subtask 1.4: Grant Administration

Description of Task
Mountain Studies Institute (MSI), in close coordination with Western Wildscapes and support of Trout Unlimited (TU), will act as the Project Management Team. The MSI-led Project Management Team (Team) will be primarily responsible for managing the work of the Consultants (Lotic and SJCD) and ensuring Steering Committee, stakeholder and community involvement in Phase II. As information is developed in Phase II, the Team will ensure Consultants communicate and coordinate with the steering committee, stakeholders, and public to develop a scope of work and funding proposal for moving forward with Phase III of the IWMP.

Method/Procedure
The Team will follow the successful methods utilized in Phase I and build off of the relationships and steering committee we developed to inform all affected parties of the timing and content of actions being conducted in Phase II. The Team will work with the Consultants and steering committee to develop deliverables with language and visuals easy to understand by the general public, to disperse assessment results, discuss project opportunities, and outline planning priorities, challenges, and steps.

The Team will work with the consultants, steering committee, and stakeholders to develop a plan that summarizes identified issues and needs, with a list of prioritized project options to organize and/or implement in Phase III. The Team will lead 6 meetings with steering committee members, 6 meetings with consultants (with or without steering committee), and 2 public meetings with stakeholders.

Grantee Deliverable
- The Team will lead 6 meetings with steering committee members, 6 meetings with consultants (with or without steering committee), and 2 public meetings with stakeholders.
- A document detailing the scope of work for Phase III, guided by community-driven processes, to design an Upper San Juan Integrated Water Management Plan and project implementation.

CWCB Deliverable
MSI will provide CWCB with a progress report after the first six months, beginning from the date of the executed contract. At completion of the project, MSI will provide CWCB a final report that summarizes Phase II of the project and documents how all tasks were completed.

TASK 2 – Agricultural Water Needs Analysis
Subtask 2.1: Data Review, Inventory, Prioritize Projects
Subtask 2.2: Data Access, Inventory Oversight

Description of Task

San Juan Conservation District (SJCD) will be consultant responsible for conducting data collection, field surveys and analysis of agricultural irrigation infrastructure and water supply needs for the Upper San Juan, Navajo and Blanco rivers. This analysis will compliment and be incorporated into Lotic Hydrological's watershed assessment and modeling for the San Juan Basin.

Method/Procedure

SJCD will compile and review existing information and data relevant to characterizing agricultural water needs within the project area, then work with agricultural water users, appropriate ditch representatives and water rights holders to inventory current conditions of irrigation systems and agricultural water use within project area.

This inventory will evaluate irrigation infrastructures to determine deficiencies within each system, identify candidate and priority areas, and develop potential cost estimates. Appropriate data and information will be shared with Lotic to inform the assessment of watershed conditions and map priority areas for future improvement projects.

Grantee Deliverable

- Participation and/or presentations of agricultural inventory results for 2 public meetings
- Report summarizing existing data and information and identified data gaps
- Data tables, maps, and narratives suitable for use with stakeholder engagement/public meetings
- Assessment report, user friendly maps and graphics that illustrate results, and quantitative data on water deficiency gaps
- Report and maps summarizing agricultural water user preferences and priorities
- Evaluation report and table that summarizes alternatives and their attributes

CWCB Deliverable

This inventory will be included in the broader technical analysis and modeling report, developed by Lotic Hydrological, and submitted in a final report from Mountain Studies Institute to the CWCB.

TASK 3 – Technical Analysis and Modeling
Subtask 3.1: Consultant Team & Stakeholder Meetings
Subtask 3.2: Final Presentation
Subtask 3.3: Project Coordination
Subtask 3.4: Travel
Subtask 3.5: Kickoff Meeting
Subtask 3.6: Stakeholder Engagement Plan Assistance
Subtask 3.7: Review Existing Data
Subtask 3.8: Characterize & Model Hydrological Regimes

Subtask 3.9: Characterize Ecological Integrity
Subtask 3.10: Explore Water/Forest Health Nexus
Subtask 3.11: Characterize Recreational Uses
Subtask 3.12: Identify Priority Management Issues

Description of Task

Lotic Hydrological (Lotic) will be the consultant responsible for the data and information review and collection; characterization and modeling of project site systems; and identification of river segments and management issues to address in subsequent phases, informed by stakeholder input. The San Juan Conservation District (SJCD) will be the entity responsible for conducting an inventory of agricultural infrastructure and needs assessment on the Upper San Juan, Navajo and Blanco rivers to be included in Lotic's modeling and project identification.

Method/Procedure

Lotic will review existing data and information from multiple sources; characterize current and potential hydrological regimes; characterize ecological integrity within riparian areas; explore water/forest health nexus to evaluate wildfire risk to water resources; characterize recreational uses on the San Juan River; and incorporate SJCD's agricultural inventory data into models. These assessments and models will inform the final step, to identify and map high-priority management issues and locations. This broad watershed assessment allows stakeholders to understand current watershed conditions, possible future hydrological scenarios and risks to water resources, and project locations that may benefit multiple water user groups.

Grantee Deliverable

- Annotated bibliography summarizing the availability of data relevant to non-consumptive needs assessments. Annotated bibliography will also summarize findings of existing reports or studies that relate land and water use activities to conditions of ecological or recreational attributes along the rivers in the study area.
- Refined hydrological and water rights simulation model results for the upper San Juan River watershed.
- Data tables containing statistical characterizations of "natural", existing, and potential future shifts in hydrology due to climate change at major tributary junctions and surface water diversions throughout the study area.
- Graphics characterizing typical hydrographs under wet, average, and dry conditions at major tributary junctions and surface water diversions throughout the study area.
- Technical report discussing the water/forest health nexus.
- Technical report summarizing ecological integrity assessment methodologies and results.
- Map of known high-value aquatic biota attributes throughout the project area.
- Map of known high-value riparian attributes throughout the project area.
- Map of known high-value recreational attributes throughout the project area.
- Technical report detailing conceptual models developed for stream reaches with at-risk environmental and/or recreational attributes.
- Memorandum detailing high-priority planning issues identified by stakeholders
- Map of high-priority stream reaches

CWCB Deliverable

Lotic's graphics, narratives, maps, and technical analysis and modeling reports will be incorporated into Mountain Studies Institute's progress and final reports to CWCB.

REPORTING AND FINAL DELIVERABLE

Reporting: MSI will provide CWCB with a progress report after the first six months, beginning from the date of the executed contract. The progress report shall describe the fully or partially complete tasks identified in the statement of work including a description of accomplishments, issues if any occurred, and any corrective actions taken.

Final Deliverable: At completion of the project, MSI will provide CWCB a final report that summarizes Phase II of the project and documents how these tasks were completed. Appropriate project options, maps, photos, and other documents will be shared within this final report. This report will be informed by the entire project team and offer the following outcomes:

- An understanding of the hydrology of the upper San Juan watershed project area and the interactions between stream flows, environmental and recreational attributes, and consumptive uses under existing and potential future conditions – including forest health and climate change;
- An inventory of agricultural structural needs, such as ditch/diversion improvements and other measures that have the potential to improve irrigation and irrigation efficiency;
- An understanding of E&R water supply needs and gaps;
- A well-coordinated process that informs and incorporates input from stakeholders and the community as a whole
- A scope of work for Phase III to develop an integrated water management plan for Upper San Juan Basin.

Performance measures for this contract shall include the following:
(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit B. Per Water Plan Grant Guidelines, the CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.
(b) Accountability: Per Water Plan Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per Water Plan Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.
(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.
(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.

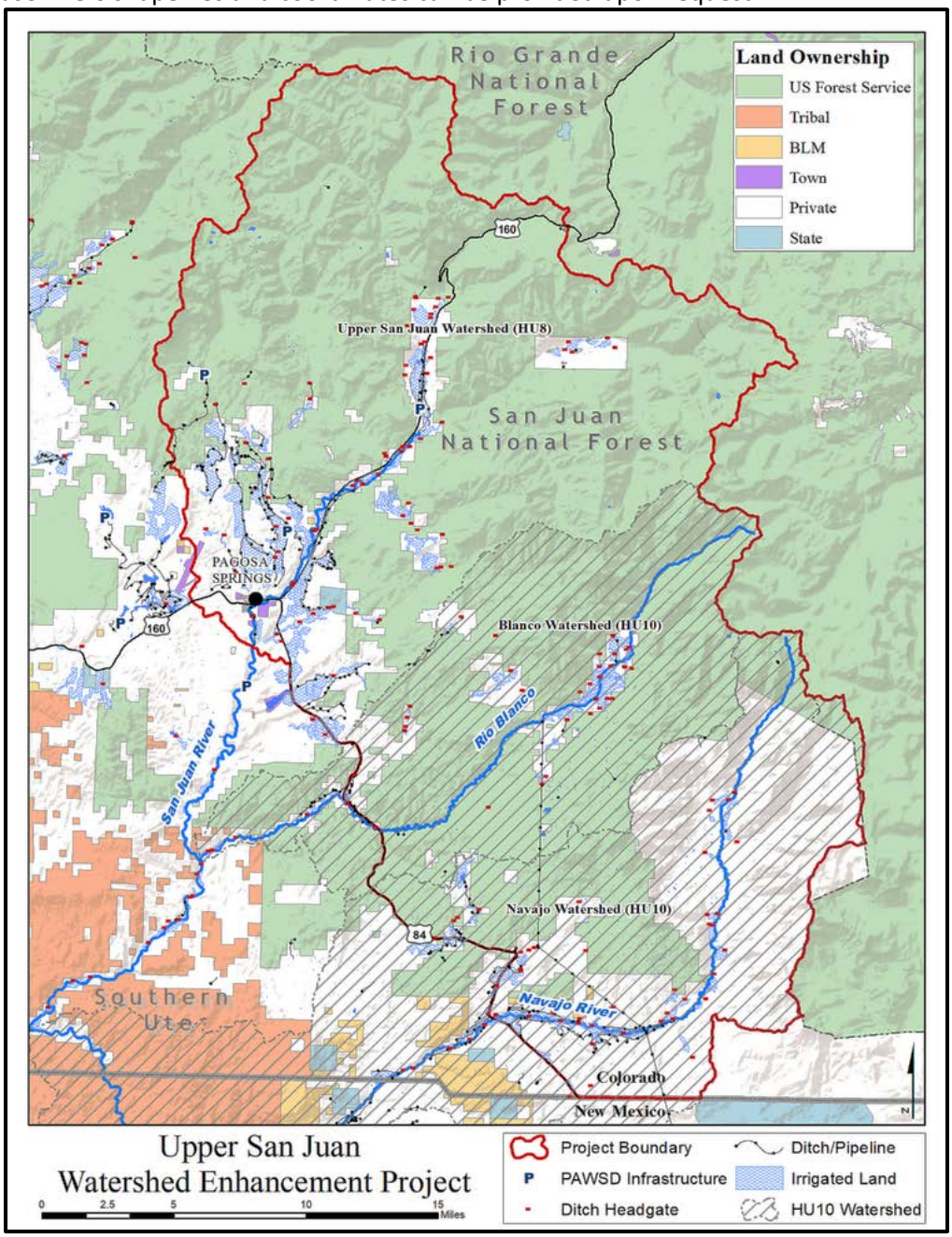
EXHIBIT B BUDGET & SCHEDULE

Upper San Juan Basin Integrated Water Management Plan, Phase II: Budget and Timeline

Task	Description	Target Start Date	Target Completion Date	CWCB Funds Watershed Restoration Program	CWCB Funds WSRF	Other Funding Cash	Other Funding In-Kind	Total
1	Coordination & Stakeholder Engagement	May-20	5/31/22	$ 21,800	$ 10,900	$ 10,900	$18,027	$61,626
	Grant Administration	May-20	5/31/22	$ 7,810	$ 3,905	$ 3,913		$15,628
2	Agricultural Water Needs Analysis	May-20	5/31/22	$ 19,705	$ 9,853	$ 9,853	$10,030	$49,440
3	Technical Analysis + Modeling	May-20	5/31/22	$ 36,599	$ 18,299	$ 18,299		$73,197
	TOTALS			**$ 85,914**	**$ 42,957**	**$ 42,965**	**$28,057**	**$199,892**

EXHIBIT D: PROJECT MAP

Figure 1: Proposed project area for Phase II Upper San Juan Integrated Water Management Plan
The map below illustrates the potential scope of the proposed IWMP project area (red boundary). The geographic scope for the IWMP has been developed through stakeholder and Steering Committee input during Phase I. GIS shapefiles and coordinates can be provided upon request.



Streams and waterways proposed for evaluation include the San Juan River mainstem including and above the Town of Pagosa Springs, East Fork of the San Juan River, West Fork of the San Juan River, Rio Blanco River, and Navajo River. Other tributaries may be included following consultation with local stakeholders. These tributaries may include Mill Creek, Four Mile Creek, and Martinez Creek. Primary focus will be on the Upper San Juan from the Continental Divide to the confluence with Mill Creek.