

Low Head Dam Modification Prioritization

American Whitewater

Water Plan Grant Application





Statewide

All

County/Counties:

Drainage Basin:

DETAILS	
Total Project Cost:	\$81,000
Water Plan Grant Request:	\$61,350
Other CWCB Funding:	\$0
Other Funding Amount:	\$20,450
Applicant Match:	\$0
Project Type(s): Study	
Project Category(Categories): Agricultural	
Measurable Result: 1.6M Coloradans who	0

Low head dams can create uniform hydraulics, inescapable by most river recreationists. Low head dams are engineered structures built into and across streams and rivers channels, primarily to divert water from streams to support agriculture, municipal, and industrial water use. In 2019, the Colorado Department of Natural Resources (DNR) included American Whitewater (AW) on a steering committee for a project inventorying low head dams across the state. The data collected identified nearly 800 low heads dams across the state. To begin to assess the risk and examine means to mitigate these risks in Colorado, AW has compared the dam inventory with our National Whitewater Inventory for Colorado to understand where there is overlap with these structures and recreational reaches.

As a next step, American Whitewater is proposing to identify and prioritize low head dam retrofit projects that would enable multi-stakeholder benefits. Opportunities exist to develop projects at existing low head dam sites that minimize public safety risk, improve river ecological health and improve or restore infrastructure efficiency. This grant will fund a study that will identify the multi-benefit potential, how each benefit can be quantified, and which low head dam projects maximize those benefits. AW will use the existing recreational needs assessment data, Basin Roundtable identified projects lists, Stream Management Plans, and the DNR low head dam (LHD) inventory and other DNR LHD steering committee member information to identify and prioritize low head dam projects for funding consideration.

This project furthers several Colorado Water Plan critical action goals such as promoting modernization of aging infrastructure, enhancing irrigation system resiliency, providing environmental and recreational benefits, and encouraging economic development. The proposed project will support the identification and development of multi-stakeholder benefit projects and methods that increase public safety, benefit environmental and recreational water needs as well as water needs for communities or agriculture. For example, many agricultural diversions are nearing the end of their intended design life and require frequent maintenance, which can be dangerous and labor-intensive. Most diversions were also not designed to accommodate multiple uses presenting barriers to fish and dangers to boaters and recreational users. The proposed project will develop a framework capable of assessing such initiatives in terms of their tangential benefits and costs to all stakeholders and associated regional economic outcomes. This project will build on the efforts, funded by water plan grants, of Colorado Department of Natural Resources to inventory all low head dam structures in the state, support public awareness campaigns and signage installation projects at high-risk low head dam sites.

Funding Recommendation:

Staff recommends Board approval of \$61,350 to American Whitewater for the Low Head Dam Modification Prioritization Framework Project.



Colorado Water Conservation Board

Water Plan Grant Application

Instructions

To receive funding for a Water Plan Grant, applicant must demonstrate how the project, activity, or process (collectively referred to as "project") funded by the CWCB will help meet the measurable objectives and critical actions in the Water Plan. Grant guidelines are available on the CWCB website.

If you have questions, please contact CWCB at (303) 866-3441 or email the following staff to assist you with applications in the following areas:

Water Storage & Supply Projects	Matthew.Stearns@state.co.us
Conservation, Land Use Planning	Kevin.Reidy@state.co.us
Engagement & Innovation Activities	Ben.Wade@state.co.us
Agricultural Projects	Alexander.Funk@state.co.us
Water Sharing & ATM Projects	Alexander.Funk@state.co.us
Environmental & Recreation Projects	Chris.Sturm@state.co.us

FINAL SUBMISSION: Submit all application materials in one email to *waterplan.grants@state.co.us*

in the original file formats [Application (word); Statement of Work (word); Budget/Schedule (excel)]. Please do not combine documents. In the subject line, please include the funding category and name of the project.

Water Project Summary		
Name of Applicant	American Whitev	vater
Name of Water Project Low Head Dam M		odification Prioritization Framework
CWP Grant Request Amount		\$61,350
Other Funding Sources: Walton Family Foundation		\$13,450
Other Funding Sources		\$7,000
Other Funding Sources		\$
Applicant Funding Contribution		\$
Total Project Cost		\$81,800



Last Updated: May 2021		
Applicant & Grantee Information		
Name of Grantee(s): American Whitewater		
Mailing Address: P.O. Box 1540 Cullowhee, NC 28723		
FEIN: 23-7083760		
Organization Contact: Mark Singleton		
Position/Title: Executive Director		
Email: mark@americanwhitewater.org		
Phone: 828.508.1726		
Grant Management Contact: Hattie Johnson		
Position/Title: Southern Rockies Stewardship Director		
Email: hattie@americanwhitewater.org		
Phone: 970-456-8533		
Name of Applicant		
(if different than grantee)		
Mailing Address		
Position/Title		
Email		
Phone		
Description of Grantee/Applicant		
Provide a brief description of the grantee's organization (100 words or less).		
American Whitewater is a national non-profit 501(c)(3) river conservation organization founded in		
1954 with over 6,500 national dues-paying members, 100 local-based affiliate clubs, and 50,000		
supporters representing whitewater enthusiasts across the nation. American Whitewater's mission		
safely. Our vision is that our nation's remaining wild and free-flowing rivers stay that way, our		
is to protect and restore America's whitewater rivers and to enhance opportunities to enjoy them safely. Our vision is that our nation's remaining wild and free-flowing rivers stay that way, our		

developed rivers are restored to function and flourish, that the public has access to rivers for

recreation, and that river enthusiasts are active and effective river advocates.



	Type of Eligible Entity (check one)		
	Public (Government): Municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.		
	Public (Districts): Authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises.		
	Private Incorporated: Mutual ditch companies, homeowners associations, corporations.		
	Private Individuals, Partnerships, and Sole Proprietors: Private parties may be eligible for funding.		
Х	Non-governmental organizations (NGO): Organization that is not part of the government and is non-profit in nature.		
	Covered Entity: As defined in Section 37-60-126 Colorado Revised Statutes.		

	Type of Water Project (check all that apply)		
Х	Study		
	Construction		
	Other		

Cat	egory of W	ater Project (check the primary category that applies and include relevant tasks)		
	Water Stor aquifer rec multi-bene projects ide <i>Applicable</i>	age & Supply - Projects that facilitate the development of additional storage, artificial harge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity, ficial projects, water sharing agreements, Alternative Transfer Methods, and those entified in basin implementation plans to address the water supply and demand gap. <i>Exhibit A Task(s):</i>		
	Note: For Water Sharing Agreements or ATM Projects - please include the <u>supplemental application</u> available on the CWCB's website.			
	Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, water efficiency, and drought planning. <i>Applicable Exhibit A Task(s):</i>			
	Engagemen innovation Applicable	nt & Innovation - Activities and projects that support water education, outreach, and efforts. Exhibit A Task(s):		
х	Agricultural - Projects that provide technical assistance and improve agricultural efficiency. Applicable Exhibit A Task(s):			
	Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. Applicable Exhibit A Task(s):			
	Other	Explain:		



Location of Water Project		
Please provide the general county and coordinates of the proposed project below in decimal degrees . The Applicant shall also provide, in Exhibit C, a site map if applicable.		
County/Counties	N/A	
Latitude		
Longitude		

Water Project Overview

Please provide a summary of the proposed water project (200 words or less). Include a description of the project and what the CWP Grant funding will be used for specifically (e.g., studies, permitting process, construction). Provide a description of the water supply source to be utilized or the water body affected by the project, where applicable. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, and area of habitat improvements, where applicable. If this project addresses multiple purposes or spans multiple basins, please explain.

The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, Other Funding Sources/Amounts and Schedule.

Low head dams, often referred to as "drowning machines", can create uniform hydraulics, inescapable by most river recreationists. In 2019, the Colorado Department of Natural Resources (DNR) included American Whitewater (AW) on a steering committee for a project inventorying low head dams across the state. The data collected identified nearly 800 low heads dams across the state¹. To begin to assess the risk and examine viable means to mitigate these risks in Colorado, AW has compared the dam inventory with our National Whitewater Inventory for Colorado² to understand where there is overlap with these structures and recreational reaches. As a next step, American Whitewater, in coordination with DNR, irrigation representatives, and the conservation community, is proposing to identify and prioritize low head dam retrofit projects that would enable multi-stakeholder benefits. Opportunities exist to develop projects at existing low head dam sites that: minimize public safety risk, improve river ecological health and improve or restore infrastructure efficiency. This study will identify the multi-benefit potential, how each benefit can be quantified, and which low head dam projects maximize those benefits. We will use AW recreational needs assessment data, Basin Roundtable identified projects lists, Stream Management Plans, and the DNR low head dam projects for consideration.

¹ https://drive.google.com/file/d/12ZIjQ-4kRxg8ni9ecTHq5dc-DjxdVLkq/view

² https://www.americanwhitewater.org/content/River/state-summary/?state=CO



Measurable Results			
To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:			
	New St	orage Created (acre-feet)	
	New An Consur	nnual Water Supplies Developed or Conserved (acre-feet), nptive or Nonconsumptive	
	Existing Storage Preserved or Enhanced (acre-feet)		
	Length of Stream Restored or Protected (linear feet)		
	Efficiency Savings (indicate acre-feet/year OR dollars/year)		
	Area of Restored or Preserved Habitat (acres)		
	Quantity of Water Shared through Alternative Transfer Mechanisms or water sharing agreement		
	Numbe Land U	er of Coloradans Impacted by Incorporating Water-Saving Actions into se Planning	
1.6M who participate annually in water sports in Colorado	Number of Coloradans Impacted by Engagement Activity		
	Other	Explain:	

Water Project Justification

Provide a description of how this water project supports the goals of <u>Colorado's Water Plan</u>, the <u>Analysis</u> and <u>Technical Update to the Water Plan</u>, and the applicable Roundtable <u>Basin Implementation Plan</u> and <u>Education Action Plan</u>. The Applicant is required to reference specific needs, goals, themes, or Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers).

The proposed water project shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan Framework for State of Colorado Support for a Water Project (CWP, Section 9.4, pp. 9-43 to 9-44;)

The proposed project supports the goals and values of Colorado's Water Plan by aiming to find low head dam update projects that maximize multiple benefits across municipal and industrial, agricultural, recreation, and conservation water user groups. Therefore, we seek to identify low head dam update projects that will contribute to three main Water Plan Goals – 1) reduce municipal and industrial water gaps, 2) allow agricultural productivity to keep pace with growing state, national, and global needs and 3) encourage multi-partner, multipurpose, cooperative projects through financial incentives and technical support (CWP 8-3). Additionally, our project will directly facilitate the goals of various Basin Implementation Plans by investigating the multi benefit potential of desired low head dam renovation projects. All Basin Round Tables have identified key infrastructure projects, some of which involve low head dam updates. Our project seeks to develop and apply a framework for evaluating the multi-stakeholder benefit potential of each of these projects to assist DNR in strategically allocating funds.

The proposed project will support the identification and development of **multi-stakeholder benefit projects and methods that increase public safety, benefit environmental and recreational water needs as well as water needs for communities or agriculture**. The proposed project will develop a framework capable of assessing such initiatives in terms of their tangential benefits and costs to all stakeholders and associated regional economic outcomes. This project will build on the efforts, funded by water plan grants, of Colorado Department of Natural Resources to inventory all low head dam structures



in the state, support public awareness campaigns and signage installation projects at high-risk low head dam sites.

Related Studies

Please provide a list of any related studies, including if the water project is complementary to or assists in the implementation of other CWCB programs.

Colorado Water Conservation Board, 2013. Nonconsumptive Needs Toolbox, Retrieved from: http://cwcbweblink.state.co.us/weblink/0/doc/172701/Electronic.aspx?searchid=b764b205-1125-4f18b3e8-998e5e025e10

Previous CWCB Grants, Loans or Other Funding

List all previous or current CWCB grants (including WSRF) awarded to both the Applicant and Grantee. Include: 1) Applicant name; 2) Water activity name; 3) Approving RT(s); 4) CWCB board meeting date; 5) Contract number or purchase order; 6) Percentage of other CWCB funding for your overall project.



- 1) American Whitewater
- 2) Assessing Nonconsumptive Recreational Needs and Opportunities in the Rio Grande River Basin
- 3) Rio Grande Basin Roundtable
- 4) November 15-16, 2017
- 5) POGG1 PDAA 201800000978
- 6) 50%
- 1) American Whitewater
- 2) Economic Impact of River Recreation
- 3) Colorado, Yampa and South Platte Basin Roundtable
- 4) March 2021
- 5) POGG1 PDAA 202100003142
- 6) 50%

Taxpayer Bill of Rights

The Taxpayer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect your application.

There will be no TABOR impacts for this grant.

Submittal Checklist

I acknowledge the Grantee will be able to contract with CWCB using the <u>Standard Contract</u> .
Statement of Work ⁽¹⁾
Budget & Schedule ⁽¹⁾
Engineer's statement of probable cost (projects over \$100,000)
Letters of Matching and/or Pending 3 rd Party Commitments ⁽¹⁾
Map (if applicable) ⁽¹⁾
Photos/Drawings/Reports
Letters of Support (Optional)
Certificate of Insurance (General, Auto, & Workers' Comp.) ⁽²⁾
Certificate of Good Standing with Colorado Secretary of State ⁽²⁾
W-9 ⁽²⁾
Independent Contractor Form ⁽²⁾ (If applicant is individual, not company/organization)
Water Sharing Agreements and Alternative Transfer Methods ONLY
Water Sharing Agreements and Alternative Transfer Methods <u>Supplemental Application</u> ⁽¹⁾

(1) Required with application.

(2) Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



Water Plan Grant - Exhibit A

Statement Of Work		
Date:	July 1, 2021	
Name of Grantee:	American Whitewater	
Name of Water Project:	Low Head Dam Modification Prioritization Framework	
Funding Source:	Colorado's Water Plan Grant Fund	
Water Project Overview:		

Low head dams, often referred to as "drowning machines", can create uniform hydraulics, inescapable by most river recreationists. In 2019, the Colorado Department of Natural Resources (DNR) included American Whitewater (AW) on a steering committee for a project inventorying low head dams across the state. The data collecting identified nearly 800 low heads dams across the state¹. To begin to assess the risk and examine viable means to mitigate these risks in Colorado, AW has compared the dam inventory with our National Whitewater Inventory for Colorado² to understand where there is overlap with these structures and common recreational reaches. As a next step, American Whitewater, in coordination with DNR, irrigation representatives, and the conservation community, is proposing to identify and prioritize low head dam retrofit projects that would minimize public safety risk while achieving multiple other benefits such as ecological health and infrastructure efficiency improvements. This study will identify the multi-benefit potential, how each benefit can be quantified, and which low head dam project maximizes those benefits. We will use AW recreational needs assessment data, Basin Roundtable identified projects for consideration.

Project Objectives:

¹ https://drive.google.com/file/d/12ZIjQ-4kRxg8ni9ecTHq5dc-DjxdVLkq/view

² https://www.americanwhitewater.org/content/River/state-summary/?state=CO



- Identify the multi-stakeholder benefit potential of low head diversion structure modification/rehabilitation projects.
 - a. This project will bring together environmental, recreational, public safety, and agricultural interests in upgrading existing low head dam infrastructure
- Quantify the multi-stakeholder benefit potential of a proposed diversion update project.
 - a. The project value scoring framework will quantify the long-run value of rehabilitating and/or modifying existing low head dam diversion projects, considering benefits to public safety, agricultural, municipal, recreation, and ecological water users.
- Identify low head dam diversion projects that maximize multi-stakeholder benefits and should be further considered for a return-on-investment analysis.
 - a. This framework will facilitate return-on-investment analysis through a comprehensive evaluation of potential project multi-benefits.

Tasks

Task 1 – Literature review and stakeholder engagement

Description of Task:

CWCB water plan grants and other state, local and federal funding sources have provided support for a number of successful low head dam and diversion infrastructure rehabilitation and modification projects in Colorado. In this task, we will investigate these projects to learn from the involved stakeholders and completed study on the wide range of benefits low head dam retrofit projects provide.

Method/Procedure:



- Compile project lists from funded Water Plan and WSRF funded projects as well as projects funded through other opportunities, like Bureau of Reclamation Water Smart grants.
- Partner with DNR, Ditch and Reservoir Company Alliance, Trout Unlimited, The Nature Conservancy, and other impacted stakeholders.
- Engage with stakeholders, including ditch and diversion owners/companies, landowners, recreational users, conservation organizations, state agencies, and others, to understand the range of benefits possible with low head dam upgrades.
- Review Basin IPPs, projects identified in SMP/IWMPs to identify existing data on project benefits and/or need
- Review DNR's low head dam inventory and dangerous dam lists to identify high priority needs for public safety

Deliverable:

- A suite of potential benefits under each interest area (environment, recreation, and agriculture) of low head dam upgrade projects.

Tasks

Task 2 – Develop and project value scoring framework that blends quantitative assessments of project benefits across multiple stakeholder groups

Description of Task:



Last Updated: May 2021
This task will take the suite of potential benefits defined in task 1 and develop a scoring framework for
each. Metrics for each benefit could differ. The framework can aggregate the scores of individual project
benefits. The intention with the framework is to provide a common language between different project
sites across Colorado. It can be used in Task 3 to identify which of those projects are suitable for further
investigation into the return on investment.
· ·
Method/Procedure:
- Select a metric to comparatively score project benefits, for example, dollars of local economic impact
due to improved navigability, miles of connected stream, percentage of improved headgate efficiency.
- Develop an associated score for each metric and description of score selection and determining
factors.
- Review benefit metrics and scoring with stakeholders.
Deliverable
- A value scoring framework for each potential benefit identified in Task 1.

Tasks

Task 3 – Apply value scoring framework to potential low head dam upgrade projects.

Description of Task:



There are a number of existing resources, to be reviewed in Task 1, that contain identified and stakeholder vetted low head dam or diversion upgrade projects that will be the sources of potentials to be analyzed in this task. Basin roundtables have recently updated IPP lists. Stream Management and Integrated Watershed Management Plans, in some places, have begun to identify other potential projects. DNR's dam inventory identified the structures that post the highest risk to public safety.

The framework developed in task 2 will be applied to a select list of potential projects to identify which projects could be prioritized for implementation and/or selected for a study on the return on investment.

Method/Procedure:

- Review project lists compiled in Task 1 with stakeholders to understand local buy-in and ripeness for each project.
- Score each project value/benefit
- Compare scores across benefit areas as well as aggregated scores
- Identify ten high priority projects

Deliverable:

- A scored list of the top ten highest priority low head dam upgrade projects.
- A written report describing the scoring process and site specific variables taken into account

Tasks



Task 4 – CWCB Grant Reporting

Description of Task:

American Whitewater will meet the CWCB's reporting requirements, including providing the CWCB with deliverables for each task and 6 month progress reports.

Method/Procedure:

We will provide progress reports to the CWCB every 6 months.

Deliverable:

American Whitewater will provide the CWCB with Task deliverables and progress reports as outlined in the reporting guidelines.



Budget and Schedule

This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format.

Reporting Requirements

Progress Reports: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Report: At completion of the project, the applicant shall provide the CWCB a Final Report on the applicant's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

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.

Payment

Payment will be made based on actual expenditures and must include invoices for all work completed. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

Costs incurred prior to the effective date of this contract are not reimbursable. The last 10% of the entire grant will be paid out when the final deliverable has been received. All products, data and information developed as a result of this contract must be provided to as part of the project documentation.

Performance Measures

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 inkind contributions (if applicable) per the budget in Exhibit C. 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.



COLORADO Colorado Water Conservation Board

Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Exhibit C Budget Template Instructions

** Please select the most appropriate budget template for your project from the worksheet tabs below. A general budget template is provided, as well as templates for studies, construction, and engineering projects.**



COLORADO

Colorado Water Conservation Board

Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Exhibit C

Budget and Schedule

Prepared Date: 7/1/2021

Name of Applicant: American Whitewater

Name of Water Project: Low Head Dam Modification Prioritization Framework

Project Start Date: September 17, 2021

Project End Date: September 30, 2022

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1	Literature review and stakeholder engagement	9/17/2021	12/31/2021	17310	5770	\$23,080
2	Develop and project value scoring framework	11/1/2021	6/1/2021	\$23,040	\$7,680	\$30,720
3	Apply value scoring framework	4/1/2021	9/31/2021	\$21,000	\$7,000	\$28,000
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
			Total	\$61,350	\$20,450	\$81,800
		Page 1 o	of 1			



Colorado Water Conservation Board

Water Plan Grant - Detailed Budget Estimate Fair and Reasonable Estimate

Prepared Date: Name of Applicant: Name of Water Project:

EXAMPLE A: Study or Project Coordination

Task 1 - [TASK NAME]

									ltem								
Sub-task	Item	Hou	rly Rate	# Hours	Sub-t	otal	Iter	n Cost	Quanti	ty S	Sub-total		Total	CW	CB Funds	Matching	Funds
Focus Groups																	
	Participant Stipend				\$	-	\$	50.00	20	0.00 \$	1,000.00	\$	1,000.00	\$	250.00	\$ 7	50.00
	Catering				\$	-	\$	15.00	20	0.00 \$	300.00	\$	300.00	\$	75.00	\$ 2	25.00
	Feedback Survey				\$	-	\$	0.50	20	0.00 \$	10.00	\$	10.00	\$	2.50	\$	7.50
	Staff Time	\$	40.00	10	\$ 4	00.00						\$	400.00	\$	100.00	\$ 3	00.00
Develop Exhibit																	
	Exhibit Designer	\$	50.00	100	\$ 5,0	00.00				\$	-	\$	5,000.00				
	Staff Time Project Manager	\$	50.00	30	\$ 1,5	00.00				\$	-	\$	1,500.00				
	Staff Time Administrative	\$	35.00	20	\$7	00.00				\$	-	\$	700.00				
	Film Production (filming,																
	editing, production)				\$	-	\$5,	000.00	1	1.00 \$	5,000.00	\$	5,000.00				
					\$	-				\$	-	\$	-				
					\$	-				\$	-	\$	-				
TOTAL												\$	13,910.00				
Other Direct Costs (see below)												\$	2,469.00				
OVERALL TOTAL												\$	16,379.00				

Other Direct Costs

ltem:	Copies & Printing (Black & White)	Copies & Printing (Color)	Materials and Final Report Production	Lodging and Meals	Travel Expenses (Airfare and Car Rental)	Mileage	Total
Units:	No.	No.	Lump Sum	Per Diem	Lump Sum	Miles	
Unit Cost:	\$0.10	\$0.50		\$ 100.00		\$0.535	
Project Initiation	150	100		2		400	\$479
Report, Conclusions and							
Recommendations	150	150	\$ 1,900	0		0	\$1,990
Total Units:	300	250	1,900	2	0	400	
Total Cost:	\$30	\$125	\$1,900	\$200	\$0	\$214	\$2,469



Colorado Water Conservation Board

Water Plan Grant - Detailed Budget Estimate Fair and Reasonable Estimate

Prepared Date:

Name of Applicant:

Name of Water Project:

EXAMPLE C: Construction

Task 1 - Construction

									Matching
Sub-task	Unit	Quantity	Unit	Cost	Т	otal Cost	CV	VCB Funds	Funds
Mobilization	LS	1	\$5	0,000	\$	50,000	\$	10,000	\$ 40,000
Coffer Dam	EA	1	\$ 10	0,000	\$	100,000	\$	20,000	\$ 80,000
Cut	CY	20,000	\$	4	\$	80,000	\$	16,000	\$ 64,000
Fill	CY	18,000	\$	8	\$	144,000	\$	28,800	\$ 115,200
Erosion Control	LS	1	\$ 4	0,000	\$	40,000	\$	8,000	\$ 32,000
18-inch HDPE	LF	500	\$	50	\$	25,000	\$	5,000	\$ 20,000
18-inch Valve	EA	1	\$ 1	0,500	\$	10,500	\$	2,100	\$ 8,400
Etc									

Task 2 - ?

TOTAL

\$ 449,500.00

\$ 89,900 \$

359,600



Colorado Water Conservation Board

Water Plan Grant - Detailed Budget Estimate Fair and Reasonable Estimate

Prepared Date: Name of Water Project:

EXAMPLE B: Engineering

Task 1 - Engineering			Water Co	nsultants				Subco	ontracts					
Sub-task	Senior Principal Engineer	Senior Water Resources Engineer/ Consultant	r Water Resources Engineer	Geologist/ Water Resources Analyst			Geotechnical	Environmental and Cultural Resources	(Other)			Proiect Total	CWCB Funds	Matching Funds
	\$ 190	\$ 160	\$ 130	\$ 100	Su	btotal	Lump sum	Lump Sum	(2000)	Subtotal		,		
	Estimated Hours						Estimated							
Project Initiation / Stakeholder identification	12	32		16	\$	9,000				\$	-	\$9,000		
Water Rights Evaluation	24	24	80	30	\$	21,800			\$ 12,000	\$	12,000	\$33,800		
Geotechnical	24			36	\$	8,160	\$ 27,000			\$	27,000	\$35,160		
Permitting		32		40	\$	9,120				\$	-	\$9,120		
Survey	4	24		8	\$	5,400				\$	-	\$5,400		
Design of XXX	160	60	100		\$	12,640				\$	-	\$12,640		
Preparation of construction documents (bid docs, specs)	40	10	30											
Project Management	20	30		24	\$	11,000				\$	-	\$11,000		
Report, Conclusions, & Recommendations	40	54	16	40	\$	22,320			\$ 3,000	\$	8,500	\$30,820		
Task 2 - ?														
TOTAL												\$146,940		