Last Updated: July 2017

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:

Supply and Demand Gap Projects: Gregory.Johnson@state.co.us

Water Storage Projects: Anna.Mauss@state.co.us

Conservation, Land Use Planning: Kevin.Reidy@state.co.us

Engagement & Innovation Activities: Mara.MacKillop@state.co.us

Agricultural Projects: Brent.Newman@state.co.us

Environmental & Recreation Projects: Linda.Bassi@state.co.us

Applicants interested in submitting an 'Intent to Apply' in the future are encouraged to check here ☐ and fill in all sections with the best information available at the time. Exhibits excluded.

This "Intent to Apply" will help CWCB prioritize Projects that are not ready for fully completed Water Plan Grant Application due to the initial timeframe and deadlines required.

Water Project Summary

Name of Applicant	West Divide Water Conservancy District Colorado River Water Conservation District
Name of Water Project	Understanding local streamflow to quantify West Divide Project component yield.

CWP Grant Request Amount	$ 80,260
Other Funding Sources	$
Other Funding Sources	$0
Applicant Funding Contribution (West Divide Water Conservancy District)	$ 80,260
Total Project Cost	$160,520

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Applicant & Grantee Information	
Name of Grantee(s)	Colorado River Water Conservation District
Mailing Address	P.O. Box 1120, Glenwood Springs, CO 81602
FEIN	
Organization Contact	John Currier
Position/Title	Chief Engineer
Email	jcurrier@crwcd.org
Phone	(970) 945-8522 ext 237
Grant Management Contact	John Currier
Position/Title	Chief Engineer
Email	jcurrier@crwcd.org
Phone	(970) 945-8522 ext 237
Name of Applicant (if different than grantee)	West Divide Water Conservancy District (WDWCD)
Mailing Address	818 Taughenbaugh Blvd, Rifle, CO 81650
Position/Title	Sam Potter
Email	samisbmo7@gmail.com
Phone	(970) 309-3030

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Description of Grantee/Applicant
Provide a brief description of the grantee's organization (100 words or less).
The **West Divide Water Conservancy District** (WDWCD), a Colorado governmental entity, was organized in 1964 for the purposes of conserving and developing land and water resources within its boundaries in Garfield, Pitkin and Mesa counties. WDWCD provides augmentation supplies within the District for all beneficial uses, and promotes the health, safety and welfare of the public through these services. The **Colorado River Water Conservation District** (CRWCD) is a public water policy agency chartered in 1937 to be "the appropriate agency for the conservation, use and development of the water resources of the Colorado River and its principal tributaries in Colorado."

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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.
X	**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.
	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)	
X	Study
	Construction
X	Identified Projects and Processes (IPP)
	Other

Category of Water Project (check all that apply and include relevant tasks)	
X	Supply and Demand Gap Projects - Multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap. *Applicable Exhibit A Task(s): Tasks 1-5*
X	Water Storage Projects - Projects that facilitate the development of additional storage, artificial recharge into aquifers, and dredging existing reservoirs to restore the reservoirs' full decreed storage capacity. *Applicable Exhibit A Task(s): Tasks 1-5*
X	Conservation and Land Use Planning Projects - Activities and projects that implement long-term strategies for conservation, land use, and drought planning. *Applicable Exhibit A Task(s): Tasks 1-5*
	Engagement & Innovation Projects - Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application available on the website. *Applicable Exhibit A Task(s):*
X	Agricultural Projects - Projects that provide technical assistance and improve agricultural efficiency. *Applicable Exhibit A Task(s): Tasks 1-5*

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X	Environmental & Recreation Projects – Projects that promote watershed health, environmental health, and recreation. *Applicable Exhibit A Task(s): Tasks 1-5*	
	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	Garfield/Mesa
Latitude	39.3722
Longitude	-107.5934

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.

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Water Project Overview

The work being proposing will primarily increase streamflow monitoring in the Divide Creek area where WDWCD holds conditional direct flow and storage water rights. The only stream measurement available in the area is the West Divide Creek Raven gage (WSDRAVCO). The West Divide Canal was contemplated to divert water from Garfield and Baldy Creeks into Kendig Reservoir. The Horsethief Canal was contemplated as a delivery structure from Kendig which could also divert additional water from East Mamm, Beaver, Cache and Battlement Creeks. A recent feasibility study of Kendig Reservoir found the yield to be highly variable from year to year with the only source of water being West Divide Creek. There are roughly 6,700 acres of irrigated lands growing mainly pasture grass below the contemplated Kendig Reservoir site. Because the originally contemplated Crystal River supplies have been abandoned, there is a need to quantify the additional yield that can be obtained from within the basin. In addition to yield analysis, alternative dam alignments have created the need to reinvestigate canal alignments to deliver water via gravity flow into the Kendig alternatives. Potential services areas will also be delineated.

Measurable Results

To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:

9,000 - 16,500	New Storage Created (acre-feet)	
9,000 - 16,500	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
	Existing Storage Preserved or Enhanced (acre-feet)	
TBD	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	
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning	
TBD	Other	Explain: value of increased agricultural efficiency, value of augmentation water supply for landowners.

Water Project Justification

Provide a description of how this water project supports the goals of Colorado's Water Plan, the most recent Statewide Water Supply Initiative, and the applicable Roundtable Basin Implementation Plan and Education Action Plan. The Applicant is required to reference specific needs, goals, themes, or

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Water Project Justification

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;)

Kendig Reservoir was identified in the Colorado Basin Implementation Plan (BIP) as a "Top Project" in April 2015. Kendig Reservoir met 3 of 6 themes, including: protecting and restoring healthy streams, sustaining agriculture and securing safe drinking water (Colorado Basin Roundtable Basin Implementation Plan – Table 18, pp 131). Kendig, along with several other West Divide Project components (Baldy – aka Alsbury Reservoir enlargement, Horsethief Canal, West Divide Canal, Dry Hollow Reservoir, and West Mamm Creek Reservoir) were identified in the Middle Colorado Region needs assessment as an IPP for: sustaining agriculture, securing safe drinking water and in developing local water conscious land use strategies (Colorado Basin Roundtable Basin Implementation Plan – Table 15, pp 111). Kendig Reservoir can sustain agriculture by providing late season irrigation flows, when physical and legal supplies typically run out. Kendig Reservoir could secure safe drinking water by providing a legal augmentation supply for groundwater wells to operate out of priority, a potable water system from Kendig Reservoir is beyond the scope of this work. Kendig Reservoir can aid in developing local water conscious land use strategies by providing more flexibility for water supply during population and industrial growth periods as well as during drought periods. Kendig reservoir would allow for stream protection by bringing the water supply of the area more in line with the timing of water demands by providing storage to re-time the runoff. Benefits could be similar to those seen below Rifle Gap and Grass Valley Reservoir (aka Harvey Gap). Additionally, Kendig would provide a recreation pool for boating, fishing and other aquatic activities.

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.

- Wilson Water Group, 2016. Kendig Reservoir Feasibility Report . April.
- Grand River Consulting. 2012. Evaluation of Development Options – West Divide Project. December.
- Black and Veatch. 2011. West Divide Project Feasibility Assessment. June 3.
- ERO Resources Corporation, Inc. 2011. Environmental Permits, Authorizations, and Regulatory Requirements West Divide Project. June.
- Barnes Geologic Consulting, Inc. 2002. Geology Report - Kendig Dam and Reservoir Sites West Divide Project, Colorado. May.
- U.S. Bureau of Reclamation (USBR). 1987. Kendig Dam Site, Feasibility Geology Report.
- Hydro-Triad, LTD. 1986. Reformulation of the West Divide Project. July.
- U.S. Bureau of Reclamation (USBR). 1982. USBR Planning Report on the West Divide Project. May.
- U.S. Bureau of Reclamation (USBR). 1966. West Divide Project, Colorado. Feasibility Report. March.
- U.S. Bureau of Reclamation (USBR). 1956. West Divide Project, Colorado. Supplemental Status Report. July.
- U.S. Bureau of Reclamation (USBR). 1937. Planning Report: USBR West Slope Surveys, The West Divide Project.

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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.
WSRA Grant: 1.) West Divide Water Conservancy District and Colorado River Water Conservation District 2.) Kendig Reservoir Feasibility Evaluations 3.) Colorado Basin Roundtable 4.) May 18, 2015 – Ignacio, CO 5.) POGG1 2016-208 6.) 0%

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.
CRWCD will act as the fiscal agent on this project due to WDWCD's limited revenues and corresponding limited ability to accept grant money under TABOR. WDWCD will provide matching funds.

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Submittal Checklist	
x	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract.
Exhibit A	
X	Statement of Work(1)
X	Budget & Schedule(1) *(Spreadsheet)*
X	Letters of Matching and/or Pending 3rd Party Commitments(1)
Exhibit C	
X	Map (if applicable)(1)
X	Photos/Drawings/Reports
X	Letters of Support (Support letter from Basin Roundtable encouraged)
X	Certificate of Insurance (General, Auto, & Workers' Comp.) (2)
	Certificate of Good Standing with Colorado Secretary of State(2)
X	W-9(2)
	Independent Contractor Form(2) (If applicant is individual, not company/organization)
Engagement & Innovation Grant Applicants ONLY	
	Engagement & Innovation Supplemental Application(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.

Exhibit A

- Statement of Work
- Budget & Schedule
- Letter of Commitment for Matching Funds

Last Updated: July 5, 2017

Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	**July 31, 2017**
Name of Applicant:	**West Divide Water Conservancy District** **Colorado River Water Conservation District**
Name of Water Project:	Understanding local streamflow to quantify West Divide Project component yield.
Funding Source:	**Colorado Water Plan Grant**

Water Project Overview: Please provide a summary of the proposed water project (200 words or less). The same summary can be used from Page 5 of the CWP Grant Application.

The work being proposing will primarily increase streamflow monitoring in the Divide Creek area where WDWCD holds conditional direct flow and storage water rights. The only stream measurement available in the area is the West Divide Creek Raven gage (WSDRAVCO). The West Divide Canal was contemplated to divert water from Garfield and Baldy Creeks into Kendig Reservoir. The Horsethief Canal was contemplated as a delivery structure from Kendig which could also divert additional water from East Mamm, Beaver, Cache and Battlement Creeks. A recent feasibility study of Kendig Reservoir found the yield to be highly variable from year to year with the only source of water being West Divide Creek. There are roughly 6,700 acres of irrigated lands growing mainly pasture grass below the contemplated Kendig Reservoir site. Because the originally contemplated Crystal River supplies have been abandoned, there is a need to quantify the additional yield that can be obtained from within the basin. In addition to yield analysis, alternative dam alignments have created the need to reinvestigate canal alignments to deliver water via gravity flow into the Kendig alternatives. Potential services areas will also be delineated.

Objectives: List the objectives of the project.

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1.) **Increase streamflow monitoring in the Divide Creek area to understand water yield and exchange potential from conditional water rights tributary to the Colorado River.**
2.) **Create statistical relationships between tributary gages and the long term West Divide Creek Raven gage.**
3.) **Quantify the anticipated additional yield to Kendig Reservoir from these additional supplies.**
4.) **Re-evaluate canal alignments to optimize yield and delivery.**
5.) **Evaluate potential service areas that would be created by these supplies.**

Tasks

Provide a detailed description of each project task using the following format:

Task 1 – Increase streamflow monitoring in the Divide Creek area to understand water yield and exchange potential from conditional water rights tributary to the Colorado River.

Description of Task:

Installation of streamflow monitoring hardware on tributaries to the Colorado River where West Divide Water Conservancy District holds decreed water rights. In addition to hardware installation, several field visits to measure streamflow for the development of rating curves will be necessary. If possible, a long term USGS gage is desirable on East Divide Creek that could also be used for administrative purposes.

Method/Procedure:

Streamflow measurements will be taken with pressure transducers that will continuously measure the water level in the stream (stream stage). Stilling wells will be installed where the pressure transducers will be placed. After the sensors are in place, site visits to measure streamflow over a wide range of flow conditions will be made. The streamflow measurements will be used with the stage data to create the stream rating curve. The rating curve can then be used to estimate the water flow from the measured water level. It is anticipated that these sensors and measurements will be taken on the following tributaries to the Colorado River: Garfield Creek, Baldy Creek, East Divide Creek, East Mamm Creek, Beaver Creek, Cache Creek and Battlement Creek. As noted above, it is desirable to have a long term monitoring gage installed on East Divide Creek by USGS or Colorado Division of Water Resources. This gage would not only benefit this study, but would aid in administration of East Divide Creek and deliveries from Alsbury Reservoir by Division 5 staff.

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Tasks
Grantee Deliverable: Describe the deliverable the grantee expects from this task
Datasets of stream stage, verification streamflow measurements and rating curves will be provided.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
A report describing the hardware installation and data obtained from this task will be delivered to the CWCB. Data collected will also be provided.

Tasks
Provide a detailed description of each task using the following format:
Task 2 – Create statistical relationships between tributary gages and the long term West Divide Creek Raven gage.
Description of Task:
After sufficient data is collected, statistical relationships between the West Divide Creek Raven gage and these tributary monitoring stations will be developed. These relationships will be firmed up with five years of data collection. These relationships will allow for flow estimation on tributary streams after the stations can no longer be maintained.
Method/Procedure:

Last Updated: July 5, 2017

Tasks
Statistical analysis, likely linear regression equations, will be developed between the West Divide Creek Raven gage and each monitored tributary. The yield analysis will use the gaged data being collected in this study, however, after sufficient data is collected the flow on these tributaries can be estimated using the statistical relationship with the long term Raven gage after this study is over. Monthly and annual regression equations will be derived from these data and the best fit will be recommended for flow estimation.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
A set of regression equations to estimate flow on tributary streams using the West Divide Creek Raven gage.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
A report documenting the regression equations that can be used to estimate flow on tributary streams using the West Divide Creek Raven gage will be provided.

Tasks
Provide a detailed description of each project task using the following format:
Task 3 – Quantify the anticipated additional yield to Kendig Reservoir from these additional supplies.
Description of Task:
Using the gaged streamflow data collected in this study, estimates of water yield will be made for each tributary listed in the Overview section above. These points are also shown on the attached Figure 1.
Method/Procedure:

Last Updated: July 5, 2017

Tasks
The method to estimate the potential yield from the conditional water rights will be based in part on the gaged streamflow measurements being proposed in this study. In addition to the gaged data, the quantification of yield will be limited to the decreed water right amount as well as by any senior downstream water right calls. The yield will be assessed over the years of study, which will ideally include a wet, dry and average year. If these types of years are not experienced over the study period, the regression equations described in Task 2 can be used to estimate what the flows were in critically dry years, such as 2002 and 2012, using the West Divide Creek Raven gage. These yields will also be compared to the previous Kendig Reservoir feasibility study which only evaluated yield from West Divide Creek. The difference in yield and associated cost of canal construction will provide the cost per yield (i.e. dollars per acre-foot) for use in a cost-benefit analysis.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
Anticipated yield during wet, dry and average years to understand the potential yield from Kendig Reservoir utilizing these conditional water rights.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
A report documenting the findings of the yield study by year type will be provided. The report will also compare the cost/yield from the West Divide Creek only supply to the cost/yield of these additional supplies to determine if the canal construction is cost prohibitive.

Tasks
Provide a detailed description of each project task using the following format:
Task 4 – Re-evaluate canal alignments to optimize yield and delivery.
Description of Task:
Canal alignments had been previously produced to understand how the West Divide Canal and Horsethief Canal would divert/deliver water to/from the decreed location for Kendig Reservoir (Figure 1). Subsequent studies have identified alternative alignments for the Kendig Reservoir dam which would not be able to use the original canal alignments.
Method/Procedure:

Last Updated: July 5, 2017

Tasks
Using ArcGIS or AutoCAD, new canal alignments that optimize yield and delivery to/from the Kendig alternatives will be delineated. The canal will ideally deliver water via gravity flow to Kendig Reservoir to eliminate the need for power and pumps. This task will likely be completed prior to flow meters being installed. Once the canal alignments are complete, the streamflow measurement devices will be placed at the defined point of diversion on the canal or as close to it as possible without intruding on private property.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
Shapefiles of canal alignments and anticipated points of diversion.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
A report documenting the work completed along with shapefiles of canal alignments and anticipated points of diversion.

Tasks
Provide a detailed description of each project task using the following format:
Task 5 – Evaluate potential service areas that would be created by these supplies.
Description of Task:
Each augmentation plan operated by WDWCD has a defined service area where augmentation water can be contracted from a specific augmentation supply. This same analysis will be performed below Kendig Reservoir, West Divide canal and Horsethief canal.
Method/Procedure:

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Tasks

In order to define the service area that can be created below Kendig Reservoir and the Horsethief canal, the sources of water delivery, topography and downstream senior water rights are taken into account. The delineation of the service area will likely involve conversations with the District 45 water commissioner in order to understand the administration on West Divide Creek as well as the tributaries below the West Divide and Horsethief Canals where augmentation water could potentially be provided.

Grantee Deliverable: Describe the deliverable the grantee expects from this task

Shapefiles and maps of the delineated service area that could be created.

CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task

A report documenting how the service area was delineated along with a map and associated shapefiles of the service area.

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. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

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Reporting Requirements

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 withhold disbursement the last 10% of the budget until 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.

Last Updated: July 5, 2017

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Exhibit A
Budget and Schedule

Date:July 31, 2017

Name of Applicant: West Divide Water Conservancy District/Colorado River Water Conservation District

Name of Water Project: Understanding local streamflow to quantify West Divide Project component yield.

Task No.	Task Description	Start Date(1)	End Date	Water Project Funding Category	Grant Funding Request	Match Funding	Total
1	**Increase streamflow monitoring in the Divide Creek area to understand water yield and exchange potential from conditional water rights tributary to the Colorado River.**	7/1/2018	7/1/2023	Water Storage, Supply and Demand Gap, Agricultural, Conservation and Land Use Planning and Environmental and Recreation	$72,650	$72,650	$145,300
2	**Create statistical relationships between tributary gages and the long term West Divide Creek Raven gage.**	7/1/2018	7/1/2023	Water Storage, Supply and Demand Gap, Agricultural, Conservation and Land Use Planning and Environmental and Recreation	$2,250	$2,250	$4,500
3	**Quantify the anticipated additional yield to Kendig Reservoir from these additional supplies.**	7/1/2018	7/1/2023	Water Storage, Supply and Demand Gap, Agricultural, Conservation and Land Use Planning and Environmental and Recreation	$3,000	$3,000	$6,000
4	**Re-evaluate canal alignments to optimize yield and delivery.**	3/1/2018	12/31/2018	Water Storage, Supply and Demand Gap, Agricultural, Conservation and Land Use Planning and Environmental and Recreation	$1,180	$1,180	$2,360
5	**Evaluate potential service areas that would be created by these supplies.**	7/1/2018	7/1/2023	Water Storage, Supply and Demand Gap, Agricultural, Conservation and Land Use Planning and Environmental and Recreation	$1,180	$1,180	$2,360
				Total	**$80,260**	**$80,260**	**$160,520**

(1) Start Date for funding under $100K, minimum 45 Days from Board Approval; Start Date for funding over $100K, minimum 90 Days from Board Approval.

·Round values up to the nearest hundred dollars.

·Reimbursement eligibility commences upon the grantee's receipt of a Notice to Proceed (NTP)

·NTP will not be accepted as a start date. Project activities may commence as soon as grantee enters contract and receives formal NTP if prior to the listed "Start Date".

·The applicant shall provide a progress repost every 6 months, beginning from the date of contract execution.

·CWCB will withhold disbursement of the last 10% of the total grant amount until a Final Report is completed to the satisfaction of CWCB staff (2017 CWP Grant Guidelines).

TASK 1: Stream Gage Installation and Monitoring

Equipment

Quantity	Type	Unit Cost	Total Cost
1	CDWR Gaging Station*	$ 30,500.00	$ 30,500.00
6	Pressure Transducer**	$ 3,000.00	$ 18,000.00
6	Accessories for Pressure Transducer	$ 100.00	$ 600.00
6	Staff Gages	$ 75.00	$ 450.00
1	Stream Gaging Equipment	$ 4,500.00	$ 4,500.00
			$ -
			$ 54,050.00

* 10,500 capital and installation, 4 years @ $5,000 O&M

**Verbal Quote from In-Situ $2600 for Level Troll 700H, direct connect cable, dessicant and pigtail.

Stream Gage Installation

Quantity (Hours)	Number of Stations	Number of Personnel	Type	Unit Cost	Total Cost
8	6	2	PT Stations	$ 1,000.00	$ 12,000.00
4	1	1	CDWR	500	500
					$ 12,500.00

Stream Gage Monitoring - Rating Curve

No. of Visits Per Site	No. of Sites	No. of Personnel	No. of Hours Per Visit*	Unit Cost	Total Cost
10	6	2	5	$ 12,500.00	**$ 75,000.00**

*Includes Estimate of Drive Time

Stream Gage Siting - Research Where to Site Gaging Station

Quantity (Hours)	Number of Stations	Number of Personnel	Type	Unit Cost	Total Cost
5	6	1	Find Location	625	**$ 3,750.00**
				Total Task 1	**$ 145,300.00**

TASK 2: Statistical Relationships

Quantity (Hours)	Number of Stations	Number of Personnel	Type	Unit Cost	Total Cost
6	6	1	Analyze Data	$ 750.00	**$ 4,500.00**
				Total Task 2	**$ 4,500.00**

TASK 3: Quantify Yield from Gaged Data

Quantity (Hours)	Number of Stations	Number of Personnel	Type	Unit Cost	Total Cost
8	6	1	Quantify yield: Water Rights, Administration, etc.	$ 1,000.00	**$ 6,000.00**
				Total Task 3	**$ 6,000.00**

TASK 4: Re-Evaluate Canal Alignments

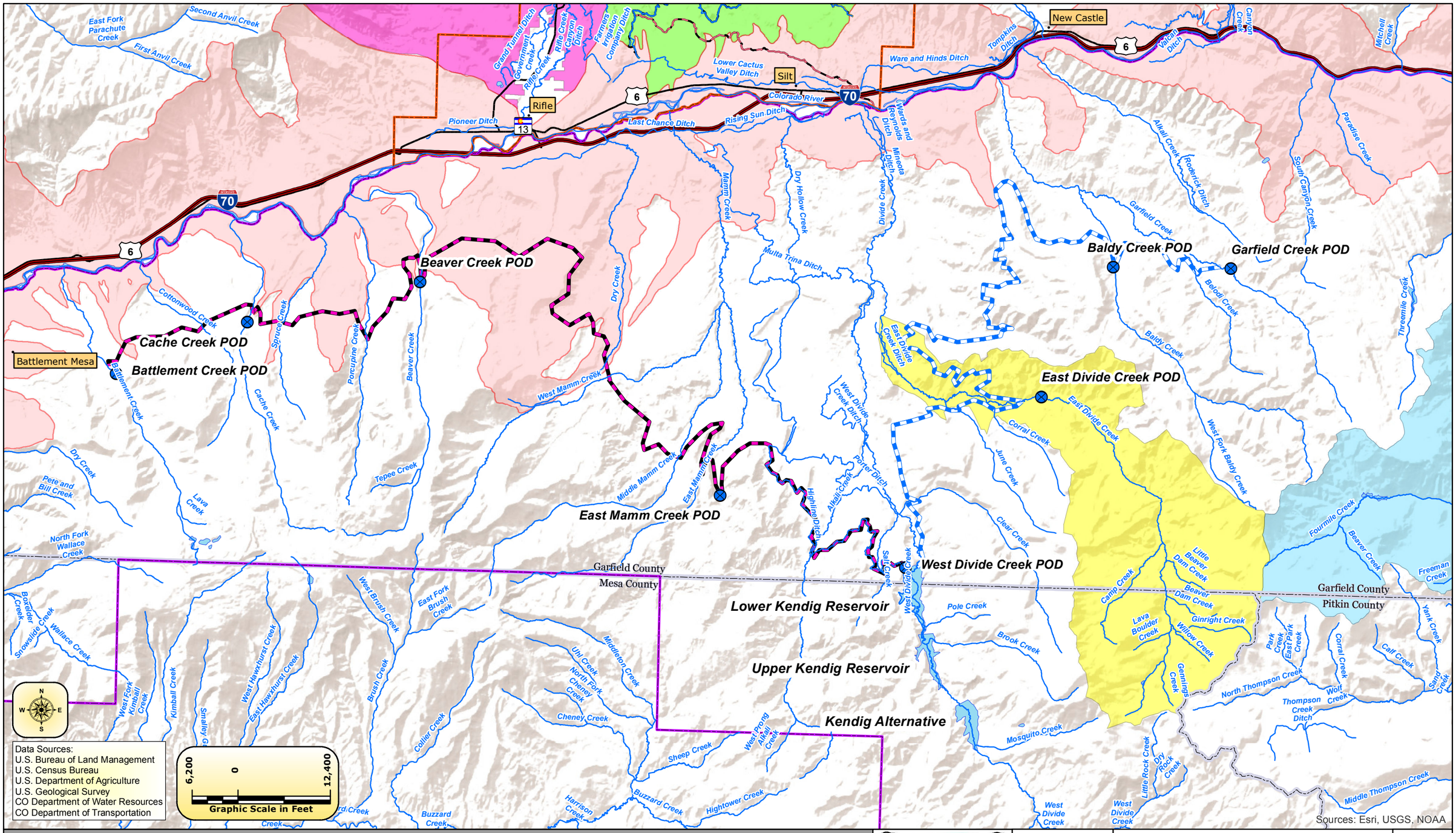
Quantity (Hours)	Number of Stations	Number of Personnel	Type	Unit Cost	Total Cost
8	2	1	Evaluate new Canal alignments	$ 1,000.00	**$ 2,000.00**
6	1	1	GIS Tech	360	**$ 360.00**
				Total Task 4	**$ 2,360.00**

TASK 4: Delineate New Service Area

Quantity (Hours)	Number of Stations	Number of Personnel	Type	Unit Cost	Total Cost
8	1	2	Evaluate New Service Area	$ 2,000.00	**$ 2,000.00**
6	1	1	GIS Tech	360	**$ 360.00**
				Total Task 5	**$ 2,360.00**

Total Project Cost **$ 160,520.00**

50% Cost Share **$ 80,260.00**



Map Key

- West Divide Canal
- SWCD
- WDWCD
- LAKES
- Horsethief Canal
- ALSBURY SERVICE AREA
- COLORADO RIVER SERVICE AREA
- ELK CREEK SERVICE AREA
- FOUR MILE SERVICE AREA
- LOWER RIFLE CREEK SERVICE AREA
- SILT MESA SERVICE AREA
- UPPER RIFLE CREEK SERVICE AREA

COLORADO RIVER ENGINEERING INCORPORATED

PO Box 1301
Rifle, CO 81650
Tel 970-625-4933

West Divide Water Conservancy District

CO Water Plan Grant Overview Map

Figure: 1

Document Name: CWP_Grant_Map_2017.mxd

Drawn by: JTP | Approved by: CM | Date: 7/27/2017

Client: WDWCD

WEST DIVIDE
WATER CONSERVANCY DISTRICT

818 Taughenbaugh Blvd., Suite 101 P.O. Box 1478
Rifle, Colorado 81650-1478
Tel: (970) 625-5461
Web: www.wdwcd.org Email: water@wdwcd.org

August 1, 2017

Colorado Water Plan Grant Coordinator,

West Divide Water Conservancy District is the applicant for a Colorado Water Plan Grant project entitled "Understanding Local Streamflow to Quantify West Divide Project Component Yield." The total project cost is estimated to be $160,520, of which 50% is being requested from the Colorado Water Plan Grant Funding. This letter is being submitted as commitment that the remaining 50% of the project cost ($80,260) will be provided through matching funds from the West Divide Water Conservancy District.

If you have any questions or require additional information, feel free to call our office at (970) 625-5461.

Sincerely,

Sam Potter, West Divide Water Conservancy District Board President

THE COLORADO BASIN ROUNDTABLE

C/O P.O. BOX 1120
GLENWOOD SPRINGS, COLORADO 81602

July 31, 2017

Colorado Water Plan Grant Program
Colorado Water Conservation Board
Supply and Demand Gap Projects: Gregory.Johnson@state.co.us
Water Storage Projects: Anna.Mauss@state.co.us
Conservation, Land Use Planning: Kevin.Reidy@state.co.us
Agricultural Projects: Brent.Newman@state.co.us
Environmental & Recreation Projects: Linda.Bassi@state.co.us

Dear CWCB staff:
The Colorado Basin Roundtable supports the West Divide Water Conservancy District/Colorado River Water Conservation District notice of application for work to further advance Kendig Reservoir investigations with attendant benefits to agriculture, safe drinking water, the environment and recreation. The Roundtable previously supported a WSRF grant to study Kendig feasibility. Kendig Reservoir was identified in the Colorado Basin Implementation Plan (BIP) as a "Top Project" for the Middle Colorado River segment in April 2015. Kendig Reservoir met 3 of 6 themes, including: protecting and restoring healthy streams, sustaining agriculture and securing safe drinking water (Colorado Basin Roundtable Basin Implementation Plan – Table 18, pp 131).

The work being proposing will primarily increase streamflow monitoring in the Divide Creek area where WDWCD holds conditional direct flow and storage water rights. The only stream measurement available in the area is the West Divide Creek Raven gage (WSDRAVCO).

Sincerely yours,

Jim Pokrandt
Chair, Colorado Basin Roundtable