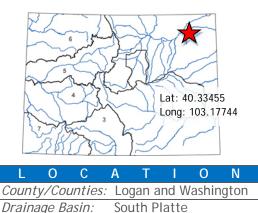


Logan Well Users Telemetry Project

Logan Well Users, Inc. November 2018 Board Meeting

Water Plan Grant Application



DETAILS	
Total Project Cost: \$360,	000
Water Plan Grant Request: \$180,	000
Other CWCB Funding:	\$0
Other Funding Amount:	\$0
Applicant Match: \$180,	000
Project Type(s): IPP, Well Measurement	
Project Category(Categories): Agricultural	
Measurable Result: Agricultural water efficiency savings at 2000 af/year	/

Logan Well Users, Inc. ("LWU") is a non-profit organization formed in 2003 by well users along the South Platte River in Water District 64 for the purpose of acquisition and distribution of water, adjudication of wells, and operation of a plan for augmentation. Currently, LWU encompasses 396 member wells, 15 recharge wells, 42 augmentation wells, and 14 recharge projects. LWU id requesting \$180,000, 50% of the total project cost, through Colorado's Water Plan Grant Program to add realtime, remote well meter recording devices, or telemetry, to 120 member wells to facilitate administration of the LWU Plan for Augmentation. Altogether, these wells irrigate approximately 10,000 acres of corn, sugar beets, and alfalfa, and 3 wells supply water for industrial and feedlot uses. Matching funds will be provided by the applicant. The project is supported by the Division 1 Engineer.

Tributary groundwater wells were integrated into the state's prior appropriation system through the Water Right Determination and Administration Act of 1969, which allowed tributary groundwater to be used if surface water depletions could be mitigated through a court-approved augmentation plan. One of the most cost-effective methods of augmentation is to develop recharge structures that can take surface water during times of free river and allow the water to seep into the aquifer and back to the river. Recharge accounting is often done on a daily time step with monthly summations to the Division Engineer within 30 days of the end of the month. As a result, there is a time lag on the order of months between the point of time at which a piece of flow information is recorded and the time at which processed information from the State Engineer is in the hands of the decision maker seeking to ensure their well is appropriately augmented. Under this operating scenario, well depletions are typically over augmented, which may result in over releases from storage and additional pumping of augmentation wells.

Installation of real-time groundwater pumping and recharge data throughout LWU's network of wells will provide multiple benefits and further several objectives of the South Platte Basin Implementation Plan and Colorado's Water Plan by seeking to maintain the agricultural viability of the Lower South Platte River Basin while supporting agricultural efficiency, maximizing water supplies, and benefiting the river system through real-time balancing of stream depletion and replacement supplies. The project will support agricultural efficiency and promote maximization of existing supplies by avoiding over releases of augmentation supplies from Prewitt Reservoir and additional pumping of augmentation wells, thus conserving replacement supplies for future use and enhancing resiliency.

The LWU telemetry project will also benefit native species by better matching real-time stream depletions and replacements. Smoother stream depletions replacements should result in a more even streamflow regime and thus minimize the negative impact on native species and maintain water deliveries under the South Platte River Compact.



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 Projects Conservation, Land Use Planning Engagement & Innovation Activities Agricultural Projects Environmental & Recreation Projects Anna.Mauss@state.co.us Kevin.Reidy@state.co.us Ben.Wade@state.co.us Alexander.Funk@state.co.us 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 Proj	ect Summary	п э
Name of Applicant	Logan Well U	Logan Well Users, Inc.	
Name of Water Project	LWU Well Te	lemetry Project	
CWP Grant Request Amount		\$180,000	
Other Funding Sources		_ \$	
Other Funding Sources		_ \$	
Other Funding Sources		_ \$	
Applicant Funding Contribution		\$180,000	
Total Project Cost		\$360,000	



Name of Grantee(s) Logan Well Users, Inc. Mailing Address PO Box 1172 Sterling CO 80751 FEIN 65-1180112 Organization Contact Kevin Vollmer Position/Title President Email kvnvollmer@gmail.com Phone 970-520-2100 Grant Management Contact Ken Fritzler Position/Title Augmentation Plan Administrator Email fritz@kci.net Phone 970-580-9450 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).

Last Updated: June 2018

Logan Well Users, Inc. ("LWU") is a non-profit organization formed in 2003 by well users along the South Platte River in WD 64 for the purpose of acquisition and distribution of water, adjudication of wells, and operation of a plan for augmentation. The members of LWU own alluvial wells located in Logan and Washington Counties. LWU decreed a plan for augmentation in Case No. 03CW195 and has added wells and augmentation water to the plan in Case Nos. 07CW300, 13CW3162, 16CW3187, 17CW3045, and 18CW300. Currently, LWU encompasses 396 member wells, 15 recharge wells, 42 augmentation wells, and 14 recharge projects.

CWP Grant Application | 2



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.

X 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.

l. HE	Type of Water Project (check all that apply)
	Study
	Construction
	Identified Projects and Processes (IPP)
X	Other Well Telemetry Project

Category of Water Project (check the primary category that applies and include relevant tasks)

	recharge, a Multi-bene the water s	age - Projects that facilitate the development of additional storage, artificial aquifer and dredging existing reservoirs to restore the reservoirs' full decreed capacity and ficial projects and those projects identified in basin implementation plans to address supply and demand gap <i>Exhibit A Task(s):</i>
	strategies	ion and Land Use Planning - Activities and projects that implement long-term for conservation, land use, and drought planning. <i>Exhibit A Task(s):</i>
	innovation	ent & Innovation - Activities and projects that support water education, outreach, and efforts. Please fill out the Supplemental Application on the website. <i>Exhibit A Task(s):</i>
X		I - Projects that provide technical assistance and improve agricultural efficiency. Exhibit A Task(s):
	recreation.	ntal & Recreation - Projects that promote watershed health, environmental health, and 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 Logan and Washington			
Latitude 40° 33.455' N – Approximate centroid of LWU Service Area			
Longitude	103° 17.744' W – Approximate centroid of LWU Service Area		

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.

LWU seeks to add real time, remote well meter recording devices ("telemetry") to 120 member wells to facilitate administration of the LWU Plan for Augmentation. Of the 120 member wells selected 117 wells are used to irrigate approximately 10,000 acres of corn, sugar beets, and alfalfa, and 3 wells are supply water for industrial and feedlot uses.

The telemetry will help maximize augmentation water usage, conserve reservoir storage supplies, and allow for peak pumping demand management. LWU will use the telemetry to balance real-time stream depletions from well pumping with the various augmentation water supplies. Supplies include augmentation wells, recharge projects, and Prewitt Reservoir releases. Improved timing of replacements to the river will benefit LWU members as well as many other water uses on the Lower South Platte River.

Telemetry gives LWU the ability to identify and correct pumping issues real-time rather than waiting for the monthly meter reading reports.

LWU will contract with John Rusch, CCII LLC, to install telemetry on the identified LWU wells (See Exhibit C-1). A description of the real-time telemetry for each site is included in Exhibit C-2. Photos of existing telemetry installations are included on Exhibit C-3.



		Measurable Results	
To catalog measurable res values as applicable:	sults achie	eved with the CWP Grant funds, please provide any of the following	
	New S	torage Created (acre-feet)	
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive		
	Existing Storage Preserved or Enhanced (acre-feet)		
2001 - F.C.C.	Length	of Stream Restored or Protected (linear feet)	
Approx. 2,000 af / yr	Efficiency Savings (indicate acre-feet/year OR dollars/year)		
	Area of Restored or Preserved Habitat (acres)		
	Quanti	ty of Water Shared through Alternative Transfer Mechanisms	
		er of Coloradans Impacted by Incorporating Water-Saving Actions nd Use Planning	
	Numbe	er 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 most recent <u>Statewide Water Supply Initiative</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 LWU telemetry project supports several goals of Colorado's Water Plan ("CWP 2015"), the 2010 State Water Supply Initiative ("SWSI 2010"), and the South Platte Basin Implementation Plan (SP-BIP 2015") by seeking to maintain the agricultural viability of the Lower South Platte River Basin while supporting agricultural efficiency, maximizing water supplies, and benefiting the river system through real-time balancing of stream depletions and replacement supplies.

One of main goals of both the Colorado Water Plan and South Platte Basin Implementation Plan is to maintain agricultural viability (CWP 2015, pg. 10-10 and SP-BIP 2015, pg. 1-29). LWU is a major agricultural well augmentation provider in the Lower South Platter River Basin supplying augmentation water to numerous irrigation, feedlot, and stock wells. Implementation of telemetry on a select number of member wells will allow LWU to better manage pumping and replacement supplies for the entire group, directly impacting the agricultural viability and rural economies of Logan and Washington Counties.

The LWU telemetry project will support agricultural efficiency (CWP 2015, pg. 10-10) by allowing LWU to match real-time augmentation supplies to actual stream depletions. This will avoid the over releases of augmentation supplies from Prewitt Reservoir and additional pumping of augmentation wells that may occur in anticipation of future stream depletions. Real-time



pumping information will facilitate the re-timing of recharge accretions, through recharge wells, to replace stream depletions. This will also conserve reservoir replacement supplies for future use (SP-BIP 2015 Agriculture MO#1, pg. 1-26). The real-time impacts that telemetry will have on LWU's operations are also an innovative measure to maximize the use of available groundwater and surface water supplies (SP-BIP 2015 Agriculture MO#3, pg. 1-26).

Water District 64 is the only South Platte River water district subject to administration related to the South Platte River Compact. Therefore, the LWU telemetry project and corresponding realtime stream depletion replacement will positively impact Colorado's ability to remain in compliance with the South Platte River Compact thus helping to ensure its long-term viability (CWP 2015, pg. 10-9).

The LWU telemetry project will benefit both the water users and native species (SWSI 2010, pg. 8-1) by better matching real-time stream depletions and replacements. Smoother stream depletions replacements should result in a more even streamflow regime and thus minimize the negative impact to native species. The ability to have a single telemetry package that can operate with multiple meter types, while not changing the reporting formats to LWU, is also a benefit for the water users, affording them the opportunity to find the best meter at different price points to handle any current and future metering needs on their wells.

The components for each individual telemetry unit will be assembled and tested locally prior to installation. The LWU telemetry project will also utilize algorithms and programming within the data loggers that were developed locally by John Rusch, a Fort Morgan resident and owner of CCII LLC, to support well pumping for irrigated farmland (SP-BIP 2015 Agriculture MO#4, pg. 1-26). His programming will also make it possible for these telemetry projects to remain viable in cases where meters are changed and even when types of meters are changed. Currently, Mr. Rusch has a number of these telemetry packages installed on wells in the field including 8 LWU wells. He has worked with the Division of Water Resources to ensure accuracy of metering throughout the process. LWU's existing telemetry units and those installed on other entities wells been in operation for a number of years with no issues. The telemetry units installed by CCII LLC are cost effective and supported locally.

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.

N/A



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) Logan Well User, Inc.; 2) Agricultural Emergency Drought Grant (02S-001); 3) Management Committee; 4) 12/2004; 5) N/A; 6) 66%

1) Logan Well User, Inc.; 2) Agricultural Emergency Drought Grant (02S-001); 3) Management Committee; 4) 7/2005; 5) N/A; 6) 69%

1) Logan Well User, Inc.; 2) Agricultural Emergency Drought Grant (02S-001); 3) Management Committee; 4) 10/2006; 5) N/A; 6) 35%

1) Logan Well User, Inc.; 2) Agricultural Emergency Drought Grant (02S-001); 3) Management Committee; 4) 7/2007; 5) N/A; 6) 56%

1) Logan Well User, Inc.; 2) Agricultural Emergency Drought Grant (02S-001); 3) Management Committee; 4) 6/2009; 5) N/A; 6) 44%

1) Logan Well User, Inc.; 2) Agricultural Emergency Drought Grant (02S-001); 3) Management Committee; 4) 10/2013; 5) N/A; 6) 66%

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.

N/A



	Submittal Checklist
Х	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract
Exhil	pit A
Х	Statement of Work ⁽¹⁾
Х	Budget & Schedule ⁽¹⁾
X	Engineer's statement of probable cost (projects over \$100,000)
X	Letters of Matching and/or Pending 3 rd Party Commitments ⁽¹⁾
Exhil	pit C
X	Map (if applicable) ⁽¹⁾
X	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)
Enga	gement & 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.



Colorado Water Conservation Board

Water Plan Grant - Exhibit A

	Statement Of Work
Date:	July 26, 2018
Name of Grantee:	Logan Well Users, Inc.
Name of Water Project:	LWU Well Telemetry Project
Funding Source:	CWP Grant / Applicant Funding Contribution
Water Project Overview:	

LWU seeks to add real time, remote well meter recording devices ("telemetry") to 120 member wells to facilitate administration of the LWU Plan for Augmentation. Of the 120 member wells selected 117 wells are used to irrigate approximately 10,000 acres of corn, sugar beets, and alfalfa, and 3 wells are supply water for industrial and feedlot uses.

The LWU telemetry project will help maximize augmentation water usage, conserve reservoir storage supplies, and allow for peak pumping demand management. LWU will use the telemetry to balance real-time stream depletions from well pumping with the various augmentation water supplies. Supplies include augmentation wells, recharge wells, recharge projects, and Prewitt Reservoir releases. Improved timing of replacements to the river will benefit LWU members as well as many other water uses on the Lower South Platte River.

Telemetry will also give LWU the ability to identify and correct pumping issues, such as meter failures, real-time rather than waiting for the monthly meter reading reports. Though LWU may eventually seek to install telemetry on all wells, this grant proposal is focused on those 120 wells whose depletions impact the South Platte River the quickest.

LWU will contract with John Rusch, CCII LLC, to install telemetry equipment on the identified LWU wells (See Exhibit C-1).

Project Objectives:

The LWU telemetry project will help maximize augmentation water usage, conserve reservoir storage supplies, and allow for peak pumping demand management. LWU will use the telemetry to balance real-time stream depletions from well pumping with the various augmentation water supplies. Supplies include augmentation wells, recharge wells, recharge projects, and Prewitt Reservoir releases. Improved timing of replacements to the river will benefit LWU members as well as many other water uses on the Lower South Platte River.

The LWU telemetry project supports several goals of Colorado's Water Plan ("CWP 2015"), the 2010 State Water Supply Initiative ("SWSI 2010"), and the South Platte Basin Implementation Plan (SP-BIP 2015") by seeking to maintain the agricultural viability of the Lower South Platte River Basin while supporting agricultural efficiency, maximizing water supplies, and benefiting the river system through real-time balancing of stream depletions and replacement supplies.



Tasks

Task	1 -	Initial	Site	Visit
------	-----	---------	------	-------

Description of Task:

Initial site visit to determine necessary telemetry equipment for each well (120 wells total).

Method/Procedure:

CCII LLC will visit each site to identify the algorithm/data logger required each well (120 wells total). They will test the cellular and telemetry reliability at each site and determine if a special antenna or other equipment will be needed. CCII LLC will also develop an initial site design for each well site.

Deliverable:

An initial site design and algorithm identification for the each of the 120 wells.

Water Plan Grant Exhibit A - Statement of Work |Page 2 of #



Tasks			
Task 2 – Program Data Loggers and Modems			
Description of Task:			
Program the data loggers with the identified algorithm and program/provision the modems for each well (120 wells total).			
Method/Procedure:			
CCII LLC will program the data logger with the identified algorithm for each well setup total). They will program the modems as required for each well and will provision the initialize network service.) (120 wells modems to		
Deliverable:	0 <u>0</u>		
Individually programmed data loggers and modems for each well (120 wells total).			

Water Plan Grant Exhibit A - Statement of Work |Page 3 of #



Tasks

Task 3 – Install Telemetry Equipment

Description of Task:

Install telemetry units on the 120 selected LWU wells.

Method/Procedure:

CCII LLC will install telemetry equipment on each well (120 wells total). The real-time telemetry equipment at each site will consist of:

- 1) A data logger programmed with the appropriate algorithms for the type of meter or meter sensor at each location.
 - a.) If the existing meter at any location is a McCrometer mechanical propeller meter, CCII LLC will provide and install an optic sensor which will work in conjunction with the algorithm in the data logger to provide digital data output.
 - b.) If the existing meter at any location already has the ability to provide digital output, CCII LLC will provide the appropriate programming algorithms for the real time telemetry data.
- 2) Cellular modem and antenna.
- 3) Power supply consisting of a solar panel, solar controller, and battery.
- 4) Digital display
- 5) NEMA enclosure

Deliverable:

Telemetry equipment installed each well (120 wells total).

Water Plan Grant Exhibit A - Statement of Work |Page 4 of #



Tasks	
Task 4 – Poll and Transmit Data	
Description of Task:	
Poll and transmit pumping data hourly to LWU's Augmentation Plan Coordinator.	
Method/Procedure:	
Set up the server to monitor and poll pumping data for each well (120 wells total). Poll and transmit pumping data hourly to LWU's Augmentation Plan Coordinator via cellular modem and antenna.	I
Deliverable:	_
Hourly pumping data from each well (120 wells total).	



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.

Project costs not covered by those or other grants, and are therefore the responsibility of the grantee, will be eligible for CWCB funds at the following percentages of project costs:

	Percent of Project Costs		
	Recommended Max Grant Funding Minimum Funding		
	Grant Funding	Request (All CWCB	Match (Non-CWCB
Type of Activity	Request	Sources)	Sources)
Engineering & Construction	20%	50%	50%
Feasibility Study	50%	50%	50%
Reducing Agricultural Dry Up	50%	80%	20%
Conservation/Efficiency Methods	50%	80%	20%
Educational Efforts	50%	80%	20%
Environmental Conservation	50%	80%	20%
Watershed Improvements	50%	80%	20%
Stream Improvements	50%	80%	20%
Land Use Planning	20%	50%	50%
Recreational Projects	20%	80%	20%

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 CWCB in hard copy and electronic format 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 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.

COLORADO Colorado Water Conservation Board						
Department of Natural Resources						

Colorado Water Conservation Board

Water Plan Grant - Exhibit B

Budget and Schedule

Date: July 26, 2018 Date: July 26, 2018 Name of Applicant: Logan Well Users, Inc. Name of Water Project: LWU Well Telemetry Project Project Start Date: January 15, 2019 Project End Date: January 15, 2022

Task No.	Task Description	Task Start Date	Task End Date		Grant Funding Request	Match Funding	Total
1	Initial Site Visit	1/15/2019	1/15/2022	\$	5,100	\$ 5,100	\$10,200
2	Program Data Loggers and Modems	1/15/2019	1/15/2022	\$	10,200	\$ 10,200	\$20,400
3	Install Telemetry Equipment	1/15/2019	1/15/2022	\$	20,400	\$ 20,400	\$40,800
4	Poll and Transmit Data	1/15/2019	1/15/2022	\$	15,300	\$ 15,300	\$30,600
							\$0
	Direct Costs			\$	129,000	\$ 129,000	\$258,000
							\$0
							\$0
							\$0
				Γ			\$0
							\$0
							\$0
							\$0
	Total					\$180,000	\$360,000

Page 1 of 2

