ST. VRAIN AND LEFT HAND WATER CONSERVANCY DISTRICT

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December 3, 2018

Colorado Water Conservation Board
Finance Section
Attn: Jonathan Hernandez, P.E.
1313 Sherman St., Room 718
Denver, CO 80203

Re: Cost Increase – Contract No. CT2017-3213

Dear Mr. Hernandez:

Background

The design for the Lake 4 Outlet Pipeline Repair project ("the Project"), being financed under CT2017-3213, is now complete. The engineers estimate for the project however has increased from what was provided in the November 8, 2016 Feasibility Study.

The Feasibility Study provided in 2016 by Deere & Ault Consultants Inc. and used to support the St. Vrain and Left Hand Water Conservancy District ("District") request for funding, estimated the cost for the Project at $912,000. Through its ownership arrangement, Boulder County is to pay $298,750, leaving the $613,250 to be paid by the District. Including the 1% service fee, the Colorado Water Conservation Board ("CWCB") approved $619,130 on January 23, 2017.

Though the design began in 2017, a variety of design delays with another project called the Lake 4 Reservoir Project (also being funded through a CWCB loan) and owner coordination on both projects prevented the final design from completing as originally planned. Moreover, through the progression of design **the total costs for the Project are estimated to now increase**.

The Project is moving forward in coordination with Lake 4 Reservoir Project. The Lake 4 Reservoir Project is a FEMA eligible project. As such, Boulder County and the District are still awaiting FEMA's final approval on the funding. FEMAs approval is expected in the coming months, with contractors' bids expected to be provided in early 2019.

The true costs of the project won't be fully known until bids are received. However, the revised engineers estimate does include contingencies and the District is comfortable requesting an increase equal to the revised engineers estimate.

Cost Change

The Feasibility Study provided in 2016 and used to support the District's request for funding, estimated the cost for the Project at $912,000. As described above, the District is responsible for only a portion or $613,250.

The most recent engineers estimate (see attached) calls for the Project to now cost $1,155,000 or 27% higher. Some of the estimated cost items increased and some decreased as a result of the design process. The overall increase in estimated cost is related principally to two items, 1) changes in the scope of the construction (final design compared to the Nov 2016 preliminary conceptual design) that resulted in larger

or additional construction items not foreseen initially, and 2) changes in the engineer's opinion of the construction costs.

As examples

- The preliminary design anticipated four 72-inch diameter access manholes (combined estimated cost of $269,000 including site prep, excavation, dewatering, manholes, interior piping, fittings, equipment and electrical service, backfill and site restoration) and a relatively small measurement structure (estimated cost of $33,000 for structure, instrumentation, riprap and bedding). The final design includes four, 90-inch manholes (to provide more adequate access considering the depth of the structures) at a combined estimated cost of $330,000, and a significantly larger, covered measurement structure (to provide appropriate hydraulic conditions for measurement downstream of the pipe discharge and to prevent accidental entry) at an estimated total cost of $61,900.
- Mobilization increased from 5% to 10%, increased estimated unit prices for several items based on current market conditions and the engineer's experience, including the access manholes per each cost, and site prep, excavation and backfill costs for the large excavations required and a 20 percent increased unit cost for the liner pipe installation. Additionally, as the estimated construction costs increased, so too did the non-construction items that are estimated based on percentages of the estimated construction costs. These formerly totaled $299,000 and are now estimated at $347,600.

The District's portion is now expected to be $856,250 or an increase of $243,000 over what was previously used in determining the loan amount.

Financials

As described in the 2016 Feasibility Study, repayment of this loan is through the District's Enterprise Fund. The Enterprise is funded through a membership for augmentation water. Members who require augmentation water pay an annual fee. Prior to the request for a loan, and continually from 2017 when the loan was approved, the District has increased members fees.

In 2017 the fees were increased 9.0%, in 2018 the fees were increased 6.0%, and 2019 are expected to increase at least 5.0%. These increases have strengthened the District's Enterprise Fund financial position. For example, as of October 31, 2018 the Enterprise Fund bank balance is approximately $333,000. This in comparison to October 31, 2017 bank balance of $184,169 and an October 31, 2016 bank balance of $275,470. Moreover, as part of the loan approval the District pledged up to 71 Colorado-Big Thompson ("C-BT") units as collateral. The value of those C-BT units in 2017 were $25,000 per or $1,775,000. Today, the value of C-BT is $36,000 per, increasing the Districts total pledge up to $2,556,000.

As requested, attached, please find the last several years financials.

Request

Please consider increasing the loan amount $243,000 by amending the loan from $613,250 to $856,250.

Sincerely,

Sean T. Cronin
Executive Director

LAKE 4 OUTLET PIPELINE REPAIR
ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS - PRELIMINARY

Revised December 3, 2018

	Construction Item	Quantity	Unit	Cost	Extension
1.	**Mobilization @ 10%** (inc. bonds)	1	LS	$70,000	$70,000
2.	**Dewatering**	1	LS	$25,000	$25,000
3.	**Precast Concrete Access Manholes**				
3.a	**Site Prep, Excavation and Backfill**	4	EA	$15,000	$60,000
3.b	**Manhole 1 (Structure and Piping)**	1	LS	$50,000	$50,000
3.c	**Manhole 2 (Structure and Piping)**	1	LS	$50,000	$50,000
3.d	**Manhole 3 (Structure and Piping)**	1	LS	$50,000	$50,000
3.e	**Manhole 4 (Structure and Piping)**	1	LS	$75,000	$75,000
3.f	**Electrical Service**	1	LS	$20,000	$20,000
	Access Manhole Subtotal				$305,000
4.	**HDPE Pipeline**				
4.a	**14-inch HDPE DR 21 (Liner in existing 18-inch RCP)**	1,890	LF	$120	$226,800
4.b	**18-inch HDPE DR 21 (Cut & Cover)**	370	LF	$140	$51,800
4.c	**18-inchFittings**	1	LS	$5,000	$5,000
4.d	**Hydrostatic Test**	1	LS	$5,000	$5,000
	Pipeline Subtotal				$288,600
5.	**Cast-In-Place Measurement Structure**				
5.a	**Site Prep, Excavation and Backfill**	1	LS	$5,000	$5,000
5.b	**Structural Concrete**	37	CY	$1,200	$44,400
5.c	**Grating**	1	LS	$5,000	$5,000
5.d	**FRP Parshall Flume, inc. Stilling Well**	1	LS	$7,500	$7,500
	Measurement Structure Subtotal				$61,900
6.	**Demo Existing Measurement Structure**	1	LS	$10,000	$10,000
7.	**Site Restoration**	2	AC	$4,000	$8,000
				Subtotal w/o Mobilization	**$698,500**
				Total Construction Items 1-16	$768,500
				Subtotal Construction Items	**$768,500**
				Unlisted @ 5%	$38,400
				Contingency @ 20%	$153,700
				Contstruction Engineering @ 10%	$76,900
				Estimated Total Construction Cost (rounded to nearest $1,000)	**$1,038,000**
				Design Engineering	$117,000
				Estimated Total Project Cost (rounded to nearest $1,000)	**$1,155,000**