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February 21, 2019

Mr. Ben Wade, Project Manager
Colorado Water Conservation Board
1313 Sherman Street, Room 718
Denver, CO 80203

Re: WSRA Grant Contract CMS No 105397, CORE No. 2018-992 – Beaver Park Water Inc. –
Upper Canal Lining Removal and Replacement – **Phase I Final Report** February 2018 – January
23, 2019.

Dear Ben,

The purpose of this letter is to provide you with a Final Report for Phase I of the Beaver Park Water Inc. (Beaver Park) Upper Canal Lining Project. Phase I work on relining and repair of Beaver Park's Upper Canal began in February 2018 and extended until Phase I funds were exhausted on January 23, 2019.

The Colorado Water Conservation Board approved a Water Supply & Reserve Account grant for this project at its September 2017 board meeting. Approval of a contract occurred the first week of February 2018.

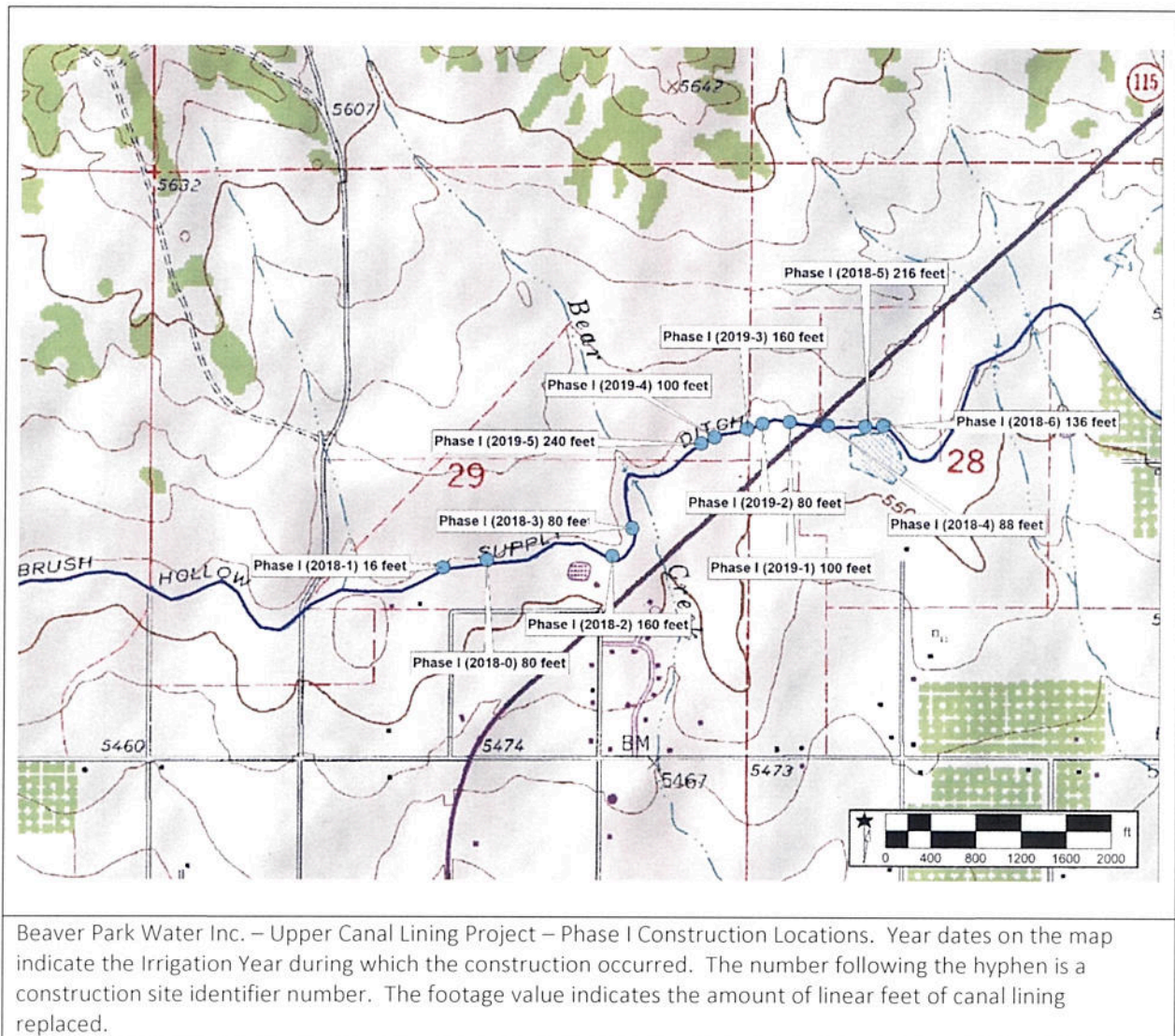
Work Accomplished

Phase I construction work began in February 2018 and extended through March 2018. During this initial construction period 776 feet of concrete canal lining was replaced. Phase I construction work temporarily ended after March 2018. After this date Beaver Park's Upper Canal was again used to divert water to storage until mid-April 2018 at which time direct irrigation operations began under the Beaver Park irrigation system. No canal lining replacement work can be conducted during either storage or irrigation operations under the Beaver Park system. The Upper Canal is used for both of these operations. As such, no further canal lining replacement work was conducted from March 2018 through November 2018.

Beginning in December 2018 Phase I construction work again commenced. During December and until the end of Phase I on January 23, 2019, approximately 780 feet of additional concrete

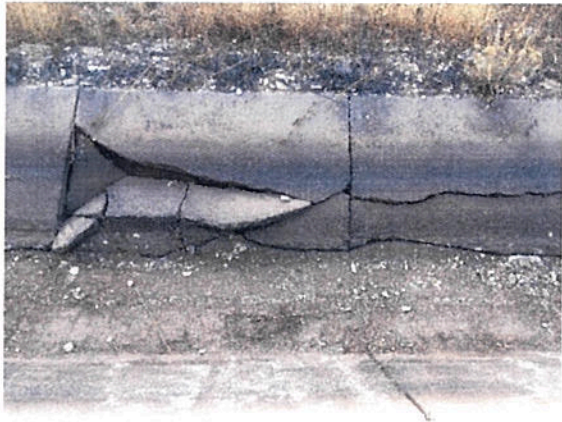
canal lining was replaced. The total footage of canal relining work accomplished under Phase I was thus 1,556 feet. Beaver Park's initial WSRA grant application estimated that Phase I funds would allow for 1,200 feet of canal lining replacement.

The canal locations of this relining work from the February-March 2018 construction period of 776 feet and from the December 2018-January 23, 2019 construction period of 780 feet are shown on the following map.



Sample photographs from the December 2018 – January 2019 construction period are also included below. These photographs show examples of pre-existing canal damage, removal of damaged canal sections, forming and placement of new concrete canal sections. Additional construction work consisted of removal and proper disposal of the existing concrete and of

back filling and forming of additional soil material protectively along the top and outside of the canal.



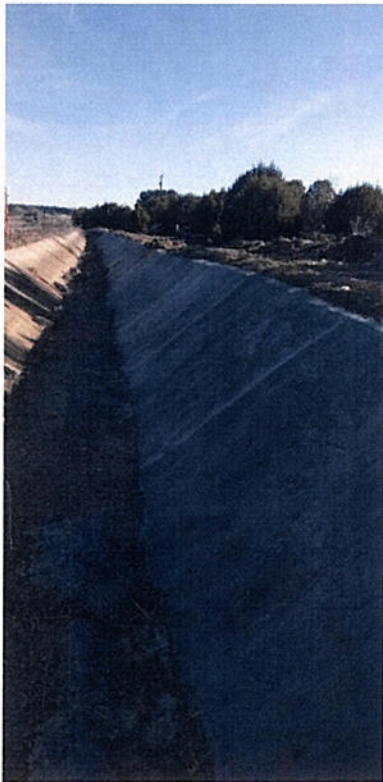
Examples of pre-existing damaged Beaver Park Water Inc. Upper Canal sections (2017).



Damaged concrete canal lining sections removed. New sections being formed. Completed sections covered with freeze protection tarps in the background (January 8, 2019).



New concrete canal sections being formed and poured (January 8, 2019).



Repaired canal sections (January 8, 2019).

Construction work overall proceeded as planned. Cold weather caused some delays as expected with construction during the winter period. Phase I construction locations were also generally located just up-canal of the Penrose Water Treatment Plant intake from the canal. Difficulties at this location were trying to continuously supply this treatment plant with water yet also drying up sections of the canal for construction work. This was accomplished by placing small dams in the canal at locations just above the current construction section and piping the canal water around the construction section. This process was used during the

February – March 2018 construction period. This technique was not fully satisfactory due to leakage past the dam sites and the amount of labor required. During the December 2018- January 2019 construction period an alternate method of supplying the water treatment plant was used by which water is released from Beaver Parks' Brush Hollow Reservoir into the company's lower canal and then pumped from this canal up to the treatment plant. This later method of keeping the upper canal dry for construction proved more satisfactory.

Project Funding, Budgets and Costs

Funding for Phase 1 of this project consisted of a total of \$155,500. \$37,500 of this amount was from local matching funds and \$118,000 from WSRA funds (Basin and Statewide combined). Specific funding sources are listed below.

| Funding Entity | Funds |
|----------------------------|-----------|
| BPWI (cash) | \$25,000 |
| BPWI Mutual Capital (cash) | \$5,000 |
| PWD Mutual Capital (cash) | \$5,000 |
| BPWI (in-kind) | \$2,500 |
| Arkansas Basin Roundtable | \$40,250 |
| Statewide Account | \$77,750 |
| Funding Total | \$155,500 |

The proposed budget for the grant tasks or sub-tasks allocated the above grant funding as summarized in the following budget table.

| Task No. | Description | Total |
|----------|---|------------|
| 1a | Engineering design of concrete canal lining | \$ 1,500 |
| 1b | Engineer construction inspection | \$ 1,500 |
| 1c | Remove existing damaged concrete canal lining | \$ 16,000 |
| 1d | Form and install new canal concrete lining | \$ 105,000 |
| 1e | Import soils as necessary, place, compact and grade to finish slope | \$ 31,500 |
| | Total | \$ 155,500 |

Actual Phase I project costs and funding entity charged amounts are provided in the table of costs below. The total budgeted amount of \$155,500 for Phase I of this project was fully expended. Based upon invoiced costs Phase I of this project concluded on January 23, 2019. As this project is essentially continuous between phases, Phase II of the project was considered to begin on January 24, 2019.

| Phase I Project Costs | | | | | | |
|---|-------------------------|--|----------------|-------------|------------------------|--------------|
| Number | Contractor | Grant Work Description | Funding Entity | | | Totals |
| | | | CWCB | Beaver Park | Penrose Water District | |
| 1 | Beaver Park | In-Kind Administration & Materials Removal | \$0.00 | \$2,500.00 | \$0.00 | \$2,500.00 |
| 2 | Wilson Excavation Inc. | Canal Lining Replacement Construction | \$0.00 | \$32,250.00 | \$5,000.00 | \$37,250.00 |
| 3 | Kastner Engineering LLC | Construction Inspection & Reporting | \$0.00 | \$250.00 | \$0.00 | \$250.00 |
| 4 | Wilson Excavation Inc. | Canal Lining Replacement Construction | \$42,063.12 | \$0.00 | \$0.00 | \$42,063.12 |
| 5 | Kastner Engineering LLC | Construction Inspection & Reporting | \$400.00 | \$0.00 | \$0.00 | \$400.00 |
| 6 | Wilson Excavation Inc. | Canal Lining Replacement Construction | \$33,257.20 | \$0.00 | \$0.00 | \$33,257.20 |
| 7 | Kastner Engineering LLC | Construction Inspection & Reporting | \$300.00 | \$0.00 | \$0.00 | \$300.00 |
| 8 ¹ | Wilson Excavation Inc. | Canal Lining Replacement Construction | \$41,979.68 | \$0.00 | \$0.00 | \$41,979.68 |
| Total Phase I Project Costs | | | \$118,000.00 | \$32,500.00 | \$5,000.00 | \$155,500.00 |
| Notes: 1. Wilson Excavation Inc.'s January 31, 2019 invoiced amount was \$57,068.60. \$41,979.68 of this amount was attributable to Phase I costs. The remaining \$15,088.92 is attributable to Phase II costs. By this invoiced amount, Phase I construction ended on January 23, 2019 and Phase II construction began on January 24, 2019. | | | | | | |


Phase II of the project is continuing to date of this report. This Phase II work will likely end soon however as Beaver Park will need to begin to store at least some amount of water this winter season as their Brush Hollow Reservoir is nearly empty of irrigation supplies.

Conclusion

The Beaver Park Upper Canal lining replacement project is proceeding generally as anticipated. Phase I of this project has now been completed. No significant issues or delays have been encountered through Phase I of the project and construction work has proceeded generally as anticipated. All of the Phase I budgeted funds have been expended as of January 23, 2019. A total of 1,200 linear feet of canal lining was anticipated to be replaced under Phase I of the project. 1,556 feet of canal lining was actually replaced under this phase. A total of 4,500 feet was planned to be replaced upon full completion of all four phases of the project.

Please advise as to any questions or comments,

Sincerely,

A handwritten signature in cursive script, reading "Steven J. Kastner".

Steven J. Kastner
Engineer for Beaver Park Water Inc.

Cc: Beaver Park Water Inc.