

# **Feasibility Study of the Prewitt Reservoir Rehabilitation Project**

Sponsored by:

Logan Irrigation District

in conjunction with the

Colorado Water Conservation Board

Prepared by:

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## **Logan Irrigation District**

### **Directors:**

Rod Mari  
Bryan Ruf  
Bob Lingreen

### **Officers:**

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Bryan Ruf, Vice President  
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Colorado Water Conservation Board

**Kallie Bauer, P.E.**

Division of Water Resources – Dam Safety Branch

**Rob Kircher**

Cornerstone Construction

# **Feasibility Study of the Prewitt Reservoir Rehabilitation Project**

## **Introduction (Need for the Project)**

The Logan Irrigation District (LID) is the majority shareholder (54.8%) in the Prewitt Reservoir, which is located in Logan and Washington Counties. The Logan Irrigation District, along with minority shareholders Iliff Irrigation District (25.8%) and Morgan Prewitt Reservoir Company (19.4%) form the Prewitt Operating Committee (POC). Appendix A contains the Prewitt ownership and the specifics about each entity. POC operates the Prewitt Reservoir and its associated structures for the benefit of the landowners and shareholders by providing stored water as a supplement to their direct flow irrigation water. The Prewitt Inlet Ditch diverts from the South Platte River, just upstream of the Logan/Morgan County line. The water is stored in the 32,300 acre foot reservoir and deliveries are made either to the South Platte Ditch or directly to the South Platte River for use by various ditches in Logan County, for exchange to water users in Morgan County, or for augmentation of wells within the service area. The Prewitt has operated at a restricted storage of 28,600 acre feet for over 30 years. It is the desire of POC to once again store the full decreed amount. In 2007 POC had an emergency spillway constructed and felt that the spillway was the first step in completely removing the storage restriction. At the time, the remaining steps to having the restriction lifted were a stability/seepage study and addressing safety concerns with regard to wave action due to wind. POC has studied the stability/seepage issue and will be submitting a toe drain design to the Dam Safety Branch and has also developed a plan to address the wave issue. Therefore, POC is now submitting this feasibility study in hopes to secure funding for the Prewitt Reservoir Rehabilitation Project.

## **Project Sponsor**

LID is an irrigation district formed under the Irrigation District Law of 1905. Appendix B contains the order creating LID. LID encompasses 12,818.9 acres and services 125 landowners. As with all irrigation districts, LID Board of Directors certifies the levy, each October, to the Logan County Commissioners and the levy is collected by the county treasurer with property taxes. Failure to pay the levy sends the land into a tax sale. The Board of Directors also has the power to limit the use of water until taxes are paid.

LID is also part of a Governance Contract with the Iliff Irrigation District and the Morgan Prewitt Reservoir Company. The Governance Contract, provided in Appendix C, addresses each entity's financial responsibility with respect to the Prewitt Reservoir. The three owners of the Prewitt have an excellent working relationship and the Prewitt has been operating this way for over 90 years. LID Board of Directors at their January 6, 2021 meeting agreed to be the sponsor of the project and accept all financial responsibility for the purposes of this loan, while the Iliff Irrigation District, and the Morgan Prewitt Reservoir Company agreed to be cooperating entities. The minutes from the January 6, 2021 meeting are presented in Appendix D.



## **Project Service Area and Facilities**

LID provides water for both irrigation and augmentation to a 12,818.9 acre service area in Logan County. LID begins west of Merino, Colorado and extends to the Northeast of Sterling, Colorado as presented in Figure 1. LID serves landowners under the following ditch systems: South Platte Ditch Company, Farmers Pawnee Canal, Davis Brothers Ditch Company, Springdale Ditch Company, and Schneider Ditch Company. LID also delivers water for augmentation to the South Platte Well Users, Pawnee Well Users, City of Sterling, and Logan Well Users for replacement of well pumping within the service area. The irrigated acreage within the service area is primarily used to grow corn, alfalfa, sugar beets, pinto beans, and feed crops.

## **Hydrology and Water Rights**

The Prewitt Reservoir is an off stream reservoir, which diverts water from the South Platte River, just upstream of the Morgan/Logan County line. The Prewitt receives water under Priority 75A for storage of 32,300 acre feet of water at a rate of 695 cfs with an appropriation date of May 25, 1910. The Prewitt also has Priority 75R for refill of up to 34,960 acre feet of water with an appropriation date of December 31, 1929. A summary of Prewitt Reservoir's water rights along with specifications of the reservoir is presented in Appendix E.

## **Project Description and Alternatives**

As stated previously, the purpose of this project is to have the storage restriction removed from the Prewitt Reservoir. To achieve this, the Prewitt Reservoir Rehabilitation Project is two-fold: 1) to install a drain system in a critical area at the downstream toe of the dam and 2) to install precast concrete wave breakers above the high water line in strategic locations to dissipate wave energy and prevent the waves from overtopping the dam. The two components of the project will be discussed separately below and then will be combined for the financial section of this report.

### **Toe Drain Design**

In 2011 POC along with management initiated an investigation of a small area of seepage at the toe of the Prewitt Dam. Greg Monley, P.E., then with Kumar and Associates, investigated the area and came up with a design for the toe drain. Prewitt management discussed the design with the Office of the State Engineer, Division of Water Resources, Dam Safety Branch (Dam Safety) but never submitted the design for review. POC then switched the focus from just the toe drain to a plan to fully remove the reservoir restriction, which resulted in receiving a Feasibility Study Grant from CWCB in 2018 (more fully described in the Wave Breaker Design section below) to determine the best approach to addressing the wave issue at the reservoir. With this feasibility study complete and a path forward set, in 2020, POC management contacted Greg Monley, P.E., now with W.W. Wheeler and Associates, to dust off the toe drain design and prepare it for submission to Dam Safety for review and approval. The toe drain design is provided in Appendix F.



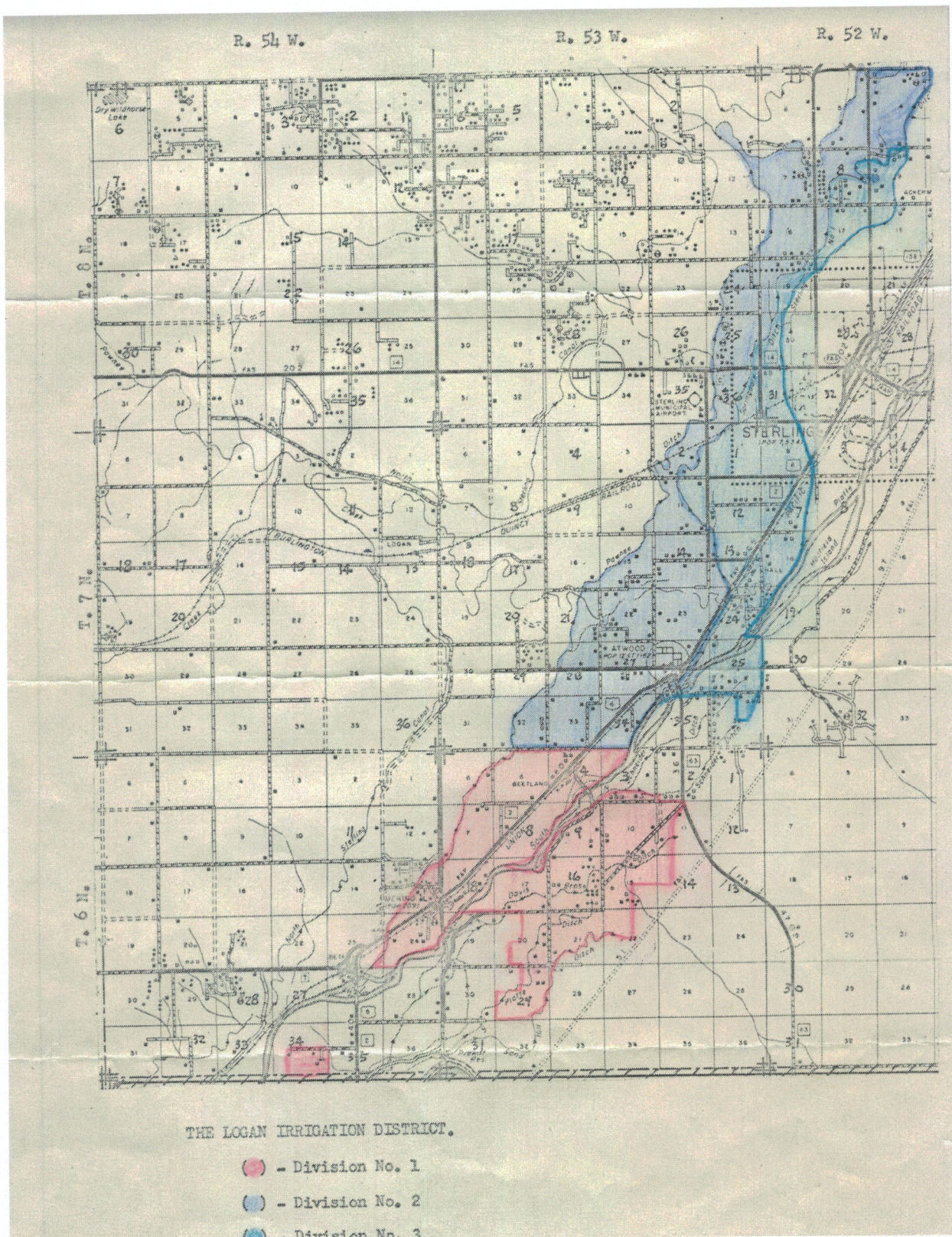


Figure 1: Project Service Area



The proposed toe drain consists of two 193-foot long sections which begin at higher elevations along the toe at Reservoir Dam Stations 109+50 and 113+40, respectively, and slope at least 1 percent to a central 4-foot diameter manhole located at Station 111 +45. The two perforated 8-inch diameter drain pipes enter the manhole and water drains out of the manhole through a non-perforated 10-inch diameter discharge pipe located at the manhole-bottom. The discharge pipe slopes at a minimum of 0.5 percent to within about 10 feet of the north end of an existing pond, where outflows are discharged into a four-foot long outfall structure and on a riprap-armored surface before flowing into an existing channel which leads to the pond. This area has historically experienced seepage from the reservoir and currently has a small clay drain tile that is inadequate and is no longer functioning. The engineers estimated cost for the drain system is provided in Table 1.

**Table 1. Prewitt Reservoir – Toe Drain - Cost Estimate**

Item	Quantity	Unit	Unit Price \$	Amount \$
Mobilization (10% of Construction)	1	Job	17,400	\$17,400
Clearing and Grubbing	1	Job	2,500	\$2,500
Excavation	1800	CY	12	\$21,600
Embankment Fill	1250	CY	20	\$25,000
Toe Fill	700	CY	10	\$7,000
Filter Sand	400	CY	80	\$32,000
Drain Gravel	70	CY	100	\$7,000
Outfall Riprap	1	EA	1,500	\$1,500
Manhole	1	EA	25,000	\$25,000
Toe Drain Piping	392	LF	25	\$9,800
Discharge Pipe Piping	94	LF	20	\$1,880
Cleanouts	2	EA	\$4,000	\$8,000
Concrete Outfall Structure	1	Job	\$10,000	\$10,000
Revegetation	1	Job	\$5,000	\$5,000
<b>Construction Subtotal</b>				<b>\$173,680</b>
Unlisted Items (5% of Subtotal				\$8,684
<b>Estimated Base Construction Cost</b>				<b>\$182,364</b>
Contingency (15%)				\$27,354
<b>Base Construction Cost &amp; Contingency</b>				<b>\$209,718</b>
Engineering and Materials Testing (15%)				\$31,458
<b>Estimated Total Cost</b>				<b>\$241,176</b>

### Wave Breaker Design

As mentioned above, on July 2, 2018 the Logan Irrigation District was award a Feasibility Study Grant for the Prewitt Reservoir Rehabilitation Feasibility Study (Study) from the CWCB to investigate two issues, the feasibility of dredging the reservoir to access dead storage and the



feasibility of mitigating the wave action in the reservoir. Wenck Associates, Inc. performed the study and submitted a report to CWCB in January of 2019 (2019 Study).

After review the study, POC decided that dredging the reservoir would be the greatest cost/benefit ratio for an additional water supply. On behalf of POC, LID moved forward with this plan and submitted an application for and was subsequently awarded, in May of 2019, a CWCB Water Plan Grant along with a loan approval for the purposes of dredging a channel in the Prewitt Reservoir to access the dead storage. The Water Plan Grant will cover approximately 44% of the dredging project cost making it feasible. During this time, however, Prewitt management continued to investigate a remedy to the wave issue at the Prewitt. Initially, it was the hope of POC and management that the material from the dredging process could be placed in such a way as to alleviate the waves along the dam. The 2019 Study showed, however, that the dredged material did not have the necessary characteristics to resist erosion and would fail to protect the dam from waves. The other alternative investigated was a product called a Wave Eater, which are plastic barrel like objects connected to each other and anchored to the floor of the reservoir. The cost of these were high and the effectiveness and life span of the product were in question. Upon further investigation by Wenck engineers, it was decided that these would not be effective at the Prewitt Reservoir. Upon continued alternative investigation, it came to the attention of Prewitt management that nearby Riverside Reservoir has similar wave issues and has structures installed above the high-water line to dissipate the energy of waves. A visitation of Riverside Reservoir by Prewitt management and a local contractor and subsequent discussions with the Dam Safety led to POC requesting a cost estimate for installation of structures similar to those on Riverside. After reviewing the cost estimate POC and management decided it would be more advantageous to pursue a remedy to the wave action at the current time due to the greater benefit of having the ability to store the Prewitt's full decreed volume. The dredging project still has potential and may be pursued in the near future.

The wave breaker design involves the placement two separate continuous structures consisting of two different precast concrete components. The two components are a triangular shaped support pier and a rectangular panel. The piers are anchored into the existing concrete dam face and the panels are placed on top of the piers creating a box like structure which intercepts the wave running up the face of the dam and dissipates the waves energy, returning the water back down the dam slope to the reservoir. A schematic of the design and the location of the structures, as determined by Wenck in the 2019 Study is provided in Appendix G. The design was taken from the wave dissipation structures currently in place at Riverside Reservoir, which have been in use for nearly 100 years. The design and installation are considered a maintenance project and therefore do not need a formal review and approval by Dam Safety. A detailed cost was prepared by Cornerstone Construction of Sterling, Colorado, which is presented in Table 2.



**Table 2. Prewitt Reservoir – Wave Breaker - Cost Estimate**

Item	Quantity	Unit	Unit Price \$	Amount \$
10' x 4' x 4" Precast Top Plate	460	EA	750.00	\$345,000
12" wide x 4' deep Concrete Piers	462	EA	480.00	\$221,760
Unload charge	600	EA	10.00	\$6,000
Core Drill for Piers – 3 – 2" Hole per Pier	462	EA.	240.00	\$110,880
Set and Epoxy Piers	462	EA	390.00	\$180,180
Set and Weld Top Plates	460	EA	650.00	\$299,000
Layout Services	1.15	EA	9000.00	\$10,350
Mobilization	4	EA	1500.00	\$6,000
Budget for Precast Modification	1	EA	13,000.00	\$13,000
Miscellaneous Materials / Tool Wear	1.15	EA	8,000	\$9,200
<b>Construction Subtotal</b>				<b>\$173,680</b>
Contingency (10%)	1	Job	120,204	\$120,137
<b>Estimated Total Cost</b>				<b>\$1,321,507</b>

### **Alternative Evaluation**

As stated above in the Toe Drain Design and the Wave Breaker Design sections, several discussions were had by POC and management on the best path to move forward on getting the storage restriction lifted at the Prewitt Reservoir. Consideration was given to various alternatives and time frames in order to arrive at the best fit for our landowners and shareholders of the Prewitt Reservoir. The toe drain was a straight forward evaluation with only the time frame in which it will be implemented in question. The decision to pursue a plan to dissipate the waves on the dam was much more involved. Therefore, in the alternatives presented below with the toe drain included, only the one toe drain design was considered. The six alternatives considered are:

1. The no-action alternative
2. Construction of toe drain only.
3. Placement of dredged material on the dam along with construction of the toe drain.
4. Installation of Wave Eaters along with construction of the toe drain.
5. Construction and installation of wave breakers above the high water line along with the toe drain.
6. Construction and installation of wave breakers above the high water line only.

**Alternative No. 1** was considered unacceptable since it means the Prewitt Reservoir storage restriction would remain in place.

**Alternative No. 2** was considered unacceptable due the current storage restriction remaining in place. While this would be an additional step toward having the restriction lifted, it was the desire of the board to pursue getting the restriction lifted while interest rates are favorable.

**Alternative No. 3** was ruled out because the 2019 Study determined the dredged material did not have the characteristics necessary to resist erosion and protect the dam.



**Alternative No. 4** was ruled out because the cost of this alternative to dissipate the waves at upward of two million dollars and the uncertainty of the performance and longevity of the Wave Eater product in this type of application was unacceptable.

**Alternative No. 5** was selected, since the cost of the wave dissipation structures is reasonable and the performance of such a structure on Riverside Reservoir Dam for the past 100 years has shown to be very effective over the long term. This alternative also addresses the toe drain installation and therefore would remove the storage restriction.

**Alternative No. 6** was unacceptable because, while the cost of the wave dissipation structures is reasonable, the storage restriction would still remain without the inclusion of the toe drain.

### **The Selected Alternative**

The selected alternative, Alternative No. 5, is described in detail in the narrative above, however a brief description and total cost of the two components are given here. This alternative involves the placement of continuous wave dissipation box-like structures along the dam above the high-water line to protect the dam crest and downstream slope from erosion. There are two areas that were delineated in the 2019 Study completed by Wenck. The two sections of dam requiring protection are from Stations 0 to 8+00 and from 16+50 to 54+50 for a total of distance of 4,600 feet. Dam Safety is allowing this to be done as a maintenance project. In addition to the wave breakers, a 390 foot long, 8 inch diameter perforated PVC drainage pipe will be installed to move seepage away from the toe of the dam. The design has been discussed with Dam Safety and will be submitted soon for review. A combined cost estimate is presented in Table 3 below.

**Table 3. Prewitt Reservoir – Reservoir Rehabilitation Project - Cost Estimate**

<b>Item</b>	<b>Amount \$</b>
Toe Drain Cost	\$241,176
Wave Breaker Cost	\$1,321,507
<b>Prewitt Rehabilitation Total Cost</b>	<b>\$1,562,683</b>

### **Implementation Schedule**

Construction is expected to begin July or August 2021 and to be completed within 120 days.

### **Permitting**

All construction will be done on land owned by POC and confined to the Prewitt Reservoir Dam, therefore no easements or rights of way will be needed. As stated earlier, Dam Safety has been contacted on both components of the project and will soon be reviewing the toe drain design



portion and is supportive of POC installing the wave breaker structures as part of dam maintenance work.

### **Institutional Considerations**

Entities that are, or may be, involved in the design, construction, and financing of the project include:

- Logan Irrigation District; financing and project management.
- Iliff Irrigation District; financing.
- Morgan Prewitt Reservoir Company; financing.
- W.W. Wheeler and Associates, Inc.; design and construction oversight of Toe Drain.
- Cornerstone Construction; installation of wave breakers.
- Colorado Water Conservation Board (CWCB); financing and construction.

LID will be the lead for the financing, design, and construction of the project and will be the entity entering into contracts and agreements with the various entities for the services provided by each.

### **Financial Analysis**

LID is applying for a loan from the CWCB in maximum amount of \$1,562,683 to accommodate 100% of the cost of the project. LID, along with cooperating entities, Iliff Irrigation District, and Morgan Prewitt Reservoir Company, will cover any costs that exceed the estimated project cost.

LID is requesting a 30-year loan from the CWCB. The current ownership of the Prewitt Reservoir is 6.57% high income municipal, 0.48% middle income municipal, 1.70% low income municipal, 0.10% commercial, and 91.15% agricultural, resulting in a blended lending rate of 1.22%. Since this project will lift the current storage restriction on the Prewitt Reservoir a deduction of 0.5% is allowed which will reduce the interest rate to 0.72%. With the 1% CWCB loan fee the total amount borrowed will be 1,578,310. With this being the amount of the loan and at the blended interest rate of 0.72% the annual payments would be \$58,685. To this would be added \$5,869 per year for the first 10 years to fund the emergency reserve account. This would make LID responsible for a total annual cost of \$64,554. In actuality this annual payment would be split between LID, Iliff Irrigation District, and Morgan Prewitt Reservoir Company according to their percentage ownership as follows:

Logan Irrigation District (54.8%)	- \$35,401
Iliff Irrigation District (25.8%)	- \$16,659
Morgan Prewitt Reservoir Co. (19.4%)	- \$12,494

The above figures would be the annual payments for each entity and are reflected in the summary of the financial aspects of the project presented in Table 4. Included in the LID's 2019 operation and maintenance expenses is the purchase of a new maintenance tractor for \$23,306 (LID's share) and in 2018 LID's share of engineering fees of \$18,486, which was the cost associated with the 2019 Study. Since the tractor is a purchase that occurs very rarely, the engineering costs associated with study and design are complete, and the construction oversight of the toe drain is included in the loan request from the CWCB, the operation and maintenance cost for 2021 and ongoing will be less. In addition, POC received \$112,663 as its



annual lease payment in 2020 from Colorado Parks and Wildlife for the recreation rights at the Prewitt Reservoir. This lease which was signed in 2008 is for a 25-year term and the payment escalates with the consumer price index. LID's share of this payment was \$61,783 in 2020. Taking all this into consideration, an increase in the District levy is expected to be \$2.50 per acre. The current district levy is \$4.00 per acre or \$5.33/ac-ft based on the average delivery of 0.75 acre feet per acre. With the restriction on the Prewitt Reservoir removed, storage in the reservoir in the reservoir will increase by over 12% which will result in a like increase in LID's average delivery to 0.84 acre feet per acre. Therefore, LID's total cost of per acre foot delivered will only raise by \$2.41 to \$7.74 per acre foot.

**Table 4. Financial Summary**

Project Cost	\$1,562,683
Loan Amount (Including 1% Service Fee)	\$1,578,310
CWCB Loan Payment Amount, including 10% loan reserve	\$64,554
Payment from Iliff Irrigation District	\$16,659
Payment from Morgan Prewitt Reservoir Company	\$12,494
Remaining Payment required of Logan Irrigation District	\$35,401
Number of Landowners	125
Number of Acres in the District	12,818.9
Current Assessment per acre	\$4.00
Future Assessment per acre	\$6.50
Annual Project Cost per acre-foot (Average annual delivery: 0.84 acre-feet/acre)	\$3.29

Since 100% of the funding for the project is from the CWCB no other debt service is required for this project. As stated above, due to recent purchases and work on the project, the operation and maintenance costs are expected to decrease which will allow the new loan payment to be accommodated with only a \$2.50 per acre increase in LID's levy. However, annually in the fall, the board and management evaluate the financial situation of LID and according to the Irrigation District Law of 1905, the board has the power to certify whatever funds may be necessary in the future to ensure ability of LID to operate and maintain their share of the Prewitt Reservoir which would include making the loan payment. LID's annual end of year financial statements for the years 2018 and 2019 as well as a copy of LID's Application for Exemption from Audit dated December 31, 2019, Iliff Irrigation District's and Morgan Prewitt Reservoir Company's 2019 Financial Statements, and POC's 2019 expenses are provided in Appendix H. Additionally, because the project exceeds Logan and Iliff Irrigation Districts' upper expenditure limit of \$400,000 which is currently in the Irrigation District Law, both entities will require an election of their landowners prior to LID entering into the contract with CWCB. It is anticipated that these elections will take place in March of 2021 if the loan request is recommended by CWCB staff and approved by the CWCB Board of Directors.



## Credit worthiness

LID currently has a loan with CWCB for the construction of the Prewitt Reservoir Emergency Spillway. The annual payment is \$31,937 with LID's share being \$17,514. Table 5 shows the Financial Ratios for the LID and indicates \_\_\_\_\_ to \_\_\_\_\_ ability to repay with the project in place.

**Table 5. Financial Ratios**

<b><i>Financial Ratio</i></b>	<b><i>Without the project</i></b>	<b><i>With the project</i></b>
Operating Ratio (revenue/expense)		
Debit Service Coverage Ratio (revenues-expenses)/debt service		
Cash Reserves to Current Expense		
Annual Cost per acre-foot (0.84 acre-feet per acre)		

## Alternative Financing Considerations

LID has not investigated any alternative financing sources.

## Collateral

As security for the CWCB loan LID can pledge District levy, water rights, and land.

## Economic Analysis

The economic benefit of the project is considerable. The value of the water rights available in the Prewitt Reservoir for irrigation and augmentation based on a recent auction value is estimated to be \$4,267/acre foot. With 24,600 acre feet of usable storage in the Prewitt Reservoir (at the current restricted level), this brings the total value of water rights at \$104,960,000. LID's share of the water rights would be over 57 million dollars. With the reservoir restriction removed, storage volume of the reservoir would increase by 3,564 acre feet, this will increase the Prewitt Reservoir water rights value by over \$15.2 million. Using the estimated total project cost of \$1,562,683, the project cost/benefit ratio is 9.7.

## Social and Physical Impacts

With the current rapid increase in demand for municipal and industrial water supplies, it is difficult to find additional water supplies that are affordable for agriculture in the South Platte



Basin. This project will achieve the goal of making additional water available for food production through direct delivery and for augmentation of depletions due to well pumping for Prewitt Reservoir owners. This project also will legally capture and store water that is currently leaving the State of Colorado and will be put to beneficial use in Colorado. This annual storage and use of water will increase return flow to the river in the summer which will help water all water users in District 64. This project will have no significant physical impacts, since it will continue the operation of an existing reservoir system and all work is being completed at or adjacent to the Prewitt Reservoir Dam.

## **Conclusions**

1. LID is an irrigation district formed under the Irrigation District Law of 1905 with the ability to enter into a contract with the CWCB for the purpose of obtaining a Construction Fund loan.
2. Rights-of Way easements are adequate for the construction of this project.
3. The project would provide an increased delivery of irrigation and augmentation water to landowners and shareholders in the critical lower reaches of the South Platte River.
4. The total estimated cost of the project is \$1,562,683 and has a cost/benefit ratio of nearly 10. LID is applying for 100% of the project cost from the CWCB Construction Fund.
5. The project is technically and financially feasible.



## **Appendix A**

### **Prewitt Reservoir Ownership Breakdown**



# The Prewitt Operating Committee

112 North 8th Avenue - P.O. Box 333 - Phone (970) 522-2025  
STERLING, COLORADO 80751-0333

## BOARD OF DIRECTORS

ROD MARI, Chairman  
DON CHAPMAN, Vice-Chairman  
BRYAN RUF, Director  
BOB LINGREEN, Director  
DAVE BREIDENBACH, Director  
BOB MONHEISER, Director  
ALLYN WIND, Director

JAMES T. YAHN, P.E.  
Manager

January 28, 2021

## PREWITT RESERVOIR

### OPERATING UNDER THE NAME OF:

Prewitt Operating Committee  
P.O. Box 333 - 112 North 8<sup>th</sup> Avenue  
Sterling, Colorado 80751

The Prewitt Operating Committee is a management organization used to perform the operation of the Prewitt Reservoir. It is composed of three entities - The Logan Irrigation District, The Iliff Irrigation District, and The Morgan Prewitt Reservoir Company. It is governed by a Governance Contact adopted January 31, 2006. The ownership breakdown and their board members are provided below:

### THE LOGAN IRRIGATION DISTRICT - 17/31 Interest

Organized under the Colorado Irrigation District Law of 1905 on December 19, 1910.  
Elected Governing Board Members: Rod Mari - President, Bryan Ruf - Vice-President  
Bob Lingreen - Director. James Yahn - Secretary/Manager - appointed by the board.  
No. of Landowners: 125  
District Acres: 12,818.9 acres  
Current Levy: \$4.00/acre

### THE ILIFF IRRIGATION DISTRICT - 8/31 Interest

Organized under the Colorado Irrigation District Law of 1905 on March 6, 1911.  
Elected Governing Board Members: Bob Monheiser - President, Dave Breidenbach - Vice-President  
Jerome Stieb - Director. James Yahn - Secretary/Manager - appointed by the board.  
No. of Landowners: 65  
District Acres: 10,874.3 acres  
Current Levy: \$2.50/acre

### THE MORGAN PREWITT RESERVOIR COMPANY - 6/31 Interest

Organized as a corporation not for profit, under the General laws of the State of Colorado on February 10, 1923.  
Elected Governing Board Members: Allyn Wind - President, Don Chapman - Vice-President  
Wade Castor - Director, Robert Karg - Director, Brad Mortensen - Director.  
Don Snider - Secretary - appointed by the board and James Yahn - Manager - appointed by the board.  
No. of Shareholders: 58  
No. of Shares: 261  
Current Assessment: \$170/share



## **Appendix B**

### **Order Creating Logan Irrigation District**



TO WHOM IT MAY CONCERN:

NOTICE IS HEREBY GIVEN That at a regular meeting of the Board of County Commissioners of Logan County, Colorado, held at the office of said Board in Sterling, Colorado, the 19th day of December, 1910, at which meeting there were present, C. M. Morris, Chairman; E. A. Warren and J. O. Shay, Commissioners; Mary E. Price, County Clerk;

That said date was the second Monday following the election held in the proposed The Logan Irrigation District, December 10, 1910, and that the returns of said election were all before the Board and were duly and regularly canvassed by the Board of County Commissioners at said time, and that the Board found that the publication of the call for said election had been duly made as provided by law, to-wit;

Said notice and call for election was published in The Sterling Democrat, a legal newspaper published in Logan County, Colorado, for a period of four successive weeks, namely;

First publication, November 17, 1910, and last publication, December 8, 1910, immediately prior to said election; That at said election the following question was duly submitted to the qualified electors of said District,

SHALL THE LOGAN IRRIGATION DISTRICT BE ORGANIZED?

Irrigation District -. . . . . "Yes"

Irrigation District . . . . . "No".

It was further found that seventy-seven votes were cast in said District on the question of organization of said District, of which seventy-five votes were cast for the organization of said District and two votes were cast against the organization of said District;

The Board further canvassing the number of legal electors entitled to vote at said election found, that the whole number of legal electors entitled to vote at said election was eighty-two, and the Board further found that the seventy-five legal electors who voted for the organization of said District were all, and each of them, legal electors in said District and entitled to vote at said election, and that the said seventy-five legal electors voting "Irrigation District, Yes", were a majority of all the legal electors of said District and entitled to vote at said election as provided by law;

That the Board then and there declared The Logan Irrigation District duly



organized and determined and defined the boundaries thereof, and the lands embraced in said District to be as follows, to-wit;

Commencing at a point on the South line of Section Twenty-three (23), Township Six (6) North, Range Fifty-four (54) West of the Sixth Principal Meridian, where the Eastern bank of the certain irrigation canal owned by The Farmers Pawnee Canal Co. and commonly known as "The Pawnee Canal" intersects said section line about 1255 ft. West of the Southeast corner of said Section Twenty-three (23), thence in a Northeasterly direction along the Eastern and Southern bank of the said The Pawnee Canal to the point where the said The Pawnee Canal ends and connects with the certain irrigation canal owned by The Pawnee Ditch Extension Company and commonly known as the "Extension of the Pawnee Ditch", and thence continuing from said point along the Eastern and Southern bank of the said the Extension of the Pawnee Ditch to a point on the north section line of Section Five (5), Township Eight (8) North, Range Fifty-two (52) West, where the said Western or lower bank of the said The Extension of the Pawnee Ditch intersects said section line a second time, about 86 feet west of the Northeast corner of said section Five (5), thence along the North section lines of Section Five (5), Four (4) and Three (3), all in said Township Eight (8) North, Range Fifty-two (52) West, to a stone in the public highway 3122 ft. East of the Northwest corner of said Section Three (3), thence South 447 ft. to the Northern bank of the certain irrigation canal owned by The Sterling Ditch Company and known as The Sterling No. 1 Ditch, thence Southwesterly and Southerly along the said Northern and Western bank of the said The Sterling No. 1 Ditch to a point where the same intersects the Northern bank of the South Platte river, thence along the said Northern bank of the South Platte river to a point where the same intersects the north section line of Section Twenty-five (25), Township Seven (7) North, Range Fifty-three (53) West, thence East along the North Section line of said Section Twenty-five (25) to the Northeast corner of said Section, thence South to the Southeast corner of said Section, thence West along the South section line of said Section Twenty-five (25), and the South Section line of Section Twenty-six (26), to a point where the last mentioned section line intersects the Northwestern bank of the South Platte river, thence along the said Northwestern bank of the South Platte river to a point where the same intersects the South section line of Section Eight (8), Township Six (6) North, Range Fifty-three (53) West, at a point about 784 ft. East of the South

West corner of said Section Eight (8), thence East on said section line to the intersection of the South Platte river where the same intersects said section line at a point about 1000 ft. West of the Southeast corner of said Section Eight (8), thence along said section line to the Eastern bank of the South Platte river in a Northeasterly direction to the East bank of the headgate of a certain irrigation canal known as the Schneider Ditch, located in the Northwest quarter of the Southwest quarter of Section Nine (9), Township Six (6) North, Range Fifty-three (53) West, thence along the Southern and Eastern bank of the said Schneider Ditch to a point where the same intersects the East line of Section Three (3), Township Six (6) North, Range Fifty-three (53) West, at a point about 582 ft. North of the Southeast corner of said Section Three (3), thence South to the Southeast corner of said Section Three (3), thence East to the North quarter corner of Section eleven (11), thence South to a point where the County road intersects the East line of the Northwest quarter of said Section eleven (11), thence Southwesterly along the Northwestern line of said County road to a point where the



line intersects the West line of the East half of the Northwest quarter of Section Eleven (11), thence South to the Southeast corner of the Southwest quarter of the Northwest quarter of Section Fourteen (14), thence West to the center of Section Fifteen (15), thence South to the center of Section Twenty-two (22), thence West to the West quarter corner of said Section Twenty-two (22), thence North about 120 ft. where the North bank of the certain irrigation canal known as the South Platte Extension Ditch, intersects the West section line of Section Twenty-two (22), thence Southwesterly along the Northwesterly bank of said South Platte Extension Ditch to a point where said ditch intersects the South section line of Section Twenty-nine (29), at a point about 540 ft. West of the South quarter corner of said Section Twenty-nine (29), thence West to the Southwest corner of said Section Twenty-nine (29), thence North to the West quarter corner of said Section Twenty-nine (29), thence East to the center of Section Twenty-nine (29), thence North to the North quarter corner of Section Twenty (20), thence West along the North section line of Sections Twenty (20) and Nineteen (19), to a point where said section line intersects the Northwestern bank of the South Platte river, all in Township Six (6) North, Range Fifty-three (53) West, thence Southwesterly along the said bank of the South Platte river to a point where said bank intersects the South section line of Section Twenty-four (24), Township Six (6) North, Range Fifty-four West, at a point about 1405 ft. East of the Southwest corner of said Section Twenty-four (24), thence West along the South section lines of Sections Twenty-four and Twenty-three (23) of said Township and Range to a point where said section line intersects the Eastern bank of the Pawnee Canal aforesaid, about 1255 ft. West of the Southeast corner of said Section Twenty-three (23), to place of beginning.

Save and except all that portion of said territory, platted and known as the townsite of Merino and all additions thereto, located in the Southeast quarter of Section Thirteen (13), Township Six (6) North, Range Fifty-four West, as the same are now of record in the office of the Clerk and Recorder of Logan County, Colorado, and all that portion of said district platted and known as the town of Atwood in the Northwest quarter (NW $\frac{1}{4}$ ), Section Twenty-six (26), Township Seven (7), North, Range Fifty-three (53) West, as now of record in the office of the Clerk and Recorder of Logan County, Colorado, also all that portion of said district lying with the banks of the South Platte river, shall be excluded and form no part of said District.

It was further ordered by said Board that the following tracts of land, and each and every of them, be excluded from said The Logan Irrigation District and form no part or parcel of said District;

All that portion of Northwest quarter (NW $\frac{1}{4}$ ) Northwest quarter (NW $\frac{1}{4}$ ) Section Nine (9), lying North of the South Platte river and all that portion of Northwest quarter Southwest quarter (SW $\frac{1}{4}$ ) Section Nine (9), lying South of the South Platte river; Southwest quarter (SW $\frac{1}{4}$ ) Northeast quarter (NE $\frac{1}{4}$ ), West half (W $\frac{1}{2}$ ) Southeast quarter (SE $\frac{1}{4}$ ), East half (E $\frac{1}{2}$ ) Southwest quarter (SW $\frac{1}{4}$ ), Southwest quarter (SW $\frac{1}{4}$ ) Southwest quarter (SW $\frac{1}{4}$ ) Section Seventeen (17), except fifty (50) acres thereof lying along the certain irrigation ditch known as The Davis Bros. Ditch and on what



is known as first bench land; Southwest quarter (SW<sub>1</sub>) Northeast quarter (NE<sub>1</sub>) Section Fifteen (15) and 7.88 acres of the South end Northwest (NW<sub>1</sub>) quarter Northeast quarter (NE<sub>1</sub>) Section Fifteen (15), lying between the North line of the Southwest quarter (SW<sub>1</sub>) Northeast quarter (NE<sub>1</sub>) Section Fifteen (15), and the South line of Davis Bros. Ditch; also a strip of Northwest quarter (NW<sub>1</sub>) Northeast quarter (NE<sub>1</sub>) Section Fifteen (15) 203 feet wide from East to West extending from South side of County Road South to North line of Davis Bros. Ditch five acres more or less; also a strip Twenty (20) feet wide East and West in the Northeast corner of the Northwest quarter section Fifteen (15), with the half section line of Section Ten (10) and Fifteen (15) as an East boundary extending North from the road to the North line of the Northwest quarter (NW<sub>1</sub>) of Section Fifteen (15); also a three corner piece of the East side of the Northeast quarter (NE<sub>1</sub>) Northwest quarter (NW<sub>1</sub>) Section Fifteen (15) bounded by County road on Northwest, Davis Bros. ditch on South and the half section line through Sections Fifteen (15) and Ten (10) on the East Five (5) acres more or less all in Section Fifteen (15) Township Six (6) North Range Fifty-three (53) West Sixth Principal Meridian; East half Northeast quarter (NE<sub>1</sub>) Section Twenty-three (23); Eighty-six (86) acres in South half (S<sub>2</sub>) Northwest quarter (NW<sub>1</sub>) and Northwest quarter (NW<sub>1</sub>) Southwest quarter (SW<sub>1</sub>) Section Twenty-four (24) lying North of the Union Pacific right of way and the County Road; West half (W<sub>2</sub>) Section Twenty-seven (27); Northeast quarter (NE<sub>1</sub>) Northwest quarter (NW<sub>1</sub>) Section Thirty-four (34); South half (S<sub>1</sub>) Southwest quarter (SW<sub>1</sub>), Northeast quarter (NE<sub>1</sub>) Southwest quarter (SW<sub>1</sub>), South half (S<sub>1</sub>) Northwest quarter (NW<sub>1</sub>), East half (E<sub>2</sub>) Northwest quarter (NW<sub>1</sub>) Southwest quarter (SW<sub>1</sub>) Section Twenty-three (27); and all that part of Southeast quarter (SE<sub>1</sub>) Section Twenty-seven (27) and all that part North half (N<sub>2</sub>) Northeast quarter (NE<sub>1</sub>), Northeast quarter (NE<sub>1</sub>) Northwest quarter (NW<sub>1</sub>) Section Thirty-four (34), lying South and East of the Union Pacific Railroad right of way; also Southeast quarter (SE<sub>1</sub>) Northeast quarter (NE<sub>1</sub>) Section Thirty-four (34); East half (E<sub>2</sub>) West half (W<sub>1</sub>) Section Thirty-three (33); East half (E<sub>2</sub>) Southeast quarter (SE<sub>1</sub>) Southeast quarter (SE<sub>1</sub>) Northeast quarter (NE<sub>1</sub>) Section Twenty-five (25); North half (N<sub>2</sub>) Northeast quarter (NE<sub>1</sub>) Section Fifteen (15) lying East of the Pawnee Ditch; also Northwest quarter (NW<sub>1</sub>) Southeast quarter (SE<sub>1</sub>) Section Eleven (11); South half (S<sub>2</sub>) Northeast quarter (NE<sub>1</sub>) Section Fifteen (15) lying under the Pawnee Ditch; North half (N<sub>2</sub>) South half (S<sub>2</sub>) Section Twenty-eight (28); North half (N<sub>2</sub>) Southeast quarter (SE<sub>1</sub>) Section Fifteen (15); South half (S<sub>2</sub>) Southwest quarter (SW<sub>1</sub>) Section Two (2); West half (W<sub>2</sub>) Southwest quarter (SW<sub>1</sub>) Section Eleven (11); Southwest quarter (SW<sub>1</sub>) Southeast quarter (SE<sub>1</sub>), East Thirty acre Northwest quarter (NW<sub>1</sub>) Southeast quarter (SE<sub>1</sub>), Southeast quarter (SE<sub>1</sub>) Southwest quarter (SW<sub>1</sub>) Section Thirty-four (34); all in Township Seven (7) North Range Fifty-three (53) West of the Sixth Principal Meridian; South half (S<sub>2</sub>) Northwest quarter (NW<sub>1</sub>), North half (N<sub>2</sub>) Northeast quarter (NE<sub>1</sub>) Section Seven (7); East half (E<sub>2</sub>) Southeast quarter (SE<sub>1</sub>), Southwest quarter (SW<sub>1</sub>) Southeast quarter (SE<sub>1</sub>) Section Seven (7); Southeast quarter (SE<sub>1</sub>) Section Four (4) lying West of Sterling No. 1 Ditch; West half (W<sub>2</sub>) Section Nine (9) lying above Sterling No. 1 Ditch; West half (W<sub>2</sub>) Southwest quarter (SW<sub>1</sub>) Southwest quarter (SW<sub>1</sub>), East half (E<sub>2</sub>) Southeast quarter (SE<sub>1</sub>), Southwest quarter (SW<sub>1</sub>) Section Four (4); Northeast quarter (NE<sub>1</sub>) Southeast quarter (SE<sub>1</sub>) Section Eight (8); North half (N<sub>2</sub>) Southwest quarter (SW<sub>1</sub>), North half (N<sub>2</sub>) South half (S<sub>2</sub>) Southwest quarter (SW<sub>1</sub>) Section Seven (7);



South half ( $S\frac{1}{2}$ ), Northeast quarter ( $NE\frac{1}{4}$ ) Northeast quarter ( $NE\frac{1}{4}$ ), Section Five (5), lying below the Pawnee Extension Ditch; Southwest quarter ( $SW\frac{1}{4}$ ) Northwest quarter ( $NW\frac{1}{4}$ ) Section Three (3), lying above Sterling No. 1 Ditch; North half ( $N\frac{1}{2}$ ) Northwest quarter ( $NW\frac{1}{4}$ ) Section Sixteen (16) lying West of Sterling No. 1 Ditch except Northwest quarter ( $NW\frac{1}{4}$ ) Northwest quarter ( $NW\frac{1}{4}$ ) Northwest quarter ( $NW\frac{1}{4}$ ) Section Sixteen (16); West half ( $W\frac{1}{2}$ ) Southeast quarter ( $SE\frac{1}{4}$ ) Section Nineteen (19); West half ( $W\frac{1}{2}$ ) Southeast quarter ( $SE\frac{1}{4}$ ), Section Nineteen (19); Southwest quarter ( $SW\frac{1}{4}$ ) Section Nineteen (19); North half ( $N\frac{1}{2}$ ) Southwest quarter ( $SW\frac{1}{4}$ ) Section Eight (8), West half ( $W\frac{1}{2}$ ) Northwest quarter ( $NW\frac{1}{4}$ ) Southeast quarter ( $SE\frac{1}{4}$ ) Section Eight (8); North half ( $N\frac{1}{2}$ ) Northeast quarter ( $NE\frac{1}{4}$ ) Section Eighteen (18); all that portion Northwest quarter ( $NW\frac{1}{4}$ ) Northwest quarter ( $NW\frac{1}{4}$ ) Section Twenty (20) lying under Springdale Ditch and above Sterling No. 1 Ditch, West half ( $W\frac{1}{2}$ ) Southwest quarter ( $SW\frac{1}{4}$ ), Southwest quarter ( $SW\frac{1}{4}$ ) Northwest quarter ( $NW\frac{1}{4}$ ), North half ( $N\frac{1}{2}$ ) Southeast quarter ( $SE\frac{1}{4}$ ) Northwest quarter ( $NW\frac{1}{4}$ ), West half ( $W\frac{1}{2}$ ) South half ( $S\frac{1}{2}$ ) Southeast quarter ( $SE\frac{1}{4}$ ) Northwest quarter ( $NW\frac{1}{4}$ ), North half ( $N\frac{1}{2}$ ) Northwest quarter ( $NW\frac{1}{4}$ ) Section Seventeen (17); South half ( $S\frac{1}{2}$ ) of Lots Two (2) Three (3) and Four (4) Section Four (4); South half ( $S\frac{1}{2}$ ) Northwest quarter ( $NW\frac{1}{4}$ ), Northeast quarter ( $NE\frac{1}{4}$ ) Southwest quarter ( $SW\frac{1}{4}$ ) Section Four (4); South half ( $S\frac{1}{2}$ ) South half ( $S\frac{1}{2}$ ) Northeast quarter ( $NE\frac{1}{4}$ ) Section Seventeen (17); all in Township Eight (8) North Range Fifty-two (52) West Sixth Principal Meridian; and all that portion Section Eighteen (18) Township Seven (7) North Range Fifty-two (52) West lying above Sterling No. 1 Ditch; Northwest quarter ( $NW\frac{1}{4}$ ) Northeast quarter ( $NE\frac{1}{4}$ ) Section Twenty-four (24), except five (5) acres lying between The Pawnee Ditch and the County Road; North half ( $N\frac{1}{2}$ ) Southeast quarter ( $SE\frac{1}{4}$ ) Section Twenty-five (25), except that portion lying below Springdale Ditch about ten (10) acres; West half ( $W\frac{1}{2}$ ) Northeast quarter ( $NE\frac{1}{4}$ ) Section Twelve (12) lying below Pawnee Ditch, all in Township Eight (8) North Range Fifty-three (53) West Sixth Principal Meridian; North-west quarter ( $NW\frac{1}{4}$ ) Section Eighteen (18); East half ( $E\frac{1}{2}$ ) Northeast quarter ( $NE\frac{1}{4}$ ), Southwest quarter ( $SW\frac{1}{4}$ ) Northeast quarter ( $NE\frac{1}{4}$ ), Southeast quarter ( $SE\frac{1}{4}$ ) Northwest quarter ( $NW\frac{1}{4}$ ) Section Nineteen (19) Township Eight (8) North Range Fifty-two (52) West; East half ( $E\frac{1}{2}$ ) East half ( $E\frac{1}{2}$ ) Section Thirteen (13) Township Eight (8) North Range Fifty-three (53) West; East half ( $E\frac{1}{2}$ ) Northeast quarter ( $NE\frac{1}{4}$ ) Section Twelve (12), and that portion lying under Pawnee Ditch in Section One (1) Township Eight (8) North Range Fifty-three (53) West; and that portion of South west quarter ( $SW\frac{1}{4}$ ) Section Six (6) lying under Pawnee Ditch all in Township Eight (8) North Range Fifty-two (52) West; East half ( $E\frac{1}{2}$ ) Southeast quarter ( $SE\frac{1}{4}$ ) Section Thirty-three (33), West half ( $W\frac{1}{2}$ ) South west quarter ( $SW\frac{1}{4}$ ) Section Thirty-four (34), Township Seven (7) North Range Fifty-three (53) West lying South and East of the right of Way of the Union Pacific Railroad; also Northeast quarter ( $NE\frac{1}{4}$ ) Section Four (4) North half ( $N\frac{1}{2}$ ) Northwest quarter ( $NW\frac{1}{4}$ ) Section Three (3) Township Six (6) North Range Fifty-three (53) West except 150 acres more or less of upland lying below and adjoining the Union Pacific right of way; all that portion West half ( $W\frac{1}{2}$ ) Southwest quarter ( $SW\frac{1}{4}$ ) Section Eighteen (18), and all that portion North half ( $N\frac{1}{2}$ ) Northwest quarter ( $NW\frac{1}{4}$ ) Section Nineteen (19) lying above Sterling No. 1 Ditch Township Seven (7)



North Range Fifty-two (52) West also that portion of Southwest quarter (34) Southeast quarter (34) Section One (1) Township eight (8) North Range Fifty-three (53) West lying under Pawnee Extension Ditch.

NOW, THEREFORE, NOTICE IS HEREBY GIVEN, that the territory embraced in the boundaries of said proposed Irrigation District as hereinbefore designated and set forth, is duly organized as an irrigation district under the name and style,

"THE LOGAN IRRIGATION DISTRICT"

That the Board further canvassed the votes cast at said election of the candidates for Directors of the several divisions of said District and found that for Director of Division No. 1 seven votes were cast, for which Frank S. Hallman received all the votes and that Frank S. Hallman having received a majority of all the votes cast for Director of Division No. 1 of said District, was declared elected Director of Division No. 1;

And the Board finds that for Director in Division No. 2 seventy-four votes were cast, of which Fred'k W. Rieke received <sup>seventy-four</sup> four votes, W. A. Hoel, one vote; that the said Fred'k W. Rieke having received a majority of all the votes cast for Director of Division No. 2 of said District;

That for Director of Division No. 3, seventy-seven votes were cast, of which Martin W. Hohl received seventy-six votes and Baltzer Knudson, one vote; that Martin W. Hohl having received a majority of all the votes cast for Director of Division No. 3, was declared elected Director of Division No. 3 of said District;

It was further ordered that the County Clerk issue certificates of election to the said Frank S. Hallman, Fred'k W. Rieke and Martin W. Hohl, respectively, as aforesaid;

It is further ordered that a map of said irrigation District showing the lands embraced therein, together with all the divisions of said Irrigation District, be duly certified by the County Clerk and filed in the office of the County Clerk and Recorder of Logan County, Colorado;

It is further ordered that an order and notice setting forth the action and findings of the Board as heretofore given, be executed and certified and filed for record in the office of the County Clerk of Logan County, Colorado;

WE HEREBY CERTIFY That the foregoing correctly and fully sets forth the orders and findings of the Board of County Commissioners made on this 19th day of December, 1910, respecting the organization of The Logan Irrigation District.

C. M. Morris  
Chairman Board of County Commissioners,  
Logan County, Colorado.

Attest:

Mary E. Price  
County Clerk and Recorder Logan County,  
Colorado.

Filed for record in my office at 4:30 o'clock P. M. Jan. 4, 1911. Recorded in Book 94 at  
Pg 222.



## **Appendix C**

### **Governance Contract**



## PREWITT OPERATING COMMITTEE GOVERNANCE CONTRACT

THIS AGREEMENT is entered into this 31<sup>st</sup> day of JANUARY, 2006, among the Logan Irrigation District, the Iliff Irrigation District, and the Morgan-Prewitt Reservoir Company.

### RECITALS

1.1 The Parties. The Logan Irrigation District and the Iliff Irrigation District are irrigation districts formed under the Irrigation District Law of 1905, C.R.S. § 37-41-101 *et seq.* providing water supply for irrigation for the members within their respective boundaries. The Morgan-Prewitt Reservoir Company is a Colorado mutual reservoir company formed under the Colorado Ditch and Reservoir Company Act, C.R.S. § 7-42-102 *et seq.*, providing water supply for the use of its stockholders.

1.2 Prewitt Reservoir. Prewitt Reservoir is an existing reservoir located in Logan and Washington Counties, Colorado. The reservoir is filled by diversion from the South Platte River through an inlet canal with a headgate located in the Southwest Quarter of Section 24, Township 2 North, Range 55 West in Morgan County, Colorado. Storage water rights have been adjudicated to the reservoir in the amount of 32,300 acre feet at a fill rate of 695 c.f.s. under Reservoir Priority No. 75A in Weld, Morgan, and Washington County, as of May 25, 1910, and in the amount of an additional 34,960 acre feet under Reservoir Priority No. 75R in Weld, Morgan, and Washington County, as of December 31, 1929 as a refill decree. Water stored in the reservoir is released from the reservoir through an outlet canal to the South Platte River, whence it is rediverted for beneficial use by the members and shareholders, respectively, of the Parties hereto. Prewitt Reservoir and its appurtenances, including fee lands, rights of way, headgates, ditches, dams, spillways, outlet works, and other physical structures comprising the reservoir facility, and its water rights described above, (collectively, "Prewitt Reservoir") are owned by the Parties hereto as tenants in common, as follows: Logan Irrigation District: 17/31; Iliff Irrigation District: 8/31; and Morgan-Prewitt Reservoir Company: 6/31.

1.3 Prewitt Operating Committee. The Parties (and their predecessors in title) have, since construction of Prewitt Reservoir, jointly operated and maintained the reservoir for the benefit of their members and shareholders, respectively, through the Prewitt Operating Committee, constituted of representatives of the owners of the reservoir. At this time, the Parties, as the owners of Prewitt Reservoir, desire to set forth and memorialize their agreement regarding the constitution and operations of the Prewitt Operating Committee.



## AGREEMENT

Now therefore, the Parties hereto, for and in consideration of the mutual promises and covenants hereinafter set forth agree as follows:

2. Prewitt Operating Committee. The Parties hereby establish the Prewitt Operating Committee to effect the operation and maintenance of Prewitt Reservoir in accordance with the provisions of this Agreement.

### 2.1 Committee Members and Functions.

2.1.1 Members. The Committee shall be made up of seven members, three of whom shall be appointed by the Board of Directors of the Logan Irrigation District; two of whom shall be appointed by the Board of Directors of the Illiff Irrigation District, and two of whom shall be appointed by the Board of Directors of the Morgan-Prewitt Reservoir Company. Each member shall serve until replaced by the Party that appointed him or her.

2.1.2 Initial Members. The initial members of the Committee shall be:

Robert Lingreen (appointed by the Logan Irrigation District)  
Rod Mari (appointed by the Logan Irrigation District)  
Gerald Ruf (appointed by the Logan Irrigation District)

Arthur Debus (appointed by the Illiff Irrigation District)  
Harold Kautz (appointed by the Illiff Irrigation District)

Don Chapman (appointed by the Morgan-Prewitt Reservoir Company)  
G. ALLYN WIND (appointed by the Morgan-Prewitt Reservoir Company)

2.1.3 Compensation. Members shall not receive compensation for their service on the Committee.

2.1.4 Chair. The Committee members, upon a majority vote, shall appoint a Chair for the Committee, who shall be entitled to call special meetings of the Committee, and shall chair all meetings of the Committee.

2.1.5 Committee Action. Action by the Committee shall require the affirmative votes of four Committee members, and four such members shall constitute a quorum for the transaction of Committee business.

2.2 Duties of the Committee. The Committee shall work to effectuate the operation and maintenance of Prewitt Reservoir for the benefit of the Parties' members and stockholders,



respectively, in accordance with the guidelines and policies set forth in this Agreement. To that end, the Committee shall:

2.2.1 Develop and adopt an Annual Operating Plan and Budget for Prewitt Reservoir, taking into consideration anticipated operating activities (e.g. operation of the headgates, ditches, dams, spillways, outlet gates, and other facilities comprising Prewitt Reservoir), regular maintenance activities (e.g. usual maintenance), and repair, replacement, and improvement activities (major maintenance and repair such as replacement of structures) needed for the upcoming year, anticipated administrative, legal, engineering, permitting, land use authorization, or other anticipated costs, and anticipated income available to defray such costs (e.g. Parties' assessments, recreation lease income, etc.).

2.2.2 Effectuate each year's Operating Plan and Budget, and to that end, appoint and supervise a Manager for the Reservoir, who shall engage, and shall supervise the activities of, staff and consultants to operate Prewitt Reservoir, negotiate appropriate contracts for services in connection with the operation of Prewitt Reservoir, and shall monitor and account for expenditures for the operation of Prewitt Reservoir.

2.2.3 Effectuate and carry out any capital project undertaken for Prewitt Reservoir, whether approved as part of the Annual Operating Plan or otherwise, and to that end, shall appoint and supervise a Manager for the Reservoir, who shall engage, and shall supervise the activities of, staff, contractors, engineers, or other consultants, negotiate appropriate agreements regarding financing, design, and construction of the capital projects, and monitor the carrying out of such activities and contracts.

2.2.4 Negotiate and enter into appropriate agreements for the operation and maintenance of Prewitt Reservoir for the benefit of the Parties' members and stockholders, consistent with the rules and regulations, bylaws, policies, and laws governing the Parties' actions.

2.2.5 Consider and adopt policies and make decisions regarding the long-term operations, protection, and enhancement of Prewitt Reservoir for the benefit of the Parties' members and stockholders.

3. Operation Policies and Guidelines. It is the intent and goal of the Parties to maximize the usable yield of Prewitt Reservoir for the benefit of the Parties' members and stockholders, respectively, by ensuring that Prewitt Reservoir is properly maintained, repaired, and replaced, and, if appropriate and economically feasible, upgraded and improved, and that the water rights adjudicated to the reservoir are protected and properly exercised.

4. Ownership of Prewitt Reservoir. Nothing in this Agreement shall effect any change or transfer of ownership of Prewitt Reservoir.

5. Costs and Budget.

5.1 All costs of operations and maintenance, and repair, replacements or improvements of Prewitt Reservoir, including the cost of each approved Annual Operations Plan



and Budget, and of any separately approved capital project, insurance costs, and administrative costs, such as office expenses, employee salaries and the like, shall be divided between the Parties pro-rata to their ownership interest in Prewitt Reservoir.

5.2 Remedy for failure to pay costs. In addition to any other remedy hereunder, the Committee may refuse to carry or deliver any water through or from Prewitt Reservoir to or for the benefit of a Party at any time that such Party is in arrears of any payment required hereunder.

6. Other.

6.1 The terms and obligations contained in this Agreement shall be binding on the Parties and their successors and assigns.

6.2 Invalidation of any of the provisions of this Agreement or of any paragraph, sentence, clause, phrase, or word herein, or the application thereof in any circumstance, shall not affect the validity of the remainder of this Agreement.

6.3 This Agreement may not be amended or modified except by an amendment in writing signed by all Parties.

6.4 This Agreement constitutes the entire understanding between the Parties with respect to the subject matter hereof, superceding all prior negotiations or agreements relating to such subject matter.

6.5 All Parties hereto waives all right to recover against any other Party for any loss or damage arising from any cause covered by the insurance described herein, to the extent of any claim above the amount of insurance coverage.

6.6 Except as expressly provided in this Agreement, no Party to this Agreement shall have any authority to act for or assume any obligations or responsibilities on behalf of any other Party. This Agreement shall not be construed as creating a common law or statutory partnership or any other relationship whereby one Party shall be held liable for the acts or omissions of any other Party. In every case of liability in favor of a third Party, the liability shall be several and individual, and not either joint, or joint and several.



Entered into this 31<sup>st</sup> day of January, 2006.

**LOGAN IRRIGATION DISTRICT**

By: Robert Linpreen

Date: 2/1/06

Attest: James T. Yahn

Date: 2/1/06

**ILIFF IRRIGATION DISTRICT**

By: John E. Stieb

Date: 3-1-06

Attest: James T. Yahn

Date: 2-1-06

**MORGAN-PREWITT RESERVOIR COMPANY**

By: G. Allyn Wind, Pres

Date: January 31, 2006

Attest: Kathy J. Samples

Date: 1/31/2006



## **Appendix D**

### **Minutes of January 2021 Meeting**



Sterling, Colorado, January 6, 2021

MINUTES of a joint meeting of the Boards of Directors of The Logan Irrigation District, the Iliff Irrigation District, and the Prewitt Operating Committee held at their office in Sterling at 6:30 P.M., January 6<sup>th</sup>, 2021.

Directors Bob Lingreen, Rod Mari, and Bryan Ruf were present for the Logan Board. Directors Jerome Stieb, Dave Breidenbach, and Robert Monheiser were present for the Iliff Board. Director Don Chapman was present for the Morgan Prewitt Reservoir Company. Secretary-Manager James Yahn was present.

Minutes of Board meeting held December 2<sup>nd</sup>, 2020 were read and approved.

Upon motion of Director Stieb, seconded by Director Breidenbach expense for the month of December was allowed in the total amount of \$21,883.90 by joint action of the Boards, all Directors present voting aye. Said bills to be paid as shown on sheets attached to and made a part of these minutes.

There being no further business for the year 2020 to be considered by the Directors, the Boards of The Logan and Iliff Irrigation Districts as organized for the year 2020 adjourned sine die.

With Mr. Rod Mari being the newly elected Director for Division No. 1 for the ensuing 3-year term, and Mr. Bryan Ruf being the newly elected Director for Division No. 2 for the ensuing 1-year term, the new Board for The Logan Irrigation District was duly organized with Rod Mari as President and Bryan Ruf as Vice President. James Yahn was appointed to serve as Secretary of the Board.

With Mr. Bob Monheiser being the newly elected Director for Division No. 3 for the ensuing 3-year term, and Mr. Jerome Stieb being the newly elected Director for Division No. 2 for the ensuing 2-year term, the new Board for The Iliff Irrigation District was duly organized with Bob Monheiser as President and Dave Breidenbach as Vice President. James Yahn was appointed to serve as Secretary of the Board.

Mr. Rod Mari was chosen to serve as Chairman and Don Chapman as Vice Chairman of the Prewitt Operating Committee. The Logan Irrigation District appointed all three directors as members to the Prewitt Operating Committee. The Iliff Irrigation District appointed Directors Breidenbach and Monheiser to the Prewitt Operating Committee. The Morgan Prewitt will appoint their two members at their annual meeting at the end of January.

Secretary Yahn informed the Directors that the toe drain design had been finalized and was ready for submission. Mr. Greg Monley, P.E. with W.W. Wheeler and Associates is going to make the submission to the Dam Safety Branch. Mr. Yahn stated that the engineers estimated cost of the toe drain is \$241,176.

Secretary Yahn stated that he had a final cost estimate for the installation of 4,600 lineal feet of wave breaker. The cost is estimated to be \$1,321,507. This will bring the total cost of the projects needed to have the restriction of the reservoir removed to \$1,562,683. Mr. Yahn stated that he is nearing completion of the feasibility study and will submit it to the CWCB along with a loan request. Mr. Yahn stated that the interest on a 20-year loan will be 0.47% and the annual payment would be a little over \$78,000 per year. A 30-year term would result in an interest rate of 0.72% with an annual payment of



approximately \$58,500. Mr. Yahn also stated that whichever option is chosen an additional 10% of the annual payment would need to be placed in reserve annually for 10 years and held until the loan is repaid. Mr. Yahn stated that he had discussed the project with the Prewitt dam inspector, Kallie Bauer and had also discussed the loan possibilities with CWCB staff. After some discussion, it was the consensus of the board to pursue the project and a 30-year loan with CWCB for 100% of the cost of the project.

Mr. Yahn stated that as had been done for the Prewitt Emergency Spillway loan, it was his recommendation that Logan Irrigation District, being the owner of the greatest percentage of the Prewitt Reservoir, be the applicant for the loan and responsible for its repayment with agreements to repay from Iliff and Morgan Prewitt. It was moved by Director Lingreen and seconded by Director Ruf that Logan Irrigation District be the applicant to the CWCB for the 30-year loan for \$1,562,683. Upon being put to a vote the motion passed with all Logan Irrigation District Directors voting aye.

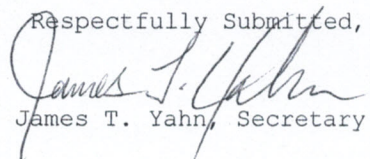
Secretary Yahn updated the board on the status of the Prewitt/Parker/Lower Project. Mr. Yahn stated that he had discussed with Parker representatives the matter of Parker paying for our attorney to revise/rewrite the draft agreement between Prewitt and Parker/Lower. Parker was willing to pay for our attorney fees, so Mr. Yahn contacted Mason Brown to begin revisions and asked him to send the revised agreement to him when he was finished to ensure the changes align with our ideas for the project's operation. Once we are comfortable with the agreement details, Mr. Brown would then contact Parker and Lower attorneys to discuss the changes. In addition, as discussed at last month's board meeting, Mr. Yahn stated that he had asked Parker representatives to fill in the monetary compensation blanks in the agreement so that a discussion of prices could begin. Parker was willing to come up with pricing.

Mr. Yahn stated that the North Sterling board has requested an increase in the office rent paid by Prewitt since there has not been an increase for more than 30 years. North Sterling was requesting to raise the price from \$120 per month to \$400 per month. After some discussion, it was the consensus of the board to counter with doubling the rent to \$240 per month. Mr. Yahn stated that he would relay the offer to the North Sterling Board.

The reservoir storage was reported to be 15,803 acre-feet (55.3%) with 26 cfs currently being diverted into the reservoir.

There being no further business to come before the Boards, the meeting was adjourned at 8:45 P.M.

Respectfully Submitted,

  
James T. Yahn, Secretary



## **Appendix E**

### **Water Rights Summary**



## PREWITT RESERVOIR SPECIFICATIONS

Water Rights:	Priority No. 75A - Storage of 32,300 acre feet at a rate of 695 cfs May 25, 1910
	Priority No. 75R(Refill) - Storage of 34,960 acre feet at a rate of 695 cfs Dec 31, 1929
Restricted Storage:	28,600 acre feet
Use of Water:	Supplemental Irrigation Supply for approximately 28,000 acres, augmentation, and recreation
Service Area:	Morgan and Logan Counties
Avg. Diversion:	40,160 acre feet
Length of Dam:	3 ½ miles
Height of Dam:	36 feet
Surface Area:	2,300 acres at restricted level



## **Appendix G**

### **Wave Breaker Schematic and Installation Locations**



# PREWITT WAVE BREAKERS

TOP OF  
DAM

4' X 10' X 3" PANEL

EXISTING  
PARAPET  
WALL

EXISTING  
6" X 1" supporting  
sill

2 to 1 Slope

SUPPORT  
PIER

CROSS-SECTION

EXISTING  
4" X 10' Protection Slab

2 to 1 Slope

EXISTING TOP OF PARAPET WALL

DRAIN HOLE

4' X 10' X 3" PANEL

FRONT VIEW

SUPPORT PIER

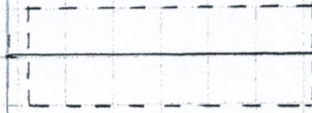
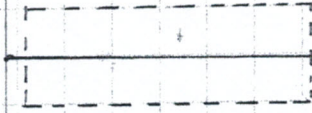
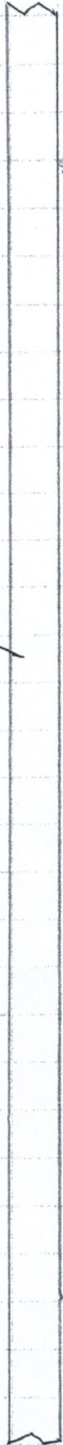
STERLING, COLORADO 80781-0708  
115 NORTH 8TH AVENUE • P.O. BOX 100 • PHONE 630-955-5028

SCALE: 1" = 2'  
Jim Yahn  
5/22/20



PREWITT WAVE BREAKERS

TOP OF EXISTING PARAPET WALL



SUPPORT PIER

4' x 10' x 3" PANEL

TOP VIEW

SCALE 1" = 2'

Jim Yahn

5/22/20



# Prewitt Reservoir

Wave Breaker Installation Locations

Legend

Station

Station 54+50

Station 16+50

Station 8+00

Station 0+00

Prewitt Reservoir

6

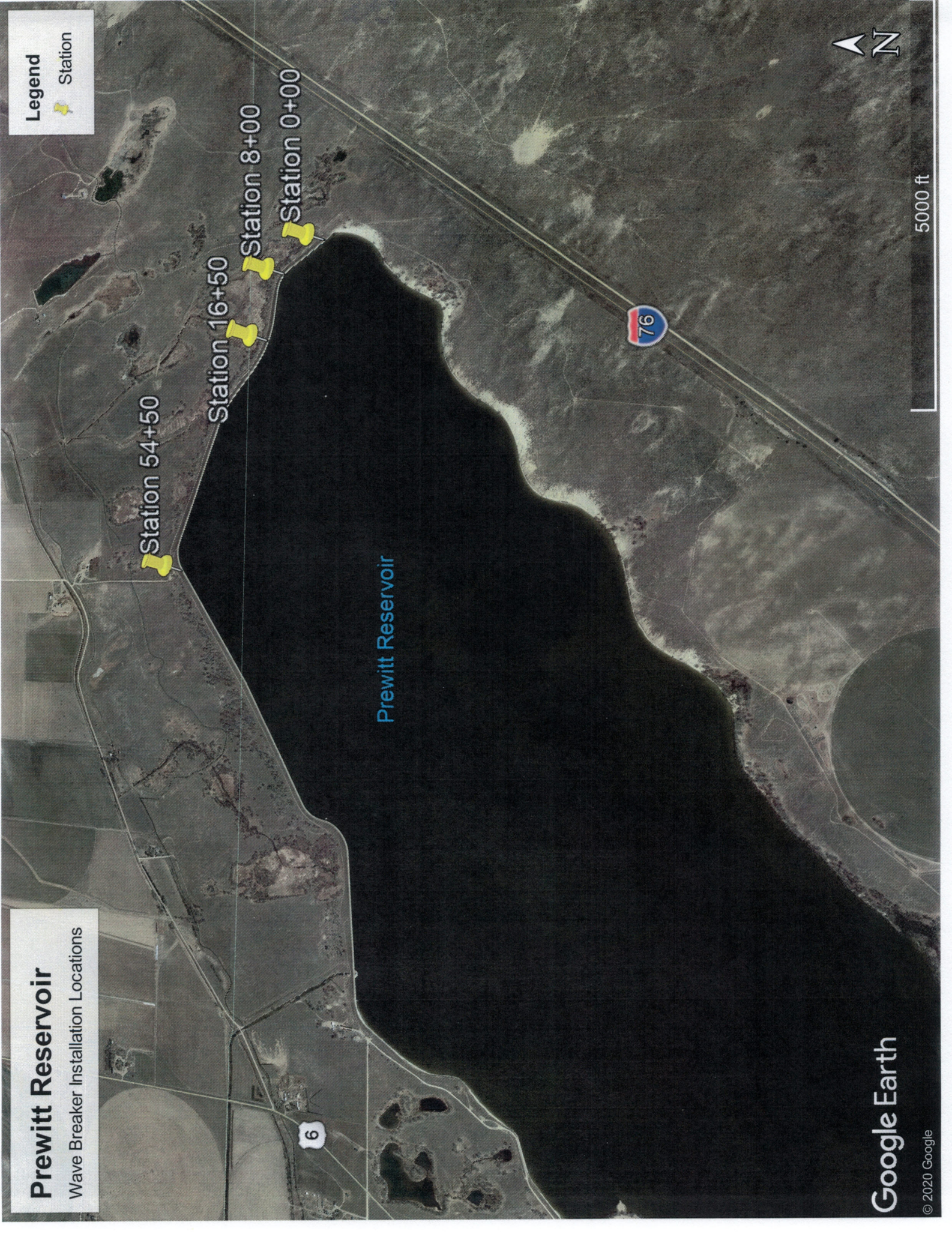
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Google Earth

© 2020 Google



5000 ft





## **Appendix I**

### **CWCB Loan Application**





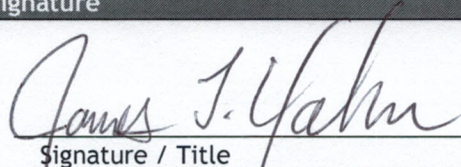
# COLORADO

## Colorado Water Conservation Board

Department of Natural Resources

## Water Project Loan Program

Projects financed by the Water Project Loan Program must align with the goals identified in Colorado's Water Plan and its measurable objectives.

<b>Application Type</b>	
<input type="checkbox"/> Prequalification (Attach 3 years of financial statements) <input checked="" type="checkbox"/> Loan Approval (Attach Loan Feasibility Study)	
<b>Agency/Company Information</b>	
Company / Borrower Name: Logan Irrigation District	
Authorized Agent & Title: James T. Yahn, P.E., Manager	
Address: 112 North 8th Avenue - P.O. Box 333, Sterling, CO 80751	
Phone: ( 970 ) 522-2025	Email: jim@northsterling.org
Organization Type: <input type="checkbox"/> Ditch Co, <input checked="" type="checkbox"/> District, <input type="checkbox"/> Municipality <input type="checkbox"/> other: _____	
Incorporated? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
County: Logan	Number of Shares/Taps: 12,818.9 acres
Water District: Logan	Avg. Water Diverted/Yr <sup>40,160</sup> _____ acre-feet
Number of Shareholders/Customers Served: 125	Current Assessment per Share \$ <sup>4</sup> _____ (Ditch Co)
Federal ID Number: 84-0815083	Average monthly water bill \$ _____ (Municipality)
<b>Contact Information</b>	
Project Representative: Jim Yahn	
Phone: ( ) 970-520-0170	Email: jim@northsterling.org
Engineer: Greg Monley, P.E.	
Phone: ( ) 303-761-4130	Email: greg.monley@wwwheeler.com
Attorney: Mason Brown	
Phone: ( ) 303-861-9000	Email: mbrown@chp-law.com
<b>Project Information</b>	
Project Name: Prewitt Reservoir Rehabilitation Project	
Brief Description of Project: (Attach separate sheets if needed)	
The installation of a toe drain system for seepage control and wave breakers for the protection of the dam from wind.	
Project Start Date(s) Design: <u>Complete</u> Construction: <u>July 2021</u>	
General Location: (Attach Map of Area)	
See Feasibility Study	
<b>Project Costs - Round to the nearest thousand</b>	
Estimated Engineering Costs: Included in Construction	Estimated Construction Costs: 1,562,683
Other Costs (Describe Above):	Estimated Total Project Costs: 1,562,683
Requested Loan Amount: <b>1,562,683</b>	Requested Loan Term (10, 20, or 30 years): <u>30</u> Years
<b>Signature</b>	
 Signature / Title	Return to: Finance Section Attn: Matt Stearns 1313 Sherman St #718 Denver, CO 80203 Ph. 303/866.3441 e-mail: matthew.stearns@state.co.us