

July 30, 2019

Mr. Mark McLean, P.E.
Deere & Ault Consultants Inc.
600 S. Airport Road, Building A, Suite 205
Longmont, CO 80503

Sent via email to: <a href="mark.mclean@deereault.com">mark.mclean@deereault.com</a>

Re: Pueblo East Pit at Evans #2

2018 - 2019 Substitute Water Supply Plan Renewal

DRMS File No. M-2000-041

Sec. 35, Twp. 20S, Rng. 63W, 6th P.M. Sec. 2, Twp. 21S, Rng. 63W, 6th P.M. Water Division 2, Water District 14 SWSP ID 5732, WDID 1407820

Approval Period: April 1, 2019 through March 31, 2020

Contact Phone: (303) 651-1468

Contact Email: mark.mclean@deereault.com

Dear Mr. McLean:

We have reviewed your March 7, 2019 letter requesting a renewal of the substitute water supply plan ("SWSP") previously approved for April 1, 2018 through March 31, 2019, in accordance with Section 37-90-137(11), C.R.S., for a sand and gravel pit (well permit no. 54064-F, WDID 1406561), partially owned by Fremont Paving & RediMix, Inc. ("Fremont Paving" or "Applicant"). The required renewal fee of \$257.00 for the 2019 - 2020 plan year has been received and given receipt no. 3691743. The applicants shall be responsible for compliance with this plan, but the State Engineer's Office may also pursue the landowner for eventual compliance.

The Evans #2 Pit has been divided into separately owned areas both operating under DRMS Permit No. M-2000-041. Fremont Paving's portion of the Evans #2 Pit (the subject of this SWSP), now referred to as the Pueblo East Pit ("Pueblo East Pit at Evans #2") consists of Phase I-Parcels 1-3 and Phase II-Parcel 5 of the mine site as shown on the attached Figure 1. Lagged depletions from previous operations at the site and from current operations at Phase I-Parcels 1-3 and Phase II-Parcel 5 are covered under this SWSP, while current operations at Phase I-Parcel 4 are covered under a separate SWSP for the Evans #2 Pit (SWSP ID 2709), submitted by Stonewall Springs Quarry, LLC/Morley Companies. A Plan for Augmentation was decreed in Division 2 Water Court Case no. 16CW3021 on December 17, 2018 for EWSD I, LLC, and allows for dewatering from this pit to irrigate lands under the Excelsior Ditch.



## **SWSP OPERATION**

This pit did not exist, and no ground water was exposed, prior to January 1, 1981. This plan proposes to replace depletions to the Arkansas River that result from historical depletions at the site, evaporation of exposed ground water within Phase I-Parcels 1-3 and Phase II-Parcel 5 of the mine site, totaling 8.8 acres, water removed in mined product, and water used for dust suppression. Fremont Paving is not planning on providing water for batching concrete during this plan year.

The 8.8 acres of exposed ground water includes approximately 5.6 acres of ponds in Phase I, approximately 2.5 acres of ponds in Phase II, and approximately 0.7 acres at the sedimentation pond in Phase II.

In accordance with the letter dated April 30, 2010 from the Colorado Division of Reclamation, Mining, and Safety ("DRMS"), all sand and gravel mining operators must comply with the requirements of the Colorado Reclamation Act and the Mineral Rules and Regulations for the protection of water resources. The April 30, 2010 letter from DRMS requires that you provide information to DRMS to demonstrate you can replace long term injurious stream depletions that result from mining related exposure of ground water. The reservoir liner, constructed to prevent the infiltration of tributary ground water, was most recently inspected by our staff on June 6, 2019. Additional information about the leak test plan was submitted by the Applicant on June 20, 2019. The testing plan and leak test were found to be adequate. All water inflows and outflows for this site must be accounted for on at least a monthly basis, by the 10th of the month following the accounting. According to the Acceptance of Financial Warranty letter written by DRMS on August 13, 2018 (available from the DRMS website at the following link: http://dnrimaging/drmsimaging/0/doc/1256461/Page1.aspx?searchid=7e0186b0-5d99-43a6-b956-83e a56728e61), Fremont Paving currently holds a bond in the amount of \$3,274,361 for reclamation at the site.

## **DEPLETIONS**

Well permit no. 54064-F (WDID 1406561) was obtained to expose water in this pit. Fremont Paving will continue to mine the site with an estimated annual amount of aggregate to be produced of 200,000 tons. As described above, this plan is based on 8.8 acres of exposed water surface area for April 2019 through March 2020. The total of 8.8 acres of exposed ground water will result in 30.34 acre-feet of evaporative loss (see attached Table 1). A total of 21.12 acre-feet of water is expected to be consumed by mining operations, consisting of 9.12 acre-feet of water lost in 310,000 tons of aggregate and 12.00 acre-feet used for dust suppression (see attached Table 2). Total operations with evaporation will result in 51.46 acre-feet of consumptive use. Projected uses and consumption during the 2019 - 2020 plan year are as shown in the attached Tables 1, 2, and 3.

A Glover analysis was used to create unit response function ("URF") in order to determine the lagged depletions to the Arkansas River using the following parameters:

- Transmissivity 100,000 gallons/day/foot
- Storage Coefficient 0.20
- Distance to the Stream 1,710 feet
- Distance to No-Flow Boundary 5,460 feet

The resulting URF shown below was calculated by wrapping the last 5% of depletions into the first 15 months.

| Month                     | 1     | 2      | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    |
|---------------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Fraction<br>of<br>Pumping | 0.225 | 0.280  | 0.121 | 0.073 | 0.058 | 0.046 | 0.040 | 0.034 | 0.027 | 0.024 | 0.020 | 0.017 |
| Month                     | 13    | 14     | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    | 23    | 24    |
| Fraction<br>of<br>Pumping | 0.014 | 0.0110 | 0.010 |       |       |       |       |       |       |       |       |       |

Based on the lagging described above and as shown in Table 3, attached, lagged stream depletions occurring during this SWSP plan year were determined to total 46.37 acre-feet. Projected post 2019 - 2020 plan year depletions are calculated to be 15.3 acre-feet.

## REPLACEMENT

During April 2019 through March 2020, the applicant leased 31 acre-feet or more of fully consumable replacement credits from the Arkansas Groundwater Users Association ("AGUA") available pursuant to a long term agreement dated March 19, 2018 attached, which will be used to cover mining depletions. The credits will be generated through the delivery of fully consumable water available to AGUA from the Board of Water Works of Pueblo, from the City of Aurora, or from the Pueblo West Metropolitan District, to AGUA's Excelsior Recharge Ponds located immediately west of Chico Creek. Attached Table 3 shows the proposed monthly replacement schedule for the 2019 - 2020 plan year.

Post-plan depletions are shown on Table 5, and AGUA has agreed to provide 8.02 acre-feet of fully consumable direct deliveries to the Arkansas River, or recharge credits from its Excelsior Recharge Ponds, during the period of April 2020 - March 2021 to replace these depletions.

## **CONDITIONS OF APPROVAL**

This SWSP is hereby approved pursuant to Section 37-90-137(11), C.R.S., subject to the following conditions:

- 1. This current plan shall be valid April 1, 2019 through March 31, 2020, unless otherwise revoked or superseded by decree. Should an additional SWSP be requested, such renewal request must be submitted to this office and the Division 2 office (please copy Kathy Trask at <a href="Maintenanger-Kathy.Trask@state.co.us">Kathy.Trask@state.co.us</a>) with the statutory fee (currently \$257) no later than **February 1**, 2020.
- 2. Operational losses of ground water at the site under this SWSP shall be limited to the amounts listed in Table 2, attached. Should the operator require additional operational losses of ground

water at this site, a new SWSP must be obtained.

- 3. The mined cell must be maintained in a de-watered state to the extent that the exposed water surface area does not exceed a total of 8.8 acres including all ponds, collection areas, dewatering trenches, and return trenches. If the actual water surface exposure exceeds 8.8 acres, the additional evaporative depletion must be accounted for and replaced via a new SWSP obtained by the Applicant.
- 4. The consumption associated with this mining operation is limited to evaporation, dust suppression, and water lost in product not to exceed a total of 46.37 acre-feet in lagged depletions during the 2019 2020 plan year. All diversions for dust suppression must be metered in compliance with the Amended Rules Governing the Measurement of Tributary Ground Water Diversions Located in the Arkansas River Basin. A certified totalizing flow meter must be maintained.
- 5. AGUA/Fremont Paving agree to replace out-of-priority depletions to senior surface water rights in Colorado and depletions to usable Stateline flows occurring after the expiration date of the plan (March 31, 2020) that are caused by diversions of ground water during the life of the SWSP.
- 6. Releases of water by AGUA pursuant to this plan shall be coordinated with the Division Engineer and the Augmentation Coordinator and shall equal or exceed the depletions to be replaced on a monthly basis.
- 7. Accounting of water in this plan, including excavated area, area of actual ground water exposure, pumping, stream depletions, and replacement water deliveries must be provided to the Water Commissioners (<a href="Doug.Hollister@state.co.us">Doug.Hollister@state.co.us</a> and <a href="Steve.Stratman@state.co.us">Steve.Stratman@state.co.us</a>) and Division Engineer (<a href="Augmentation.Coordinator@state.co.us">Augmentation.Coordinator@state.co.us</a>) on forms and at times acceptable to them. Said accounting must be received by the 10<sup>th</sup> of the month following the month being reported. The name, mailing address, and phone number of the contact person who is responsible for operation and accounting of this plan must be provided on the accounting forms. Accounting and reporting procedures are subject to approval and modification by the Division Engineer.
- 8. The approval of this SWSP does not relieve the Applicant and/or landowner of the requirement to obtain a Water Court decree approving a permanent plan for augmentation or mitigation to ensure the permanent replacement of all depletions, including long-term evaporation losses and lagged depletions after gravel mining operations have ceased. If reclamation of the mine site will produce a permanent water surface exposing ground water to evaporation, an application for a plan for augmentation must be filed with the Division 2 Water Court at least three (3) years prior to the completion of mining to include, but not be limited to, long-term evaporation losses and lagged depletions. If a lined pond results after reclamation, replacement of lagged depletions shall continue until there is no longer an effect on stream flow. Granting of this plan does not imply approval by this office of any such court application(s).
- 9. The State Engineer may revoke this SWSP or add additional restrictions to its operation if at any time the State Engineer determines that injury to other vested water rights has occurred or will occur as a result of the operation of this SWSP. Should this SWSP expire without renewal or be revoked prior to adjudication of a permanent plan for augmentation, all use of water under this

SWSP must cease immediately and the Applicant shall obtain and present to this office an alternate source of replacement water.

- 10. Dewatering at this site will produce delayed depletions to the stream system. As long as the pit is continuously dewatered, the water returned to the stream system should be adequate to offset the depletions attributable to the dewatering operation. Once dewatering at the site ceases, the delayed depletions must be addressed. Accordingly, dewatering is required to continue during the terms of this approval. At least three years prior to completion of dewatering, a plan must be submitted that specifies how the post pumping dewatering depletions (including refilling of the pit) will be replaced, in time, place and amount. If dewatering of the site is discontinued, the pit would fill and cause additional depletions to the stream system due to increased evaporation.
- 11. In accordance with amendments to Section 25-8-202-(7), C.R.S. and "Senate Bill 89-181 Rules and Regulations" adopted on February 4, 1992, the State Engineer shall determine whether or not the substitute supply is of a quality to meet requirements of use to senior appropriators. As such, water quality data or analysis may be requested at any time to determine if the water quality is appropriate for downstream water users.
- 12. The decision of the State Engineer shall have no precedential or evidentiary force, shall not create any presumptions, shift the burden of proof, or serve as a defense in any pending water court case or any other legal action that may be initiated concerning the SWSP. This decision shall not bind the State Engineer to act in a similar manner in any other applications involving other SWSP or in any proposed renewal of this SWSP, and shall not imply concurrence with any findings of fact or conclusions of law contained herein, or with the engineering methodologies used by the Applicant.

Should you have any questions, please contact Kate Fuller of this office or Steve Stratman in our Division 2 office in Pueblo at (719) 250-1657.

Sincerely,

Jeff Deatherage, P.E. Chief of Water Supply

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Enclosures: Figure 1

Tables 1-5

March 19, 2018 Water Lease Agreement

ec: Division 2 SWSP Staff

Steve Stratman, District 14/15 Water Commissioner

Doug Hollister, North Regional Team Leader, Districts 10,14,15

Division of Reclamation, Mining and Safety

JD/kff: Pueblo East Pit at Evans #2 SWSP 2019-20



Q:0183 Fremont Paving & Red-Mix\028 Pueblo East Plt 2019 SWSP\2019 Location Map.mxd Tuesday, April 30, 2019 04:48 PM

Table 1
EVAPORATIVE LOSSES
Fremont Paving & Redi-Mix - Pueblo East Pit
2019 Plan Year

|                            | (1)                                 | (2)                                   | (3)                                  | (4)   | (5)                                 | (6)   | (7)   |
|----------------------------|-------------------------------------|---------------------------------------|--------------------------------------|---|-------------------------------------|---|---|
| Plan Year<br>2019<br>Month | Percent of<br>Annual<br>Evaporation | Gross Pond<br>Evaporation<br>(inches) | Average<br>Precipitation<br>(inches) | Effective<br>Precipitation<br>70%<br>(inches) | Net Pond<br>Evaporation<br>(inches) | Net Pond<br>Evaporation<br>(acre-feet/acre) | Net Pond<br>Evaporation<br>8.8 acres<br>(acre-feet) |
|                            |                                     | (11101162)                            | (11101162)                           | (1110169)                                     | (11101169)                          | (acie-leevacie)                             | (acre-reer)   |
| April, 2019                | 9.0%                                | 4.52                                  | 1.26                                 | 0.88  | 3.64                                | 0.30  | 2.67  |
| May                        | 12.0%                               | 6.02                                  | 1.37                                 | 0.96  | 5.07                                | 0.42  | 3.71  |
| June                       | 14.5%                               | 7.28                                  | 1.65                                 | 1.16  | 6.12                                | 0.51  | 4.49  |
| July                       | 15.0%                               | 7.53                                  | 2.38                                 | 1.67  | 5.86                                | 0.49  | 4.30  |
| August                     | 13.5%                               | 6.78                                  | 1.34                                 | 0.94  | 5.84                                | 0.49  | 4.28  |
| September                  | 10.0%                               | 5.02                                  | 0.87                                 | 0.61  | 4.41                                | 0.37  | 3.23  |
| October                    | 7.0%                                | 3.51                                  | 0.44                                 | 0.31  | 3.21                                | 0.27  | 2.35  |
| November                   | 4.0%                                | 2.01                                  | 0.40                                 | 0.28  | 1.73                                | 0.14  | 1.27  |
| December                   | 3.0%                                | 1.51                                  | 0.40                                 | 0.28  | 1.23                                | 0.10  | 0.90  |
| January, 2020              | 3.0%                                | 1.51                                  | 0.32                                 | 0.22  | 1.28                                | 0.11  | 0.94  |
| February                   | 3.5%                                | 1.76                                  | 0.72                                 | 0.50  | 1.25                                | 0.10  | 0.92  |
| March                      | 5.5%                                | 2.76                                  | 1.46                                 | 1.02  | 1.74                                | 0.14  | 1.28  |
| Total                      | 100.0%                              | 50.20                                 | 12.61                                | 8.83  | 41.37                               | 3.45  | 30.34   |

- (1) Based SEO information for elevations below 6,500 feet.
- (2) Equals 50.2 inches from NWS 33, Map 3, times Column (1).
- (3) Based on climate data from Pueblo Memorial AP weather station (1981-2010)
- (4) Equals Column (3) times 70%.
- (5) Equals Column (2) minus Column (4).
- (6) Equals Column (5) divided by 12.
- (7) Equals Pond Surface Area times Column (6).

Table 2
OPERATIONAL LOSSES
Fremont Paving & Redi-Mix - Pueblo East Pit
2019 Plan Year

|                            | (1)  | (2)  | (3)  | (4)                                  |
|----------------------------|--|--|--|--------------------------------------|
| Plan Year<br>2019<br>Month | Amount of<br>Aggregate<br>Production<br>(tons) | Water Lost<br>With Mined<br>Aggregate<br>(acre-feet) | Water Used<br>for Dust<br>Control<br>(acre-feet) | Total Operational Losses (acre-feet) |
| April, 2019                | 25,000   | 0.736  | 1.00   | 1.74                                 |
| May                        | 25,000   | 0.736  | 1.00   | 1.74                                 |
| June                       | 25,000   | 0.736  | 1.00   | 1.74                                 |
| July                       | 30,000   | 0.883  | 1.00   | 1.88                                 |
| August                     | 30,000   | 0.883  | 1.00   | 1.88                                 |
| September                  | 25,000   | 0.736  | 1.00   | 1.74                                 |
| October                    | 25,000   | 0.736  | 1.00   | 1.74                                 |
| November                   | 25,000   | 0.736  | 1.00   | 1.74                                 |
| December                   | 25,000   | 0.736  | 1.00   | 1.74                                 |
| January, 2020              | 25,000   | 0.736  | 1.00   | 1.74                                 |
| February                   | 25,000   | 0.736  | 1.00   | 1.74                                 |
| March                      | 25,000   | 0.736  | 1.00   | 1.74                                 |
| Total                      | 310,000  | 9.12   | 12.00  | 21.12                                |

- (1) Projected mining provided by Fremont Paving & Redi-Mix.
- (2) Column (2) times 2000 times 4% divided by 62.4 divided by 43,560.
- (3) Projected dust control provided by Fremont Paving & Redi-Mix.
- (4) Equals the sum of Columns (2) and (3).

Table 3

LAGGED DEPLETIONS AND PROPOSED REPLACEMENTS

Fremont Paving & Redi-Mix - Pueblo East Pit

2019 Plan Year

|                   | (1)                   | (2)                  | (3)                                    | (4)                    | (5)                                   |
|-------------------|-----------------------|----------------------|--|------------------------|---------------------------------------|
| Plan Year<br>2019 | Net<br>Evaporative    | Total<br>Operational | Total<br>Losses                        | Lagged<br>Stream       | AGUA                                  |
| Month             | Losses<br>(acre-feet) | Losses (acre-feet)   | from<br>Pueblo East Pit<br>(acre-feet) | Depletions (acre-feet) | Replacement<br>Credits<br>(acre-feet) |
| April, 2019       | 2.67                  | 1.74                 | 4.40                                   | 2.38                   | 2.40                                  |
| May               | 3.71                  | 1.74                 | 5.45                                   | 3.14                   | 3.15                                  |
| June              | 4.49                  | 1.74                 | 6.23                                   | 3.64                   | 3.65                                  |
| July              | 4.30                  | 1.88                 | 6.18                                   | 4.32                   | 4.35                                  |
| August            | 4.28                  | 1.88                 | 6.16                                   | 4.66                   | 4.70                                  |
| September         | 3.23                  | 1.74                 | 4.97                                   | 4.68                   | 4.70                                  |
| October           | 2.35                  | 1.74                 | 4.09                                   | 4.71                   | 4.75                                  |
| November          | 1.27                  | 1.74                 | 3.00                                   | 4.28                   | 4.30                                  |
| December          | 0.90                  | 1.74                 | 2.63                                   | 4.05                   | 4.05                                  |
| January, 2020     | 0.94                  | 1.74                 | 2.68                                   | 3.74                   | 3.75                                  |
| February          | 0.92                  | 1.74                 | 2.65                                   | 3.33                   | 3.35                                  |
| March             | 1.28                  | 1.74                 | 3.01                                   | 3.45                   | 3.45                                  |
| Total             | 30.34                 | 21.12                | 51.46                                  | 46.37                  | 46.60                                 |

- (1) Equals Column (7), Table 1.
- (2) Equals Column (4), Table 2.
- (3) Equals Columns (1) plus (2).
- (4) Based on Glover Calculations (T=100,000; s=0.2; X=1710; W=5460).
- (5) Fully consumable credits from AGUA

#### Table 4a

#### WATER ACCOUNTING MEASUREMENT DATA

## Pueblo East Pit - Fremont Paving and Redi-Mix, Inc. Pueblo, CO

## April 1, 2019 to March 31, 2020

|  | (1)   | (2)                         | (3)                         | (4)  | (5a)  | (5b)                                     | (6)                   | (7)                                    | (8)                   | (9)   | (10)   |
|--|---|-----------------------------|-----------------------------|--|---|--|-----------------------|--|-----------------------|---|--|
| Plan Year<br>2019<br>Month               | Exposed<br>Water Surface<br>Area<br>(acres) | Date<br>of<br>Determination | Method<br>of<br>Measurement | Amount of<br>Aggregate<br>Production<br>(tons) | End of Month Dust Control Meter Reading (gallons) | Pumping for<br>Dust Control<br>(gallons) | Date<br>of<br>Reading | Pumping for<br>Dewatering<br>(gallons) | Date<br>of<br>Reading | Lagged<br>Stream<br>Depletions<br>(acre-feet) | AGUA<br>Replacement<br>Provided<br>(acre-feet) |
| April-19<br>May-19                       |   |                             |                             |  |   |  |                       |  |                       |   |  |
| June-19<br>July-19                       |   |                             |                             |  |   |  |                       |  |                       |   |  |
| August-19<br>September-19<br>October-19  |   |                             |                             |  |   |  |                       |  |                       |   |  |
| November-19<br>December-19<br>January-20 |   |                             |                             |  |   |  |                       |  |                       |   |  |
| February-20<br>March-20                  |   |                             |                             |  |   |  |                       |  |                       |   |  |

- (1) ENTER: Periodically measured/determined total exposed water surface area basis for evaporative
- (2) ENTER: Date of water surface area measurement/determination.
- (3) ENTER: Method used for water surface area measurement/determination.
- (4) ENTER: Amount of aggregate production in tons.
- (5a) ENTER: End of month meter reading on metered use for dust control July through March only.
- (5b) ENTER: Metered use for dust control April through June only.

- (6) ENTER: Date of dust control meter reading.
- (7) ENTER: Estimated use for dewatering.
- (8) ENTER: Date of dewatering meter reading.
- (9) ENTER: Lagged stream depletion from AWAS.
- (10) ENTER: Amount of Replacement water provided.

#### Table 4b

## WATER ACCOUNTING FORM

#### Pueblo East Pit - Fremont Paving and Redi-Mix, Inc.

#### Pueblo, CO

#### April 1, 2019 to March 31, 2020

|                   | (1)                      | (2)                      | (3)                        | (4)                    | (5)                      | (6)                    | (7)                       | (8)                       | (9)                   | (10)                           |
|-------------------|--------------------------|--------------------------|----------------------------|------------------------|--------------------------|------------------------|---------------------------|---------------------------|-----------------------|--------------------------------|
| Plan Year<br>2019 | Net Pond<br>Evaporation  | Exposed<br>Water Surface | Net<br>Pond                | Amount of<br>Aggregate | Water Lost<br>With Mined | Water Used<br>for Dust | Evaporation & Operational | Lagged<br>Stream          | AGUA<br>Replacement   | Amount of<br>Water Pumped      |
| Month             | Rate<br>(acre-feet/acre) | Area<br>(acres)          | Evaporation<br>(acre-feet) | Production<br>(tons)   | Aggregate<br>(acre-feet) | Control<br>(acre-feet) | Losses<br>(acre-feet)     | Depletions<br>(acre-feet) | Credit<br>(acre-feet) | From Dewatering<br>(acre-feet) |
| April-19          | 0.303                    | 0.0                      | 0.00                       | 0                      | 0.00                     | 0.0000                 | 0.00                      | 0.00                      | 0.00                  | 0.00                           |
| May-19            | 0.422                    | 0.0                      | 0.00                       | 0                      | 0.00                     | 0.0000                 | 0.00                      | 0.00                      | 0.00                  | 0.00                           |
| June-19           | 0.510                    | 0.0                      | 0.00                       | 0                      | 0.00                     | 0.0000                 | 0.00                      | 0.00                      | 0.00                  | 0.00                           |
| July-19           | 0.489                    | 0.0                      | 0.00                       | 0                      | 0.00                     | 0.0000                 | 0.00                      | 0.00                      | 0.00                  | 0.00                           |
| August-19         | 0.487                    | 0.0                      | 0.00                       | 0                      | 0.00                     | 0.0000                 | 0.00                      | 0.00                      | 0.00                  | 0.00                           |
| September-19      | 0.368                    | 0.0                      | 0.00                       | 0                      | 0.00                     | 0.0000                 | 0.00                      | 0.00                      | 0.00                  | 0.00                           |
| October-19        | 0.267                    | 0.0                      | 0.00                       | 0                      | 0.00                     | 0.0000                 | 0.00                      | 0.00                      | 0.00                  | 0.00                           |
| November-19       | 0.144                    | 0.0                      | 0.00                       | 0                      | 0.00                     | 0.0000                 | 0.00                      | 0.00                      | 0.00                  | 0.00                           |
| December-19       | 0.102                    | 0.0                      | 0.00                       | 0                      | 0.00                     | 0.0000                 | 0.00                      | 0.00                      | 0.00                  | 0.00                           |
| January-20        | 0.107                    | 0.0                      | 0.00                       | 0                      | 0.00                     | 0.0000                 | 0.00                      | 0.00                      | 0.00                  | 0.00                           |
| February-20       | 0.104                    | 0.0                      | 0.00                       | 0                      | 0.00                     | 0.0000                 | 0.00                      | 0.00                      | 0.00                  | 0.00                           |
| March-20          | 0.145                    | 0.0                      | 0.00                       | 0                      | 0.00                     | 0.0000                 | 0.00                      | 0.00                      | 0.00                  | 0.00                           |
| Total             | 3.448                    |                          | 0.00                       | 0                      | 0.00                     | 0.0000                 | 0.00                      | 0.00                      | 0.00                  | 0.00                           |

- (1) Net pond evaporation rate from SWSP.
- (2) Exposed water surface area from Data Form.
- (3) Column (1) times Column (2)
- (4) Data Form, Column (4)
- (5) Column (4) times 2000 times 4% divided by 62.4 divided by 43,560.

- (6) (EOM meter reading minus EOM meter reading from prior month)/325,851
- (7) Column (5) plus Column (6).
- (8) Stream depletions from Data Form.
- (9) Replacements provided by AGUA from Data Form.
- (10) (EOM meter reading minus EOM meter reading from prior month)/325,851

# Table 5 SUMMARY OF STREAM DEPLETION ANALYSIS RESULTS Pueblo East Pit

## Pueblo East Pit Depletions - AWAS Input

| Year | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Total |
|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 2000 | 0.00 | 0.00 | 0.00 | 0.00 | 2.13 | 1.36 | 1.03 | 0.58 | 0.20 | 0.27 | 0.47 | 1.23 | 7.27  |
| 2001 | 1.88 | 2.67 | 3.31 | 3.47 | 3.05 | 1.92 | 1.46 | 0.83 | 0.27 | 0.05 | 0.06 | 0.09 | 19.06 |
| 2002 | 0.16 | 0.21 | 0.26 | 0.26 | 0.22 | 0.18 | 0.12 | 0.07 | 0.05 | 0.05 | 0.06 | 0.09 | 1.73  |
| 2003 | 0.16 | 0.21 | 0.26 | 0.26 | 0.22 | 0.18 | 0.12 | 0.07 | 0.05 | 0.05 | 0.06 | 0.09 | 1.73  |
| 2004 | 0.87 | 1.62 | 1.67 | 1.66 | 0.58 | 0.18 | 0.13 | 0.07 | 0.06 | 0.05 | 0.06 | 0.15 | 7.10  |
| 2005 | 0.16 | 0.21 | 0.27 | 0.25 | 0.22 | 0.18 | 0.13 | 0.07 | 0.05 | 0.05 | 0.06 | 3.11 | 4.76  |
| 2006 | 3.19 | 3.24 | 1.82 | 1.80 | 1.78 | 1.73 | 1.68 | 0.07 | 0.05 | 0.05 | 0.06 | 1.64 | 17.11 |
| 2007 | 3.18 | 3.23 | 1.82 | 1.80 | 1.77 | 1.73 | 1.68 | 0.07 | 0.05 | 0.05 | 0.06 | 1.64 | 17.08 |
| 2008 | 1.98 | 1.83 | 2.03 | 2.79 | 2.12 | 1.73 | 0.31 | 0.09 | 0.06 | 0.05 | 0.06 | 1.64 | 14.69 |
| 2009 | 0.16 | 0.33 | 0.38 | 0.37 | 0.22 | 0.19 | 0.28 | 0.22 | 0.05 | 0.06 | 0.21 | 0.19 | 2.66  |
| 2010 | 0.26 | 0.77 | 0.67 | 0.90 | 1.10 | 0.74 | 0.27 | 0.41 | 0.28 | 0.04 | 0.00 | 0.04 | 5.48  |
| 2011 | 0.25 | 0.14 | 0.17 | 0.22 | 0.25 | 0.16 | 1.18 | 0.57 | 0.28 | 0.48 | 0.62 | 0.90 | 5.22  |
| 2012 | 1.53 | 1.96 | 2.36 | 2.30 | 2.08 | 1.71 | 1.35 | 0.90 | 0.57 | 1.31 | 1.62 | 2.32 | 20.01 |
| 2013 | 4.19 | 5.41 | 6.62 | 6.37 | 5.70 | 4.70 | 3.37 | 1.18 | 0.96 | 1.13 | 1.27 | 1.49 | 42.39 |
| 2014 | 2.52 | 3.74 | 5.29 | 5.06 | 5.05 | 4.43 | 3.30 | 2.00 | 1.74 | 1.58 | 1.09 | 1.81 | 37.61 |
| 2015 | 2.36 | 3.62 | 4.46 | 3.30 | 4.18 | 4.08 | 2.84 | 1.38 | 0.76 | 0.75 | 1.06 | 1.66 | 30.45 |
| 2016 | 2.01 | 2.71 | 3.75 | 3.30 | 3.79 | 2.63 | 1.87 | 1.44 | 0.65 | 0.81 | 0.80 | 1.15 | 24.91 |
| 2017 | 2.59 | 2.57 | 3.41 | 4.52 | 4.34 | 3.54 | 2.28 | 1.91 | 1.39 | 0.94 | 0.99 | 1.74 | 30.23 |
| 2018 | 2.84 | 3.57 | 5.47 | 3.21 | 3.08 | 2.55 | 5.21 | 1.84 | 4.40 | 0.65 | 0.69 | 1.66 | 35.18 |
| 2019 | 4.40 | 5.45 | 6.23 | 6.18 | 6.16 | 4.97 | 4.09 | 3.00 | 2.63 | 2.68 | 2.66 | 3.01 | 51.46 |
| 2020 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  |
| 2021 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  |

## Lagged Stream Depletions at the Arkansas River - AWAS Output

| Year | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Total |
|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 2000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.62 | 0.72 | 0.68 | 0.61 | 0.51 | 0.44 | 0.58 | 4.37  |
| 2001 | 0.79 | 1.16 | 1.52 | 1.97 | 2.23 | 2.18 | 2.07 | 1.79 | 1.56 | 1.25 | 0.91 | 0.84 | 18.25 |
| 2002 | 0.69 | 0.62 | 0.54 | 0.51 | 0.46 | 0.40 | 0.36 | 0.30 | 0.26 | 0.22 | 0.17 | 0.17 | 4.68  |
| 2003 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.20 | 0.20 | 0.17 | 0.15 | 0.13 | 0.11 | 0.11 | 2.00  |
| 2004 | 0.18 | 0.44 | 0.71 | 0.93 | 0.95 | 0.75 | 0.62 | 0.49 | 0.42 | 0.35 | 0.27 | 0.27 | 6.37  |
| 2005 | 0.25 | 0.24 | 0.24 | 0.26 | 0.25 | 0.23 | 0.22 | 0.19 | 0.17 | 0.14 | 0.11 | 0.42 | 2.72  |
| 2006 | 1.10 | 1.58 | 1.71 | 1.68 | 1.68 | 1.64 | 1.70 | 1.48 | 1.15 | 0.92 | 0.69 | 0.80 | 16.12 |
| 2007 | 1.18 | 1.72 | 1.84 | 1.80 | 1.77 | 1.71 | 1.76 | 1.53 | 1.19 | 0.95 | 0.74 | 0.82 | 17.00 |
| 2008 | 1.08 | 1.31 | 1.38 | 1.64 | 1.83 | 1.76 | 1.64 | 1.23 | 1.01 | 0.82 | 0.62 | 0.74 | 15.05 |
| 2009 | 0.84 | 0.68 | 0.59 | 0.57 | 0.52 | 0.44 | 0.41 | 0.37 | 0.34 | 0.27 | 0.22 | 0.25 | 5.51  |
| 2010 | 0.24 | 0.31 | 0.41 | 0.49 | 0.60 | 0.66 | 0.63 | 0.52 | 0.50 | 0.43 | 0.31 | 0.28 | 5.37  |
| 2011 | 0.25 | 0.26 | 0.23 | 0.23 | 0.24 | 0.23 | 0.32 | 0.47 | 0.45 | 0.41 | 0.42 | 0.52 | 4.01  |
| 2012 | 0.66 | 0.93 | 1.16 | 1.45 | 1.59 | 1.58 | 1.59 | 1.43 | 1.30 | 1.21 | 1.18 | 1.49 | 15.57 |
| 2013 | 1.82 | 2.58 | 3.23 | 4.05 | 4.41 | 4.37 | 4.36 | 3.73 | 3.18 | 2.73 | 2.23 | 2.31 | 39.02 |
| 2014 | 2.21 | 2.53 | 2.91 | 3.56 | 3.84 | 3.88 | 3.95 | 3.51 | 3.20 | 2.87 | 2.34 | 2.38 | 37.17 |
| 2015 | 2.29 | 2.55 | 2.84 | 3.19 | 3.23 | 3.34 | 3.47 | 3.03 | 2.63 | 2.21 | 1.84 | 1.90 | 32.51 |
| 2016 | 1.87 | 2.06 | 2.27 | 2.65 | 2.81 | 2.82 | 2.72 | 2.38 | 2.16 | 1.83 | 1.49 | 1.55 | 26.60 |
| 2017 | 1.59 | 1.93 | 2.08 | 2.57 | 3.00 | 3.08 | 3.09 | 2.72 | 2.55 | 2.24 | 1.79 | 1.89 | 28.53 |
| 2018 | 1.96 | 2.35 | 2.74 | 3.26 | 3.11 | 2.92 | 3.17 | 3.28 | 3.18 | 3.15 | 2.26 | 2.24 | 33.62 |
| 2019 | 2.38 | 3.14 | 3.64 | 4.32 | 4.66 | 4.68 | 4.71 | 4.28 | 4.05 | 3.74 | 3.33 | 3.45 | 46.37 |
| 2020 | 3.00 | 2.33 | 1.80 | 1.51 | 1.23 | 0.97 | 0.82 | 0.65 | 0.55 | 0.45 | 0.33 | 0.30 | 13.96 |
| 2021 |      |      |      |      |      |      |      |      |      |      |      |      |       |

Total Unlagged Depletions through 2019 Plan Year
Total Lagged Stream Depletions through 2019 Plan Year
Total Post-2019 Plan Year Stream Depletions
15.30

## **AGREEMENT**

This Agreement is entered into this 9 day of MAZCW, 2018 between Fremont Paving and Ready-Mix, Inc. ("Fremont"), whose address is 839 Mackenzie Ave, Canon City, CO 81212, and the Arkansas Groundwater Users Association ("AGUA"), whose address is P.O. Box 11446, Pueblo, CO 81001. Fremont and or AGUA are referred to collectively as the "Parties."

# RECITALS

WHEREAS, Fremont owns the certain water rights quantified and changed to allow diversion at the Plum Creek Pipe Line Ditch ("Plum Creek Pipeline Water Rights") by the decree in Case No. 14CW3049, dated October 2, 2017 ("Decree").

WHEREAS, Fremont owns the MacKenzie Well located in the SW ¼ SE ¼ Section 2, Township 19 South, Range 70 West of the 6<sup>th</sup> P.M., Fremont County, Colorado. Fremont also operates a gravel pit known as the Pueblo East Pit at Evans No. 2 Mine (a/k/a "Pueblo East Pit") located in the S ½ Section 35, Township 20 South, Range 63 West of the 6<sup>th</sup> P.M., Pueblo County, Colorado. Fremont also operates a gravel pit known as the North River Pit located in the NE 1/4 Section 1, Township 24 South, Range 55 West and the SE 1/4 Section 36, Township 23 South, Range 55 West of the 6<sup>th</sup> P.M., Otero County, Colorado.

WHEREAS, AGUA is a nonprofit association of well owners organized in part to develop water resources in order to provide augmentation and replacement water used to replace out-of-priority depletions caused by pumping of its members' wells, which AGUA accomplishes through plans for augmentation, substitute water supply plans, and administratively approved replacement plans pursuant to the Amended Rules and Regulations Governing the Diversion and Use of Tributary Ground Water in the Arkansas River Basin, Colorado.

WHEREAS, Fremont is a member of AGUA, and AGUA provides augmentation water for depletions caused by the Pueblo East Pit and the North River Pit.

WHEREAS, the fully consumable "Excess Credits" as defined in paragraph 12 of the Decree are available for augmentation and replacement uses by AGUA directly or following release from Pueblo Reservoir.

WHEREAS, Fremont and AGUA desire to enter this Agreement to allow AGUA to use the Excess Credits, and to offset the amount of replacement water Fremont pays AGUA for annually by the amount of Excess Credits used by AGUA; and

WHEREAS, the Decree requires Fremont and AGUA enter a contract prior to Fremont diverting the Plum Creek Pipeline Water Rights and prior to AGUA using the Excess Credits for replacement and augmentation use. The Parties intend for this Agreement to comply with those Decree requirements.

# **AGREEMENT**

**NOW THEREFORE**, in consideration of the mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

- 1. Fremont agrees to allow AGUA to use the Excess Credits from the Plum Creek Pipeline Water Rights for AGUA's purposes in compliance with the Decree, in return for the consideration described in paragraph 2.
- 2. AGUA shall credit Fremont for Excess Credits that AGUA uses to offset AGUA members' well depletions on a one for one basis, not including any amounts of Excess Credits lost to evaporation or transit. The credit will be provided to Fremont by offsetting Fremont's payments to AGUA for replacement water pursuant to its membership in AGUA on a one-for-one basis ("Fremont's Offset"). For example, if AGUA is able to use 40 acre feet of Excess Credits after evaporative and transit losses for replacement of AGUA members' well depletions, and AGUA provides to Fremont 60 acre feet of replacement water for the Pueblo East Pit and the North River Pit, then applying Fremont's Offset would result in Fremont paying AGUA for only 20 acre feet of replacement water that year. Fremont's Offset will be calculated annually for the period from April 1 through March 31, and credited to Fremont's account with AGUA after the period ends within 30 days (i.e. by April 30).
- 3. The Parties agree to annually meet and plan for AGUA's use of the Excess Credits as necessary and in good faith. Fremont shall provide AGUA with accounting and other information necessary for AGUA to make use of the Excess Credits.
- 4. This Agreement does not alter Fremont's AGUA membership, and, without limitation, does not obligate or require AGUA to: (1) augment or replace any depletions for the MacKenzie Well; (2) augment or replace any depletions for the Pueblo East Pit and the North River Pit other than AGUA's obligations to Fremont as a member of AGUA; (3) maintain a storage account in Pueblo Reservoir, or store or keep in storage in AGUA's storage account in Pueblo Reservoir any Depletion Credits or Excess Credits (although AGUA may, at its discretion, use its storage account to store Depletion Credits or Excess Credits), or (4) recharge in the Excelsior Ditch system any Depletion Credits or Excess Credits. AGUA retains sole discretion as to operations of AGUA's storage account and Excelsior Ditch recharge facilities, including the recharge ponds, and AGUA's storage, management, and use the Excess Credits. Fremont shall remain solely responsible for compliance with, and operations and accounting pursuant to, the Decree without limitation for the Plum Creek Pipeline and augmentation station, the Plum Creek Pipeline Water Rights and historical return flows, and the plan for augmentation for the MacKenzie Well, and for compliance with, and operations and accounting pursuant to, Fremont's replacement plans for the Pueblo East Pit and North River Pit replacement plans.
- 5. The term of this Agreement shall be perpetual until terminated. Either party may terminate this Agreement upon 60 days notice.

- 6. Whenever notice is required to be given hereunder, it shall be in writing and delivered or mailed to the registered agent on file with the Colorado Secretary of State of the party entitled to the notice, by registered or certified mail, return receipt requested. In addition, a courtesy copy shall also be sent to the other party by electronic mail on the same day. If delivered, said written notice shall be effective and complete upon delivery. If mailed, said notice shall be effective and complete upon mailing.
- 7. The Parties shall cooperate with one another in good faith to accomplish and fulfill the terms of this Agreement.
- 8. If the ability of a party to perform is interrupted or impaired in whole or in part due to failure of equipment or facilities, acts of God, action by governmental bodies and authorities, or other extraordinary circumstances, occurrences or conditions, then during the period of such interruption or impairment, any obligation described herein may be suspended proportionately.
- 9. This Agreement is for the sole benefit of the Parties, and AGUA does not have any duty or liability to third parties as a result of this Agreement.
- 10. This Agreement may be executed in counterparts, which when combined shall constitute the Agreement. Executed and electronically scanned signature pages shall be valid and binding and shall constitute original signature pages.
- 11. In the event of any litigation or arbitration arising out of this Agreement, the prevailing party shall be entitled to recover, and the court and/or arbitrator shall award to the prevailing party, all reasonable costs, including reasonable expert witness fees, and reasonable attorneys' fees.
- 12. Any dispute pursuant to this Agreement shall be governed by the laws of the State of Colorado and venue shall be in District Court of Pueblo County, Colorado.
- 13. Either party may assign this Agreement after obtaining the express written permission of the other party.

This Agreement is executed as of the day and year first written above.

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| FREMONT PAVING AND READY-MIX, IN   | NC.  |
|--|--|
| By: Jodi Schreiber   |  |
| STATE OF COLORADO )  COUNTY OF Hewort  The foregoing Agreement was acl                     | knowledged before me this <u>/9</u> day of <u>hreiber</u> , as of Fremont Paving and   |
| Witness my hand and official seal.  Notary Public  ARKANSAS GROUNDWATER  USERS ASSOCIATION | My commission expires:  My License Number is:  [SEAL]  REBECCA ELLIOTT  NOTARY PUBLIC  STATE OF COLORADO  NOTARY ID # 19984002037  MY COMMISSION EXPIRES DECEMBER 16, 2019 |
| Des Bry: Scott Brazil, President   |  |
| STATE OF COLORADO ) ss. COUNTY OF PUEBLO )   |  |
|  | knowledged before me this <u>23</u> day of as President of the Arkansas Groundwater Users  |
| Witness my hand and official seal.  Policial Jamales  Notary Public                        | My commission expires: 09/09/2021 My License Number is: 2001402 7889  [SEAL]  REBECCA L. GONZALES  |
|  | NOTARY PUBLIC STATE OF COLORADO NOTARY ID 20014027884 My Commission Expires 09-09-2021   |