COLORADO
Division of Water Resources
Department of Natural Resources

December 12, 2019

Mr. Todd Williams, P.E.
Williams and Weiss Consulting, LLC
5255 Ronald Reagan Boulevard, Ste 220
Johnstown, CO 80534

RE: Kauffman No. 1 Substitute Water Supply Plan (WDID 0402530, Plan ID 3039)
Kauffman No. 1 Pit, DRMS Permit No. M-1978-327 (WDID 0403009)
Sections 20 and 21, T5N, R68W, 6th P.M.
Water Division 1, Water District 4, Larimer County

Approval Period: January 1, 2020 through December 31, 2020
Contact Information for Mr. Todd Williams: 303-653-3940; tlwwater@msn.com

Dear Mr. Williams:

We have reviewed your letter dated November 15, 2019 requesting renewal of the above referenced substitute water supply plan for a sand and gravel pit on behalf of Jake Kauffman and Son, Inc. ("Applicant"). The required fee of $257.00 for the renewal of this substitute water supply plan has been submitted (receipt number 3695712). The original substitute water supply plan was approved on April 6, 1992 and it was most recently approved on January 3, 2019 for operations through December 31, 2019.

SWSP Operation

The Kauffman No. 1 Pit (WDID 0403009, well permit no. 42901-F) is located in Larimer County in part of the E½ of Section 20 and the NW¼ of the SW¼ of Section 21, Township 5 North, Range 68 West of the 6th P.M. Active mining at the site has ceased and reclamation activities at the site are limited to the establishment of dry-land grasses. The site contains two unlined ponds of approximately 24.7 acres and 9.1 acres, and an additional pond located outside of the permit area of approximately 1.1 acres, all exposed to the atmosphere prior to January 1, 1981. As of 2012, all groundwater exposed to the atmosphere after December 31, 1980 has been backfilled so that there are no new evaporative depletions associated with this site. The applicant placed additional backfill on the eastern side of the 24.7-acre pond to meet reclamation requirements. In addition, the Applicant is continuing to backfill the eastern edge of the southern 9.1-acre pond in order to expand the adjacent outdoor storage area. A site inspection performed by the Division of reclamation, Mining and Safety in July 2019 found a total exposed groundwater surface area of approximately 35.7 acres.

Pursuant to § 37-90-137(11)(b), C.R.S. and 2009CW49, a gravel pit operator or property owner does not need to replace depletions that occur due to evaporation from groundwater exposed prior to January 1, 1981 as a result of open mining of sand and gravel, regardless of whether mining

continued after December 31, 1980. Previous SWSPs have recognized that 36.2 acres of water surface was exposed at the Kauffman No. 1 Pit prior to January 1, 1981 ("pre-81"). Due to the backfilling at the site and an overall drop in water levels, the pit now has an exposed surface area of 34.9 acres. Per our *"General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits"* updated April 1, 2011, pre-81 areas are tied to the physical location at which the groundwater was exposed prior to January 1, 1981 with the exception for areas whose reallocation was approved by the State Engineer prior to January 1, 2011. The applicant has provided a map showing the specific location of the pre-81 credit (see Map 3). Because the pre-81 credit associated with the Kauffman No. 1 Pit (36.2 acres) is greater than the current surface area of the Kauffman No. 1 Pit (35.7 acres), and the location of the currently exposed surface area is entirely within the boundaries of the pre-81 area shown in Map 3, there are no evaporative depletions associated with the Kauffman No. 1 Pit that require replacement under this SWSP. Please note that the credits for the pre-81 areas are tied to the locations identified on Map 3 and may not be re-allocated to other areas of groundwater exposure within the gravel pit boundaries. Any pre-81 area that is backfilled will lose the pre-81 exemption should it be excavated in the future. Additionally the backfilling of a pre-81 area shall not create a credit to be used elsewhere.

Consumption of water at the site during this plan period will be limited to use for dust control purposes at the site required during reclamation, and is expected to end once reclamation is complete. Water for dust control purposes will be pumped from one of the unlined ponds on the site. The replacement water will be supplied by a lease with the City of Loveland.

Depletions

The Applicant projects using 5.81 acre-feet of groundwater at the site for dust control purposes during this plan period, as shown in the attached Table 1. Dust control use is assumed to be 100% consumptive. No other use of groundwater at the site is anticipated during this plan period.

The monthly depletions to the Big Thompson River due to past and projected use were lagged from the pit site using the AWAS program developed by the IDS Group at Colorado State University. The parameters used in the model were: a distance from the site to the river (X) which varied as described below; a distance from the river through the site to the no flow aquifer boundary (W) of 4,000 ft; an aquifer transmissivity (T) of 50,000 gallons/ft/day; and a specific yield (S) of 0.2. The distance from the exposed water surface area to the river (X value) has varied over the years as described in the table below.

Years	X (ft)	Basis
2000-11	250	Distance used by Applegate Group (previous consultant) for this time period
2012	1,700	Distance from the river to the pump used to provide water to the City of Loveland property
2013-14	550	Distance from the river to the point water is being pumped for dust control purposes
2015-20	1,450	Distance from the river to the point water is being pumped for dust control purposes

Consumptive use for the period of 2000 through 2012 was obtained from prior SWSP submittals. Consumptive use from 2013 through 2019 is based on records of actual dust control use at the site provided by the applicant (water has historically not been used for dust control purposes during the months of November and December). The lagged stream depletions due to past and projected use at the site are estimated to total 5.18 acre-feet during this plan period, as shown on

the attached Table 3. The Kauffmann No. 1 Pit is directly adjacent to the Big Thompson River, and depletions are assumed to impact the stream in the E½ of Section 20, Township 5 North, Range 68 West of the 6th P.M.

Replacements

Replacement water for this pit will be made available throughout the year from a lease of up to 25 acre-feet of fully consumable water from the City of Loveland ("Loveland"). A copy of the lease, dated November 28, 2018, is attached to this letter. This leased water is also used to replace depletions at the Wagner-Kauffman No. 3 Pit (M-1999-069, WDID 0403008). A total of 0.047 acre-feet of augmentation water has been dedicated to the Wagner-Kauffman No. 3 SWSP (WDID 0402529) during this plan period. The duration of the lease is from January 1, 2019 through December 31, 2021.

Under the terms of the lease, replacements may be made using a variety of water owned by Loveland including, but not limited to, Windy Gap reusable effluent, water stored in Loveland Storage Reservoir (commonly known as Green Ridge Glade Reservoir) (WDID 0403659) as decreed in case no. 82CW202A, and Colorado Big Thompson Project ("C-BT") water. In the event that Loveland plans to use C-BT water as a replacement source, Loveland shall comply with the Interim Rule issued by the Northern Colorado Water Conservancy District ("Northern District") in May 2005, regarding the use of Colorado-Big Thompson ("CBT") Project water in substitute water supply plans. **Prior to such use of C-BT Project water, Loveland is required to notify this office, the division engineer and the water commissioner of the amount of C-BT Project water dedicated to this plan and provide a copy of the Northern District's approval letter as required by paragraph I(g) of the Northern District's May, 2005 Interim Rule.**

The monthly depletions and replacement requirements are indicated on the attached Table 4. A four percent (4%) transit loss has been applied to the required replacement water deliveries, based on the distance from the most upstream augmentation source, Green Ridge Glade Reservoir, to the Kauffman No. 1 Pit. The total amount of replacement water dedicated to the Kauffman No. 1 Pit for this plan period therefore equals 5.387 acre-feet.

Long Term Augmentation

In accordance with the attached 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. Unlined ponds will create long-term injurious stream depletions unless otherwise augmented. 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 groundwater. The DRMS letter identifies four approaches to satisfy this requirement. Approach no. 4 is to obtain approval from the Division of Water Resources that acknowledges compliance with the SEO's requirements pursuant to § 37-90-137(11), C.R.S. Since the operator has backfilled the site so that only pre-81 groundwater areas remain, there are no long-term injurious stream depletions from mining related exposure of groundwater, and the operator is considered to be in compliance with the SEO's requirements. In addition, there is

currently a surety bond outstanding for this project in the amount of $14,727.00 to ensure reclamation of the site is completed as currently proposed.

Conditions of Approval

I hereby approve the proposed substitute water supply plan in accordance with § 37-90-137(11), C.R.S., subject to the following conditions:

1. This plan is approved with the effective date of January 1, 2020 and shall be valid through December 31, 2020 unless otherwise revoked or superseded by decree. If depletions (lagged or projected) will extend beyond the plan's expiration date, a renewal request must be submitted to this office with the statutory fee (currently $257) no later than November 1, 2020. If a renewal request is received after the expiration date of this plan, it may be considered a request for a new SWSP, in which case the $1,593 filing fee will apply. According to the projection shown in the attached Table 3, lagged depletions will extend through December 2021.
2. Well permit no. 42901-F was obtained for this gravel pit in accordance with § 37-90-137(2) and (11), C.R.S. On April 6, 2010 the location of this permit was amended in accordance with the Policy Memorandum 93-1 to reflect the actual location of the gravel pit. The permit allows groundwater use for dewatering, evaporation, water lost in mined product, gravel washing, and dust control. The permit allows a maximum annual appropriation of 43.38 acre-feet, and a maximum post-81 exposed groundwater surface of 24.3 acres. Actual groundwater uses and amounts shall be limited to that specifically allowed through this SWSP.
3. No additional surface area of groundwater shall be exposed at the Kauffman No. 1 Pit beyond that which was exposed prior to January 1, 1981. The annual amount of water used for dust control at the Kauffman No. 1 Pit under this SWSP shall not exceed 5.81 acre-feet unless an amendment is made to this plan.
4. Approval of this plan is for the purposes as stated herein. Any additional uses for which the water may be used must first be approved by this office.
5. All pumping for dust control shall be measured in a manner acceptable to the water commissioner or division engineer.
6. All releases of replacement water must be sufficient to cover all out-of-priority depletions in time, place, and amount and must be made under the direction and/or the approval of the water commissioner. Notice must be provided and approval made by the water commissioner at least 48 hours prior to the release of replacement water, or as required by the water commissioner.
7. The release of replacement water may be aggregated to maximize beneficial use. The water commissioner and/or the division engineer shall determine the rate and timing of an aggregated release.
8. The replacement water that is the subject of this plan cannot be sold or leased to any other entity. As a condition of subsequent renewals of this substitute water supply plan, the replacement water must be appurtenant to this site until a plan for augmentation is obtained. All replacement water must be concurrent with depletions in quantity, timing and locations.

9. In the event Loveland plans to use C-BT Project water as a replacement source, Loveland shall comply with the Interim Rule issued by the District in May 2005 regarding the use of C-BT Project water in substitute water supply plans. Prior to the use of the C-BT Project water, Loveland shall notify this office, the division engineer and the water commissioner of the amount of C-BT Project water dedicated to this plan and provide a copy of the District's approval letter as required by paragraph I(g) of the District's May, 2005 Interim Rule.

10. The name, address and phone number of the contact person who will be responsible for the operation and accounting of this plan must be provided with the accounting form to the division engineer and water commissioner.

11. Adequate accounting of depletions and replacements must be provided to the division engineer in Greeley (DNR_Div1Accounting@state.co.us) and the water commissioner (Jean Lever at Jean.Lever@state.co.us) on a monthly basis unless otherwise approved in writing by the Water Commissioner. Submitted accounting shall conform to the Administration Protocol *"Augmentation Plan Accounting, Division One – South Platte River"* (attached).

    In addition, the applicant shall verify that the City of Loveland ("Loveland") included replacement water for this SWSP in their monthly accounting. It is the Applicant's responsibility to ensure Loveland releases the leased water in the correct time, place, and amount.

12. Conveyance loss for delivery of replacement water to the location where depletions from the Kauffman No. 1 Pit impact the Big Thompson River is subject to assessment and modification as determined by the division engineer.

13. The Division Engineer, or his designated representative, will administer all such water transported in the South Platte River or its tributaries under this SWSP, including water for replacement of depletions, past intervening headgate to ensure that such water is not intercepted or otherwise diminished in quantity by diversion, use or other interference by intervening water rights and to assure that such water remains available and suitable for Applicant's uses under this SWSP, except when any intervening headgate is diverting the entire flow of ("sweeping") the river. In the event that delivery past headgate which sweep the river requires the installation of a bypass structure or the use of an existing bypass structure by agreement with a third-party, Applicant is responsible for either installation a new bypass structure with a continuous recording measuring device(s) as approved by the Water Commissioner or securing an agreement with a third-party to use an existing bypass structure and providing such information and agreement to the Division Engineer.

14. The approval of this substitute water supply plan does not relieve the Applicant and/or the 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 has ceased. If reclamation of the mine site produces a permanent water surface exposing post-81 groundwater to evaporation, an application for a plan for augmentation must be filed with the Division 1 Water Court at least three (3) years prior to the completion of mining to include, but not be limited to, long-term evaporation losses. **Since there are no new depletions occurring after reclamation is complete, only the replacement of lagged depletions shall continue until there is no longer an effect on stream.** Granting of this plan does not imply approval by this office of any such court application(s).

15. In accordance with amendments to § 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 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.
16. 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 or will occur as a result of this plan. Should this SWSP expire without renewal or be revoked prior to adjudication of a permanent plan for augmentation, all use of water at the pit must cease immediately.
17. 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 this plan. This decision shall not bind the State Engineer to act in a similar manner in any other applications involving other SWSPs, 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.

Please contact Sarah Brucker in Denver at (303) 866-3581, or Michael Hein in Greeley at (970) 352-8712, if you have any questions concerning this approval.

Sincerely,

for Jeff Deatherage, P.E.
Chief of Water Supply

Attachments: Map 3
Tables 1, 3, and 4
City of Loveland Lease
April 30, 2010 letter from DRMS
Accounting Protocol

Cc: Michael Hein, Lead Assistant Division Engineer, Michael.Hein@state.co.us
810 9th Street, Ste. 200, Greeley, CO 80631, (970) 352-8712

Louis Flink, Tabulation/Diversion Records Coordinator, Louis.Flink@state.co.us

Jean Lever, Water Commissioner, Water District 4, Jean.Lever@state.co.us

Amy Eschberger, Division of Reclamation Mining and Safety, Amy.Eschberger@state.co.us

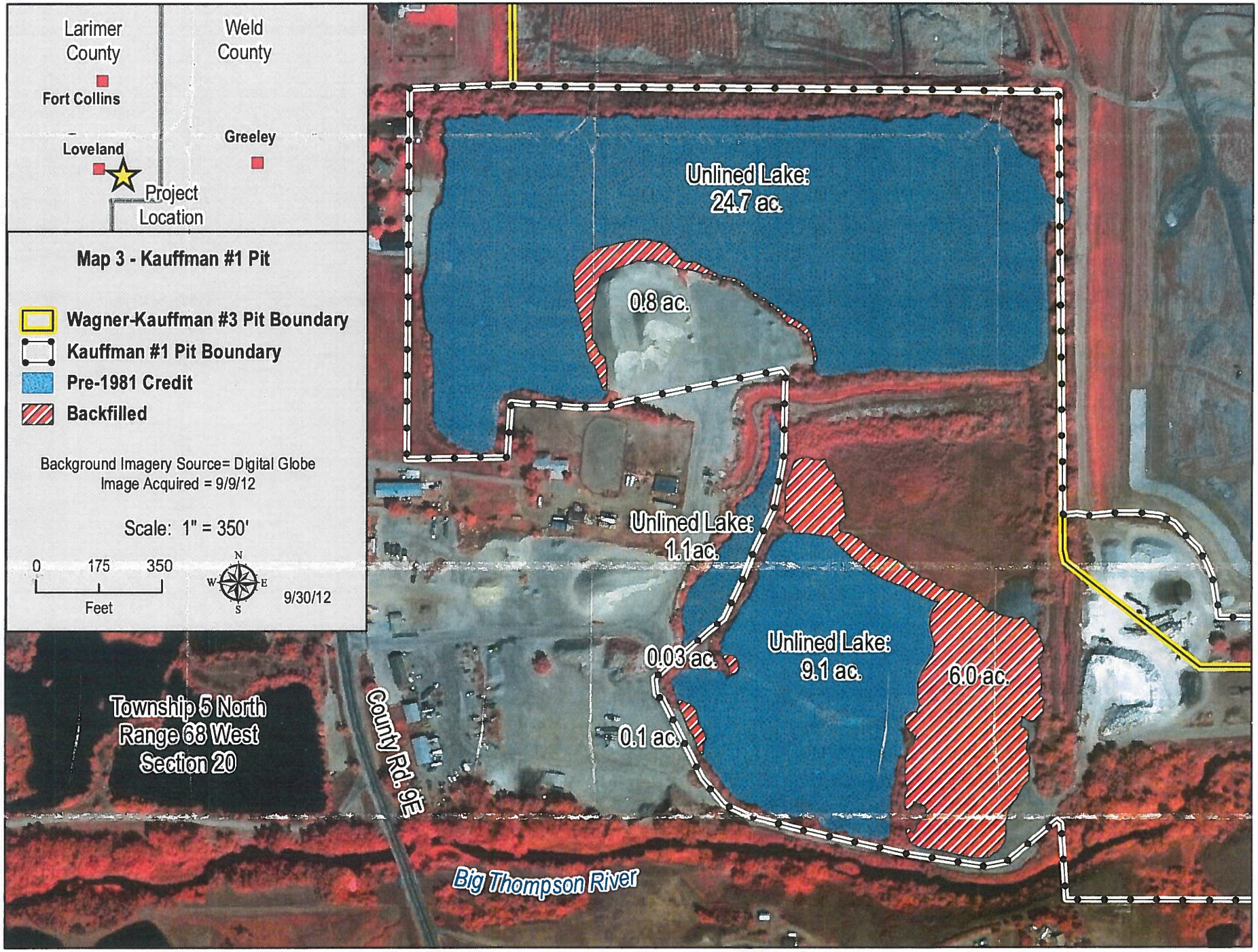
Larimer County
Weld County
Fort Collins
Loveland
Greeley
Project Location
Map 3 - Kauffman #1 Pit
Wagner-Kauffman #3 Pit Boundary
Kauffman #1 Pit Boundary
Pre-1981 Credit
Backfilled
Background Imagery Source= Digital Globe
Image Acquired = 9/9/12
Scale: 1" = 350'
0
175
350
Feet
N
W
E
S
9/30/12
Unlined Lake: 24.7 ac.
0.8 ac.
Unlined Lake: 1.1ac.
0.03 ac.
Unlined Lake: 9.1 ac.
6.0 ac.
0.1 ac.
Township 5 North
Range 68 West
Section 20
County Rd. 9E
Big Thompson River

Table 1

Kauffman Pit #1
Jake Kauffman and Son, Inc.

Consumptive Use - 2020

Month	Aggregate Production (Tons)	Water Retained in Product (ac-ft)	Water Used for Dust Control (ac-ft)	Water Used for Irrigation (ac-ft)	Total Operational Consumptive Use (ac-ft)	Evaporative Consumptive Use (ac-ft)	Total Consumptive Use (ac-ft)
January	0	0.00	0.00	0.00	0.00	0.00	0.00
February	0	0.00	0.00	0.00	0.00	0.00	0.00
March	0	0.00	0.46	0.00	0.46	0.00	0.46
April	0	0.00	0.74	0.00	0.74	0.00	0.74
May	0	0.00	0.74	0.00	0.74	0.00	0.74
June	0	0.00	0.83	0.00	0.83	0.00	0.83
July	0	0.00	0.83	0.00	0.83	0.00	0.83
August	0	0.00	0.83	0.00	0.83	0.00	0.83
September	0	0.00	0.83	0.00	0.83	0.00	0.83
October	0	0.00	0.55	0.00	0.55	0.00	0.55
November	0	0.00	0.00	0.00	0.00	0.00	0.00
December	0	0.00	0.00	0.00	0.00	0.00	0.00
Totals	**0**	**0.00**	**5.81**	**0.00**	**5.81**	**0.00**	**5.81**

Table 3

Kauffman Pit #1
Jake Kauffman and Son, Inc.

Lagged Depletion Values (ac-ft) - Consumptive Use from 2000 - 2021 (projected)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
2004	-0.90	-1.04	-1.31	-2.19	-2.96	-3.97	-4.50	-4.21	-2.93	-2.35	-1.41	-1.05	-28.82
2005	-0.80	-0.89	-1.15	-1.88	-2.53	-3.36	-3.79	-3.55	-2.47	-1.98	-1.20	-0.87	-24.47
2006	-0.75	-0.86	-1.12	-1.85	-2.51	-3.34	-3.78	-3.54	-2.46	-1.97	-1.19	-0.86	-24.23
2007	-0.75	-0.85	-1.04	-1.74	-2.33	-3.14	-3.57	-3.35	-2.33	-1.87	-1.12	-0.86	-22.94
2008	-0.73	-0.82	-0.96	-1.61	-2.16	-2.93	-3.33	-3.13	-2.19	-1.76	-1.04	-0.83	-21.48
2009	-0.63	-0.67	-0.79	-1.31	-1.74	-2.35	-2.67	-2.50	-1.74	-1.40	-0.83	-0.67	-17.29
2010	-0.57	-0.64	-0.76	-1.28	-1.72	-2.33	-2.66	-2.49	-1.73	-1.39	-0.83	-0.66	-17.06
2011	-0.57	-0.63	-0.76	-1.28	-1.72	-2.33	-2.65	-2.49	-1.73	-1.39	-0.83	-0.66	-17.03
2012	-0.26	-0.24	-0.33	-0.54	-0.73	-0.95	-1.18	-1.33	-1.37	-1.32	-1.18	-0.96	-10.39
2013	-0.79	-0.64	-0.54	-0.46	-0.43	-0.71	-0.74	-0.70	-0.48	-0.29	-0.21	-0.17	-6.17
2014	-0.15	-0.13	-0.11	-0.09	-0.13	-0.41	-0.49	-0.50	-0.56	-0.44	-0.19	-0.10	-3.30
2015	-0.08	-0.06	-0.09	-0.16	-0.15	-0.11	-0.17	-0.32	-0.39	-0.31	-0.23	-0.16	-2.23
2016	-0.13	-0.11	-0.10	-0.14	-0.21	-0.31	-0.42	-0.48	-0.48	-0.46	-0.39	-0.26	-3.51
2017	-0.21	-0.17	-0.19	-0.27	-0.30	-0.32	-0.39	-0.47	-0.49	-0.37	-0.25	-0.20	-3.63
2018	-0.17	-0.14	-0.18	-0.30	-0.39	-0.45	-0.51	-0.55	-0.58	-0.55	-0.41	-0.29	-4.52
2019	-0.24	-0.20	-0.19	-0.21	-0.24	-0.29	-0.37	-0.45	-0.47	-0.41	-0.32	-0.23	-3.62
2020	**-0.18**	**-0.16**	**-0.20**	**-0.34**	**-0.45**	**-0.52**	**-0.58**	**-0.62**	**-0.65**	**-0.64**	**-0.51**	**-0.35**	**-5.18**
2021	-0.28	-0.23	-0.20	-0.17	-0.15	-0.12	-0.11	-0.09	-0.08	-0.07	-0.06	-0.05	-1.59

Notes:

For the 2000 - 2011 period, the following parameters were used in the AWAS Model: W -= 4,000 ft, Transmissivity = 50,000, Specific Yield = 0.2, X = 250 ft
For 2012, the following parameters were used in the AWAS Model: W -= 4,000 ft, Transmissivity = 50,000, Specific Yield = 0.2, X = 1,700 ft
For the 2013-2014 period, the following parameters were used in the AWAS Model: W -= 4,000 ft, Transmissivity = 50,000, Specific Yield = 0.2, X = 550 ft
For 2015 - 2020, the following parameters were used in the AWAS Model: W -= 4,000 ft, Transmissivity = 50,000, Specific Yield = 0.2, X = 1,450 ft

Table 4
Kauffman Pit #1
Jake Kauffman and Son, Inc.

2020 Water Balance - Lagged Depletions and Replacement Supplies from City of Loveland

Month	Consumptive Use (ac-ft)	Lagged Depletions (ac-ft)	City of Loveland Transit Losses (ac-ft)	Total Water Required from City of Loveland (ac-ft)
January	0.00	-0.184	-0.007	-0.191
February	0.00	-0.155	-0.006	-0.161
March	0.46	-0.198	-0.008	-0.206
April	0.74	-0.338	-0.014	-0.352
May	0.74	-0.449	-0.018	-0.467
June	0.83	-0.517	-0.021	-0.538
July	0.83	-0.578	-0.023	-0.601
August	0.83	-0.618	-0.025	-0.643
September	0.83	-0.650	-0.026	-0.676
October	0.55	-0.636	-0.025	-0.661
November	0.00	-0.506	-0.020	-0.526
December	0.00	-0.351	-0.014	-0.365
Totals	**5.81**	**-5.18**	**-0.207**	**-5.387**

2021 Water Balance - Lagged Depletions and Replacement Supplies from City of Loveland

Month	Consumptive Use (ac-ft)	Lagged Depletions (ac-ft)	City of Loveland Transit Losses (ac-ft)	Total Water Required from City of Loveland (ac-ft)
January	0.00	-0.279	-0.011	-0.290
February	0.00	-0.233	-0.009	-0.242
March	0.00	-0.198	-0.008	-0.206
April	0.00	-0.169	-0.007	-0.176
May	0.00	-0.145	-0.006	-0.151
June	0.00	-0.124	-0.005	-0.129
July	0.00	-0.106	-0.004	-0.110
August	0.00	-0.090	-0.004	-0.094
September	0.00	-0.077	-0.003	-0.080
October	0.00	-0.066	-0.003	-0.069
November	0.00	-0.056	-0.002	-0.058
December	0.00	-0.048	-0.002	-0.050
Totals	**0.00**	**-1.59**	**-0.064**	**-1.655**

WATER LEASE

THIS WATER LEASE ("Lease") is made and entered into this 28th day of November 2018, by and between the CITY OF LOVELAND, COLORADO, a home rule municipality, whose address is 500 East Third Street, Loveland, Colorado 80537 ("City"), and JAKE KAUFFMAN & SON, INC. ("Lessee"), A Colorado corporation, whose address is 808 South County Road 9E, Loveland, Colorado 80537.

WHEREAS, Lessee desires to lease water that may be used for augmentation or replacement for the purpose of augmenting certain wells, ponds, or pumps along the Big Thompson River; and

WHEREAS, the City is the owner of certain water that may be used for purposes of augmentation or replacement and is willing to lease, on a temporary basis, a portion of its water to Lessee on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, the parties agree as follows:

1. Term. This Water Lease shall be effective for a term of three (3) years commencing January 1, 2019 and ending December 31, 2021, unless sooner terminated as provided herein. It is understood by Lessee that the leased water may not be available to Lessee in any future year and Lessee specifically waives any claim, legal or equitable, for the renewal of this lease and specifically disclaims any expectation for such renewal.

2. Water. The City shall provide up to twenty-five (25) acre-feet of water for Lessee's purposes, which may include, but is not limited to Windy Gap water, water stored in Green Ridge Glade Reservoir, decant water from the Loveland Water Treatment Plant, effluent from the Loveland Waste Water Treatment Plant, and any other source legally and physically available to the City that may be used for augmentation or replacement.

Lessee must use the water for replacement of depletions, including evaporation, at Kauffman #1 Pit and Wagner/Kauffman #3 Pit, M-99-069, or as directed by the River Commissioner or the Office of the State Engineer. Lessee shall use the leased water only for augmentation or replacement purposes according to the terms of a substitute water supply plan (SWSP) approved by the Colorado Division of Water Resources. Lessee may not sell or lease the water and may not use it for any other purposes. Lessee shall take and use the leased water to the fullest extent possible, and shall undertake no action that could be construed as abandonment of the water rights.

3. Annual Lease Payment.

a. Regardless of water supply source, Lessee shall annually pay the City Four Hundred Dollars ($400) per acre-foot of water delivered under this Lease.

b. The City will submit an annual bill to the Lessee for all water supplied, in accordance with this Water Lease.

c. Lessee shall pay said amount to the City within thirty (30) days of receiving the City's bill.

d. Lessee shall supply to the City an anticipated schedule of replacement for the upcoming calendar year by December 1 of the previous calendar year. The Lessee is responsible for notifying the City if this schedule changes.

e. The City shall coordinate replacement or delivery of the leased water to the Big Thompson River with the River Commission or the Office of the Division Engineer for Water Division 1. Accounting of such delivery shall be made available to the River Commission or the Office of the Division Engineer for Water Division 1

4. Termination by City. In the event the City has an urgent need for water, as determined in the sole discretion of the City, the City may unilaterally terminate this Water Lease without cause. The City will endeavor to give Lessee thirty (30) days notice of such termination, but shall not be required to do so.

5. Termination by Lessee. After December 2019, the Lessee may terminate this lease providing written notice to the City prior to January 1 of the year in which the Water Lease is intended to be terminated. So long as lessee provides such advance notice, Lessee shall not be obligated to pay the Annual Lease payment for the year in which the Water Lease is terminated or any subsequent year.

6. Termination of Delivery for Nonpayment. In the event Lessee fails to pay for water when payment is due as set forth in paragraph 3, above, the City, in addition to seeking recovery of sums due, may terminate delivery of irrigation water to Lessee.

7. No Sublease Allowed. The Lessee shall not rent, sublet, or otherwise convey to any person or entity the right to use the leased water.

8. Limitations of Water Lease. The City grants no interest in the leased water to the Lessee other than as explicitly set forth in this Water Lease. Lessee shall make no claims to any rights, title, or interest in the leased water other than as explicitly set forth in this Water Lease. This Water Lease does not create a partnership or joint venture of any kind between the Parties, and the Lessee shall bear the entirety of any loss, cost, or expense incurred through its use of the leased water on the Property.

9. No Warranties. The City represents that it is the owner of the shares leased to Lessee but does not make any express or implied warranties or representations concerning the quality of the leased water or its suitability for use for irrigation purposes by Lessee. Delivery of water by the City under this Water Lease shall be on an "as is" basis only, and the City neither expressly nor impliedly warrants or guarantees the quality of the water or the quantity of water that will be yielded from the shares leased to Lessee. Lessee shall not hold the City liable for

any failure in delivery of the leased water, including, but not limited to, any failure in delivery due to force of nature or failure of water supply infrastructure.

10. Notices. Written notices required under this Water Lease and all other correspondence between the parties shall be directed to the following and shall be deemed received when hand-delivered or three (3) days after being sent by certified mail, return receipt requested:

If to the City: City of Loveland Water and Power Department
Attention: Larry Howard, Senior Civil Engineer – Water Resources
200 North Wilson Avenue
Loveland, Colorado 80537

If to Lessee: Jake Kauffman & Son, Inc.
808 South County Road 9E
Loveland, Colorado 80537

11. Lessee agrees to exercise its rights under this Water Lease at its own risk. Lessee shall, to the extent authorized by Colorado law, indemnify and hold harmless the City from and against any cost, expense, or liability arising out of this Water Lease or related activities. Nothing in this Water Lease is intended to constitute a waiver, express or implied, of any of the immunities, rights, benefits, protections, or other provisions of the Colorado Governmental Immunity Act, C.R.S. §24-10-101 *et seq.*, as applicable now or hereafter amended.

12. Governing Law and Venue. This Water Lease shall be governed by the laws of the State of Colorado, and venue shall be in the County of Larimer, State of Colorado or the Water Court for Water Division 1 in the State of Colorado.

13. Severability. In the event a court of competent jurisdiction holds any provision of this Water Lease invalid or unenforceable, such holding shall not invalidate or render unenforceable any other provision of this Water Lease.

14. Headings. Paragraph headings used in this Water Lease are for convenience of reference and shall in no way control or affect the meaning or interpretation of any provision of this Lease.

15. Assignability. Lessee shall not assign this Water Lease without the City's prior written consent.

16. Binding Effect. This Water Lease shall be binding upon, and shall inure to the benefit of, the parties hereto and their respective heirs, personal representatives, successors, and assigns.

17. Entire Agreement. This Water Lease contains the entire agreement of the parties relating to the subject matter hereof and, except as provided herein, may not be modified or amended except by written agreement of the parties.

IN WITNESS WHEREOF, the parties have executed this Water Lease on the day and year first above written.

CITY OF LOVELAND, COLORADO

By: _____
Larry Howard
Department of Water and Power

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
Assistant City Attorney

CITY OF LOVELAND SEAL COLORADO

Jake Kauffman & Son, Inc.

By: _____
Shane Kauffman

) ss.
COUNTY OF LARIMER)

The foregoing Water Lease was acknowledged before me this 27th day of November, 2018, by Michelle Erickson.

Witness my hand and official seal.

_____
Notary Public

My commission expires 12-14-2019.

MICHELLE R ERICKSON
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20034039540
MY COMMISSION EXPIRES DEC. 14, 2019

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY
Department of Natural Resources

1313 Sherman St., Room 215
Denver, Colorado 80203
Phone: (303) 866-3567
FAX: (303) 832-8106

M-1978-327

COLORADO DIVISION OF RECLAMATION MINING & SAFETY

April 30, 2010

Jake Kauffman & Son, Inc
808 SCR 9E
Loveland, CO 805370000

RE: Mining Operations with Exposed Ground water

To Whom It May Concern:

The Division of Reclamation Mining and Safety is responsible for ensuring that Sand and Gravel mining operators comply with the requirements of the Colorado Land Reclamation Act for the Extraction of Construction Materials (Act) and the Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials (Rules). Among these requirements are provisions for the protection of water resources. The Act requires that reclamation plans must ensure minimization of disturbances to the prevailing hydrologic balance, including disturbances to the quantity of water in the area affected by mining and in the surrounding areas. § 34-32.5-116(4)(h). Rule 3.1.6(1)(a) requires compliance with Colorado water laws and regulations governing injury to existing water rights both during and after mining. Permits must specify how the permittee will comply with applicable Colorado water laws and regulations governing injury to existing water right rights. Rule 6.3.3(j); Rule 6.4.5(2)(c). After an extensive review, the Division determined that several operators may not have appropriate permit conditions to address certain reclamation liabilities arising from impacts to water resources.

In September 2009 the Division of Water Resources (DWR) updated its Guidelines for Sand and Gravel Pits. These guidelines provide guidance on achieving compliance with state law regarding replacement of depletions from sand and gravel mining, thus the guidelines provide a benchmark for the protection of hydrologic balance required under the Act and Rules. As noted in the Guidelines, sand and gravel operations which expose groundwater without complying with state law create a reclamation liability by impacting available groundwater.

State law requires that any person exposing ground water must obtain a well permit from the SEO pursuant to § 37-90-137(11). Because exposed groundwater results in out-of-priority water depletions, operations which expose ground water must also eventually obtain a water-court approved augmentation plan. Currently, several operators do not have either an augmentation plan or bonding to provide an alternative method to mitigate injurious stream depletions that result from mining-related exposure of ground water. The Division has a statutory duty to ensure that lands affected by mining are reclaimed in a manner that complies with state law and to ensure that operators have sufficient bonding to achieve reclamation. In order to assist operators in achieving compliance with these requirements, the Division proposes that, by April 30, 2011, operators should contact the Division and agree upon a plan for achieving compliance.

The Division has identified four approaches for operators:

1. File a financial warranty that will ensure backfilling of the pit to cover the exposed ground water to a depth of two feet above the static ground water level or,

2. Obtain a court approved augmentation plan prior to exposing ground water or,

3. File a financial warranty to cover the cost of installing a clay liner or slurry wall that meets the Division of Water Resources requirements for preventing ground water exposure or,

4. Obtain approval from the Division of Water Resources that acknowledges compliance with the SEO's requirements pursuant to § 37-90-137(11).

The Division will work with operators on an individual basis as they move to implement one of these plans. It is likely that options 1 and 3 will require the submittal of a technical revision or an amendment to the existing permit depending on the nature of the current mining and reclamation plan and the proposed changes. Increased financial warranties, as a result of these modifications, may be posted in a phased manner not to exceed three years. Amendments or revisions currently under review will be required to be approved by April 30, 2011 and may use the phased financial warranty approach described above. New applications going forward or presently under review by the Division will be required to meet the requirements of one of the options 1-4 at the time of application approval. Failure of affected operators to initiate contact with the Division and gain compliance as described above could result in an enforcement action being issued by the Division.

If you have any questions, please contact Tony Waldron at 303-866-3567, extension 8150.

cc: M1999069 Wagner/Kauffman Pit #3
M1978327 Kauffman Pit

ADMINISTRATION PROTOCOL
Augmentation Plan Accounting
Division One – South Platte River

This protocol establishes the accounting and reporting process required to enable the division engineer's office to confirm that depletions from all out-of-priority diversions are being replaced so as to prevent injury to vested water rights. The accounting must comport with established "cradle to grave" accounting standards, which allow an audit of the information to track exactly how the data is manipulated as it is translated from raw input data to the resultant impact on the river. While this protocol is subordinate to any decreed language addressing specific accounting requirements, it generally addresses the minimum requirements of such accounting.

The accounting must use the standard convention where a depletion is "negative" and an accretion or other replacement source is "positive". The sum of the impacts will then result in either a "negative" or "positive" impact on the stream.

Wells in plans that have a negative stream impact must provide additional replacement water, curtail pumping or both until the impact is no longer negative. Plans with a negative stream impact that fail to curtail pumping will be ordered to stop pumping until such time as the projected impact of the wells is no longer negative.

1. Accounting must be submitted electronically to the water commissioner (call 970-352-8712 to obtain email address) and division engineer at Div1Accounting@state.co.us within 30 days of the end of the month for which the accounting is being submitted.
2. The accounting must provide the **contact information** including name and address for:
    a. the owner(s) of each well
    b. the person responsible for submitting the accounting
    c. the plan administrator and/or the plan attorney.
3. All **input data** must be in one location, such as an "Input" worksheet, etc. The accounting must show all pumping. Input data includes the information listed below.
    a. The required input data for each **well** is:
        i. the monthly meter reading for wells that use a **presumptive depletion factor** (PDF) to determine the associated consumptive use (CU); or
        ii. the monthly CU in acre-feet (AF) for wells that have a decree or approved SWSP that allows the wells to use a **water balance methodology** to determine the CU of the well. The analysis used to determine the CU must be included with the accounting.
        iii. Wells that are decreed as an **alternate point of diversion** (APOD) to a surface water right must report pumping on a daily basis if any of the diversion during the month is claimed as being "in priority". (See *Administration Protocol – APOD Wells* for more details.)

iv. The well meter serial readings for each meter shall be included if there is more than one meter on a well.

b. Each **recharge site** must comply with the *Administration Protocol - Recharge* and must report the:

i. daily volume in AF diverted into the site;

ii. monthly volume in AF released from the site;

iii. monthly net evaporative loss in AF;

iv. volume of water in AF remaining at the end of the month.

c. The accounting must identify each source of **fully consumable replacement water** actually delivered to the location impacted by the depletions. To demonstrate the water was actually delivered to the required location will require the following information:

i. the originating source of the water, date released and volume of water released;

ii. transportation losses to point of diversion or use, if any, using stream loss factors approved by the water commissioner;

iii. the volume of water actually delivered on a daily basis past any surface water diversion that was sweeping the river as corroborated by the water commissioner.

(See *Administration Protocol – Delivery of Water* for more details on delivering water.)

d. For each source of **replacement water that has been "changed"** for use as a source of augmentation, such as changed reservoir shares, ditch bypass credits or credits from dry-up, etc., the following input information must be reported:

i. the basis and volume of the return flow obligation;

ii. the location the changed water was historically used; this will be the location used to determine the timing of the return flow impact on the river.

4. The accounting must include a monthly **projection** of the plan's operation at least through March 31 of the next calendar year.

5. The accounting must include all input and output files associated with **modeling the delayed impact** of diversions. The output from the modeling must report to a summary table that shows, by month, the ongoing depletions associated with pumping, return flow obligations, etc. and accretions from recharge operations.

6. A **net impact** summary must show the out-of-priority depletions, accretions from each recharge site, volume of replacement water actually delivered to the location of the depletions and the resultant net impact on **a daily basis**. If necessary, the net impact must be done by river reach.

   While **modeling** may use a **monthly step function** to determine the depletions from pumping and accretions from recharge, the monthly result must then be **divided by the number of days in the month** in order to **simulate a daily impact**, as water rights are administered on a daily and not monthly basis.

Replacement water must be provided such that the **daily net impact** (using the simulated daily numbers from the modeling) **is not negative**. If a well is out-of-priority for 15 days during a month, replacement must be made only for the 15 days the well is out-of-priority. The replacement must be made, however, on a daily basis as opposed to, for instance, making an aggregated release equal to the volume of the out-of-priority depletions. Likewise, the simulated daily accretion will only count toward replacing the depletion on the days the well is out-of-priority. The accretions that report to the river when the well is in priority cannot be used to replace the out-of-priority depletions.

The **accretions that impact the river when the well is in priority** are not considered "excess" unless the cumulative net impact of the well is not negative for the entire irrigation year to date. (The irrigation year for this purpose is April 1 thru the following March 31.) Until such time as the cumulative net impact is not negative, the accretions must simply be released to the river and cannot be leased to other plans or recaptured. Plans that show a positive cumulative net impact are still required to make replacements on a daily basis; the cumulative analysis only effects whether or not accretions reporting to the river when the well is in priority are considered "excess" and are, therefore, able to be recaptured.

7. The basis for determining that the depletions are **out-of-priority** must be clearly established and all steps in the calculation included in the accounting. The analysis may be done, unless otherwise limited by decree, for each well or groups of wells, provided the most junior water right associated with the group of wells is used as the reference water right for the group's out-of-priority status.

8. Accounting must include **actual information** for the irrigation year through the month for which the accounting is being submitted **AND projections** of the plan operation through March 31 of the next calendar year.

9. The following **naming convention** must be used for all files submitted pursuant to item 1:

   "Plan**WDID**_YYMMDD"

   where: PlanWDID is the WDID assigned by the division engineer's office
   YYMMDD corresponds to the date the accounting is submitted.

   As an example, the assigned WDID for the former GASP plan was 0103333. If accounting using Excel® was submitted for that plan on May 15, 2004, the file name would be:

   "0103333_040515.xls"

   The name of the file must be in the subject line of the email.

10. All accounting must be reported using the **WDID** for the structure, at a minimum. Other information such as well name, permit number, etc. may also be included as desired. <u>All wells must be decreed by the water court, permitted by the state engineer or included in a decreed plan for augmentation</u>. Unregistered and undecreed wells cannot, in the opinion of the division engineer, be effectively administered because of the need to know the location, allowable diversion rate and use of the well - information that is only available from the decree or permitting process.

11. If a well is covered in multiple SWSP's or augmentation plans, the monthly meter readings must be the same in the accounting for each plan covering the subject well. The accounting for every plan covering the well shall state the proportionate pumping amount covered by each plan to assure all out-of-priority depletions are replaced.

12. The following additional accounting is required for sources of replacement water used for more than one plan. The water right owner of the replacement water is responsible for accounting for the total replacement amount and how much each plan is using of that total amount. The accounting for portions of the replacement water by other users must match the accounting of the water right owner. The amount of replacement water used by the water right owner and other users together shall not exceed the total replacement amount available.

    (See *Administration Protocol – Use Of Unnamed Sources For Replacement* for additional requirements concerning required notice and approval of sources of replacement not specifically described in a SWSP or augmentation plan*)*