COLORADO
Division of Water Resources
Department of Natural Resources

January 11, 2018

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

RE: Wagner-Kauffman No. 3 Substitute Water Supply Plan (WDID 0402529, Plan ID 3617)
Wagner-Kauffman No. 3 Pit, DRMS No. M-1999-069 (WDID 0403008)
Sections 17, 20 and 21, T5N, R68W, 6th P.M.
Water Division 1, Water District 4, Larimer County

Approval Period: January 1, 2018 through December 31, 2018
Contact Information for Mr. Todd Williams: 303-653-3940; tlwwater@msn.com

Dear Mr. Williams:

We have reviewed your letter dated December 13, 2017 requesting renewal of the above referenced substitute water supply plan for a sand and gravel pit on behalf of Jake Kauffman and Son, Inc. The required fee of $257.00 for the renewal of this substitute water supply plan has been submitted (receipt number 3683870). The original supply plan was approved on December 16, 1999, and was most recently approved on December 19, 2016 for operations through December 31, 2017.

SWSP Operation

This plan seeks to replace depletions resulting from mining operations at the Wagner/Kauffman No. 3 Pit ("W-K #3 Pit"). The W-K #3 Pit (WDID 0403008, well permit no. 65258-F) is located in Larimer County in portions of Sections 17, 20 and 21, Township 5 North, Range 68 West of the 6th P.M. Mining activities at the W-K #3 Pit are complete but reclamation activities will continue during 2018. The remaining reclamation activities include finishing the construction of the impermeable liner for the pit in the northwest portion of the site, continuing to backfill the pit in the northeast portion of the site, and finalizing the removal of topsoil stockpiled within the lined portion of the site.

In the spring of 2017, the mined pit in the northeast portion of the site had an exposed water surface area due to wet weather and silt deposited by the 2013 flood. The Applicant has backfilled the area with clean fill material, and the exposed water surface area was eliminated by mid-September of 2017. Lagged depletions associated with the additional exposed water surface area will continue to be replaced under this SWSP.

The pit in the center of the site was fully lined and a liner test initiated in 2013, however the test was suspended prior to completion due to flooding that occurred in September 2013. The Applicant monitored the water level in the lined gravel pit (as dewatering occurred in 2014, 2015 and 2016) to be sure that the liner for the pit was not damaged during the 2013 flood and was not

intercepting ground water. The monitoring done in 2014, 2015, and 2016 by the Applicant revealed that the compacted clay liner is intact, the lined pit is not intercepting groundwater and the lined pit is not storing any out-of-priority surface water. During the summer and fall of 2016 the Applicant performed the required 90-day leak test. The liner was approved in a letter dated January 17, 2017 as meeting the design standard, and the Kauffman Reservoir (aka East Reservoir, WDID 0403385) is now classified as a lined reservoir.

During this SWSP approval period, depletions will be limited to evaporative losses from exposed ground water in the dewatering trench at the northwest gravel pit, as shown on attached Map 3. There will be no aggregate production or other consumption of ground water at the site during this SWSP approval period. The replacement water will be supplied by a lease from the City of Loveland.

Depletions

Depletions at the site are limited to evaporation from exposed ground water in the dewatering trench at the northwest pit. The current exposed ground water surface area is 0.03 acres, based on an estimated trench width of 3 feet and length of 420 feet. Net evaporative depletions were calculated using a gross annual evaporation of 38 inches from the exposed ground water surface, with a credit of 9.7 inches for effective precipitation. The net depletion of ground water due to evaporation from the 0.03 acres exposed at the W-K #3 Pit totals 0.071 acre-feet for this plan period, as shown on the attached Table 1.

The W-K #3 Pit site will continue to be dewatered during this plan period. Since 2000, all water pumped from the dewatering trench has been discharged into an adjacent unlined 24.7-acre pond which is part of the Kauffman No. 1 Pit (DRMS M-1978-327, WDID 0403009). The Kauffman No. 1 Pit is covered under a separate SWSP (WDID 0402530) and is owned and operated by the Applicant. The current exposed ground water in Kauffman No. 1 Pit was exposed prior to 1981 in connection with sand and gravel mining and as such evaporation from the Kauffman No. 1 Pit is not required to be augmented (see § 37-90-137(11)(b), C.R.S., and 2009CW49). Due to the large size of the Kauffman No. 1 Pit relative to the volume of water projected to be pumped from the dewatering trench, the additional volume attributable to the dewatering flows will not create a measureable increase in evaporation. The dewatering pump discharges into the Kauffman No. 1 Pit at a location approximately 100 feet from the intake point. You have estimated that water discharged into the Kauffman No. 1 Pit will accrue to the Big Thompson River at approximately the same timing as depletions from pumping the water out of the W-K #3 Pit. So long as dewatering at the W-K #3 Pit is continuous during this plan period and all dewatering flows continue to be discharged into the adjacent unlined Kauffman No. 1 Pit, the assumption that there will be no net depletions as a result of dewatering at the W-K #3 Pit will be accepted for the purposes of this SWSP.

The monthly depletions to the Big Thompson River due to past and projected use at the W-K #3 Pit were lagged from the pit site using the AWAS program developed by the IDS Group at Colorado State University. The following parameters were used in the stream depletion model for the period of 2012 through 2017: a distance from the centroid of the exposed ground water to the river (X) of 2,130 feet; 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. Lagged depletions resulting from mining operations prior to 2012 were determined using a

previously approved distance from the exposed water surface area to the river (X value) of 200 feet.

The lagged stream depletions due to past and projected operations at the site are estimated to total 1.69 acre-feet during this plan period, as shown on the attached Table 4.

Replacements

Replacement water for this pit will continue to be made available throughout the year from a lease of 65.0 acre-feet of fully consumable water from the City of Loveland ("Loveland"). A copy of the lease is attached to this letter. This leased water is also used to replace depletions at the Kauffman No. 1 Pit (M-1978-327, WDID 0403009). A total of 5.481 acre-feet of water has been dedicated to the Kauffman No. 1 Pit SWSP (WDID 0402530) during this plan period. The duration of the lease is from January 1, 2015 through December 31, 2018.

Under the terms of the lease, replacements can 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 5. 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 W-K #3 Pit.

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. 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 DRMS letter identifies four approaches to satisfy this requirement. Approach no. 3 is to file a financial warranty to cover the cost of installing a liner. There is currently a surety bond outstanding for this project in the amount of $570,000 to assure the 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, 2018 and shall be valid through December 31, 2018 unless otherwise revoked or modified. If either lagged or projected depletions 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, 2018.** According to the projection shown in the attached Table 4, lagged depletions will extend through October 2019.
2. A well permit was obtained for the current use and exposed pond surface area of the gravel pit in accordance with § 37-90-137(2) and (11), C.R.S., permit no. 65258-F.
3. The total surface area of the groundwater exposed after December 31, 1980 must not exceed 0.03 acres, which results in a maximum evaporative annual loss at the Wagner/Kauffman No. 3 Pit of 0.071 acre-feet.
4. No amount of product shall be mined below the ground water table, and no aggregate washing is permitted during this SWSP approval.
5. The Applicant has not proposed to use any water for dust suppression under this SWSP. Therefore ground water from this site cannot be used for dust suppression, unless an amendment is made to this plan.
6. Total consumption at the Wagner/Kauffman No. 3 Pit must not exceed the aforementioned amount unless an amendment is made to this plan.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.

13. The Applicant is required to provide accounting, acceptable to the water commissioner, to ensure that the lined pit is not intercepting groundwater and that the lined pit is not storing any out-of-priority surface water. 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 City of Loveland ("Loveland") includes 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.

14. Conveyance loss for delivery of replacement water to the location where depletions from the Wagner/Kauffman No. 3 Pit affect the Big Thompson River is subject to assessment and modification as determined by the division engineer.

15. 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.

16. 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 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. 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).

17. If dewatering of the site is discontinued, the pit would fill creating additional depletions to the stream system due to increased evaporation. To assure that additional depletions to the river do not occur, a bond for $570,000 has been obtained through the Colorado Division of Reclamation, Mining, and Safety ("DRMS") for lining or backfilling of the pits. Therefore, if the dewatering is discontinued this bond can finance the completion of the lining of these pits or the backfilling, thus preventing depletions to the stream system. This bond is required to be in place until the two liners are approved by the State Engineer's Office and until DRMS authorizes their release, or a partial release.

18. 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 if the substitute supply is of a quality to meet requirements of use to which the senior appropriation receiving the substituted supply has normally been put. As such, water quality data or analysis may be requested at any time to determine if the requirements of use of the senior appropriator are met.
19. 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.
20. 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, 4, and 5
City of Loveland Lease
April 30, 2010 letter from DRMS
Accounting Protocol

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

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

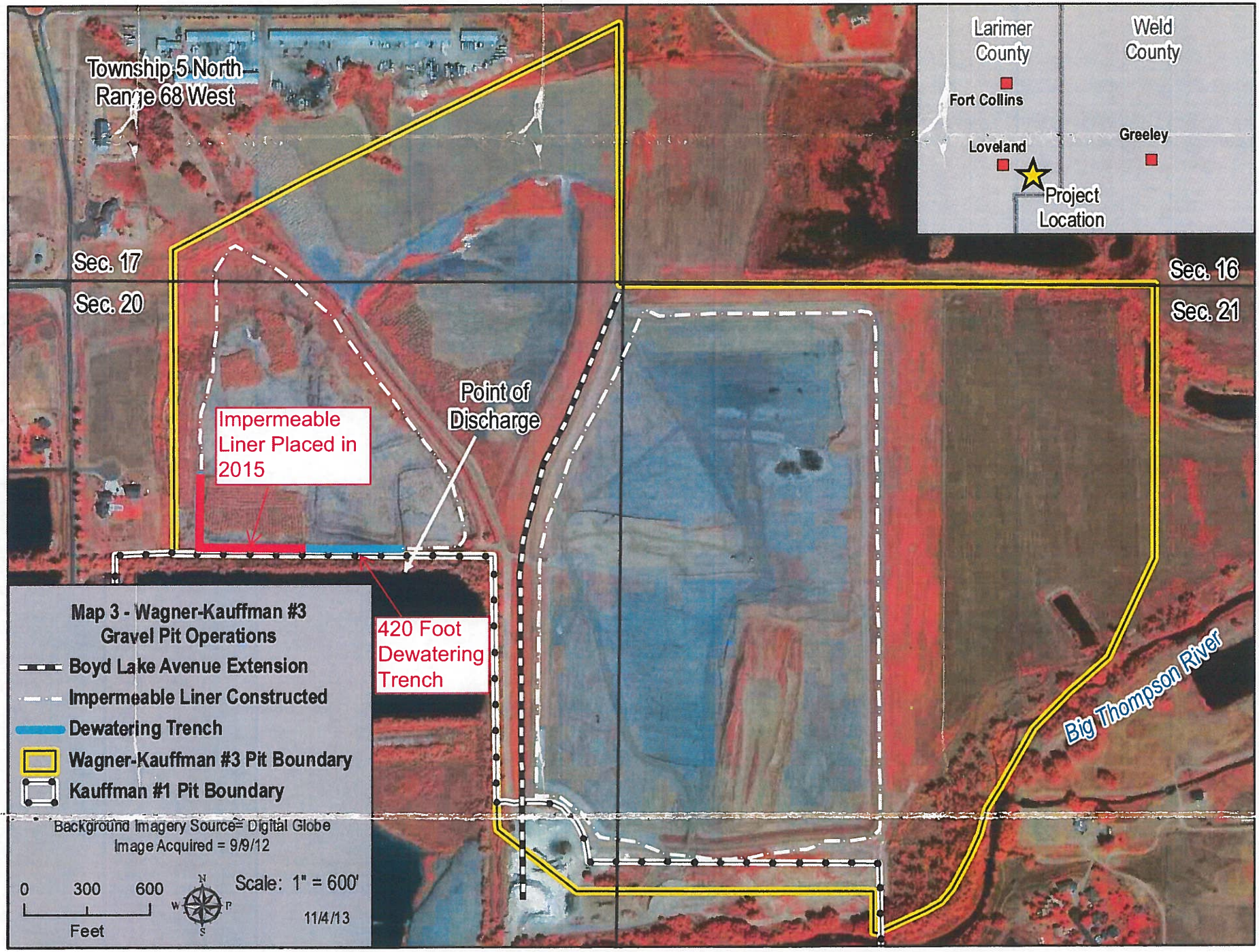

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Table 1
Wagner Kauffman #3 Pit
Jake Kauffman and Son, Inc.

2018 Post-1981 Exposed Water Surface Evaporative Losses

Total Exposted Water Surface Area (Dewatering Trench) = 0.03 acres

		January	February	March	April	May	June	July	August	September	October	November	December	Totals
Distribution of Annual Evap.		0.03	0.035	0.055	0.09	0.12	0.15	0.15	0.14	0.10	0.07	0.04	0.03	1.00
Pond Evaporation	inches	1.14	1.33	2.09	3.42	4.56	5.51	5.7	5.13	3.8	2.66	1.52	1.14	38.0
Effective Precipitation	inches	0.31	0.25	0.84	1.39	1.43	1.11	0.96	1.07	0.98	0.84	0.35	0.21	9.7
Net Pond Evap	af/acre	0.07	0.09	0.10	0.17	0.26	0.37	0.40	0.34	0.24	0.15	0.10	0.08	2.35
Net Evaporation	**acre-feet**	**0.002**	**0.003**	**0.003**	**0.005**	**0.008**	**0.011**	**0.012**	**0.010**	**0.007**	**0.005**	**0.003**	**0.002**	**0.071**

Notes:
- Total exposed water surface for the dewatering trench is width of de-watering trench (3 ft) multipled by length (420 ft). See Map 1 for the location of the de-watering trench.
- Evaporation rates are taken from NOAA Technical Report NWS 33. Distribution of evaporation taken from State Engineers Office.
- Effecitive Precipitation = 0.7 * Average Precipitation (from 1996 through 2009 for Loveland Weather Station from NCWCD)

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Table 4

Wagner Kauffman #3 Pit
Jake Kauffman and Son, Inc.

Lagged Depletion Values (ac-ft)- Consumptive Use Values from 2000 - 2018 (projected)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
2004	-0.26	-0.31	-0.52	-0.84	-1.16	-1.51	-1.67	-1.55	-1.05	-0.82	-0.5	-0.32	-10.51
2005	-0.26	-0.31	-0.52	-0.84	-1.16	-1.51	-1.67	-1.55	-1.05	-0.82	-0.5	-0.32	-10.51
2006	-0.26	-0.31	-0.52	-0.84	-1.16	-1.51	-1.67	-1.55	-1.05	-0.82	-0.5	-0.32	-10.51
2007	-0.32	-0.43	-0.79	-1.28	-1.8	-2.33	-2.58	-2.39	-1.61	-1.27	-0.78	-0.46	-16.04
2008	-0.76	-0.73	-0.91	-1.43	-2.02	-2.03	-2.47	-1.71	-1.61	-1.71	-0.72	-0.41	-16.51
2009	-0.46	-1.08	-0.54	-1.23	-1.41	-1.6	-1.74	-1.64	-1.76	-1.18	-1.15	-0.99	-14.78
2010	-0.44	-0.48	-0.83	-1.31	-1.82	-2.35	-2.6	-2.4	-1.62	-1.28	-0.79	-0.47	-16.39
2011	-0.38	-0.47	-0.82	-1.31	-1.82	-2.35	-2.6	-2.4	-1.62	-1.28	-0.79	-0.47	-16.31
2012	-0.16	-0.11	-0.09	-0.08	-0.07	-0.07	-0.06	-0.06	-0.06	-0.06	-0.05	-0.04	-0.91
2013	-0.04	-0.03	-0.03	-0.03	-0.02	-0.03	-0.03	-0.04	-0.04	-0.04	-0.04	-0.03	-0.4
2014	-0.03	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.03	-0.02	-0.02	-0.02	-0.26
2015	-0.02	-0.02	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.21
2016	-0.02	-0.01	-0.011	-0.011	-0.012	-0.013	-0.005	-0.006	-0.007	-0.007	-0.006	-0.006	-0.114
2017	-0.020	-0.100	-0.190	-0.290	-0.440	-0.650	-0.820	-0.860	-0.770	-0.620	-0.510	-0.410	-5.680
2018	**-0.34**	**-0.27**	**-0.22**	**-0.18**	**-0.15**	**-0.12**	**-0.1**	**-0.09**	**-0.07**	**-0.06**	**-0.05**	**-0.04**	**-1.690**
2019	-0.03	-0.03	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0	0	-0.160
2020	0	0	0	0	0	0	0	0	0	0	0	0	0

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 = 200 ft
For the 2012 - 2015 period, the following parameters were used in the AWAS Model: W -= 4,000 ft, Transmissivity = 50,000, Specific Yield = 0.2, X = 2,400 ft
For the 2016-2018 period, the following parameters were used in the AWAS Model: W -= 4,000 ft, Transmissivity = 50,000, Specific Yield = 0.2, X = 2,130 ft

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Table 5

Wagner Kauffman #3 Pit
Jake Kauffman and Son, Inc.

2018 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	0.002	-0.34	-0.0136	-0.354
February	0.003	-0.27	-0.0108	-0.281
March	0.003	-0.22	-0.0088	-0.229
April	0.005	-0.18	-0.0072	-0.187
May	0.008	-0.15	-0.0060	-0.156
June	0.011	-0.12	-0.0048	-0.125
July	0.012	-0.1	-0.0040	-0.104
August	0.010	-0.09	-0.0036	-0.094
September	0.007	-0.07	-0.0028	-0.073
October	0.005	-0.06	-0.0024	-0.062
November	0.003	-0.05	-0.0020	-0.052
December	0.002	-0.04	-0.0016	-0.042
Totals	**0.07**	**-1.69**	**-0.068**	**-1.7576**

2019 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	-0.03	-0.0012	-0.031
February	0.00	-0.03	-0.0012	-0.031
March	0.00	-0.02	-0.0008	-0.021
April	0.00	-0.02	-0.0008	-0.021
May	0.00	-0.01	-0.0004	-0.010
June	0.00	-0.01	-0.0004	-0.010
July	0.00	-0.01	-0.0004	-0.010
August	0.00	-0.01	-0.0004	-0.010
September	0.00	-0.01	-0.0004	-0.010
October	0.00	-0.01	-0.0004	-0.010
November	0.00	0	0.0000	0.000
December	0.00	0	0.0000	0.000
Totals	**0.00**	**-0.16**	**-0.006**	**-0.166**

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	0.00	0.00000	0.0000
February	0.00	0.00	0.00000	0.0000
March	0.00	0.00	0.00000	0.0000
April	0.00	0.00	0.00000	0.0000
May	0.00	0.00	0.00000	0.0000
June	0.00	0.00	0.00000	0.0000
July	0.00	0.00	0.00000	0.0000
August	0.00	0.00	0.00000	0.0000
September	0.00	0.00	0.00000	0.0000
October	0.00	0.00	0.00000	0.0000
November	0.00	0.00	0.00000	0.0000
December	0.00	0.00	0.00000	0.0000
Totals	**0.00**	**0.00**	**0.000**	**0.0000**

WATER LEASE

THIS WATER LEASE ("Lease") is made and entered into this 16 day of Nov, 2015, 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., a Colorado corporation, whose address is 808 South County Road 9E, Loveland, Colorado 80537 ("Lessee").

WHEREAS, Lessee desires to acquire augmentation water 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 the purpose of augmentation; and

WHEREAS, the City is willing to lease, on a temporary basis, a portion of its fully consumable water, which may include, but is not limited to, Windy Gap re-use water or water stored in the Loveland Storage Reservoir (commonly known as Green Ridge Glade Reservoir) under the terms and conditions of the Transfer Decrees entered in Case No. 82CW202A or Case No. 2002CW392 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 Lease shall be effective for a term of three (3) years commencing January 1, 2016 and ending December 31, 2018, unless sooner terminated as provided herein.

2. Water. The City shall supply up to sixty-five (65) acre-feet of augmentation water per year to Lessee for Lessee's temporary substitute supply plan(s) for replacement of depletions, including evaporation, at Kauffman #1 Pit and Wagner/Kauffman #3 Pit, M-99-069, at Kauffman Pit M-78-327 (also known as Great Western Pit #1), or as directed by the River Commissioner or the Office of the State Engineer.

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 Lessee's engineer shall supply to the City an anticipated schedule of replacement for the calendar year, by November 15 of the previous calendar year. The Lessee is responsible for notifying the City if this schedule changes.

c. The City shall coordinate replacement of the water to the Big Thompson River with the River Commissioner or the Office of the State Engineer. Accounting of such will be made available to the River Commissioner and the Office of the State Engineer.

d. The City will submit a bill annually to the Lessee for all water replaced to the Big Thompson River, in accordance with this Lease.

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

4. Termination by City. In the event the City has an urgent need for water, as determined in the sole discretion of the City, for reasons including, but not limited to, drought, the City may terminate this Lease. The City will endeavor to give Lessee thirty (30) days notice of such termination, but shall not be required to do so. In the event of such termination, Lessee shall be liable to pay the City for augmentation water received to the effective date of termination.

5. Termination of Delivery for Nonpayment. In the event Lessee fails to pay for augmentation 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 augmentation water to Lessee.

6. Lease Contingent Upon Plan Approval. The parties understand and agree that this Lease shall be contingent upon approval of Lessee's temporary substitute supply plan by the office of the State Engineer.

7. No Warranties. Delivery of water by the City under this Lease shall be on an "as is" basis only, and the City neither expressly nor impliedly warrants the quality of the water. The water leased hereunder is not warranted as suitable for any particular purpose.

8. Notices. Written notices required under this 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: Stephen C. Adams, Director
200 North Wilson Avenue
Loveland, Colorado 80537

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

9. Governing Law and Venue. This Lease shall be governed by the laws of the State of Colorado, and venue shall be in the County of Larimer, State of Colorado.

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

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

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

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

14. Entire Agreement. This 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 Lease on the day and year first above written.

CITY OF LOVELAND, COLORADO

By: Stephen C. Adams

Stephen C. Adams
Department of Water and Power

ATTEST:

Deputy City Clerk

CITY OF LOVELAND SEAL COLORADO

APPROVED AS TO FORM:

Assistant City Attorney

Best Copy Available

JAKE KAUFFMAN & SON, INC.

By: _____
Frank Kauffman, President

STATE OF COLORADO)
) ss.
COUNTY OF LARIMER)

JENAE ABBOTT
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20114005726
MY COMMISSION EXPIRES 02-04-2019

The foregoing Lease was acknowledged before me this 30 day of October, 2015, by Frank Kauffman as President of Jake Kauffman & Son, Inc.

Witness my hand and official seal.

My commission expires 2.04.2019.

_____
Notary Public

Best Copy Available

April 30, 2010

Permittee Address

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: Permit Id Site Name

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*)*