COLORADO
Division of Water Resources
Department of Natural Resources

February 28, 2018

Paul Weiss, P.E.
Williams & Weiss Consulting, LLC
5255 Ronald Reagan Boulevard, Suite 220
Johnstown, CO 80534

Re: Journey Ventures Pit, Substitute Water Supply Plan (WDID 0102541)
DRMS File No. M-2008-080 (WDID 0110849)
Section 7, T5N, R64W of the 6th P.M.
Water Division 1, Water Districts 1 and 3, Weld County
All Plans ID: 5579

Approval Period: April 1, 2018 through March 31, 2019
Contact Information for Mr. Paul Weiss: 970-221-5159; pswwater@msn.com

Dear Mr. Weiss:

This letter is in response to your application of February 1, 2018 requesting a substitute water supply plan ("SWSP") for a sand and gravel pit operated by J-2 Contracting Company ("J-2" or "Applicant") in accordance with § 37-90-137(11), C.R.S. The Applicant shall be responsible for compliance with this SWSP, but the State Engineer's Office may also pursue the landowner, for eventual compliance. The required fee of $257.00 for the renewal of this substitute supply plan has been submitted (receipt no. 3684666). The original supply plan was approved on May 19, 2015 and was most recently renewed on March 21, 2017 for operations through March 31, 2018.

SWSP Operations

This SWSP submittal addresses the projected depletions from expected operations at the Journey Ventures Pit from April 1, 2018 through March 31, 2019. The Journey Ventures Pit is located in the SE 1/4, Section 7, Township 5 North, Range 64 West of the 6th P.M. The sand and gravel operation is south of the South Platte River near the town of Kersey as shown on the attached Map 1. This SWSP seeks to replace depletions resulting from the mining at the Journey Ventures Pit. The depletions that result from the mining operation over the period of this SWSP include evaporation from exposed ground water, dust suppression, water lost with the mined product and water losses associated with a batch plant. A slurry wall was constructed around the mining area, however the slurry wall has not performed as expected and water seeps inside the pond. The slurry wall is projected to be repaired by July 2018. Therefore dewatering operations at the site are estimated to continue through the end of July 2018 in the same manner as the original dewatering plan that began in October 2015. The proposed replacement of depletions for this site will come from a lease of fully consumable water from the City of Greeley. The proposed reclamation of the site is a lined reservoir through the construction of a slurry wall around the mining area. The surface area of the reservoir at the completion of mining is expected to be between 33 acres to 38 acres.

Depletions

The anticipated net depletions for this SWSP are 42.21 acre-feet. A total of 2.15 acres of water surface is exposed at the site in settling/recharge ponds for wash water and a sump for pumping water to the batch plant. Gross annual evaporation at the gravel pit location is estimated to be 46.0 inches per year and the monthly distribution is as depicted on the attached Table 1. Net evaporation is defined as gross evaporation less the consumptive use of water by vegetation that naturally occurred at the site prior to construction of the pit. The historical consumptive use was assumed to be equal to the effective precipitation, which was estimated based on the data from the Kersey weather station. The net evaporation for the exposed water surface is 38.4 inches per year, with a monthly distribution as shown on the attached Table 1 and using the estimated exposed water surface area of 2.15 acres, the total annual stream depletion resulting from the exposure of groundwater is estimated to be 6.89 acre-feet.

You have provided a monthly breakdown of the annual depletions, which include 6.89 acre-feet of net evaporative loss, 24.28 acre-feet of water lost with the mined product (which represents 825,000 tons of mined product), 7.6 acre-feet of water used for dust control and 3.6 acre-feet of water usage at the batch plant (Table 2).

The IDS AWAS stream depletion model, using the alluvial aquifer option, was used to determine the lagged depletions from evaporation and operational losses to the South Platte River. The following parameters were used in the model: transmissivity (T) = 100,000 gallons per day per foot, distance (X) from the centroid of the surface of the exposed ground water to the river = 4,766 feet, distance (W) from the aquifer boundary through the exposed ground water to the river channel = 9,500 feet, and specific yield (SY) = 0.2. The lagged depletions due to mining operations during the SWSP period are shown in Table 3 and are estimated to total 42.01 acre-feet during this approval period.

Dewatering

Dewatering began in October 2015 and is expected to continue up to the completion of the repair of the slurry wall, estimated to be July 2018. Dewatering water that is pumped to the silt pond and the recharge pond will be assumed to return to the stream in the same timing as the dewatering depletions. Dewatering is projected to occur at a rate of 1,000 gpm (135 acre-feet per month), with a total capacity of 4,000 gpm (540 acre-feet) from the dewatering sump to the silt pond and recharge pond. The configuration of the recharge pond within the pit is shown in attached Map 3. Dewatering operations must be measured by totalizing flow meters that can accurately show the monthly volume of water dewatered into the silt pond and the recharge. Any dewatering water placed into silt pond and recharge pond cannot be used for any purpose by the operator, and must be allowed to accrete to the stream. **Should it be determined by the water commissioner or division engineer that water within the silt pond and the recharge pond is being diverted for any purpose by the operator and accounting is not adequate to show the recharge of dewatering is occurring the Applicant will need to account for any lagged dewatering depletions at the site once dewatering stopped.**

Replacements

The operator proposes to provide replacement for this pit using fully consumable water leased from the City of Greeley ("Greeley"). A copy of the lease agreement with Greeley for 45.63

acre-feet for the period of April 1, 2018 through March 31, 2019 of fully consumable effluent from Greeley's wastewater treatment plant was provided to this office with the SWSP request and is attached to this letter. The leased water includes additional water to cover transit looses. Transit losses were estimated at 0.25 percent per mile for six miles from the Greeley's WWTP to the Journey Venture Pit. Ideally the transit loss should be based on 0.25 percent per mile for five miles from the Greeley's WWTP to the confluence of the South Platte and Cache La Poudre rivers and 0.25 percent per mile during the non-irrigation season and 0.50 percent per mile during the irrigation season along the South Platte for 1 mile from the confluence to the Journey Venture Pit. Due to the small variation in the transit loss numbers for the irrigation and non-irrigation season, the estimated transit loss of 0.63 acre-feet is accepted in this SWSP.

The point of delivery for the Greeley lease replacement water is the Greeley Wastewater Treatment Plant ("WWTP") outfall. However the point of delivery for the Greeley lease water may also be one or more of the following locations:

- Cache La Poudre River immediately below Greeley's existing WWTP, at the outlet of the Flatiron Reservoir Nos. 1-5 (aka Poudre Ponds at Greeley), or at delivery stations from the Greeley Canal No. 3;
- In Lonetree Creek, a tributary to the South Plate River, immediately below the Swift WWTP outfall;
- In the Big Thompson River at delivery stations or release structures from Greeley Loveland Canal and related structures;
- Other points to the Cache La Poudre or Big Thompson River at delivery stations or release structures owned and operated by Greeley or available for Greeley's use where Greeley had augmentation water legally and physically available.

Greeley must notify the District 3 Water Commissioner when releases are made at locations other than the WWTP. The Ogilvy Ditch headgate on the Cache La Poudre River is a potential summer dry-up point that is located between the Greeley WWTP outlet and the location of the Journey Venture Pit depletion point, in the SE1/4 of Section 7, Township 5 North, Range 64 West of the 6th P.M. The Central Colorado Water Conservancy District ("Central") has a by-pass structure at the Ogilvy Ditch headgate to pass augmentation flows by the Ogilvy at times when the Ogilvy is diverting the entire flow of the Cache La Poudre River. Greeley obtained a by-pass agreement with Central in order to deliver Applicant's lease water to the Journey Venture Pit depletion point. A copy of the agreement is attached to this letter. Greeley must coordinate the by-pass of water with Central and also notify the District 3 Water Commissioner. Central must include in their accounting the amount of water delivered through Central's by-pass structure for use in this plan.

Long Term Augmentation

In accordance with the letter dated April 30, 2010 (copy attached) 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.

In accordance with approach nos. 1 and 3, of the DRMS April 30, 2010 letter the Applicant

obtained a bond for $487,550 through the DRMS for phases; TR3; 1, 2, 4 and 4 of this site to assure that depletions from groundwater evaporation do not occur in the unforeseen event, or events, that would lead to the abandonment of the Pit.

Conditions of Approval

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

1. This SWSP is approved with the effective date of **April 1, 2018 and shall be valid through March 31, 2019** unless otherwise revoked or superseded by a decree. If this plan is not decreed in water court by the SWSP expiration date, a renewal request must be submitted to this office with the statutory fee of $257 no later than **February 1, 2019**.
2. Well permit no. 79057-F was obtained for the current use and exposed pond surface area at the Journey Venture Pit, in accordance with § 37-90-137(2) and (11), C.R.S., and this permit remains valid.
3. The total surface area of the groundwater exposed at the Journey Ventures site must not exceed 2.15 acres, which results in a maximum evaporative annual loss of 6.89 acre-feet.
4. The annual amount of water used at the Journey Ventures Pit, in addition to evaporation and dewatering, is limited to 35.48 acre-feet (approximately 7.60 acre-feet for dust control purposes, 24.28 acre-feet of water lost with an estimated 825,000 tons of mined product per year, and 3.6 acre-feet water consumed in the batch plant).
5. Total consumption at the Journey Ventures Pit must not exceed these aforementioned amounts unless an amendment is made to this SWSP.
6. Approval of this SWSP is for the purposes as stated herein. This office must first approve any additional uses for the water. Any future historical consumptive use credit given (e.g., agricultural water transfer) for this site must consider all previous credits given.
7. All pumping for dust control shall be measured in a manner acceptable to the division engineer.
8. The replacement water that is the subject of this SWSP cannot be sold or leased to any other entity. As a condition of subsequent renewals of this SWSP, 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. Adequate accounting of depletions and replacements must be provided to the division engineer in Greeley (DNR_Div1Accounting@state.co.us) and the water commissioners (Evan Snyder at Evan.Snyder@state.co.us and Mark Simpson at Mark.Simpson@state.co.us), and Brent Schantz at Brent.Schantz@state.co.us) on a monthly basis. All amounts shall be in acre-feet. All submitted accounting must conform to the Administration Protocol *"Augmentation Plan Accounting – Division One, South Platte River"* (attached).

   In addition, **the Applicant** shall verify that the entity making replacements has included the Applicant on their accounting and submitted their accounting to the division office and the water commissioner; for this SWSP, that entity is the City of Greeley.
10. Conveyance loss for delivery of augmentation water to the point of depletion on the South Platte River is subject to assessment and modification as determined by the division engineer.

11. 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 headgates 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 headgates 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 installing 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.
12. The Division of Water Resources will not be responsible for any enforcement or administration of third party agreements that are not included in a decree of the water court.
13. The name, mailing address, and phone number of the contact person who will be responsible for operation and accounting of this plan must be provided on the accounting forms to the division engineer and water commissioner.
14. Dewatering at this site will produce delayed depletions to the stream system. As long as the pit is continuously dewatered, the water returned to the stream system should be adequate to offset the depletions attributable to the dewatering operation, thus dewatering is required to continue up to the completion of the repair of the slurry wall. The operator shall equip the dewatering operations with a totalizing flow meter and report monthly meter readings which will be used to determine the post-pumping depletions, if necessary. **Should dewatering at the site cease prior to completion of the slurry wall, the delayed depletions must be addressed, including depletions resulting from the gradual refilling of the pit.**
15. If dewatering of the site is discontinued prior to completion of the slurry wall, 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 financial warranty for $487,550 for lining or backfilling of the pit has been obtained. Therefore, if the dewatering is discontinued this warranty can finance the completion of the lining of this pit or the backfilling, thus preventing depletions to the stream system.
16. 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.
17. 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.
18. The approval of this SWSP does not relieve the Applicant and/or landowner of the requirement to obtain a Water Court decree approving a permanent plan for augmentation or mitigation to ensure the permanent replacement of all depletions, including long-term evaporation losses and lagged depletions after gravel mining operations have ceased. If reclamation of the mine site will produce a permanent water surface exposing 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 and lagged depletions. If a lined pond results after reclamation, replacement of lagged depletions shall continue until there is no longer an effect on stream flow.

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 occurred or will occur as a result of the operation of this SWSP. Should this SWSP expire without renewal or be revoked prior to adjudication of a permanent plan for augmentation, all excavation of the product from below the water table, and all other use of water at the pit, must cease immediately.
20. 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 this SWSP is of a quality to meet requirements of use to which the senior appropriation receiving the substitute supply has normally been put. As such, water quality data or analyses may be requested at any time to determine if the requirement of use of the senior appropriator is met.
21. 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 water court case or any other legal action that may be initiated concerning the SWSP. This decision shall not bind the State Engineer to act in a similar manner in any other applications involving other plans or in any proposed renewal of this plan, 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.

If you have any questions concerning this approval, please contact Ailis Thyne in Denver at (303) 866-3581 or Michael Hein in Greeley at (970) 352-8712.

Sincerely,

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

Attachments: Map 1 and Map 3
Tables 1, 2 and 3
City of Greeley Lease
By-Pass Agreement between Central and Greeley
Letter from DRMS dated April 30, 2010
Accounting Protocol

cc: Michael Hein, Assistant Division Engineer, Michael.Hein@state.co.us

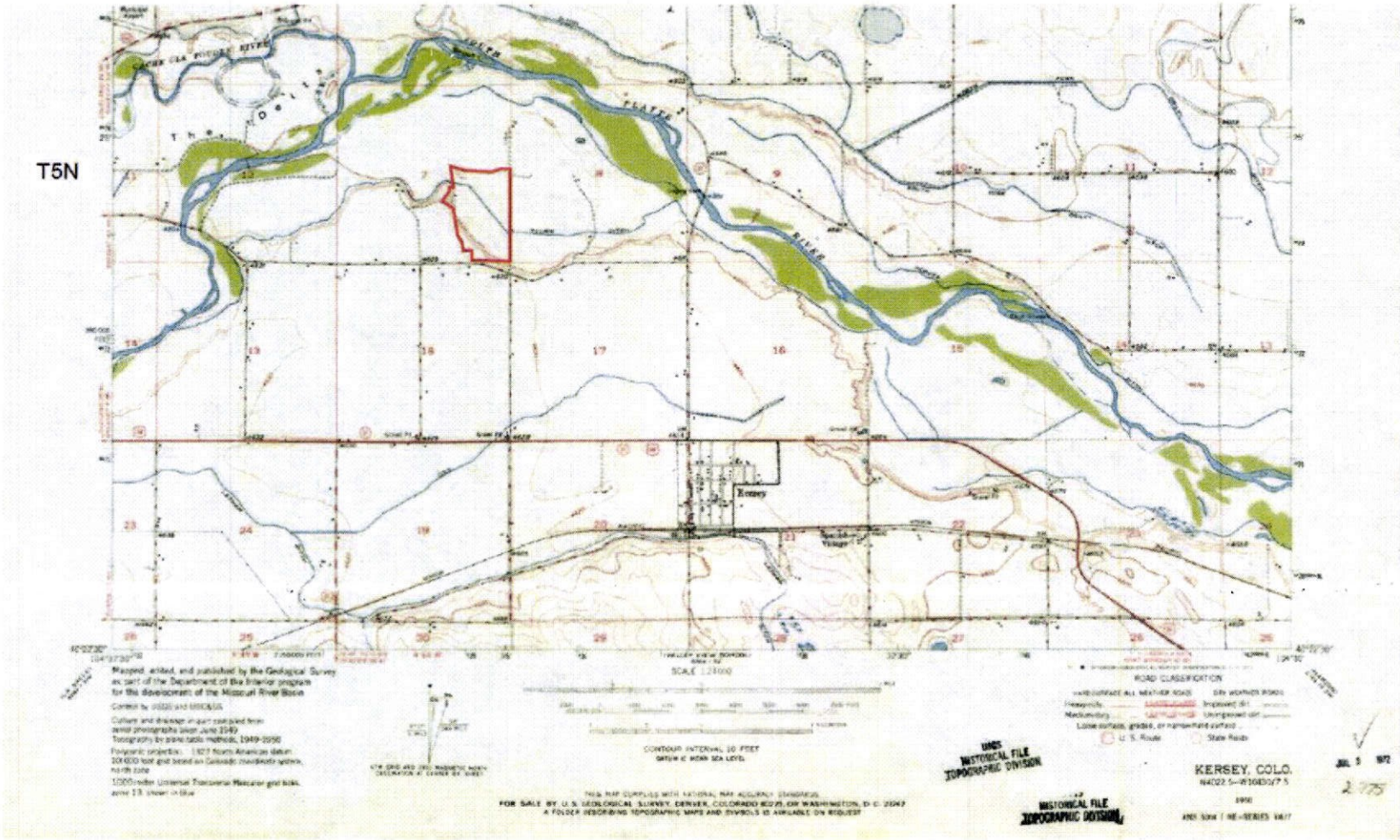
Evan Snyder, Water Commissioner, District 1, Evan.Snyder@state.co.us

Mark Simpson, Water Commissioner, District 3, Mark.Simpson@state.co.us

Brent Schantz, River Operations & Compact Coordinator, Brent.Schantz@state.co.us

Peter S. Hays, Division of Reclamation Mining and Safety, Peter.Hays@state.co.us

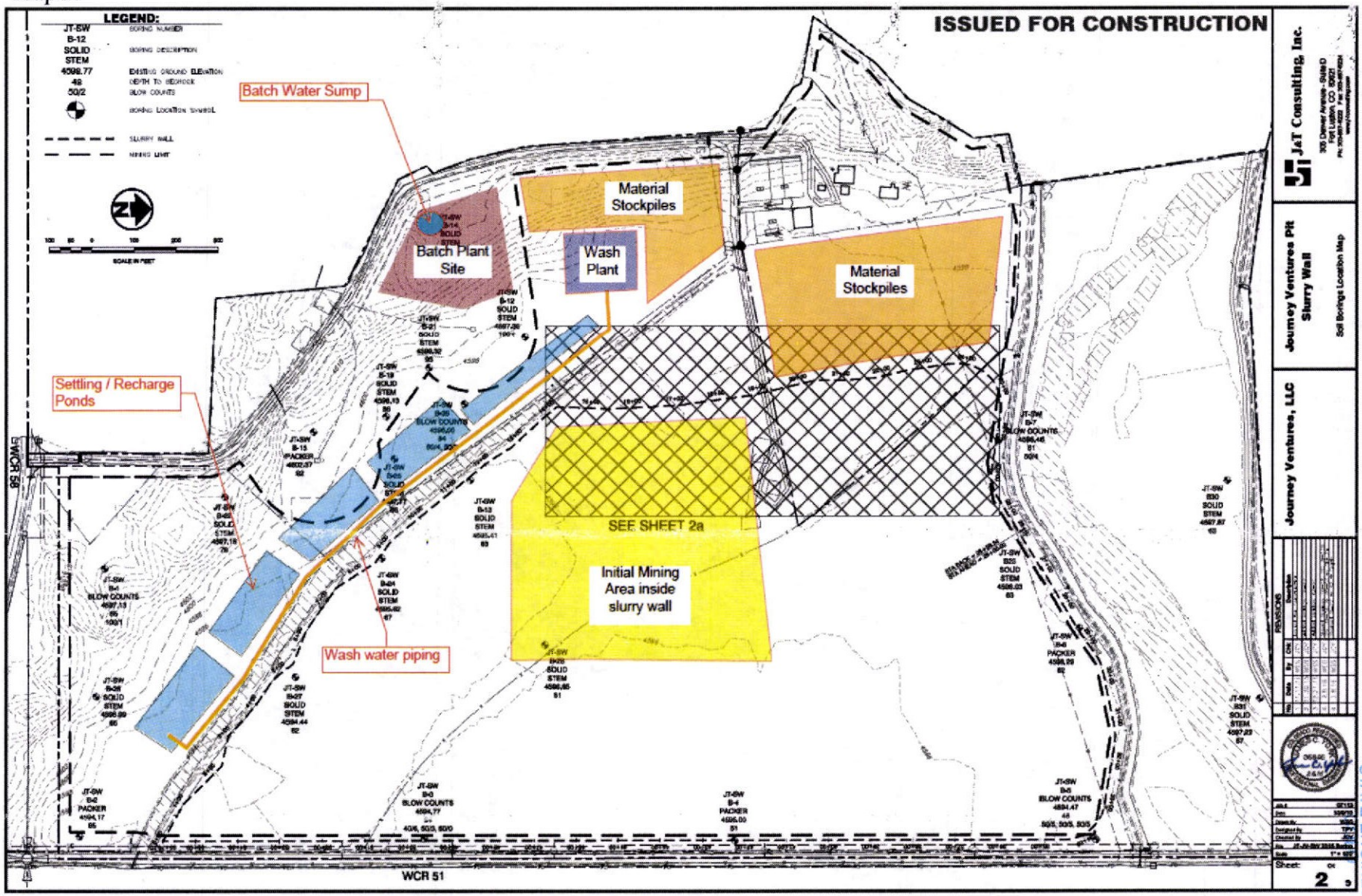
T5N



Best Copy Available

Map 1 - Vicinity Map of
Journey Ventures Gravel Pit

Map 3.



Journey Ventures Pit
Evaporative Losses
Table 1

Williams and Weiss Consulting, LLC

Submitted by:
Paul Weiss
5255 Ronald Reagan Boulevard, Ste. 220
Johnstown, CO 80534 Ph: 970-221-5159

Total Exposed Water Surface Area[1] = 2.15 acres from Apr - Sep

		2018									2019			
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Totals
Distribution of Annual Evaporation[2]		0.09	0.12	0.15	0.15	0.14	0.10	0.07	0.04	0.03	0.03	0.04	0.06	1.00
Pond Evaporation[3]	inches	4.14	5.52	6.67	6.90	6.21	4.60	3.22	1.84	1.38	1.38	1.61	2.53	46.0
Effective Precipitation[4]	inches	1.18	1.03	0.99	0.71	0.58	0.20	0.07	0.07	0.10	0.29	1.00	1.35	7.6
Net Pond Evap	af/acre	0.25	0.37	0.47	0.52	0.47	0.37	0.26	0.15	0.11	0.09	0.05	0.10	3.20
Net Evaporation	**acre-feet**	**0.53**	**0.80**	**1.02**	**1.11**	**1.01**	**0.79**	**0.56**	**0.32**	**0.23**	**0.20**	**0.11**	**0.21**	**6.89**

Notes:
[1] See Map 2b for the delineation of the de-watering pond exposed water surface area at Journey Ventures Pit
[2]Distribution of Annual Evaporation per DWR Guidelines for gravel pits at elevations below 6,500 feet.
[3]Annual evaporation rate are taken from NOAA Technical Report NWS 33.
[4]Effecitive Precipitation = 0.7 * Avg. Precip.. Monthly Precip.*(Kersey Weather Station (1992 - 2013) from CoAgMet)

Journey Ventures Pit
Operational Losses
Table 2

Williams and Weiss Consulting LLC

Submitted by:
Paul Weiss
5255 Ronald Reagan Boulevard, Ste. 220
Johnstown, CO 80534 Ph: 970-221-5159

Month	Percentage of Annual Production[1]	Aggregate Production[1] (tons)	Water Retained in Product[2] (ac-ft)	Water Used for Dust Control[3] (ac-ft)	Water Pumped for Batch Plant[4] (ac-ft)	Total Operational Consumptive Use[5] (ac-ft)
Apr-17	12.5%	88,184	1.50	0.63	1.59	3.72
May-17	12.0%	84,691	1.52	0.64	1.52	3.68
Jun-17	7.8%	55,381	1.16	2.32	0.99	4.47
Jul-17	12.1%	85,615	1.01	2.73	1.12	4.86
Aug-17	12.0%	85,179	0.92	4.41	0.75	6.08
Sep-17	10.6%	74,688	0.52	6.10	1.12	7.74
Oct-17	7.6%	54,028	1.40	5.70	0.69	7.79
Nov-17	7.2%	50,940	1.39	0.62	0.00	2.01
Dec-17	5.4%	38,192	0.63	0.48	0.00	1.11
Jan-18	2.8%	20,000	0.59	0.10	0.00	0.69
Feb-18	2.8%	20,000	0.59	0.10	0.00	0.69
Mar-18	7.1%	50,000	1.47	0.38	1.20	3.05
Year 1 Total	100.0%	706,898	12.69	24.21	8.98	45.88
Apr-18	9.7%	80,000	2.35	0.50	2.30	5.15
May-18	9.7%	80,000	2.35	0.70	1.30	4.35
Jun-18	9.7%	80,000	2.35	1.00	0.00	3.35
Jul-18	10.3%	85,000	2.50	1.50	0.00	4.00
Aug-18	10.3%	85,000	2.50	1.50	0.00	4.00
Sep-18	9.7%	80,000	2.35	1.00	0.00	3.35
Oct-18	8.5%	70,000	2.06	0.50	0.00	2.56
Nov-18	7.9%	65,000	1.91	0.30	0.00	2.21
Dec-18	6.1%	50,000	1.47	0.10	0.00	1.57
Jan-19	4.8%	40,000	1.18	0.10	0.00	1.28
Feb-19	4.8%	40,000	1.18	0.10	0.00	1.28
Mar-19	8.5%	70,000	2.06	0.30	0.00	2.36
Year 2 Total	100.0%	825,000	24.28	7.60	3.60	35.48
Apr-19	0.0%	0	0.00	0.00	0.00	0.00
May-19	0.0%	0	0.00	0.00	0.00	0.00
Jun-19	0.0%	0	0.00	0.00	0.00	0.00
Jul-19	0.0%	0	0.00	0.00	0.00	0.00
Aug-19	0.0%	0	0.00	0.00	0.00	0.00
Sep-19	0.0%	0	0.00	0.00	0.00	0.00
Oct-19	0.0%	0	0.00	0.00	0.00	0.00
Nov-19	0.0%	0	0.00	0.00	0.00	0.00
Dec-19	0.0%	0	0.00	0.00	0.00	0.00
Jan-20	0.0%	0	0.00	0.00	0.00	0.00
Feb-20	0.0%	0	0.00	0.00	0.00	0.00
Mar-20	0.0%	0	0.00	0.00	0.00	0.00
Year 3 Total	0.0%	0	0.00	0.00	0.00	0.00

[1]Annual and monthly aggregate production is estimated based on discussions with J2 Contracting
[2]Water retained in product is applying a 4% moisture content as the mining at the site is in the wet.
[3]Monthly dust control based upon 1100 to 5400 gallons per day. All water used for dust control is assumed 100% consumed.
[4]Batch plant usage expected to occur in April, May and June. All water used at the batch plant is assumed 100% consumed.
[5]Total operational consumptive use is combination of water retained in product, used at batch plant, and dust control.

Journey Ventures Pit
Summary of Operational Losses and Lagged Depletions
Table 3

Williams and Weiss Consulting LLC

Submitted by:
Paul Weiss
5255 Ronald Reagan Boulevard, Ste. 220
Johnstown, CO 80534 Ph: 970-221-5159

Month	Operational Losses (ac-ft)	Evaporative Losses (ac-ft)	Total Losses (ac-ft)	Lagged Depletions[1] (ac-ft)	Transit Losses[2] (ac-ft)	Total Augmentation Requirement from Greeley (ac-ft)
Apr-17	3.72	0.37	4.09	-1.95	-0.03	1.98
May-17	3.68	0.80	4.48	-2.30	-0.03	2.33
Jun-17	4.47	1.02	5.49	-2.45	-0.04	2.49
Jul-17	4.86	1.11	5.97	-2.79	-0.04	2.83
Aug-17	6.08	1.01	7.09	-3.10	-0.05	3.15
Sep-17	7.74	0.79	8.52	-3.37	-0.05	0.36
Oct-17	7.79	0.56	8.36	-3.90	-0.06	3.96
Nov-17	2.01	0.32	2.32	-4.07	-0.06	4.13
Dec-17	1.11	0.23	1.34	-4.15	-0.06	4.21
Jan-18	0.69	0.20	0.88	-3.86	-0.06	3.92
Feb-18	0.69	0.11	0.80	-3.21	-0.05	3.26
Mar-18	3.05	0.21	3.26	-3.29	-0.05	3.34
Year 1 Total	45.88	6.73	52.62	-38.44	-0.58	35.96
Apr-18	5.15	0.37	5.53	-3.09	-0.05	3.14
May-18	4.35	0.80	5.16	-3.33	-0.05	3.38
Jun-18	3.35	1.02	4.37	-3.41	-0.05	3.46
Jul-18	4.00	1.11	5.11	-3.64	-0.05	3.69
Aug-18	4.00	1.01	5.01	-3.74	-0.06	3.80
Sep-18	3.35	0.79	4.14	-3.71	-0.06	3.77
Oct-18	2.56	0.56	3.12	-3.87	-0.06	3.93
Nov-18	2.21	0.32	2.53	-3.69	-0.06	3.75
Dec-18	1.57	0.23	1.80	-3.70	-0.06	3.76
Jan-19	1.28	0.20	1.47	-3.55	-0.05	3.60
Feb-19	1.28	0.11	1.39	-3.05	-0.05	3.10
Mar-19	2.36	0.21	2.57	-3.23	-0.05	3.28
Year 2 Total	35.48	6.73	42.21	-42.01	-0.63	42.64
Apr-19	0.00	0.00	0.00	-3.05	-0.05	3.10
May-19	0.00	0.00	0.00	-3.00	-0.05	3.05
Jun-19	0.00	0.00	0.00	-2.68	-0.04	2.72
Jul-19	0.00	0.00	0.00	-2.57	-0.04	2.61
Aug-19	0.00	0.00	0.00	-2.39	-0.04	2.43
Sep-19	0.00	0.00	0.00	-2.16	-0.03	2.19
Oct-19	0.00	0.00	0.00	-2.10	-0.03	2.13
Nov-19	0.00	0.00	0.00	-1.91	-0.03	1.94
Dec-19	0.00	0.00	0.00	-1.87	-0.03	1.90
Jan-20	0.00	0.00	0.00	-1.76	-0.03	1.79
Feb-20	0.00	0.00	0.00	-1.56	-0.02	1.58
Mar-20	0.00	0.00	0.00	-1.57	-0.02	1.59
Year 3 Total	0.00	0.00	0.00	-26.62	-0.40	27.02

[1]Lagged Depletions calculated with AWAS in alluvial aquifer mode: W = 9500 ft X = 4667 ft T = 100,000 gpd/ft S = 0.20
[2]Transit Losses are calculated as 1/4% per mile. The distrance from Greeley's WWTP to the Journey Ventures Pit is 6 miles.

Exhibit 2. Rental Agreement for Replacement Supplies

January 29, 2018
Journey Ventures, LLC
P.O. Box 129
Greeley, CO 80632

Dear Journey Ventures, LLC,

The city of Greeley ("Greeley") accepts Journey Ventures LLC's ("Journey Ventures") augmentation water rental request for April 2018 through March 2019. Greeley will make available to Journey Ventures wholly consumable water that has been changed for augmentation use at one of the following locations: 1) in the Cache la Poudre River immediately below Greeley's existing wastewater treatment plant, at the outlet of the Flatiron Reservoir Nos. 1-5 (aka Poudre Ponds at Greeley), or at delivery stations from the Greeley Canal No. 3; 2) in Lonetree Creek, a tributary to the South Platte River, immediately below the Swift wastewater treatment plant outfall; 3) in the Big Thompson River at delivery stations or release structures from the Greeley Loveland Canal and related structures; or 4) at such other point or points Greeley chooses by giving written notice to Journey Ventures **OR** in the Cache la Poudre or Big Thompson Rivers at delivery stations or release structures owned and operated by Greeley or available for Greeley's use where Greeley has augmentation water legally and physically available. Greeley anticipates making releases from its wastewater treatment plant outfall located on the Cache la Poudre River. If Greeley changes the point of delivery, it will provide written notice to Journey Ventures.

The request totals **45.63** acre-feet and replacements will be made per the schedule provided by Williams and Weiss Consulting:

Journey Ventures Augmentation Requirement (acre-feet)												
Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Total
3.36	3.62	3.70	3.95	4.06	4.03	4.20	4.01	4.02	3.86	3.31	3.51	45.63

The current rate for augmentation water is $800/acre-foot, for a total of **$36,504**. Please follow the directions on the attached invoice. The payment is due by **February 28, 2018**. Please be aware that it is Journey Venture's responsibility to receive necessary approval to use the rented augmentation supplies provided by Greeley. Any transmission losses charged by State water officials will be the sole responsibility of Journey Ventures. If you have any questions, please do not hesitate to call me at (970) 350-9240.

Sincerely,

Emily Carbone
Water Resources
Cc: Paul Weiss, Williams and Weiss Consulting

Water and Sewer Department • 1100 10th Street, Greeley, CO 80631 • (970) 350-9811 Fax (970) 350-9805
We promise to preserve and improve the quality of life for Greeley through timely, courteous and cost-effective service.

Exhibit 3. Bypass Agreement

AGREEMENT REGARDING USE OF BYPASS STRUCTURES

This Agreement Regarding Use of Bypass Structure ("Agreement") is made this 20th day of June 2017, by and between Central Colorado Water Conservancy District/the Ground Water Management Subdistrict of the Central Colorado Water Conservancy District/the Well Augmentation Subdistrict of the Central Colorado Water Conservancy District (collectively, "CCWCD") and the City of Greeley ("Greeley").

BACKGROUND

1. Central Colorado Water Conservancy District ("CCWCD") is a quasi-municipal corporation and political subdivision of the State of Colorado organized and existing as a water conservancy district pursuant to §37-45-101, et. seq. *C.R.S.* and is authorized and empowered thereby to furnish water to lands within its boundaries.

2. The Ground Water Management Subdistrict of the Central Colorado Water Conservancy District ("GMS") is a quasi-municipal corporation and political subdivision of the State of Colorado organized and existing as a water conservancy district pursuant to §37-45-101, et seq. *C.R.S.* and is authorized and empowered thereby to furnish water to lands within its boundaries.

3. The Well Augmentation Subdistrict of the Central Colorado Water Conservancy District ("WAS") is a quasi-municipal corporation and political subdivision of the State of Colorado organized and existing as a water conservancy district pursuant so § 37-45-101, et seq. *C.R.S.* and is authorized and empowered thereby to furnish water to lands within its boundaries.

4. CCWCD, GMS and/or WAS (collectively "CCWCD") owns, controls, has an interest in or otherwise has rights to use certain bypass structures on the South Platte River and its tributaries that it uses to carry water past dry up points on these rivers.

5. Greeley is a Colorado home rule municipal corporation.

6. Greeley owns or controls wholly consumable water supplies that need to be delivered down the Cache la Poudre River from Poudre Ponds, the Greeley Wastewater Treatment Plant, or the GIC #3 Ditch to the confluence of the Poudre and South Platte Rivers. In order to accomplish this delivery in times of low flow, Greeley needs to run water through the CCWCD bypass structures located at the Ogilvy Ditch.

7. CCWCD and Greeley desire to enter into an agreement setting forth the terms and conditions upon which Greeley's wholly-consumable water supplies may be delivered through the Bypass Structures.

AGREEMENT

1. **Deliveries.** CCWCD agrees to deliver Greeley water through the Ogilvy Ditch bypass structures, subject to the terms and conditions set forth in this Agreement. Deliveries of Greeley's water through the Bypass Structures shall not exceed 500 AF in a calendar year or 10 CFS in instantaneous delivery. Greeley's anticipated schedule of deliveries is attached hereto as Exhibit "A".

2. **Term.** The term of this agreement is for 3 years. April to March, from the date of execution.

3. **Consideration.** Greeley agrees to pay CCWCD $500 as a "buy-in" fee, and a running fee of $10/AF. The buy-in fee and the running fee for the first year are due upon signing of this Agreement, and CCWCD acknowledges receipt of same. Subsequent running fees shall be due annually on the date the Agreement was executed.

4. **Terms and Conditions.** The following terms and conditions shall apply to the delivery of Greeley water through the Bypass Structures.

   a. CCWCD shall have the primary right to use the Bypass Structures at all times. To the extent that, for whatever reason, water actually passed through the structure is less than the amount required to services CCWCD and all of the other parties, the CCWCD requirement shall be satisfied first, and the remaining water divided between the non-CCWCD parties that have bypass agreements with CCWCD in proportion to their total flow requirements.

   b. Any changes in requested bypass amounts must be made no less than 48 hours in advance.

   c. Deliveries through the bypass structure are made using the CCWCD's best efforts, but it is not possible to set the structures to deliver precisely the necessary amount of water at all times. Greeley acknowledges the potential for this variability, accepts this risk, and agrees not to hold CCWCD liable for variations in delivery.

   d. Central shall not be liable for any claim, suit or damages of any kind arising out of or related to Greeley's use of the Bypass Structures.

5. **Integration.** This Agreement represents the entire agreement between the parties regarding the subject matter addressed. It supersedes all previous communications, representations or agreements, verbal or written. No alterations to this Agreement, with

the exception of changes in the requested delivery amounts within the maximums set in ¶1. shall be valid unless in writing and signed by both parties.

6. **Default-remedies.** A default of this agreement shall occur if either party breaches its obligations hereunder and fails to remedy the breach within 30 days of written notice by the non-breaching party. Failure to notice any breach or default shall not be construed as waiver of continuing or additional defaults. In addition to all other remedies available, the non-breaching party shall be entitled to cancel this agreement if the breaching party fails to respond to the notice of default within 30 days. In such event, the non-breaching party shall provide written notice of cancellation to the breaching party.

7. **Notices and Payments.** Notices and payments shall be delivered to the following:

CCWCD	CCWCD 3209 W. 28th Street Greeley, CO 80634
Copy To:	Kim Lawrence, Esq. Lawrence Jones Custer Grasmick LLP 5245 Ronald Reagan Blvd., Suite 1 Johnstown, CO 80534
Greeley:	John Thornhill City of Greeley Water and Sewer Department 1100 10th Street, Suite 300 Greeley, CO 80631
Copy To:	Greeley City Attorney's Office Environmental and Water Resources Practice Group 1100 10th Street, Suite 401 Greeley, Co 80634

8. **No Beneficiaries.** This agreement is for the sole benefit of the parties and not for the benefit of any third party.

9. **Governmental Immunity.** Neither CCWCD nor Greeley intends to waive its sovereign immunity by the execution of this agreement, and it shall not be so construed.

10. **Governing Law.** Colorado Law shall govern this agreement. In the event of litigation, jurisdiction and venue shall be proper and exclusive in the District Court for Weld County, Colorado.

11. **Counterparts.** This Agreement may be executed in counterparts.

12. **Authority.** The parties to this agreement warrant that they have taken all actions necessary to authorize the signatories to sign this agreement and bind the parties to its terms.

CENTRAL COLORADO WATER CONSERVANCY DISTRICT
GROUND WATER MANAGEMENT DISTRICT OF THE CENTRAL COLORADO WATER CONSERVANCY DISTRICT
WELL AUGMENTATION SUBDISTRICT OF THE CENTRAL COLORADO WATER CONSERVANCY DISTRICT

Attest

By: Randall C Knutson
Randall Knutson, President

Randy Ray, Secretary

Dated this 20th day of June, 2017.

THE CITY OF GREELEY, COLORADO

APPROVED:

By: Thomas E Norton
Tom Norton, Mayor

By: Harold Evans
Harold Evans, Board Chairman

ATTEST:

By: Betsy Holder
Betsy Holder, City Clerk

AS TO SUBSTANCE:

By:
City Manager

AS TO AVAILABILITY OF FUNDS:

By: Victoria Runkle
Victoria Runkle, Director of Finance

AS TO LEGAL FORM:

By: Doug Marek
Doug Marek, City Attorney

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

COLORADO DIVISION OF RECLAMATION MINING & SAFETY

April 30, 2010

Journey Ventures, LLC
P.O. Box 129
Greeley, CO 806320000

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: M2008080 Journey Ventures 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*)*