



COLORADO
Division of Water Resources
Department of Natural Resources

April 26, 2022

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

**Re: DPG Gravel Pit Substitute Water Supply Plan (WDID 0302587, Plan ID 6243)
DRMS Permit No. M-2019-028 (WDID 0307924)
SE¼ Section 1 and NE¼ Section 12, T5N, R65W, 6th P.M.
Water Division 1, Water Districts 2 and 3, Weld County**

Approval Period: April 26, 2022 through April 30, 2023
Contact Information for Mr. Weiss: 970-221-5159; pswwater@msn.com

Dear Mr. Weiss:

We have reviewed your letter dated March 15, 2022 requesting renewal of the substitute water supply plan ("SWSP") for a sand and gravel pit operated by J-2 Contracting Company ("J-2" or "Applicant") in accordance with section 37-90-137(11), C.R.S., for the DPG Gravel Pit, Division of Reclamation Mining and Safety ("DRMS") Permit No. M-2019-028. This plan also seeks to supersede the current approval by one month to allow for the use of water delivered to recharge under free river conditions as a replacement source. 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 water supply plan has been submitted (receipt no. 10019833).

SWSP Operations

The DPG Gravel Pit is located in the SE¼ of Section 1 and NE¼ of Section 12, Township 5 North, Range 65 West of the 6th P.M. The site is located just upstream of the confluence of the South Platte River and the Cache la Poudre River, as shown on the attached Exhibit 2. The site is proposed to be mined in two separate cells, with Cell 1 currently being mined through April 2022, and Cell 2 to be mined from May 2022-May 2023. Cell 2 has been lined with a slurry wall which was completed in February 2022 and is currently undergoing a 90-day leak test. The depletions that result from the mining operation over the period of this SWSP will include evaporation from exposed groundwater, dust suppression, dewatering, and water lost with the mined product. The proposed replacement of depletions for this site will come from the historical consumptive use associated with 3 shares of the Delta Irrigation Company, water leased from the Central Colorado Water Conservancy District, and accretions from water delivered to onsite recharge ponds during free river conditions.



Depletions

It is anticipated that a total of 21.93 acres of groundwater surface area will be exposed at the site during the period of May 1, 2022 through April 30, 2023 in settling ponds, recharge ponds, and a dewatering trench. The Applicant has proposed to calculate evaporation from exposed groundwater at the site based upon evaporation atlases in NOAA Technical Report NWS 33 and the SEO monthly distribution factors for sites below 6,500 feet. Gross annual evaporation at the gravel pit location is estimated to be 46.0 inches per year. 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 (record 1992-2013). The net evaporation from the exposed groundwater surface area was calculated to be 70.24 acre-feet for the period of May 1, 2022 through April 30, 2023, as shown in the attached Table 1. In addition, 7.14 acre-feet are anticipated to be lost to evaporation from 27.20 acres of exposed groundwater surface area during April 2022.

J-2 has projected that they will produce 840,000 tons of sand and gravel during the period of May 1, 2022 through April 30, 2023. Of this amount, 505,000 tons are anticipated to be washed and 335,000 tons are anticipated to be not washed. The material will be mined below the groundwater table, therefore the groundwater moisture content is considered to be 4 percent of the mined material by weight for both washed and not washed material. The water lost with the mined product is projected to total 24.72 acre-feet during the period of May 1, 2022 through April 30, 2023, as shown in attached Table 2. An additional 2.65 acre-feet of water is anticipated to be lost with the removal of 90,000 tons of mined material during April 2022. If Cell 2 is approved by the State Engineer's Office or Division Office as being lined in accordance with the State Engineer's Lining Criteria, the Applicant does not need to provide replacement for native groundwater within the lined area that is removed with the mined product.

J-2 proposes to fill a 4,000-gallon water truck from a groundwater pond on site for dust control purposes. The estimated amount of water to be used for dust suppression during the period of May 1, 2022 through April 30, 2023 is 24.00 acre-feet, as shown in the attached Table 2. An additional 1.50 acre-feet of water is anticipated to be used for dust control during April 2022.

No slurry wall construction is proposed to occur during this plan period. Operational consumptive use is anticipated to total 48.72 acre-feet for the period of May 1, 2022 through April 30, 2023, with an additional 4.15 acre-feet of operational consumptive use occurring in April 2022.

The total operational and evaporative consumptive use at this site during the period of May 1, 2022 through April 30, 2023 is estimated at 118.96 acre-feet. The total operational and evaporative consumptive use at this site during April 2022 is estimated at 11.29 acre-feet.

The IDS AWAS stream depletion model was used to determine the lagged depletions to the South Platte River from evaporation and operational use at the site, using the infinite aquifer option. The following aquifer characteristics were used in the model: a transmissivity (T) of 180,000 gallons per day per foot; a specific yield (S) of 0.2; and a distance (X) from the centroid of the exposed groundwater surface area to the river of 1,300 feet. The distance from the exposed groundwater surface area to the river was measured using the USGS vicinity map. Transmissivity and specific yield values were developed using information and figures presented in the SB06-193 Underground Water Storage Study, (CWCB, 2007), and the Colorado Decision Support System ("CDSS") Map Viewer transmissivity contours. Lagged depletions resulting from operational and evaporative use at the site

are estimated to total 108.69 acre-feet for the period of May 1, 2022 through April 30, 2023. An additional 7.64 acre-feet of lagged evaporative and operational depletions are projected to impact the river in April 2022, based on current accounting and projected water use from the 2021-2022 SWSP approval.

Since the DPG Gravel Pit is located in the area just above the confluence of the South Platte River and the Cache la Poudre River, the point of depletion and location of replacement delivery will be the confluence itself. The nearest structure that could be affected by operations at the DPG Gravel Pit is the Empire Ditch, located on the South Platte River below the Kersey gaging station.

Dewatering

The mining areas outside of the slurry wall will continue to be dewatered during this plan period, with dewatering water pumped to recharge pond(s) located within the mining permit boundary adjacent to Cell 1. Accretions from recharge are assumed to return to the stream system at approximately the same timing as dewatering depletions impact the stream. However, in December of 2021 the existing recharge ponds began to overflow and spill back to the Cache la Poudre River just above the confluence. The Applicant notified the State and Division Engineer's Office and made revisions to their accounting to reflect this change in operations. J-2 intends to expand their recharge pond capacity in order to gradually reduce the amount of dewatering water spilling to the river to zero. The dewatering water that spills to the river will create an immediate credit to the river that may be claimed against depletions at the site, but will result in lagged recharge accretions being less than the lagged dewatering depletions. This shortfall will be accounted for and replaced under this SWSP. Lagged depletions and accretions resulting from dewatering options will be calculated using the IDS AWAS model with the same transmissivity and specific yield as identified above, with a distance (X) of 600 feet from the recharge pond to the river. The amount of water pumped for dewatering is expected to decrease to 10 acre-feet per month by August. Based on past and projected operations, lagged dewatering depletions are estimated to total 118.83 acre-feet for the period of May 1, 2022 through April 30, 2023. All water pumped for dewatering purposes must be measured by totalizing flow meters that can accurately show the monthly volume of water delivered to recharge. The amount of water spilled to the river must be measured and recorded and available through real-time telemetry. All dewatering water placed into the recharge pond(s) must be allowed to accrete to the stream, without use by the operator, unless an amendment is made to this plan. **Should it be determined by the water commissioner or division engineer that water within the recharge pond(s) is being diverted for any purpose by the operator and accounting is not adequate to show that recharge of dewatering water is occurring, the Applicant will need to account for any lagged dewatering depletions at the site.**

Replacements

The Applicant proposes to provide replacement water for this site using the consumptive use associated with 8 out of 15 shares of the Delta Irrigation Company, the owner and operator of the Patterson Ditch, which were previously used for irrigation within the mining permit boundary. The fully consumable portion of the water associated with the shares will be delivered directly to the river for immediate credit, or delivered to a recharge pond for lagged recharge accretion credits. During the non-irrigation season and/or months with insufficient historical consumptive use credits available from the Delta Irrigation Company shares, depletions will be replaced using a lease of fully consumable water supplies from Central Colorado Water Conservancy District and/or lagged accretions resulting from the delivery of water to the onsite recharge ponds under free river conditions with the knowledge and approval of the water commissioner.

The Patterson Ditch (WDID 0200836) diverts from the South Platte River approximately five miles upstream of the confluence with the Cache la Poudre River. The decreed point of diversion for the Patterson Ditch is on the north side of the South Platte River in the NE¼ of the NE¼ of Section 21, Township 5 North, Range 65 West of the 6th P.M., Weld County. The ditch was decreed in case no. CA6009 to divert at a rate of 19.92 cfs, with an appropriation date of May 1, 1871. There are no prior Water Court approved changes of use for this water right. The Delta Irrigation Company (“Company”) owns and operates the Patterson Ditch. There are a total of 48 shares in the Company. DPG Farms owns 15 out of the total 48 shares in the Company (Certificate No. 392). For this plan period, 8 shares are proposed to be used for replacement purposes under this SWSP.

The Applicant submitted a historical consumptive use (“HCU”) analysis with the 2021-2022 SWSP request, which has been revised and updated in the 2022-2023 SWSP request. The analysis was performed for all 15 of the DPG Farms shares in the Patterson Ditch. The period of analysis selected was from 1990 through 2016. For this period, diversion records for the Patterson Ditch were downloaded from Hydrobase. DPG Farms’ property contains several parcels of lands that were historically irrigated by the Patterson Ditch. For the period of 1990 through 2016, based on FSA records, an average of 202.9 acres were irrigated by the DPG Farms shares under the Patterson Ditch. The crops grown consisted of corn, alfalfa, pasture grass, small veggies, small grains, beans, and sorghum. Beginning in 2006, portions of the DPG Farms properties were taken out of production. The Hydrobase records for the irrigated acreage under the ditch range from 641 acres to 659 acres since 1997. The DPG Farms shares represent 31 percent of the Company’s shares (15/48) and the 202.9 irrigated acres from the FSA records are approximately 32 percent of the total irrigated acreage under the ditch. Therefore, the FSA records appear to be consistent with the Hydrobase data.

The DPG Farm is the last farm on the Patterson Ditch and all water returned to the ditch will flow back to the South Platte River via the Patterson Ditch wasteway located approximately 500 feet down-ditch. The historical consumptive use analysis performed for the use of the 15 shares on the DPG Farm indicated the Patterson Ditch system was generally water-long. The 15 shares owned by DPG Farms yielded in excess of 6.5 acre-feet of water per irrigated acre. This “extra” water would have been available for other shareholders to divert, or would have been left in the ditch and turned back to the South Platte River at the end of the ditch wasteway. Due to this historical practice, a demand-based analysis was used to quantify historical consumptive use and historical return flow patterns for the shares. The modeled farm headgate delivery was determined as the lesser of the Patterson Ditch pro-rata farm headgate delivery and the calculated farm headgate delivery (calculated as the crop irrigation requirement divided by a 45 percent irrigation efficiency) for each month in the study period.

The HCU analysis was conducted used the following methods and assumptions:

- Modeling using the Integrated Decision Support Group Consumptive Use Model (“IDSCU”) and the Modified Blaney-Criddle method with TR21 crop coefficients with ET adjustments available in the IDSCU.
- Soil Conservation Service methodology for calculation of effective precipitation.
- Assumed ditch loss of 20 percent since Patterson Ditch is earth lined.
- The HCU analysis was revised to use temperature and precipitation data from the Greeley 3 station 2.5 miles NE of Greeley (GLY03), filled first with data from the Greeley 4 station 1.5 miles north of the Greeley airport (GLY04), with any remaining missing data filled from Greeley UNC weather station.

- The Applicant's HCU was based on 147.51 acres of corn, 2.86 acres of alfalfa, 17.80 acres of pasture grass, 9.33 acres of small vegetables, 14.51 acres of small grains, 0.37 acres of beans, and 2.02 acres of sorghum. The soil moisture water content applied in the HCU analysis is 0.14 inches of water per inch of soil.
- According to the Applicant, the DPG Farms property was flood and furrow irrigated. The Applicant initially proposed a 50 percent maximum irrigation efficiency for the flood irrigation (alfalfa and pasture grass) and 55 percent maximum efficiency for the furrow irrigation (corn, small grains, small veggies, small grains, beans and sorghum). According to the Applicant the efficiency was based on review of aerial photos of the farm, lengths of the irrigated land fields, field slopes, layout of the irrigated fields, the type of irrigation practice and soil type. The soils consist mostly of Aquolls and Aquents and are classified as having slopes of 0 to 3 percent. Due to the presumed water-long nature of the ditch, and the lack of measurement records for the ditch wasteway, the Applicant has revised the irrigation efficiency used in the HCU analysis to 45 percent to ensure that historical return flows are maintained.
- Irrigation return flows were distributed with 50 percent attributed to deep percolation (subsurface) and 50 percent to surface runoff based upon review of other studies and change cases within the basin. The surface runoff (tailwater) return flows are assumed to return to the South Platte River during the same month of diversion and thus they were not lagged to the river. The deep percolation return flows were lagged to the river using the same AWAS software. The aquifer characteristics used in the model are: transmissivity (T) = 112,000 gallons per day per foot, specific yield (SY) = 0.2, the distance from the centroid of the exposed surface area to the stream (X) = 1,300 feet. Return flows associated with ditch loss were not included in this analysis since these losses will continue as water is conveyed through the ditch to the pit.
- Monitoring wells were installed at nine different locations on the DPG Farms property and water level readings were taken for the 2019 irrigation season. Using this information, a composite depth to groundwater of 6.22 feet was determined for the property. Based upon this depth, a portion of the irrigation water requirement of the crops grown on the farm was met by groundwater. Therefore, the initial IDSCU results were adjusted by applying the adjustments adapted from the *"EVAPOTRANSPIRATION AND AGRONOMIC RESPONSES IN FORMERLY IRRIGATED MOUNTAIN MEADOWS, South Park, Colorado, March 1, 1990; Revised September 1, 1991"*. For a depth to groundwater of 6.22 feet, the HCU of Native Grass was reduced by 5 percent and Alfalfa was reduced by 15 percent to account for subirrigation.

The HCU analysis results for DPG Farms' 15 shares are summarized in Table A below:

Table A - Summary of Historical Consumptive Use Analysis for 15 DPG Farms Shares (acre-feet)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Pro-rata River Headgate Diversion (15 shares)	---	---	---	52.6	211.6	247.7	352.5	356.8	252.9	139.7	5.0	---	1618.8
Pro-rata Farm Headgate Delivery (15 shares)	---	---	---	42.1	169.3	198.2	282.0	285.4	202.4	111.7	4.0	---	1295.0
Irrigation Water Requirement	---	---	---	2.3	18.4	50.8	88.1	75.5	37.2	2.6	0	---	280.8
Calculated Farm Headgate Delivery (15 shares)	---	---	---	5.2	40.9	116.5	203.7	168.7	83.3	5.8	0	---	624.1
Modeled Farm Headgate Delivery (15 shares)	---	---	---	4.9	40.9	112.9	195.9	167.8	82.6	5.8	0	---	610.8

The resulting farm headgate delivery limits and return flow obligations for the 8 shares proposed to be utilized in this SWSP are summarized in Table B below:

Table B - Summary of Historical Consumptive Use Analysis for 8 DPG Farms Shares (acre-feet)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Modeled Farm Headgate Delivery (8 shares)	---	---	---	2.63	21.80	60.19	104.46	89.48	44.07	3.10	---	---	325.7
Adjusted Consumptive Use	---	---	---	1.1	9.6	26.8	46.6	39.9	19.6	1.3	---	---	145.2
Surface Return Flows	---	---	---	0.72	6.08	16.72	28.88	24.72	12.24	0.88	---	---	90.3
Subsurface Return Flows	---	---	---	0.72	6.08	16.72	28.88	24.72	12.24	0.88	---	---	90.3
Lagged Subsurface Return Flows	2.63	1.97	1.89	1.92	3.84	8.88	16.80	19.76	15.52	9.04	4.68	3.37	90.3
Total Return Flow Obligation	2.63	1.97	1.89	2.64	9.95	25.56	45.74	44.54	27.73	9.91	4.68	3.37	180.6
Return Flow Factors	0.81%	0.60%	0.58%	0.81%	45.63%	42.47%	43.79%	49.78%	62.91%	3.04%	1.44%	1.03%	---
Depletion(-)/Accretion (+) to the River	-2.63	-1.97	-1.89	-0.01	+11.85	+34.63	+58.72	+44.93	+16.35	-6.81	-4.67	-3.37	+145.2

It has been conveyed to the Water Commissioner by a representative of the Patterson Ditch that diversions recorded at the river headgate measuring structure, which may operate submerged at times, are fairly accurate and there is an acceptable amount of tail water returning to the river. These items will continue to be monitored by the Water Commissioner over the course of this irrigation season, but it appears the historical diversion records for this ditch are accurate. Should the Applicant wish to use a higher irrigation efficiency to reduce their return flow obligation based on the assertion that the Patterson Ditch is water long and typically turns back a significant portion of diversions to the South Platte River at the end of the ditch, the Applicant must measure and record the tail water flow returned, unused, to the river. This amount could then be subtracted from the river headgate diversion.

As shown in Table B, the average annual farm headgate delivery amount associated with the 8 shares in the Patterson Ditch is 325.7 acre-feet with a consumptive use of 145.2 acre-feet and a return flow obligation of 180.6 acre-feet. The Applicant's deliveries under this SWSP are limited to the historical diversion season of April through October. In addition, the Applicant's diversions will be limited to the monthly and annual average farm headgate delivery amounts shown in Table B.

The historical return flow obligations associated with the 8 shares must be maintained under this SWSP. For the months of May through September, the daily return flow obligation will be determined by multiplying the applicable monthly return flow factor by the daily farm headgate delivery associated with the subject shares. For the months of October through April, the daily return flow obligation will be determined by multiplying the applicable monthly return flow factor by the previous year's (April through October) total deliveries associated with the subject shares, and then divided by the number of days in the month.

Any SWSP renewal request may require additional terms and conditions to assure that an expansion of use of the Applicant's shares will not result if the Applicant reaches their volumetric limits and ceases diverting water.

The required dry-up associated with the change of use of the 8 shares is 108.2 acres ($8/15 \times 202.9$ acres). According to the map you provided, 108.3 acres have been dried up as a result of mining operations. Verification of dry-up for the 2022 irrigation season will be provided to the Division Office at the end of the irrigation season.

Deliveries of the 8 shares for replacement purposes will be measured at a ditch turn-out, and then returned back to the Patterson Ditch. As the DPG Farm is the last farm on the Patterson Ditch, all water returned to the ditch will flow back to the South Platte River via the Patterson Ditch wasteway, located approximately 500 feet down-ditch. During times of excess yield, J-2 may instead divert a portion of the yield of the subject shares into the onsite recharge ponds.

Prior to delivering Delta Ditch Company share water into the recharge ponds, additional metering and infrastructure will need to be installed and inspected, and monthly accounting must be updated to reflect the operation. **No credit will be given for Delta Ditch Company share water placed into recharge until the water commissioner has inspected the site and approved the operation.** The amount of water recharged to the alluvial aquifer from the Delta Ditch Company shares delivered to recharge shall be determined by measuring the inflow to the recharge facility by use of a continuous recording measuring device at the inlet and then by subtracting: (1) the amount of water that flowed out of or was discharged from the site, if any; (2) the amount of water lost to evaporation from the site; (3) the amount of water lost to evapotranspiration if vegetation is present; and (4) the amount of water retained in the site that has not yet percolated into the ground. Deliveries to two or more recharge ponds will only be allowed if recharge deliveries are recorded by separate flow meters at the inlet to each recharge pond. Each recharge pond must have a staff gage installed such that the gage registers the lowest water level in the pond. Daily evaporative losses will be calculated by multiplying the surface area for each pond in acres by the rate of gross evaporation. Evaporation losses will be calculated for a recharge pond for each day during which water is delivered to the recharge pond and for the number of "days to dry" following delivery of water to the pond. The timing of the recharge accretions from deliveries of water to the recharge ponds will be determined using the AWAS model with the alluvial aquifer boundary condition option, using the previously identified aquifer parameters ($X = 600$ ft, $T = 180,000$ gal/day/ft, $S = 0.2$).

All deliveries of replacement water shall be measured in a manner acceptable to the division engineer and the water commissioner. The Applicant has installed a measurement structure and recorder at the ditch turn-out for the 8 shares of the Patterson Ditch water, and the water commissioner has access to that data.

During the winter months and months when insufficient credits are available from the Patterson Ditch rights, replacement of depletions will come from a lease of up to 134.0 acre-feet of wholly consumable water supplies from Central Colorado Water Conservancy District ("Central"). The lease agreement with Central for the required augmentation water supplies was provided in support of this SWSP request and is attached to this letter. Water will be released from the Nissen Reservoir, located on the lower South Platte River across from the DPG site. Alternatively, Central will release water from the Geisert Pit, located along the Cache la Poudre River near Greeley approximately 6.3 miles upstream from the DPG Gravel Pit. The only intervening ditch between the Geisert Pit and the confluence of the South Platte River with the Cache la Poudre River is the Ogilvy Ditch. Central has a bypass 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. The Applicant must coordinate the bypass 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 bypass structure for use in this SWSP.

Table C below provides the total projected lagged depletions and replacements to the South Platte River associated with the DPG Gravel Pit. The table incorporates a transit loss of 0.25 percent per mile for a distance of 6.3 miles on the conservative assumption that all replacement water provided by Central will be released from the Geisert Pit. In addition, the water balance does not include any free river water that may be diverted to recharge and lagged back to the river as an accretion during this plan period.

Table C - Water Balance

Month	Apr 2022	May 2022	Jun 2022	Jul 2022	Aug 2022	Sep 2022	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023
Lagged Operational & Evaporative Depletions	-5.26	-9.46	-12.19	-14.79	-15.29	-13.95	-12.08	-9.04	-6.31	-3.72	-2.68	-3.54	-5.64
Lagged Dewatering Depletions	≤-0.19	-4.09	-45.25	-18.31	-12.04	-8.63	-7.01	-5.54	-4.79	-4.09	-3.22	-3.15	-2.71
Farm Headgate Deliveries	1.52	21.80	60.19	104.46	89.48	44.07	3.10	0	0	0	0	0	2.63
Return Flow Obligations	-1.06	-9.95	-25.56	-45.74	-44.54	-27.73	-9.91	-4.68	-3.37	-2.63	-1.97	-1.89	-2.64
Central lease	5.15	2.5	24.0	0	0	7.0	27.0	20.0	16.0	11.0	8.5	9.0	9.0
Transit Loss	-0.16	-0.04	-0.38	0	0	-0.11	-0.92	-0.32	-0.54	-0.17	-0.13	-0.14	-0.14
River Balance	0	0.77	0.81	25.62	17.60	0.66	0.19	0.44	0.99	0.39	0.50	0.28	0.50

Long Term Augmentation

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 Colorado Division of Reclamation, Mining, and Safety ("DRMS") requires that you provide information to demonstrate you can replace long term injurious stream depletions that result from mining-related exposure of groundwater. The final reclamation of the site will consist of two lined reservoirs through the construction of slurry walls around the Cell 1 and Cell 2 mining areas. The surface area of the reservoirs at the completion of mining is expected to be approximately 165 acres. You have indicated that a bond has been obtained for \$984,566 through the DRMS for the lining 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 DPG Gravel Pit.

Conditions of Approval

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

1. This SWSP shall be valid for the period of April 26, 2022 through April 30, 2023, unless otherwise revoked or superseded. If groundwater depletions associated with this sand and gravel mining operation will extend beyond the expiration date of this SWSP, a renewal request must be submitted to this office with the statutory fee (currently \$257) no later than March 1, 2023. If a

renewal request is received after the expiration date of this plan, it may be considered a request for a new SWSP, in which case a \$1,593 filing fee will apply.

2. Well permit no. 85654-F was obtained in accordance with sections 37-90-137(2) and (11), C.R.S., in conjunction with this plan, for the proposed uses of groundwater at the site, being evaporation of a maximum of 24 acres of exposed groundwater, dewatering, water lost with the mined product, dust control, concrete batching and slurry wall construction. **Should additional uses of groundwater be required, or should the area of exposed groundwater surface area be unable to be reduced to 24 acres or less, a new well permit must be obtained.**
3. The total surface area of the groundwater exposed at the DPG Gravel Pit site during the period of May 1, 2022 through April 30, 2023 must not exceed 21.93 acres, which results in a maximum evaporative loss of 70.24 acre-feet. Evaporative losses for April 2022 must not exceed 7.14 acre-feet.
4. The amount of water used for operational purposes at the DPG Gravel Pit site during the period of May 1, 2022 through April 30, 2023 must not exceed 48.72 acre-feet, estimated as 24.72 acre-feet lost with the production of 840,000 tons of mined aggregate and 24.00 acre-feet for dust control purposes, and 19.47 acre-feet for slurry wall construction. Operational losses for April 2022 must not exceed 4.15 acre-feet.
5. This Applicant must first obtain written approval from this office before exceeding these aforementioned amounts.
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 diversions, deliveries to recharge, and water spilled from recharge shall be measured in a manner acceptable to the division engineer. The Applicant shall install and maintain measuring devices as required by the division engineer for operation of this SWSP.
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.
9. The Applicant shall provide daily accounting (including, but not limited to diversions, depletions, replacement sources, and river calls) on a monthly basis. The accounting must be uploaded to the CDSS Online Reporting Tool within 30 days of the end of the month for which the accounting applies (<https://dwr.state.co.us/Tools/reporting>). Instructions for using the tool are available on the Division of Water Resources website on the "Services" → "Data & Information" page under the heading of Online Data Submittal. Accounting and reporting procedures are subject to approval and modification by the division engineer. Accounting forms need to identify the WDID number for each structure operating under this SWSP. Additional information regarding accounting requirements can be found in the attached Augmentation Plan Accounting Administration Protocol for Division One. NOTE: Monthly accounting, even during the winter non-irrigation season, is required.

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 Central Colorado Water Conservancy District.

10. Conveyance loss for delivery of replacement water to the point of depletion on the South Platte River is subject to assessment and modification as determined by the division engineer.

11. In order to prevent injury to other water rights, the division engineer and water commissioner must be able to administer Applicant's replacement water past headgates on the river at times when those headgates would otherwise be legally entitled to divert all available flow in or "sweep" the South Platte River or its tributaries. Applicant shall not receive credit for replacement of depletions to the South Platte River below such diversion structures unless bypass and measurement structures are in place to allow the division engineer and water commissioner to confirm that Applicant's replacement water is delivered past the headgates. In the event that delivery past dry-up points requires the use of a structure for which a carriage or use agreement with a third party is required, Applicant shall be responsible for securing such agreement. Until such time as the Applicant provides a copy of the carriage or use agreement to the division engineer and water commissioner, no credit will be allowed for replacement of depletions to the South Platte River below such diversion structure.
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. The Applicant shall perform an inspection of the required 108.2 acres of dry-up area, submit a certification of that inspection, and provide a zipped GIS shapefile of the dried-up land as follows:
 - The Applicant's inspection of dry-up must be submitted on the Dry-Up Report - Verified Statement to Division Engineer form at the beginning of the irrigation season indicating planned dry-up and then again in the fall after the irrigation season confirming the planned dry-up was accomplished. A pdf map may be attached to that report. The Dry-Up Report form is available for download from the Division of Water Resources' website at: https://drive.google.com/drive/folders/1TF0aINt6f5fla0Xz_n1_iAGCg4xusRN2 (Water Administration → eForms Dashboard → South Platte: Dry up Certification). The Dry-Up Report must be signed by an individual with personal knowledge of the dry-up for the entire irrigation season for each parcel of land associated with the change of water rights in this SWSP.
 - GIS shapefiles in a file format *.zip outlining the dry-up shall also be submitted at the same time as the Dry-Up Report. The GIS files must include any accompanying attribute data and the datum must be NAD83 and the UTM projection must be Zone 13N.
 - Submittals shall be made by May 31, 2022 for planned dry-up and by October 31, 2022 for dry-up confirmation. Submittals shall be made through the CDSS Online Reporting Tool (<https://dwr.state.co.us/Tools/reporting>). Two new Reporting Submittal Tool elements will be created for this SWSP: (1) Dry-up shapefile and (2) Dry-Up Report - Verified Statement. For additional assistance with Online Reporting Submittals, contact Dawn Ewing in the Division 1 office at dnr_div1accounting@state.co.us.
15. The historical consumptive use attributed to the changed surface water rights under this SWSP shall not include groundwater contributions. The Applicant has reduced the historical consumptive use ("HCU") credit calculated for the subject water rights changed by this SWSP to account for sub-irrigation of grass and alfalfa on the historically irrigated lands from groundwater. Therefore, ongoing monitoring of the depth to groundwater is not required under this SWSP.
16. The Division of Water Resources will not acknowledge any recharge activity conducted without the knowledge of the water commissioner. The flow into the recharge site(s) must be metered

and equipped with a continuous flow recorder unless the water commissioner, in conjunction with the division engineer, determines adequate records may be kept without such equipment. **The water commissioner must first inspect and approve the use of the recharge structures before any credit will be given for Delta Ditch Company share water placed into recharge.**

17. Water may be delivered to recharge only if the net impact of this plan is not negative. Water must first be delivered or exchanged to offset negative impacts of this plan before it may be diverted for recharge.
18. **Should it be determined by the water commissioner or division engineer that water within 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.**
19. 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. Replacement of lagged depletions, including those lagged depletions that occur to the stream after the expiration date of this SWSP, must continue until there is no longer an effect on stream flow.
20. Dewatering at this site will produce delayed depletions to the stream system. The Applicant must balance the amount of dewatering water delivered to recharge, the amount of dewatering water spilled from recharge, any water diverted under free river conditions and delivered to recharge, and available replacement water from the Delta Ditch Company shares and Central lease to ensure that all lagged dewatering depletions are fully replaced.
21. 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.
22. To assure that depletions from groundwater evaporation do not occur in the unforeseen event, or events, which would lead to the abandonment of the pit, the Applicant has obtained a bond in the amount of \$984,566 through the DRMS for the lining of this site.
23. 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.
24. In accordance with amendments to section 25-8-202(7), C.R.S. and "Senate Bill 89-181 Rules and Regulations" adopted on February 4, 1992, the state engineer shall determine if this substitute supply of replacement water 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.

25. 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 Sarah Brucker 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: Exhibit 2 - Site Map
Tables 1 & 2
Water Lease Agreement
Augmentation Plan Accounting Administration Protocol for Division One

Cc: Michael Hein, Assistant Division Engineer, Michael.Hein@state.co.us
1809 56th Avenue, Greeley, CO 80634

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

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

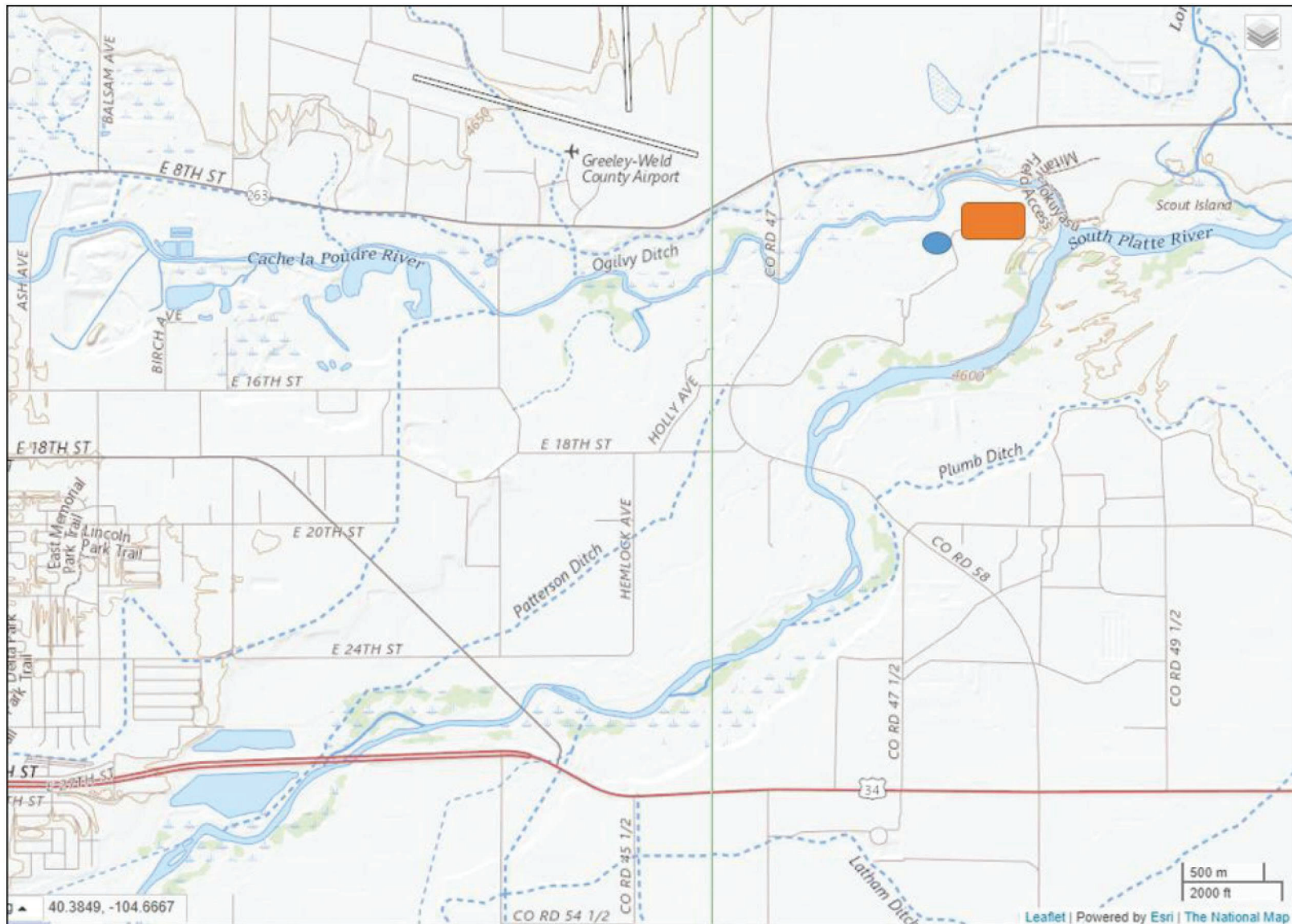
Dawn Ewing, Accounting Coordinator, Dawn.Ewing@state.co.us

Jorge Vidal, Water Commissioner, District 2, Jorge.Vidal@state.co.us

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

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

Exhibit 2. Site Map depicting general locations of mining pit (orange) and recharge pond (blue) and Patterson Ditch



DPG 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 Area¹ = 21.93 acres

		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Totals
Distribution of Annual Evaporation ²		0.12	0.15	0.15	0.14	0.10	0.07	0.04	0.03	0.03	0.04	0.06	0.09	1.00
Pond Evaporation ³	inches	5.52	6.67	6.90	6.21	4.60	3.22	1.84	1.38	1.38	1.61	2.53	4.14	46.0
Effective Precipitation ⁴	inches	0.71	0.58	0.20	0.07	0.07	0.10	0.29	1.00	1.35	1.18	1.03	0.99	7.6
Net Pond Evap	af/acre	0.40	0.51	0.56	0.51	0.38	0.26	0.13	0.03	0.00	0.04	0.12	0.26	3.20
Net Evaporation	acre-feet	8.79	11.14	12.23	11.22	8.29	5.71	2.84	0.69	0.06	0.79	2.74	5.75	70.24

Notes:

¹Summation of recharge pond, settling pond, and dewatering trenches

²Distribution of Annual Evaporation per DWR Guidelines for gravel pits at elevations below 6,500 feet.

³Annual evaporation rate are taken from NOAA Technical Report NWS 33.

⁴Effective Precipitation = 0.7 * Avg. Precip.. Monthly Precip. (Kersey Weather Station (1992 - 2013) from CoAgMet)

DPG 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	Washed Aggregate Production (tons)	Not Washed Aggregate Production (tons)	Water Retained in Product (ac-ft)	Water Used for Dust Control (ac-ft)	Water Pumped for Batch Plant (ac-ft)	Total Operational Consumptive Use (ac-ft)
May-22	55,000.00	35,000.00	2.65	2.00	0.00	4.65
Jun-22	60,000.00	40,000.00	2.94	3.00	0.00	5.94
Jul-22	60,000.00	40,000.00	2.94	4.00	0.00	6.94
Aug-22	60,000.00	40,000.00	2.94	4.00	0.00	6.94
Sep-22	60,000.00	40,000.00	2.94	4.00	0.00	6.94
Oct-22	55,000.00	35,000.00	2.65	3.00	0.00	5.65
Nov-22	50,000.00	35,000.00	2.50	2.00	0.00	4.50
Dec-22	40,000.00	20,000.00	1.77	1.00	0.00	2.77
Jan-23	15,000.00	10,000.00	0.74	0.00	0.00	0.74
Feb-23	15,000.00	10,000.00	0.74	0.00	0.00	0.74
Mar-23	15,000.00	10,000.00	0.74	0.00	0.00	0.74
Apr-23	20,000.00	20,000.00	1.18	1.00	0.00	2.18
Year 1 Total	505,000.00	335,000.00	24.72	24.00	0.00	48.72

Month	Dewatering (ac-ft)	Water Spilled from Recharge (ac-ft)	Lagged Depletions from Spill (ac-ft)	Available Credit from Spill (ac-ft)
May-22	200.00	164.00	168.09	(4.09)
Jun-22	100.00	0.00	45.25	(45.25)
Jul-22	50.00	0.00	18.31	(18.31)
Aug-22	10.00	0.00	12.04	(12.04)
Sep-22	10.00	0.00	8.63	(8.63)
Oct-22	10.00	0.00	7.01	(7.01)
Nov-22	10.00	0.00	5.54	(5.54)
Dec-22	10.00	0.00	4.79	(4.79)
Jan-23	10.00	0.00	4.09	(4.09)
Feb-23	10.00	0.00	3.22	(3.22)
Mar-23	10.00	0.00	3.15	(3.15)
Apr-23	10.00	0.00	2.71	(2.71)
Year 1 Total	440.00	164.00	282.83	-118.83

¹Lagged Depletions calculated with AWAS; infinite aquifer, $\alpha=600$ ft, $T=180,000$ gpd/ft, $S=0.20$

WATER LEASE AGREEMENT

THIS WATER LEASE AGREEMENT ("Agreement") is entered into on this 12th day of April, 2021 ("Effective Date") by and between the Ground Water Management Subdistrict of the Central Colorado Water Conservancy District, whose address is 3209 W. 28th Street, Greeley, Colorado 80634 ("**Lessor**") and Journey Ventures LLC, a Colorado Limited Liability Company whose address is at 105 Coronado Ct. Unit A-101 Fort Collins, CO 80525 (Journey Ventures) and J-2 Contracting Company, a Colorado Corporation whose address is 105 Coronado Ct. Unit A- 101, Fort Collins CO 80525 (J-2) (Journey Venture and J-2 shall be collectively referred to as "**Lessee**"). Lessor and Lessee may individually be referred to as a "Party" or collectively as "Parties."

RECITALS

WHEREAS, Lessor has storage and direct flow water rights in the Cache la Poudre basin and South Platte basin. Lessee has a Substitute Water Supply Plan (SWSP) filed with the State Engineer pursuant to 37-92-308(4) C.R.S.

WHEREAS, Lessee has a need for augmentation water for the DPG Pit at the confluence of the South Platte River and Cache LaPoudre River; and

WHEREAS, Lessor agrees to lease to Lessee such augmentation water upon the terms and conditions in this Lease Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the Parties hereby agree as follows:

1. **AUGMENTATION WATER LEASE**. Lessor hereby agrees, during the Term of this Agreement, to lease to Lessee, up to 134.00 acre-feet of water ("Augmentation Water"), pursuant to the monthly delivery schedule attached hereto as **Exhibit 1**.

2. **TERM OF LEASE**. The term of this lease is from the Effective Date through April 30, 2023.

3. **CONSIDERATION**. Lessee agrees to pay Lessor Six Hundred Fifty and 00/00 Dollars (\$650.00) per acre-foot of Augmentation Water (\$87,100.00 total) delivered pursuant to **Exhibit 1**, to be paid by Lessee by May 1, 2022. Payment to be provided at the Lessor address in paragraph 5 below.

4. **FURTHER APPROVAL**. Lessee shall be responsible for obtaining such approvals as are necessary for Lessee to use the Augmentation Water in its or substitute water supply plans and shall be responsible for accounting for its use of the Augmentation Water to

the appropriate State water administration officials, water court and/or other parties who may be entitled to that information. Lessee shall provide Lessor with copies of its accounting which illustrate Lessee's use of the Excess Augmentation Credits as reasonably requested by Lessor.

5. NOTICES. Any notices, demands or other communications required or desired to be given under provision of this Agreement shall be given in writing, delivered personally, or sent by certified or registered mail, return receipt requested, postage prepaid, address as follows:

To Lessor: Ground Water Management Subdistrict of the Central Colorado
Water Conservancy District
3209 W. 28th
Street Greeley,
CO 80634

To Lessee: J-2 Contracting Co.
105 Coronado Ct. Unit A-
101 Fort Collins, CO
80525

6. AMENDMENT. This Agreement may be modified, amended, changed or terminated in whole or in any part only by an agreement in writing duly authorized and executed by all the Parties with the same formality as this Agreement.

7. WAIVER. The waiver of any breach or any of the provisions of this Agreement by any Party shall not constitute a continuing waiver of any subsequent breach by said Party, by either of the same or any other provision of this Agreement.

8. HEADINGS FOR CONVENIENCE ONLY. Paragraph headings and titles contained herein are intended for convenience and reference only and are not intended to define or limit the scope or intent of any provision of this Agreement.

9. NON-SEVERABILITY. Each paragraph of this Agreement is related with the other and is not severable unless by mutual consent of the Parties hereto.

10. BINDING EFFECT. This Agreement and rights and obligations created hereby shall be binding upon and shall inure to the benefit of the Parties hereto and their respective successors and assigns; however, this Agreement shall not be assigned except with the prior written approval of the non-assigning party which approval shall not be unreasonably withheld.

11. GOVERNING LAW. This Agreement and its application shall be construed in accordance with the laws of the State of Colorado. Venue for the trial of any action under this Lease shall be in Weld County District Court.


12. MULTIPLE ORIGINALS. This Agreement may be simultaneously executed in any number of counterparts, each of which shall be deemed original but all of which constitute one and the same agreement. Signatures may be evidenced by facsimile. Documents with original signature shall be provided to the other Party upon request by the other Party.

13. NO ATTORNEY'S FEES. In the event of any litigation, mediation, arbitration or other dispute resolution process arising out of or related to this Agreement, each Party agrees to be responsible for its own attorneys' and other professional fees, costs, and expenses associated with any such proceedings.

14. ENTIRE AGREEMENT. This Agreement constitutes the entire Agreement between the Parties relating to the subject hereof and any prior agreements pertaining thereto whether oral or written have been merged or integrated into this Agreement.

Lessor:

Ground Water Management Subdistrict of the Central Colorado Water Conservancy District

By: 
President

Lessee:

J-2 Contracting

By: 
Chris Leone

EXHIBIT 1

Month	Monthly Release ¹ (ac-ft)
May-21	2.50
Jun-21	24.00
Jul-21	0.00
Aug-21	0.00
Sep-21	7.00
Oct-21	27.00
Nov-21	20.00
Dec-21	16.00
Jan-22	11.00
Feb-22	8.50
Mar-22	9.00
Apr-22	9.00
Total	134.00



ADMINISTRATION PROTOCOL Augmentation Plan Accounting Division One - South Platte River Revised October, 2021

This protocol establishes the accounting and reporting process required to enable the division engineer's office to determine if depletions from all out-of-priority diversions are being replaced so as to prevent injury to vested water rights. The accounting must follow "cradle to grave" accounting practices that track exactly how the data are manipulated from raw data input (e.g., meter readings) 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 shown as a negative value and an accretion or other replacement source is shown as a positive value. The difference of depletions and replacements will then result in either a negative or positive impact on the stream.

1. Accounting must be submitted electronically to the division engineer and water commissioner through the online data submittal portal at the following link on our website: <https://dwr.state.co.us/Tools/reporting>. If not already registered, you will need to create a new account through that link.

Typically, submittals are due within 30 days of the end of the month for which the accounting is being submitted, unless decreed otherwise. Additional data or more frequent submittals may be required by the water commissioner if required for administration. Accounting submittals not submitted through the online data submittal portal or questions regarding accounting submittals may be emailed to dnr_Div1Accounting@state.co.us.

The following naming convention must be used for all files submitted via email:
"PlanWDID_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"

2. The accounting must include a Contact & Plan Information tab, that includes the 7-digit WDID for the plan for augmentation/SWSP, the 4-digit SWSP ID (if applicable), and contact information (i.e., name, phone number, email address) for the augmentation plan accounting including:
 - a. the owner(s) of each augmented structure
 - b. the person responsible for submitting the accounting
 - c. the plan administrator and/or the plan attorney.

3. All of the raw input data (i.e., meter readings, water pumped from wells, etc.) must be provided and organized in a single location, such as an “Input” worksheet, etc. The accounting must include the following input data listed below, as well as relevant WDIDs and permit numbers.
 - a. Diversion data from flumes or weirs and unit of measurement.
 - b. The required input data for each well is:
 - i. the monthly flow meter reading as shown on the flow meter; date of the meter reading; flow meter multiplier (i.e., 0.001, 10, 1); units of volume (i.e., gallons or acre-feet); the meter serial number; correction factor, if any.
 - ii. The total volume pumped, showing the calculations using the information in Item “i” above.
 - iii. factors from the decree or SWSP that provide for the well consumptive use and depletions (i.e., presumptive depletion factor (PDF), water balance methodology, lagging parameters, etc.).
 - iv. Any well permitted or decreed as an alternate point of diversion (APOD) to a surface water right must report pumping on a daily basis if any of the diversions during the month is claimed as being “in priority”. (See Administration Protocol - APOD Wells for more details.)
 - c. If applicable, data for each recharge structure must be included and comply with the appropriate decree(s) or SWSP Approval requirements and any applicable current statewide Administration Protocol. At a minimum the following should be reported in the accounting:
 - i. 7-digit WDID and name of recharge structure
 - ii. daily volume in AF diverted into the site;
 - iii. monthly volume in AF released from the site;
 - iv. monthly gross evaporative loss in AF;
 - v. volume of water in AF remaining at the end of the month.
 - d. The accounting must identify each source of replacement water actually delivered to the stream and how replacement water at that location offset the depletions. To demonstrate the water was actually delivered to the required location will require the following information:
 - i. the name (water court case, lease, etc.) and WDID of the originating source of the replacement water, date released and volume of water released;
 - ii. transit losses from point of release to point of depletion 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).

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

- i. the decreed volume of return flow obligation;
 - ii. if not specified in the decree or SWSP, the location and timing of the owed return flow on the stream(s).
4. If required by the decree or SWSP, the accounting must include a monthly projection of the plan’s operation at least through March 31 of the next calendar year, or as specified in the decree or SWSP.
5. The accounting submittal must include output associated with modeling showing monthly delayed depletions (from well pumping or return flow obligations) and/or accretions (from recharge).

6. All accounting must provide a net impact summary that shows a daily balance of the out-of-priority depletions, accretions from each recharge site, volume of replacement water actually delivered and the resultant net impact. If necessary, a net impact must be shown for each applicable river and 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.

The accounting should indicate that the replacement water is equal to the depletion(s) such that the daily net impact (using the simulated daily numbers from the modeling) is not negative, unless the water commissioner approves less frequent aggregation of replacements without injury to downstream water rights.

In the instance that aggregation is allowed, replacement is needed only for days with out-of-priority depletions. For example, 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. Likewise, any simulated daily accretions will only count toward replacing the depletion on the days the well is out-of-priority. The accretions that accrue to the river when the well is in priority cannot be applied to different days with out-of-priority depletions.

7. The basis for determining that the depletions are out-of-priority should be data from the Division of Water Resources' Administrative Calls & Analysis Tool (<https://dwr.state.co.us/Tools/AdministrativeCalls/Active>) and should be included in the accounting along with the relative steps in the determination of a structure being in or out of priority. 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. The accounting shall include all the required information for the month of the submittal in addition to the information submitted from previous months such that the information and monthly submittals are a cumulative report each month throughout the 12 month reporting period.
9. If a well is covered in multiple SWSPs 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 and total pumping amount covered by each plan to assure all out-of-priority depletions are replaced.
10. The following additional accounting requirements apply when sources of replacement water are used in more than one plan.
 - a. The entity providing replacement water to the stream is responsible for accounting for the total amount of replacement water and how much of the total went to each plan.
 - b. The amount of replacement water claimed for a particular augmentation plan must match the amount in the accounting from the entity providing the replacement water to the stream.
 - c. The amount of replacement water claimed for use by one or more water users shall not exceed the amount of replacement water physically and legally 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).