



**COLORADO**  
Division of Water Resources  
Department of Natural Resources

November 19, 2021

Jared Dains, P.E.  
Applegate Group, Inc.  
1490 West 121<sup>st</sup> Avenue, Suite 100  
Denver, CO 80234

**Re: East 8<sup>th</sup> Street Substitute Water Supply Plan (WDID 0302562, Plan ID 4701)**  
**East 8<sup>th</sup> Street Pit, DRMS Permit No. M-2000-082 (WDID 0303016)**  
**S½ Section 4, T5N, R65W, 6<sup>th</sup> P.M.**  
**Water Division 1, Water Districts 2 & 3, Weld County**

**Approval Period: November 1, 2021 through October 31, 2022**

*Contact information for Mr. Dains: 303-452-6611; [jareddains@applegategroup.com](mailto:jareddains@applegategroup.com)*

*Accounting contact: Abdullah Javed; 303-452-6611; [ajaved@applegategroup.com](mailto:ajaved@applegategroup.com)*

Dear Mr. Dains:

We have received your letter dated October 26, 2021, requesting renewal of the above referenced substitute water supply plan ("SWSP") in accordance with section 37-90-137(11), C.R.S., to cover depletions caused by the East 8<sup>th</sup> Street Pit sand and gravel mining operation. The current permittee for the East 8<sup>th</sup> Street Pit (M-2000-082) is Superior Oilfield Services Co., LTD and the current operator is Laser Oilfield Service LLC ("Laser" or "Applicant"). This pit was previously included in the Aggregate Industries Combined SWSP (WDID 0202565) but has been covered under a separate SWSP since November 1, 2012. The required fee of \$257 for the renewal of this SWSP has been submitted (receipt no. 10016421).

### **SWSP Operation**

The East 8<sup>th</sup> Street Pit (WDID 0303016) is located just east of the City of Greeley in the south half of Section 4, Township 5 North, Range 65 West of the 6<sup>th</sup> P.M., as shown on the attached Figure 1. Both the east cell and the west cell of the pit have been fully mined out. Dewatering of the west cell ceased in July 2016 and was allowed to refill over the following three months (August through October 2016). Dewatering of the west cell restarted in November 2016, and continued through January 2017. During February and March of 2017, the water table was below the level of the pit therefore no pumping was required for dewatering and the pit did not refill with water. The west cell was dewatered again during April 2017, and was filled during free river conditions in May and June, eliminating the need to account for an "intermittent fill" of the pit in 2017. Mining and dewatering operations switched to the east cell beginning in August 2017. Dewatering of the east cell ceased in August 2018, but the cell has not refilled with water due to low groundwater levels in the area combined with the shallow depth of excavation. No mining is proposed to occur during this plan period. Depletions at the East 8<sup>th</sup> Street Pit during this plan period will be limited to evaporation from exposed groundwater surface areas, ongoing lagged depletions associated with past



operational and evaporative consumptive use at the site, and lagged depletions due to the cessation of dewatering at the site. The City of Greeley is the owner of the land on which the East 8<sup>th</sup> Street Pit is located. Greeley will provide replacement water from their waste water treatment plant pursuant to the mining lease agreement between the Applicant and Greeley. Additional replacement water will be provided pursuant to a lease agreement between the Applicant and the City of Loveland. The final reclamation plan for the pit is to create a lined storage reservoir for the City of Greeley.

## Depletions

The total exposed groundwater surface area at this site is expected to be approximately 8.8 acres during this plan period, consisting solely of groundwater exposed in the west cell. The east cell was mined and reclaimed to a shallower depth and is not exposing groundwater as evidenced by photographs taken by the Applicant on September 24, 2021. Net evaporative loss was determined to be 2.93 feet per exposed acre, as approved in previous SWSPs. This value was calculated using a gross annual evaporation of 45 inches from the exposed water surface, with a credit of 9.9 inches for effective precipitation, based on average annual precipitation of 14.14 inches for the Greeley UNC weather station. Net evaporative losses at the East 8<sup>th</sup> Street Pit are therefore estimated to total 25.74 acre-feet for the 8.8 acres of groundwater exposed at the site.

No material is proposed to be mined and no groundwater is proposed to be used for dust control purposes at the site during this plan period.

After cessation of dewatering the west cell in July 2016, the west cell filled to a depth of approximately 4 feet with a surface area of 7 acres, for a total fill volume of 28 acre-feet. You have assumed that the refilling occurred evenly over the three-month period of August, and September, and October 2016. The lagged depletions associated with the temporary refilling of the west cell, including lagged depletions from evaporation off the increased surface area of the cell, will be replaced under this SWSP.

The IDS Alluvial Water Accounting System (AWAS) analytical stream depletion model, which uses the Glover method, was used to calculate the lagged depletions to the Cache la Poudre River. The following parameters were used in the model: transmissivity (T) = 120,000 gallons per day per foot, specific yield (SY) = 0.2, the distance from the river to the edge of the alluvium = 11,000 feet, and the distance from the centroid of the exposed surface water areas to the river = 600 feet. Lagged depletions resulting from past consumptive use at the site that are projected to impact the river during this plan period, including those associated with the “intermittent fill” of the west cell that occurred in 2016, were determined to equal 26.16 acre-feet for this plan period.

Dewatering of the east cell ceased in August of 2018. As long as the pit was continuously dewatered, the water returned to the stream system was sufficient to offset the depletions attributable to the dewatering operations. However, once dewatering at the site ceased, delayed depletions from past dewatering continued to impact the river. Previous SWSPs were approved on the assumption that dewatering was ongoing at the east cell, therefore these lagged dewatering depletions did not get accounted for or replaced at the time they impacted the river. Based on the submitted accounting and AWAS parameters identified above, there were a total of 41 acre-feet of lagged depletions from past dewatering operations that impacted the stream between August 2018

and October 31, 2020 that were not replaced under previous substitute water supply plans. Of that amount, approximately 14 acre-feet impacted the stream during periods of no call and did not require replacement. The remaining 27 acre-feet of lagged dewatering depletions impacted the stream during periods of call and were replaced to the river during the 2020-2021 plan period. There are a total of 3.98 acre-feet of lagged depletions from past dewatering operations that will impact the stream during this plan period which will be replaced during the month they are calculated to impact the river.

The total amount of depletions that must be replaced under this SWSP therefore equals 30.14 acre-feet, as shown in the attached Table 1. Columns A through F of Table 1 show the monthly breakdown of evaporative losses and lagged depletions. Depletions from the East 8<sup>th</sup> Street Pit are assumed to impact the Cache la Poudre River directly adjacent to the pit in the S $\frac{1}{2}$  of the S $\frac{1}{2}$  of Section 4, Township 5 North, Range 65 West of the 6<sup>th</sup> P.M., approximately 4.5 miles upstream of the confluence of the Cache la Poudre River with the South Platte River.

## Replacements

Replacement water for the period of November 2021 through March 2022 will be provided using a total of 9.1 acre-feet of water leased from the City of Loveland. A copy of the lease agreement, dated November 1, 2021, showing the monthly replacement schedule is attached. The replacement water will be delivered to the Big Thompson River at the outfall of the Loveland Wastewater Treatment Plant (WDID 0402300), located in the NE $\frac{1}{4}$  of the SW $\frac{1}{4}$  of Section 19, Township 5 North, Range 68 West of the 6<sup>th</sup> P.M., to the confluence of the Big Thompson River with the South Platte River and down the South Platte River to its confluence with the Cache la Poudre River, where it can then be exchanged up to the East 8<sup>th</sup> Street Pit. The Applicant's delivery schedule incorporates a transit loss of 8.75% based on the assumed non-irrigation season (Nov-Mar) transit loss rate of 0.25% per mile for a distance of 35 miles from the Loveland Wastewater Treatment Plant outfall to the confluence of the South Platte River and the Cache la Poudre River. If a different transit loss is determined by the division engineer or water commissioner, the Applicant must modify their accounting and replacements as necessary to be consistent with the determined transit loss. During the period of November through March when this source is proposed to be used for replacements, it is anticipated that the call on the river will be downstream of the Cache la Poudre/South Platte River confluence. It is the Applicant's responsibility to track the daily call and make arrangements as necessary to ensure the required replacement water is bypassed or otherwise delivered to the confluence of the Cache la Poudre and South Platte Rivers. The District 3 Water commissioner has confirmed there is no call in the winter for the stretch of the Cache la Poudre between the East 8<sup>th</sup> Street Pit and the confluence with the South Platte River. Therefore, as long as a diversion structure is not sweeping the South Platte River, the City of Loveland lease is able to provide replacement water on behalf of the East 8<sup>th</sup> Street Pit.

Pursuant to a mining lease agreement between Laser and the City of Greeley ("Greeley"), Greeley will provide additional augmentation water for the East 8<sup>th</sup> Street Pit. A copy of the mining lease has previously been provided to this office. A letter from Greeley dated October 11, 2021 confirming the monthly replacement schedule was provided with this SWSP request and is attached. Greeley will provide a total of 22.7 acre-feet of fully consumable water that has been changed for augmentation use during the period of April 2022 through October 2022. Greeley anticipates delivering the replacement water to the Cache la Poudre River at Greeley's wastewater treatment

plant (WDID 0302312) located approximately 0.5 miles upstream of the East 8<sup>th</sup> Street Pit. The Applicant's delivery schedule incorporates a transit loss of 0.13% based on an assumed rate of 0.25% per mile. Any releases by Greeley at a location other than its wastewater treatment plant must be coordinated with the water commissioner to ensure the proper transit losses are applied and that no intervening water rights are injured. In addition, if a different transit loss is determined by the division engineer or water commissioner, the Applicant must modify their accounting and replacements as necessary to be consistent with the determined transit loss.

The monthly schedule of proposed replacement deliveries from each source, transit losses, and overall water balance is shown in columns G through K of the attached Table 1.

### Long Term Augmentation

In accordance with the letter dated April 30, 2010 from the Colorado Division of Reclamation, Mining, and Safety ("DRMS"), all sand and gravel mining operators must comply with the requirements of the Colorado Reclamation Act and the Mineral Rules and Regulations for the protection of water resources. The April 30, 2010 letter from DRMS requires that you provide information to DRMS to demonstrate you can replace long-term injurious stream depletions that result from mining-related exposure of groundwater. In accordance with approach number 1, Superior Oilfield Services Co., LTD, has submitted a financial warranty in the amount of \$61,870 for the East 8<sup>th</sup> Street operation, which the Mined Land Reclamation Board has determined equals the remaining costs of reclamation. The East 8<sup>th</sup> Street Pit is proposed to be reclaimed as two open water lakes or reservoirs. It is noted that pursuant to a mining lease agreement with the City of Greeley (landowner), Greeley has the long-term augmentation responsibility at this site.

### Conditions of Approval

I hereby approve this substitute water supply plan 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 November 1, 2021 through October 31, 2022, unless otherwise revoked, modified, or superseded by decree. If either lagged or projected depletions will extend beyond the plan's expiration date, a renewal request must be submitted to this office with the statutory fee (currently \$257) prior to the expiration date but **no later than September 1, 2022**. 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 filing fee of \$1,593 will be required.
2. Well permit no. 82986-F was obtained for the current use and exposed pond surface area of the East 8<sup>th</sup> Street Pit in accordance with sections 37-90-137(2) and (11), C.R.S.
3. The total surface area of the groundwater exposed at the East 8<sup>th</sup> Street Pit site during this plan period must not exceed 8.8 acres, which results in an annual net evaporative loss of 25.74 acre-feet.
4. Total consumption at the East 8<sup>th</sup> Street Pit must not exceed this amount unless an amendment is made to this plan.

5. Approval of this plan is limited to replacement of evaporative losses from exposed groundwater surface areas and lagged depletions from past mining and dewatering operations. This office must first approve any additional uses of groundwater at the site.
6. The replacement water that is the subject of this plan cannot be sold or leased to any other entity. As a condition of subsequent renewals of this substitute water supply plan, the replacement water must be appurtenant to this site until a plan for augmentation is obtained.
7. 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.
8. In order to prevent injury to other water rights, the division engineer and water commissioner must be able to administer Applicants' 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.
9. 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.
10. 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.
11. Conveyance loss for delivery of augmentation water is subject to assessment and modification as determined by the division engineer.
12. Adequate accounting of depletions and replacements must be provided to the division engineer in Greeley ([DNR\\_Div1Accounting@state.co.us](mailto:DNR_Div1Accounting@state.co.us)) and the water commissioners (Mark Simpson at [Mark.Simpson@state.co.us](mailto:Mark.Simpson@state.co.us) and Jean Lever at [Jean.Lever@state.co.us](mailto:Jean.Lever@state.co.us)) on a monthly basis, or more frequent if required by the water commissioner. Submitted accounting shall conform to the attached Division 1 Administration Protocol "*Augmentation Plan Accounting, Division One - South Platte Basin*".
13. It is the Applicant's responsibility to verify that the entities making replacements are identifying this use on their accounting submitted to our office. For the period of this plan, those entities are the City of Loveland and the City of Greeley (WDID 0303330 - GLIC Accounting).
14. 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.

15. 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.
16. If a lined pond results after reclamation, replacement of lagged depletions shall continue until there is no longer an effect on stream flow.
17. Post-pumping dewatering depletions (including any depletions associated with the refilling of the pit) must be replaced in time, place and amount.
18. To assure that depletions from groundwater evaporation do not occur in the unforeseen event, or events, that would lead to the abandonment of the East 8<sup>th</sup> Street Pit, a bond in the amount of \$61,870 has been obtained through the DRMS for completion of reclamation at the site.
19. The state engineer may revoke this SWSP or add additional restrictions to its operation if at any time the state engineer determines that injury to other vested water rights has or will occur as a result of 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 product from below the water table, and all other use of water at the pit, must cease immediately.
20. 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 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 SWSPs or in any proposed renewal of this SWSP, and shall not imply concurrence with any findings of fact or conclusions of law contained herein, or with the engineering methodologies used by the Applicant.

Should there be any further comments or questions, please contact Michael Hein, Lead Assistant Division Engineer, in Greeley at 970-352-8712 or Sarah Brucker in Denver at 303-866-3581 ext. 8249.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jeff Deatherage".

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

Attachments: Figure 1

Table 1

City of Loveland Lease (November 1, 2021)

City of Greeley Letter (October 11, 2021)

April 30, 2010 DRMS letter

Division 1 Administration Protocols: *"Augmentation Plan Accounting, Division One - South Platte Basin"* and *"Delivering Water Using the Natural Stream, Division One - South Platte River"*

Cc: Michael Hein, Lead Assistant Division Engineer, [Michael.Hein@state.co.us](mailto:Michael.Hein@state.co.us)  
1809 56th Avenue, Greeley, Colorado 80634

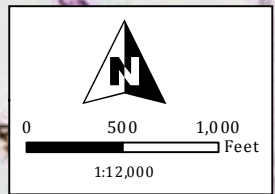
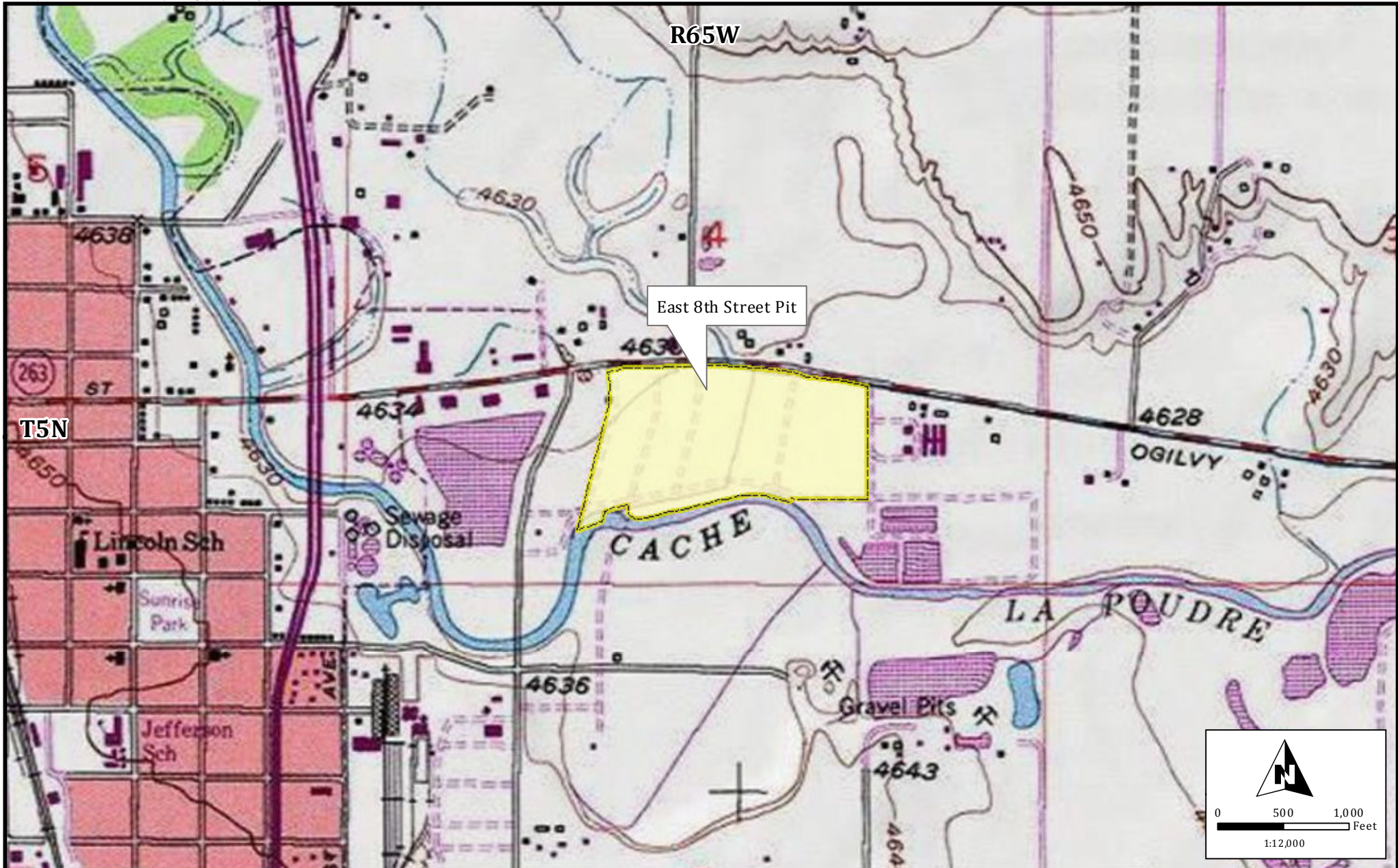
Louis Flink, Tabulation/Diversion Records Coordinator, [Louis.Flink@state.co.us](mailto:Louis.Flink@state.co.us)

Mark Simpson, Water Commissioner, District 3, [Mark.Simpson@state.co.us](mailto:Mark.Simpson@state.co.us)

Jean Lever, Water Commissioner, District 4, [Jean.Lever@state.co.us](mailto:Jean.Lever@state.co.us)

Eric C. Scott, Division of Reclamation Mining and Safety, [Eric.Scott@state.co.us](mailto:Eric.Scott@state.co.us)





Water Resource Advisors for the West  
 1499 West 120th Ave., Ste 200 Phone: (303) 452-6611  
 Denver, CO 80234-2728 Fax: (303) 452-2759  
 www.ApplegateGroup.com e-mail: info@applegategroup.com

## EAST 8TH STREET PIT (M-00-082)

Vicinity Map

Date: 7 Nov 2012

Job #: 12-137

Drawn By: JMD

Figure:

**1**

Of:

1



**Table 1****WY 2022 Water Balance****East 8th Street Pit Substitute Water Supply Plan**

Date Revised: 10/14/2021

AG Job #: 12-137

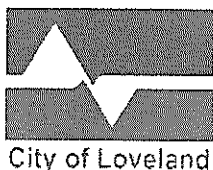
All values in ac-ft unless noted

| Month        | Depletions                |  |                        |                       |                             |                                    | Replacements             |                          |                           |                           | Water Balance (K) |
|--------------|---------------------------|--|------------------------|-----------------------|-----------------------------|------------------------------------|--------------------------|--------------------------|---------------------------|---------------------------|-------------------|
|              | Monthly Net Evap (ft) (A) | Exposed Water Surface Area (acres) (B) | Evaporative Losses (C) | Lagged Depletions (D) | Post-Pumping Depletions (E) | Total Augmentation Requirement (F) | Greeley Lease Volume (G) | Greeley Lease Credit (H) | Loveland Lease Volume (I) | Loveland Lease Credit (J) |                   |
| Nov-21       | 0.10                      | 8.8                                    | 0.90                   | 1.39                  | 0.43                        | 1.82                               | 0.0                      | 0.00                     | 2.1                       | 1.92                      | 0.10              |
| Dec-21       | 0.09                      | 8.8                                    | 0.76                   | 1.11                  | 0.41                        | 1.52                               | 0.0                      | 0.00                     | 1.8                       | 1.64                      | 0.12              |
| Jan-22       | 0.08                      | 8.8                                    | 0.74                   | 1.02                  | 0.39                        | 1.40                               | 0.0                      | 0.00                     | 1.6                       | 1.46                      | 0.06              |
| Feb-22       | 0.11                      | 8.8                                    | 0.97                   | 1.12                  | 0.37                        | 1.49                               | 0.0                      | 0.00                     | 1.7                       | 1.55                      | 0.06              |
| Mar-22       | 0.14                      | 8.8                                    | 1.23                   | 1.30                  | 0.35                        | 1.66                               | 0.0                      | 0.00                     | 1.9                       | 1.73                      | 0.08              |
| Apr-22       | 0.23                      | 8.8                                    | 2.05                   | 1.86                  | 0.33                        | 2.20                               | 2.3                      | 2.30                     | 0.0                       | 0.00                      | 0.10              |
| May-22       | 0.30                      | 8.8                                    | 2.67                   | 2.41                  | 0.32                        | 2.73                               | 2.8                      | 2.80                     | 0.0                       | 0.00                      | 0.07              |
| Jun-22       | 0.44                      | 8.8                                    | 3.84                   | 3.30                  | 0.30                        | 3.60                               | 3.7                      | 3.70                     | 0.0                       | 0.00                      | 0.10              |
| Jul-22       | 0.48                      | 8.8                                    | 4.22                   | 3.79                  | 0.29                        | 4.08                               | 4.1                      | 4.09                     | 0.0                       | 0.00                      | 0.01              |
| Aug-22       | 0.44                      | 8.8                                    | 3.87                   | 3.71                  | 0.27                        | 3.99                               | 4.0                      | 4.00                     | 0.0                       | 0.00                      | 0.01              |
| Sep-22       | 0.31                      | 8.8                                    | 2.70                   | 2.96                  | 0.26                        | 3.22                               | 3.3                      | 3.30                     | 0.0                       | 0.00                      | 0.08              |
| Oct-22       | 0.20                      | 8.8                                    | 1.80                   | 2.19                  | 0.25                        | 2.44                               | 2.5                      | 2.50                     | 0.0                       | 0.00                      | 0.06              |
| <b>Total</b> | <b>2.93</b>               |  | <b>25.74</b>           | <b>26.16</b>          | <b>3.98</b>                 | <b>30.14</b>                       | <b>22.7</b>              | <b>22.67</b>             | <b>9.1</b>                | <b>8.30</b>               | <b>0.83</b>       |

**Notes:**

- (A) Monthly Evaporation rates from previous AI CoSSP approvals  
 (B) Estimated exposed groundwater acreage  
 (C) Monthly Evap rate (Col A) multiplied by current monthly exposed surface area (Col B)  
 (D) Lagged depletions include past consumptive use at the East 8th Street Pit  
 (E) Estimated post-dewatering depletions from past pumping  
 (F) Total Augmentation Requirement is Col D + Col E  
 (G) Lease from the City of Greeley  
 (H) Credit from the City of Greeley lease after transit loss is assessed  
 (I) Lease from the City of Loveland  
 (J) Credit from the City of Loveland lease after transit loss is assessed  
 (K) Water Balance = (H) + (J) - (F)

|                                     |       |          |
|-------------------------------------|-------|----------|
| Unit Transit Loss =                 | 0.25% | per mile |
| Greeley Lease Transit Distance =    | 0.5   | miles    |
| Greeley Lease Total Transit Loss =  | 0.13% |          |
| Loveland Lease Transit Distance =   | 35    | miles    |
| Loveland Lease Total Transit Loss = | 8.75% |          |



Department of Water and Power  
Service Center • 200 N. Wilson Avenue • Loveland, CO 80537  
(970) 962-3000 • (970) 962-3400 Fax • (970) 962-2620 TDD  
www.cityofloveland.org

## WATER LEASE

The City of Loveland, Colorado hereby agrees to lease to Laser Oilfield Service, LLC. ("Renter") the following water for the winter season of November through March, ending March 31, 2022.

**Description:** An amount of water not to exceed 9.1 acre-feet (AF) of water to act as a temporary augmentation source to replace groundwater depletions associated with the gravel pit mining operations at the East 8<sup>th</sup> Street Pit (M-00-082), located near the east side of Greeley, Colorado, off the Cache la Poudre River (see Figure 1).

In exchange for use of the water as set forth herein, Renter shall pay the City \$ [REDACTED] which includes administrative costs. Said payment has been calculated as follows:

Lease fee for 9.1 AF at [REDACTED] AF:

\$ [REDACTED]

5% Administrative Fee:

\$ [REDACTED]

**Total Cost of Leased Water** (rounded to nearest dollar amount):

\$ [REDACTED]

### Monthly Augmentation Credit/Release Schedule:


| Month-Year           | Nov-21 | Dec-21 | Jan-22 | Feb-22 | Mar-22 | Total |
|----------------------|--------|--------|--------|--------|--------|-------|
| Lease Amount [ac-ft] | 2.1    | 1.8    | 1.6    | 1.7    | 1.9    | 9.1   |

This lease may be executed by electronic signature in accordance with C.R.S 24-71.3-101 *et seq.* In the event the City has an urgent need for water, as determined in the sole discretion of the City, or if the City desires to sell or transfer the shares to a third party, the City may unilaterally terminate this Water Lease without cause. The City will endeavor to give Lessee thirty (30) days notice of such termination, but shall not be required to do so. The Lessee shall not rent, sublet, or otherwise convey to any person or entity the right to use the leased water. The City grants no interest in the leased water to the Lessee other than as explicitly set forth in this one page annual lease agreement. Lessee shall make no claims to any rights, title, or interest in the leased water other than as explicitly set forth in this Water Lease. Delivery of water by the City under this Water Lease shall be on an "as is" basis only, and the City neither expressly nor impliedly warrants or guarantees the quality of the water or the quantity of water that will be yielded from the shares leased to Lessee.

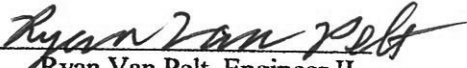
Signed by the City and effective this 1 day of November, 2021.

This lease may be executed by electronic signature in accordance with C.R.S 24-71.3-101 *et seq.*

**Renter:** Laser Oilfield Service, Inc.  
2986 W 20th Street, Unit 12  
Greeley, CO 80631  
(970) 352-4444

By:   
Title: V. PRES

**City of Loveland, Colorado**  
Department of Water & Power  
200 N Wilson Ave.  
Loveland, CO 80537  
(970) 962-2620

By:   
Ryan Van Pelt, Engineer II  
Loveland Water & Power



October 11, 2021

Laser Oilfield Services Co.  
c/o John McFarland  
2986 W 29<sup>th</sup> St. Unit 12  
Greeley, CO 80631

RE: Augmentation Water Lease for **Laser Oilfield Services Co.**

Dear Mr. McFarland,

We are in receipt of Laser Oilfield Services Co. (Laser) augmentation water requirement schedule for April 2022 – October 2022. To meet Laser's augmentation demands, Greeley will make available to Laser, wholly consumable water that has been changed for augmentation use at one of the following locations: 1) in the Cache la Poudre River at (a) the outlet of Greeley's Water Pollution Control Facility; (b) the outlet of the Flatiron Reservoir Nos. 1-5 (aka Poudre Ponds at Greeley); (c) Release Structures for Greeley Canal No. 3 including, but not limited to: (i) the 23<sup>rd</sup> Avenue Spillway; (ii) the 16<sup>th</sup> Street Release Structure; and (iii) The F Street Release Structure; and (vi) the 35<sup>th</sup> Avenue Drainage Ditch; provided, however, that at any time the Ogilvy Ditch is calling Greeley will only deliver water upstream of the Ogilvy Ditch headgate; or (2) the Big Thompson River at delivery stations or release structures under the Greeley Loveland Irrigation Company's irrigation canal system, or any other company's canal associated therewith; provided, however, that Greeley will not deliver Leased Water to the Big Thompson River at any time the Lower Latham Ditch is calling; or (3) at such other point or points on which the Parties mutually agree in writing.

The request totals **22.7** acre-feet for replacements will be made per the schedule provided by Applegate Group.

| Laser's Augmentation Requirement (acre-feet) |        |        |        |        |        |        |        |             |
|--|--------|--------|--------|--------|--------|--------|--------|-------------|
|  | Apr-22 | May-22 | Jun-22 | Jul-22 | Aug-22 | Sep-22 | Oct-22 | Total       |
| Monthly (AF)                                 | 2.3    | 2.8    | 3.7    | 4.1    | 4      | 3.3    | 2.5    | <b>22.7</b> |

The current rate for augmentation water is \$ [REDACTED]/acre-foot, for a total of \$ [REDACTED]. Please see the attached invoice. The payment is due by **November 11, 2021**.

Please be aware that it is Laser'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 Laser.



If you have any questions, please do not hesitate to call me at (970) 350-9820.

Sincerely,

*Leah Hubbard*

Leah Hubbard  
Water Resources Administrator III, Greeley Water & Sewer Department

Cc: Jared Dains PE Applegate Group, Inc.  
Adam Jokerst, Deputy Director of Water Resources  
Jennifer Petrzeka, Water Resources Operations Manager



**DIVISION OF RECLAMATION, MINING AND SAFETY**  
Department of Natural Resources

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

M-2000-082



Bill Ritter, Jr.  
Governor

James B. Martin  
Executive Director

Loretta E. Piñeda  
Director

April 30, 2010

Aggregate Industries - WCR, Inc.  
1707 Cole Blvd., Ste. 100  
Golden, CO 80401

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: | M1977141 | Lyons Quarry                            | M1989029 | Longmont Distel Operations |
|     | M2004051 | Wattenberg Lakes                        | M1991140 | Tucson Resource Mine       |
|     | M2004031 | Hazeltine Mine                          | M1992069 | 83rd Joint Venture         |
|     | M2004044 | Tucson South Resource                   | M1994093 | Dahlia North Resources Pit |
|     | M2003069 | Timberline Resource                     |          |                            |
|     | M2001016 | Fredstrom Resource                      |          |                            |
|     | M1989120 | Platte Valley Operation                 |          |                            |
|     | M1984164 | Neighbors Pit                           |          |                            |
|     | M1997014 | Deer Creek Quarry                       |          |                            |
|     | M1999021 | Stegner Farms                           |          |                            |
|     | M1999034 | Cooley Reservoir & Fulton Wildlife Area |          |                            |
|     | M1999098 | Riverview Resources                     |          |                            |
|     | M1990007 | Camenish/Larson Pit                     |          |                            |
|     | M2000087 | Milliken Resource                       |          |                            |
| →   | M2000082 | E 8th Street Operation                  |          |                            |
|     | M1994027 | Longmont Operation                      |          |                            |
|     | M1977436 | Brighton Mine                           |          |                            |
|     | M1973021 | Morrison Quarry                         |          |                            |



## **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](mailto: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).



# ADMINISTRATION PROTOCOL

## Delivering Water Using the Natural Stream

### Division One—South Platte River

This document outlines the actions water users must take in order for the Division of Water Resources to deliver water by means of the natural stream. This protocol is subordinate to any contradicting decreed language addressing specific water rights.

#### Access

The language of section 37-84-113, C.R.S., *implicitly acknowledges that a natural stream may be used as a conduit.*<sup>1</sup>

#### Notification

The water user must notify the water commissioner **at least 48 hours and not more than 7 days prior to the release of water** being delivered via a natural stream system unless the water commissioner specifically approves a different notice requirement in advance of the release. Advance notice is necessary in order to provide the water commissioner the time required to confirm that the delivery can be made under the current stream conditions.

#### Measurement Structures

In accordance with §37-84-113, C.R.S., water users seeking to use the natural stream to deliver water

*“shall construct suitable and proper measuring flumes or weirs, equipped with self-registering devices if required by the state engineer, for the proper and accurate determination of the amount and flow of water turned into, carried through, and diverted out of said natural stream.” (underline emphasis added)*

In short, water users are responsible for the construction of all measurement structures required to administer their water. This may include measurement structures required, in the opinion of the water commissioner or division engineer, to deliver their water past intervening water rights that are drying or “sweeping” the river.

**If the water commissioner is unable to corroborate that water was delivered past a structure that was sweeping the river, none of the water released will be available for diversion or replacement credit below the sweeping structure.**

#### Transit Loss

The volume of water available for diversion or replacement credit is the volume released to the stream less transit loss. The transit loss will:

- comply with any specific court decree covering the delivery;
- be based on current conditions and shall be determined by the water commissioner or division engineer;
- be the same for all water users in the same reach of the river or stream at the time of the delivery.

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<sup>1</sup> Trail's End Ranch, LLC v. CO DWR, 91 P.3d 1058 (Colo. 2004).