



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

May 24, 2024

Ayrton Hendrix  
Hendrix Wai Engineering, Inc.  
PO Box 4487  
Parker, CO 80134

**RE: GP Aggregates West Farm Pit Substitute Water Supply Plan  
DRMS Permit No. M-2008-078  
Sections 33 & 28, T22S, R46W, 6<sup>th</sup> PM  
Water Division 2, Water District 67, Prowers County  
SWSP ID 5121, WDID 6707828**

**Approval Period: May 1, 2024 through April 30, 2025**

*Contact Information for Ayrton Hendrix: 720-930-4360; ayrton@hendrix-wai.com*

Dear Mr. Hendrix;

We have reviewed your letter of March 29, 2024 requesting renewal of the above referenced substitute water supply plan ("SWSP") pursuant to section 37-90-137(11), C.R.S., for a sand and gravel pit operated by Brannan Sand and Gravel ("BSG" or "Applicant"). The mine is permitted with the Division of Reclamation, Mining, and Safety ("DRMS") under Permit No. M-2008-078. The required fee of \$257 (receipt no. 10035034) has been submitted.

## **SWSP OPERATION**

This plan seeks to replace depletions resulting from mining operations at the West Farm Pit (WDID no. 6706650). The mine is located in Prowers County in the S1/2 of the SE1/4 of Section 28 and the NE1/4 and the NW1/4 of Section 33, Township 22 South, Range 46 West of the 6<sup>th</sup> P.M. Depletions associated with the mining operations include evaporative losses from the dewatering trenches and settling pond, water lost as moisture content in the mined material, and water used for dust control and product washing. Depletions from the mining operations have been fully replaced under LAWMA's augmentation plan originally decreed in Case No. 02CW181. The evaporative losses from the dewatering trenches and settling pond and water lost as moisture content in the mined material will be augmented under this SWSP, while the water used for dust control and aggregate washing is obtained from an onsite well and will continue to be augmented under LAWMA's plan.

## **DEPLETIONS**

BSG operates a dry-mining gravel pit. The site was previously operated by GP Aggregates, LLC. The slurry wall liner for the 1st Gravel Pit Cell was approved by the Division of Water Resources as meeting the design standard for liners in a letter dated February 16, 2015 (West Farm Gravel Pit Slurry Wall, WDID 6706650). This cell is not proposed to be mined during this plan period. Active mining will occur in the 2nd Gravel Pit Cell. Dewatering trenches keep the water table down and are



used throughout the site. The water removed by the dewatering trenches is collected in a settling pond. Once the sediments are no longer suspended, the water is pumped into a lateral and delivered back to the Arkansas River.

The total surface area of the dewatering trenches and sediment ponds will not exceed 7.00 acres for the term of this SWSP. The total maximum area of the exposed water surfaces has been used to calculate the evaporative losses for this plan. The net evaporation value for this area (Lamar) has been obtained from paragraph A.i of Exhibit R of the decree in Case No. 02CW181, which is 4.11 feet/year. Therefore, the evaporative losses for the exposed water surface is 7.00 acres × 4.11 feet/year, or 28.77 acre-feet/year (see Table 1, attached). Dewatering and exposed groundwater surface area of the mining site is associated with well permit no. 75864-F.

Water lost with the mined material has been estimated to be 20.60 acre-feet, based on a projected 1,400,000 tons of mined material and a 2% moisture content. The moisture content is less than wet mining (4% loss) due to the fact that the pit is mined in a dewatered state and the water used for washing is provided from a different source.

Water for dust control and aggregate washing will be pumped from the well with WDID 6705373 (Permit no. 79629-F) and will continue to be augmented under the Lower Arkansas Water Management Association plan for augmentation decreed in Case No. 02CW181 as added by the decree in Case No. 12CW37.

The total calculated consumptive use for this SWSP is 49.37 acre-feet. Depletions to the Arkansas River were determined using the Integrated Decision Support Group's (IDS) Alluvial Water Accounting System ("AWAS") model and a stream depletion factor ("SDF") of 88 days. Although DWR now discourages the use of the SDF method, these depletions were calculated in previous plans using the SDF, and the methodology is maintained in this SWSP request. The total stream depletion that will occur during this plan year is 36.13 acre-feet, as shown in Table 3.

## **REPLACEMENTS**

The proposed source of replacement water is BSG's ownership of 400 common shares in the Lower Arkansas Water Management Association ("LAWMA"). The proposed allocation for a LAWMA common share in 2024 was projected to be 68% at the time of submission. Therefore, 54 LAWMA shares will be dedicated to this plan to replace the 36.13 acre-feet of lagged stream depletions (36.13 acre-ft / 0.68). Accounting will be provided by BSG to LAWMA, which will make replacement deliveries to the Arkansas River using fully consumable water.

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 nos. 1 and 3, a bond has been obtained for \$8,310,769 through the DRMS. This bond is for reclamation requirements under the current DRMS permit.

## 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 May 1, 2024 through April 30, 2025, unless otherwise revoked or superseded by decree. Should an additional SWSP be requested, such renewal request must be submitted to this office and the Division 2 office (please copy Bethany Arnold at [Bethany.Arnold@state.co.us](mailto:Bethany.Arnold@state.co.us)) with the statutory fee per gravel pit (currently \$257) by **March 1, 2025**.
2. Well permit no. 75864-F has been 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. Should additional uses of groundwater be required, a new well permit must be obtained.
3. No more than 7.00 acres of groundwater, which results in a maximum evaporative loss of 28.77 acre-feet, may be exposed at the West Farm Pit during this plan year without first obtaining a new SWSP. The above acreage total includes any surface areas in ponds to which dewatering water is delivered. Documentation of pond sizes may be required by the Division Engineer in the form of an aerial photo evaluation or survey by a Professional Land Surveyor during the plan year. Any increases in depletions will require a new SWSP application to be submitted and approved. Water delivered to the Arkansas River from the dewatering trenches and settling pond may not be commingled with irrigation supplies being delivered to the remaining portions of the farm and must be delivered in a manner that ensures that no additional surface evaporation occurs beyond what is approved under this plan.
4. The total amount of product mined at the West Farm Pit shall not exceed 1,400,000 tons during this plan year, which results in 20.71 acre-feet of water lost with the mined product. The Applicant must first obtain written approval from this office before exceeding these aforementioned amounts.
5. If any LAWMA common shares are proposed to be removed from this plan, justification of this removal must be provided. In addition, LAWMA preferred shares may be required to continue operation of this SWSP.
6. Subject to approval by the Division Engineer, the Applicant may lease or purchase additional replacement water from the sources approved in this SWSP. In addition, the Applicant must also provide a copy of a lease/purchase agreement to the State Engineer's Office and the Division Engineer for use of such additional replacement water.
7. Approval of this SWSP is for the purposes stated herein. Additional uses will be allowed only if a new SWSP is obtained for those additional uses. The replacement water, which is the subject of this SWSP, cannot be sold or leased to any other entity during the term of this SWSP without prior approval of the Division Engineer.

8. Dewatering at this site will produce delayed depletions to the stream system. As long as the pit is continuously dewatered at a relatively constant rate, the water returned to the stream system should be adequate to offset the depletions. Dewatering operations must be measured by totalizing flow meters that can accurately show the monthly volume of dewatered water that is pumped and returns to the stream. If dewatering at the site ceases, or is significantly reduced, the monthly meter readings will be used to determine post pumping depletions that must be replaced. At least three years prior to completion of dewatering, a plan must be submitted that specifies how the post pumping dewatering depletions (including refilling of the pit) will be replaced, in time, place and amount. Should it be determined by the Water Commissioner or Division Engineer that dewatering water is being diverted for any purpose by the operator and accounting is not adequate to show that 100 percent of the dewatering water is returned back to the Arkansas River, the Applicant will need to account for any lagged dewatering depletions at the site. In addition, if it is determined by the Water Commissioner or Division Engineer that the pit is not continuously dewatered at a relatively constant rate, then the Applicant must track depletions and dewatering return flows in their accounting and replace any dewatering depletions that are not offset by dewatering return flows.
9. All releases of replacement water are to be supplied by the Applicant's shares in LAWMA and will be delivered according to the schedule included in this SWSP. The 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.
10. The Applicant must replace all out-of-priority depletions resulting from operation under this SWSP, including those lagged depletions that occur to the stream after the expiration date of this SWSP.
11. The Applicant must provide adequate accounting (including, but not limited to diversions, depletions, and river calls) on a monthly basis. The accounting must be submitted to the Division Engineer via the online submittal tool. Submission access was established under the previous SWSP approval, please contact Kassidy Davis at [kassidy.davis@state.co.us](mailto:kassidy.davis@state.co.us) with any questions related to accounting submission under this SWSP approval. Accounting must be submitted within 10 days after the end of the month for which the accounting applies. Accounting and reporting procedures are subject to approval and modification by the Division Engineer. **NOTE:** Monthly accounting, even during the winter non-irrigation season, is required.
12. 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 produces a permanent water surface exposing groundwater to evaporation, an application for a plan for augmentation must be filed with the Division 2 Water Court at least three (3) years prior to the completion of mining to include, but not be limited to, long-term evaporation losses. If a lined pond results after reclamation, replacement of lagged depletions shall

continue until there is no longer an effect on stream flow. Granting of this SWSP does not imply approval by this office of any such court application(s).

13. 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 use of water under this SWSP must cease immediately.
14. 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.
15. The decision of the state engineer shall have no precedential or evidentiary force, shall not create any presumptions, shift the burden of proof, or serve as a defense in any pending water court case or any other legal action that may be initiated concerning this 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.

Please contact Melissa A. van der Poel in Denver at (303) 866-3581 or Kassidy Davis in the Division 2 office in Pueblo at (719) 565-8686, if you have any questions concerning this approval.

Sincerely,



Sarah Brucker, P.E.  
Assistant State Engineer

Attachments: Tables 1-3, LAWMA Agreement

cc: Div 2 SWSP Review Team  
Lonnie Spady, River Operations Coordinator  
Brandy Cole, Water Commissioner District 67  
Division of Reclamation Mining and Safety  
John B. Draper, Montgomery & Andrews  
Dale E. Book, Spronk Water Engineers  
Kevin Salter, Kansas Division of Water Resources  
Rachel Duran, Kansas Division of Water Resources