

Eschberger - DNR, Amy < amy.eschberger@state.co.us>

Fwd: Signed approval letter for GP Aggregates West Farm Pit 2021-22

 Papamihail - DNR, Eleni <eleni.papamihail@state.co.us>
 Tue, Sep 7, 2021 at 12:18 PM

 To: Amy Eschberger - DNR <amy.eschberger@state.co.us>, Michael Cunningham <michaela.cunningham@state.co.us>

 Cc: "Mojar - DNR, Camille" <camille.mojar@state.co.us>

Hello everyone:

I'm forwarding the following communication from Melissa Van Der Poel of DWR, regarding **M-2008-078** (West Farm Pit) in Prowers County.

Thank you

Eleni

-----Forwarded message ------From: **Van Der Poel - DNR, Melissa** <melissa.vanderpoel@state.co.us> Date: Tue, Sep 7, 2021 at 10:55 AM Subject: Signed approval letter for GP Aggregates West Farm Pit 2021-22 To: Bill Tyner - DNR <bill.tyner@state.co.us>, Bethany Arnold - DNR <bethany.arnold@state.co.us>, Brian Sutton <brian.sutton@state.co.us>, John Van Oort - DNR <john.vanoort@state.co.us>, Lori Lest - DNR <lori.lest@state.co.us>, Rachel Zancanella - DNR <rachel.zancanella@state.co.us>, Regur - DNR, Joseph <joseph.regur@state.co.us>, Lonnie <lonnie.spady@state.co.us>, Brandy Cole - DNR

brandy.cole@state.co.us>, Eleni Papamihail

Please see attached, thanks! Also on Google Drive.

Melissa A. van der Poel, P.E. Team Leader, Team 237 Division of Water Resources





Division of Water Resources

Department of Natural Resources

Phone 303-866-3581 ext 8208 1313 Sherman St., Room 818, Denver, CO 80203 melissa.vanderpoel@state.co.us | www.colorado.gov/water

Back Farm Pit SWSP 2021-2022 .pdf



September 7, 2021

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

RE: GP Aggregates West Farm Pit Substitute Water Supply Plan DRMS-M-2008-078 Sections 33 & 28, T22S, R46W, 6th PM Water Division 2, Water District 67, Prowers County SWSP ID 5121, WDID 6707828

Approval Period: May 1, 2021 through April 30, 2022 Contact Information for Mr. Hendrix: 720-930-4360; randy@hendrix-wai.com

Dear Mr. Hendrix;

We have reviewed your letter of March 2, 2021 requesting renewal of the above referenced substitute water supply plan ("SWSP") for a sand and gravel pit to be operated by GP Aggregates, LLC ("GP Aggregates" or "Applicant") in accordance with C.R.S. §37-90-137(11). The mine is permitted with the Division of Reclamation, Mining, and Safety under Permit No. M-2008-078. The required fee of \$257 (receipt no. 10010069) has been submitted.

SWSP OPERATION

This plan seeks to replace depletions resulting from mining operations at the West Farm Pit. 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 6th P.M. Depletions from the mining operations include evaporative losses from the dewatering trench, settling pond, moisture content, 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 trench, settling pond and moisture content will be augmented under this SWSP, while the dust control and aggregate washing will continue to be augmented under LAWMA's plan.

DEPLETIONS

GP Aggregates operates a dry-mining gravel pit. The pit has an installed liner, which was approved by this office, the Division of Water Resources ("DWR"). 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.



A site inspection was performed by the Colorado Division of Reclamation, Mining and Safety ("DRMS") on November 29, 2018. Several violations were found, and a corrective action was issued, for numerous reasons including the water onsite. DRMS requested a revised amendment application ("AM-1"), which was submitted by the Applicant in January 2019, in compliance with the first part of the corrective actions imposed by the Mined Land Reclamation Board. The new mining plan proposes a total of 17 mining phases, separated into two primary mining cells. Phases 1 - 12 are located in the North Mining Area and Phases 13-17 are located in the South Mining Area. There is also a revised plan for managing mine water and stormwater on site, which includes a series of sediment ponds, ditches and pipelines.

The exposed water surface area was found to be significantly higher than that which was reported in the SWSP application. The SWSP application was based on a total exposed water surface of 4.79 acres during the mining operations.

The total surface area of the dewatering trenches and sediment ponds will not exceed 4.79 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 evaporation value for this area 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 4.79 acres X 4.11 feet/year, or 19.69 acre-feet/year (Table 1, attached).

Water losses in the mined material have been estimated to be 19.87 acre-feet, based on a projected 1,350,000 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 lined with no influx of groundwater.

Water losses from dust control and aggregate washing will continue to be augmented under the decree in Case No. 12CW37 which is the decree for the well with WDID 6705373 (Permit no. 79629-F, WDID 6705373).

The total calculated depletion for this plan is 39.56 acre-feet.

REPLACEMENTS

The proposed source of replacement water is GP Aggregates' ownership of 200 common shares in the Lower Arkansas Water Management Association ("LAWMA"). The proposed allocation for a LAWMA common share in 2021 was projected to be 65% at the time of submission. Fifty-two LAWMA shares will be dedicated to this plan for the replacement of the lagged depletions. Accounting will be provided by GP Aggregates to LAWMA, which will make replacement deliveries to the Arkansas River using fully consumable water.

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 33.28 acre-feet.

In accordance with the letter dated April 30, 2010 (copy attached) from the Colorado Division of Reclamation, Mining, and Safety ("DRMS"), all sand and gravel mining operators must comply with

the requirements of the Colorado Reclamation Act and the Mineral Rules and Regulations for the protection of water resources. The April 30, 2010 letter from DRMS requires that you provide information to DRMS to demonstrate you can replace long term injurious stream depletions that result from mining related exposure of ground water.

In accordance with approach nos. 1 and 3, you have indicated that a bond has been obtained for \$1,849,793 through the Division of Reclamation, Mining, and Safety ("DRMS"). This bond is for reclamation requirements under the current permit.

CONDITIONS OF APPROVAL

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

- 1. This SWSP shall be valid for the period of May 1, 2021 through April 30, 2022, 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 <u>Bethany.Arnold@state.co.us</u>) with the statutory fee per gravel pit (currently \$257) by March 1, 2022.
- 2. No more than 4.79 acres of ground water may be exposed at the West Farm Pit during this plan year without first obtaining a new SWSP. The above acreage totals include 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.
- 3. The total amount of product mined at the West Farm Pit shall not exceed 1,350,000 tons during this plan year, which results in 19.87 acre-feet of water lost with the product.
- 4. 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.
- 5. 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.
- 6. 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.

- 7. Dewatering at this site will produce delayed depletions to the stream system. As long as the pit is continuously dewatered, the water returned to the stream system should be adequate to offset the depletions. However, once dewatering at the site ceases the delayed depletions must be addressed. 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.
- 8. All diversions for dust suppression must be metered in compliance with the "Amended Rules Governing the Measurement of Tributary Ground Water Diversions Located in the Arkansas River Basin.
- 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 replacement water that is the subject of this SWSP cannot be sold or leased to any other entity during the term of this approval. As a condition of subsequent renewals of this SWSP, the replacement water must be appurtenant to this site until a plan for augmentation is obtained. All replacement water must be concurrent with depletions in quantity, timing, and locations.
- 11. 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 emailed to the Water Commissioner (<u>Brandy.Cole@state.co.us</u>) and to the Division Engineer (<u>Augmentation.Coordinator@state.co.us</u>) on forms and at times acceptable to them. Said accounting must be received by the 10th of the month following the month being reported. The name, mailing address, and phone number of the contact person who is responsible for operation and accounting of this plan must be provided on the accounting forms. 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 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.
- 13. 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).

- 14. In accordance with amendments to \$25-8-202(7), C.R.S., and Senate Bill 89-181 Rules and Regulations adopted on February 4, 1992, the State Engineer shall determine whether the substitute supply is of a quality to meet the requirements of use to senior appropriators. As such, water quality data or analysis may be requested at any time to determine if the water quality is appropriate for downstream water users.
- 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 van der Poel in Denver at (303) 866-3581 or Joseph Regur in our Division 2 office in Pueblo at (719) 542-3368, if you have any questions concerning this approval.

Sincerely,

Melissa A. van der Poel

Melissa A. van der Poel, P.E. For Jeff Deatherage, P.E. Chief of Water Supply

Attachments: Tables 1-3, LAWMA Agreement

cc: Div 2 SWSP Review Team Lonnie Spady, East Regional Team Lead 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

JD/mdvp: West Farm Pit SWSP 2021-22 docx

Table 1Evaporative Consumptive Use

Month	Gross Exposed Water Surface	Net Water Surface Evaporation	Total Evaporative Consumptive Use	
	(ac)	(af)	(ac-ft)	
(1)	(2)	(3)	(4)	
May	4.79	0.46	2.20	
June	4.79	0.59	2.83	
July	4.79	0.62	2.97	
August	4.79	0.55	2.63	
September	4.79	0.43	2.06	
October	4.79	0.30	1.44	
November	4.79	0.17	0.81	
December	4.79	0.13	0.62	
January	4.79	0.12	0.57	
February	4.79	0.15	0.72	
March	4.79	0.22	1.05	
April	4.79	0.37	1.77	
	4.79	4.11	19.69	

Column Explanation:

1) Month of the year

2) Exposed surface water area from dewatering trench and settling pond

3) Month net evaporation rates from paragraph A.i of Exhibit R of LAWMA Case No. 02CW181 decree.

4) Column 2 x Column 3

Table 2Total Operational Consumptive Use

Month	Percent of Annual Aggregate Production	Aggregate Production	Water Retained in Product	Total Evaporative Consumptive Use	Total Consumptive Use
	(ac)	(tons)	(ac-ft)	(ac-ft)	(ac-ft)
(1)	(2)	(3)	(4)	(5)	(6)
May	13.0%	175,500	2.58	2.20	4.79
June	16.0%	216,000	3.18	2.83	6.00
July	17.0%	229,500	3.38	2.97	6.35
August	15.0%	202,500	2.98	2.63	5.61
September	9.0%	121,500	1.79	2.06	3.85
October	7.0%	94,500	1.39	1.44	2.83
November	4.0%	54,000	0.79	0.81	1.61
December	1.0%	13,500	0.20	0.62	0.82
January	1.0%	13,500	0.20	0.57	0.77
February	2.0%	27,000	0.40	0.72	1.12
March	6.0%	81,000	1.19	1.05	2.25
April	9.0%	121,500	1.79	1.77	3.56
	100.0%	1,350,000	19.87	19.69	39.56

Column Explanation:

1) Month of the year

- 2) Estimated percentage of the annual production during the month.
- 3) Calculated as 1,350,000 x Column 2
- 4) Calculated as {(Column 3 x 2,000 x 0.02) / 62.4 / 43,560}
- 5) Monthly values from Table 1 Column 4
- 6) Sum of Column 4 and Column 5

Note:

Since mining operation is considered dry-mining with an impermeable layer moisture content in mined aggregate is considered at 2%.

Table 3Total Operational Consumptive Use with Lagged Stream Depletions

Month	Percent of Annual Aggregate Production	Aggregate Production	Water Retained in Product	Total Evaporative Consumptive Use	Total Consumptive Use	Lagged Stream Depletion
	(ac)	(tons)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Мау	13.0%	175,500	2.58	2.20	4.79	2.44
June	16.0%	216,000	3.18	2.83	6.00	3.04
July	17.0%	229,500	3.38	2.97	6.35	3.62
August	15.0%	202,500	2.98	2.63	5.61	3.95
September	9.0%	121,500	1.79	2.06	3.85	3.86
October	7.0%	94,500	1.39	1.44	2.83	3.45
November	4.0%	54,000	0.79	0.81	1.61	2.96
December	1.0%	13,500	0.20	0.62	0.82	2.42
January	1.0%	13,500	0.20	0.57	0.77	1.98
February	2.0%	27,000	0.40	0.72	1.12	1.74
March	6.0%	81,000	1.19	1.05	2.25	1.76
April	9.0%	121,500	1.79	1.77	3.56	2.06
	100.0%	1,350,000	19.87	19.69	39.56	33.28

Column Explanation:

1) Month of the year

2) Estimated percentage of the annual production during the month.

3) Calculated as 1,350,000 x Column 2

4) Calculated as {(Column 3 x 2,000 x 0.02) / 62.4 / 43,560}

5) Monthly values from Table 1 Column 4

6) Sum of Column 4 and Column 5

7) Lagged stream depletionf from monthly values in Column 6 using AWAS and a SDF of 88 days

Note:

Since mining operation is considered dry-mining with an impermeable layer moisture content in mined aggregate is considered at 2%.

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For Value Received, _____ hereby sell, assign and transfer unto_ Shares represented by the within Certificate, and do hereby irrevocably constitute and appoint Attorney URE OF THIS ASSIGNMENT IE NAME AS WRITEN UPON THE N EVERY PARTICULAR, WITHOUT NT, OR ANY CHANGE WHATEVER. to transfer the said Stock on the books of the within named Corporation with full power of substitution in the premises. Dated______, 20___. In presence of

is the hansferable only on the books of the Corporation by the holdor horol in person or by Attorney upon surrender of this Certificate property endors ed. In Mitness Wherent, the said Conformation has comsed this Centificate to be signed by its duly authonized officers, and its Conformate Seal for here undoughing the second of the second of Seal and the second of Seal and the second of Seal and second of Sea **WER ARKANSAS WATER MANAGEMENTASSOCIATION** DESTRATE AND REAL 8 T Ģ 6 BOX 1161 LAMAR, COLORADO 81052 His Print Brites Har GP Aggregates, LLC Landrense A COLUMN TWO IS NOT **NUMBER** Transferred from certificate # 736 756 COCES 720 Al Rights Resen (max

For Value Received, _____ hereby sell, assign and transfer unto___ Shares represented by the within Certificate, and do hereby irrevocably constitute and appoint Attorney to transfer the said Stock on the books of the within named Corporation with full power of substitution in the premises. Dated_____, 20___. In presence of