



Castle Aggregate

549 East Cucharas, Street Colorado Springs, CO 80919 Ph:719-598-0215 Fax:719-598-3053

April 6, 2021

AFFIDAVIT

Colorado Division of Reclamation Mines and Safety
Attn: Patrick Lennberg
Room 215
1313 Sherman Street
Denver CO 80203

Re: M-1986-015 amendment 05, 3rd adequacy review

Dear Patrick:

This affidavit is signed by the Pueblo County Clerks office as proof of filing the response to the third adequacy review questions.

Sincerely,

Jerald Schnabel, President
Castle Aggregate

549 Cucharas Street
Colorado Springs CO 80919
Email: Jerald_schnabel@castleaggregate.com

Pueblo County Clerk

Signature:

Name: Corey Martinez

Date: APR 06 2021



March 12, 2021

Mr. Jerald Schnabel
Castle Concrete Aggregates
7250 Allegheny Drive
Colorado Springs, CO 80203

Mr. Dan Tucker
CWPDA
200 South Main Street
Fowler, CO 81039

RE: Adequacy Review No. 3; 112c Construction Materials Amendment Application (AM-05), Pueblo East, Permit No. M-1986-015

Messrs. Schnabel and Tucker:

On November 9, 2020, the Division of Reclamation, Mining and Safety (Division) deemed the above referenced application complete for the purposes of filing. Pursuant to Rule 1.4 the 90-day decision date for the application was set for February 8, 2021. On March 9, 2021 the Division approved an extension request to extend the decision date to April 9, 2021. Please be advised on April 9, 2021, the application may be deemed inadequate and may be denied unless the following adequacy items are addressed to the Division's satisfaction. On March 3, 2021 the Operator responded to the Division's Adequacy Review No. 2 dated February 22, 2021. After review of the responses the Division has additional items that need to be addressed or clarified. If you are unable to satisfactorily address any concerns identified in this review before the decision date, it will be your responsibility to request an extension of the review period. If there are outstanding issues that have not been adequately addressed prior to the end of the review period, and no extension has been requested, the Division will deny this application. Subsequent to receipt and review of the Operator's response to these items the Division may identify additional adequacy items. Please respond to this Adequacy Review No. 3 with the requested additional/updated information on permit replacement pages and summarize each response in a cover letter titled "Adequacy Review No. 3 Response; M-1986-015".

EXHIBIT B – Index Map (Rule 6.4.2)

1. Please provide an updated Index Map that depicts the current approved permit boundary along with acreage. The map provided does not reflect all the acreage that was added to the permit in AM-01 to the southeast. **Please see attached updated maps.**



EXHIBIT C – Pre-mining and Mining Plan Map(s) of Affected Lands (Rule 6.4.3)

2. Please update the Pre-Mining Plan Map/Current Conditions Map will need to reflect the entire permit boundary per question #1 above. If needed additional sheets can be used to show more detail. All maps must meet the minimum requirements of Rules 6.2.1(2), 6.4.3, 6.4.4, and 6.4.6. Including but limited to: date map was prepared, signed by qualified person, and scale no larger than 1 inch = 50 feet and no smaller than 1 inch = 660 feet. **Please see attached updated maps.**

EXHIBIT G – Water Information (Rule 6.4.7):

3. During the pre-operation inspection it was stated that Phase 7 no longer has any lagged depletions. Please provide documentation that there are no longer any lagged depletions associated with Phase 7. **Please see attachment 1 email correspondence with Paul Bruss indicating no lagged depletions after December, 2020.**
4. Please describe how the currently exposed groundwater in Phase 7 is being augmented, is covered under the current SWSP or other? Additionally, moving forward what is plan for augmentation of exposed groundwater for this phase. **Pumping from Phase 7 to replace river depletions was ended in October 2020. Water Division 2 received a written request from BBA Water Consultants on 10/16/2020 seeking approval to complete a first fill of Phase 7, contingent on all replacements being made to account for depletions to the Arkansas River. This request was granted by Water Division 2 on 10/27/2020. The pit began to draw from the river up to a total of approximately 79.8 AF, with lagged depletions being completed at the close of December. CWPDA augmented these depletions with releases from its Pueblo Reservoir Excess Capacity (EC) account through the month of January 2021. Please see attachment 1 email from Paul Bruss to Water Division 2 providing a written request for approval of first-fill operations, and attachment 2 email from Rachel Zancanella with Water Division 2 providing approval of the Phase 7 first-fill request.**

Future plans are to reclaim the site and construct a water storage vessel to store augmentation water. In the event that CWPDA is unable to fund the construction of all appurtenances required for use as a water reservoir, CWPDA will submit an application for a permanent Plan for Augmentation (PFA) to Water Court 2, Water Division 2, to replace evaporative losses from Phase 1. Phase 7 will be reclaimed and will require no further replacements.

5. Please clarify that the current SWSP covers exposed groundwater for both Phase 1 and Phase 7 or other?

Pursuant to SWSP ID 408, Approval Period August 1, 2020 through July 31, 2022 and found in attachment 3, in a letter dated September 2, 2020, to Mr. Paul Bruss, PE, Senior Water Resources Engineer, BBA Water Consultants, it states that "Consumptive use of water from the operation under this SWSP includes evaporation from up to 76.0 acres of surface area (65.0 acres in **Phase 1, 1.0 acre in Phase 2, and 10.0 acres in **Phase 7**).**

6. Will the current SWSP be renewed in May 2022 and if so what areas will be covered? If not what is the plan to augment exposed groundwater.

CWPDA will work with Water Division 2 to determine the best plan for augmentation for Phases 1 and 7, both of which will be covered under the SWSP. CWPDA will assume the SWSP upon sale of the properties and will augment evaporative losses from the pit water surfaces from sources on Fountain Creek and from its Pueblo Reservoir Excess Capacity (EC) account.

7. In the future when the permit is transferred how will exposed groundwater be augmented?

CWPDA will provide replacement water from available sources on Fountain Creek, and from its Pueblo Reservoir EC account, both of which allow for replacements to be properly made in time and right at the point of depletion on the Arkansas River.

8. Currently the permit is required to submit monthly water level measurements on an annual basis, this commitment can only be modified through a Technical Revision. The successor operator should be aware of this permit stipulation and will be responsible for the reporting requirements. CWPDA acknowledges the permit stipulation and commits to providing the monthly water level (WL) measurements on an annual basis in November of each year.

EXHIBIT L – Reclamation Cost Estimate (Rule 6.4.12):

9. The Division reviewed the updated cost estimate and concurs that the financial warranty be set at \$3,758,100 with approval of this amendment application (AM-05). Acknowledged.

Other Permits and Licenses (Rule 6.3.6):

10. Pursuant to Rule 1.6.2(2), please demonstrate that the Operator's response to these adequacy issues have been placed with the application materials previously placed with the County Clerk or Records Office and made available for public review. Demonstration shall be in the form of a Certified Mail Receipt, signed affidavit, or other mail tracking receipt. Please see signed affidavit.

Please respond to these adequacy issues no later than one week before the decision deadline, to ensure ample time for the Division to complete its review prior to its decision deadline. The decision deadline on this application is April 9, 2021. If additional time is required to respond to these adequacy issues, please submit a written request for extension of the review period. The Division reserves the right to further supplement this document with additional adequacy issues and details, as necessary.

If you need additional information or have any questions, please contact me at Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at **303-866-3567 x8114**, or by email at patrick.lennberg@state.co.us.

Sincerely,



Patrick Lennberg
Environmental Protection Specialist

cc: Jared Ebert; Division of Reclamation, Mining & Safety

ec: Jerald Schnabel, Castle Aggregates, Jerald_Schnabel@castleaggregate.com
Dan Tucker, CWPDA, dan@cwpa.org

Attachment 1



Dan Tucker <dan@cwpa.org>

FW: Castle Aggregates - Pueblo East Pit First-Fill Approval Request

Paul Bruss <pbruss@bbawater.com>
 To: "dan@cwpa.org" <dan@cwpa.org>
 Cc: "Kent@cwpa.org" <Kent@cwpa.org>

Wed, Oct 28, 2020 at 4:45 PM

Dan,

My apologies. Kent asked me to cc you on the email below and I forgot. FYI.

Thanks,

Paul Bruss, P.E.

BBA Water Consultants, Inc.

Mobile: 913.226.1996

www.bbawater.com

From: Paul Bruss
Sent: Wednesday, October 28, 2020 2:45 PM
To: Kent@cwpa.org
Cc: Jerald Schnabel <Jerald_Schnabel@castleaggregate.com>; Chris Sanchez <csanchez@bbawater.com>
Subject: RE: Castle Aggregates - Pueblo East Pit First-Fill Approval Request

Kent,

Assuming that the pumps will be turned off tomorrow around 12pm, I estimate that approximately 10% of the pit will fill during the last 3 days of October and the remaining 90% will fill in November. Taking into account the lagged effect of the depletions to the river, the yellow amounts presented below (yellow highlight) are the total monthly volume (af) and corresponding average daily rate (cfs) of replacement water required each month to cover the first-fill operations at Phase 7.

| Month | Phase 7 First-Fill | | Depletion Lagging | | |
|----------|--------------------|-------------|-------------------|--------|--|
| | % | Amount (af) | Month | URF % | Depletion Amount |
| October | 10% | 7.98 | 1 | 76.62% | 6.12 af / 1.03 cfs (last 3 days of mo) |
| November | 90% | 71.82 | 2 | 19.16% | 56.56 af / 0.95 cfs (all month) |
| December | - | 0 | 3 | 4.22% | 14.09 af / 0.23 cfs (all month) |
| January | - | 0 | - | - | 3.03 af / 0.05 cfs (all month) |
| Total | 100% | 79.8 | | 100% | 79.8 |

As noted, the October delivery rate is for the last 3 days of the month only. For all other months, the delivery rate is for the entire month. I have not included the transit loss in these calculations, so that will need to be added.

Let me know if you have any questions.

Thanks,

Paul Bruss, P.E.

BBA Water Consultants, Inc.

Mobile: 913.226.1996

www.bbawater.com

From: Paul Bruss
Sent: Friday, October 16, 2020 5:04 PM
To: 'Rachel Zancanella' <rachel.zancanella@state.co.us>
Cc: Jerald Schnabel <Jerald_Schnabel@castleaggregate.com>; Kent@cwpa.org; Chris Sanchez <csanchez@bbawater.com>
Subject: Castle Aggregates - Pueblo East Pit First-Fill Approval Request

Rachel,

As we discussed on the phone this afternoon, Castle Aggregates' recently approved SWSP (dated 9/2/2020) enables Castle to turn off the pumps and complete a first-fill of the Phase 7 Pit, subject to the conditions of the SWSP. As described below, Castle would like to begin this process, and requests approval from Division 2 to cease dewatering at Phase 7.

SWSP Phase 7 First-Fill Operations

Pursuant to the SWSP, Phase 7 will fill in approximately 1 month, and resulting depletions will impact the Arkansas River based on the lagging factors developed for Phase 7 in the SWSP (and shown below). Assuming Castle ceases dewatering during the second half of October, I suggest that half of the fill is allocated to October and the other half in November. This would result in the following calculation of first-fill depletions:

| Month | Phase 7 First-Fill | | Depletion Lagging | | |
|----------|--------------------|-------------|-------------------|--------|-----------------------|
| | % | Amount (af) | Month | URF % | Depletion Amount (af) |
| October | 50% | 39.9 | 1 | 76.62% | 30.6 |
| November | 50% | 39.9 | 2 | 19.16% | 38.2 |
| December | - | 0 | 3 | 4.22% | 9.3 |
| January | - | 0 | - | - | 1.7 |
| Total | 100% | 79.8 | | 100% | 79.8 |

I have been in communication with Kent Ricken at CWPDA and understand that CWPDA has credit its willing to provide to cover the depletions from the first-fill. Furthermore, while Castle and CWPDA are working to complete the agreement for the replacement water, it is my understanding from Kent that completion of the agreement need not delay the operation of the first-fill under the SWSP using the CWPDA credits. Kent, please let me know if I misunderstood here. We will follow up with the agreement when it is available.

Finally, pursuant to Condition 3 of the SWSP, I am drafting a new gravel pit well permit application for Phase 7 to cover the increased exposed area at Phase 7 once the first fill is complete. I intend to have the application submitted early next week. Because we have the SWSP and replacement supplies ready complete the first-fill, we request that the first-fill be allowed to occur concurrent to the review of the new permit application.

If you have any questions, please don't hesitate to call me.

Thanks,

Paul Bruss, P.E.

Senior Water Resources Engineer

pbruss@bbawater.com

BBA Water Consultants, Inc.

[333 W. Hampden Ave., Suite 1050](#)

[Englewood, CO 80110](#)

[Office: 303.806.8952](#)

Direct: 720.245.2719

Mobile: 913.226.1996

www.bbawater.com

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Attachment 2



Dan Tucker <dan@cwpa.org>

Re: FW: Castle Aggregates - Pueblo East Pit First-Fill Approval Request

1 message

Zancanella - DNR, Rachel <rachel.zancanella@state.co.us>

Mon, Mar 15, 2021 at 2:11 PM

To: "Daniel Tucker, PE" <dan@cwpa.org>

Cc: Kent Ricken <kent@cwpa.org>, Paul Bruss <pbruss@bbawater.com>, Joseph Regur - DNR <joseph.regur@state.co.us>, John Van Oort - DNR <john.vanoort@state.co.us>, "Tyner, Bill" <bill.tyner@state.co.us>

Dan,

The cessation of dewatering of the Phase 7 Pit was contemplated and approved pursuant to Castle Aggregates, Pueblo East Pit SWSP (WDID 1407801), dated September 2, 2020. In accordance with Condition of Approval No. 8 of the SWSP, "Prior to cessation of dewatering the Phase 7 Pit, the Applicant shall coordinate projected releases of replacement water with the Water Commissioner and Division Engineer". This condition was complied with via email exchange with myself and via phone conversation with John Van Oort, prior to the first fill operation. The operation was approved to be covered via a release from Pueblo Reservoir, which began on October 27, 2020 and continued through the end of November 2020.

Thanks,

Rachel A. Zancanella, P.E.**Assistant Division Engineer, Div. 2**

State of Colorado, Division of Water Resources

[310 E. Abriendo Ave., Pueblo, CO 81004](#)

Phone: 719-542-3368 Ext: 2108

email: rachel.zancanella@state.co.us

COLORADO
Division of Water Resources
Department of Natural Resources

On Mon, Mar 15, 2021 at 1:02 PM Daniel Tucker, PE <dan@cwpa.org> wrote:

Hi Rachel,

Per our phone call a moment ago, please see the email request below from Paul Bruss with BBA, requesting division approval for the first-fill of the Phase 7 gravel pit at TMOP - Pueblo East.

Thanks,

Dan

----- Forwarded message -----

From: **Paul Bruss** <pbruss@bbawater.com>

Date: Wed, Oct 28, 2020 at 4:45 PM

Subject: FW: Castle Aggregates - Pueblo East Pit First-Fill Approval Request

To: dan@cwpa.org <dan@cwpa.org>Cc: Kent@cwpa.org <Kent@cwpa.org>

Dan,

My apologies. Kent asked me to cc you on the email below and I forgot. FYI.

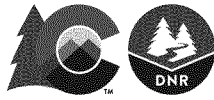
Thanks,

Paul Bruss, P.E.

BBA Water Consultants, Inc.

Mobile: 913.226.1996

Attachment 3



COLORADO
Division of Water Resources
Department of Natural Resources

September 2, 2020

Mr. Paul Bruss, P.E.
Bishop-Brogden Associates, Inc.
333 W. Hampden Ave., Ste. 1050
Englewood, CO 80110

Re: Pueblo East Pit
DRMS File No. M-1986-015
Secs. 34 & 35, Twp. 20S, Rng. 64W, 6th P.M.
Water Division 2, Water District 14
SWSP ID 408, WDID 1407801

Approval Period: August 1, 2020 through July 31, 2022
Contact Information: 303-806-8952; pbruss@bbawater.com

Dear Mr. Bruss:

We have reviewed your May 13, 2020 letter requesting renewal and amendment of a substitute water supply plan ("SWSP") in accordance with Section 37-90-137(11), C.R.S., for a sand and gravel pit owned by Castle Concrete Aggregates ("Castle" or "Applicant"), previously operated by Transit Mix of Pueblo. The mine is permitted with the Division of Reclamation, Mining, and Safety under File No. M-1986-015. The required renewal fee of \$257.00 has been received and given receipt no. 10003518.

PLAN OPERATION

The gravel operation is located east of Pueblo between Highway 50 and the Arkansas River. This pit did not exist, and no ground water was exposed, prior to January 1, 1981. The operation consists of several phases (Phase 1, 2, and 7) as shown in the attached Figure 1. Currently, mining in all phases has been completed. Castle is in the process of reclaiming the area. Phase 2 has been lined with an approved slurry wall per January 9, 2012 correspondence from the Division 2 Assistant Engineer. Reclamation of the Phase 1 pit and the Phase 7 pit will include backfilling the pits to a ground surface elevation at least two feet higher than the groundwater table.

Consumptive use of water from the operation under this SWSP includes evaporation from up to 76.0 acres of surface area (65.0 acres in Phase 1, 1.0 acre in Phase 2, and 10.0 acres in Phase 7), dust control, and first-fill operations of the Phase 7 pit.

Well permit no. 82461-F corresponds to Phase 1 and limits that portion of the operation to dust control and evaporation from 65.0 acres of exposed water and 282.05 acre-feet annually. Well Permit No. 75997-F corresponds to Phase 7 and limits that portion of the operation to evaporation from 5.0 acres of exposed water and 29.4 acre-feet annually (4% water content



by weight of 1,000,000 tons) of water removed from mined material (or the amounts covered under a Water Court approved plan for augmentation or SWSP approved by the State Engineer, whichever is more restrictive).

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. According to the renewal request, the long term plan for the site is for a storage reservoir in Phase 2, which already has an approved slurry wall, and to backfill Phases 1 and 7 to a ground surface elevation at least two feet higher than the ground water table. Accordingly, Transit Mix obtained a bond for \$2,288,004 through DRMS, an amount sufficient to backfill Phases 1 and 7. According to a letter dated August 7, 2020, Castle must also provide sufficient Financial Warranty to DRMS.

DEPLETIONS

Annual site depletions during the first plan year (August 1, 2020 through May 31, 2021) consist of 316.92 acre-feet of gross evaporative losses, 11.0 acre-feet of pumping for dust control, and 79.80 acre-feet of water filling the Phase 7 pit resulting from the planned cessation of dewatering, for a total depletion of 407.72 acre-feet. For the purpose of this SWSP, the 79.8 acre-feet of water filling the Phase 7 pit was projected to occur over one month.

Annual site depletions during the second plan year (June 1, 2021 through May 31, 2022) consist of 316.92 acre-feet of gross evaporative losses, and 11.0 acre-feet of pumping for dust control, for a total depletion of 327.92 acre-feet. The monthly distribution of the values and the lagged effects on the Arkansas River, are detailed in Tables 1-4, which are attached. The lagged depletions were calculated individually for each Phase of the operation based on the characteristics below.

| Location | T (gpd/ft) | S | X (ft) | W (ft) |
|----------|------------|------|--------|--------|
| Phase 1 | 97,100 | 0.15 | 1,032 | 2,647 |
| Phase 2 | 97,100 | 0.15 | 964 | 2,206 |
| Phase 7 | 97,100 | 0.15 | 420 | 2,250 |

T = Transmissivity of the aquifer (gallons per day per foot).

S = Specific yield of the aquifer.

X = Distance between the centroid of the mining area and the Arkansas River (feet).

W = Distance between the Arkansas River and the alluvial boundary (feet).

² We note that the W distance value for the Phase 1 and Phase 1 (initial fill) lagging inputs are different due to do the different locations for the point of depletion and the variability of the alluvial boundary in the location of the Pueblo East Pit.

Lagging factors for each of the Phases were calculated using the Glover Method, normalized to the number of months required for 95% of depletions to affect the river, and are provided in the following table.

| Month | Phase 1 | Phase 2 | Phase 7 |
|-------|---------|---------|---------|
| 1 | 49.15% | 54.46% | 76.62% |
| 2 | 34.43% | 36.62% | 19.16% |
| 3 | 11.76% | 8.92% | 4.22% |
| 4 | 4.65% | - | - |
| Total | 100.00% | 100.00% | 100.00% |

Note: Lagging factors are normalized to the number of months required for at least 95% of depletions to affect the river.

Historical phreatophyte and effective precipitation were determined to partially offset gross evaporation at the site. The credit from historical phreatophyte consumptive use was calculated to be 19.49 acre-feet per year from 5.6 acres of equivalent 100% canopy cover native vegetation in Phase 1, and 9.45 acre-feet per year from 2.7 acres of 100% canopy cover native vegetation in Phase 7. Effective precipitation was claimed on the remaining 62.7 acres of exposed surface area, and was calculated as 70% of precipitation.

REPLACEMENT

The replacement water is proposed to be from three sources. The first is excess credits from the Hamp-Bell Ditch water rights changed in Division 2 Water Court case no. 03CW8 and subject to the April 2004 agreement (amended March 2007) between Castle (previously Transit Mix) and Pueblo Board of Water Works ("PBWW"). The excess credits from the Hamp-Bell Ditch water rights were changed in Division 2 Water Court case no. 03CW8 to commercial and augmentation uses. As decreed by the Division 2 Water Court in case no. 12CW102, PBWW obtained the right to store the Hamp-Bell Ditch credits changed in case no. 03CW8; therefore, Castle is no longer responsible for replacing the winter return flow obligation associated with the Hamp-Bell Ditch water rights, and will only be entitled to use the net excess credits after full augmentation of Chain of Lakes depletions and replacement of winter delayed return flows, which will average approximately 10.0 acre-feet annually.

The second is consumable water leased from the PBWW. Castle (previously Transit Mix) currently has a lease with PBWW that will provide 120 acre-feet of fully consumable water annually through September 30, 2022. Additionally, the Applicant has one-time lease water for 2020 from the Pueblo Board of Water Works (PBWW) stored in Pueblo Reservoir. Of the 150 acre-feet leased, 100 acre-feet is allocated to Pueblo East Pit in 2020. The water remains available for use as it was released from PBWW's account before the March 2019 deadline and stored in the indicated reservoir. An additional lease for 2021 may be acquired from PBWW.

Additionally, Castle is in the process of negotiating an additional lease for fully consumable water from Colorado Water Protective and Development Association ("CWPDA").

The projected depletions, credits, and releases subject of this SWSP are shown on the attached Table 5.

The State and Division Engineers have reviewed the plan and the adequacy of each source of

water provided for use as augmentation water, including, where necessary, the historical consumptive use of each water right, and return flows from diversion of waters imported into the Arkansas River Basin or other fully consumable waters proposed for use as augmentation water.

CONDITIONS OF APPROVAL

This SWSP is hereby approved pursuant to Section 37-90-137(11), C.R.S., subject to the following conditions:

1. This plan shall be valid August 1, 2020 through July 31, 2022, unless otherwise revoked or superseded by decree. If this plan will not be made absolute by a water court action by the plan's expiration date, a renewal request must be submitted to this office and the Division 2 office (please copy Bethany Arnold at bethany.arnold@state.co.us) with the statutory fee (currently \$257) no later than June 1, 2022.
2. The approved lease from CWPDA must be provided to the Division Engineer and Water Commissioner by October 16, 2020.
3. Well permit nos. 75997-F and 82461-F were obtained for the current use and exposed pond surface area of the gravel pit in accordance with Section 37-90-137(2) and (11), C.R.S. According to the submittal, the exposed surface area of ground water associated with Phase 7 is a maximum of 10.0 acres; however, well permit No. 75997-F only allows for exposure of up to 5.0 acres. **Therefore, a new well permit must be obtained in accordance with §37-90-137(2), C.R.S., and this SWSP for the groundwater depletions associated with evaporation from the pits at Phase 2 and Phase 7.** The provisions of §37-90-137(2), C.R.S., prohibit the issuance of a permit for a well to be located within 600 feet of any existing well, unless the State Engineer finds that circumstances so warrant after a hearing in accordance with the procedural rules in 2CCR402-5. The hearing will be waived if you are able to obtain statements from the owners of all wells within 600 feet, verifying that they have no objection to your use of the proposed well.
4. Total consumption at the Pueblo East Pit shall not exceed the amounts given in the attached tables.
5. The total amount of water surface area at the Pueblo East Pit (combined between Phases 1, 2, and 7) shall not exceed 76.0 acres. Documentation of water surface area 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 or in years covered by subsequent renewals of this plan.
6. Approval of this SWSP is for the purposes and amounts stated herein. Additional uses and/or consumption of the water that is subject to this SWSP will be allowed only if a new SWSP is approved for those additional uses and/or amounts.

7. 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".
8. Replacement water shall be made available to cover all out-of-priority depletions in time, place, and amount and shall be made available under the direction and approval of the Water Commissioner and Division Engineer. **Prior to cessation of dewatering the Phase 7 Pit, the Applicant shall coordinate projected releases of replacement water with the Water Commissioner and Division Engineer.** The replacement water that is the subject of this plan cannot be sold or leased to any other entity.
9. Conveyance loss for delivery of augmentation water to the Arkansas River is subject to assessment and modification as determined by the Division Engineer.
10. When applicable, Applicant will submit augmentation replacement requests via the "Arkansas Basin Water Operations Dashboard" (<http://div2waterops.com/AnonymousHome>). To set up an account on the "Arkansas Basin Water Operations Dashboard", email the River and Reservoir Operations Coordinator (john.vanoort@state.co.us) with: user name, user email address, user phone number, and indicate SWSP name (Or SWSP group WDID) or decree number. Once the applicant's request is made through the "Arkansas Basin Water Operations Dashboard", the Division Engineer's Office will review and either approve or deny the request. This decision will be emailed to applicants through the "Dashboard" to document this transaction.
11. The Applicant shall provide daily accounting (including, but not limited to diversions, and river calls) on a monthly basis. The accounting must be submitted to the Division Engineer via the online submittal tool. Please contact Rachel Zancanella at rachel.zancanella@state.co.us to set up an account with the subject line "Pueblo East Pit (Castle Concrete) SWSP". 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.
12. Dewatering of the Phase 7 pit will produce delayed depletions to the stream system. As long as the Phase 7 pit is continuously dewatered, the water returned to the stream system should be adequate to offset the depletions attributable to the dewatering operation. Once dewatering at the Phase 7 pit ceases, the delayed depletions must be addressed. If dewatering of the Phase 7 pit is discontinued, the pit would fill and cause additional depletions to the stream system due to increased evaporation.
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 will produce 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 and lagged depletions. If a lined pond results after reclamation, replacement of lagged depletions shall continue until there is no longer an effect on streamflow. Granting of this plan does not imply approval by this office of any such court application(s).

14. 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 and the Applicant shall obtain and present to this office an alternate source of replacement water.
15. 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 whether or not the substitute supply is of a quality to meet 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.
16. 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 plan. 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.

Should you have any questions, please contact Kate Fuller of this office or Joseph Regur in the Division 2 office in Pueblo at (719) 542-3368.

Sincerely,



Jeff Deatherage, P.E.
Water Supply Chief

Attachments: Figure 1
 Tables 1-5

ec: Division 2 SWSP Staff
 Steve Stratman, WD 14/15 Water Commissioner
 Doug Hollister, North Regional Team Leader
 Division of Reclamation, Mining, and Safety

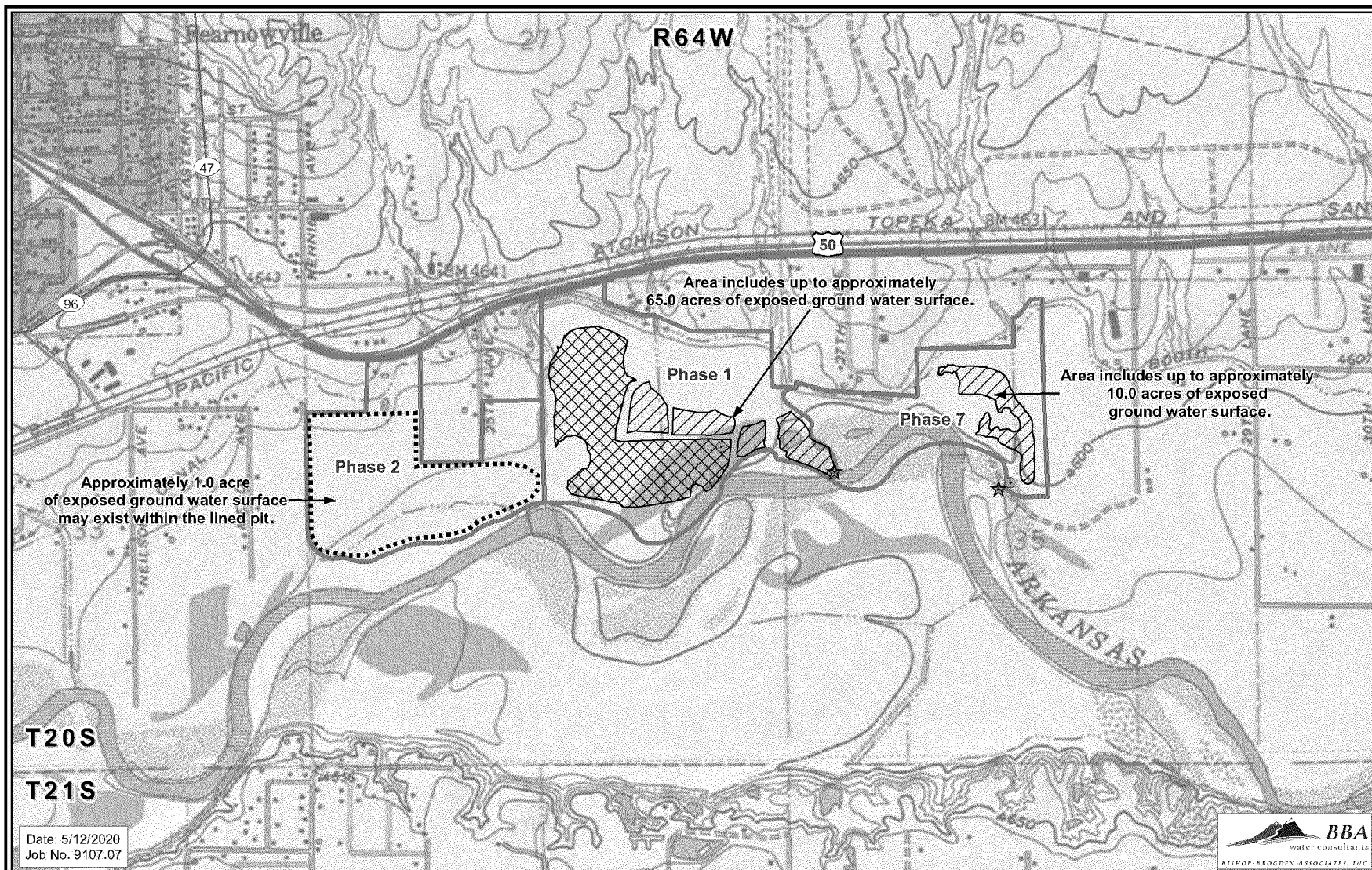
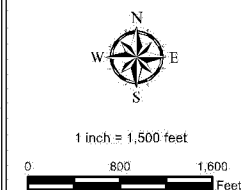


Figure 1
Transit Mix Pueblo East Pit
Phase 1, 2, and 7
General Location Map



Overview Map

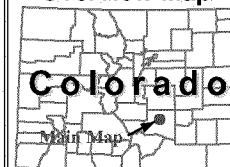


Table 1
Castle Aggregates - Pueblo East Pit Phase 1
Projected Depletion Analysis (June 2020 - May 2022)

| Month | Surface Area of Exposed Ground Water (ac) [1] | Gross Evaporation Rate (ft) [2] | Total Gross Evaporation (ac-ft) [3] | Natural Vegetation Credit | | | | | Net Pond Evaporative Depletions (ac-ft) [9] | Dust Control (ac-ft) [10] | Total Net Unlagged Depletion (ac-ft) [11] |
|-----------------|---|--|---|--|---|-----------------------------------|--|--|---|------------------------------------|---|
| | | | | Effective Precipitation Rate (ft) [4] | Effective Precipitation Credit (ac-ft) [5] | Phreatophyte CU (ft) [6] | Phreatophyte Reduction Credit (ac-ft) [7] | Total Natural Vegetation Credit (ac-ft) [8] | | | |
| Jun-20 | 65.0 | 0.60 | 39.00 | 0.08 | 4.75 | 0.60 | 3.36 | 8.11 | 30.89 | 0.91 | 31.80 |
| Jul-20 | 65.0 | 0.63 | 40.95 | 0.11 | 6.53 | 0.63 | 3.53 | 10.06 | 30.89 | 0.93 | 31.82 |
| Aug-20 | 65.0 | 0.56 | 36.40 | 0.12 | 7.13 | 0.56 | 3.14 | 10.26 | 26.14 | 0.93 | 27.07 |
| Sep-20 | 65.0 | 0.42 | 27.30 | 0.05 | 2.97 | 0.42 | 2.35 | 5.32 | 21.98 | 0.91 | 22.89 |
| Oct-20 | 65.0 | 0.29 | 18.85 | 0.04 | 2.38 | 0.29 | 1.62 | 4.00 | 14.85 | 0.93 | 15.78 |
| Nov-20 | 65.0 | 0.17 | 11.05 | 0.03 | 1.78 | 0.04 | 0.22 | 2.01 | 9.04 | 0.91 | 9.95 |
| Dec-20 | 65.0 | 0.12 | 7.80 | 0.02 | 1.19 | 0.00 | 0.00 | 1.19 | 6.61 | 0.93 | 7.54 |
| Jan-21 | 65.0 | 0.12 | 7.80 | 0.02 | 1.19 | 0.00 | 0.00 | 1.19 | 6.61 | 0.93 | 7.54 |
| Feb-21 | 65.0 | 0.15 | 9.75 | 0.02 | 1.19 | 0.00 | 0.00 | 1.19 | 8.56 | 0.85 | 9.41 |
| Mar-21 | 65.0 | 0.23 | 14.95 | 0.05 | 2.97 | 0.06 | 0.34 | 3.31 | 11.64 | 0.93 | 12.57 |
| Apr-21 | 65.0 | 0.38 | 24.70 | 0.07 | 4.16 | 0.38 | 2.13 | 6.29 | 18.41 | 0.91 | 19.32 |
| May-21 | 65.0 | 0.50 | 32.50 | 0.08 | 4.75 | 0.50 | 2.80 | 7.55 | 24.95 | 0.93 | 25.88 |
| Jun-21 | 65.0 | 0.60 | 39.00 | 0.08 | 4.75 | 0.60 | 3.36 | 8.11 | 30.89 | 0.91 | 31.80 |
| Jul-21 | 65.0 | 0.63 | 40.95 | 0.11 | 6.53 | 0.63 | 3.53 | 10.06 | 30.89 | 0.93 | 31.82 |
| Aug-21 | 65.0 | 0.56 | 36.40 | 0.12 | 7.13 | 0.56 | 3.14 | 10.26 | 26.14 | 0.93 | 27.07 |
| Sep-21 | 65.0 | 0.42 | 27.30 | 0.05 | 2.97 | 0.42 | 2.35 | 5.32 | 21.98 | 0.91 | 22.89 |
| Oct-21 | 65.0 | 0.29 | 18.85 | 0.04 | 2.38 | 0.29 | 1.62 | 4.00 | 14.85 | 0.93 | 15.78 |
| Nov-21 | 65.0 | 0.17 | 11.05 | 0.03 | 1.78 | 0.04 | 0.22 | 2.01 | 9.04 | 0.91 | 9.95 |
| Dec-21 | 65.0 | 0.12 | 7.80 | 0.02 | 1.19 | 0.00 | 0.00 | 1.19 | 6.61 | 0.93 | 7.54 |
| Jan-22 | 65.0 | 0.12 | 7.80 | 0.02 | 1.19 | 0.00 | 0.00 | 1.19 | 6.61 | 0.93 | 7.54 |
| Feb-22 | 65.0 | 0.15 | 9.75 | 0.02 | 1.19 | 0.00 | 0.00 | 1.19 | 8.56 | 0.85 | 9.41 |
| Mar-22 | 65.0 | 0.23 | 14.95 | 0.05 | 2.97 | 0.06 | 0.34 | 3.31 | 11.64 | 0.93 | 12.57 |
| Apr-22 | 65.0 | 0.38 | 24.70 | 0.07 | 4.16 | 0.38 | 2.13 | 6.29 | 18.41 | 0.91 | 19.32 |
| May-22 | 65.0 | 0.50 | 32.50 | 0.08 | 4.75 | 0.50 | 2.80 | 7.55 | 24.95 | 0.93 | 25.88 |
| 2020-2021 Total | - | 4.17 | 271.05 | 0.69 | 40.99 | 3.48 | 19.49 | 60.47 | 210.58 | 11.00 | 221.58 |
| 2021-2022 Total | - | 4.17 | 271.05 | 0.69 | 40.99 | 3.48 | 19.49 | 60.47 | 210.58 | 11.00 | 221.58 |

Notes:

- [1] Phase 1 maximum anticipated exposed ground water surface area is 65.0 acres.
- [2] Gross Evaporation Rate equals 4.17 feet per year, based upon NOAA Evaporation Atlas. Monthly distribution based upon SB-120 Guidelines.
- [3] Gross Evaporation equals [1] x [2].
- [4] Effective Precipitation Rate equals 70% of total precipitation, based upon NOAA Pueblo Memorial Airport weather station.
- [5] Effective Precipitation Credit equals [4] x ([1] - 5.6), based upon 5.6 acres of phreatophyte area in Phase 1.
- [6] Average monthly potential consumptive use in Blancy-Criddle analyses for Phase 1 based on a depth to ground water of 6 feet. Values limited on monthly basis to gross evaporation in [2].
- [7] Phreatophyte Reduction Credit equals [6] x 5.6 ac, based upon 5.6 acres of 100% canopy cover.
- [8] Total natural vegetation credit equals [5] + [7].
- [9] Net pond evaporation equals [3] - [8].
- [10] Dust control depletions are assumed to be 100% consumptive and are based upon historical annual dust control pumping volumes.
- [11] Phase 1 net unlagged depletion equals the sum of net pond evaporation and water used for dust control, [9] + [10].

Table 2
Castle Aggregates - Pueblo East Pit Phase 2
Projected Depletion Analysis (June 2020 - May 2022)

| Month | Surface Area of Exposed Ground Water (ac) [1] | Gross Evaporation Rate (ft) [2] | Total Gross Evaporation (ac-ft) [3] | Natural Vegetation Credit | | | | | Net Pond Evaporative Depletions (ac-ft) [9] | Total Net Unlagged Depletion (ac-ft) [10] |
|-----------------|---|--|---|--|---|-----------------------------------|--|--|---|---|
| | | | | Effective Precipitation Rate (ft) [4] | Effective Precipitation Credit (ac-ft) [5] | Phreatophyte CU (ft) [6] | Phreatophyte Reduction Credit (ac-ft) [7] | Total Natural Vegetation Credit (ac-ft) [8] | | |
| Jun-20 | 1.0 | 0.60 | 0.60 | 0.08 | 0.08 | - | 0.00 | 0.08 | 0.52 | 0.52 |
| Jul-20 | 1.0 | 0.63 | 0.63 | 0.11 | 0.11 | - | 0.00 | 0.11 | 0.52 | 0.52 |
| Aug-20 | 1.0 | 0.56 | 0.56 | 0.12 | 0.12 | - | 0.00 | 0.12 | 0.44 | 0.44 |
| Sep-20 | 1.0 | 0.42 | 0.42 | 0.05 | 0.05 | - | 0.00 | 0.05 | 0.37 | 0.37 |
| Oct-20 | 1.0 | 0.29 | 0.29 | 0.04 | 0.04 | - | 0.00 | 0.04 | 0.25 | 0.25 |
| Nov-20 | 1.0 | 0.17 | 0.17 | 0.03 | 0.03 | - | 0.00 | 0.03 | 0.14 | 0.14 |
| Dec-20 | 1.0 | 0.12 | 0.12 | 0.02 | 0.02 | - | 0.00 | 0.02 | 0.10 | 0.10 |
| Jan-21 | 1.0 | 0.12 | 0.12 | 0.02 | 0.02 | - | 0.00 | 0.02 | 0.10 | 0.10 |
| Feb-21 | 1.0 | 0.15 | 0.15 | 0.02 | 0.02 | - | 0.00 | 0.02 | 0.13 | 0.13 |
| Mar-21 | 1.0 | 0.23 | 0.23 | 0.05 | 0.05 | - | 0.00 | 0.05 | 0.18 | 0.18 |
| Apr-21 | 1.0 | 0.38 | 0.38 | 0.07 | 0.07 | - | 0.00 | 0.07 | 0.31 | 0.31 |
| May-21 | 1.0 | 0.50 | 0.50 | 0.08 | 0.08 | - | 0.00 | 0.08 | 0.42 | 0.42 |
| Jun-21 | 1.0 | 0.60 | 0.60 | 0.08 | 0.08 | - | 0.00 | 0.08 | 0.52 | 0.52 |
| Jul-21 | 1.0 | 0.63 | 0.63 | 0.11 | 0.11 | - | 0.00 | 0.11 | 0.52 | 0.52 |
| Aug-21 | 1.0 | 0.56 | 0.56 | 0.12 | 0.12 | - | 0.00 | 0.12 | 0.44 | 0.44 |
| Sep-21 | 1.0 | 0.42 | 0.42 | 0.05 | 0.05 | - | 0.00 | 0.05 | 0.37 | 0.37 |
| Oct-21 | 1.0 | 0.29 | 0.29 | 0.04 | 0.04 | - | 0.00 | 0.04 | 0.25 | 0.25 |
| Nov-21 | 1.0 | 0.17 | 0.17 | 0.03 | 0.03 | - | 0.00 | 0.03 | 0.14 | 0.14 |
| Dec-21 | 1.0 | 0.12 | 0.12 | 0.02 | 0.02 | - | 0.00 | 0.02 | 0.10 | 0.10 |
| Jan-22 | 1.0 | 0.12 | 0.12 | 0.02 | 0.02 | - | 0.00 | 0.02 | 0.10 | 0.10 |
| Feb-22 | 1.0 | 0.15 | 0.15 | 0.02 | 0.02 | - | 0.00 | 0.02 | 0.13 | 0.13 |
| Mar-22 | 1.0 | 0.23 | 0.23 | 0.05 | 0.05 | - | 0.00 | 0.05 | 0.18 | 0.18 |
| Apr-22 | 1.0 | 0.38 | 0.38 | 0.07 | 0.07 | - | 0.00 | 0.07 | 0.31 | 0.31 |
| May-22 | 1.0 | 0.50 | 0.50 | 0.08 | 0.08 | - | 0.00 | 0.08 | 0.42 | 0.42 |
| 2020-2021 Total | - | 4.17 | 4.17 | 0.69 | 0.69 | - | 0.00 | 0.69 | 3.48 | 3.48 |
| 2021-2022 Total | - | 4.17 | 4.17 | 0.69 | 0.69 | - | 0.00 | 0.69 | 3.48 | 3.48 |

Notes:

- [1] Phase 2 maximum anticipated exposed ground water surface area is 1.0 acre.
- [2] Gross Evaporation Rate equals 4.17 feet per year, based upon NOAA Evaporation Atlas. Monthly distribution based upon SB-120 Guidelines.
- [3] Gross Evaporation equals [1] x [2].
- [4] Effective Precipitation Rate equals 70% of total precipitation, based upon NOAA Pueblo Memorial Airport weather station.
- [5] Effective Precipitation Credit equals [4] x [1].
- [6] Phreatophyte Reduction Credit is not claimed in Phase 2.
- [7] Phreatophyte Reduction Credit is not claimed in Phase 2.
- [8] Total natural vegetation credit equals [5] + [7].
- [9] Net pond evaporation equals [3] - [8].
- [10] Phase 2 net unlagged depletion equals net pond evaporation [9].

Table 3
Castle Aggregates - Pueblo East Pit Phase 7
Projected Depletion Analysis (June 2020 - May 2022)

| Month | Surface Area of Exposed Ground Water (ac) [1] | Gross Evaporation Rate (ft) [2] | Total Gross Evaporation (ac-ft) [3] | Natural Vegetation Credit | | | | | Net Pond Evaporative Depletions (ac-ft) [9] | Aggregate Moisture Content Depletion (ac-ft) [10] | Initial Fill Depletion (ac-ft) [11] | Total Net Unlagged Depletion (ac-ft) [12] |
|-----------------|--|------------------------------------|--|--|---|-----------------------------|--|--|--|--|--|--|
| | | | | Effective Precipitation Rate (ft) [4] | Effective Precipitation Credit (ac-ft) [5] | Phreatophyte CU (ft) [6] | Phreatophyte Reduction Credit (ac-ft) [7] | Total Natural Vegetation Credit (ac-ft) [8] | | | | |
| Jun-20 | 10.0 | 0.60 | 6.00 | 0.08 | 0.58 | 0.60 | 1.62 | 2.20 | 3.80 | 0.00 | 79.80 | 83.60 |
| Jul-20 | 10.0 | 0.63 | 6.30 | 0.11 | 0.80 | 0.63 | 1.70 | 2.50 | 3.80 | 0.00 | 0.00 | 3.80 |
| Aug-20 | 10.0 | 0.56 | 5.60 | 0.12 | 0.88 | 0.56 | 1.51 | 2.39 | 3.21 | 0.00 | 0.00 | 3.21 |
| Sep-20 | 10.0 | 0.42 | 4.20 | 0.05 | 0.37 | 0.42 | 1.13 | 1.50 | 2.70 | 0.00 | 0.00 | 2.70 |
| Oct-20 | 10.0 | 0.29 | 2.90 | 0.04 | 0.29 | 0.29 | 0.78 | 1.08 | 1.83 | 0.00 | 0.00 | 1.83 |
| Nov-20 | 10.0 | 0.17 | 1.70 | 0.03 | 0.22 | 0.04 | 0.11 | 0.33 | 1.37 | 0.00 | 0.00 | 1.37 |
| Dec-20 | 10.0 | 0.12 | 1.20 | 0.02 | 0.15 | 0.00 | 0.00 | 0.15 | 1.05 | 0.00 | 0.00 | 1.05 |
| Jan-21 | 10.0 | 0.12 | 1.20 | 0.02 | 0.15 | 0.00 | 0.00 | 0.15 | 1.05 | 0.00 | 0.00 | 1.05 |
| Feb-21 | 10.0 | 0.15 | 1.50 | 0.02 | 0.15 | 0.00 | 0.00 | 0.15 | 1.35 | 0.00 | 0.00 | 1.35 |
| Mar-21 | 10.0 | 0.23 | 2.30 | 0.05 | 0.37 | 0.08 | 0.22 | 0.58 | 1.72 | 0.00 | 0.00 | 1.72 |
| Apr-21 | 10.0 | 0.38 | 3.80 | 0.07 | 0.51 | 0.38 | 1.03 | 1.54 | 2.26 | 0.00 | 0.00 | 2.26 |
| May-21 | 10.0 | 0.50 | 5.00 | 0.08 | 0.58 | 0.50 | 1.35 | 1.93 | 3.07 | 0.00 | 0.00 | 3.07 |
| Jun-21 | 10.0 | 0.60 | 6.00 | 0.08 | 0.58 | 0.60 | 1.62 | 2.20 | 3.80 | 0.00 | 0.00 | 3.80 |
| Jul-21 | 10.0 | 0.63 | 6.30 | 0.11 | 0.80 | 0.63 | 1.70 | 2.50 | 3.80 | 0.00 | 0.00 | 3.80 |
| Aug-21 | 10.0 | 0.56 | 5.60 | 0.12 | 0.88 | 0.56 | 1.51 | 2.39 | 3.21 | 0.00 | 0.00 | 3.21 |
| Sep-21 | 10.0 | 0.42 | 4.20 | 0.05 | 0.37 | 0.42 | 1.13 | 1.50 | 2.70 | 0.00 | 0.00 | 2.70 |
| Oct-21 | 10.0 | 0.29 | 2.90 | 0.04 | 0.29 | 0.29 | 0.78 | 1.08 | 1.83 | 0.00 | 0.00 | 1.83 |
| Nov-21 | 10.0 | 0.17 | 1.70 | 0.03 | 0.22 | 0.04 | 0.11 | 0.33 | 1.37 | 0.00 | 0.00 | 1.37 |
| Dec-21 | 10.0 | 0.12 | 1.20 | 0.02 | 0.15 | 0.00 | 0.00 | 0.15 | 1.05 | 0.00 | 0.00 | 1.05 |
| Jan-22 | 10.0 | 0.12 | 1.20 | 0.02 | 0.15 | 0.00 | 0.00 | 0.15 | 1.05 | 0.00 | 0.00 | 1.05 |
| Feb-22 | 10.0 | 0.15 | 1.50 | 0.02 | 0.15 | 0.00 | 0.00 | 0.15 | 1.35 | 0.00 | 0.00 | 1.35 |
| Mar-22 | 10.0 | 0.23 | 2.30 | 0.05 | 0.37 | 0.08 | 0.22 | 0.58 | 1.72 | 0.00 | 0.00 | 1.72 |
| Apr-22 | 10.0 | 0.38 | 3.80 | 0.07 | 0.51 | 0.38 | 1.03 | 1.54 | 2.26 | 0.00 | 0.00 | 2.26 |
| May-22 | 10.0 | 0.50 | 5.00 | 0.08 | 0.58 | 0.50 | 1.35 | 1.93 | 3.07 | 0.00 | 0.00 | 3.07 |
| 2020-2021 Total | - | 4.17 | 41.70 | 0.69 | 5.04 | 3.50 | 9.45 | 14.49 | 27.21 | 0.00 | 79.80 | 107.01 |
| 2021-2022 Total | - | 4.17 | 41.70 | 0.69 | 5.04 | 3.50 | 9.45 | 14.49 | 27.21 | 0.00 | 0.00 | 27.21 |

- Notes:
- [1] Phase 7 maximum anticipated exposed ground water surface area is 10.0 acres after completion of the first-fill of the pit.
 - [2] Gross Evaporation Rate equals 4.17 feet per year, based upon NOAA Evaporation Atlas. Monthly distribution based upon SB-120 Guidelines.
 - [3] Gross Evaporation equals [1] x [2].
 - [4] Effective Precipitation Rate equals 70% of total precipitation, based upon NOAA Pueblo Memorial Airport weather station.
 - [5] Effective Precipitation Credit equals [4] x ([1] - 2.7), based upon 2.7 acres of phreatophyte area in Phase 1.
 - [6] Average monthly potential consumptive use in Blaney-Criddle analyses for Phase 7 based on a depth to ground water of 4 feet. Values limited on monthly basis to gross evaporation in [2].
 - [7] Phreatophyte Reduction Credit equals [6] x 2.7 ac, based upon 2.7 acres of 100% canopy cover.
 - [8] Total natural vegetation credit equals [5] + [7].
 - [9] Net pond evaporation equals [3] - [8].
 - [10] Sand and gravel production will not occur at Phase 7 as the pit has transitioned into reclamation operations.
 - [11] Phase 7 net unlagged depletion equals net pond evaporation plus water loss with aggregate removal [9] + [10].

Table 4
Castle Aggregates - Pueblo East Pit Summary
Projected Depletion Analysis (June 2020 - May 2022)

| Month | Surface Area of Exposed Ground Water (ac) [1] | Gross Evaporation Rate (ft) [2] | Total Gross Evaporation (ac-ft) [3] | Natural Vegetation Credit | | | | | Net Pond Evaporative Depletions (ac-ft) [9] | Aggregate Moisture Content Depletion (ac-ft) [10] | Dust Control (ac-ft) [11] | Initial Fill Depletion (ac-ft) [12] | Total Net Unlagged Depletion (ac-ft) [13] |
|-----------------|--|------------------------------------|--|--|---|-------------------------------------|--|--|--|--|------------------------------|--|--|
| | | | | Effective Precipitation Rate (ft) [4] | Effective Precipitation Credit (ac-ft) [5] | Phreatophyte CU Distribution [6] | Phreatophyte Reduction Credit (ac-ft) [7] | Total Natural Vegetation Credit (ac-ft) [8] | | | | | |
| Jun-20 | 76.0 | 0.60 | 45.60 | 0.08 | 5.42 | 17.2% | 4.98 | 10.40 | 35.20 | 0.00 | 0.91 | 79.8 | 115.91 |
| Jul-20 | 76.0 | 0.63 | 47.88 | 0.11 | 7.45 | 18.1% | 5.23 | 12.68 | 35.20 | 0.00 | 0.93 | 0.0 | 36.13 |
| Aug-20 | 76.0 | 0.56 | 42.56 | 0.12 | 8.12 | 16.1% | 4.65 | 12.77 | 29.79 | 0.00 | 0.93 | 0.0 | 30.72 |
| Sep-20 | 76.0 | 0.42 | 31.92 | 0.05 | 3.39 | 12.0% | 3.49 | 6.87 | 25.05 | 0.00 | 0.91 | 0.0 | 25.96 |
| Oct-20 | 76.0 | 0.29 | 22.04 | 0.04 | 2.71 | 8.3% | 2.41 | 5.12 | 16.93 | 0.00 | 0.93 | 0.0 | 17.86 |
| Nov-20 | 76.0 | 0.17 | 12.92 | 0.03 | 2.03 | 1.1% | 0.33 | 2.36 | 10.56 | 0.00 | 0.91 | 0.0 | 11.47 |
| Dec-20 | 76.0 | 0.12 | 9.12 | 0.02 | 1.35 | 0.0% | 0.00 | 1.35 | 7.77 | 0.00 | 0.93 | 0.0 | 8.70 |
| Jan-21 | 76.0 | 0.12 | 9.12 | 0.02 | 1.35 | 0.0% | 0.00 | 1.35 | 7.77 | 0.00 | 0.93 | 0.0 | 8.70 |
| Feb-21 | 76.0 | 0.15 | 11.40 | 0.02 | 1.35 | 0.0% | 0.00 | 1.35 | 10.05 | 0.00 | 0.85 | 0.0 | 10.90 |
| Mar-21 | 76.0 | 0.23 | 17.48 | 0.05 | 3.39 | 1.9% | 0.55 | 3.94 | 13.54 | 0.00 | 0.93 | 0.0 | 14.47 |
| Apr-21 | 76.0 | 0.38 | 28.88 | 0.07 | 4.74 | 10.9% | 3.15 | 7.89 | 20.99 | 0.00 | 0.91 | 0.0 | 21.90 |
| May-21 | 76.0 | 0.50 | 38.00 | 0.08 | 5.42 | 14.3% | 4.15 | 9.57 | 28.43 | 0.00 | 0.93 | 0.0 | 29.36 |
| Jun-21 | 76.0 | 0.60 | 45.60 | 0.08 | 5.42 | 17.2% | 4.98 | 10.40 | 35.20 | 0.00 | 0.91 | 0.0 | 36.11 |
| Jul-21 | 76.0 | 0.63 | 47.88 | 0.11 | 7.45 | 18.1% | 5.23 | 12.68 | 35.20 | 0.00 | 0.93 | 0.0 | 36.13 |
| Aug-21 | 76.0 | 0.56 | 42.56 | 0.12 | 8.12 | 16.1% | 4.65 | 12.77 | 29.79 | 0.00 | 0.93 | 0.0 | 30.72 |
| Sep-21 | 76.0 | 0.42 | 31.92 | 0.05 | 3.39 | 12.0% | 3.49 | 6.87 | 25.05 | 0.00 | 0.91 | 0.0 | 25.96 |
| Oct-21 | 76.0 | 0.29 | 22.04 | 0.04 | 2.71 | 8.3% | 2.41 | 5.12 | 16.93 | 0.00 | 0.93 | 0.0 | 17.86 |
| Nov-21 | 76.0 | 0.17 | 12.92 | 0.03 | 2.03 | 1.1% | 0.33 | 2.36 | 10.56 | 0.00 | 0.91 | 0.0 | 11.47 |
| Dec-21 | 76.0 | 0.12 | 9.12 | 0.02 | 1.35 | 0.0% | 0.00 | 1.35 | 7.77 | 0.00 | 0.93 | 0.0 | 8.70 |
| Jan-22 | 76.0 | 0.12 | 9.12 | 0.02 | 1.35 | 0.0% | 0.00 | 1.35 | 7.77 | 0.00 | 0.93 | 0.0 | 8.70 |
| Feb-22 | 76.0 | 0.15 | 11.40 | 0.02 | 1.35 | 0.0% | 0.00 | 1.35 | 10.05 | 0.00 | 0.85 | 0.0 | 10.90 |
| Mar-22 | 76.0 | 0.23 | 17.48 | 0.05 | 3.39 | 1.9% | 0.55 | 3.94 | 13.54 | 0.00 | 0.93 | 0.0 | 14.47 |
| Apr-22 | 76.0 | 0.38 | 28.88 | 0.07 | 4.74 | 10.9% | 3.15 | 7.89 | 20.99 | 0.00 | 0.91 | 0.0 | 21.90 |
| May-22 | 76.0 | 0.50 | 38.00 | 0.08 | 5.42 | 14.3% | 4.15 | 9.57 | 28.43 | 0.00 | 0.93 | 0.0 | 29.36 |
| 2020-2021 Total | - | 4.17 | 316.92 | 0.69 | 46.71 | 100.00% | 28.94 | 75.65 | 241.27 | 0.00 | 11.00 | 79.80 | 332.07 |
| 2021-2022 Total | - | 4.17 | 316.92 | 0.69 | 46.71 | 100.00% | 28.94 | 75.65 | 241.27 | 0.00 | 11.00 | 0.00 | 252.27 |

Notes:

- [1] The maximum exposed ground water surface at the Pueblo East Pit under this SWSP is limited to 71.0 acres in Phases 1, 2 and 7.
[2] Gross Evaporation Rate equals 4.17 feet per year, based upon NOAA Evaporation Atlas. Monthly distribution based upon SB-120 Guidelines.
[3] Gross Evaporation equals [1] x [2].
[4] Effective Precipitation Rate equals 70% of total precipitation, based upon NOAA Pueblo Memorial Airport weather station.
[5] Effective Precipitation Credit equals sum of column [5] in Tables 1-3.
[6] Phreatophyte CU distribution equal to monthly phreatophyte reduction credit divided by the total annual phreatophyte reduction credit.
[7] Phreatophyte Reduction Credit equals the sum of column [7] in Tables 1-3.
[8] Total natural vegetation credit equals [5] + [7].
[9] Net pond evaporative depletion equals [3] - [8].
[10] Annual production limited to 250,000 tons, or 7.38 ac-ft of depletions from 4% water content by weight of the mined aggregate removed from Phase 7. The monthly distribution is based upon past operating patterns. The actual monthly rate may vary as long as the annual amount is not exceeded.
[11] Dust control depletions are assumed to be 100% consumptive and are based upon historical annual dust control pumping volumes.
[12] Total water required to fill Pueblo East Pit - Phase 1.
[13] Total net unlagged depletion equals net pond evaporation plus water loss with aggregate removal and dust control [9] + [10] + [11] + [12].

Table 5
Castle Aggregates - Pueblo East Pit
Projected Depletions, Credits, and Releases (June 2020 - May 2022)
(all values in acre-feet)

| Month | Net Unlagged Depletion [1] | Projected Lagged Depletion [2] | Replacement by Hamp-Bell Ditch Credits [3] | Replacement by Delivery Under PBWW Annual Lease [4] | Replacement by Delivery Under PBWW One-Time Lease [5] | Replacement by Delivery Under CWPDA Lease [6] | Backup Water Release Required From Twin Lakes Reservoir [7] | Net Effect to the River [8] |
|-----------------|-------------------------------|-----------------------------------|---|--|--|--|--|--------------------------------|
| Jun-20 | 115.91 | 91.71 | 0.00 | 6.07 | 0.000 | 85.65 | 0.00 | 0.00 |
| Jul-20 | 36.13 | 49.86 | 0.00 | 0.00 | 34.60 | 15.26 | 0.00 | 0.00 |
| Aug-20 | 30.72 | 36.35 | 0.00 | 0.00 | 36.35 | 0.00 | 0.00 | 0.00 |
| Sep-20 | 25.96 | 29.05 | 0.00 | 0.00 | 29.05 | 0.00 | 0.00 | 0.00 |
| Oct-20 | 17.86 | 22.66 | 0.00 | 22.66 | 0.00 | 0.00 | 0.00 | 0.00 |
| Nov-20 | 11.47 | 15.99 | 0.00 | 15.99 | 0.00 | 0.00 | 0.00 | 0.00 |
| Dec-20 | 8.70 | 11.33 | 0.00 | 11.33 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jan-21 | 8.70 | 9.38 | 0.00 | 9.38 | 0.00 | 0.00 | 0.00 | 0.00 |
| Feb-21 | 10.90 | 9.97 | 0.00 | 9.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| Mar-21 | 14.47 | 12.43 | 0.00 | 12.43 | 0.00 | 0.00 | 0.00 | 0.00 |
| Apr-21 | 21.90 | 17.65 | 5.00 | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 |
| May-21 | 29.36 | 24.50 | 5.00 | 19.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jun-21 | 36.11 | 31.45 | 0.00 | 6.07 | 25.39 | 0.00 | 0.00 | 0.00 |
| Jul-21 | 36.13 | 34.81 | 0.00 | 0.00 | 34.81 | 0.00 | 0.00 | 0.00 |
| Aug-21 | 30.72 | 33.03 | 0.00 | 0.00 | 33.03 | 0.00 | 0.00 | 0.00 |
| Sep-21 | 25.96 | 29.05 | 0.00 | 0.00 | 29.05 | 0.00 | 0.00 | 0.00 |
| Oct-21 | 17.86 | 22.66 | 0.00 | 22.66 | 0.00 | 0.00 | 0.00 | 0.00 |
| Nov-21 | 11.47 | 15.99 | 0.00 | 15.99 | 0.00 | 0.00 | 0.00 | 0.00 |
| Dec-21 | 8.70 | 11.33 | 0.00 | 11.33 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jan-22 | 8.70 | 9.38 | 0.00 | 9.38 | 0.00 | 0.00 | 0.00 | 0.00 |
| Feb-22 | 10.90 | 9.97 | 0.00 | 9.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| Mar-22 | 14.47 | 12.43 | 0.00 | 12.43 | 0.00 | 0.00 | 0.00 | 0.00 |
| Apr-22 | 21.90 | 17.65 | 5.00 | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 |
| May-22 | 29.36 | 24.50 | 5.00 | 19.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2020-2021 Total | 332.07 | 330.91 | 10.00 | 120.00 | 100.00 | 100.91 | 0.00 | 0.00 |
| 2021-2022 Total | 252.27 | 252.27 | 10.00 | 120.00 | 122.27 | 0.00 | 0.00 | 0.00 |

Notes:

- [1] Net unlagged depletion from first-fill of Phase 7, evaporation, and dust control at East Pit, equal to Col [13] in Table 4.
- [2] Projected lagged depletion, calculated using methodology described in the 2020 SWSP.
- [3] Hamp-Bell Ditch credits available to Castle Aggregates and provided by PBWW. PBWW has the right to store the Hamp-Bell Ditch credits, therefore Castle Aggregates no longer has to replace the winter time return flow obligation and is only entitled to the net excess credit after full augmentation of Chain of Lake depletions (determined per Case No. 03CW8) and replacement of winter time delayed return flows. Actual timing of delivery may differ from what is specified in table.
- [4] Replacement requirement met by storage delivery under 10-year PBWW lease (limited to 120 ac-ft/year from Oct - Sep). Subject to transit loss, as determined by the DWR. Actual
- [5] Replacement requirement met by storage delivery under one-time PBWW lease. Subject to transit loss, as determined by the DWR. Actual delivery may vary from projected releases shown in this table.
- [6] Replacement requirement met by delivery of replacement water from CWPDA. May be subject to transit loss, as determined by the DWR. Actual delivery may vary from projected releases shown in this table.
- [7] Backup water release required from Twin Lakes Reservoir equals the remaining replacement requirements that are not met by Hamp-Bell Ditch credits and leased water from PBWW and CWPDA. Transit losses are included and estimated to be the same as from Clear Creek Reservoir. No Twin Lakes Reservoir water is projected to be required for this SWSP.
- [8] Net effect to the river is a balance of projected lagged depletions and replacement sources, equal to [2] subtracted from the sum of [3], [4], [5], and [6].