December 21, 2018

Mr. David M. Heintz
Bishop-Brogden Associates
333 West Hampden Ave., Ste 1050
Englewood, CO 80110

Re: S&H Mine Substitute Water Supply Plan (WDID 0202589)
S&H Mine, DRMS Permit No. M-2000-158 (WDID 0203036)
Sections 2, T3N, R 67W and 35, T4N, R67W, 6th P.M.
Water Division 1, Water District 2, Weld County
SWSP Plan ID 3651

Approval Period: October 1, 2018 through September 30, 2020
Contact phone number for Mr. Heintz: 303-806-8952
Contact email address for Mr. Heintz: dheintz@bbawater.com

Dear Mr. Heintz:

We have reviewed your letter of August 23, 2018 requesting approval of the above referenced substitute water supply plan ("SWSP") to cover mining operations from October 1, 2018 through September 30, 2019. A SWSP was approved on August 2, 2018 for Scout Investments, LLC ("Scout") to cover the evaporation depletions from an inactive mine site. Martin Marietta Materials ("MMM") has since entered into an agreement with Scouts to mine the Platte Sand & Gravel Mine ("S&G Mine"). Therefore, this SWSP supersedes the original SWSP approval of August 2, 2018. The required application fee of $1,593 for a new SWSP has been submitted (receipt no. 3686337). The original SWSP for S&G Mine was approved on April 30, 2001 and has been renewed since that time. The prior SWSP was renewed by letter dated June 9, 2016 and that plan expired on June 30, 2018.

Plan Operation

This plan seeks to replace depletions resulting from mining operations at the S&H Mine. The S&H mine permit area covers approximately 750 acres and is located at the confluence of the South Platte River and St. Vrain River near Platteville, more specifically in Sections 26, 34 and 35, Township 4 North, Range 67 West of the 6th P.M. and Section 2, Township 3 North, Range 67 West of the 6th P.M. A general location map is shown in the attached Figure 1. The S&H mine is currently inactive and MMM will begin mining at the site in October 2018. The depletions that result from the mining operation over the period of this SWSP include evaporation from exposed ground water, dust suppression, dewatering, and water lost with the mined product. The main proposed replacement source is water stored during free river and in-priority in the Milliken Reservoir. In addition to the extent that water is available, MMM also requests the ability to use water stored in Heaton Reservoir pursuant to the storage right decreed in Case No. 2001CW193;

water stored in MMM's 35th Avenue Reservoir under free river conditions; excess credits available from MMM's 35th Avenue Pit from a lease of effluent from the City of Greeley; excess credits available from MMM's South Platte Combined Plan from a lease of effluent from the City of Aurora; and excess Whitney Ditch consumptive use credits owned by MMM.

Depletions

The Platte S&G Mine includes one unlined pond that currently exposes a total of 10.8 acres of ground water also known as the Sharkey's Pond. The evaporation depletions from the 10.8 acres have historically been replaced under SWSPs approvals for the S&H Mine. MMM plans to begin mining in October 2018. Dewatering at the site will take place in two mine cells during the SWSP period as shown in Figure 1. These cells will be surrounded by approximately 6,000 feet by 8 feet wide dewatering trenches, increasing the exposed ground water surface area at the site by 1.1 acres to a total of 11.9 acres. According to the information submitted, no water surface was exposed within the permit boundary prior to January 1, 1981.

The Applicant proposed to replace evaporation from exposed ground water at the site based upon evaporation atlases in NOAA Technical Report NWS 33 and the SEO monthly distribution factors for sites below 6,500 feet, as shown in attached Table 1. Gross annual evaporation at the gravel pit location is estimated to be 43.00 inches per year. Net evaporation is defined as gross evaporation less the consumptive use of water by vegetation that naturally occurred at the site prior to construction of the pit. The historical consumptive use was assumed to be equal to the effective precipitation, which was estimated based on the data from the Greeley UNC climate station for the time period of 1967-2017. The net evaporation from the exposed water surface is 32.53 acre-feet/year for the first and second year of operation of this SWSP, as shown in Table 1, column 7.

In addition to the evaporation, water is lost with the mined product removed from the mine site. The Applicant projected that they will produce 180,000 tons/year of gravel during the first and second year of operation of this SWSP. Gravel mined will be in a dewatered state and will be washed therefore the ground water lost with the mined product during this period is estimated at 4 percent by weight. The water lost with the mined product is projected to total 5.30 acre-feet/year during the first and second year of operation of this SWSP, as shown in Table 1, column 9.

Water for gravel washing and dust control will be provided by pumping water from the 10.8 acre unlined pond. The estimated water used for dust suppression during the period of this SWSP total 5.00 acre-feet/year during the first and second year of operation of this SWSP, as shown in Table 1, column 10.

As mentioned above, dewatering is anticipated within two mining cells prior to commencing the mining activities. The cells will be continuously dewatered during the period of this SWSP. Any dewatering water discharged to the South Platte River must be measured by totalizing flow meters that can accurately show the monthly volume of dewatered water that is pumped and returned to the stream, and such volumes must be reported on the submitted accounting as part of this SWSP. As long as the mine is

continuously dewatered at a relatively constant rate, the water returned to the stream system will be adequate to offset the depletions attributable to the dewatering operation. MMM is not seeking to use any dewatering accretion credits for the replacement of depletions at the S&G Mine or at any other sites under this SWSP.

The total consumptive use at this site is 42.83 acre-feet/year for the October 1, 2018 through September 30, 2019 period and again for October 1, 2019 through September 30, 2020, as shown in Table 1, column 12. You have provided a monthly breakdown of the annual depletions, which include 32.53 acre-feet/year of net evaporative loss from the dewatering trenches and the 10.8 acre pond, 5.30 acre-feet/year of water lost with the mined product, and 5.0 acre-feet/year of water used for dust control.

The IDS AWAS stream depletion model was used to determine the lagged depletions from dewatering, evaporation and operational losses to the South Platte River. The aquifer characteristics used in the model for the alluvial well are: transmissivity (T) = 156,000 gallons per day per foot, specific yield (SY) = 0.2, the distance from the centroid of the pond to the stream =1,000 feet and the location of the parallel impermeable boundary was estimated to be 16,100 feet from the stream.

The total lagged depletions for the October 1, 2018 through September 30, 2019 period equal 41.50 acre-feet and for the October 1, 2019 through September 30, 2020 period, total lagged depletions equal 42.58 acre-feet, as shown in Table 1, column 13. This SWSP accounts for actual depletions determined to accrue to the steam system during this plan period.

The Applicant has provided a monthly schedule of lagged actual depletions to the river, together with a schedule of replacement requirements, as shown in the attached Table 2.

Replacements

Out-of-priority depletions associated with the mining operation at this site will be replaced using water previously stored during free river in Milliken Reservoir which has been leased by Scout to MMM. MMM also requests the ability to use water stored in Heaton Reservoir pursuant to the storage right decreed in Case No. 2001CW193; water stored in MMM's 35th Avenue Reservoir under free river conditions; excess credits available from MMM's 35th Avenue Pit from a lease of effluent from the City of Greeley; excess credits available from MMM's South Platte Combined Plan from a lease of effluent from the City of Aurora; and excess Whitney Ditch consumptive use credits owned by MMM.

Milliken Reservoir Leased Water (aka Gilcrest Reservoir WDID 0203388)

Milliken Reservoir is a lined reservoir owned by United Water and Sanitation District ("United"). According to the lease agreement between United and Scout dated July 1, 2018, United agrees to lease to Scout up to 60 acre-feet of water every calendar year from Milliken Reservoir, through June 30, 2023. MMM has entered into an agreement with Scout for up to 60 acre-feet/year of water stored in Milliken Reservoir to replace depletions at the S&G Mine. The Milliken Reservoir is located in the center of the Platte S&G Mine site as shown in Figure 1. As shown in Column 4 of Table 2 it is expected that

41.50 acre-feet for the October 1, 2018 through September 30, 2019 period, and 42.58 acre-feet for the October 1, 2019 through September 30, 2020 period will be pumped from Milliken Reservoir to replace depletions from the S&G Mine during the SWSP period. The water will be pumped from the reservoir directly to the South Platte River near the same location as depletions from mining operation accrue to the river. Therefore, no transit losses will be applied and there will be no interviewing water rights to be injured. The District 2 Water Commissioner approved the diversion of South Platte River water into Milliken Reservoir during periods of free river in April 2016, December 2016, January 2017, May 2017, June 2017, September 2017 and October 2017. The necessary measurement and recording devices for pumping water into the river were approved by the water commissioner on August 18, 2014.

Heaton Reservoir Storage (WDID 0504089)

Heaton Reservoir (WDID 0504089) is located in Section 9, T2N, R68W, 6th P.M. Water stored under the right decreed in case no. 2001CW193 is delivered to the reservoir through the Rural Ditch (WDID 0600551). The date of appropriation for the Heaton Reservoir storage right is October 26, 2001 for 680 acre-feet, conditional, with uses that include, among others, augmentation and replacement, subject to the right to fill and refill as described in case no. 2001CW193. Replacement water will be pumped from Heaton Reservoir directly into the St. Vrain River just downstream of the confluence with Boulder Creek. The Applicant would have to obtain permission from the District 5 water commissioner to verify the Heaton Reservoir water can make it past any dry up locations between the release location and the confluence of the St. Vrain River and the South Platte River. Any Heaton Reservoir water used to make replacements for the S&G Mine will be assessed a transit loss based on 15 stream miles. Transit loss is therefore currently 7.5 percent (0.5 percent per mile) but is subject to assessment and modification as determined by the water commissioner or division engineer.

Greeley 35th Avenue Reservoir Storage (WDID 0303844)

The Greeley 35th Avenue Reservoir ("Reservoir") is a lined Reservoir, located in Section 35, Township 6 North, Range 66 West of the 6th P.M. In January 2018 MMM began filling the Reservoir under free river conditions. In order to use the stored water for replacement purposes the water will be pumped from the Reservoir directly to the Cache La Poudre River at the westernmost border of the Greeley 35th Avenue Pit (M1977-036). Pumping from the Reservoir may only be used for replacement of depletions at the S&G Mine if the calling water right is downstream of the confluence of the Cache La Poudre River and the South Platte River and intervening water rights would not otherwise be injured by the downstream replacement. Prior to using the Reservoir for replacement purposes under this SWSP, approval from the District 2 and District 3 water commissioners must first be obtained. Deliveries of replacement water from the Reservoir are subject transit loss from the point of release to the confluence of the Cache La Poudre River and the South Platte River. Conveyance loss for delivery of augmentation water is subject to assessment and modification as determined by the water commissioner or division engineer.

City of Greeley Effluent

Under this SWSP, MMM requests to use any excess fully consumable water leased from the City of Greeley ("Greeley") not required for replacement purposes in the MMM's SWSP for the Greeley 35th Avenue Pit (WDID 0302546). MMM's predecessor, Lafarge West, Inc., traded its 550 Boyd and Freeman Ditch shares for 125 acre-feet of augmentation water from Greeley. MMM acquired this lease from Lafarge, as part of their acquisition of the Greeley 35th Ave Pit. The lease allows MMM to use this water to cover depletions at Greeley 35th Ave Pit and surrounding land. A copy of the lease has been provided to this office. To the extent that excess fully consumable water is available, the leased replacement water may also be used to replace depletions at S&G Mine. Replacements using the excess Greeley effluent would be delivered to the South Platte River at the confluence of the South Platte River and Cache La Poudre River. Under the lease agreement Greeley can deliver the effluent water to a number of locations on the Cache La Poudre River. The Applicant is required to coordinate with the water commissioner the delivery location of replacement water to ensure out-of-priority depletions are adequately replaced to prevent injury to other water rights. **Excess fully consumable water leased from Greeley cannot be used for replacement of depletions at S&G Mine without prior approval from the water commissioner.** The Greeley effluent may only be used for replacement of depletions at the S&G Mine if the calling water right is downstream of the confluence of the Cache La Poudre River and the South Platte River and intervening water rights would not otherwise be injured by the downstream replacement. The Applicant must account for any transit loss from the point of release of replacement water to the confluence of the Cache La Poudre River and the South Platte River. Conveyance loss for delivery of augmentation water is subject to assessment and modification as determined by the water commissioner or division engineer.

City of Aurora Effluent

MMM has an agreement with the City of Aurora ("Aurora") for up 249 acre-feet for use in the MMM's South Platte Combined SWSP. The reusable effluent is delivered from the Metropolitan Waste Water Treatment Plant ('MWWTP") (WDID 0200700) to the South Platte River. When the Aurora effluent deliveries are in excess of what is needed to replace depletions at the South Platte Combined Sites, MMM requests the ability to use the excess credit for replacement of depletions at the S&G Mine. The applicant will account for a transit loss of 0.5% per mile from the MWWTP to the point of replacement at the S&G Mine of approximately 42.5 miles. Based on the assumed transit loss rate of 0.5% per mile, the total transit loss for Aurora effluent replacements to the South Platte is approximately 21.25%. Conveyance loss for delivery of augmentation water is subject to assessment and modification as determined by the water commissioner or division engineer. The Applicant would have to obtain permission from the District 2 water commissioners to verify Aurora water can make it past any dry up locations between MWWTP to the point of replacement at the S&G Mine.

Consumptive Use Credits from Whitney Ditch

MMM owns 12 Whitney Ditch shares which are used as a source of replacement water for the Parsons Mine (M2009-082). The shares are associated with the historical irrigation of lands with the mining boundaries of the Parsons Mine. The decreed source for the water rights under the Whitney Ditch is the Cache la Poudre River and the decreed point of diversion for the Whitney Ditch is on the north side of the Cache la Poudre River in the NW ¼ of the SE ¼ of Section 19, T 6 N, R 67 W, 6th P.M., Weld County. MMM's 12 shares in the Whitney Ditch Company, were changed for a variety of uses including augmentation/replacement in case no. 2008CW65. Case no. 2008CW65 relied on a ditch-wide analysis of the 320 total shares in the Whitney Ditch. Based on a study period of 1950 through 1995, the Court found that the average annual gross river diversion was 10,600.2 acre-feet per year, or 33.13 acre-feet per share. Total average annual farm headgate deliveries were found to be 9,010.2 acre-feet per year, or 28.16 acre-feet per share, based on a transit loss of 15% under the Whitney Ditch system. The ditch-wide analysis determined that the overall average consumptive use was 4,400.9 acre-feet per year or 13.75 acre-feet per share, assuming a farm efficiency of 60%. For MMM's 12 Whitney Ditch shares, the total average annual consumptive use would therefore equal to 164.25 acre-feet per year and 337.88 acre-feet of total deliveries. The 130.8 acres associated with the MMM's 12 shares have been dried-up.

When the Whitney Ditch consumptive use credits are in excess of what is needed to replace depletions at the Parsons Mine, MMM requests the ability to use the excess credit for replacement of depletions at the S&G Mine. MMM has obtained an agreement with the Greeley Irrigation Company ("GIC") allowing MMM to bypass the excess Whitney Ditch credits past the Greeley No. 3 Ditch headgate using the GIC's bypass structure in the event the Greeley No 3 Ditch is drying up the Cache La Poudre River. A transit loss will be assessed to the excess Whitney Ditch credits to be used for replacement of depletions at the S&G Mine. The Cache La Poudre transit loss is currently assessed at a rate of 0.5 percent per mile. The distance between the point of Whitney Ditch consumptive use deliveries and the confluence of the South Platte River and Cache La Poudre River is 17.8 miles which totals 8.9% transit loss. Additionally, GIC requires a 15% transit loss to be assessed to any water delivered through the GIC bypass structure. Therefore, the transit loss for excess Whitney Ditch credits delivered for replacement of S&G Mine depletions will be 23.9% when the bypass structure is used. The Whitney Ditch consumptive use credits may only be used for replacement of depletions at the S&G Mine if the calling water right is downstream of the confluence of the Cache La Poudre River and the South Platte River and intervening water rights would not otherwise be injured by the downstream replacement. The Applicant must obtain permission from the District 2 water commissioner prior to using the excess Whitney Ditch consumptive use credits for replacement at S&G Mine.

Long Term Augmentation Requirements

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 were required to demonstrate to DRMS how they were in compliance with the requirements of the Colorado Reclamation Act and the Mineral Rules and Regulations for the protection of

water resources by April 30, 2011. The operator's response to the DRMS letter has not been provided to this office. The final reclamation of the pit includes backfilling or lining of all exposed groundwater within the permit boundary. The operator currently has a bond through DRMS in the amount of $686,900 to cover reclamation cost. Such a bond must be maintained until the Division Engineer's office approves a liner for the exposed surface area as meeting the gravel pit lining criteria, or the exposed surface area must be backfilled.

Conditions of Approval

I 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 October 1, 2018 through September 30, 2020, 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 with the statutory fee (currently $257) by **July 1, 2020.** If a renewal request is received after the expiration date of this plan, it will be considered a request for a new SWSP and the $1593 filing fee will apply.

2. Well permit, no. 65464-F was obtained for the current use and exposed pond surface area of the gravel pit in accordance with §37-90-137(2) and (11), C.R.S. and this permit remains valid. The permit covers dewatering and up to 13.5 acres of exposed water surface, annual water use of 5.0 acre-feet for dust suppression and 17.66 acre-feet for water lost with mined product. Actual depletions cannot exceed these amounts and are limited to those uses specifically approved through this SWSP.

3. The total surface area of the groundwater exposed at the S&H Mine must not exceed 11.9 acres during the approval period of this SWSP, resulting in an annual evaporative loss of 32.53 acre-feet.

4. The annual water used for dust control at the S&G Mine site shall not exceed 5.0 acre-feet and the total product mined at the S&G Mine site shall not exceed 180,000 tons during the SWSP period, which results in 5.3 acre-feet of water lost with the mined aggregate.
5. Total consumption at the S&H Mine must not exceed the aforementioned amounts unless an amendment is made to this plan.

6. All pumping for dust control and gravel washing shall be measured in a manner acceptable to the division engineer.

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. 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.

8. Adequate accounting of depletions and replacement must be provided to the division engineer at Div1Accounting@state.co.us, to District 2 Water Commissioner, Jorge Vidal, at Jorge.Vidal@state.co.us, and to the River Operations & Compact Coordinator at Brent.Schantz@state.co.us within 30 calendar days of the end of the month for which the accounting is being made. All amounts shall be in acre-feet and submitted accounting shall conform to the Administration Protocol *"Augmentation Plan Accounting, Division One – South Platter River"* (attached).

   In the event that excess fully consumable water from the City of Greeley or the City of Aurora is used as a replacement water source under this SWSP, the Applicant shall verify that the entity making replacements (City of Greeley or City of Aurora) has included the Applicant on their accounting and submitted their accounting to the division office and the water commissioner.

9. **Prior to the use of the Heaton Reservoir water, Greeley 35th Avenue Reservoir water, City of Greeley effluent water, City of Aurora effluent water or the consumptive use from the Whitney Ditch water, the Applicant is required to notify the water commissioner and obtain the water commissioner's approval at least 48 hours prior to use, or less if allowed by the water commissioner**. The applicant is required to obtain the water commissioner's approval on a daily basis or other interval as required by the water commissioner. These replacement supplies may only be used at times when there is a continuous live stream between a downstream replacement location and the point of depletion and there is no call for water within that reach.

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

11. The division engineer, or his designated representative, will administer all such water transported in the South Platte River or its tributaries under this SWSP, including water for replacement of depletions, past intervening headgates to ensure that such water is not intercepted or otherwise diminished in quantity by diversion, use or other interference by intervening water rights and to assure that such water remains available and suitable for Applicant's uses under this SWSP, except when any intervening headgate is diverting the entire flow of ("sweeping") the river. In the event that delivery past headgates which sweep the river requires the installation of a bypass structure or the use of an existing bypass structure by agreement with a third-party, Applicant is responsible for either installing a new bypass structure with a continuous recording measuring device(s) as approved by the Water Commissioner or securing an agreement with a third-party to use an existing bypass structure and providing such information and agreement to the division engineer.

12. The Division of Water Resources will not be responsible for any enforcement or administration of third party agreements that are not included in a decree of the water court.

13. The name, address, and phone number of a contact person who will be responsible for the operation and accounting of this plan must be provided on the accounting forms to the Division Engineer and Water Commissioner.

14. **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 attributable to the dewatering operation. Dewatering operations must be measured by totalizing flow meters that can accurately show the monthly volume of dewatered water that is pumped and returned 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 South Platte River, the Applicant will need to account for any lagged dewatering depletions at the site.**

15. 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. The DRMS letter identifies four approaches to satisfy this requirement.

    In accordance with approach nos. 1 and 3, you have indicated that a bond has been obtained for $686,900 through the DRMS for lining of this site to assure that depletions from groundwater evaporation do not occur in the unforeseen event, or events, that would lead to the abandonment of the Pit.

16. The approval of this substitute water supply plan does not relieve the Applicant and/or the landowner of the requirement to obtain a Water Court decree approving a permanent plan for augmentation or mitigation to ensure the permanent replacement of all depletions, including long-term evaporation losses and lagged depletions after gravel mining operations have ceased. If reclamation of the mine site will produce a permanent water surface exposing groundwater to evaporation, an application for a plan for augmentation must be filed with the Division 1 Water Court at least three (3) years prior to the completion of mining, to include, but not be limited to, long-term evaporation losses and lagged depletions. If a lined pond results after reclamation, replacement of lagged depletions from mining and dewatering shall continue until there is no longer an effect on stream flow.

17. The State Engineer may revoke this SWSP or add additional restrictions to its operation if at any time should it be determined that injury to other vested water rights has or will occur as a result of this plan. Should this substitute water supply plan 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.

18. 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 requirements of use to senior appropriators has normally been put. 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.

19. 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 substitute water supply 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 comments or questions, please contact Ioana Comaniciu of this office or Dean Santistevan of our Division office in Greeley at (970) 352-0742.

Sincerely,

Jeff Deatherage, P.E.
Chief of Water Supply

Attachments: Figure 1, Table 1, Table 2
Administration Protocol *"Augmentation Plan Accounting, Division One – South Platte River"*

Ec: Dean Santistevan, Assistant Division Engineer, Dean.Santistevan@state.co.us
Brent Schantz, River Operations/Compact Commissioner, Brent.Schantz@state.co.us
Jorge Vidal, District 2 Water Commissioner, jorge.vidal@state.co.us
Colorado Division of Reclamation Mining and Safety

JD/jmw/idc

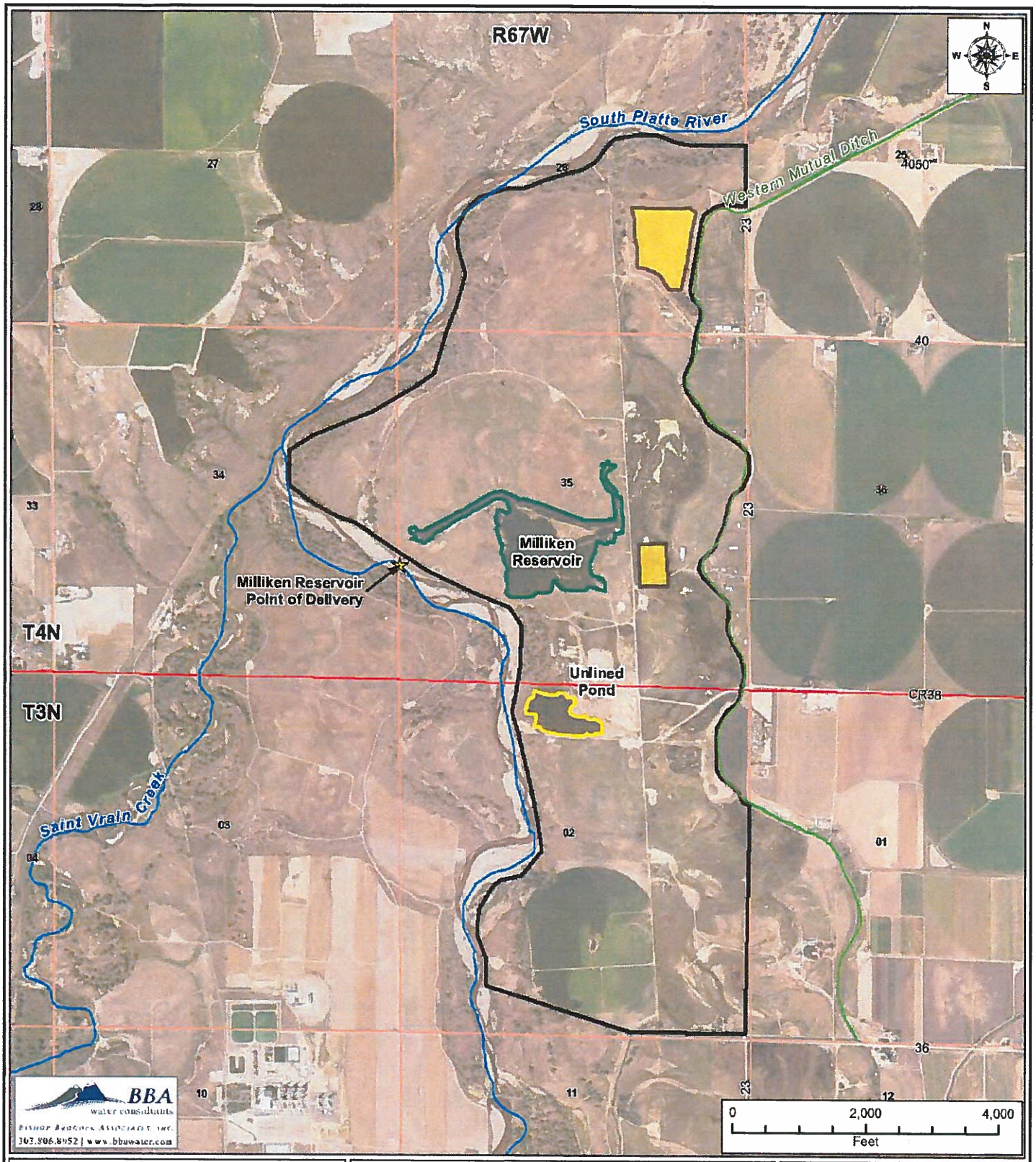

Figure 1
Martin Marietta
Platte Sand & Gravel
General Location Map

Date: 8/3/2018 | Job No. 1204.13

Legend

- Point of Delivery
- Lined Reservoir
- Unlined Reservoir
- Mining Cells
- Permit Area Boundary - Approx.

Aerial Photo Date: 8/27/2017, USDA - NAIP
Data Source: CDSS, CDOT, USGS, BLM

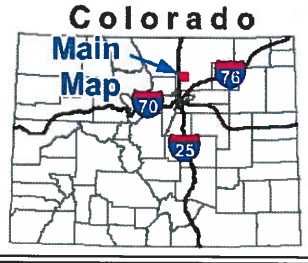

Table 1
Martin Marietta
Platte Sand & Gravel Mine SWSP (WDID 0203036)
Depletions Table

	Evaporation Consumptive Use							Mining Consumptive Use					
Month	Percent of Annual Evaporation (%) (1)	Gross Evaporation Rate (feet) (2)	Gross Evaporation (acre-feet) (3)	Average Precipitation (inches) (4)	Effective Precipitation (feet) (5)	Net Evaporation (feet) (6)	Evaporative Consumptive Use (acre-feet) (7)	Aggregate Production (tons) (8)	Water Lost in Mined Product (acre-feet) (9)	Water Used for Dust Control (acre-ft) (10)	Operational Consumptive Use (acre-feet) (11)	Total Consumptive Use (acre-feet) (12)	Lagged Depletion (acre-feet) (13)
Oct-18	7.0%	0.25	2.98	1.07	0.06	0.19	2.24	16,364	0.48	0.11	0.60	2.83	3.21
Nov-18	4.0%	0.14	1.70	0.74	0.04	0.10	1.19	16,364	0.48	0.13	0.61	1.80	2.44
Dec-18	3.0%	0.11	1.28	0.52	0.03	0.08	0.92	10,909	0.32	0.31	0.63	1.54	1.98
Jan-19	3.0%	0.11	1.28	0.47	0.03	0.08	0.95	10,909	0.32	0.60	0.93	1.88	2.00
Feb-19	3.5%	0.13	1.49	0.41	0.02	0.10	1.20	10,909	0.32	0.57	0.89	2.09	2.13
Mar-19	5.5%	0.20	2.34	0.99	0.06	0.14	1.65	16,364	0.48	0.39	0.87	2.53	2.39
Apr-19	9.0%	0.32	3.83	1.80	0.11	0.22	2.58	16,364	0.48	0.64	1.12	3.70	3.13
May-19	12.0%	0.43	5.11	2.67	0.16	0.27	3.26	16,364	0.48	0.53	1.02	4.27	3.74
Jun-19	14.5%	0.52	6.18	1.79	0.10	0.41	4.93	16,364	0.48	0.55	1.03	5.96	4.87
Jul-19	15.0%	0.54	6.39	1.51	0.09	0.45	5.34	16,364	0.48	0.33	0.81	6.15	5.47
Aug-19	13.5%	0.48	5.75	1.37	0.08	0.40	4.80	16,364	0.48	0.47	0.96	5.76	5.46
Sep-19	10.0%	0.36	4.26	1.14	0.07	0.29	3.47	16,364	0.48	0.36	0.85	4.31	4.69
Oct-19	7.0%	0.25	2.98	1.07	0.06	0.19	2.24	16,364	0.48	0.11	0.60	2.83	3.58
Nov-19	4.0%	0.14	1.70	0.74	0.04	0.10	1.19	16,364	0.48	0.13	0.61	1.80	2.60
Dec-19	3.0%	0.11	1.28	0.52	0.03	0.08	0.92	10,909	0.32	0.31	0.63	1.54	2.09
Jan-20	3.0%	0.11	1.28	0.47	0.03	0.08	0.95	10,909	0.32	0.60	0.93	1.88	2.08
Feb-20	3.5%	0.13	1.49	0.41	0.02	0.10	1.20	10,909	0.32	0.57	0.89	2.09	2.19
Mar-20	5.5%	0.20	2.34	0.99	0.06	0.14	1.65	16,364	0.48	0.39	0.87	2.53	2.45
Apr-20	9.0%	0.32	3.83	1.80	0.11	0.22	2.58	16,364	0.48	0.64	1.12	3.70	3.17
May-20	12.0%	0.43	5.11	2.67	0.16	0.27	3.26	16,364	0.48	0.53	1.02	4.27	3.79
Jun-20	14.5%	0.52	6.18	1.79	0.10	0.41	4.93	16,364	0.48	0.55	1.03	5.96	4.91
Jul-20	15.0%	0.54	6.39	1.51	0.09	0.45	5.34	16,364	0.48	0.33	0.81	6.15	5.51
Aug-20	13.5%	0.48	5.75	1.37	0.08	0.40	4.80	16,364	0.48	0.47	0.96	5.76	5.49
Sep-20	10.0%	0.36	4.26	1.14	0.07	0.29	3.47	16,364	0.48	0.36	0.85	4.31	4.72
2018-2019 Total	100.0%	3.58	42.60	14.51	0.85	2.73	32.53	180,000	5.30	5.00	10.30	42.83	41.50
2019-2020 Total	100.0%	3.58	42.60	14.51	0.85	2.73	32.53	180,000	5.30	5.00	10.30	42.83	42.58

Notes
(1) Monthly percentages determined in SB89-120 for elevations below 6,500 feet
(2) NOAA Technical Report NWS 33, Evaporation Atlas for the Contiguous 48 United States notes a total annual gross evaporation of 46 inches
(3) Gross evaporation = (2) x total exposed surface area which is equal to 10.8 acres
(4) Based upon the NOAA Greeley UNC (USC00053553) climate station for the time period 1967-2017
(5) Effective precipitation = (4) x 0.7/12
(6) Net evaporation = (2) - (5)
(7) Evaporative consumptive use = (6) x total exposed surface area which is equal to 10.8 acres
(8) Aggregate production provided by Martin Marietta
(9) Water consumed by the washed aggregate is equal to 4% of the total weight of mined material as defined by SB 89-120
(10) Water used for dust control based on MM estimates
(11) Operational Consumptive Use = (9) + (10)
(12) Total consumptive use = (7) + (11)
(13) Reflects lagged depletions due to evaporation, operational uses and past mining activities at the site based on Glover analysis using following parameters

X =	1,000 ft
T =	156,000 gpd/ft
S =	0.2
W =	16,100 ft

Table 2
Martin Marietta
Platte Sand & Gravel Mine SWSP (WDID 0203036)
Water Balance

Month	Total Lagged Depletions (acre-feet) (1)	Call on River (%) (2)	Out-of-Priority Depletions (acre-feet) (3)	from Milliken Reservoir (acre-feet) (4)	Effect to River (acre-feet) (5)
Oct-18	3.21	100%	3.21	3.21	0.00
Nov-18	2.44	100%	2.44	2.44	0.00
Dec-18	1.98	100%	1.98	1.98	0.00
Jan-19	2.00	100%	2.00	2.00	0.00
Feb-19	2.13	100%	2.13	2.13	0.00
Mar-19	2.39	100%	2.39	2.39	0.00
Apr-19	3.13	100%	3.13	3.13	0.00
May-19	3.74	100%	3.74	3.74	0.00
Jun-19	4.87	100%	4.87	4.87	0.00
Jul-19	5.47	100%	5.47	5.47	0.00
Aug-19	5.46	100%	5.46	5.46	0.00
Sep-19	4.69	100%	4.69	4.69	0.00
Oct-19	3.58	100%	3.58	3.58	0.00
Nov-19	2.60	100%	2.60	2.60	0.00
Dec-19	2.09	100%	2.09	2.09	0.00
Jan-20	2.08	100%	2.08	2.08	0.00
Feb-20	2.19	100%	2.19	2.19	0.00
Mar-20	2.45	100%	2.45	2.45	0.00
Apr-20	3.17	100%	3.17	3.17	0.00
May-20	3.79	100%	3.79	3.79	0.00
Jun-20	4.91	100%	4.91	4.91	0.00
Jul-20	5.51	100%	5.51	5.51	0.00
Aug-20	5.49	100%	5.49	5.49	0.00
Sep-20	4.72	100%	4.72	4.72	0.00
2018-2019 Total	41.50	-	41.50	41.50	0.00
2019-2020 Total	42.58	-	42.58	42.58	0.00

Notes:
(1) Total lagged depletions calculated in column 13 of Table 1
(2) Percent of month which call on South Platte main stem below Platte S&G Mine
(3) Equal to (1) x (2)
(4) Leased water pumped from Milliken Reservoir to the South Platte to replace depletions
(5) Equal to (4) - (3)

GRAVEL PROPERTY LEASE
Milliken Property

THIS LEASE, dated this 26 day of April, 2018 (hereinafter referred to as this "Lease"), is entered into by and between SCOUT INVESTMENTS, LLC, a Colorado limited liability company, whose address is 8301 Prentice Ave, Suite 100, Greenwood Village, Colorado 80111 (hereinafter referred to as "Scout" or "Lessor"), and MARTIN MARIETTA MATERIALS, INC., a North Carolina corporation (hereinafter referred to as the "Company"), with its address at 1627 Cole Boulevard, suite 200, Lakewood, Colorado 80401.

RECITALS

A. Lessor owns that certain real property located in the Town of Milliken, Colorado and described on Exhibit A attached hereto and made a part of this Lease (hereinafter referred to as the "Property").

B. Lessor holds an approved mining plan for the Property, a copy of which is attached hereto as Exhibit B (the "Mining Plan").

C. Lessor has secured a mining permit for the Property and certain other adjacent property from the Colorado Division of Reclamation, Mining, and Safety ("DRMS") identified as DRMS permit number M2000158 (the "Permit") a copy of which is attached as Exhibit B-1.

D. Lessor has planned certain revisions to the Mining Plan, which revised plan incorporates the construction and installation of slurry walls for the creation of lined water storage vessels attached hereto as Exhibit B-2 (the "Revised Mining Plan"). The Permit shall be subsequently revised to conform with the Revised Mining Plan as provide for in Paragraph 9A below.

E. Company desires to lease and accept from Lessor and Lessor desires to Lease and grant to Company the right to conduct mining operations on the Property according to the Revised Mining Plan, the Permit (as revised) and the terms and conditions of this Lease.

WITNESSETH

In consideration of the sum of Five Hundred Dollars ($500.00) paid by the Company to Lessor, the receipt and sufficiency of which is hereby acknowledged by Lessor, Lessor and Company agree as follows:

1. Definitions.

A. Effective Date shall mean the date of this Lease as set forth in the first paragraph above.

B. Lease Year shall mean a period of twelve months beginning on the Effective Date or on any anniversary thereof during the Term; provided however, that if the Commencement Date does not occur on the first day of a calendar month, then the first Lease Year shall include

weighing is impracticable, then calculated by physical testing using commonly accepted standards within the industry to determine the percentage ratio of Foreign Materials in the final product.

D. Certification of Accuracy. Accuracy of the scales at the Plant shall be checked and adjustments made on at least an annual basis or as otherwise necessary for the scales to be certified under all applicable laws rules and regulations. Records of the accuracy check and adjustments shall be preserved and made available in the same manner as other records.

E. Overburden. Overburden shall be used for stripping, hauling, placement, sloping and compaction as directed by Lessor consistent with the Revised Mining Plan or as required for reclamation under the Permit. The parties assume that overburden located on the Property is suitable for placement and compaction for Lessor's purposes and Company shall not be responsible for the engineering testing and quality of overburden so used, but will act at the direction of Lessor's engineers, consistent with Paragraph 9B below. Company shall not be responsible for the costs of purchasing, hauling, placement or compaction of overburden obtained from outside the Property if such overburden is requested by Lessor for Lessor's purposes or for Overburden Work. Should Company decide to use material sourced from off the Property for its own purposes, Company agrees to notify Lessor of its intent and shall bear all costs of doing so.

F. Allowance for Tailings. Tonnage for purposes of calculating the Production Royalty shall be based on processed Materials sold or removed. If Materials are not being commingled with Foreign Materials, then the tonnage sold shall be calculated pursuant to Paragraph 6A above. If due to commingling, Materials are weighed as pit run before processing and sale by the Company pursuant to Paragraph 6A above, the weight of tailings and washed fines shall be deducted from the total pit run weight of the Materials and Foreign Materials for purposes of calculating Production Royalties.

G. Records. Company shall maintain all of the records required hereunder for the duration of the Lease plus four years at the Plant or in a location within 50 miles of the Property. If Lessor elects to review or audit Company's records as provided for under this Lease and such review or audit reveals a discrepancy of more than three percent (3%), then Company shall reimburse to Lessor all of Lessor's out-of-pocket costs associated with such review or audit.

H. Stockpiling. The Company may stockpile on the Property only those Materials excavated under the Permit and other materials that Company may bring to the Property to commingle with Materials from the Property as may be necessary to create a saleable product from the Materials. Lessor may only store other materials on the site so long as the imported products are unavailable to be produced from the Property's existing deposits and those products do not exceed a total of 50,000 tons of storage at any one time. Lessor and Company shall work cooperatively to identify a mutually suitable location for silt storage by the Company on the Property. Company shall cause any Materials stockpiled on the Property to be removed from the Property prior to the end of the Term.

7. Water Augmentation and Dewatering. Lessor represents that it is in compliance with all applicable water augmentation plans as with respect to the Property as of the Effective Date. Company shall be responsible for obtaining and maintaining and complying with the requirements of any substitute supply plan or other augmentation plan made necessary during the Term of this Lease by virtue of Company's activities including the Company's surface exposure of groundwater, dewatering or mining operations on the Property; provided, however, that Lessor

shall provide Company with sufficient water, at no additional compensation, to use in the satisfaction of such substitute supply plan or augmentation plan, dust suppression, and processing, in an amount not to exceed 60 acre feet of water per water year, which commences April 1 and runs through March 31 (the "Water Supplies"). The initial Point of Delivery for Water Supplies delivered by Lessor shall be the existing Sharkey Pit. The Point of Delivery may be adjusted on mutual written agreement of the parties. The Company shall be responsible for the transportation of water from the Point of Delivery to the Company's point of use on the Property. The Water Supplies delivered under this Agreement may not be sold, leased transferred, assigned, or otherwise conveyed to any third party or used to augment operations at any place outside the Property or the Existing Plant Site, without the written consent of Lessor. Notwithstanding the foregoing, Lessor shall be solely responsible for any water augmentation or replacement plans that may be required arising from Lessor's activities on the Property.

8. Operations.

A. The Company shall conduct its operations on the Property in a prudent and workmanlike manner and in accordance with good and accepted mining and business practices and in compliance the Revised Mining Plan and the Permit as well as all applicable federal, state and local laws, rules and regulations. Subject to Paragraphs 2D, 2F, and 6E, the timing, nature, manner and extent of mining operations, processing and sales shall be within the sole discretion of the Company, and the Company shall not be required to mine, preserve or protect in its operations any Materials which, under good mining practices, cannot be mined or sold at a reasonable profit to the Company at the time they are encountered. The Company shall diligently mine the Property, and shall continue such mining consistent with market demands until the available gravel resources on the Property are exhausted or until the termination of the Lease. Absent written agreement of Lessor, the Company will not undertake to mine Materials at another operation within 7 miles of the Property (to include the Aurora parcel adjacent to the Property) before the resources at the Property are exhausted; provided, however, that the foregoing restriction on mining shall not apply to existing mining facilities that are purchased by the Company within the above-stated radius of the Property following the Effective Date so long as the Company does not increase the production tonnage of any such facility beyond its historic average production tonnage capacity. Lessor shall have the right to inspect the production report of any such facility to verify its production capacity upon sixty day advance notice to Company.

B. The Company shall have the right to construct, maintain, and use roads, pipe lines, power lines, telephone lines, and stockpile areas and any right of way it deems necessary or desirable for its operations on the Property related to the Company's operations under this Lease after consultation with Lessor. Such consultation shall take place no later than 7-days prior to any new construction. The Company shall have the right during the Term of this Lease and without payment to Lessor (except for Production Royalties payable pursuant to Paragraph 4 and Minimum Royalties payable pursuant to Paragraph 5) to strip and remove overburden (subject to the Permit) and otherwise to use and occupy the Property as is reasonably required in connection with mining, quarrying, extracting, processing (including tailings-washed fines storage facilities), storage, transportation, sale and removal of Materials from the Property and from other properties on which the Company is conducting operations.

C. The Company may, at its own cost, develop processing facilities, including, but not limited to, construction of the plant site, scale, freshwater pond, silt pond, power supply,

IN WITNESS WHEREOF, this Gravel Property Lease has been duly executed by Lessor and Company as of the date indicated below their respective signatures.

LESSOR:

Scout Investments, LLC,
a Colorado limited liability company

By: _____
Name: Robert A. Lembke
Its: Manager
Date: April 23, 2018

COMPANY:

Martin Marietta Materials, Inc.
a North Carolina corporation

By: _____
Name: Abbott Lawrence
Its: President Rocky Mountain Division
Date: 4/23/18

EXHIBIT A -- Description of Property

Lessor grants Company ingress and egress across Scout LLC/ United Milliken Reservoir Enterprise property to the South Platte River as identified above. Ingress and Egress shall be used for purposes related to mining that can include but not limited to; conveyor access, discharge, pumping, access road, utilities and any other purpose related to mining. No hunting shall be allowed on the parcels identified above. Any hunting granted by Lessor or its affiliates on surrounding properties shall not affect mining of property inside lease area as identified above.

ADMINISTRATION PROTOCOL
Augmentation Plan Accounting
Division One – South Platte River

This protocol establishes the accounting and reporting process required to enable the division engineer's office to confirm that depletions from all out-of-priority diversions are being replaced so as to prevent injury to vested water rights. The accounting must comport with established "cradle to grave" accounting standards, which allow an audit of the information to track exactly how the data is manipulated as it is translated from raw input data 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 "negative" and an accretion or other replacement source is "positive". The sum of the impacts will then result in either a "negative" or "positive" impact on the stream.

Wells in plans that have a negative stream impact must provide additional replacement water, curtail pumping or both until the impact is no longer negative. Plans with a negative stream impact that fail to curtail pumping will be ordered to stop pumping until such time as the projected impact of the wells is no longer negative.

1. Accounting must be submitted electronically to the water commissioner (call 970-352-8712 to obtain email address) and division engineer at Div1Accounting@state.co.us within 30 days of the end of the month for which the accounting is being submitted.
2. The accounting must provide the **contact information** including name and address for:
    a. the owner(s) of each well
    b. the person responsible for submitting the accounting
    c. the plan administrator and/or the plan attorney.
3. All **input data** must be in one location, such as an "Input" worksheet, etc. The accounting must show all pumping. Input data includes the information listed below.
    a. The required input data for each **well** is:
        i. the monthly meter reading for wells that use a **presumptive depletion factor** (PDF) to determine the associated consumptive use (CU); or
        ii. the monthly CU in acre-feet (AF) for wells that have a decree or approved SWSP that allows the wells to use a **water balance methodology** to determine the CU of the well. The analysis used to determine the CU must be included with the accounting.
        iii. Wells that are decreed as an **alternate point of diversion** (APOD) to a surface water right must report pumping on a daily basis if any of the diversion during the month is claimed as being "in priority". (See *Administration Protocol – APOD Wells* for more details.)

iv. The well meter serial readings for each meter shall be included if there is more than one meter on a well.

b. Each **recharge site** must comply with the *Administration Protocol - Recharge* and must report the:

i. daily volume in AF diverted into the site;

ii. monthly volume in AF released from the site;

iii. monthly net evaporative loss in AF;

iv. volume of water in AF remaining at the end of the month.

c. The accounting must identify each source of **fully consumable replacement water** actually delivered to the location impacted by the depletions. To demonstrate the water was actually delivered to the required location will require the following information:

i. the originating source of the water, date released and volume of water released;

ii. transportation losses to point of diversion 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.)

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

i. the basis and volume of the return flow obligation;

ii. the location the changed water was historically used; this will be the location used to determine the timing of the return flow impact on the river.

4. The accounting must include a monthly **projection** of the plan's operation at least through March 31 of the next calendar year.

5. The accounting must include all input and output files associated with **modeling the delayed impact** of diversions. The output from the modeling must report to a summary table that shows, by month, the ongoing depletions associated with pumping, return flow obligations, etc. and accretions from recharge operations.

6. A **net impact** summary must show the out-of-priority depletions, accretions from each recharge site, volume of replacement water actually delivered to the location of the depletions and the resultant net impact on **a daily basis**. If necessary, the net impact must be done by river 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.

Replacement water must be provided such that the **daily net impact** (using the simulated daily numbers from the modeling) **is not negative**. 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. The replacement must be made, however, on a daily basis as opposed to, for instance, making an aggregated release equal to the volume of the out-of-priority depletions. Likewise, the simulated daily accretion will only count toward replacing the depletion on the days the well is out-of-priority. The accretions that report to the river when the well is in priority cannot be used to replace the out-of-priority depletions.

The **accretions that impact the river when the well is in priority** are not considered "excess" unless the cumulative net impact of the well is not negative for the entire irrigation year to date. (The irrigation year for this purpose is April 1 thru the following March 31.) Until such time as the cumulative net impact is not negative, the accretions must simply be released to the river and cannot be leased to other plans or recaptured. Plans that show a positive cumulative net impact are still required to make replacements on a daily basis; the cumulative analysis only effects whether or not accretions reporting to the river when the well is in priority are considered "excess" and are, therefore, able to be recaptured.

7. The basis for determining that the depletions are **out-of-priority** must be clearly established and all steps in the calculation included in the accounting. 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. Accounting must include **actual information** for the irrigation year through the month for which the accounting is being submitted **AND projections** of the plan operation through March 31 of the next calendar year.

9. The following **naming convention** must be used for all files submitted pursuant to item 1:

   "Plan**WDID**_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"

   The name of the file must be in the subject line of the email.

10. All accounting must be reported using the **WDID** for the structure, at a minimum. Other information such as well name, permit number, etc. may also be included as desired. <u>All wells must be decreed by the water court, permitted by the state engineer or included in a decreed plan for augmentation</u>. Unregistered and undecreed wells cannot, in the opinion of the division engineer, be effectively administered because of the need to know the location, allowable diversion rate and use of the well - information that is only available from the decree or permitting process.

11. If a well is covered in multiple SWSP's 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 pumping amount covered by each plan to assure all out-of-priority depletions are replaced.

12. The following additional accounting is required for sources of replacement water used for more than one plan. The water right owner of the replacement water is responsible for accounting for the total replacement amount and how much each plan is using of that total amount. The accounting for portions of the replacement water by other users must match the accounting of the water right owner. The amount of replacement water used by the water right owner and other users together shall not exceed the total replacement amount 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)