COLORADO
Division of Water Resources
Department of Natural Resources

July 15, 2024

Mr. Andy Rodriguez, P.E.
Civil Resources, LLC
8308 Colorado Blvd Suite 200
Firestone, CO 80504

Re: Poudre Pits Aggregate Mine Substitute Water Supply Plan (WDID 0302519)
La Poudre Aggregate Mine, DRMS Permit M-1983-090 (WDID 0303010, Plan ID 3218)
North La Poudre Aggregate Mine, DRMS Permit M-2000-144 (WDID 0303011, Plan ID 4585)
Section 19, T6N, R67W, 6th P.M.
Water Division 1, Water District 3, Weld County

Approval Period: January 1, 2024 through December 31, 2024
Contact Phone Number for Mr. Rodriguez: 303-833-1416 ext. 202; andy@civilresources.com

Dear Mr. Rodriguez:

We have reviewed your letter dated October 19, 2023 requesting renewal of the above-referenced substitute water supply plan ("SWSP") in accordance with section 37-90-137(11), C.R.S. This SWSP is requested to cover depletions caused by sand and gravel mining operations at two sites along the Cache la Poudre River operated by BURNCO Colorado, LLC ("BURNCO" or "Applicant"). The required renewal fee of $514 (2 × $257) has been submitted (receipt nos. 10032440 and 10032441).

Plan Operation

The following table lists the sites that are included in this combined replacement plan:

Table A – Combined Replacement Plan Sites

Site Name	DRMS Permit No.	WDID	Well Permit No.	Location	Exposed Surface Area (post-12/31/80) (acres)
La Poudre Aggregate Mine	M-1983-090	0303010	61571-F	19-T6N-R67W	19.67
North La Poudre Aggregate Mine	M-2000-144	0303011	78235-F	19-T6N-R67W	8.98

The La Poudre site consists of three separate cells designated as the West Lake, Middle Lake, and East Lake. An additional parcel in the northwest corner of Section 19, known as the Lee Parcel, was amended into the mining permit boundary in December 2017. The Lee Parcel has been mined out and was backfilled during the 2021 plan period. There is no remaining exposed groundwater at the Lee Parcel. No mining of aggregate is proposed to occur at either the La Poudre or North La Poudre sites during this plan period.

Depletions

Evaporation and Operational Losses

During this SWSP period, consumptive use at the La Poudre and North La Poudre Pits will consist of evaporation losses and water used for dust control and concrete batching. The depletions for each site are shown in the following table:

Table B – 2024 Site Depletions (acre-feet)[a]

Site Name		Evaporation Losses	Groundwater Lost in Mined Product	Groundwater Consumed in Concrete Batching	Dust Control	Total Depletions	Total Lagged Depletions
La Poudre	West	37.34	0	12.89	2.20	52.43	48.1
	Middle	3.66	0	0	0	3.66	3.46
	East	34.29	0	0	0	34.29	34.29
North La Poudre		19.80	0	0	0	19.80	18.9
Total		101.27	0	12.89[b]	2.20	110.18	104.76

[a] Depletions shown do not include those from past or projected dewatering operations at the sites.
[b] Water for concrete batching will be supplied from CCWCD or pumped from onsite.

For the purposes of this SWSP, depletions are assumed to impact the Cache la Poudre River perpendicular to the point of depletions, which is considered to be the centroid of the exposed surface area at each site. Evaporative depletions for each site were calculated using a gross annual evaporation of 38.5 inches, with a credit of 9.78 inches for effective precipitation based on an average annual precipitation of 13.97 inches for the Windsor weather station. The Windsor weather station only has precipitation data available for the period of 1941-1990, but the value of 13.97 inches is less than the average annual precipitation for the closest station with contemporary data (Loveland NCWCD station, period of record 1990-2023) and therefore is acceptable for the purposes of this SWSP. **For any future SWSP renewal, the period the average annual precipitation is based on should be extended through the most recent year available (2023 for the 2024-2025 renewal).**

The West Lake includes a Wildlife Pond, which will be maintained at 9.66 acres of exposed water from January through June, and then will fill to 20.3 acres of exposed water from July through December when dewatering operations cease. The Middle Lake contains a 1.53-acre pond and the East Lake contains a 14.33-acre pond. The North La Poudre site contains a 2.07-acre pond and a 6.2-acre pond. The attached Figure 1 shows the location of each of these exposed groundwater features.

Operational losses at the La Poudre and North La Poudre sites will consist of 2.20 acre-feet of groundwater used for dust control purposes. The Applicant anticipates that there will be no mining of aggregate during this plan period. Water used for dust control purposes will be pumped from the West Lake within the La Poudre site. Operational activities at the site will include concrete batching, which will either be provided from Central Colorado Water Conservancy District's lined reservoir or pumped from the West Lake. Depletions from the La Poudre and North La Poudre pits will impact the Cache la Poudre River upstream of the Whitney Irrigation Ditch (WDID 0300930). All water pumped

from the site for operational purposes must be measured and accounted for with a proper flow meter, as approved by the Water Commissioner.

The Alluvial Water Accounting System (AWAS), which uses the Glover method, was used to determine the lagged depletions to the Cache la Poudre River from past (since 1990) and projected evaporation and operational losses at each site. The following parameters were used in the model with the alluvial aquifer boundary condition: the distance (X) from the centroid of the exposed groundwater surface to the river; the width (W) of the aquifer on the side of the river where the pit is located; the transmissivity (T); and the specific yield (S). The Glover parameters used for each pit site are shown in the table below. The lagged evaporative and operational depletions for 2024 will total 104.76 acre-feet for the La Poudre and North La Poudre sites.

Table C – Glover Parameters (Evaporative/Operational Losses)

Site Name		X (ft)	W (ft)	T (gpd/ft)	S
La Poudre	West	512	4,800	50,000	0.20
	Middle	399	4,800	50,000	0.20
	East	626	4,800	50,000	0.20
North La Poudre		2,500	4,800	50,000	0.20

Dewatering

Dewatering has occurred at each pit over varying intervals from 1995 through 2022. The Wildlife Lake is the only portion of either site that is proposed to be actively dewatered during this SWSP period. In the past, it was assumed that the pits were dewatered at a rate of 500 gpm with all water released directly to the river. These assumptions have been revised to reflect the historical average dewatering rate of 100 gpm where the majority (75%) of the water was recharged in the adjacent pits with only 25% discharged directly to the river. This is based on a reevaluation of historical operations by the operator's consultant and a December 20, 2012 letter from Mark Johnson, the operator's Compliance Manager, as well as submitted pump specifications and data showing that 100 gpm is a more accurate estimate than the previously accepted 500 gpm. Mark Johnson described the recharge operation as occurring simultaneously with dewatering in that the operator would discharge the water into an adjacent, previously mined, cell. Once the cell being recharged exceeded its hydraulic capacity the water would then be diverted directly to the river.

Dewatering operations at the La Poudre Pit occurred from January 1995 through December 2002, and during October and November of 2014. As stated above, 75% of the water was recharged in the adjacent pits with 25% discharged directly to the river. The Lee Parcel was dewatered between April 2018 and June 2021 at an average rate of 212 gallons per minute with one-third (33.3%) of the dewatering water delivered to recharge in the West Lake and two-thirds (66.6%) delivered directly to the river.

At the North La Poudre site, dewatering operations occurred from September 2002 through March 2003 and recommenced from April 2012 through July 2014. The 2012 dewatering was not metered therefore no recharge credit was given. Instead, all 2012 dewatering was assumed to be discharged directly to the river creating no lagged accretions. The operator installed meters at this site by January 2013 and starting January 2013 the actual meter readings are used in the dewatering

analysis. Dewatering that occurred from January 2013 through November 2013 and March 2014 through July 2014 was returned directly to the river through an unnamed slough located above the Whitney Ditch.

In the past, lagged depletions resulting from dewatering at the sites were calculated using AWAS with the infinite aquifer boundary condition. The following parameters were used in the model: the distance (X) from the centroid of the exposed groundwater surface to the river; the transmissivity (T); and the specific yield (S). The Glover parameters used for each pit are shown in Table D below.

Table D – Glover Parameters (Dewatering)

Site Name	X (ft)	T (gpd/ft)	S
La Poudre	1,500	50,000	0.20
North La Poudre	2,500	50,000	0.20

Beginning with the 2019 plan year, you began to lag dewatering depletions using the alluvial aquifer boundary condition, consistent with the methodology and aquifer width (W) parameter for lagging operational depletions, which is believed to be more appropriate given the close proximity of the pits to the Cache la Poudre River. In order to ensure that this change in methodology does not result in unreplaced depletions to the river, you have proposed to continue lagging dewatering depletions resulting from dewatering that occurred in 2018 and earlier using the infinite aquifer boundary condition, and to lag depletions resulting from dewatering that occurred in 2019 and later using the alluvial aquifer boundary condition. Because the remaining depletions resulting from dewatering prior to 2019 as calculated using the infinite aquifer method lag out for a long time period in relatively small quantities, you have proposed to “wrap” the lagged depletions remaining after 2028, which represent less than 10% of the total volume pumped for dewatering purposes, and redistribute and replace these depletions during the time period of 2019 through 2028. Depletions resulting from post-2019 dewatering are not proposed to be wrapped at this time.

Dewatering at the Wildlife Pond portion of the La Poudre site ended in December 2023 and there will be no recharge moving forward.

The combined lagged dewatering depletions, accretions from the stated recharge, and direct delivery to the river from dewatering operations create a net deficit to the river in the amount of 79.89 acre-feet. With the previously described combined lagged evaporative and operational depletions of 104.76 acre-feet, the total net depletion owed to the river for this SWSP approval period is 184.65 acre-feet. See attached Table 4 for the monthly distribution of depletions and accretions.

Replacement

The proposed source of replacement water under this SWSP is water leased from the Central Colorado Water Conservancy District and water separately leased from the City of Greeley .

The Applicant has obtained an agreement with the Ground Water Management Subdistrict of the Central Colorado Water Conservancy District ("Central") for 43.69 acre-feet of Central's fully consumable storage and direct flow water rights in the Cache la Poudre basin. The term of the agreement is through December 31, 2024. A copy of the executed agreement, dated December 29, 2023, is attached. Central has water in storage in Siebring Reservoir (WDID 0303803), 83rd Avenue Reservoir (WDID 0303408), and La Poudre Reservoir (WDID 0303377). Siebring Reservoir and 83rd Avenue Reservoir are located in Section 31, Township 6 North, Range 66 West of the 6th P.M. La Poudre Reservoir is located within the boundaries of the La Poudre Aggregate Mine (M-1983-090) in Section 19, Township 6 North, Range 67 West of the 6th P.M. If the Whitney Ditch or B.H. Eaton Ditch are sweeping the river, Central lease water from La Poudre Reservoir can be used to cover the depletions from the La Poudre and North La Poudre Pits, but the Central lease water from Siebring Reservoir and 83rd Avenue Reservoir cannot.

The Applicant has obtained an agreement with the City of Greeley ("Greeley") for 148.92 acre-feet of Greeley's fully consumable storage and direct flow water rights in the Cache la Poudre basin. The term of the agreement is through December 31, 2024. A copy of the executed agreement, dated January 4, 2024, is attached. Fully consumable replacement water provided by Greeley will be returned to the river at one of the following locations:

a) Greeley Water Pollution Control Facility Outfall (WDID 0302312) located on the Cache la Poudre River;

b) Milton Seaman Reservoir (WDID 0303713) located on the North Fork of the Cache la Poudre River;

c) JBS Swift Industrial WWTP Outfall (WDID 0102342) on Lone Tree Creek;

d) any augmentation station/release structure(s) to be constructed in the vicinity of such confluence and associated with Greeley's operation of reservoirs known as Flatiron Reservoir Nos. 1-5 (a.k.a. Poudre Ponds/Greeley West Pit/Greeley 25th Ave Pit);

e) release structures from Greeley Canal No. 3 as described in Greeley's decree in case no. 99CW232;

f) release structures from the Greeley Loveland Canal on the Big Thompson River; or

g) any other release and measurement point that Greeley and BURNCO agree upon.

If the Whitney Ditch or B.H. Eaton Ditch are sweeping the river, Greeley lease water from the Milton Seaman Reservoir can be used to cover the depletions from the La Poudre and North La Poudre Pits, but the other listed sources cannot. Conveyance loss for delivery of the augmentation water referenced above is subject to assessment and modification as determined by the division engineer.

The Applicant has relied on dewatering to reduce the surface area of exposed groundwater and to spread replacement obligations over a longer period. In times when the dewatering pumps are inoperable, as occurred twice in 2022, the Applicant will need to provide additional replacement water. Additional sources of replacement water must be legally available for augmentation/replacement use and must be able to be provided in the amount, at the time, and at the location required to replace out of priority depletions from the gravel pit sites included in this SWSP. Additional sources of replacement water may only be used in this SWSP if the Applicant complies with the attached Division One Administration Protocol "Use of Replacement Sources Not

Specifically Identified in an SWSP or Augmentation Plan".

For any future SWSP renewal, the Applicant must cease or drastically reduce their reliance on dewatering and secure additional replacement sources to cover the increased evaporative depletions.

Long-Term Augmentation

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 groundwater.

For any gravel pit whose reclamation includes unlined ponds, a plan for augmentation approved by the water court must be obtained to cover the long term evaporative depletions. Until an augmentation plan is obtained the operator may post a sufficient bond to backfill or line the site thereby eliminating any long term augmentation requirements, or permanently dedicate shares that will be used in an augmentation plan to the pit. For any gravel pit whose reclamation includes lining or backfilling of the pit, bonds must be posted that can be used to complete the reclamation plan should the operator walk away from the site. The North La Poudre and La Poudre pits have been bonded through DRMS and are in compliance with the April 2010 DRMS letter (approach #1 and #3). A summary of each pit's status regarding their long term augmentation and bonding held through DRMS is shown in Table F below.

Table F – Final Reclamation Summary

Site Name	DRMS Permit No.	Proposed Final Reclamation	Bond Amount	Comments
North La Poudre	M-2000-144	Unlined Ponds	$1,158,930	Operator increased reclamation liability bond on 4/22/2013 to comply with DRMS requirements for exposed groundwater on site. Operator increased reclamation liability bond on 7/26/2017 in response to the increased acreage approved in amendment AM01.
La Poudre	M-1983-090	Lined and Unlined Ponds	$1,506,500	Operator increased reclamation liability bond on 5/3/2013 to comply with DRMS requirements for exposed groundwater on site. Operator increased reclamation liability bond on 12/17/2017 in response to the increased acreage approved in amendment AM02.

Conditions of Approval

I hereby approve the proposed substitute water supply plan in accordance with section 37-90-137(11), C.R.S., subject to the following conditions:

1. This plan shall be valid for the period of January 1, 2024 through December 31, 2024 unless otherwise revoked or superseded by decree. If either lagged or projected depletions will extend beyond the plan's expiration date, a renewal request must be submitted to this office with the statutory fee of $257 for each DRMS site, and with all necessary leases and other

supporting documentation, no later than November 1, 2024. If a renewal request is received after the expiration date of this plan, it may be considered a request for a new SWSP, in which case a $1,593 filing fee per site will apply.

2. Well permit no. 61571-F was obtained for the La Poudre Pit in accordance with sections 37-90-137(2) and (11), C.R.S. This permit allows for up to 33.3 acres of exposed groundwater and allows for operational losses from the mining of aggregate, production of concrete, and dust control. The water use projected in this SWSP is within the permit's limits.
3. Well permit no. 78235-F was obtained for the North La Poudre Pit in accordance with sections 37-90-137(2) and (11), C.R.S. This permit allows for evaporation, dewatering, and operational losses from the mining of aggregate, production of concrete, and dust control. The water use projected in this SWSP is within the permit's limits.
4. The total surface area of the groundwater exposed at each of the pits shall not exceed those values listed in Table A of this approval. Should the total surface area exposed exceed those amounts, the Applicant is required to immediately file an amendment with this office.
5. The total amount of groundwater to be appropriated from each of the pits shall not exceed the values listed in Table B of this approval.
6. Total consumption at the La Poudre and North La Poudre Pits must not exceed these aforementioned amounts unless an amendment is made to this plan.
7. Approval of this plan is for the purposes stated herein. Any additional uses of this water must first be approved by this office.
8. All pumping for dust control and/or concrete batching shall be measured in a manner acceptable to the division engineer.
9. The Applicant must replace all out-of-priority depletions resulting from operation under this SWSP, including those lagged depletions that occur to the stream after the expiration date of this SWSP.
10. 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 attached Table 4 provides a proposed schedule of replacement. The release of replacement water may be aggregated to maximize beneficial use. The water commissioner and/or the division engineer shall determine the rate and timing of an aggregated release.
11. In order to prevent injury to other water rights, the division engineer and water commissioner must be able to administer Applicants' replacement water past headgates on the river at times when those headgates would otherwise be legally entitled to divert all available flow in or "sweep" the Cache la Poudre or its tributaries. Applicant shall not receive credit for replacement of depletions to the Cache la Poudre below such diversion structures unless bypass and measurement structures are in place to allow the division engineer and water commissioner to confirm that Applicant's replacement water is delivered past the headgates. In the event that delivery past dry-up points requires the use of a structure for which a carriage or use agreement with a third party is required, Applicant shall be responsible for securing such agreement. Until such time as the Applicant provides a copy of the carriage or use agreement to the division engineer and water commissioner, no credit will be allowed for replacement of depletions to the Cache la Poudre below such diversion structure.

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 replacement water which is the subject of this plan cannot be sold or leased to any other entity. As a condition of subsequent renewals of this substitute water supply plan, the replacement water must be appurtenant to this site until a plan for augmentation is obtained. All replacement water must be concurrent with depletions in quantity, timing, and location.

14. The Applicant has proposed to use for augmentation purposes water available from any other source legally available for augmentation and which can be provided in the amount, at the time, and at the location required to replace out of priority depletions from the La Poudre or North La Poudre Pits. Additional sources of replacement water may only be used in this SWSP if the Applicant complies with the attached Division One Administration Protocol "*Use of Replacement Sources Not Specifically Identified in an SWSP or Augmentation Plan*".

15. The name, address, and phone number of the contact person who will be responsible for the operation and accounting of this plan must be provided on the accounting forms submitted to the division engineer and the water commissioner.

16. Conveyance loss for delivery of augmentation water is subject to assessment and modification as determined by the division engineer.

17. The Applicant shall provide daily accounting (including, but not limited to diversions, depletions, replacement sources, and river calls) on a monthly basis. The accounting must be uploaded to the CDSS Online Reporting Tool (https://dwr.state.co.us/Tools/reporting) within 30 days of the end of the month for which the accounting applies. Instructions for using the tool are available on the Division of Water Resources website on the "Services" → "Data & Information" page under the heading of Online Data Submittal. Accounting and reporting procedures are subject to approval and modification by the division engineer. Accounting forms need to identify the WDID number for each structure operating under this SWSP. Additional information regarding accounting requirements can be found in the attached Augmentation Plan Accounting Protocol. **NOTE:** Monthly accounting, even during the winter non-irrigation season, is required.

    In addition, it is the Applicant's responsibility to verify that the entity making replacements is identifying this use on their accounting submitted to our office. For the period of this plan, that entity is the City of Greeley.

18. If reclamation of the mine site produces a permanent water surface exposing groundwater to evaporation, an application for a plan for augmentation must be filed with the Division 1 Water Court at least three years prior to the completion of mining to include, but not be limited to, long-term evaporation losses. If a lined pond results after reclamation, replacement of lagged depletions shall continue until there is no longer an effect on stream flow. Granting of this plan does not imply approval by this office of any such court application(s).

19. Dewatering operations produce delayed depletions to the stream system. This SWSP includes the lagged depletions associated with the cessation of dewatering at the North La Poudre Pit. These lagged depletions are partially offset with dewatering accretions from active dewatering at the La Poudre Pit (Wildlife Pond). Once dewatering at the La Poudre Pit ceases, the delayed dewatering depletions must continue to be replaced until there is no longer an

effect on stream flow. A totalizing flow meter is required on all dewatering discharge in order for the operator to claim any accretion credits.

20. To assure that depletions from groundwater evaporation do not occur in the unforeseen event, or events, that would lead to the abandonment of the pits, the Applicant has obtained a bond in the amount of $1,506,500 for La Poudre Pit and a bond for $1,158,930 for North La Poudre Pit through the DRMS, which includes the cost of backfilling the ponds.
21. 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 the substitute supply is of a quality to meet requirements of use to which the senior appropriation receiving the substitute supply has normally been put. As such, water quality data or analyses may be requested at any time to determine if the requirement of use of the senior appropriator is met.
22. 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 excavation of product from below the water table, and all other use of water at the pit, must cease immediately.
23. 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.

If you have any questions concerning this approval, please contact Kate Fuller in Denver at (303) 866-3581 ext. 8245 or Michael Hein in Greeley at (970) 352-8712.

Sincerely,

K. Fuller

for Joanna Williams, P.E.
Chief of Water Supply

Attachments: Figure 1
Table 4
2024 Central Colorado Water Conservancy District Lease
2024 City of Greeley Lease
April 2010 DRMS Letter
Augmentation Plan Accounting Protocol

Use of Unnamed Sources Protocol

Cc: Michael Hein, Lead Assistant Division Engineer, Michael.Hein@state.co.us
1809 56th Avenue, Greeley CO 80634, (970) 352-8712

Mark Simpson, Water Commissioner, Water District 3, Mark.Simpson@state.co.us

Louis Flink, Tabulation/Diversion Records Coordinator, Louis.Flink@state.co.us

Dawn Ewing, Accounting Coordinator, Dawn.Ewing@state.co.us

Eric C. Scott, Division of Reclamation, Mining and Safety, eric.scott@state.co.us

NORTH

0 500 1000

(IN FEET)

CIVIL RESOURCES, LLC		BESTWAY CONCRETE & AGGREGATE LA POUDRE PITS 2024 SWSP RENEWAL
DATE: 10/2024	FIGURE: 1	GENERAL LOCATION MAP-2021 AERIAL PHOTO

North La Poudre & La Poudre
Table 4
2024 SWSP Operational Losses and Supplies - La Poudre Pits
(all values in acre-feet)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Month	**Lagged Pit Pit Depletions**	**De-water Credit/Depletion**	**Total Lagged Losses**	**% Call**	**Net River Impact Before Lease**	**Lease**	**Lease Aurora WDID 0802593** includes 51 miles of loss at .5%/mile	**Excess Credit From Shores WDID 0502522** .5%/mile	**Net River Impact After Lease**
January	-4.35	-15.39	-19.74	100%	-19.74	19.74			0.0
February	-4.54	-10.68	-15.22	100%	-15.22	15.22			0.0
March	-5.07	-8.52	-13.59	100%	-13.59	13.59			0.0
April	-6.53	-7.32	-13.85	100%	-13.85	13.85			0.0
May	-7.82	-6.51	-14.33	100%	-14.33	14.30			0.0
June	-9.90	-5.86	-15.76	100%	-15.76	15.80			0.0
July	-13.73	-5.30	-19.03	100%	-19.03	19.00			0.0
August	-14.67	-4.81	-19.48	100%	-19.48	19.50			0.0
September	-12.90	-4.39	-17.29	100%	-17.29	17.30			0.0
October	-10.78	-4.02	-14.80	100%	-14.80	14.80			0.0
November	-7.95	-3.70	-11.65	100%	-11.65	11.70			0.0
December	-6.52	-3.38	-9.90	100%	-9.90	9.90			0.0
Total	-104.76	-79.89	-184.65		-184.65	184.70	0.00	0.00	0.05

(1) Lagged Evaporative and operational losses from Table 1 Column (16) and Table 2 Column (24)
(2) De-water depletions/credits from Table 3
(3) Sum of Total Pit Depletions and De-water Credit/Depletion
(4) Call for accounting purposes.
(5) Equals Columns (3) times the active call.
(6) Lease
(7) Aurora Lease, use 75.4% loss (51 miles @ 5%/mile).
(8) Shores excess, use 83.4% loss (33 miles @ 5%/mile).
(9) Equals Column 3 times 4 times the active call plus Column (6) - (8).

WATER LEASE AGREEMENT
WDID 303011 & 0303010 La Poudre Gravel Mine(s) - 2024

THIS AGREEMENT made and entered into this _Dec_ day of _29_, 2023, by and between the Groundwater Management Subdistrict (GMS) of the Central Colorado Water Conservancy District, hereinafter referred to as "Lessor", and Burnco Colorado LLC, hereinafter referred to as "Lessee"

WITNESSETH:

WHEREAS, Lessor has storage and direct flow water rights in the Cache la Poudre basin. Lessee has a Substitute Water Supply Plan (SWSP) filed with the State Engineer pursuant to 37-92-308(4) C.R.S.
WHEREAS, Lessor desires to lease to Lessee **43.69** acre feet and Lessee desires to lease the same.
NOW, THEREFORE, in consideration of the mutual covenants and promises of the parties hereto, it is agreed as follows:

1. Lessor shall lease **43.69** acre feet to Lessee for use in Lessee's SWSP.
2. The parties agree that the volume of water to be leased under this agreement totals **43.69** acre feet for delivery January through December 2024. Parties agree to the monthly delivery schedule as follows:

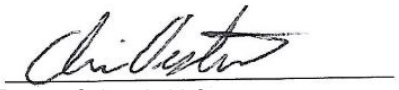
Jan	Feb	Mar	Apr	Total
5.42	16.74	6.29	15.24	43.69

3. Lessee shall pay lessor a total of **$34,952 ($800/AF· 43.69 AF)** due upon signing.
4. Parties agree that this Agreement is for the water delivery of **43.69** acre feet from January through December 2024 and shall immediately terminate December 31st, 2024.
5. This Agreement represents the complete agreement of the parties and no oral modification shall be recognized. Any amendments or additions to the Agreement shall be made in writing and shall be signed by the parties hereto.
6. This agreement is binding upon the parties.
7. Burnco Colorado LLC may not assign or transfer this agreement to another party.

WITNESS WHEREOF, Lessor and Lessee have caused this Water Lease Agreement to be executed.

Dated the day and year first executed above.

William Mihelich, District Engineer



Burnco Colorado LLC

January 4, 2024

BURNCO Colorado, LLC
Attn: Theresa Thomas
10100 Dallas St.
Henderson, CO 80640

RE: La Poudre Augmentation Water Rental for BURNCO May 2024 – December 2024

To whom it may concern,

The City of Greeley ("Greeley") accepts BURNCO augmentation water rental requests for May 2024 – December 2024. Greeley will make available to BURNCO, wholly consumable water that has been changed for augmentation use at one of the following locations: 1) in the Cache la Poudre River immediately below Greeley's existing wastewater treatment plant outfall, at the outlet of the Flatiron Reservoir Nos. 1-5 (aka Poudre Ponds at Greeley), or at delivery stations from the Greeley Canal No. 3; 2) in Lonetree Creek, a tributary to the South Platte River, immediately below the Swift wastewater treatment plant outfall; 3) in the Big Thompson River at delivery stations or release structures from the Greeley Loveland Canal and related structures; or 4) at such other point or points Greeley chooses by giving written notice to the BURNCO OR in the Cache la Poudre or Big Thompson Rivers at delivery stations or release structures owned and operated by Greeley or available for Greeley's use where Greeley has augmentation water legally and physically available. Greeley anticipates making releases from its wastewater treatment plant outfall located on the Cache la Poudre River. If Greeley changes the point of delivery, it will provide written notice to BURNCO.

The request totals 148.92 acre-feet for replacements from May 2024 through December 2024, as shown below. Releases between July – October will be met by releases from Milton Seamon. Water changed for augmentation will be made available following the below schedule.

La Poudre Augmentation Schedule 2024									
Month	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Ac-ft	17.23	20.09	26	26	23	19	12.77	4.83	148.92

This results in a delivery charge of **$800** per acre-foot. The total cost for the acre-feet is **$119,136** and payment is due by February 4, 2023**.** Please follow the payment instructions on the attached invoice.

Please be aware that it is BURNCO's responsibility to receive the necessary approval to use the leased augmentation supplies provided by Greeley.

If you have any questions, please do not hesitate to call me at (970)-381-8886.

Sincerely,

Megan Kramer

Megan Kramer
Water Resource Administrator II

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY
Department of Natural Resources

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

COLORADO DIVISION OF RECLAMATION MINING & SAFETY

Bill Ritter, Jr.
Governor

James B. Martin
Executive Director

Loretta E. Piñeda
Director

April 30, 2010

Lafarge West, Inc.
10170 Church Ranch Way, Ste. 200
Westminister, CO 800210000

RE: Mining Operations with Exposed Ground water

To Whom It May Concern:

The Division of Reclamation Mining and Safety is responsible for ensuring that Sand and Gravel mining operators comply with the requirements of the Colorado Land Reclamation Act for the Extraction of Construction Materials (Act) and the Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials (Rules). Among these requirements are provisions for the protection of water resources. The Act requires that reclamation plans must ensure minimization of disturbances to the prevailing hydrologic balance, including disturbances to the quantity of water in the area affected by mining and in the surrounding areas. § 34-32.5-116(4)(h). Rule 3.1.6(1)(a) requires compliance with Colorado water laws and regulations governing injury to existing water rights both during and after mining. Permits must specify how the permittee will comply with applicable Colorado water laws and regulations governing injury to existing water right rights. Rule 6.3.3(j); Rule 6.4.5(2)(c). After an extensive review, the Division determined that several operators may not have appropriate permit conditions to address certain reclamation liabilities arising from impacts to water resources.

In September 2009 the Division of Water Resources (DWR) updated its Guidelines for Sand and Gravel Pits. These guidelines provide guidance on achieving compliance with state law regarding replacement of depletions from sand and gravel mining, thus the guidelines provide a benchmark for the protection of hydrologic balance required under the Act and Rules. As noted in the Guidelines, sand and gravel operations which expose groundwater without complying with state law create a reclamation liability by impacting available groundwater.

State law requires that any person exposing ground water must obtain a well permit from the SEO pursuant to § 37-90-137(11). Because exposed groundwater results in out-of-priority water depletions, operations which expose ground water must also eventually obtain a water-court approved augmentation plan. Currently, several operators do not have either an augmentation plan or bonding to provide an alternative method to mitigate injurious stream depletions that result from mining-related exposure of ground water. The Division has a statutory duty to ensure that lands affected by mining are reclaimed in a manner that complies with state law and to ensure that operators have sufficient bonding to achieve reclamation. In order to assist operators in achieving compliance with these requirements, the Division proposes that, by April 30, 2011, operators should contact the Division and agree upon a plan for achieving compliance.

The Division has identified four approaches for operators:

1. File a financial warranty that will ensure backfilling of the pit to cover the exposed ground water to a depth of two feet above the static ground water level or,

2. Obtain a court approved augmentation plan prior to exposing ground water or,

3. File a financial warranty to cover the cost of installing a clay liner or slurry wall that meets the Division of Water Resources requirements for preventing ground water exposure or,

4. Obtain approval from the Division of Water Resources that acknowledges compliance with the SEO's requirements pursuant to § 37-90-137(11).

The Division will work with operators on an individual basis as they move to implement one of these plans. It is likely that options 1 and 3 will require the submittal of a technical revision or an amendment to the existing permit depending on the nature of the current mining and reclamation plan and the proposed changes. Increased financial warranties, as a result of these modifications, may be posted in a phased manner not to exceed three years. Amendments or revisions currently under review will be required to be approved by April 30, 2011 and may use the phased financial warranty approach described above. New applications going forward or presently under review by the Division will be required to meet the requirements of one of the options 1-4 at the time of application approval. Failure of affected operators to initiate contact with the Division and gain compliance as described above could result in an enforcement action being issued by the Division.

If you have any questions, please contact Tony Waldron at 303-866-3567, extension 8150.

cc:

M2006064	Shields at Fossil Creek Mine	M1983031	Stromquist Pit		
M1994002	Andrews S & G #5 (Burlington Pit)	M1974072	Chantala Pit		
M2006018	North Bank Resources	M1985218	Rich Pit		
M2006073	Sundance Sand and Gravel Resource	M1985206	Boone-Martin Pit		
M2009082	Parsons Mine	M1995022	Andrews #2		
M1977081	Greeley West Pit	M1990144	Boone-Fillmore Pit		
M2003091	Duckworth Pit	M1997087	Hartman Pit		
M2000113	Mamm Creek Sand & Gravel	M2001094	Shaw Pit		
M2001090	River Valley Resource	M2002009	Beeman Pit #1		
M2000016	Riverbend Operation	M1981307	Fountain Pit		
M1979134	Powers Pit	M1977439	Home Office Mine		
M1977036	Greeley 35th Ave Pit	M1979191	Three Bells Pit		
M2000034	Reichert Pit	M1982182	Port of Entry Pit		
M2001051	North Taft Hill Expansion Site	M2002081	Overland Ponds		
M1974015	Lyons Pit	M1981088	McCoy Pit		
M1974004	Specification Aggregates Quarry	M1982034	Miller Pit		
M1987176	Hamm Pit	M1996082	Blair Mesa Pit		
M1988042	Cottonwood Pit	M1980136	Chambers Pit		
M1990112	State Pit	M1977098	Sievers Pit		
M1979002	North Delta Pit	M1983013	Latham - Burkett Pit	M1974070	Nelson Pit
M1979159	Brose Pit	M1979097	East Rigden Pit	M2000002	Tanabe Pit
M1998014	Gypsum Ranch Pit	M1991035	Bluestone Pit	M1994045	Bluestone Pit
M1999088	Kyger Pit	M1986159	Courtner Pit	M1986079	M & G Pit
M1998075	Andrews #3 (Mock Pit)				

COLORADO
Division of Water Resources
Department of Natural Resources

Augmentation Plan Accounting Protocol
June 2022

Accounting is an administrative tool to confirm water use is in accordance with a decree or other approval including that any required replacement is made to the stream system at the correct time, location, and amount. This guideline is subordinate to any decree language or Division Engineer specific accounting requirements. It describes basic augmentation plan accounting scenarios. Accounting for more complex scenarios can build on the fundamentals described herein.

Contents

1. Background and definitions

A thorough description of augmentation plans for well pumping is available in the Beginners Guide to Augmentation Plans for Wells. The following terms are used in this document:

- **Diversions** are withdrawals from a well, stream, or pond/reservoir.
- **Depletions** are the volume of reduced streamflow caused by a diversion. Lagged depletions are those that occur at a later time than when water is diverted by well pumping or groundwater pond evaporation due to the timing of water movement through the subsurface between the well/groundwater pond and the stream.
- **Hydrobase** is DWR's database of water information.
- **Colorado's Decision Support Systems ("CDSS")** is a State of Colorado website (https://cdss.colorado.gov/) providing access to water data and tools.
- **Replacement water** is a volume of water provided to the stream system to replace depletions and satisfy the unmet needs of senior water rights. Replacement water is typically provided from a reservoir release or another source that has been contracted for the purpose of replacing depletions. Replacement water may also be provided in the form of historic consumptive use ("HCU") credits derived from a change of water right where the use of a water right was changed to augmentation.
- **Transit loss** is the diminishment of the amount of water in a stream as water travels from upstream to the downstream location.
- **Priority Admin Number** indicates the seniority of a water right; equal to the number of days between a water right's priority date and the earliest decreed priority, December 31, 1849. For example, the Priority Admin Number for a water right with a priority date of May 5, 1950 is 36650.00000. The lower the Priority Admin Number, the more senior the water right. The five digits to the right of the period are used when the postponement doctrine applies to a water right due to a delay in decreeing the water right in the court (read more about this in the Administrative Call Standard, Appendix A).
- **Administrative Call** is a term that indicates there are unfulfilled downstream water rights "calling" for curtailment of upstream junior water rights to fulfill their need. In accounting, when the downstream Administrative Call is from a senior water right (with a lower Priority Admin Number), diversions/depletions are out-of-priority and replacement water must be provided.
- **Balance** is the amount of replacement water minus the depletions and obligations, not considering the Administrative Call. The balance may be negative when the diversions resulting in the depletions are in priority.
- **Net Effect** is the amount of replacement water minus the depletions and obligations, considering the Administrative Call. When the net effect is zero or positive, it shows that the Augmentation Plan prevented injury by replacing all out-of-priority diversions/depletions.

2. Methods to submit accounting

a. Accounting and Reporting Uploader (preferred)

The preferred method to submit accounting is through the use of the CDSS Accounting and Reporting Uploader tool. To set up an online account, call or email the Division contacts for the appropriate Water Division as shown in Table 1. Additional information is available on DWR's website under Data and Information/Online Data Submittal.

b. Email

Submit via email to the Water Commissioner and the Division Accounting email shown in Table 1. File names for accounting sheets should include the 7 digit Augmentation Plan WDID assigned by the Division Engineer's office.

3. Timing of accounting submittal

Accounting must be submitted as specified by your decree, DWR administrative approval (SWSP, Replacement Plan, etc.), or as requested by the Division Engineer or designated representative(s). If timing is not specified, submit accounting with the timing shown in Table 1.[1]

Table 1. Accounting Submittal Emails and Phone Number by Division

Division	Accounting Question & Submittal Email	Contact Phone Number	Standard Submittal Timing
1 - South Platte	Div1Accounting@state.co.us	970-352-8712	30 days after the end of the reporting month
2 - Arkansas	water.reporting@state.co.us	719-542-3368	10 days after the end of the reporting month*
3 - Rio Grande	Michelle.Lanzoni@state.co.us	719-589-6683	10 days after the end of the reporting month
4 - Gunnison	gregory.powers@state.co.us	970-249-6622	10 days after the end of the reporting month
5 - Colorado	dnr_div5acct@state.co.us	970-945-5665	10 days after the end of the reporting month
6 - Yampa/White	brian.romig@state.co.us	970-846-0036	10 days after the end of the reporting month unless approved for annual submission (by November 15)
7 - San Juan/ Dolores	dnr_div7acct@state.co.us	970-247-1845	10 days after the end of the reporting month**
Designated Ground Water Basins	chris.grimes@state.co.us	303-866-3851 ext. 8253	Annually by February 15 for the prior year

*for approvals deemed critical for administration; all others (including simple subdivisions) bi-annual readings before and after the irrigation season

**for approvals deemed critical for administration; annual submittals for others

[1] For proper administration, Water Commissioners may request regular and direct submission of water data in addition to accounting submittals described herein.

4. Overall organization of accounting spreadsheet and required information per tab

a. Overall organization

The following are typical spreadsheet tab names in accounting. See the example and screenshots section for an overview of what this might look like:

i. Contact/Plan Information tab
ii. Input tab(s)
iii. Depletions & Obligations tab
iv. Replacement tab
v. Summary tab
vi. DWR tab
vii. DWR Meters tab
viii. Version/Notes tab

Fewer or additional tabs as necessary for more simple or complex accounting, subject to approval by the Division Engineer

b. Contact/Plan Information Tab

The accounting must provide the contact information including name and email address for:

i. The party(s) responsible for submitting the accounting
ii. The plan administrator and/or the plan attorney
iii. Water court case number (format of YYCWXXXX), SWSP name and 4-digit Plan ID, or Ground Water Commission Order represented in the accounting.
iv. The 7-digit overall WDID(s) associated with the augmentation plan (not the individual structure WDIDs).[2]

c. Input Tab(s)

When possible, all cells showing diversion of water (well pumping and stream diversions) should be located on one or multiple input tabs as shown below. Cells with regular input, such as meter readings and reservoir releases, should be shaded a specifically identified color to distinguish them from cells that use formulas to convert or summarize the input.

Depending on the specific operation, the following may be included on Input tabs:

i. Estimated water use or evaporation:

When meters or measurement structures are not required, water consumption is estimated based on counts (number of homes, number of domestic animals, acreage of pond surface area, etc.) multiplied by a factor. Include a column or row for each of the following that are relevant to the augmentation plan:

1. Type of use: single family dwellings, domestic animals, area of lawn and garden (include units - square feet or acres), area of pond evaporation (include units - square feet or acres), etc.
2. Count or area input value for each type: the number of homes or domestic animals or the area (square footage or acres of home lawn and garden irrigation or pond surface evaporation). [this is the "Input" that could change regularly]

[2] Colorado Decision Support System Tools (https://dwr.state.co.us/Tools) can be used to find WDIDs (see Structures), court case numbers (see Water Rights), and other supporting information.

3. Factor to convert input to consumption in acre-feet.
4. Acre-feet of consumption.

ii. Well diversion data using flow meters:

Enter raw readings or measurements (e.g., from totalizing flow meters) and how those raw readings or measurements are converted to volumes of water. There should be one row or column for each well with a meter as described below. Once the spreadsheet formulas have been established, generally only the meter reading is entered with every submittal. The well and meter information may be located in a separate well & meter information tab (see example and screenshots section).

1. Well WDID
2. Well Permit Number
3. Priority Admin Number
4. Flow Meter Serial Number
5. Reading Date
6. Reading[3] [this is the "Input" that will change regularly]
   Enter reading exactly as shown on the face of the meter as a non-negative integer.
7. Comment
   a. When a meter rolls over (such as from 999 to 000), is replaced or reset[4] , add a comment stating the old meter serial number, the maximum number before the rollover or replacement and then enter the number on the face of the meter at the end of the reporting period. Update the meter information section with the new meter's serial number.
8. Meter information:
   a. Make
   b. Model
   c. The units represented by the digits on the meter (such as gallons or acre-feet)
   d. Multiplier for meter reading (if applicable)
      i. Residential well meters typically have a multiplier of 1.0 with units of gallons. Readings should generally report all numbers on the face of the meter (including non-rotating digits) with a multiplier of 1.0.
      ii. Larger agricultural or commercial wells typically read in acre-feet and typically have a decimal multiplier. For instance, with a multiplier of 0.001, a meter reading of 123456 represents 123.456 acre-feet.
   e. Correction factor
      i. This is a multiplier used when a meter test shows a need to correct the installed meter to an accurate reading. This will be 1.0 when there is not a test showing a need for correction.
9. Acre-feet pumped
   Use a formula to convert from the meter reading to acre-feet using the multiplier and correction factor. To convert meter readings in gallons to acre-feet, divide by 325,851.

iii. Well diversion data using Electricity Consumption

For wells approved to use power records and a Power Conversion Coefficient (PCC) to estimate water pumped, the accounting information is similar to well diversion data using flow meters (section 4.c.ii) above with the following replacements (instead of 6. "Reading" and 8. "Meter information):

[3] A comment on the Meter Reading cell is used to note "Actual, Estimated, Corrected, or Calculated" for all wells subject to measurement rules when the entry is not based on a reading taken on the actual date specified.
[4] Resetting a meter may be prohibited by local well measurement rules.

6. Power meter reading [this is the “Input” that will change regularly]
8. Power Meter Information
    a. PCC

iv. Surface diversion data

Include a column or row for each surface diversion with the following information:

1. Diversion structure name or a.k.a.
2. Structure WDID
3. Measured flow through the measurement structure and units
    a. If more than one water right is diverted through the structure, there should be adjacent columns for each. Each source should have a designated column or row and labeling should include the measuring structure WDID and the source of the water (e.g. case number).
    b. If there is a multiplier that adjusts the standard measurement-flow relationship to reflect the actual measurement-flow relationship of the specific structure (“shift”), the adjusted value should be reflected in a separate column.
4. Priority Admin Number
5. Storage and release

If the diversion is to storage, which will be followed by a release of water, follow the instructions in the Reservoir Accounting Guideline.

v. Administrative Call (are diversions in-priority?)

In portions of Colorado, there may be times when depletions are in-priority, and do not require replacement. Depletions are in-priority when water rights on the stream system that are senior to the diversion have enough water and are not “calling” for more water.

1. **Simplified (percent of month administrative call)**
   For certain basic accounting, such as subdivision well depletions, the Division Engineer may allow or apply an estimate of the days of expected administrative call each month. Typically, replacement water is provided based on projected call days, which is later compared to actual administrative call data to ensure that adequate replacement was provided. In this case, the accounting should have an input field either for the number of call days or the percentage of days in the month with a call.
2. **Daily record of administrative call**
   Provide a column that shows whether depletions are either “IN” or “OUT” of priority each day.
    - Locations with minimal call variation: In areas with minimal variation in the call, the Division Office may not require a formula comparing Priority Admin Numbers, but will accept manual entries of “IN” or “OUT” of priority each day.
    - All other locations: “IN” or “OUT” of priority is determined daily using formulas comparing the Priority Admin Number of depletions to the Priority Admin Number of the calling water right in each depleted stream reach. Include a column for each of the following:
        - The Priority Admin Number of the calling water right. Calling structure information can be obtained programmatically from:
            - CDSS REST services - insert a link that pulls the required information directly from DWR’s database.
            - CDSS Administrative Calls tool.

          DWR accounting staff can provide guidance on incorporating this information within an accounting spreadsheet.

- The Name of the calling water right
- "In" or "Out"-of-priority either for all structures covered by the accounting or for each structure in its own column. Use a formula to compare the Priority Admin Number of the calling structure to the Priority Admin Number of the structure(s) in the accounting.

d. Depletion & Obligation tab

Used to (1) convert well pumping (and groundwater pond evaporation) to lagged depletions impacting the stream and (2) show lagged depletions that are out-of-priority, and (3) include any additional water obligations of the plan for augmentation.

i. Calculate lagged depletions - Although well pumping and modeling may use a monthly step function to determine the depletions from pumping, the monthly result may, if requested by the Division Office or required by decree, then be divided by the number of days in the month in order to calculate a daily impact for daily water administration.
   1. Well Pumping (or groundwater pond evaporation) - Reference back to the Input tab for the acre-feet of water pumped or evaporated.
   2. Consumption factor (%) - If the decree or approval describes that a percentage of the water pumped is consumed and only the consumed amount is replaced.
   3. Acre-feet consumed - Multiply the acre-feet pumped by the consumption factor.
   4. Delay Factors - show factors that convert pumping in one month to depletions in future months. These may be percentages per month, that total 100 percent over an extended period of time.
   5. Depletions - a formula that combines previous months and present month pumping with the delay factors to determine depletions impacting the stream this month and in future months.

ii. Out-of-priority depletions are combined into one column for each reach considering the administrative call information included on the Input tab.

iii. Return flow obligations (if applicable): Replacement water sources changed from a historical irrigation use usually have a return flow obligation that must also be tracked in accounting. Return flow obligations are similar to depletions because they must be replaced in time, place, and amount. Depending on decree language and preference, return flow obligations may be included under the replacement tab in section 4.e. below. For each replacement source with return flow obligations, include the following:
   - the basis and volume of the return flow obligation,
   - the location of the return flow obligation,
   - replacement of the return flow obligation.

e. Replacement tab

List each structure providing replacement water, transit loss information, and volumes released:

i. Structure providing replacement water: name of reservoir, ditch, well, leased or other replacement water, its WDID, and the water court decree allowing its use for augmentation or replacement. For instructions on accounting for replacement using recharge accretions, refer to specific recharge guidance.

ii. Replacement water travel distance (miles)
the distance from the point of release to the location of the out-of-priority depletion where replacement is owed

iii. Transit loss percent per mile (%)

iv. Total transit loss (%)
v. Volume released (acre-feet)
vi. Transit loss volume (acre-feet)
vii. Volume delivered (acre-feet) - equal to volume released minus transit loss volume
viii. Return flow obligations (acre-feet): Depending on decree language as described above, these may be included here instead of in the depletion tab. See description under section 4.d. above.

f. Summary Tab

The Summary Tab is used to calculate the Net Effect of the Plan on each impacted stream reach. The summary should reference back to information and formulas in the other spreadsheet tabs. The summary tab compares obligations, replacements and that replacements equal or exceed obligations in time, place, and amount. The Summary tab should only summarize data and calculations located in other tabs of the accounting. It should not contain manual entries, input data, or make calculations that are used in other tabs.

The Summary Tab should contain the following for each impacted stream reach (typically on a daily basis or as required by the division office):

i. Total depletions and obligations
ii. Total replacement
iii. Balance - Total replacement minus total depletions and obligations, which may be negative when the diversions resulting in the depletions are in priority.
iv. Net Effect - Total replacement minus out-of-priority depletions and obligations. If the net effect is negative, the Plan resulted in injury.

g. DWR tab for Diversion Record Data Import

A tab titled **"DWR"** can be used to convert data input or numbers calculated in other tabs into rows that represent diversion record water classes, which DWR staff can upload to create official diversion records. When appropriate, DWR staff will develop this tab or work with plan owners to develop this tab, ensure it follows DWR's standard format and utilizes water classes according to the Diversion Records Standard. This format is necessary to allow the records to be imported directly into Hydrobase.

h. DWR Meters tab for Meter Reading Data Import

A tab titled **"DWR Meters"** can be included for use in bulk uploading meter readings. This calculates pumping totals in compliance with well rules or to meet other Division-specific requirements. In order for this tab to be bulk uploaded into Hydrobase, the columns in this tab must be formatted as shown in the "User Guide - How to Bulk Upload Meter Readings".

i. Version/Notes tab

A tab to document changes in accounting formulas and the date of those changes.

5. Requirements and recommendations for all tabs

a. Accounting should show how raw input data is manipulated using formulas to determine the resulting impact on the river. Accounting must therefore include a functional spreadsheet (ie no pdfs) showing all operations, formulas, etc. to clearly show calculations.

b. The use of a water year of November 1 through October 31 is required unless specifically decreed otherwise. When a different water year is required by decree, DWR may request additional months of data in the accounting to include the November 1 through October 31

time period, resulting in more than 12 months of data being reported.

c. For all tabs other than the Summary tab, include running accounting for the entire water year without monthly subtotals. Monthly subtotals commonly result in errors in the spreadsheet. The Summary tab can be used as a place to show monthly totals.

d. Date fields should be complete dates (month, day, and year, recognized as a date value by the spreadsheet software) but may be formatted to display as desired.

e. Use consistent cell color shading to clearly identify the different types of information, such as manual input cells and formula cells (provide a legend for data types, see example below)

f. Enter "0" in cells to document no diversion or use, rather than blanks, hyphens, or another character.

g. When a formula is overwritten with a manual entry, the cell should be highlighted and a comment added for the reasoning.

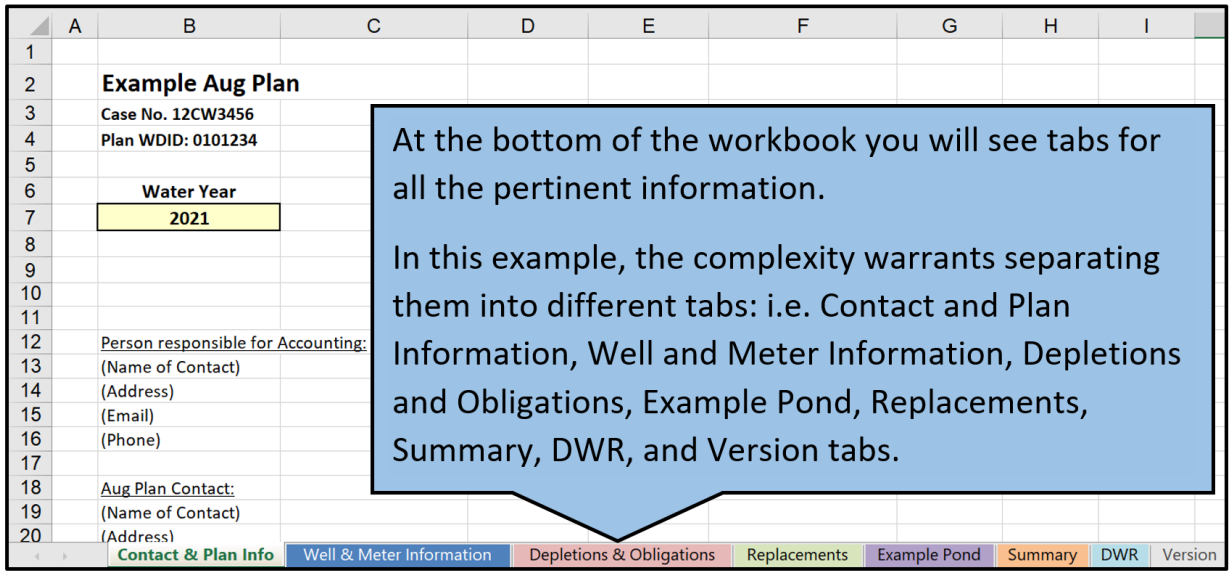
h. When there are multiple stream reaches involved, organize accounting from upstream to downstream.

i. Footnotes should be utilized, as necessary, to describe the basis for formulas, calculations imposed on the raw input data, and column descriptions.

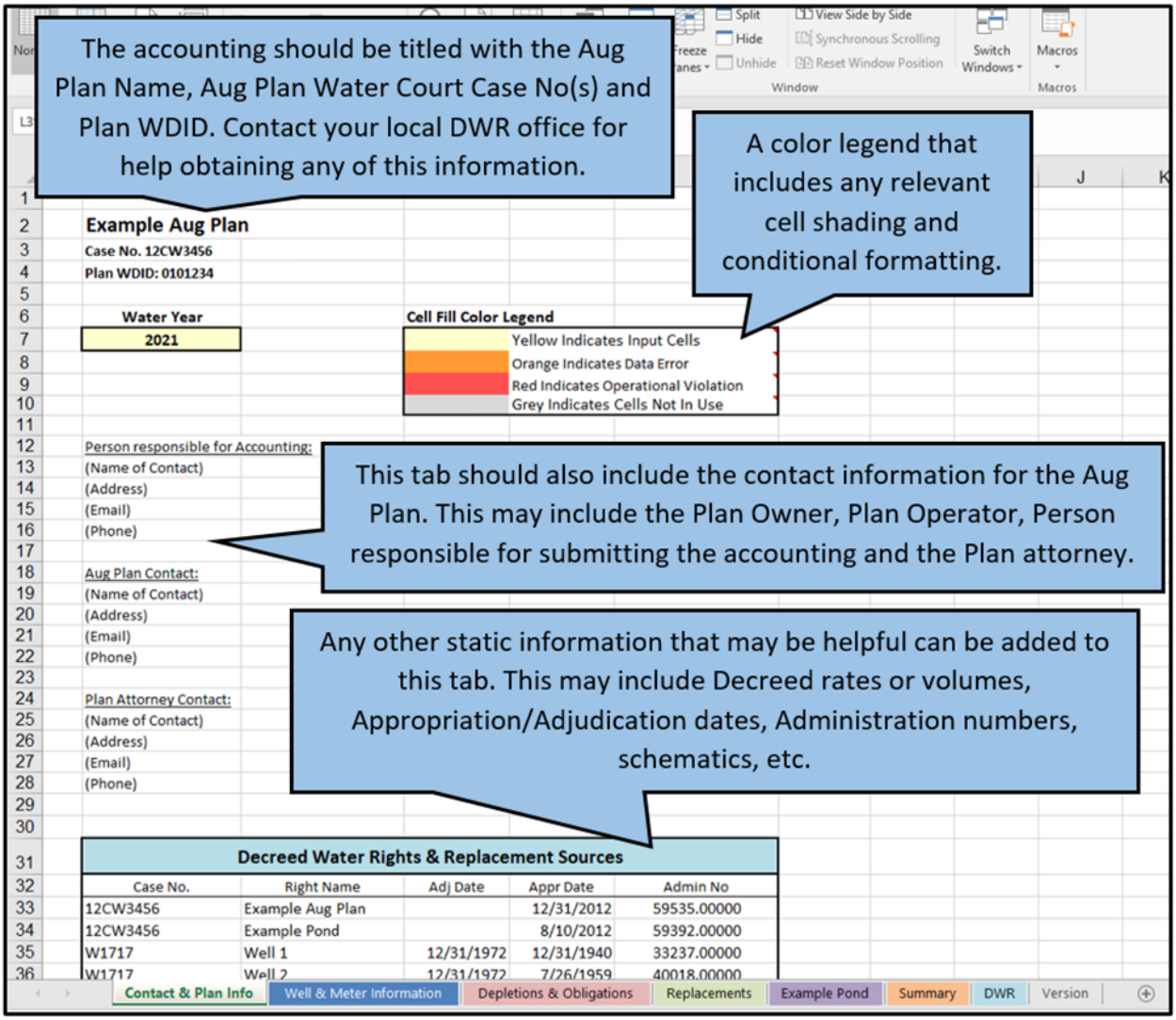
6. Example, Screenshots, and Spreadsheet Templates

Water users may request spreadsheet templates from their local division office for use as examples of how accounting may be assembled, but are responsible for developing their own functional accounting customized for their own Plan requirements. Note that example and actual accounting may have slightly different organization than what is described above.

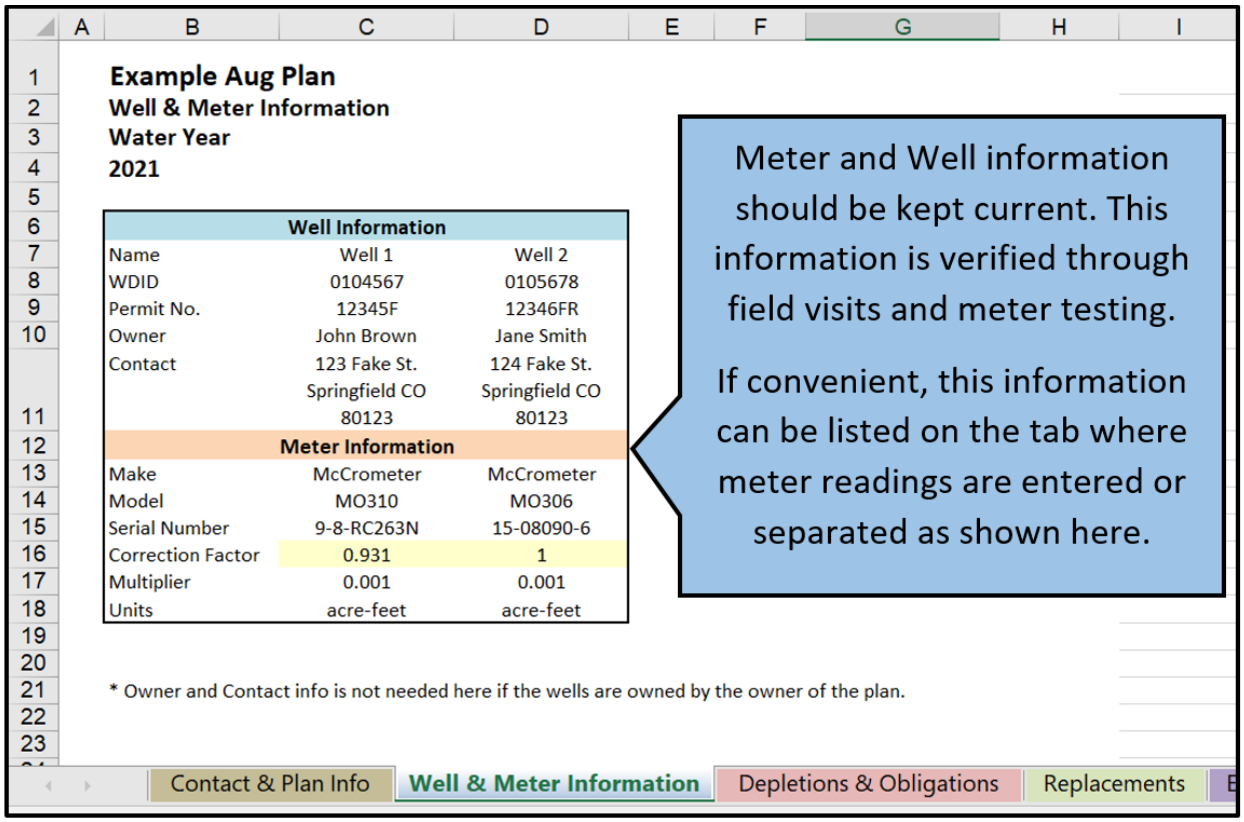
a. (List of relevant tabs)



b. (Contact & Plan Information)



c. (Well & Meter Information)



Example Aug Plan
Well & Meter Information
Water Year
2021

Well Information		
Name	Well 1	Well 2
WDID	0104567	0105678
Permit No.	12345F	12346FR
Owner	John Brown	Jane Smith
Contact	123 Fake St. Springfield CO 80123	124 Fake St. Springfield CO 80123
Meter Information		
Make	McCrometer	McCrometer
Model	MO310	MO306
Serial Number	9-8-RC263N	15-08090-6
Correction Factor	0.931	1
Multiplier	0.001	0.001
Units	acre-feet	acre-feet

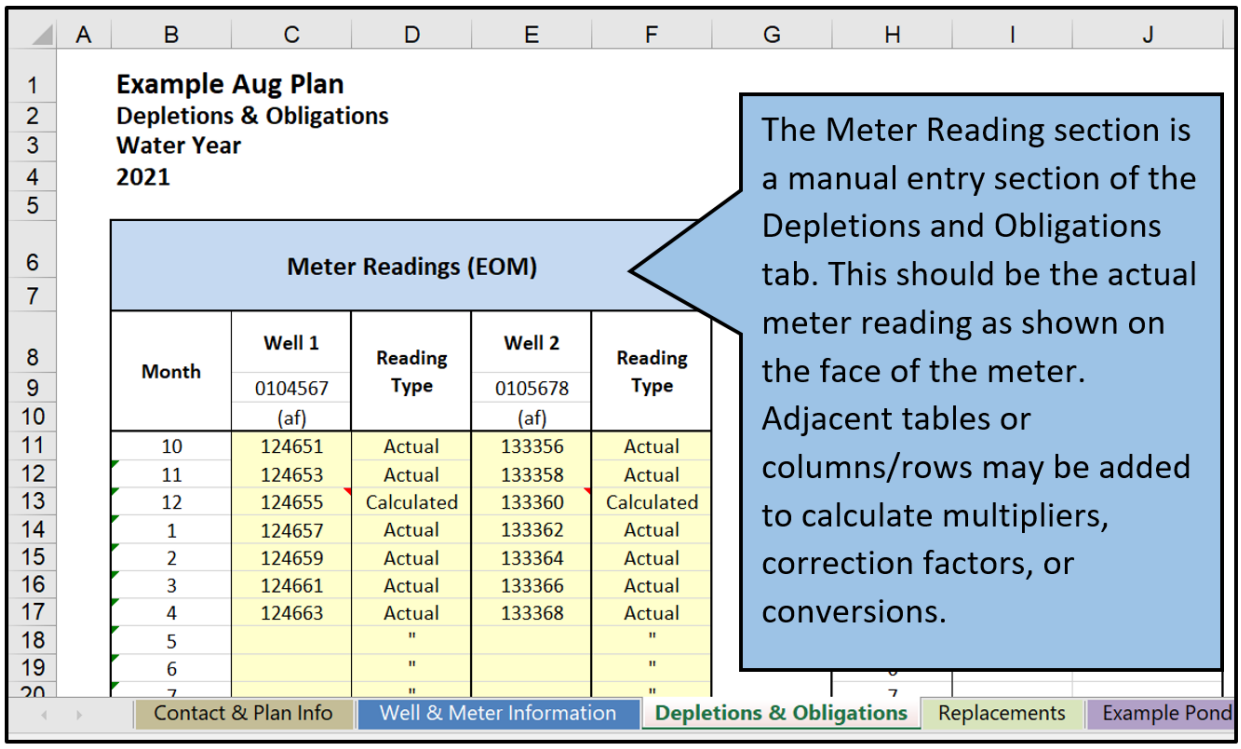
Meter and Well information should be kept current. This information is verified through field visits and meter testing.

If convenient, this information can be listed on the tab where meter readings are entered or separated as shown here.

* Owner and Contact info is not needed here if the wells are owned by the owner of the plan.

Contact & Plan Info | Well & Meter Information | Depletions & Obligations | Replacements

d. (Depletions & Obligations) - in this example, the Depletions & Obligations tab includes cells for entering meter readings, calculating well pumping over the period, and converting that to lagged depetions.



Example Aug Plan
Depletions & Obligations
Water Year
2021

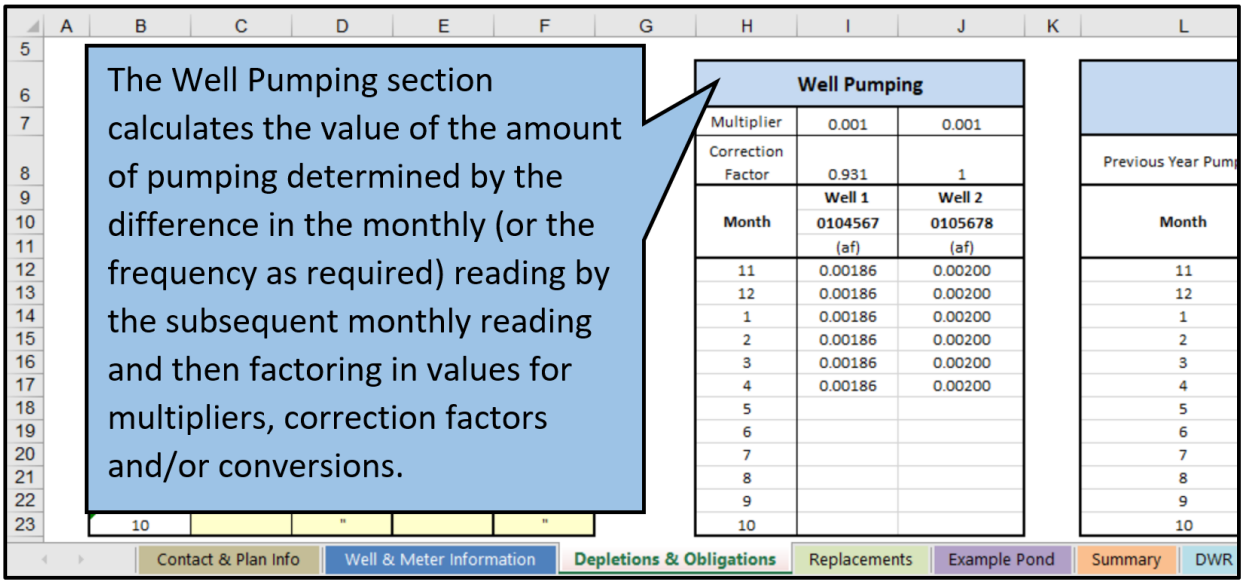
Meter Readings (EOM)

Month	Well 1 0104567 (af)	Reading Type	Well 2 0105678 (af)	Reading Type
10	124651	Actual	133356	Actual
11	124653	Actual	133358	Actual
12	124655	Calculated	133360	Calculated
1	124657	Actual	133362	Actual
2	124659	Actual	133364	Actual
3	124661	Actual	133366	Actual
4	124663	Actual	133368	Actual
5		"		"
6		"		"

The Meter Reading section is a manual entry section of the Depletions and Obligations tab. This should be the actual meter reading as shown on the face of the meter. Adjacent tables or columns/rows may be added to calculate multipliers, correction factors, or conversions.

Contact & Plan Info | Well & Meter Information | Depletions & Obligations | Replacements | Example Pond

e. (Depletions & Obligations)



The Well Pumping section calculates the value of the amount of pumping determined by the difference in the monthly (or the frequency as required) reading by the subsequent monthly reading and then factoring in values for multipliers, correction factors and/or conversions.

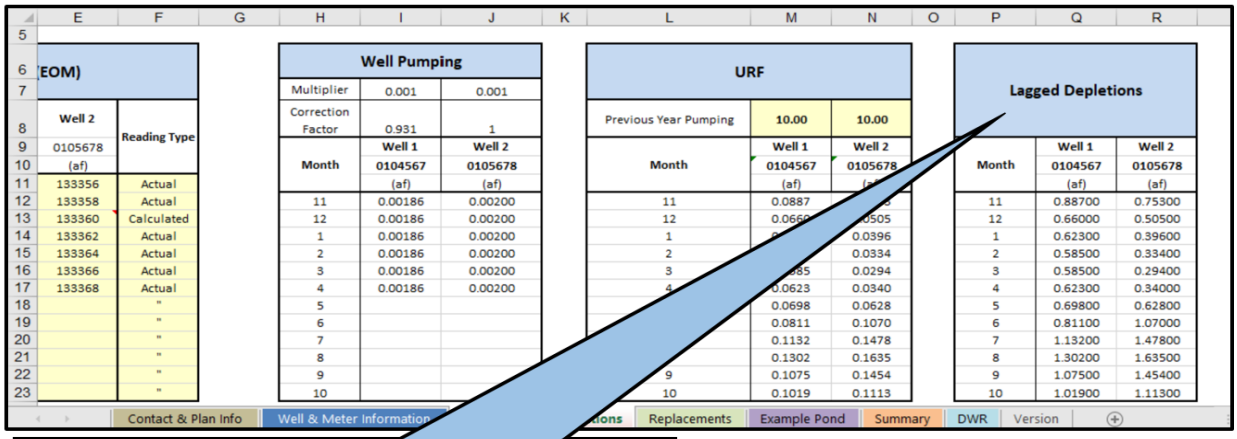
Well Pumping

Multiplier	0.001	0.001
Correction Factor	0.931	1
Month	Well 1 0104567 (af)	Well 2 0105678 (af)
11	0.00186	0.00200
12	0.00186	0.00200
1	0.00186	0.00200
2	0.00186	0.00200
3	0.00186	0.00200
4	0.00186	0.00200
5		
6		
7		
8		
9		
10		

Previous Year Pump
Month
11
12
1
2
3
4
5
6
7
8
9
10

Contact & Plan Info | Well & Meter Information | Depletions & Obligations | Replacements | Example Pond | Summary | DWR

f. (Depletions & Obligations) - calculate lagged depletions for the month



(EOM)	
Well 2 0105678 (af)	Reading Type
133356	Actual
133358	Actual
133360	Calculated
133362	Actual
133364	Actual
133366	Actual
133368	Actual
	"
	"
	"
	"
	"
	"

Well Pumping		
Multiplier	0.001	0.001
Correction Factor	0.931	1
Month	Well 1 0104567 (af)	Well 2 0105678 (af)
11	0.00186	0.00200
12	0.00186	0.00200
1	0.00186	0.00200
2	0.00186	0.00200
3	0.00186	0.00200
4	0.00186	0.00200
5		
6		
7		
8		
9		
10		

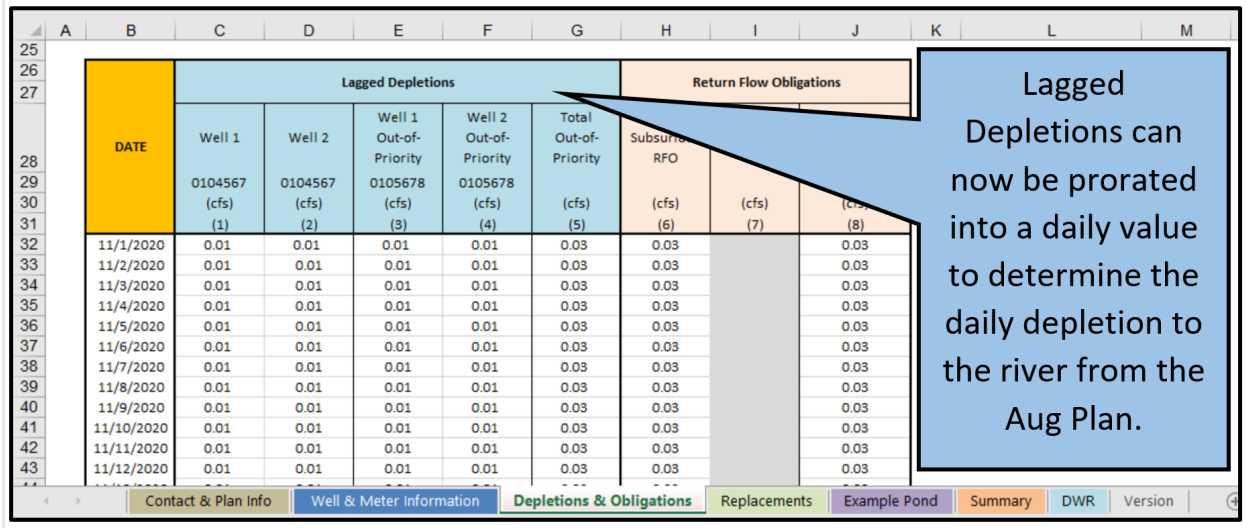
URF		
Previous Year Pumping	10.00	10.00
Month	Well 1 0104567 (af)	Well 2 0105678 (af)
11	0.0887	
12	0.0660	0505
1		0.0396
2		0.0334
3	585	0.0294
4	0.0623	0.0340
5	0.0698	0.0628
6	0.0811	0.1070
7	0.1132	0.1478
8	0.1302	0.1635
9	0.1075	0.1454
10	0.1019	0.1113

Lagged Depletions		
Month	Well 1 0104567 (af)	Well 2 0105678 (af)
11	0.88700	0.75300
12	0.66000	0.50500
1	0.62300	0.39600
2	0.58500	0.33400
3	0.58500	0.29400
4	0.62300	0.34000
5	0.69800	0.62800
6	0.81100	1.07000
7	1.13200	1.47800
8	1.30200	1.63500
9	1.07500	1.45400
10	1.01900	1.11300

Contact & Plan Info | Well & Meter Information | ...ions | Replacements | Example Pond | Summary | DWR | Version

Lagged Depletions should be calculated utilizing the Well Pumping data and the lagging method established by the relevant decree or SWSP (Stream depletion Factors or Glover Parameters).

g. (Depletions & Obligations) - convert monthly lagged depletions to daily

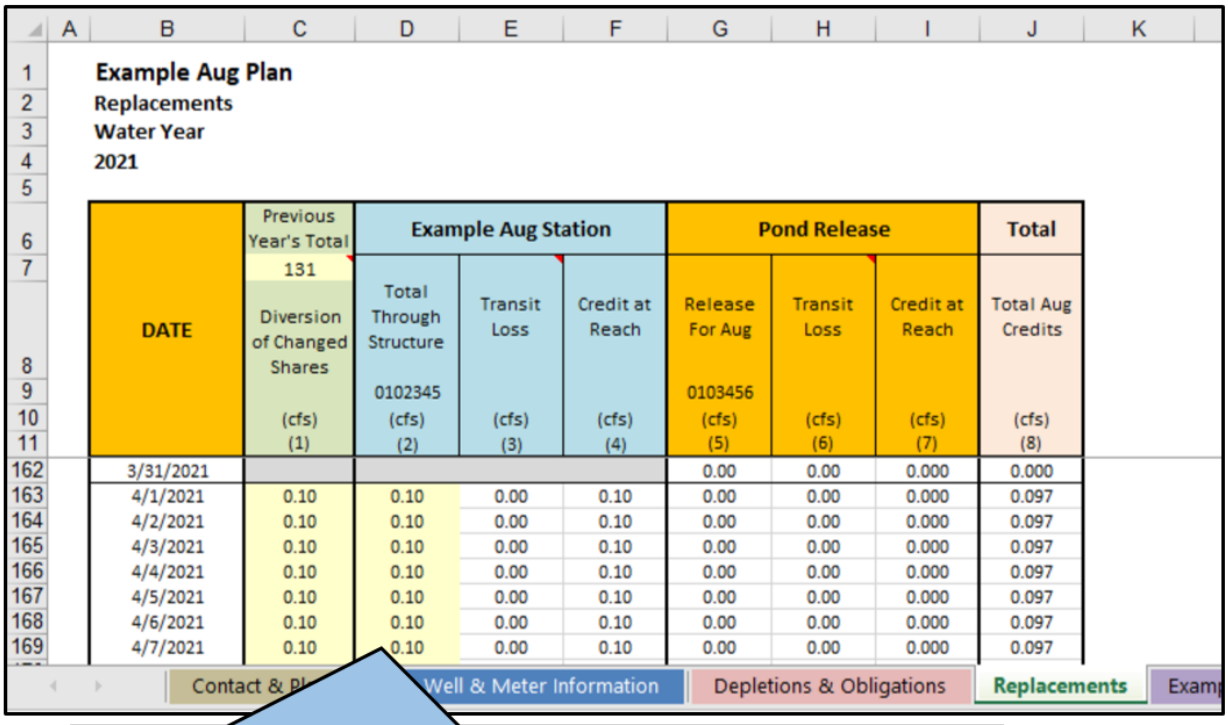


DATE	Lagged Depletions: Well 1 0104567 (cfs) (1)	Well 2 0104567 (cfs) (2)	Well 1 Out-of-Priority 0105678 (cfs) (3)	Well 2 Out-of-Priority 0105678 (cfs) (4)	Total Out-of-Priority (cfs) (5)	Return Flow Obligations: Subsurf... RFO (cfs) (6)	(cfs) (7)	(cfs) (8)
11/1/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03
11/2/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03
11/3/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03
11/4/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03
11/5/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03
11/6/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03
11/7/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03
11/8/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03
11/9/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03
11/10/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03
11/11/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03
11/12/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03

Contact & Plan Info | Well & Meter Information | Depletions & Obligations | Replacements | Example Pond | Summary | DWR | Version

Lagged Depletions can now be prorated into a daily value to determine the daily depletion to the river from the Aug Plan.

h. (Replacements)



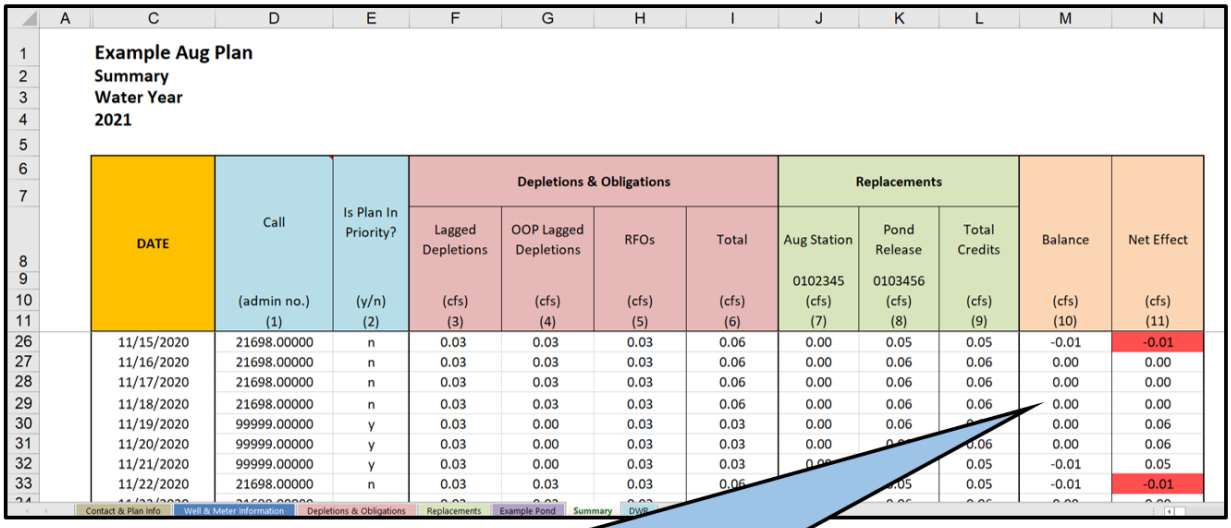
Example Aug Plan
Replacements
Water Year
2021

DATE	Previous Year's Total	Example Aug Station			Pond Release			Total
	131							
	Diversion of Changed Shares	Total Through Structure 0102345	Transit Loss	Credit at Reach	Release For Aug 0103456	Transit Loss	Credit at Reach	Total Aug Credits
	(cfs) (1)	(cfs) (2)	(cfs) (3)	(cfs) (4)	(cfs) (5)	(cfs) (6)	(cfs) (7)	(cfs) (8)
3/31/2021					0.00	0.00	0.000	0.000
4/1/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097
4/2/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097
4/3/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097
4/4/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097
4/5/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097
4/6/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097
4/7/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097

Contact & Pl... | Well & Meter Information | Depletions & Obligations | Replacements | Exam...

Input information should be shaded differently than the calculated (cells with formulas) cells. Please provide a legend with the color/shading scheme.

i. (Summary) - daily



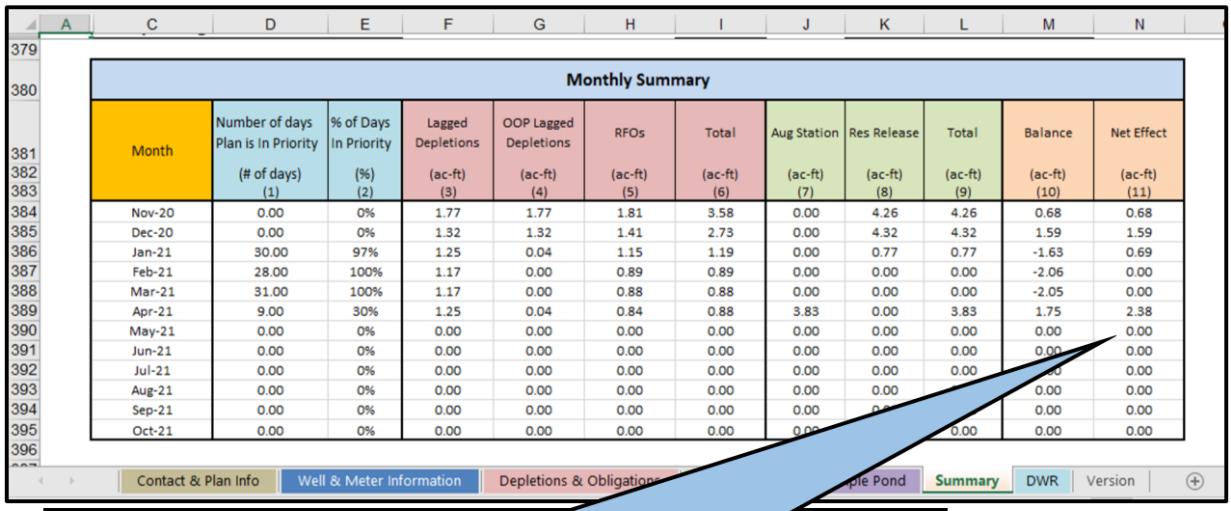
Example Aug Plan
Summary
Water Year
2021

DATE	Call (admin no.) (1)	Is Plan In Priority? (y/n) (2)	Depletions & Obligations: Lagged Depletions (cfs) (3)	Depletions & Obligations: OOP Lagged Depletions (cfs) (4)	Depletions & Obligations: RFOs (cfs) (5)	Depletions & Obligations: Total (cfs) (6)	Replacements: Aug Station 0102345 (cfs) (7)	Replacements: Pond Release 0103456 (cfs) (8)	Replacements: Total Credits (cfs) (9)	Balance (cfs) (10)	Net Effect (cfs) (11)
11/15/2020	21698.00000	n	0.03	0.03	0.03	0.06	0.00	0.05	0.05	-0.01	-0.01
11/16/2020	21698.00000	n	0.03	0.03	0.03	0.06	0.00	0.06	0.06	0.00	0.00
11/17/2020	21698.00000	n	0.03	0.03	0.03	0.06	0.00	0.06	0.06	0.00	0.00
11/18/2020	21698.00000	n	0.03	0.03	0.03	0.06	0.00	0.06	0.06	0.00	0.00
11/19/2020	99999.00000	y	0.03	0.00	0.03	0.03	0.00	0.06	[illegible]	0.00	0.06
11/20/2020	99999.00000	y	0.03	0.00	0.03	0.03	0.00	[illegible]	0.06	0.00	0.06
11/21/2020	99999.00000	y	0.03	0.00	0.03	0.03	[illegible]	[illegible]	0.05	-0.01	0.05
11/22/2020	21698.00000	n	0.03	0.03	0.03	0.06	[illegible]	[illegible]05	0.05	-0.01	-0.01

Contact & Plan Info | Well & Meter Information | Depletions & Obligations | Replacements | Example Pond | Summary | DWR

The Balance column is the balance of Replacements and actual Depletions/Obligations regardless of whether the plan is in or out of priority. It is calculated by subtracting Depletions and Obligations from Replacements.

j. (Summary) - a monthly summary table may be added at the bottom of the Summary tab below the daily summary



Monthly Summary

Month	Number of days Plan is In Priority (# of days) (1)	% of Days In Priority (%) (2)	Lagged Depletions (ac-ft) (3)	OOP Lagged Depletions (ac-ft) (4)	RFOs (ac-ft) (5)	Total (ac-ft) (6)	Aug Station (ac-ft) (7)	Res Release (ac-ft) (8)	Total (ac-ft) (9)	Balance (ac-ft) (10)	Net Effect (ac-ft) (11)
Nov-20	0.00	0%	1.77	1.77	1.81	3.58	0.00	4.26	4.26	0.68	0.68
Dec-20	0.00	0%	1.32	1.32	1.41	2.73	0.00	4.32	4.32	1.59	1.59
Jan-21	30.00	97%	1.25	0.04	1.15	1.19	0.00	0.77	0.77	-1.63	0.69
Feb-21	28.00	100%	1.17	0.00	0.89	0.89	0.00	0.00	0.00	-2.06	0.00
Mar-21	31.00	100%	1.17	0.00	0.88	0.88	0.00	0.00	0.00	-2.05	0.00
Apr-21	9.00	30%	1.25	0.04	0.84	0.88	3.83	0.00	3.83	1.75	2.38
May-21	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jun-21	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jul-21	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	[illegible]	0.00
Aug-21	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	[illegible]	0.00	0.00
Sep-21	0.00	0%	0.00	0.00	0.00	0.00	0.00	[illegible]	[illegible]	0.00	0.00
Oct-21	0.00	0%	0.00	0.00	0.00	0.00	[illegible]	[illegible]	0.00	0.00	0.00

Contact & Plan Info | Well & Meter Information | Depletions & Obligations | [illegible]ple Pond | Summary | DWR | Version

Net Effect is the Balance or Net Impact value with the priority of the plan included. Plans considered in priority may not be required to replace depletions. This column represents whether the Aug plan shows injury to the river or has sufficiently replaced its uses.

ADMINISTRATION PROTOCOL
Use Of Replacement Sources Not Specifically Identified In An SWSP Or Augmentation Plan
Division One – South Platte River

This protocol addresses the minimum standards required for use of a source of replacement water not specifically described in an SWSP or augmentation plan.

- Request to the Division Engineer and Water Commissioner must be in writing and must include:
    - the augmentation plan or SWSP provision in the purchasers plan that allows an unnamed source to be added to the plan for credit
    - the decree provision or SWSP provision in the sellers plan that allows water to be sold for use in the purchasers plan
    - the annual and monthly amount of water available from the water right to be used for replacement
    - the location at which the water will be delivered to the stream
    - a lease agreement between the seller and purchaser of the replacement water
- Applicant shall have written approval from the Division Engineer or Water Commissioner before an unnamed source is added to an augmentation plan or SWSP.
- Applicant must comply with the Augmentation Plan Accounting Protocol and, if appropriate, the Delivery of Water Protocol.

This protocol is subordinate to any decreed language addressing specific situations.