COLORADO
Division of Water Resources
Department of Natural Resources

February 4, 2025

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

Re: Bernhardt Substitute Water Supply Plan (WDID 0402528)
Bernhardt Pit, DRMS Permit No. M-2002-120 (WDID 0403007)
Sections 1 & 12, T 4N, R 67W, 6th P.M.
Water Division 1, Water District 4, Weld County
SWSP ID: 3672

Approval Period: January 1, 2025 through December 31, 2025
Contact Information for Andy Rodriguez:
andy@civilresources.com and (303) 833-1416 x202

Dear Andy Rodriguez, P.E.:

We have reviewed your letter dated October 8, 2024 and the additional information received on December 2, 2024 requesting renewal of the above-referenced substitute water supply plan in accordance with section 37-90-137(11), C.R.S. to cover depletions caused by an existing gravel mining operation operated by Bestway Concrete Company ("Bestway" or "Applicant"). The required fee of $257.00 for the renewal of this substitute water supply plan ("SWSP") has been submitted (receipt no. 10038756). The original supply plan was approved on January 14, 2004 and the plan was most recently renewed on November 29, 2023 for the period of January 1, 2024 through December 31, 2024.

Plan Operation

This plan seeks to replace depletions resulting from mining operations at the Bernhardt Pit. The depletions that result from the mining operation during this SWSP period are water used for dust control and evaporation. The proposed replacement source is water leased from the Groundwater Management Subdistrict (GMS) of the Central Colorado Water Conservancy District (CCWCD).

Mining in Ponds 2/3A, 3, 4, and 5 is complete. Ponds 2/3A, 3, and 4 have been lined with bentonite slurry walls that were approved December 2009, March 2016, and June 2024 (respectively), by the Division of Water Resources (DWR) to operate as reservoirs. Ponds 3 and 4 are owned by CCWCD and will be used to store water owned by CCWCD. The liners in Cells 3 and 4 were damaged by a rain event in May 2023. Repairs have been completed to the liners in Cells 3 and 4, and new modified liner tests were performed and approved for these ponds on September 4, 2024 and June 11, 2024 respectively. A provisional leak test was approved for Pond 5 on August 14, 2019. Pond 5 is pumped down and mining has ceased as reclamation activities are ongoing. The liner approval for Pond 5 is only applicable during the mining operations at the site and does not classify the structure as a reservoir capable of water storage.

Water shall not be impounded in the reservoirs except pursuant to lawful diversions allowed by statute or decree. At all other times, all inflow of water into the reservoir from any source, including precipitation and groundwater inflows, shall be removed by the Applicant. The water may be removed from within the lined area and returned to the stream system without need for replacement, so long as the operator does not put the water to beneficial use.

An alluvial well has been constructed to provide water for concrete batching. This well was constructed under permit no. 60729-F (WDID 0405678) and is located outside

the boundaries of the existing slurry walls. The SWSP request does not seek to pump water from this well during the plan period. Well no. 60729-F has not been used for concrete batching since 2008 and all lagged depletions from previous pumping from the well have already impacted the stream. A flow meter has been installed on the well, as is required by condition of approval #9 on well permit no. 60729-F, and the meter is currently in compliance with the *South Platte Well Measurement Rules*. An application was submitted on December 12, 2024 to amend the as-constructed location of this well. Also, an application (receipt no. 10039665) to use this well by BURNCO Colorado LLC ("BURNCO") for the Milliken Rmx Batch Plat under the pending augmentation plan filed by BURNCO in case no. 24CW3160 was submitted on December 3, 2024. Based on that application well permit no. 60729-F was canceled on February 3, 2025, and the well will continue to be used only for the Milliken Rmx Batch Plat under permit no. 89761-F and the recent approved BURNCO SWSP (case no. 24CW3160).

Depletions

The depletions that result from the mining operation during this SWSP period are water used for dust control and evaporation. The mining operation, including aggregate washing, occurs within the approved liner of the slurry walls, therefore no water lost with the mined product is accounted for in the SWSP. The Applicant has completed mining in all ponds and reclamation is ongoing during this SWSP approval period. Additionally, based on the analysis previously performed by the Applicant, there are no lagged depletions from past dewatering operations that will accrue to the river during this plan period.

Evaporative Depletions

The plan proposes to expose 2.28 acres of groundwater at the Bernhardt Pit within the settling ponds. 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. Evaporative depletions were calculated using a gross annual evaporation of 43.86 inches (based on the NOAA Technical Report NWS 33) with a credit of 9.29 inches for effective precipitation (based on an average annual precipitation of 13.27 inches for the Longmont weather station). Evaporative losses are 2.88 acre-feet/acre, or **6.57 acre-feet for this SWSP period** as shown on attached Table 1.

Operational Depletions

Consumptive use of groundwater from the Bernhardt Pit consists of 0.18 acre-feet/month for on-site dust control, or **2.16 acre-feet for this SWSP period** as shown on attached Table 1. Water from dust control is obtained from the settling pond.

Lagged Depletions

The total consumptive use at this site during this plan period is 8.73 acre-feet (see attached Table 1). The depletions from evaporation and operational losses were lagged to the stream using a Glover analysis assuming a distance (X) from the centroid of the exposed ground water surface to the stream of 715 feet, a distance (W) to the impermeable boundary of 2,976 feet, a transmissivity (T) of 100,000 gpd/ft, and a specific yield (S) of 0.2.

The **total lagged depletions are 9.09 acre-feet for this SWSP period** as shown on attached Tables 2 and 3. Depletions from mining operations at the Bernhardt site will impact the Big Thompson River upstream of the Evanstown Ditch (WDID 0400517).

Replacements

The proposed source of replacement for the Bernhardt pit is **9.09 acre-feet of leased water from the Ground Water Management Subdistrict (GMS) of the Central Colorado Water Conservancy District ("CCWCD")**. The replacements will be delivered from the Bernhardt Reservoir (WDID 0403395 decreed in case no. 02CW269) and will accrue to the Big Thompson River in the same location that the lagged depletions from the Bernhardt Pit impacts the river, therefore, no river conveyance losses will be assessed. A copy of the Lease Agreement was provided to this office on January 22, 2025 and is attached to this letter. A monthly breakdown of depletions and replacements is shown in the attached Tables 3 and 4, respectively.

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, attached, requires that the Applicant provide information to DRMS to demonstrate the ability to replace long term injurious stream depletions that result from mining related exposure of groundwater.

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. A bond for $2,557,225 has been obtained by Bestway through the Division of Reclamation, Mining, and Safety ("DRMS") to assure that depletions from groundwater evaporation do not occur in the unforeseen event, or events, which would lead to the abandonment of the Pit (approach #3).

Conditions of Approval

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

1. This SWSP shall be valid for the period of **January 1, 2025 through December 31, 2025**, 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), with all necessary leases and other supporting documentation, **no later than November 1, 2025.** If a renewal request is received after the expiration date of this plan, it may be considered a request for a new SWSP and the $1,593 filing fee will apply.

2. Approval of this plan is for the purposes as stated herein. Additional wells and/or additional uses for the water that is the subject of this SWSP will be allowed only if a new SWSP is approved for those additional wells/uses.

3. The **total surface area of the groundwater exposed at the site must not exceed 2.28 acres** during the approval period of this SWSP, which results in a **maximum annual evaporative loss of 6.57 acre-feet** from the Bernhardt Pit.

4. The **annual amount of water used for dust control shall not exceed 2.16 acre-feet** at the Bernhardt Pit. All pumping for dust control shall be measured in a manner acceptable to the Division Engineer.

5. Total consumption must not exceed the aforementioned amounts at the Bernhardt Pit unless an amendment is made to this plan.

6. All diversions shall be measured in a manner acceptable to the Division Engineer. The Applicant shall install and maintain such measuring devices as required by the Division Engineer for operation of this SWSP.

7. Well permit no. 65812-F was obtained for the current use and exposed pond surface area of the Bernhardt Pit in accordance with section 37-90-137(2) and (11), C.R.S., and this permit remains valid. The Applicant is not proposing to use the alluvial well, permit no. 60729-F, for concrete batching during the period of this SWSP. Based on the application (receipt no. 10039665) well permit no. 60729-F was canceled on February 3, 2025, and the well will continue to be used only for the Milliken Rmx Batch Plat under permit no. 89761-F and the recent approved BURNCO SWSP (case no. 24CW3160).

8. Water shall not be impounded in the slurry wall reservoirs except pursuant to lawful diversions allowed by statute or decree. At all other times, all inflow of water into the reservoirs from any source, including precipitation and groundwater inflows, shall be removed by the Applicant. The water may be removed from within the lined area and returned to the stream system without need for replacement, so long as the operator does not put the water to beneficial use.

9. Replacement water must be made available to replace all out-of-priority depletions in time, place, and amount and must be made available under the direction and/or approval of the water commissioner. The replacement water may be aggregated to maximize beneficial use. The Water Commissioner and/or Division Engineer shall determine the rate and timing of an aggregated release.

10. Conveyance loss for delivery of replacement water is subject to assessment and modification as determined by the Division Engineer.

11. The Applicant should refer to the instructions and explanations provided in the *Augmentation Plan Accounting,* or any other applicable protocols as referenced in the attached document, for the operation of this SWSP.

12. 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.

13. As part of any renewal of this SWSP the Applicant must specify the proposed replacement source that will be used to replace all lagged depletions that result from operation under this SWSP, including those that extend beyond the approval period of the SWSP. If the intent is to obtain a short-term lease for such future replacement water an executed lease for depletions that extend beyond the SWSP approval period is not required, however the Applicant must demonstrate that there is a reasonable likelihood that such a lease could be obtained.

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

15. 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 within 30 days of the end of the month for which the accounting applies (https://dwr.state.co.us/Tools/reporting). 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, the **Applicant** shall verify that the Groundwater Management Subdistrict of the Central Colorado Water Conservancy has submitted a report to the Division Engineer that includes an accounting of **all** replacement water controlled by the GMS of the CCWCD, showing the total volume of water under its control and the amount committed to each of the recipients of the water, including the water committed to this plan.

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

17. 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 senior appropriators. As such, water quality data or analysis may be requested at any time to determine if the water quality is

appropriate for downstream water users.\

18. 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 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.

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 questions, please contact Michael Matz of this office or Michael Hein of our Division office in Greeley at (970) 352-8712.

Sincerely,

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

Attachments: Figure 1 and Tables 1-4

CCWCD Lease

Augmentation Plan Accounting Protocol

April 2010 DRMS Letter

Ec: Michael Hein, Assistant Division Engineer, Micheal.Hein@state.co.us
Liam Cummins, Water Resource Specialist, Liam.Cummins@state.co.us
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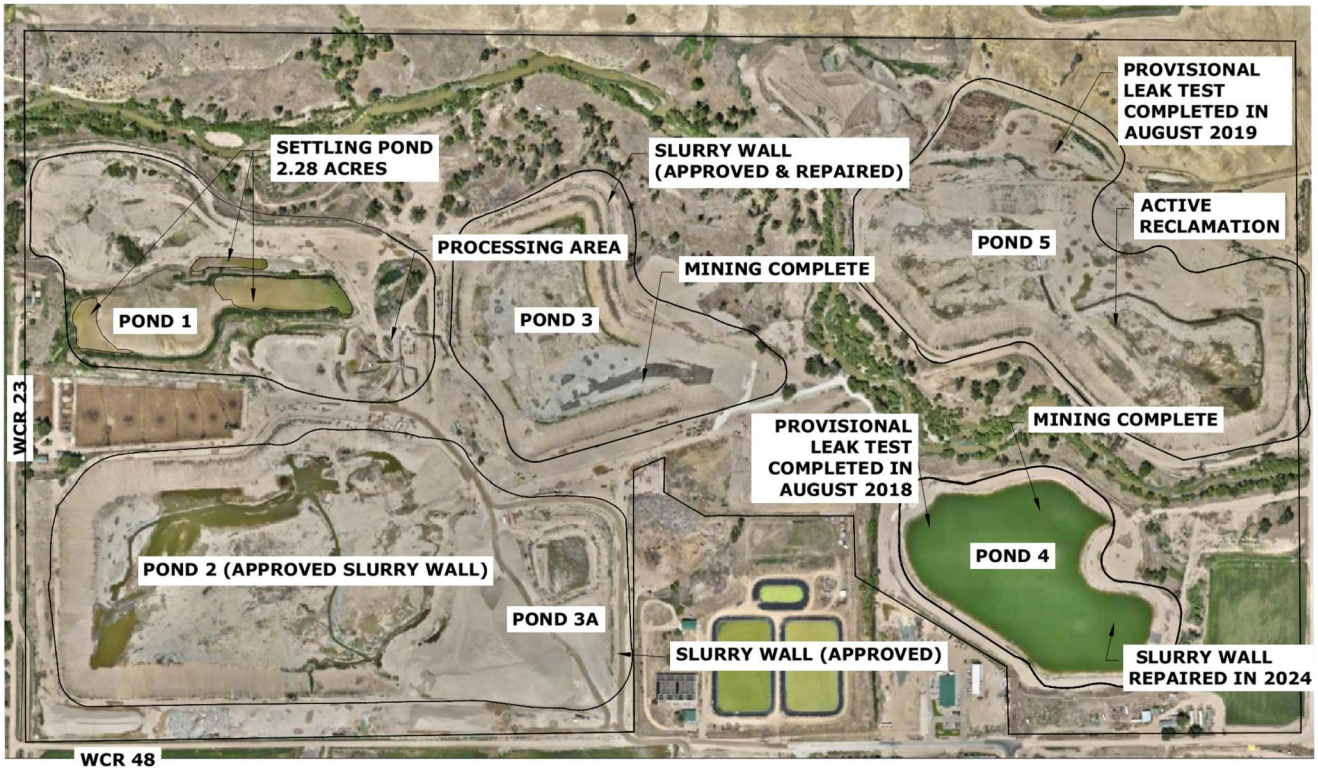
Division of Reclamation Mining and Safety, Peter.Hayes@state.co.us

JMW/idc/mbm: 2025 M-2002-120 Bernhardt SWSP Letter



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(IN FEET)

NORTH

CIVIL RESOURCES, LLC		BESTWAY BERNHARDT GRAVEL MINE 2023 AERIAL
DATE: 10/2024	FIGURE: 1	GENERAL LOCATION MAP 2024/25 GRAVEL OPERATIONS

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Table 1

Bernhardt Pit
Evaporative and Operational Losses

Month	Percent of Annual Evaporation	Gross Evaporation (inches)	Average Precipitation (inches)	Effective Precipitation (inches)	Net Evaporation (inches)	Net Water Surface Evaporation for Fresh Water/ Silt 2.28 (acre-feet)
	[1]	[2]	[3]	[4]	[5]	[6]
January	3.0%	1.32	0.40	0.28	1.03	0.20
February	3.5%	1.53	0.39	0.28	1.26	0.24
March	5.5%	2.41	1.10	0.77	1.65	0.31
April	9.0%	3.95	1.60	1.12	2.82	0.54
May	12.0%	5.26	2.51	1.76	3.50	0.67
June	14.5%	6.36	1.68	1.18	5.18	0.98
July	15.0%	6.58	1.11	0.77	5.80	1.10
August	13.5%	5.92	1.24	0.87	5.05	0.96
September	10.0%	4.39	1.24	0.87	3.51	0.67
October	7.0%	3.07	0.85	0.59	2.48	0.47
November	4.0%	1.75	0.68	0.47	1.28	0.24
December	3.0%	1.32	0.47	0.33	0.99	0.19
Total	**100.0%**	**43.86**	**13.27**	**9.29**	**34.57**	**6.57**

Month	Percent of Annual Aggregate Production	Amount of Aggregate Production (tons)	Water Lost With Mined Aggregate (acre-feet)	Percent of Annual & Concrete Production	Amount of Concrete Production (cubic yards)	Water Used in Concrete Batching (acre-feet)	Water Used for Dust Control (acre-feet)	Total Evaporative & Operational Losses (acre-feet)
	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
January	6.3%	25,267	0.00	0.0%	0	0.00	0.18	0.38
February	5.3%	21,204	0.00	0.0%	0	0.00	0.18	0.42
March	9.0%	36,102	0.00	0.0%	0	0.00	0.18	0.49
April	8.7%	34,742	0.00	0.0%	0	0.00	0.18	0.72
May	7.2%	28,696	0.00	0.0%	0	0.00	0.18	0.85
June	11.7%	46,854	0.00	0.0%	0	0.00	0.18	1.16
July	10.2%	40,684	0.00	0.0%	0	0.00	0.18	1.28
August	10.0%	39,821	0.00	0.0%	0	0.00	0.18	1.14
September	9.8%	39,025	0.00	0.0%	0	0.00	0.18	0.85
October	9.0%	35,839	0.00	0.0%	0	0.00	0.18	0.65
November	7.0%	27,875	0.00	0.0%	0	0.00	0.18	0.42
December	6.0%	24,000	0.00	0.0%	0	0.00	0.18	0.37
Total	**100.0%**	**400,000**	**0.00**	**0.0%**	**0**	**0.00**	**2.16**	**8.73**

Notes:

[1] From SB 120, the evaporation percentages are for gravel pits with elevations below 6,500 feet.

[2] Equals Percent of Annual Evaporation times 43.86 inches.

[3] From Colorado State University's Colorado Climate Center web page, http://ccc.atmos.colostate.edu for Longmont Weather Station.

[4] Equals Column (3) times 70 percent. 70 percent value was taken from SB 120.

[5] Equals Column (2) minus Column (4). If the resultant value is less than zero then a zero is substituted.

[6] Equals Column (5) divided by 12 times 6.18 acres. Includes Pond 1 (5.18 ac), and 1 acre of sump and dewatering in Pond 4.

[7] Based on information from Hall-Irwin.

[8] Equals Column (7) times 400,000 tons per year. Production based on information from Bestway.

[9] Equals Column (2) times 2000 times 4% divided by 62.4 divided by 43,560. The provisional leak test for Pond 4 was approved and the other mining areas are also approved slurry lined cells, therefore no water is lost in production of the aggregate.

[10] Based on information from Bestway.

[11] Equals Column (10) times zero cy per year.

[12] Equals Column (11) times 40 gallons divided by 325851. Assume a use of 40 gallons per cubic yard of concrete production.

[13] Equals 3,953 gallons per day times number of operating days (30.5 days) in the month divided by 325,851, during production months.

[14] Equals Column (6) plus Column (9) plus Column (12) plus Column (13).

Table 2

Bernhardt Pit Mining Depletions (evaporative, water retained in product and dust suppression)
AWAS input
(all values in acre-feet)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2002	0	0	0	0	0	0	0	0	0	4.56	2.49	0.34	7.39
2003	0.36	0.44	3.23	5.11	7.01	9.06	9.91	8.38	6.19	4.56	2.49	0.34	57.08
2004	1.12	1.36	3.35	5.4	7.01	9.59	10.59	9.12	6.58	4.8	2.63	1.07	62.62
2005	0.92	1.13	2.49	3.95	5.03	6.94	7.67	6.65	4.8	3.52	1.98	0.88	45.96
2006	0.92	1.13	1.47	2.52	3.13	4.63	5.19	4.52	3.14	2.21	1.14	0.88	30.88
2007	0.96	1.17	1.85	2.83	3.33	4.83	5.38	4.68	3.27	2.4	1.19	0.91	32.8
2008	0.68	0.82	1.44	2.52	3.08	4.29	4.73	4.15	3.03	2.27	1.21	0.65	28.87
2009	0.56	0.68	1.26	1.9	2.27	3.19	3.52	3.12	2.28	1.72	1.07	0.54	22.11
2010	0.56	0.68	1.26	1.90	2.27	3.19	3.52	3.12	2.28	1.72	1.07	0.54	22.11
2011	0.56	0.68	0.89	1.53	1.90	2.82	3.15	2.75	1.91	1.35	0.70	0.54	18.78
2012	0.56	0.68	0.89	0.00	0.00	0.00	3.15	2.75	1.91	1.35	0.70	0.54	12.53
2013	0.56	0.68	0.89	1.53	1.9	2.82	3.15	3.15	2.75	1.91	0.54	1.54	21.42
2014	0.56	0.68	0.89	1.53	1.9	2.82	3.15	3.68	2.45	1.89	1.24	0.79	21.58
2015	1.55	1.55	2.20	2.80	2.99	4.45	4.60	4.17	3.31	2.65	1.77	1.50	33.54
2016	0.77	0.98	1.62	1.99	2.91	3.24	2.84	2.00	1.44	0.79	0.63	0.63	19.84
2017	0.48	0.56	0.71	1.15	1.40	2.03	2.27	1.98	1.41	1.02	0.57	0.46	14.04
2018	0.48	0.56	0.71	1.15	1.4	2.03	2.27	1.98	1.41	1.02	0.57	0.46	14.04
2019	0.48	0.56	0.71	1.15	1.4	2.03	2.27	1.98	1.41	1.02	0.57	0.46	14.04
2020	0.48	0.56	0.71	1.15	1.4	2.03	2.27	1.98	1.41	1.02	0.57	0.46	14.04
2021	0.55	0.63	0.77	1.19	1.44	2.04	2.26	1.99	1.44	1.07	0.64	0.53	14.55
2022	0.55	0.63	0.77	1.19	1.44	2.04	2.26	1.99	1.44	1.07	0.64	0.53	14.55
2023	0.55	0.63	0.77	1.19	1.44	2.04	2.26	1.99	1.44	1.07	0.64	0.53	14.55
2024	0.61	0.70	0.86	1.35	1.63	2.33	2.59	2.28	1.64	1.21	0.71	0.59	16.50
2025	0.38	0.42	0.49	0.72	0.85	1.16	1.28	1.14	0.85	0.65	0.42	0.37	8.73

AWAS output - lagged depletions
(all values in acre-feet)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2002	0	0	0	0	0	0	0	0	0	-2.52	-2.47	-1.22	-6.21
2003	-0.7	-0.6	-2.1	-3.7	-5.5	-7.3	-8.8	-8.5	-7.0	-5.8	-3.9	-2.1	-55.99
2004	-1.6	-1.5	-2.6	-4.1	-5.7	-7.7	-9.3	-9.1	-7.5	-6.1	-4.2	-2.6	-62.17
2005	-1.8	-1.4	-2.1	-3.1	-4.2	-5.6	-6.8	-6.6	-5.5	-4.5	-3.1	-2.0	-46.65
2006	-1.5	-1.3	-1.5	-2.0	-2.7	-3.7	-4.5	-4.5	-3.6	-2.9	-1.9	-1.4	-31.48
2007	-1.2	-1.2	-1.6	-2.3	-2.9	-3.9	-4.7	-4.7	-3.8	-3.1	-2.0	-1.5	-32.73
2008	-1.1	-0.9	-1.3	-2.0	-2.6	-3.5	-4.2	-4.1	-3.4	-2.8	-1.9	-1.3	-29.04
2009	-0.9	-0.8	-1.1	-1.5	-2.0	-2.6	-3.1	-3.1	-2.6	-2.1	-1.5	-1.0	-22.39
2010	-0.8	-0.7	-1.1	-1.5	-1.9	-2.6	-3.1	-3.1	-2.6	-2.1	-1.5	-1.0	-22.09
2011	-0.8	-0.7	-0.9	-1.2	-1.6	-2.2	-2.8	-2.7	-2.2	-1.8	-1.2	-0.9	-18.94
2012	-0.7	-0.70	-0.84	-0.37	-0.17	-0.09	-1.80	-2.33	-2.00	-1.64	-1.10	-0.83	-12.59
2013	-0.7	-0.67	-0.84	-1.2	-1.6	-2.23	-2.75	-2.94	-2.77	-2.32	-1.31	-1.48	-20.81
2014	-1.01	-0.79	-0.91	-1.24	-1.63	-2.24	-2.76	-3.24	-2.74	-2.28	-1.69	-1.24	-21.77
2015	-1.44	-1.46	-1.93	-2.37	-2.73	-3.61	-4.19	-4.13	-3.6	-3.12	-2.35	-1.94	-32.87
2016	-1.33	-1.12	-1.47	-1.74	-2.41	-2.81	-2.84	-2.35	-1.81	-1.29	-0.93	-0.81	-20.91
2017	-0.65	-0.58	-0.69	-0.93	-1.2	-1.63	-1.99	-1.96	-1.62	-1.31	-0.9	-0.69	-14.15
2018	-0.59	-0.56	-0.68	-0.93	-1.2	-1.63	-1.99	-1.96	-1.62	-1.31	-0.9	-0.69	-14.06
2019	-0.59	-0.56	-0.68	-0.93	-1.2	-1.63	-1.99	-1.96	-1.62	-1.31	-0.9	-0.69	-14.06
2020	-0.59	-0.57	-0.67	-0.93	-1.2	-1.62	-1.99	-1.96	-1.62	-1.31	-0.9	-0.69	-14.05
2021	-0.63	-0.61	-0.74	-0.97	-1.24	-1.65	-2	-1.97	-1.64	-1.35	-0.95	-0.75	-14.5
2022	-0.66	-0.62	-0.74	-0.98	-1.25	-1.65	-2	-1.97	-1.64	-1.35	-0.95	-0.75	-14.56
2023	-0.66	-0.62	-0.74	-0.98	-1.25	-1.65	-2	-1.97	-1.64	-1.35	-0.95	-0.75	-14.56
2024	-0.69	-0.69	-0.81	-1.09	-1.4	-1.88	-2.28	-2.26	-1.87	-1.53	-1.07	-0.84	-16.41
2025	-0.61	-0.49	-0.53	-0.63	-0.76	-0.97	-1.15	-1.13	-0.95	-0.8	-0.59	-0.48	-9.09

lagged delpetions from mining activities - evaporation, ~~water retained in product~~, dust suppression

AWAS Model, T = 100,000 gpd/ft, s=0.20, w = 2,976 ft, x = 715 ft (Hurr & Schneider et. Al. Greeley Reach)

Table 3
Bernhardt Pit
Summary of Lagged Depletions
(all values in acre-feet)

[17]

Month	Lagged Evaporative & Operational Depletions
Jan-25	-0.61
Feb-25	-0.49
Mar-25	-0.53
Apr-25	-0.63
May-25	-0.76
Jun-25	-0.97
Jul-25	-1.15
Aug-25	-1.13
Sep-25	-0.95
Oct-25	-0.8
Nov-25	-0.59
Dec-25	-0.48
Total	-9.09

[17] Lagged depletions from Pit Area (Table 2a)

Table 4
Summary of Bernhardt Pit Augmentation Operations
(all values in acre-feet)

	[1]	[2]	[3]
Month	**Lagged Pit Depletions**	**CCWCCD Lease**	**Net River Impact**
Jan-25	-0.61	0.61	0.00
Feb-25	-0.49	0.49	0.00
Mar-25	-0.53	0.53	0.00
Apr-25	-0.63	0.63	0.00
May-25	-0.76	0.76	0.00
Jun-25	-0.97	0.97	0.00
Jul-25	-1.15	1.15	0.00
Aug-25	-1.13	1.13	0.00
Sep-25	-0.95	0.95	0.00
Oct-25	-0.8	0.80	0.00
Nov-25	-0.59	0.59	0.00
Dec-25	-0.48	0.48	0.00
Total	-9.09	9.09	0.00

[1] Total lagged depletions for Bernhardt Pit, Table 3, Column 19.

[2] Milliken excess augmentation credits

[3] Net river impact after credit from excess aumentation supply, [1] + [2]

WATER LEASE AGREEMENT
Bernhardt Aggregate Mines

THIS AGREEMENT made and entered into this 21st day of Jan, 2024, 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 Big Thompson River 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 **9.09** 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 **9.09** 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 **9.09** acre feet for delivery January through December 2025. Parties agree to the monthly delivery schedule as follows:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
0.61	0.49	0.53	0.63	0.76	0.97	1.15	1.13	0.95	0.80	0.59	0.48	9.09

3. Lessee shall pay lessor a total of **$13,128 ($800/AF· 9.09 AF)** due upon signing.
4. Parties agree that this Agreement is for the water delivery of **9.09** acre feet from January through December 2025 and shall immediately terminate December 31st, 2025.
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, CCWCD

Chris Oestreich

BURNCO Colorado, LLC

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	kevin.boyle@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	Annually by November 15 or as needed upon request
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.

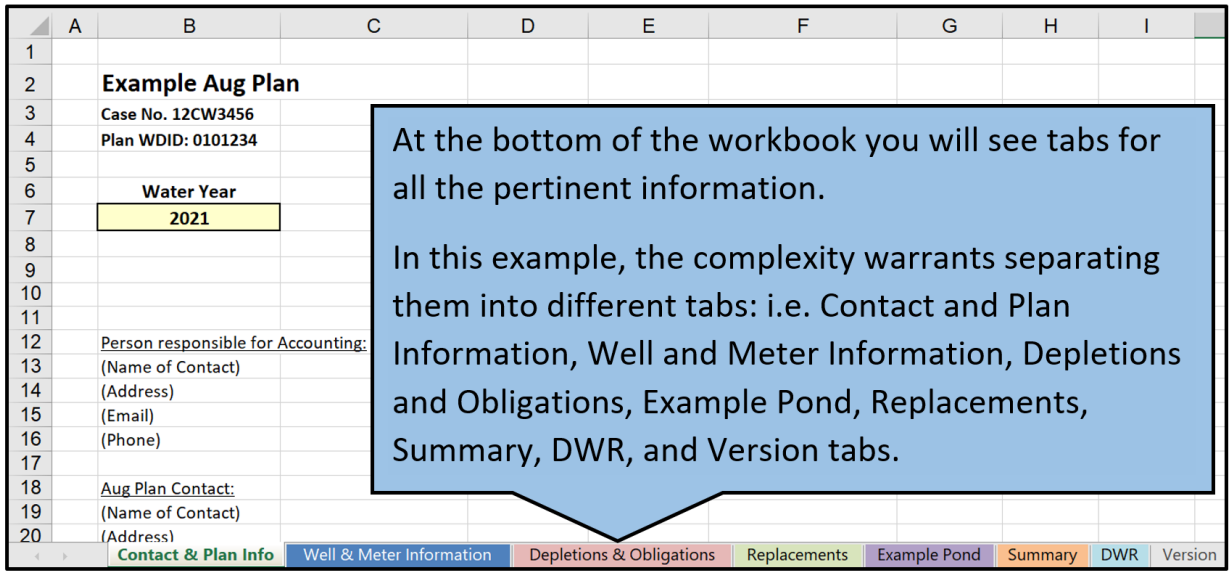
h. When there are multiple stream reaches involved, organize accounting from upstream to downstream.

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

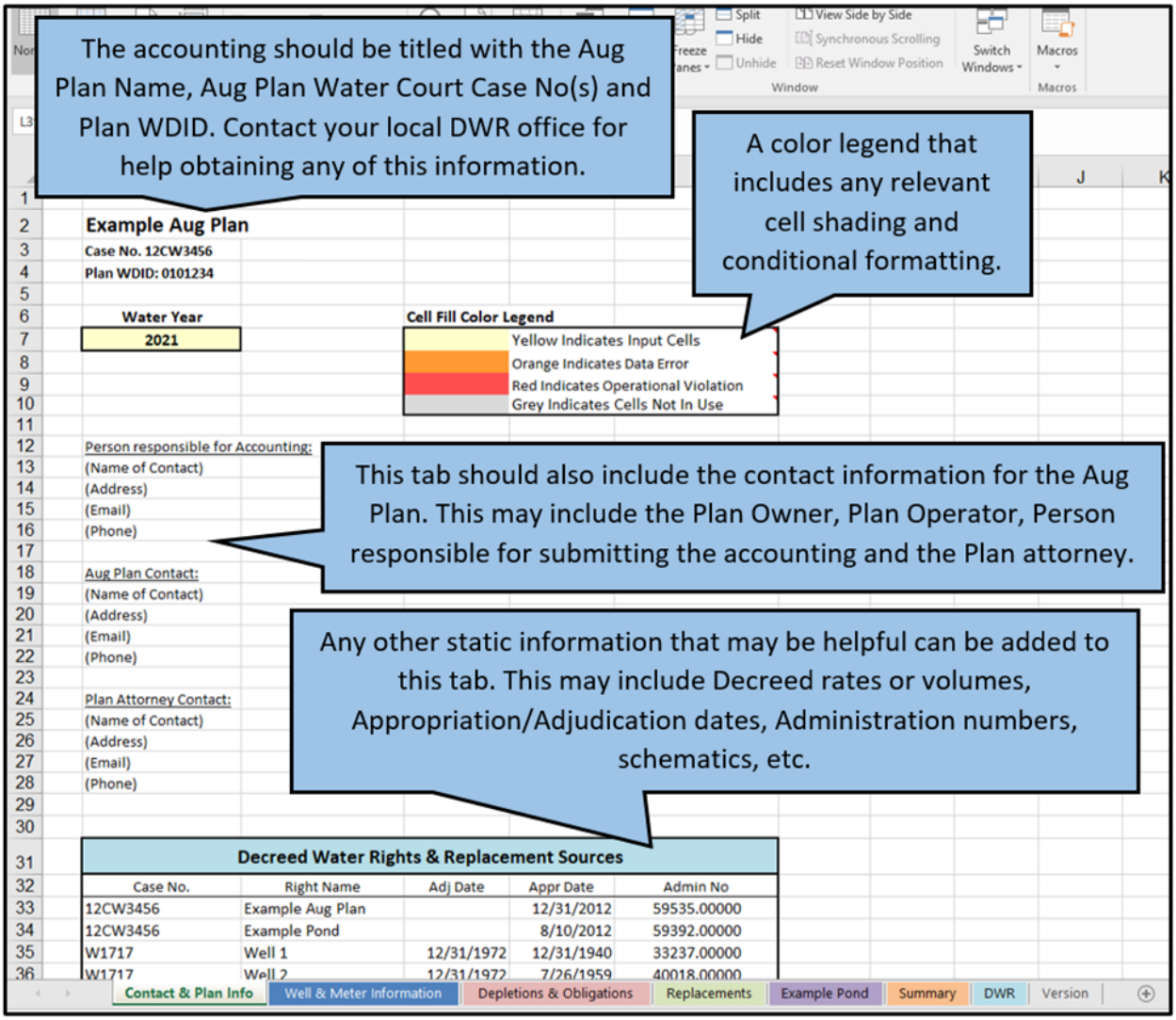
6. Example, Screenshots, and Spreadsheet Templates

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.

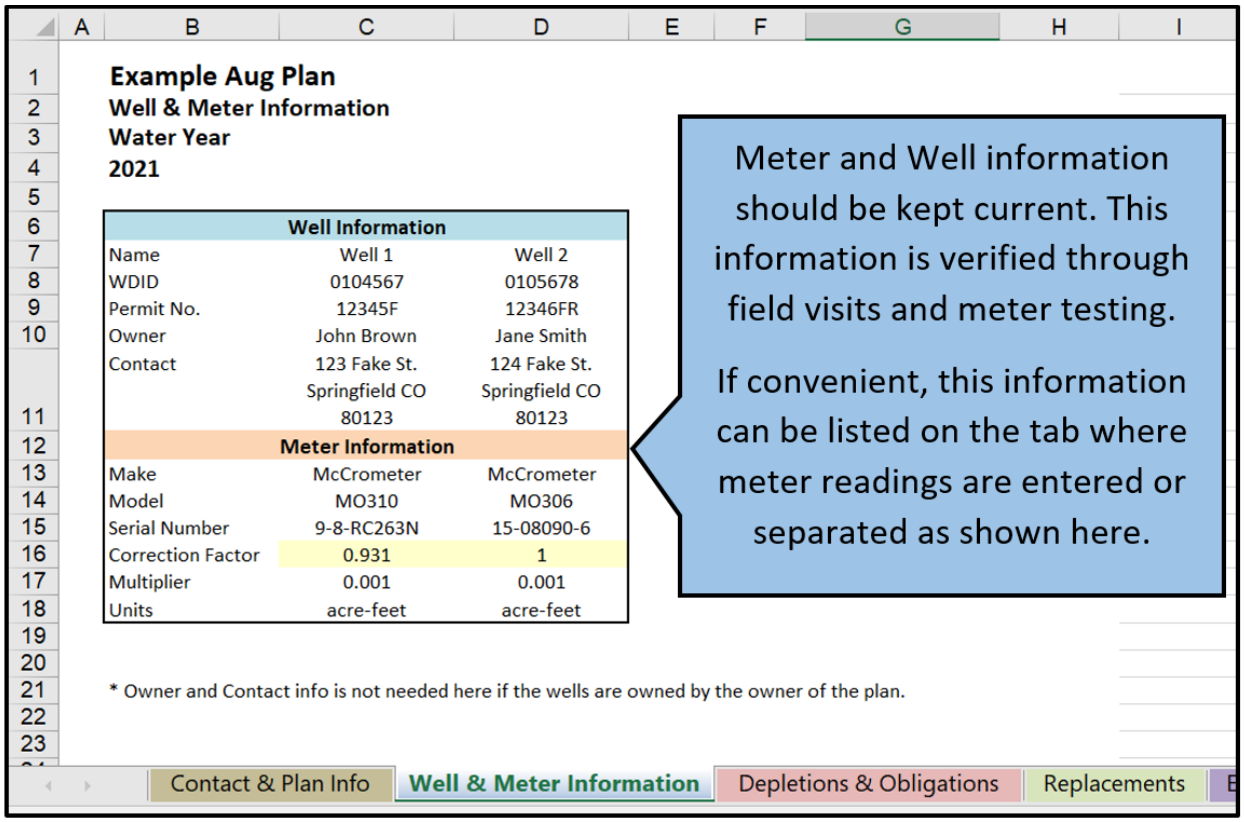
a. (List of relevant tabs)



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

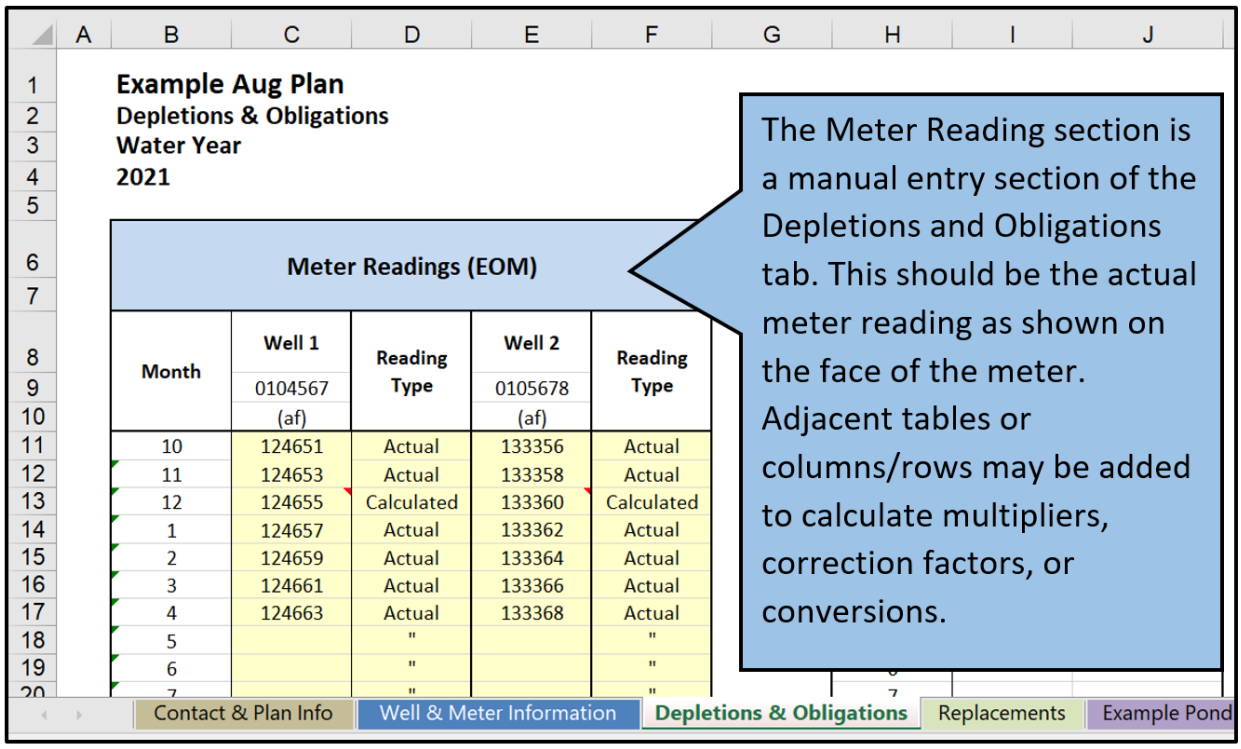
Meter and Well information should be kept current. This information is verified through field visits and meter testing.

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

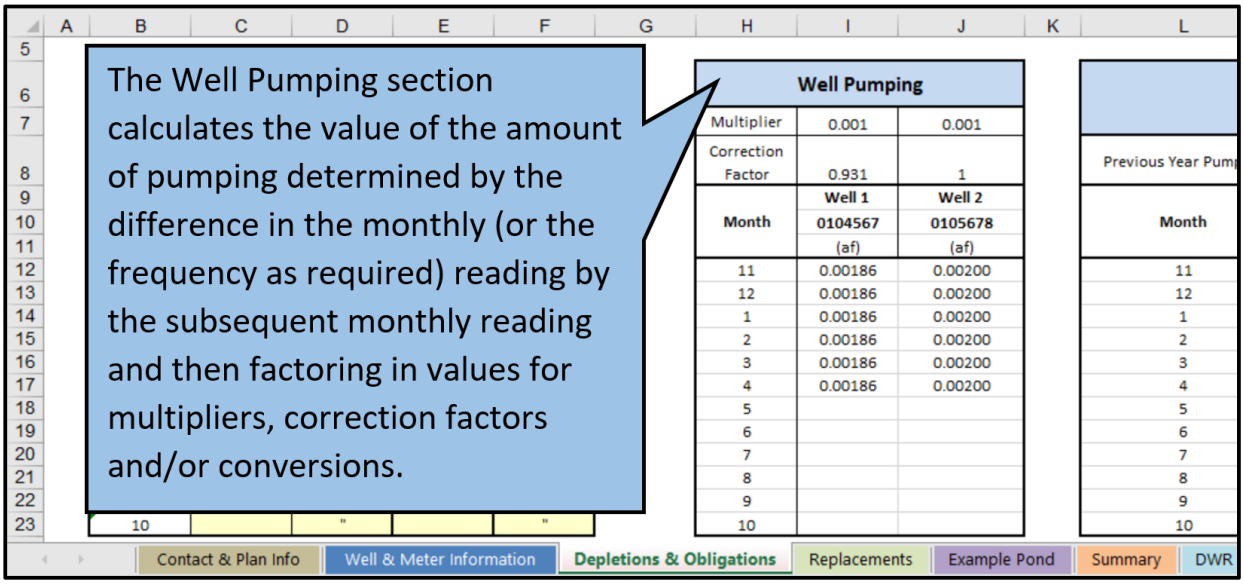
Meter Readings (EOM)

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.

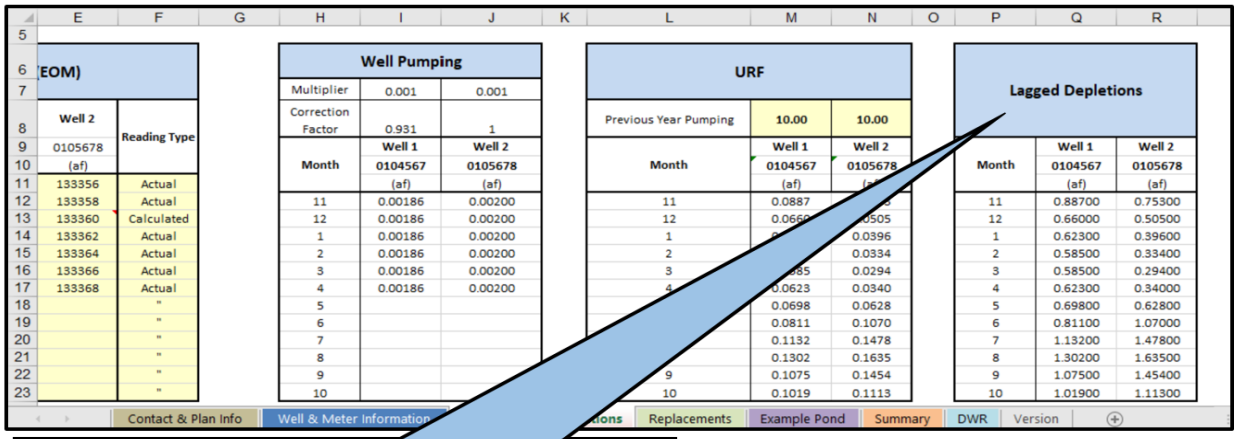
Well Pumping

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		

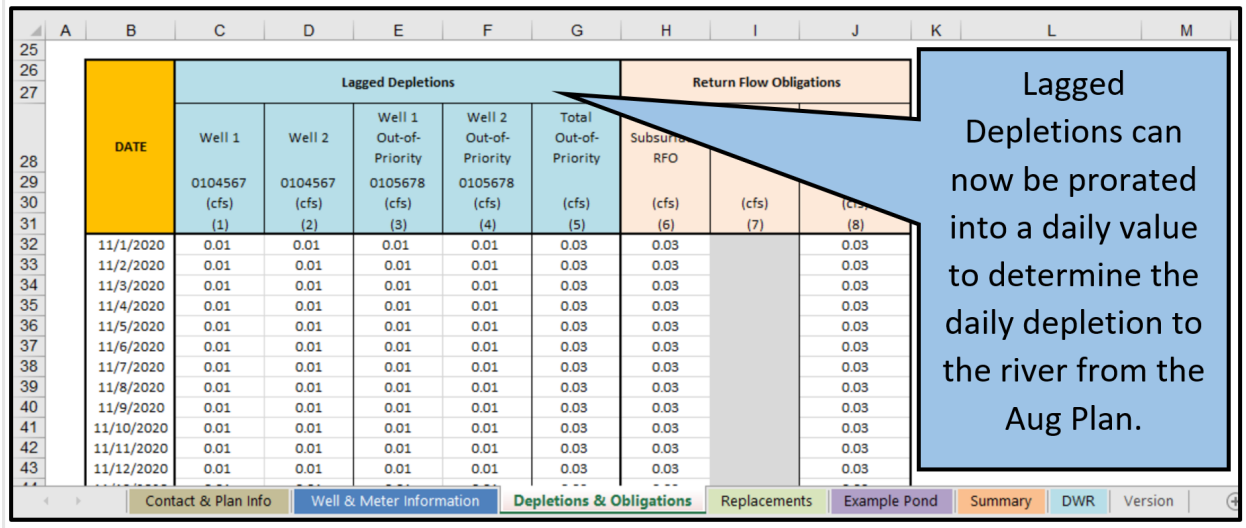
URF		
Previous Year Pumping	10.00	10.00
Month	Well 1 0104567 (af)	Well 2 0105678 (af)
11	0.0887	
12	0.0660	0505
1		0.0396
2		0.0334
3	585	0.0294
4	0.0623	0.0340
	0.0698	0.0628
	0.0811	0.1070
	0.1132	0.1478
	0.1302	0.1635
9	0.1075	0.1454
10	0.1019	0.1113

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

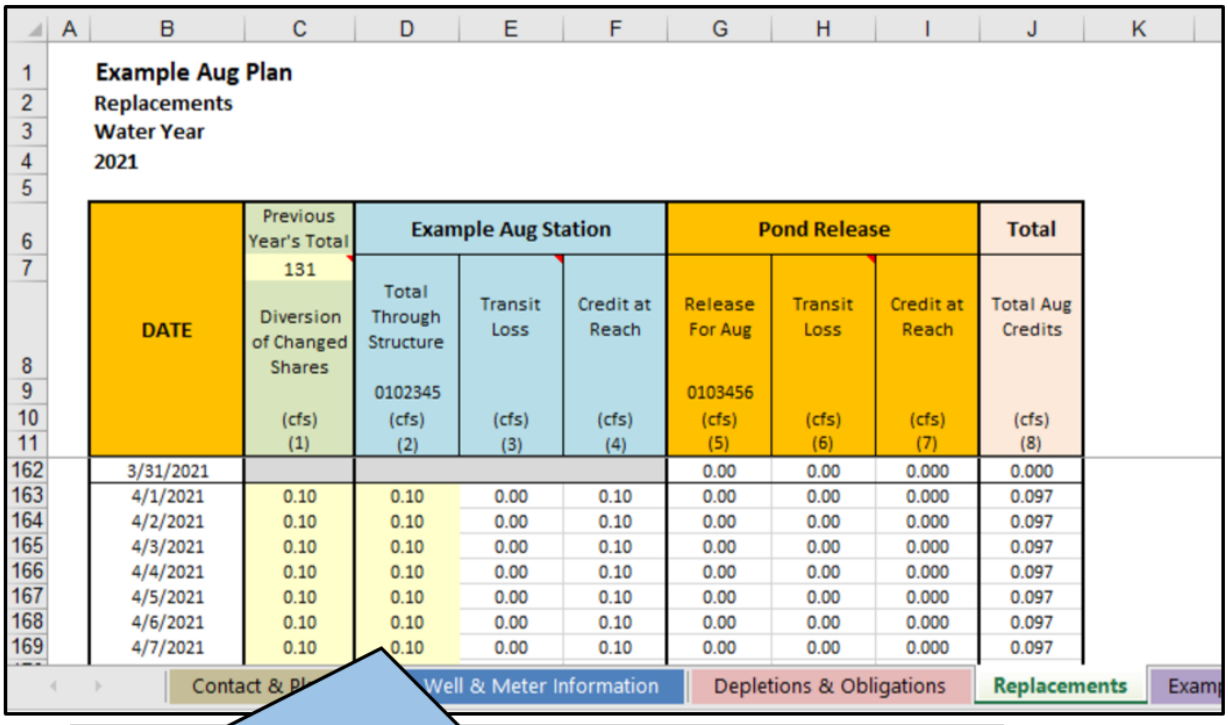


DATE	Lagged Depletions: Well 1 0104567 (cfs) (1)	Well 2 0104567 (cfs) (2)	Well 1 Out-of-Priority 0105678 (cfs) (3)	Well 2 Out-of-Priority 0105678 (cfs) (4)	Total Out-of-Priority (cfs) (5)	Return Flow Obligations: Subsurf... RFO (cfs) (6)	(cfs) (7)	(cfs) (8)
11/1/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03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



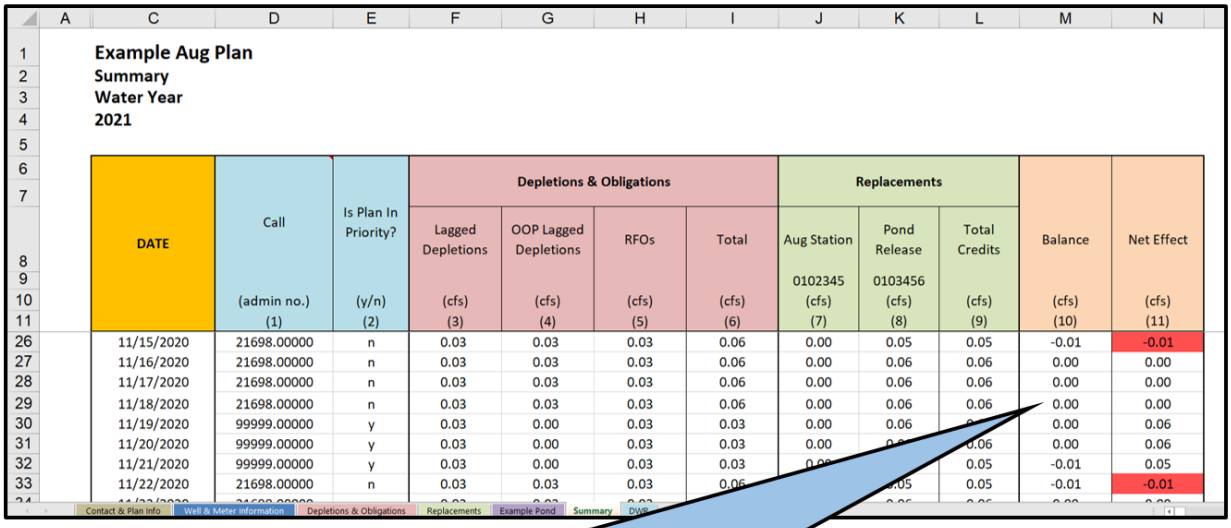
Example Aug Plan
Replacements
Water Year
2021

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



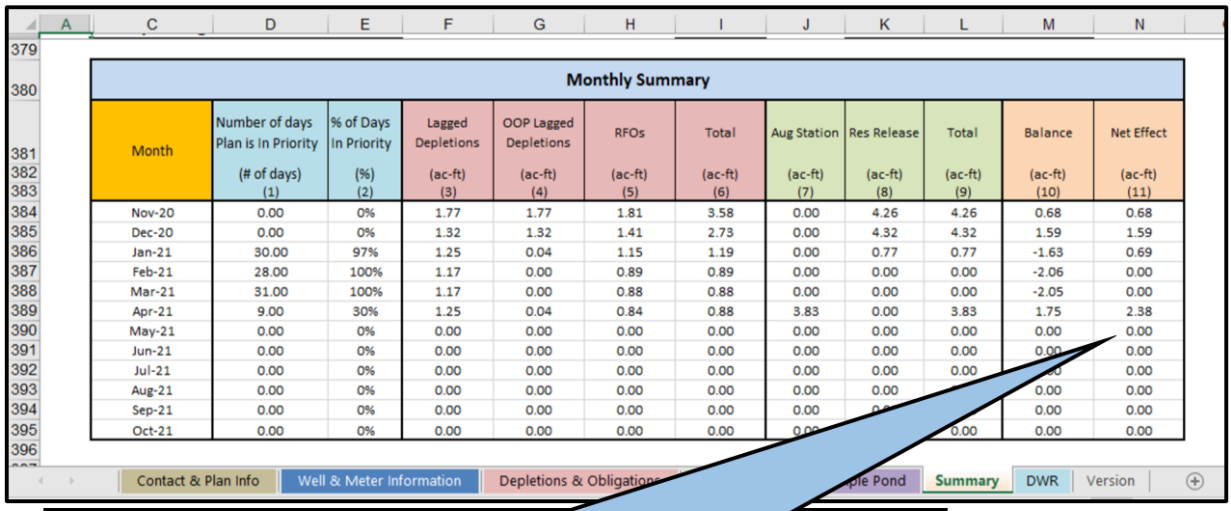
Example Aug Plan
Summary
Water Year
2021

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]	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.

April 30, 2010

Permittee Address

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: Permit Id Site Name