



COLORADO
Division of Water Resources
Department of Natural Resources

January 5, 2023

Greg Geras
Asphalt Specialties Co.
10100 Dallas St
Henderson CO 80640

**Re: Speer Mining Resources Substitute Water Supply Plan (WDID 0202629)
Speer Mining Pit, DRMS Permit No. M-1983-176 (WDID 0203059)
Section 34, T1S, R67W, 6th P.M.
Water Division 1, Water District 2, Adams County
SWSP Plan ID: 3642**

Approval Period: January 1, 2023 through December 31, 2023

Contact Information for Mr. Greg Geras: 303-289-8555 and GregG@asphaltspecialties.com

Dear Mr. Geras:

We have reviewed your letter received on November 1, 2022, requesting a renewal of the substitute water supply plan ("SWSP") for Asphalt Specialties Co., Inc. ("Asphalt Specialties" or "Applicant") at the Speer Mining Resources Pit to cover depletions from January 1 through December 31, 2023, in accordance with § 37-90-137(11), C.R.S. The required fee of \$257 for this SWSP has been received (receipt no. 10025265). The previous SWSP had an expiration date of December 31, 2022.

Plan Operation

The Speer Mining Resources Pit (WDID 0203059) is located in the S1/2 of Section 34, Township 1 South, Range 67 West of the 6th P.M. (shown on attached Figure 1). Mining at this site has been completed and the site is currently undergoing final reclamation, consisting of backfilling the pit to eliminate exposed groundwater at the site. Until the site is completely backfilled or a liner is in place, and lagged depletions have ceased, a substitute water supply plan is needed to replace depletions resulting from the exposure of groundwater to the atmosphere and operational losses. Dewatering at the site ceased in 2010, and the pit has been allowed to fill with alluvial groundwater. As of October 21, 2016 there were 10.22 acres of groundwater exposed. The Applicant has continued to backfill since then and currently there are 2 acres of ground water remaining exposed at the site (shown on attached Figure 2). The plan is to dewater the pond in the future and place a clay liner around the perimeter of the 2 acre groundwater pond. According to the information provided, it is unknown when the clay liner activities are anticipated to occur, due to the fact that Asphalt Specialties is still negotiating with the property owner as to whether the pond should be lined or backfilled.

Approval of this SWSP does not relieve the Applicant and/or landowner of the requirement to either backfilled or lined the site or 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 progress is not made in backfilling or lining the 2 acre pond by the end of the expiration date of this SWSP, an application for a plan for augmentation is required to be filed with the Water Court by December 31, 2023. Approval of this plan does not imply approval by this office of any related litigation. By that date the Applicant or its successor in ownership must have either filed an application with the Water Court for a court-approved augmentation plan or commenced backfilling of the site.

In accordance with the letter dated April 30, 2010 from the Colorado Division of Reclamation, Mining, and Safety ("DRMS"), all sand and gravel mining operators must comply with the requirements of the Colorado Reclamation Act and the Mineral Rules and Regulations for the protection of water resources. The April 30, 2010 letter from DRMS required that you provide information to DRMS to demonstrate you can replace long term injurious stream depletions that result from mining related exposure of groundwater. The DRMS letter identified four approaches to satisfy this requirement. In accordance with approach nos. 1 and 3, a bond has been obtained for \$678,169 that can cover the cost of lining or backfilling the Speer Mining Resources Pit to prevent the exposure of groundwater.

Depletions

The depletions at the site consist of evaporation from exposed groundwater. Lagged depletions resulting from the cessation of dewatering, and lagged depletions resulting from the 'first fill' accrued to the river by the end of 2014.

The current total exposed groundwater surface area at this site is 2 acres. For the purposes of this SWSP, it is assumed that the exposed groundwater at the site will remain at 2 acres. Net evaporative depletions were calculated using a gross annual evaporation of 44.5 inches from the exposed water surface, with a credit of 9.59 inches for effective precipitation. The net depletion of ground water due to evaporation from the ground water exposed at the site was calculated to be 5.82 acre-feet for 2023 as shown on the attached Table 2.

Computation of evaporation under this SWSP was reduced during the ice covered period. You have assumed the ice covered period will occur during the months of December and January based on average monthly temperatures less than 32°F taken from the Brighton 1 NE (ID 950, record 1973-2018) NOAA weather station. However, for the purpose of this SWSP, the Applicant shall replace the net evaporation depletions from the exposed groundwater surface area that may occur during the assumed ice covered period (the months of December and January) for any time that the pit is not completely covered by ice.

There are no operational losses at the site since backfill is completed and the site is in reclamation.

The Alluvial Water Accounting System ("AWAS") model was used with the alluvial aquifer boundary condition option to lag depletions to the South Platte River. The following parameters were used in the model: transmissivity (T) = 96,043.2 gallons per day per foot, distance (X) from the centroid of the surface of the exposed ground water to the river = 578 feet, distance (W) from the aquifer boundary through the exposed ground water to the river channel = 4,752 feet and specific yield (SY) = 0.2. The distance from the aquifer boundary through the exposed ground water to the river channel used in the previous SWSP was 6,800 feet, however the Applicant determined that this distance is 4,752 feet, therefore calculation of lagged depletions starting in January 2020 used a distance from the aquifer boundary through the exposed ground water to the river channel of 4,752 feet. The location of the stream depletion is assumed to be perpendicular to the river. The lagged depletions due to evaporation during the SWSP period are shown in Table 3 and are estimated to total 5.97 acre-feet in 2023.

Replacements

Out-of-priority depletions associated with the mining operation at this site will be replaced using fully consumable municipal return flows leased from the City of Aurora ("Aurora"). A copy of the lease with Aurora was provided to this office on December 1, 2022 and is attached to this letter.

Under the lease, water will be delivered to the outfall of the Robert W. Hite Treatment Facility (aka Metro Sewer, WDID 0200700) located on the South Platte River. Aurora may alternatively deliver water at other points along a reach of the South Platte River beginning at or below the Hite Treatment Facility extending downstream to where the South Platte crosses the Adams/Weld County line at 168th Avenue (aka Baseline Road). The Applicant must notify the water commissioner at least 48 hours prior to making replacement deliveries at a location other than the Hite Treatment Facility.

In order to address the availability of lease water at the Hite Treatment Facility the Applicant's obligation is to make monthly replacements as shown on Exhibit A of the attached lease, or as required by the division engineer and water commissioner make daily replacements at a fairly constant rate. There will be no daily replacement requirement so long as the monthly amount is replaced.

The Hite Treatment Facility is located approximately 10.62 miles upstream of the Speer Mining Pit. The delivery schedule includes a transit loss of 0.5% per mile (5.31% for 10.62 miles) during the months of April through October and 0.25% per mile (2.655% for 10.62 miles) during the months of November through March. Conveyance loss for delivery of augmentation water to the South Platte River is subject to assessment and modification as determined by the division engineer. Any change to the assessed conveyance loss will be communicated to the Division One Call List via email.

Under the current lease 104.25 acre-feet are scheduled to be delivered from the City of Aurora lease in 2023. The Applicant is proposing to use the additional replacement water from the current lease with Aurora for replacement of depletions at Asphalt Specialties, Chavers Mining Resources Pit (DRMS M2015-030). A SWSP for the Chavers Mining Resources was approved on June 27, 2022 and the plan is valid through July 31, 2023. The total lagged depletions at Chavers Mining Resources from August 1, 2022 through July 31, 2023 period equal to 51.20 acre-feet (Table 5 from Chavers Mining Resources SWSP). Under the current lease for the Chavers Mining Resources, 57.29 acre-feet are scheduled to be delivered from the City of Aurora lease through the end of 2022. The remaining depletions for the SWSP at the Chavers Mining Resources site will be covered by excess credits from the Aurora lease water used at the Speer Mining Resources Pit site. The attached Table 4 shows the new delivery schedule for both sites for 2023.

Conditions of Approval

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

1. This SWSP is approved with an effective date of January 1, 2023 and shall be valid through December 31, 2023 unless otherwise revoked or superseded by a 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/DRMS permit) no later than **November 1, 2023**.

2. Well permit no. 75688-F was obtained for the current use and exposed pond surface area of the gravel pit in accordance with §37-90-137(2) and (11), C.R.S.
3. The total surface area of the groundwater exposed at the Speer Pit must not exceed 2 acres for the SWSP period resulting in a maximum evaporation loss of 5.82 acre-feet. Should the total surface area exposed exceed this amount, an amendment request shall be promptly filed with this office.
4. Total consumption at the Speer Pit must not exceed the aforementioned amounts unless an amendment is made to this plan.
5. Approval of this plan is for the purposes as stated herein. This office must first approve any additional uses for which the water may be used.
6. All releases of replacement water must be sufficient to cover all out-of-priority depletions in time, place, and amount and must be made under the direction and/or the approval of the water commissioner. The release of replacement water may be aggregated to maximize beneficial use. The water commissioner and/or the division engineer shall determine the rate and timing of an aggregated release.
7. The replacement water that 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 locations.
8. The Applicant must replace all out-of-priority depletions resulting from operation under this SWSP, including those lagged deletions that occur to the stream after the expiration date of this SWSP.
9. 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. **NOTE:** Monthly accounting, even during the winter non-irrigation season, is required.

In addition, the applicant shall verify that the entities making replacements are identifying this use on their accounting submitted to our office. For the period of this plan, that entity is the City of Aurora (WDID 0802593 - Aurora Reuse).

10. 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.
11. Approval of this SWSP does not relieve the Applicant and/or landowner of the requirement to either backfilled or lined the site or 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 progress is not made in backfilling or lining the 2 acre pond by the end of the expiration date of this SWSP, an application for a plan for augmentation is required to be filed with the Water Court by December 31, 2023. Approval of this plan does not imply approval by this office of any related litigation. By that date the Applicant or its successor in ownership must have either filed an application with the Water Court for a court-approved augmentation plan or commenced backfilling of the site.

12. The Applicant shall follow the accounting protocol as referenced in the attached document for the operation of this SWSP.
13. 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 South Platte River or its tributaries. Applicant shall not receive credit for replacement of depletions to the South Platte River 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 South Platte River below such diversion structure.
14. 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.
15. 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 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. Granting of this plan does not imply approval by this office of any such court application(s). Any future SWSP request must specify the work done towards backfilling the site and identify the future plans to eliminate evaporative depletions, such as continued backfilling or lining of the site.
16. 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.
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 if this substitute water supply plan 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.

18. 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.

Please contact Ioana Comaniciu in Denver at (303) 866-3581, or Aliyah Santistevan in Greeley at (970) 352-8712, if you have any questions concerning this approval.

Sincerely,

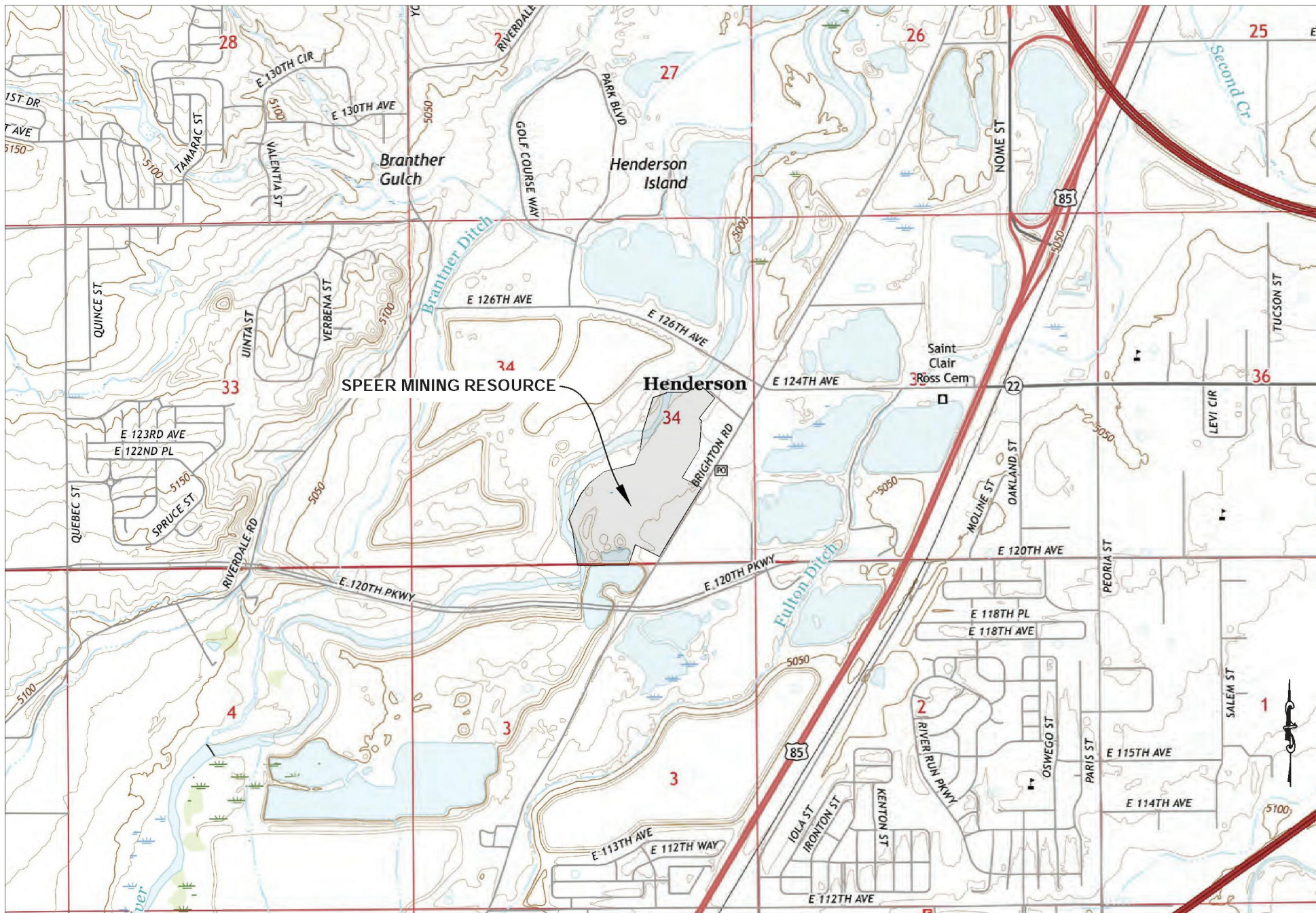
 for

Joanna Williams, P.E.
Chief of Water Supply

Attachments: Figures 1 and 2
Tables 2, 3, 4, and Table 5 from Chavers Mining Resources SWSP
City of Aurora lease
June 2022 Accounting Protocol

Ec: Aliyah Santistevan, Assistant Division Engineer, Aliyah.Santistevan@state.co.us
Jorge Vidal, Water Commissioner, Water District 2, Jorge.Vidal@state.co.us
Brent Schantz, River Operations & Compact Coordinator,
Brent.Schantz@state.co.us
Division of Reclamation Mining and Safety

JMW/idc: Speer Mining Pit 2023 SWSP.doc



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

Asphalt Specialties Co., Inc.
 10100 Dallas Street
 Henderson, CO 80640
 Phone: 303-289-8555
 Fax: 303-289-7707

**SPEER MINING RESOURCE
 TEMPORARY SUBSTITUTE WATE SUPPLY PLAN
 PLAN YEAR 2023**
 Adams County, Colorado
 DRMS Permit #: M-1983-176

**FIGURE 1
 SITE LOCATION MAP**

SCALE 1"=2,000'	DWG NO. FIGURE 1.DWG	REV.
DRAWN BY: GRG	CHECKED BY:	DATE 10/28/2022
		SHEET 1 OF 1

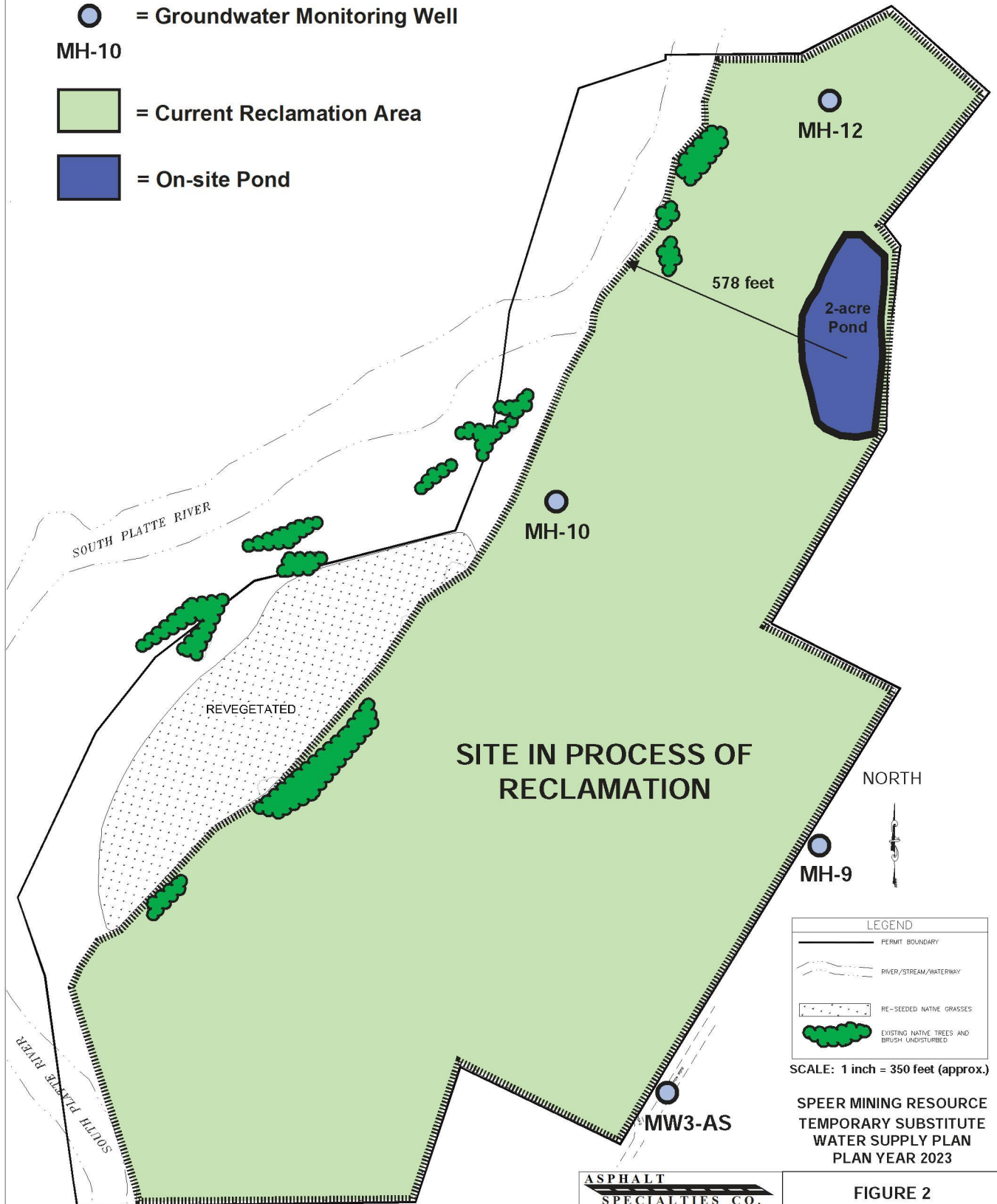
SPEER MINING RESOURCE

● = Groundwater Monitoring Well

MH-10

■ = Current Reclamation Area

■ = On-site Pond



ASPHALT
SPECIALTIES CO.
7301 East 88th Ave. • Henderson, CO 80640 • (303) 269-8558 • Fax (303) 269-7757

Date: 10/15/2022

FIGURE 2
SITE PLAN MAP

**Speer Mining Resource
SWSP Plan Year 2023**

Table 2

Free Water Surface (FWS) Evaporative Water Depletions

Evaporation Source FWS Area
On-Site Pond: 2.0 acres

Month - Year	Climate Data					Total FWS Area	Total FWS Evaporative Depletions
						Evaporative Depletion Source	
	(1) Gross FWS Evaporation [inches]	(2) Monthly Evaporation [%]	(3) Mean Precipitation [inches]	(4) Effective Precipitation [inches]	(5) Net Evaporation [inches]	(6) FWS On-site Pond Area [acre]	(7) FWS On-site Pond [acre-feet]
January - 2023	44.5	3.0%	0.43	0.30	1.04	2.0	0.17
February - 2023	44.5	3.5%	0.42	0.29	1.27	2.0	0.21
March - 2023	44.5	5.5%	1.10	0.77	1.68	2.0	0.28
April - 2023	44.5	9.0%	1.68	1.18	2.83	2.0	0.47
May - 2023	44.5	12.0%	2.45	1.71	3.63	2.0	0.61
June - 2023	44.5	14.5%	1.51	1.05	5.40	2.0	0.90
July - 2023	44.5	15.0%	1.53	1.07	5.61	2.0	0.93
August - 2023	44.5	13.5%	1.49	1.04	4.97	2.0	0.83
September - 2023	44.5	10.0%	1.07	0.75	3.70	2.0	0.62
October - 2023	44.5	7.0%	0.89	0.63	2.49	2.0	0.41
November - 2023	44.5	4.0%	0.72	0.51	1.27	2.0	0.21
December - 2023	44.5	3.0%	0.41	0.29	1.05	2.0	0.17
TOTALS:		100.0%	13.70	9.59			5.82

Notes:

- (1) = Gross free water surface evaporation from NOAA Technical Report NWS 33
- (2) = Evaporation monthly distribution for elevations below 6500 feet amsl from *General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits*.
- (3) = Mean Precipitation from BRIGHTON 1 NE Station, NOAA Data (1-1974 to 12-2020)
- (4) = Effective Precipitation = 70% Mean Precipitation per *General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits*.
= Column (3) X 0.7
- (5) = [Column (1) x Column (2)] - Column (4)
- (6) = FWS Area of On-site Pond
- (7) = [Column (5)/12] x Column (6)

**Speer Mining Resource
SWSP Plan Year 2023
Total Unlagged/Lagged Depletions**

Table 3

Category **Depletion Source(s)**
Evaporative Depletions **On-site Pond**

Month - Year	Total Unlagged Depletions	Total Lagged Depletions
	(1) On-site Pond Evaporative Depletions [acre-feet]	(2) Net Water Depletions [acre-feet]
January - 2023	0.17	0.27
February - 2023	0.21	0.27
March - 2023	0.28	0.31
April - 2023	0.47	0.43
May - 2023	0.61	0.54
June - 2023	0.90	0.75
July - 2023	0.93	0.84
August - 2023	0.83	0.80
September - 2023	0.62	0.66
October - 2023	0.41	0.50
November - 2023	0.21	0.34
December - 2023	0.17	0.26
TOTALS:	5.82	5.97

Notes:

(1) = Total Evaporative Depletions from On-site Pond
= [Table 2 - Column (7)]

(2) = Column (1) Lagged (Real Time) Stream Depletions Using AWAS

**Speer Mining Resource
SWSP Plan Year 2023**

Table 4

ASCI Replacement Water Requirements and City of Aurora Water Lease Allotments

Month - Year	Total Replacement Water Available (1) City of Aurora Lease (acre-feet)	Net Water Depletions Per Site		Total Net Water Depletions (4) Sites Combined (acre-feet)	Replacement Water Allotments Required Per Site		Total Replacement Water Required (7) Sites Combined (acre-feet)	Net Affect on South Platte River Per Site		Total Surplus Water Available (10) Monthly Volume (acre-feet)
		(2) Speer (acre-feet)	(3) Chavers ^a (acre-feet)		(5) Speer (acre-feet)	(6) Chavers (acre-feet)		(8) Speer (acre-feet)	(9) Chavers (acre-feet)	
January - 2023	5.13	0.27	2.99	3.26	0.28	4.85	5.13	0.01	1.33	0.00
February - 2023	5.18	0.27	3.10	3.37	0.28	4.90	5.18	0.00	1.26	0.00
March - 2023	5.61	0.31	3.28	3.59	0.31	5.30	5.61	0.00	1.44	0.00
April - 2023	7.30	0.43	3.90	4.33	0.45	6.85	7.30	0.00	2.20	0.00
May - 2023	8.87	0.54	4.46	5.00	0.57	8.30	8.87	0.00	2.93	0.00
June - 2023	11.29	0.75	5.12	5.87	0.79	10.50	11.29	0.00	4.23	0.00
July - 2023	12.59	0.84	5.61	6.45	0.89	11.70	12.59	0.00	4.80	0.00
August - 2023	12.34	0.80	TBD	TBD	0.84	TBD	TBD	0.00	TBD	11.50
September - 2023	10.80	0.66	TBD	TBD	0.70	TBD	TBD	0.00	TBD	10.10
October - 2023	9.07	0.50	TBD	TBD	0.52	TBD	TBD	0.00	TBD	8.55
November - 2023	8.94	0.34	TBD	TBD	0.34	TBD	TBD	0.00	TBD	8.60
December - 2023	7.13	0.26	TBD	TBD	0.28	TBD	TBD	0.01	TBD	6.85
TOTALS:	104.25	5.97			6.25					45.60

Notes:

(1) = Replacement Water Volumes from new lease with City of Aurora

(2) = Speer Net Water Depletions from Table 3 - Column (2)

(3) = Chavers Net Water Depletions from 2022 - 2023 SWSP

(4) = Combined Lagged Depletions from all ASCI mines (as available)

= [Column (2) + Column (3)]

(5) = Speer Replacement Water Allotments Required

(6) = Chavers Replacement Water Allotments Required

(7) = Combined Replacement Water Volumes Required from all ASCI mines (as available)

(8) = Net Effect on South Platte River at Speer Mine

 = [Column (5) x 0.974] - Column (2)

Transit Loss = 0.25% x 10.62 miles = 0.026 (2.6%)

 = [Column (5) x 0.947] - Column (2)

Transit Loss = 0.5% x 10.62 miles = 0.053 (5.3%)

(9) = Net Affect on South Platte River at Chavers Mine (Transit Loss = 11%)

= [Column (6) x 0.89] - Column (3)

(10) = Replacement Water Available for Chavers Mine through December 2023

= January through July 2023: Column (1) - [Column (5) + Column (6)]

= August through December 2023: Column (1) - Column (5)

^a = Values from Chavers 2022 - 2023 SWSP valid through July 31, 2023

TBD = To Be Determined

**Chavers Mining Resource
SWSP Plan Year 2022 - 2023**

Table 5

ASCI Replacement Water Requirements and City of Aurora Water Lease Allotments

Month - Year	City Of Aurora Replacement Water Lease 2022 - 2026 ^a	Total Replacement Water Allotments Per Site		Required Lagged Replacement Water Volumes Per Site		Net Affect on River Per Site	
	(1) 2022 - 2023 Monthly Volumes ^b (acre-feet)	(2) Chavers (acre-feet)	(3) Speer (acre-feet)	(4) Chavers (acre-feet)	(5) Speer (acre-feet)	(6) Chavers (acre-feet)	(7) Speer (acre-feet)
August - 2022	14.72	13.37	1.35	5.76	1.28	6.14	0.00
September - 2022	13.79	12.67	1.12	5.17	1.06	6.11	0.00
October - 2022	12.18	11.35	0.83	4.75	0.80	5.35	0.00
November - 2022	11.69	11.14	0.55	4.02	0.53	5.89	0.00
December - 2022	9.01	8.76	0.25	3.04	0.24	4.76	0.00
January - 2023	5.00	4.85	0.15	2.99	0.15	1.33	0.00
February - 2023	5.00	4.66	0.34	3.10	0.33	1.05	0.00
March - 2023	5.00	4.55	0.45	3.28	0.44	0.77	0.00
April - 2023	6.00	5.31	0.69	3.90	0.65	0.83	0.00
May - 2023	6.50	5.61	0.89	4.46	0.84	0.53	0.00
June - 2023	7.50	6.24	1.26	5.12	1.20	0.43	0.00
July - 2023	8.00	6.58	1.42	5.61	1.34	0.25	0.00
TOTALS:	104.39	95.09	9.30	51.20	8.86	33.43	0.00

Notes:

^a = City of Aurora Water Lease extentions available through 12/31/2026

^b = Monthly volumes through 2022. Minimum monthly volumes to be requested for 2023 (submitted by 10/31 the year prior)

(1) = Monthly lease replacement water volume

(2) = Replacement Water Allotments for Chavers Site

(3) = Replacement Water Allotments for Speer Site

(4) = Net Water Depletions for Chavers Site

= [Table 4 - Column (7)]

(5) = Net Water Depletions for Speer Site

(6) = Net Affect on River at Chavers Site

= [Column (2) * 0.89] - Column (4)

Transit Loss = 0.11 (11%)

Positive Value = Stream Accretion

(7) = Net Affect on River at Speer Site



Water Administration
15151 E. Alameda Parkway, Suite 3600
Aurora, Colorado 80012
303.739.7370

RCVD DWR
12/01/2022

November 30, 2022

Mr. Daniel W. Hunt
Asphalt Specialties Co. Inc.
10100 Dallas Street
Henderson, CO 80640

Re: Agreement for Delivery of Reusable Raw Water

Dear Mr. Hunt:

This letter provides the City of Aurora's consent to continue the above-referenced agreement between the City of Aurora and Asphalt Specialties Co. Inc., dated December 9, 2021 ("Agreement") for an additional Lease Year (January 1, 2023 through December 31, 2024) for delivery of water pursuant to the Delivery Schedule attached to this letter. This consent is in response to the request from Greg Geras Land Resource Manager Asphalt Specialties Co., Inc., requesting said continuance pursuant to the attached Delivery Schedule that modifies the original Delivery Schedule.

Extension of the Agreement for additional Lease Years is permitted under Paragraph 1 of the Agreement. Further, the Delivery Schedule for water under the Agreement may be modified and replaced pursuant to Paragraph 2 of the Agreement. The modified Delivery Schedule attached to this letter replaces the Delivery Schedule attached as Exhibit A to the Agreement. The Effective Date of the Agreement for the purposes of this additional Lease Year is the date of this letter. All other terms of the Agreement remain unchanged, and in full force and effect.

If you have any questions concerning this letter, please do not hesitate to contact John Murphy at the above telephone number.

Sincerely,

Dawn M. Jewell
South Platte Basin Water Resources Supervisor
City of Aurora, Colorado

Cc: Greg Geras
John Murphy

Agreement for Lease of Firm Delivery of Reclaimed Wastewater

Exhibit A
Delivery Schedule

Calendar Year 2023

(Acre-Feet)

Month	<u>Delivery Schedule AF</u>
January	5.13
February	5.18
March	5.61
April	7.30
May	8.87
June	11.29
July	12.59
August	12.34
September	10.80
October	9.07
November	8.94
December	7.13
Annual Total	104.25



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.

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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. Reading³ [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 reset⁴, 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

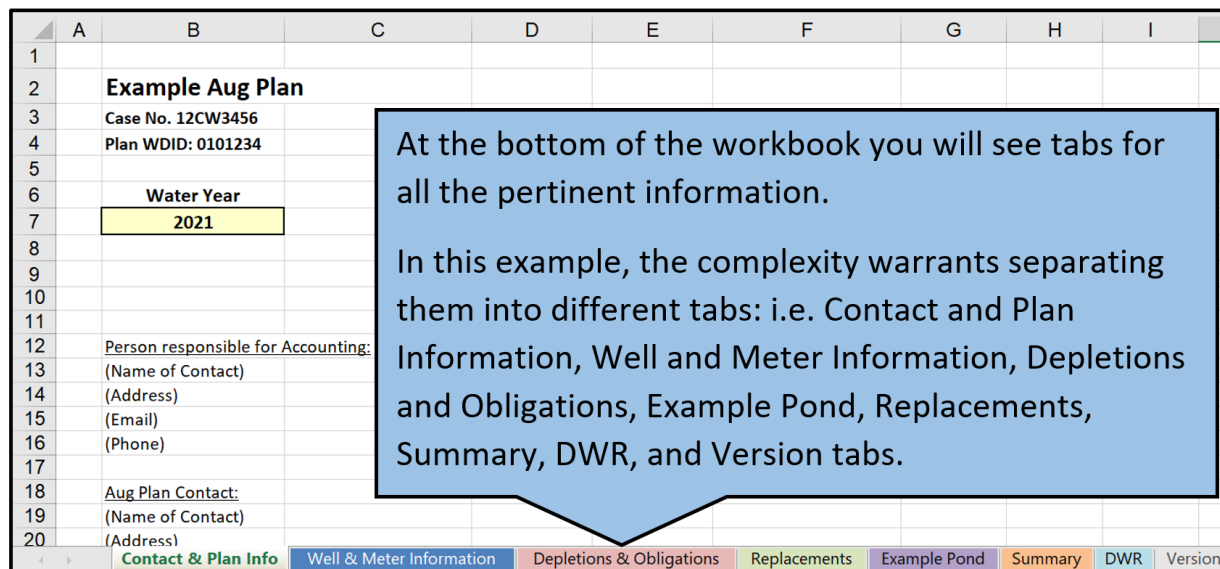
time period, resulting in more than 12 months of data being reported.

- 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)

The accounting should be titled with the Aug Plan Name, Aug Plan Water Court Case No(s) and Plan WDID. Contact your local DWR office for help obtaining any of this information.

A color legend that includes any relevant cell shading and conditional formatting.

Example Aug Plan
Case No. 12CW3456
Plan WDID: 0101234

Water Year
2021

Cell Fill Color Legend
Yellow Indicates Input Cells
Orange Indicates Data Error
Red Indicates Operational Violation
Grey Indicates Cells Not In Use

Person responsible for Accounting:
(Name of Contact)
(Address)
(Email)
(Phone)

Aug Plan Contact:
(Name of Contact)
(Address)
(Email)
(Phone)

Plan Attorney Contact:
(Name of Contact)
(Address)
(Email)
(Phone)

This tab should also include the contact information for the Aug Plan. This may include the Plan Owner, Plan Operator, Person responsible for submitting the accounting and the Plan attorney.

Any other static information that may be helpful can be added to this tab. This may include Decreed rates or volumes, Appropriation/Adjudication dates, Administration numbers, schematics, etc.

Decreed Water Rights & Replacement Sources				
Case No.	Right Name	Adj Date	Appr Date	Admin No
12CW3456	Example Aug Plan		12/31/2012	59535.00000
12CW3456	Example Pond		8/10/2012	59392.00000
W1717	Well 1	12/31/1972	12/31/1940	33237.00000
W1717	Well 2	12/31/1972	7/26/1959	40018.00000

Navigation tabs: Contact & Plan Info, Well & Meter Information, Depletions & Obligations, Replacements, Example Pond, Summary, DWR, Version

c. (Well & Meter Information)

	A	B	C	D	E	F	G	H	I
1	Example Aug Plan								
2	Well & Meter Information								
3	Water Year								
4	2021								
5									
6	Well Information								
7	Name	Well 1	Well 2						
8	WDID	0104567	0105678						
9	Permit No.	12345F	12346FR						
10	Owner	John Brown	Jane Smith						
11	Contact	123 Fake St. Springfield CO 80123	124 Fake St. Springfield CO 80123						
12	Meter Information								
13	Make	McCrometer	McCrometer						
14	Model	MO310	MO306						
15	Serial Number	9-8-RC263N	15-08090-6						
16	Correction Factor	0.931	1						
17	Multiplier	0.001	0.001						
18	Units	acre-feet	acre-feet						
19									
20									
21	* Owner and Contact info is not needed here if the wells are owned by the owner of the plan.								
22									
23									
24									
25									
26									
27									
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99									
100									

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.

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

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 depletions.

	A	B	C	D	E	F	G	H	I	J
1		Example Aug Plan								
2		Depletions & Obligations								
3		Water Year								
4		2021								
5										
6		Meter Readings (EOM)								
7										
8		Month	Well 1	Reading	Well 2	Reading				
9			0104567	Type	0105678	Type				
10			(af)		(af)					
11		10	124651	Actual	133356	Actual				
12		11	124653	Actual	133358	Actual				
13		12	124655	Calculated	133360	Calculated				
14		1	124657	Actual	133362	Actual				
15		2	124659	Actual	133364	Actual				
16		3	124661	Actual	133366	Actual				
17		4	124663	Actual	133368	Actual				
18		5		"		"				
19		6		"		"				
20		7		"		"				
		Contact & Plan Info		Well & Meter Information		Depletions & Obligations		Replacements		Example Pond

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.

e. (Depletions & Obligations)

	A	B	C	D	E	F	G	H	I	J	K	L
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23		10		"		"						
		Contact & Plan Info		Well & Meter Information		Depletions & Obligations		Replacements		Example Pond	Summary	DWR

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	Well 2		
	0104567	0105678		
	(af)	(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				

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

5	E	F	G	H	I	J	K	L	M	N	O	P	Q	R				
6	EOM)		Well Pumping				URF				Lagged Depletions							
7			Multiplier	0.001	0.001													
8	Well 2	Reading Type	Correction Factor	0.931	1		Previous Year Pumping				10.00	10.00						
9	0105678				Well 1	Well 2												
10	(af)		Month	0104567	(af)	0105678	Month				Well 1	Well 2						
11	133356	Actual	(af)				(af)				0104567	0105678	(af)					
12	133358	Actual		11	0.00186	0.00200	11				0.0887		11	0.88700	0.75300			
13	133360	Calculated		12	0.00186	0.00200	12				0.0660	0.505	12	0.66000	0.50500			
14	133362	Actual		1	0.00186	0.00200	1					0.0396	1	0.62300	0.39600			
15	133364	Actual		2	0.00186	0.00200	2					0.0334	2	0.58500	0.33400			
16	133366	Actual		3	0.00186	0.00200	3					0.0294	3	0.58500	0.29400			
17	133368	Actual		4	0.00186	0.00200	4					0.0340	4	0.62300	0.34000			
18		"		5			5					0.0628	5	0.69800	0.62800			
19		"		6			6					0.0628	6	0.81100	1.07000			
20		"		7			7					0.1070	7	1.13200	1.47800			
21		"		8			8					0.1478	8	1.30200	1.63500			
22		"		9			9					0.1635	9	1.07500	1.45400			
23		"		10			10					0.1454	10	1.01900	1.11300			
	Contact & Plan Info		Well & Meter Information				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					Return Flow Obligations		
	Well 1	Well 2	Well 1 Out-of-Priority	Well 2 Out-of-Priority	Total Out-of-Priority	Subsurface RFO		
	0104567 (cfs)	0104567 (cfs)	0105678 (cfs)	0105678 (cfs)	(cfs)	(cfs)	(cfs)	(cfs)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(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

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

h. (Replacements)

	A	B	C	D	E	F	G	H	I	J	K
1	Example Aug Plan										
2	Replacements										
3	Water Year										
4	2021										
5											
6	DATE	Previous Year's Total	Example Aug Station			Pond Release			Total		
7		131									
8		Diversion of Changed Shares	Total Through Structure	Transit Loss	Credit at Reach	Release For Aug	Transit Loss	Credit at Reach	Total Aug Credits		
9			0102345			0103456					
10		(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)		
11		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
162	3/31/2021					0.00	0.00	0.000	0.000		
163	4/1/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097		
164	4/2/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097		
165	4/3/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097		
166	4/4/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097		
167	4/5/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097		
168	4/6/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097		
169	4/7/2021	0.10	0.10	0.00	0.10	0.00	0.00	0.000	0.097		
					</						

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				Replacements			Balance (cfs) (10)	Net Effect (cfs) (11)
			Lagged Depletions	OOP Lagged Depletions	RFOs	Total	Aug Station	Pond Release	Total Credits		
			(cfs) (3)	(cfs) (4)	(cfs) (5)	(cfs) (6)	0102345 (cfs) (7)	0103456 (cfs) (8)	(cfs) (9)		
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	0.06	0.00	0.06
11/20/2020	99999.00000	y	0.03	0.00	0.03	0.03	0.00	0.06	0.06	0.00	0.06
11/21/2020	99999.00000	y	0.03	0.00	0.03	0.03	0.00	0.05	0.05	-0.01	0.05
11/22/2020	21698.00000	n	0.03	0.03	0.03	0.06	0.00	0.05	0.05	-0.01	-0.01

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	0.00	0.00
Aug-21	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sep-21	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct-21	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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.