



December 13, 2023

Greg Geras, Land Resource Manager  
Asphalt Specialties Co.  
10100 Dallas St  
Henderson, CO 80640

**Re: Turnpike Mining Resource Substitute Water Supply Plan (WDID 0602547)**  
**DRMS File No. M-2004-009 (0603016)**  
Part of Section 31, Twp. 2N, Rng. 68W, 6<sup>th</sup> P.M., Weld County  
Water Division 1, Water District 6  
SWSP ID: 4644

**Approval Period: January 1, 2024 through December 31, 2024**  
*Contact Information for Greg Geras: 303-289-8555 and [GregG@asphaltspecialties.com](mailto:GregG@asphaltspecialties.com)*

Dear Greg Geras:

This letter is in response to the November 1, 2023 renewal request and the November 7, 2023 amended renewal request for the above-referenced substitute water supply plan ("SWSP") for a sand and gravel pit operated by Asphalt Specialties Co., Inc. ("ASCI" or "Applicant") in accordance with section 37-90-137(11), C.R.S. The required fee of \$257.00 for the renewal of this substitute supply plan ("SWSP") has been submitted (receipt no. 10032649). This plan was originally approved in 2006 and was most recently approved on February 24, 2023.

### **SWSP Operations**

This plan seeks to replace depletions resulting from mining at the Turnpike Mining Resource Gravel Pit ("Turnpike Pit"). The site is located in Section 31, Township 2 North, Range 68 West, 6<sup>th</sup> P.M. at 599 Highway 52. Sand and gravel extraction has ceased at the site as of October 2022. No sand and gravel extraction are anticipated during 2024. The Applicant may decide to backfill portions of the site or continue mining at a future date. Cell 1 has been reclaimed and been released from bonding as a reservoir. Cells 2 through 6 are currently being reclaimed to return the site to agricultural use and are bonded to cover reclamation activities. Depletions which occur during this SWSP are evaporation and lagged depletions from past operations. Replacement water will be obtained through leasing fully consumable replacement water from the Town of Erie.

In accordance with the letter dated April 30, 2010 (attached) from the Colorado Division of Reclamation, Mining, and Safety ("DRMS"), all sand and gravel mining operators must comply with the requirements of the Colorado Reclamation Act and the Mineral Rules and Regulations for the protection of water resources. The April 30, 2010 letter from DRMS requires that 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. The DRMS letter identifies four approaches to satisfy this requirement. **In accordance with approach nos. 1 and 3, the Applicant has indicated that a bond has been obtained for \$1,114,000.00 through the DRMS for lining of this site to assure that depletions from groundwater evaporation do not occur in the unforeseen event(s) that would lead to the abandonment of the pit.**



## Depletions

Depletions which occur during this SWSP are evaporation and lagged depletions from past operations. No dewatering will occur during this SWSP. Evaporative depletions at the site occur from within Cells 2A, 2B, 3, 4, 5 and 6 summarized in Table A below. The Applicant proposes to replace evaporation from exposed groundwater at the site based upon evaporation atlases in NOAA Technical Report NWS 33 and the SEO monthly distribution factors for sites below 6,500 feet, as shown in Tables 1 and 2 (attached). Gross annual evaporation at the gravel pit location is estimated to be 39 inches per year. Net evaporation is defined as gross evaporation less the consumptive use of water by vegetation that naturally occurred at the site prior to construction of the pit. The historical consumptive use was assumed to be equal to the effective precipitation, which was estimated based on the data from the Longmont South NCWCD weather station (record 1994-2018).

*Table A. Summary of Evaporative Depletions.*

	Cells 2A & 2B	Cell 3	Cell 4	Cells 5 and 6	Total
Area (acres)	4.0	4.5	2.93	3.8	15.23
Unlagged Depletions	10.01	11.26	7.33	9.51	38.10

Total evaporative depletions are estimated at **38.10 acre-feet** during this SWSP period, as shown on Table 2 (attached).

## Lagged Depletions

The IDS AWAS stream depletion model was used to determine the lagged depletions from evaporation and past operations (including dewatering in Cell 3). The aquifer characteristics used in the model are as shown in the following Table B using the alluvial aquifer boundary condition.

*Table B: IDS AWAS Parameters and Lagged Depletions from Operations.*

Cell	Transmissivity (gpd/ft)	Specific Yield (%)	W, distance to boundary (ft)	X, distance to stream (ft)	Lagged Depletions (acre-feet)
2A and 2B	44,883	20	3,400	3,050	10.08
3 Operations	44,883	20	3,400	650	10.56
3 Dewatering*	44,883	20	3,400	1,065	0.03
4 Operations	44,883	20	1,350	275	7.32
5 & 6 Operations	44,883	20	1,350	600	9.46

\*The total remaining lagged dewatering depletions from Cell 3 during 2024 is 0.03 acre-feet. There are no more lagged depletions from previous dewatering of Cells 4, 5, and 6

The total lagged depletions for 2024 are equal to **37.45 acre-feet** (Table 3, attached). For purposes of this SWSP, the point of depletion for the gravel mining operation shall be on Boulder Creek where Boulder Creek crosses the north line of Section 31, Township 2 North, Range 68 West, 6<sup>th</sup> P.M.

## Replacements

Replacement water will be obtained through leasing fully consumable replacement water from the Town of Erie ("Erie"). According to the lease dated December 5, 2023 between Erie and the Applicant, Erie will lease 39.15 acre-feet of effluent derived from Erie's Windy Gap Project Units obtained from the Northern Water Conservancy District to be delivered during this SWSP period. Such water will be delivered to the Town of Erie's North Water Reclamation Facility (WDID 0602308) where it discharges to Boulder Creek. The

Town of Erie's North Water Reclamation Facility is located in Section 31, Township 2 North, Range 68 West, 6<sup>th</sup> P.M., therefore no transit losses are assessed for this replacement source.

### **Conditions of Approval**

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

1. This SWSP shall be valid for the period of **January 1, 2024 through December 31, 2024**, 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, 2024**. 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. Well Permit 82220-F has been issued for this pit, in accordance with section 37-90-137(2), C.R.S. The permit covers up to 8 acres of exposed surface area and allows for annual water uses of up to 25.81 acre-feet for evaporation losses, water lost with the mined product, and dust control. Actual depletions cannot exceed these amounts and are limited to those uses specifically approved through this SWSP. **A new well permit must be obtained for the pit in accordance with section 37-90-137(2), C.R.S., and this SWSP in order to allow the requested exposed surface area and evaporative depletions.** Any application will be evaluated subsequent to approval of this SWSP. The provisions of section 37-90-137(2), C.R.S., prohibit the issuance of a permit for a well to be located within 600 feet of any existing well, unless the State Engineer finds that circumstances so warrant after a hearing in accordance with the procedural rules in 2CCR402-5. The hearing will be waived if you are able to obtain statements from the owners of all wells within 600 feet, verifying that they have no objection to your use of the proposed well. **This SWSP may only be operated for the proposed exposed surface area and evaporative depletions if a permit allowing such uses is obtained.**
3. The total surface area of the groundwater exposed at the Turnpike Mining Resource site must not exceed an area of **15.23 acres which results in an annual depletion of 38.10 acre-feet**. Total consumption at the Turnpike Mining Resource site must not exceed these aforementioned amounts unless an amendment is made to this SWSP.
4. Approval of this SWSP is for the purposes as stated herein. This office must first approve any additional uses for the water. Any future additional historical consumptive use credit given (e.g., agricultural water transfer) for this site must consider all previous credits given.
5. The replacement water that is the subject of this SWSP cannot be sold or leased to any other entity. As a condition of subsequent renewals of this SWSP, 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.
6. 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 entity making replacements has included the Applicant on their accounting and submitted their accounting to the Division Office and the Water Commissioner. For this SWSP, that entity is the City of Erie.

7. The Applicant shall refer to the *Augmentation Plan Accounting* or any other applicable protocols as referenced in the attached documents for information regarding the operation of this SWSP.
8. 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.
9. Conveyance loss for delivery of augmentation water to the point of depletion on the South Platte River is subject to assessment and modification as determined by the Division Engineer.
10. In accordance with the letter dated April 30, 2010 (copy attached) from the Colorado Division of Reclamation, Mining, and Safety ("DRMS"), all sand and gravel mining operators must comply with the requirements of the Colorado Reclamation Act and the Mineral Rules and Regulations for the protection of water resources. The April 30, 2010 letter from DRMS requires that you provide information to DRMS to demonstrate you can replace long term injurious stream depletions that result from mining related exposure of groundwater. The DRMS letter identifies four approaches to satisfy this requirement.

In accordance with approach nos. 1 and 3, the applicant has indicated that a bond has been obtained for \$1,114,000.00 through the DRMS for lining of this site to assure that depletions from groundwater evaporation do not occur in the unforeseen event or events that would lead to the abandonment of the Pit.

11. All releases of replacement water must be sufficient to cover all out-of-priority depletions in time, place, and amount and be made under the direction and/or approval of the Water Commissioner (including the proposed aggregated replacement for winter depletions).
12. The approval of this SWSP does not relieve the Applicant and/or landowner of the requirement to obtain a Water Court decree approving a permanent plan for augmentation or mitigation to ensure the permanent replacement of all depletions, including long-term evaporation losses and lagged depletions after gravel mining operations have ceased. If reclamation of the mine site will produce a permanent water surface exposing groundwater to evaporation, an application for a plan for augmentation must be filed with the Division 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.
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 or its tributaries. Applicant shall not receive credit for replacement of depletions to the South Platte 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 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. The State Engineer may revoke this SWSP or add additional restrictions to its operation if at any time the State Engineer determines that injury to other vested water rights has occurred or will occur as a result of the operation of this SWSP. Should this SWSP expire without renewal or be revoked prior to adjudication of a permanent plan for augmentation, all excavation of the product from below the water table, and all other use of water at the pit, must cease immediately.
16. 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.
17. 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.
18. 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.
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 SWSP. This decision shall not bind the State Engineer to act in a similar manner in any other applications involving other plans or in any proposed renewal of this plan, and shall not imply concurrence with any findings of fact or conclusions of law contained herein, or with the engineering methodologies used by the Applicant.

If you have any questions concerning this approval, please contact Wenli Dickinson in Denver at (303) 866-3581 x8206 or Michael Hein in Greeley at (970) 352-8712 x1219.

Sincerely,

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

Attachments: Figures & Tables  
City of Erie Lease  
Administration Protocol "Augmentation Plan Accounting" for Division 1  
Letter from DRMS dated April 30, 2010

cc: Michael Hein, Assistant Division Engineer, [Michael.Hein@state.co.us](mailto:Michael.Hein@state.co.us)  
Dawn Ewing, Accounting Coordinator, [Dawn.Ewing@state.co.us](mailto:Dawn.Ewing@state.co.us)  
Jason Smith, Tributary Operations Coordinator, [Jason.Smith2@state.co.us](mailto:Jason.Smith2@state.co.us)  
Will Horan, District 6 Water Commissioner, [William.Horan@state.co.us](mailto:William.Horan@state.co.us)  
Louis Flink, Tabulations/Diversion Records Coordinator, [Louis.Flink@state.co.us](mailto:Louis.Flink@state.co.us)  
Division of Reclamation Mining and Safety, [dnr\\_drmsminadmin@state.co.us](mailto:dnr_drmsminadmin@state.co.us)

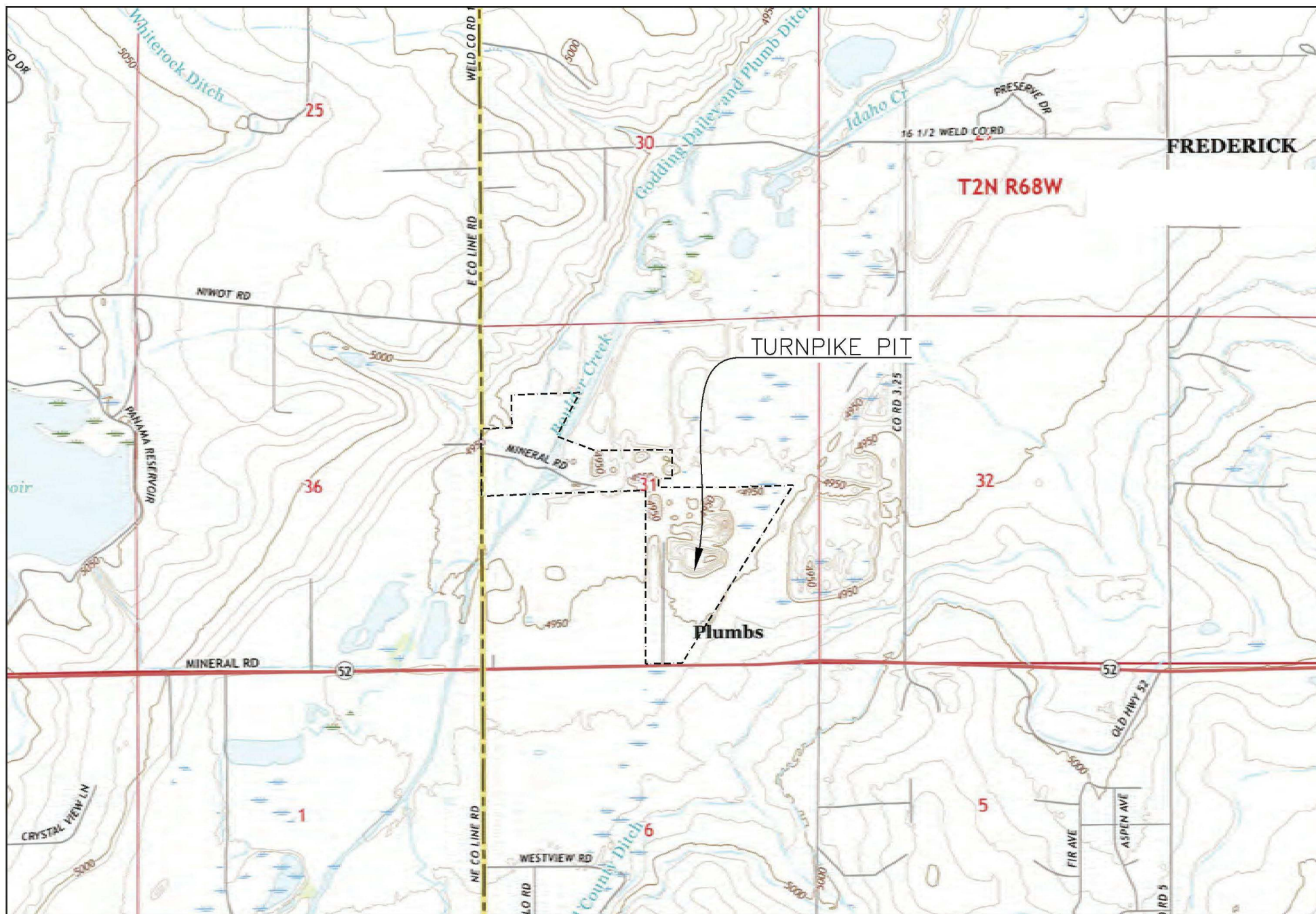
JMW/idc/wad: 2024 Turnpike Renewal Approval.docx

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## FIGURES

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

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

**TURNPIKE MINING RESOURCE  
 TEMP. SUBSTITUTE WATER SUPPLY PLAN  
 PLAN YEAR 2024**

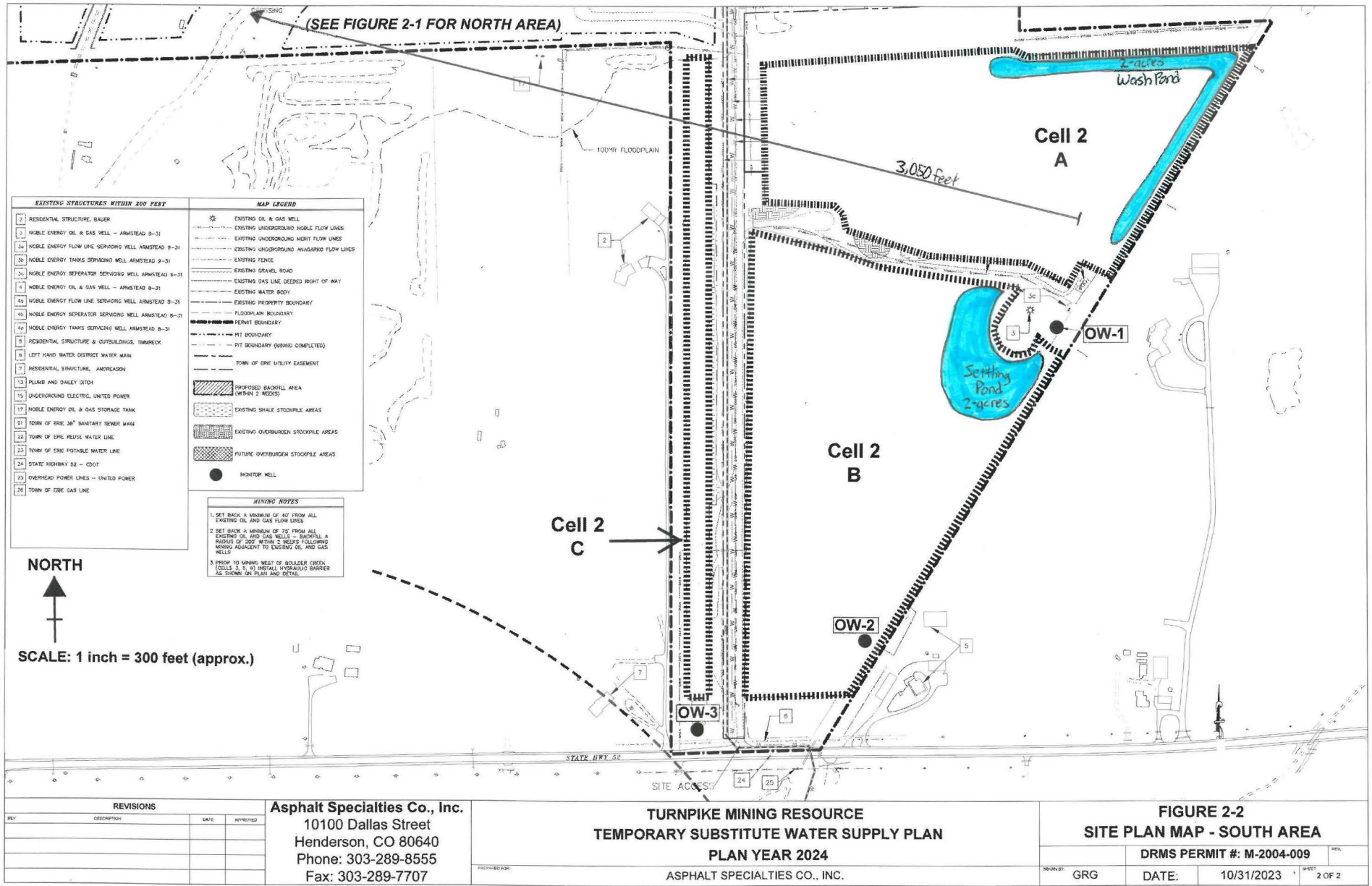
PREPARED FOR: ASPHALT SPECIALTIES CO., INC

**FIGURE 1  
 SITE LOCATION MAP**

SCALE 1"=2000'	DWG NO. FIGURE 1.DWG	REV.
DRAWN BY: GRG	CHECKED BY:	DATE 10/31/2023
		SHEET 1 OF 1







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## TABLES

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**Turnpike Mining Resource  
SWSP Plan Year 2024  
Mean Climate Data**

**Table 1**

Month	Mean Temperature 1994 - 2016 <sup>a</sup> [°F]	Mean Precipitation 1994 - 2018 <sup>b</sup> [inches]
January	31.29	0.41
February	32.71	0.44
March	41.34	0.88
April	47.47	1.92
May	56.35	2.27
June	66.54	1.30
July	72.13	1.08
August	70.32	1.05
September	62.06	1.40
October	49.94	1.07
November	38.97	0.61
December	30.38	0.40

**Notes:**

<sup>a</sup> = From DWR: LONGMONT SOUTH Station, NCWCD Data (1-1994 to 5-2016)

<sup>b</sup> = From DWR: LONGMONT SOUTH Station, NCWCD Data (1-1994 to 12-2018)



**Turnpike Mining Resource**  
**SWSP Plan Year 2024**  
**Free Water Surface (FWS) Evaporative Water Depletions**

**Table 2**

**FWS Sources**      **Maximum FWS Area**  
Cells 5 & 6:      3.80 acres  
Cell 4:            2.93 acres  
Cell 3:            4.50 acres  
Cells 2A & 2B:    4.00 acres

Month - Year	Climate Data					Total FWS Area				FWS Net Evaporation				Total Evaporative Depletions
	(1) Gross FWS Evaporation [inches]	(2) Monthly Evaporation [%]	(3) Mean Precipitation [inches]	(4) Effective Precipitation [inches]	(5) Net Evaporation [inches]	(6) Cells 5 & 6 [acre]	(7) Cell 4 [acre]	(8) Cell 3 [acre]	(9) Cells 2A & 2B [acre]	(10) Cells 5 & 6 [acre-feet]	(11) Cell 4 [acre-feet]	(12) Cell 3 [acre-feet]	(13) Cells 2A & 2B [acre-feet]	(14) Sum of Water Evaporated [acre-feet]
January - 2024	39	3.0%	0.41	0.29	0.88	3.80	2.93	4.50	4.00	0.28	0.22	0.33	0.29	1.12
February - 2024	39	3.5%	0.44	0.31	1.06	3.80	2.93	4.50	4.00	0.33	0.26	0.40	0.35	1.34
March - 2024	39	5.5%	0.88	0.62	1.53	3.80	2.93	4.50	4.00	0.48	0.37	0.57	0.51	1.94
April - 2024	39	9.0%	1.92	1.34	2.17	3.80	2.93	4.50	4.00	0.69	0.53	0.81	0.72	2.75
May - 2024	39	12.0%	2.27	1.59	3.09	3.80	2.93	4.50	4.00	0.98	0.75	1.16	1.03	3.92
June - 2024	39	14.5%	1.30	0.91	4.75	3.80	2.93	4.50	4.00	1.50	1.16	1.78	1.58	6.02
July - 2024	39	15.0%	1.08	0.76	5.09	3.80	2.93	4.50	4.00	1.61	1.24	1.91	1.70	6.47
August - 2024	39	13.5%	1.05	0.74	4.53	3.80	2.93	4.50	4.00	1.43	1.11	1.70	1.51	5.75
September - 2024	39	10.0%	1.40	0.98	2.92	3.80	2.93	4.50	4.00	0.92	0.71	1.10	0.97	3.71
October - 2024	39	7.0%	1.07	0.75	1.98	3.80	2.93	4.50	4.00	0.63	0.48	0.74	0.66	2.51
November - 2024	39	4.0%	0.61	0.43	1.13	3.80	2.93	4.50	4.00	0.36	0.28	0.42	0.38	1.44
December - 2024	39	3.0%	0.40	0.28	0.89	3.80	2.93	4.50	4.00	0.28	0.22	0.33	0.30	1.13
<b>TOTALS:</b>		<b>100.0%</b>	<b>12.83</b>	<b>8.98</b>						<b>9.51</b>	<b>7.33</b>	<b>11.26</b>	<b>10.01</b>	<b>38.10</b>

**Notes:**

(1) = Gross free water surface evaporation from NOAA Technical Report NWS 33 *ice* verified by temperature data from LONGMONT SOUTH Station, NCWCD Data (1-1994 to 5-2016)]

(2) = Evaporation monthly distribution for elevations below 6500 feet msl from *General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pit*:

(3) = Mean Precipitation from LONGMONT SOUTH Station, NCWCD Data (1-1994 to 12-2018)

(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) = Cell 5 & 6 FWS Area

(7) = Cell 4 FWS Area

(8) = Cell 3 FWS Area

(9) = Cell 2A & 2B Wash Pond FWS Area + Settling Pond FWS Area

(10) = [Column (5)/12] x Column (6)

(11) = [Column (5)/12] x Column (7)

(12) = [Column (5)/12] x Column (8)

(13) = [Column (5)/12] x Column (9)

(14) = Column (10) + Column (11) + Column (12) + Column (13)

Table 3

**Turnpike Mining Resource**  
**SWSP Plan Year 2024**  
**Unlagged/Lagged Source Depletions**

<u>Location</u>	<u>Depletion Source(s)</u>
Cells 5 & 6	FWS Evaporative Depletions
Cell 4	FWS Evaporative Depletions
Cell 3	FWS Evaporative Depletions
Cells 2A & 2B	FWS Evaporative Depletions

Month - Year	Unlagged Source Depletions				Lagged Source Depletions					Net Water Depletions
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Cells 5 & 6 [acre-feet]	Cell 4 [acre-feet]	Cell 3 [acre-feet]	Cells 2A & 2B [acre-feet]	Cell 5 & 6 [acre-feet]	Cell 4 [acre-feet]	Cell 3 [acre-feet]	Cell 3 Dewater* [acre-feet]	Cells 2A & 2B [acre-feet]	Sum of Lagged Source Depletions [acre-feet]
January - 2024	0.28	0.22	0.33	0.29	0.27	0.22	0.37	0.01	0.87	1.73
February - 2024	0.33	0.26	0.40	0.35	0.31	0.25	0.41	0.01	0.77	1.73
March - 2024	0.48	0.37	0.57	0.51	0.40	0.34	0.49	0.00	0.69	1.93
April - 2024	0.69	0.53	0.81	0.72	0.56	0.48	0.64	0.00	0.64	2.33
May - 2024	0.98	0.75	1.16	1.03	0.80	0.68	0.86	0.00	0.64	2.98
June - 2024	1.50	1.16	1.78	1.58	1.19	1.03	1.24	0.00	0.68	4.15
July - 2024	1.61	1.24	1.91	1.70	1.47	1.19	1.50	0.00	0.78	4.94
August - 2024	1.43	1.11	1.70	1.51	1.48	1.13	1.51	0.00	0.92	5.05
September - 2024	0.92	0.71	1.10	0.97	1.19	0.82	1.25	0.00	1.03	4.30
October - 2024	0.63	0.48	0.74	0.66	0.85	0.57	0.98	0.00	1.07	3.47
November - 2024	0.36	0.28	0.42	0.38	0.55	0.36	0.73	0.00	1.04	2.68
December - 2024	0.28	0.22	0.33	0.30	0.38	0.25	0.58	0.00	0.95	2.16
<b>TOTALS:</b>	<b>9.51</b>	<b>7.33</b>	<b>11.26</b>	<b>10.01</b>	<b>9.46</b>	<b>7.32</b>	<b>10.56</b>	<b>0.03</b>	<b>10.08</b>	<b>37.45</b>

## Notes:

- (1) = Cells 5 & 6 FWS Evaporative Depletions  
= [Table 2 - Column (10)]
- (2) = Cell 4 FWS Evaporative Depletions  
= [Table 2 - Column (11)]
- (3) = Cell 3 FWS Evaporative Depletions  
= [Table 2 - Column (12)]
- (4) = Cells 2A & 2B FWS Evaporative Depletions  
= [Table 2 - Column (13)]
- (5) = Column (1) Lagged (Real Time) Stream Depletions Using AWAS
- (6) = Column (2) Lagged (Real Time) Stream Depletions Using AWAS
- (7) = Column (3) Lagged (Real Time) Stream Depletions Using AWAS
- (8) = Remaining IDS AWAS Lagged Depletions from previous dewatering of Cell 3
- (9) = Column (4) Lagged (Real Time) Stream Depletions Using AWAS
- (10) = Total Lagged Depletions  
= Column (5) + Column (6) + Column (7) + Column (8) + Column (9)

**Turnpike Mining Resource  
SWSP Plan Year 2024  
ASCI Replacement Water and Net Effect to Boulder Creek**

**Table 4**

Month	Net Water Depletions	Leased Water	Net Effect
	(1) Lagged Depletions (acre-feet)	(2) City of Erie Lease* (acre-feet)	(3) Boulder Creek (acre-feet)
January - 2024	1.73	2.00	0.27
February - 2024	1.73	1.90	0.17
March - 2024	1.93	2.00	0.07
April - 2024	2.33	2.40	0.07
May - 2024	2.98	3.10	0.12
June - 2024	4.15	4.25	0.10
July - 2024	4.94	5.00	0.06
August - 2024	5.05	5.15	0.10
September - 2024	4.30	4.50	0.20
October - 2024	3.47	3.60	0.13
November - 2024	2.68	2.90	0.22
December - 2024	2.16	2.35	0.19
<b>TOTALS:</b>	<b>37.45</b>	<b>39.15</b>	<b>1.70</b>

**Notes:**

(1) = Lagged Source Depletions [Table 3 - Column (10)]

(2) = Lease Volumes from City of Erie (submitted October 2023)

\* = No transit loss as Erie WWTP/Release Point is located within the site boundary of Turnpike Mining Resource

(3) = Column (2) - Column (1)

*Positive Value = Creek Accretion*

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**APPENDIX A**  
**DWR TEMPERATURE & PRECIPITATION DATA**

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**Data Type:** Mean Temperature (degrees Fahrenheit [°F])  
**Station ID:** 103  
**Station Name:** LONGMONT SOUTH  
**Data Source:** NCWCD  
**Data Range:** 1-1994 to 5-2016

Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
January	32.18	30.5	25.97	27.4	33	35	33.27	30.02	30.21	36.75
February	28.95	35.6	34.72	31.2	34.51	39.21	38.94	29.3	33.41	29.28
March	42.73	39.67	36.58	42.39	37.57	43.25	40.88	39.85	34.34	42.08
April	46.61	43.31	48.69	42.15	46.28	43.77	49.99	49.05	50.27	50.18
May	59.78	49.81	58.23	57.01	59.43	54.96	60.04	56.33	55.2	56.46
June	70.57	61.24	67.37	66.47	62.46	65.01	66.62	68.18	69.72	62.67
July	69.77	69.22	70.72	71.21	72.26	73.32	73.9	74	75.71	74.08
August	70.63	72.41	68.47	69.55	70.23	69.52	71.37	70.35	69.61	71.24
September	63.27	59.37	59.53	63.97	65.98	57.91	62.11	63.32	62.52	58.25
October	49.22	49.21	50.44	49.82	49.77	50.39	49.22	50.24	43.85	54.04
November	34.66	42.35	36.71	35.38	42.57	44.48	30.18	40.83	37.39	36.16
December	32.15	33.87	34.38	31.25	28.28	35.39	28.19	32.35	34.03	31.96

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
January	31.37	32.66	38.16	21.62	27.43	35.01	29.14	29.6	36.93	30.78
February	31.61	36.94	31.09	29.8	34.02	36.73	27.98	28.63	30.43	30.38
March	46.53	40.27	38.26	45.97	39.87	41.45	41.21	43.3	49.35	39.33
April	46.95	47.39	51.81	46.33	45.94	45.79	47.43	48.37	53.77	42.68
May	58.2	56.68	59.33	56.85	55.63	58.32	52.88	53.06	59.32	58
June	61.43	65.04	70.39	66.85	65.41	63.53	67.11	67.07	73.33	69.78
July	68.93	73.56	73.85	73.71	72.96	68.98	71.31	74.42	76.04	72.06
August	65.83	68.85	69.81	72.15	68	68.12	71.32	74.23	72.93	71.75
September	60.6	63.43	56.85	63.23	59.57	60.97	63.18	62.57	65.01	63.89
October	50.03	51.13	48.64	52.18	49.88	42.11	53.57	51.36	48.94	46.07
November	37.82	42.65	39.64	40.95	42.08	41.09	37.76	39.49	41.98	39.7
December	34.42	30.71	30.62	24.84	26.7	22.46	34.2	26.32	30.61	27.42

Year	2014	2015	2016
January	29.07	33.62	29.98
February	28.22	33.67	37.78
March	40.25	44.6	40.99
April	48.59	48.43	47.95
May	55.92	52.19	52.34
June	64.91	68.65	--
July	65.41	71.43	--
August	68.76	71.82	--
September	63.21	66.62	--
October	54.1	54.54	--
November	35.56	37.84	--
December	29.37	28.91	--

Month	MIN (°F)	MAX (°F)	MEAN (°F)
January	21.62	38.16	31.29
February	27.98	39.21	32.71
March	34.34	49.35	41.34
April	42.15	53.77	47.47
May	49.81	60.04	56.35
June	61.24	73.33	66.54
July	65.41	76.04	72.13
August	65.83	74.23	70.32
September	56.85	66.62	62.06
October	42.11	54.54	49.94
November	30.18	44.48	38.97
December	22.46	35.39	30.38

Data Type: Mean Precipitation (inches [in])  
 Station ID: 103  
 Station Name: LONGMONT SOUTH  
 Data Source: NCWCD  
 Data Range: 1-1994 to 12-2018

Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
January	0.43	0.28	1.1	0.48	0.11	0.25	0.24	0.53	0.62	0.01
February	0.61	0.62	0.13	0.71	0.22	0.06	0.21	0.36	0.38	0.53
March	0.76	0.57	1.18	0.44	1.45	0.56	1.07	1.24	0.57	1.65
April	2.29	2.21	0.58	3.23	2.47	5.1	0.67	2.08	0.18	1.76
May	0.61	6.07	2.72	1.16	0.73	1.18	1.8	2.6	2.16	1.92
June	1.23	3.71	1.76	3.04	0.75	0.49	0.68	0.68	0.94	2.28
July	0.37	0.29	2.06	1.21	0.82	2.12	1.15	1.02	0.04	0.32
August	0.91	0.47	0.63	2.14	0.96	1.08	0.69	0.56	0.6	2.71
September	0.71	1.2	3.52	1	0.25	1.39	1.58	0.21	0.97	0.32
October	1.46	0.13	0.39	1.25	1.07	0.65	0.48	0.15	1.04	0.03
November	1.51	0.55	0.62	0.68	0.68	0.62	0.56	0.59	0.5	0.63
December	0.28	0.07	0.18	0.38	0.66	0.33	0.28	0.2	0.03	0.36

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
January	0.62	0.84	0.21	0.54	0.05	0.16	0.34	0.26	0.15	0.16
February	0.43	0.21	0.22	0.34	0.27	0.13	0.75	0.43	0.72	0.62
March	0.31	1.14	0.98	1.42	0.72	0.76	1.16	0.19	0	0.77
April	3	2.13	0.42	1.65	0.45	2.79	2.93	1.88	0.95	2.3
May	1.1	1.54	0.6	1.26	2.07	1.86	1.61	3.95	1.55	1.76
June	2.53	2.49	0.21	0.22	1.21	1.93	1.72	0.79	0.28	0.33
July	2.2	0.49	2.24	0.53	0	1.3	1.06	2.28	1.57	0.66
August	2.17	1.66	0.67	1.31	2.24	0.09	0.65	0.41	0.11	1.24
September	2.27	0.32	0.65	2.07	1.52	0.38	0.1	1.49	1.13	8.88
October	0.8	2.4	2.39	1.22	0.32	1.69	0.82	1.36	0.99	1.19
November	1.13	0.21	0.46	0.26	0.32	0.64	0.54	0.39	0.34	0.21
December	0.16	0.22	0.99	1.02	0.51	0.94	0.27	0.71	0.17	0.27

Year	2014	2015	2016	2017	2018
January	1.01	0.23	0.39	0.91	0.32
February	0.28	1.33	0.66	0.25	0.61
March	0.98	0.32	1.53	0.87	1.47
April	0.99	3.24	2.09	1.61	0.92
May	2.01	6.28	0.61	4.79	4.81
June	0.47	1.12	--	0.12	2.28
July	0.93	0.82	--	0.23	2.15
August	0.72	0.66	--	1.39	1.24
September	1.27	0.09	--	1.66	0.59
October	0.84	1.91	--	1.83	1.16
November	0.55	1.75	--	0.45	0.55
December	0.56	0.73	--	0.28	0.1

Month	MIN (in)	MAX (in)	MEAN (in)
January	0.01	1.10	0.41
February	0.06	1.33	0.44
March	0.00	1.65	0.88
April	0.18	5.10	1.92
May	0.60	6.28	2.27
June	0.12	3.71	1.30
July	0.00	2.28	1.08
August	0.09	2.71	1.05
September	0.09	8.88	1.40
October	0.03	2.40	1.07
November	0.21	1.75	0.61
December	0.03	1.02	0.40

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**APPENDIX B**  
**IDS AWAS MODEL INPUTS AND OUTPUTS**

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**Turnpike Mining Resource**  
**SWSP 2024**  
**IDS AWAS Model Inputs and Outputs**

Appendix B

**Model Parameters**

(1) Well Name	(2) Boundary Condition	(3) W to Boundary [ft]	(4) Transmissivity [gpd/ft]	(5) Specific Yield	(6) Distance to Well [ft]
Cell 2A & 2B	Alluvial Aquifer	3,400	44,883	0.2	3,050
Cell 3 Mining	Alluvial Aquifer	3,400	44,883	0.2	650
Cell 3 Dewatering	Alluvial Aquifer	3,400	44,883	0.2	1,065
Cell 4 Mining	Alluvial Aquifer	1,350	44,883	0.2	275
Cell 4 Dewatering	Alluvial Aquifer	1,350	44,883	0.2	275
Cell 5 & 6 Mining	Alluvial Aquifer	1,350	44,883	0.2	600
Cell 5 & 6 Dewatering	Alluvial Aquifer	1,350	44,883	0.2	600

Notes:

(1) Well Name: Modeled Depletion Category

(2) Type of Aquifer: Alluvial with Boundary

(3) Distance from the River to the Boundary of the Gravel Deposit:

(4) Transmissivity Value Based on SEO Recommended Value

(5) Specific Yield Based on SEO Recommended Value

(6) Distance from the Well to the Boulder Creek

cfs = cubic foot per second

ft = feet

gpd = gallons per day

gpm = gallons per minute

Cell 3 Mining		Model Inputs		Model Outputs		
Month - Year	Pumping Rate [gpm]	Time On [month]	Dep. Rate [cfs]	Vol. of Dep. [acre-feet]	Vol. of Dep. This Step [acre-feet]	
January - 2024	2.46	1.0	0.0063	32.8231	0.3662	
February - 2024	2.95	1.0	0.0069	33.2285	0.4054	
March - 2024	4.27	1.0	0.0087	33.7216	0.4931	
April - 2024	6.04	1.0	0.0115	34.3616	0.6400	
May - 2024	8.62	1.0	0.0156	35.2232	0.8617	
June - 2024	13.24	1.0	0.0230	36.4663	1.2431	
July - 2024	14.21	1.0	0.0260	37.9650	1.4988	
August - 2024	12.64	1.0	0.0249	39.4777	1.5126	
September - 2024	8.15	1.0	0.0191	40.7326	1.2549	
October - 2024	5.53	1.0	0.0148	41.7090	0.9764	
November - 2024	3.16	1.0	0.0108	42.4393	0.7304	
December - 2024	2.48	1.0	0.0089	43.0178	0.5785	

Cell 4 Mining		Model Inputs		Model Outputs		
Month - Year	Pumping Rate [gpm]	Time On [month]	Dep. Rate [cfs]	Vol. of Dep. [acre-feet]	Vol. of Dep. This Step [acre-feet]	
January - 2024	1.60	1.0	0.0036	13.9114	0.2178	
February - 2024	1.92	1.0	0.0042	14.1589	0.2475	
March - 2024	2.78	1.0	0.0059	14.4987	0.3398	
April - 2024	3.93	1.0	0.0084	14.9765	0.4779	
May - 2024	5.61	1.0	0.0120	15.6566	0.6800	
June - 2024	8.62	1.0	0.0183	16.6867	1.0301	
July - 2024	9.25	1.0	0.0202	17.8746	1.1879	
August - 2024	8.23	1.0	0.0185	19.0029	1.1283	
September - 2024	5.30	1.0	0.0126	19.8269	0.8240	
October - 2024	3.60	1.0	0.0087	20.4005	0.5736	
November - 2024	2.06	1.0	0.0052	20.7568	0.3564	
December - 2024	1.62	1.0	0.0039	21.0113	0.2544	

Cell 5 & 6 Mining		Model Inputs		Model Outputs		
Month - Year	Pumping Rate [gpm]	Time On [month]	Dep. Rate [cfs]	Vol. of Dep. [acre-feet]	Vol. of Dep. This Step [acre-feet]	
January - 2024	2.08	1.0	0.0046	9.56	0.2723	
February - 2024	2.49	1.0	0.0053	9.87	0.3056	
March - 2024	3.60	1.0	0.0074	10.27	0.4016	
April - 2024	5.10	1.0	0.0104	10.83	0.5624	
May - 2024	7.28	1.0	0.0148	11.63	0.7985	
June - 2024	11.18	1.0	0.0224	12.82	1.1919	
July - 2024	12.00	1.0	0.0256	14.29	1.4720	
August - 2024	10.67	1.0	0.0241	15.78	1.4831	
September - 2024	6.88	1.0	0.0174	16.97	1.1912	
October - 2024	4.67	1.0	0.0122	17.82	0.8489	
November - 2024	2.67	1.0	0.0075	18.37	0.5546	
December - 2024	2.10	1.0	0.0054	18.75	0.3751	

Cell 2A & 2B		Model Inputs		Model Outputs		
Month - Year	Pumping Rate [gpm]	Time On [month]	Dep. Rate [cfs]	Vol. of Dep. [acre-feet]	Vol. of Dep. This Step [acre-feet]	
January - 2024	2.19	1.0	0.0135	75.93	0.8659	
February - 2024	2.62	1.0	0.012	76.69	0.7681	
March - 2024	3.79	1.0	0.011	77.39	0.6908	
April - 2024	5.37	1.0	0.0105	78.03	0.6446	
May - 2024	7.67	1.0	0.0108	78.67	0.6374	
June - 2024	11.77	1.0	0.0119	79.34	0.6775	
July - 2024	12.63	1.0	0.0141	80.13	0.7810	
August - 2024	11.23	1.0	0.0163	81.05	0.9194	
September - 2024	7.24	1.0	0.0177	82.08	1.0333	
October - 2024	4.91	1.0	0.0177	83.15	1.0727	
November - 2024	2.81	1.0	0.0166	84.19	1.0377	
December - 2024	2.21	1.0	0.015	85.14	0.9543	

Cell 3 Dewatering		Model Inputs		Model Outputs		
Month - Year	Pumping Rate [gpm]	Time On [month]	Dep. Rate [cfs]	Vol. of Dep. [acre-feet]	Vol. of Dep. This Step [acre-feet]	
January - 2024	0.00	1.0	0.0001	294.09	0.0065	
February - 2024	0.00	1.0	0.0001	294.10	0.0053	
March - 2024	0.00	1.0	0.0001	294.10	0.0044	
April - 2024	0.00	1.0	0.0001	294.10	0.0036	
May - 2024	0.00	1.0	0	294.11	0.0030	
June - 2024	0.00	1.0	0	294.11	0.0025	
July - 2024	0.00	1.0	0	294.11	0.0020	
August - 2024	0.00	1.0	0	294.11	0.0017	
September - 2024	0.00	1.0	0	294.12	0.0014	
October - 2024	0.00	1.0	0	294.12	0.0011	
November - 2024	0.00	1.0	0	294.12	0.0009	
December - 2024	0.00	1.0	0	294.12	0.0008	

Cell 4 Dewatering		Model Inputs		Model Outputs		
Month - Year	Pumping Rate [gpm]	Time On [month]	Dep. Rate [cfs]	Vol. of Dep. [acre-feet]	Vol. of Dep. This Step [acre-feet]	
January - 2024	0.00	1.0	0	158.5200	0.0000	
February - 2024	0.00	1.0	0	158.5200	0.0000	
March - 2024	0.00	1.0	0	158.5200	0.0000	
April - 2024	0.00	1.0	0	158.5200	0.0000	
May - 2024	0.00	1.0	0	158.5200	0.0000	
June - 2024	0.00	1.0	0	158.5200	0.0000	
July - 2024	0.00	1.0	0	158.5200	0.0000	
August - 2024	0.00	1.0	0	158.5200	0.0000	
September - 2024	0.00	1.0	0	158.5200	0.0000	
October - 2024	0.00	1.0	0	158.5200	0.0000	
November - 2024	0.00	1.0	0	158.5200	0.0000	
December - 2024	0.00	1.0	0	158.5200	0.0000	

Cell 5 & 6 Dewatering		Model Inputs		Model Outputs		
Month - Year	Pumping Rate [gpm]	Time On [month]	Dep. Rate [cfs]	Vol. of Dep. [acre-feet]	Vol. of Dep. This Step [acre-feet]	
January - 2024	0.00	1.0	0	51.59	0.0000	
February - 2024	0.00	1.0	0	51.59	0.0000	
March - 2024	0.00	1.0	0	51.59	0.0000	
April - 2024	0.00	1.0	0	51.59	0.0000	
May - 2024	0.00	1.0	0	51.59	0.0000	
June - 2024	0.00	1.0	0	51.59	0.0000	
July - 2024	0.00	1.0	0	51.59	0.0000	
August - 2024	0.00	1.0	0	51.59	0.0000	
September - 2024	0.00	1.0	0	51.59	0.0000	
October - 2024	0.00	1.0	0	51.59	0.0000	
November - 2024	0.00	1.0	0	51.59	0.0000	
December - 2024	0.00	1.0	0	51.59	0.0000	



## **WATER LEASE AGREEMENT**

THIS WATER LEASE AGREEMENT ("Lease") is made and entered into as of the 5th day of December, 2023, by and between the Town of Erie ("Lessor") and Asphalt Specialties CO., Inc. ("ASCI" or "Lessee"). Lessor and Lessee are referred to collectively herein as the "Parties."

### **RECITALS**

A. Lessor is the owner of Units in the Windy Gap ("WG") Project, as such Units are defined in the Allotment Contract between the Northern Colorado Water Conservancy District ("NCWCD") and Lessor.

B. Lessee desires to lease effluent derived from first use of Lessor's WG Units under Lessor's 2024 water allotment ("WG Reuse Water") for use as augmentation/replacement water. From time to time, varying amounts of the WG Reuse Water may be surplus to the needs and obligations of the Lessor ("Surplus Water").

C. Lessor anticipates having Surplus Water available periodically during 2024.

D. Lessee desires to lease a certain portion of the Surplus Water from the Lessor in accordance with the terms and conditions of this Lease for use as an augmentation source for gravel pit mining and reclamation purposes.

### **AGREEMENT**

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. Lease of Water; Term. Lessor hereby leases to Lessee up to a total of 39.15 acre-feet of Surplus Water to be delivered during the Initial Lease Term of January 1, 2024 through December 31, 2024. Lessor, in its sole discretion, determines when and to what extent any Surplus Water is available under this Lease. This Lease does not grant to Lessee the right to use facilities owned or operated by Lessor. Lessee shall be responsible for all necessary agreements for the use of Surplus Water by a third party, if any.

1.1. Lease of Water; Renewal. The Initial Lease Term may be extended for additional one-year terms until December 31, 2028. Lessee shall request one-year extension(s) of the lease term on or before November 1 of each year, and

such request may include a new delivery schedule. Said extensions shall be subject to Lessor's written approval, and shall be subject to all the terms and conditions of this Lease unless amended pursuant to Paragraph 6.1, below.

2. Delivery and Transit Losses.

2.1. Location. Lessor shall deliver the Surplus Water from the Lessors' North Water Reclamation Facility to the point at which such facility discharges to Boulder Creek ("Delivery Location"). Lessor shall have no obligation to deliver the Surplus Water to any location beyond the Delivery Location.

2.2. Delivery to Lessee. Lessor shall deliver the Surplus Water during the period of January 1, 2024 through December 31, 2024, according to the monthly delivery schedule attached as Exhibit A.

2.3. Accounting. Lessor shall provide Lessee with a copy of the water accounting showing the date(s) and quantities of the release of Surplus Water. This information will also be used to confirm and update Lessee's accounting forms.

3. Lease Payment. Lessee shall pay to Lessor \$350.00 per acre-foot of Surplus Water provided hereunder for a total Lease Payment of \$13,702.50. The total Lease Payment is due in full immediately upon execution hereof. Lessor may, in its sole discretion, adjust the unit price of \$350.00 per acre-foot for additional term(s) beyond the Initial Lease Term.

4. Type of Use of Surplus Water. The Parties agree that the Surplus Water shall be used for augmentation/replacement uses only, and it shall not be used for any industrial purposes including but not limited to oil and gas operations.

5. Termination of Lease; Suspension of Deliveries. Lessor shall have the right to terminate this Lease or temporarily suspend deliveries of the Surplus Water hereunder at Lessor's sole discretion at any time upon notice to Lessee. Lessee shall have the right to terminate this Lease at any time upon notice to Lessor, but Lessee shall not be entitled to reimbursement of the Lease Payment under such circumstances.

6. Additional Provisions.

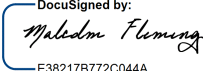
6.1. Entire Agreement. This Lease constitutes the entire agreement between the parties. No supplement, modification, or amendment of this Lease is binding unless executed in writing by the Parties.

6.2. Counterparts. This Lease may be executed in counterparts, each of which will be considered to be an original, but all of which together constitute one and the same instruments.

6.3. Signatures. This Lease may be executed with facsimile or e-mail copies of signatures which are binding upon the Parties.


EXECUTED to be effective as of the date set forth above.

TOWN OF ERIE, LESSOR

By:  \_\_\_\_\_  
E38217B772C044A...

Title: Town Manager

ASPHALT SPECIALTIES CO., INC., LESSEE

By:  \_\_\_\_\_

Title: President

Exhibit A to ASCI -Erie Water Lease Agreement  
Monthly Delivery Requirements

Month	Delivery Requirement (Acre-Feet)
January 2024	2.00
February 2024	1.90
March 2024	2.00
April 2024	2.40
May 2024	3.10
June 2024	4.25
July 2024	5.00
August 2024	5.15
September 2024	4.50
October 2024	3.60
November 2024	2.90
December 2024	2.35
<b>Total</b>	<b>39.15</b>



## 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.<sup>1</sup>

**Table 1. Accounting Submittal Emails and Phone Number by Division**

Division	Accounting Question & Submittal Email	Contact Phone Number	Standard Submittal Timing
1 - South Platte	<a href="mailto:Div1Accounting@state.co.us">Div1Accounting@state.co.us</a>	970-352-8712	30 days after the end of the reporting month
2 - Arkansas	<a href="mailto:water.reporting@state.co.us">water.reporting@state.co.us</a>	719-542-3368	10 days after the end of the reporting month*
3 - Rio Grande	<a href="mailto:kevin.boyle@state.co.us">kevin.boyle@state.co.us</a>	719-589-6683	10 days after the end of the reporting month
4 - Gunnison	<a href="mailto:greg.powers@state.co.us">greg.powers@state.co.us</a>	970-249-6622	10 days after the end of the reporting month
5 - Colorado	<a href="mailto:dnr_div5acct@state.co.us">dnr_div5acct@state.co.us</a>	970-945-5665	10 days after the end of the reporting month
6 - Yampa/White	<a href="mailto:brian.romig@state.co.us">brian.romig@state.co.us</a>	970-846-0036	Annually by November 15 or as needed upon request
7 - San Juan/ Dolores	<a href="mailto:dnr_div7acct@state.co.us">dnr_div7acct@state.co.us</a>	970-247-1845	10 days after the end of the reporting month**
Designated Ground Water Basins	<a href="mailto:chris.grimes@state.co.us">chris.grimes@state.co.us</a>	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

<sup>1</sup> 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).<sup>2</sup>

##### **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]

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<sup>2</sup> 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<sup>3</sup> [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<sup>4</sup>, 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”):

<sup>3</sup> 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.

<sup>4</sup> 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, and ensure it follows the format shown in the “[Diversion Record Spreadsheet User Guide](#)” 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

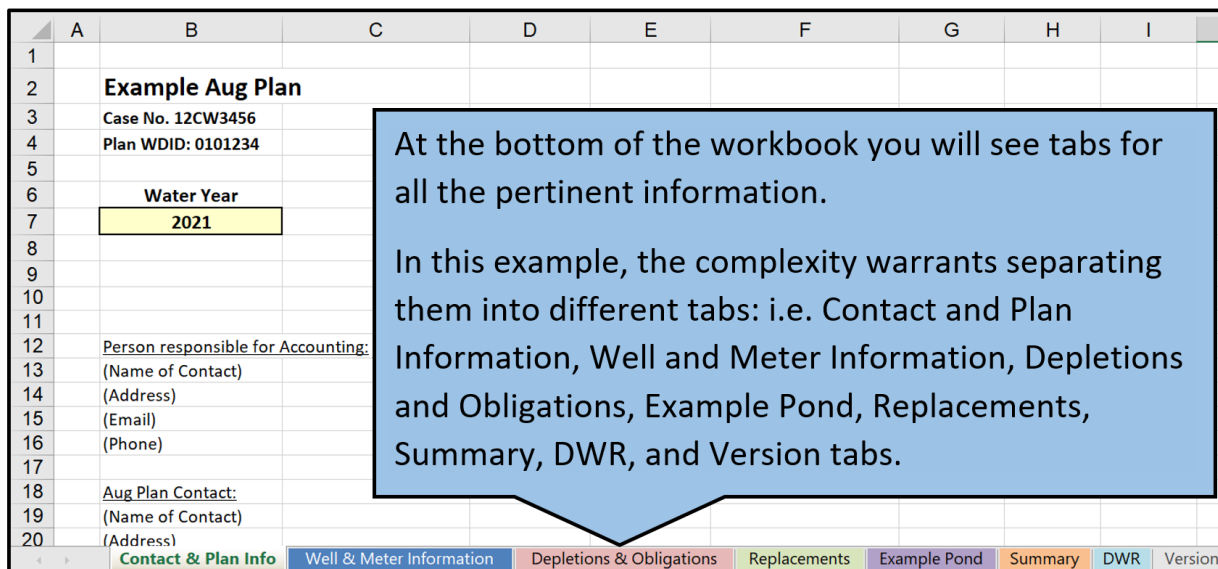
time period, resulting in more than 12 months of data being reported.

- 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

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	<b>Example Aug Plan</b>								
2	<b>Well &amp; Meter Information</b>								
3	<b>Water Year</b>								
4	<b>2021</b>								
5									
6	<b>Well Information</b>								
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	<b>Meter Information</b>								
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									
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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		<b>Example Aug Plan</b>								
2		<b>Depletions &amp; Obligations</b>								
3		<b>Water Year</b>								
4		<b>2021</b>								
5										
6		<b>Meter Readings (EOM)</b>								
7										
8		<b>Month</b>	<b>Well 1</b>	<b>Reading</b>	<b>Well 2</b>	<b>Reading</b>				
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												
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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

	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
5														
6	<b>EOM</b>		<b>Well Pumping</b>			<b>URF</b>			<b>Lagged Depletions</b>					
7			Multiplier	0.001	0.001									
8			Correction Factor	0.931	1									
9	Well 2	Reading Type												
10	0105678													
11	(af)		Month	Well 1	Well 2	Previous Year Pumping	10.00	10.00						
12	133356	Actual	0104567	0105678		Month	Well 1	Well 2	Month	Well 1	Well 2			
13	133358	Actual	(af)	(af)			0104567	0105678		0104567	0105678			
14	133360	Calculated					(af)	(af)		(af)	(af)			
15	133362	Actual	11	0.00186	0.00200	11	0.0887	0.0887	11	0.88700	0.75300			
16	133364	Actual	12	0.00186	0.00200	12	0.0660	0.0505	12	0.66000	0.50500			
17	133366	Actual	1	0.00186	0.00200	1	0.0396	0.0396	1	0.62300	0.39600			
18	133368	Actual	2	0.00186	0.00200	2	0.0334	0.0334	2	0.58500	0.33400			
19			3	0.00186	0.00200	3	0.0294	0.0294	3	0.58500	0.29400			
20			4	0.00186	0.00200	4	0.0340	0.0340	4	0.62300	0.34000			
21			5			5	0.0698	0.0628	5	0.69800	0.62800			
22			6			6	0.0811	0.1070	6	0.81100	1.07000			
23			7			7	0.1132	0.1478	7	1.13200	1.47800			
			8			8	0.1302	0.1635	8	1.30200	1.63500			
			9			9	0.1075	0.1454	9	1.07500	1.45400			
			10			10	0.1019	0.1113	10	1.01900	1.11300			

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

	A	B	C	D	E	F	G	H	I	J	K	L	M
25													
26													
27													
28		DATE	Lagged Depletions					Return Flow Obligations					
29	Well 1		Well 2	Well 1 Out-of- Priority	Well 2 Out-of- Priority	Total Out-of- Priority	Subsurface RFO						
30	0104567		0104567	0105678	0105678	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)			
31	(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)				
32	11/1/2020		0.01	0.01	0.01	0.01	0.03	0.03		0.03			
33	11/2/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03				
34	11/3/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03				
35	11/4/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03				
36	11/5/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03				
37	11/6/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03				
38	11/7/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03				
39	11/8/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03				
40	11/9/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03				
41	11/10/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03				
42	11/11/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03				
43	11/12/2020	0.01	0.01	0.01	0.01	0.03	0.03		0.03				
44													

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

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)**

	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	Total Through Structure  0102345  (cfs) (2)	Transit Loss  (cfs) (3)	Credit at Reach  (cfs) (4)	Release For Aug  0103456  (cfs) (5)	Transit Loss  (cfs) (6)	Credit at Reach  (cfs) (7)	Total Aug Credits  (cfs) (8)		
8		Diversion of Changed Shares									
9											
10		(cfs) (1)									
11											
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		
	<div><div>Contact &amp; Planning</div><div>Well &amp; Meter Information</div><div>Depletions &amp; Obligations</div><div>Replacements</div><div>Example</div></div>										

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.

Turnpike SWSP 2022  
Attachment 3

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