COLORADO
Division of Water Resources
Department of Natural Resources

March 19, 2024

Mr. Jared Dains, P.E.
Applegate Group, Inc.
1490 West 121st Avenue, Suite 100
Denver, CO 80234

Re: Greeley Pit Substitute Water Supply Plan (WDID 0302545, Plan ID 2965)
Greeley Pit, DRMS Permit No. M-1977-151 (WDID 0303034)
Section 36, T6N, R66W and Section 31, T6N, R65W, 6th P.M.
Water Division 1, Water District 3, Weld County

Approval Period: April 1, 2022 through March 31, 2025 (March 31, 2026 if extended)
Contact Information for Mr. Dains: 303-452-6611; JaredDains@applegategroup.com

Dear Mr. Dains:

We have received your letter dated February 7, 2024 requesting renewal of the above-referenced substitute water supply plan ("SWSP") on behalf of R.M. Hiner Construction Co., Inc. ("Hiner" or "Applicant"). This SWSP is requested in accordance with section 37-90-137(11), C.R.S., to cover depletions caused by an existing sand and gravel mining operation known as the Greeley Pit. The required fee of $257.00 for the renewal of this substitute water supply plan has been submitted (receipt no. 10034119). This substitute water supply plan was most recently approved on May 13, 2022 for operations through March 31, 2023.

SWSP Operations

The Greeley Pit (well permit no. 74638-F, WDID 0303034) is located in the NE¼ of Section 36, Township 6 North, Range 66 West and the NW¼ of Section 31, Township 6 North, Range 65 West of the 6th P.M., as shown on the attached Figure 1 (Vicinity Map). Hiner does not have any plans to mine or dewater the pit during this plan period, therefore consumptive use during this plan period will only consist of evaporation and dust control use. Out-of-priority depletions from past and projected use at the Greeley Pit will be replaced with a combination of Hiner's ownership of 6.25 shares in the Greeley Irrigation Company and a lease with the City of Loveland.

Depletions

During this plan period, consumptive use at the Greeley Pit will be limited to evaporation from exposed groundwater surface area and water used for dust control.

Net evaporative depletions were calculated using a gross annual evaporation of 45 inches from the exposed water surface, with a credit of 9.81 inches for effective precipitation. The current exposed surface area at the site is 71.8 acres. Pursuant to section 37-90-137(11)(b), C.R.S. and 2009CW49, a gravel pit operator or property owner does not need to replace depletions that occur

due to evaporation from groundwater exposed prior to January 1, 1981 as a result of open mining of sand and gravel ("pre-81 areas"), regardless of whether mining continued after December 31, 1980. This office recognizes a total of 40.2 acres at the Greeley Pit as being pre-81 area. Accordingly, for the 71.8 acres of groundwater currently exposed at the Greeley Pit, replacement of evaporative depletions is only required from the 31.6 acres exposed after December 31, 1980. Per the State Engineer's *General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits* as updated April 1, 2011, pre-81 areas are tied to the physical location at which the groundwater was exposed prior to January 1, 1981. The applicant has provided a map showing the specific location of the pre-81 area. The credits for the pre-81 area are tied to the location identified in the 1980 Aerial Photograph shown in the attached Figure 2 (Pre/Post 1981 Exposed Area) and may not be re-allocated to other areas of groundwater exposure within the gravel pit boundary. The current exposed surface area is shown on the attached Figure 2 (Exposed Area Map). The maximum net depletion of groundwater due to evaporation from the surface area of the Greeley Pit exposed after December 31, 1980 was calculated to be 92.64 acre-feet per year.

Based on monthly average temperatures reported for the Greeley UNC weather station, ice cover was assumed for the months of December and January. After accounting for the assumed ice covered periods, the net depletion of groundwater due to evaporation from the surface area of the Greeley Pit exposed after December 31, 1980 was calculated to be 87.19 acre-feet per year, as shown on the attached Table 1. The ice covered periods may be used to reduce the amount of evaporative losses that need to be replaced; 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 (December and January) for any time that the pit is not completely covered by ice. Computation of the net evaporation during any time that the pit is not completely covered by ice shall be determined as the pro-rata amount of the monthly gross evaporation rate distribution amount identified in the State Engineer's *General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits,* subtracting the pro-rata amount of the effective precipitation for that period.

The Applicant has estimated that a total of 1.00 acre-foot of water will be used for dust control purposes each year from April through September. A monthly breakdown of the estimated dust control use is shown in the attached Table 2.

The total consumptive use of groundwater at the Greeley Pit is estimated to be 88.19 acre-feet per year for the approval period of this plan.

The Alluvial Water Accounting System ("AWAS"), which uses the Glover method, was used to determine the lagged depletions to the Cache la Poudre River from past and projected evaporation and operational losses at the site. The infinite aquifer boundary condition was selected because a parallel no-flow boundary could not be identified based on information from the USGS Hydrologic Atlas HA-746A. The following parameters were used in the model: a distance (X) of 1,120 feet from the centroid of the 31.6-acre exposed groundwater surface to the river; a transmissivity (T) of 120,000 gallons per day per foot; and a specific yield (S) of 0.2.

The estimated lagged stream depletions due to past and projected operations at the Greeley Pit will total 86.35 acre-feet for the first year of operation of this SWSP and 86.46 acre-feet for the second year of operation, as shown on the attached Table 3.

Replacements

The sources of replacement water to be used for this SWSP are: 1) consumptive use credits associated with the historical irrigation use of 6.25 shares of the Greeley Irrigation Company; 2) and a non-irrigation season lease with the City of Loveland. The attached Table 5 shows the estimated monthly depletions and replacements for this plan period.

Greeley Irrigation Company ("GIC") Shares

Hiner owns a total of 6.25 shares of the Greeley Irrigation Company ("GIC") under the following certificates:

Certificate No.	No. of Shares	Previous Owner
2835	0.5	John & Barbara Barrett
3044	0.5	David Becker
3352	0.5	Carmen Duran
3356	0.25	Mary Jane Johnson
3358	0.5	Darrin Morse
3364	0.2	Ray Smith
3365	0.8	Steve & Linda Story
3413	3.0	Henry M. Karre

A portion of the Greeley Canal No. 3 (WDID 0300934) was changed in Division 1 Water Court in case no. 1996CW658 based on a ditch-wide analysis by the Poudre Prairie Mutual Reservoir and Irrigation Company. Each share of GIC water provides the shareholder with both GIC direct flow water and Fossil Creek Reservoir water. The use of the subject ditch shares in this plan shall be in accordance with the terms and conditions decreed in case no. 1996CW658, including monthly and annual volumetric limits on water deliveries and monthly return flow requirements. The decree in case no. 1996CW658 found that 519.7 shares were used to irrigate 3,501 acres with an average historical consumptive use of 5,358 acre-feet per year, which yields an average consumptive use credit of 10.31 acre-feet per share (5,358 acre-feet ÷ 519.7 shares).

Based on this pro-rata consumptive use, the 6.25 shares to be used in this plan would yield a maximum of 64.44 acre-feet of consumptive use annually (10.31 acre-feet per share × 6.25 shares), subject to the reduction described below. Paragraph 6.7.4 of the Poudre Prairie Decree limited future farm headgate deliveries of the GIC shares to 1,712 acre-feet per year (25.26 acre-feet per share) and 12,631 acre-feet (186.43 acre-feet per share) in any consecutive 10 year period. Deliveries of the 6.25 shares under this SWSP must comply with these limits.

The ditch-wide analysis decreed in case no. 1996CW658 determined the acreage irrigated with GIC water rights was 3,501 acres, or 6.74 acres per share. Of that, 2,098 acres were determined to have been dried up as a result of development ("dry-up pool"). Shares identified in Table A of the Poudre Prairie Decree as irrigating less than the historical average of 6.74 acres per share may claim acreage from the "dry-up pool" to reach the historical average of 6.74 acres per share. The Johnson one-quarter (0.25) share and the 2.0 Karre shares were identified in Table C of the Poudre Prairie Decree as irrigating acres that were irrigated at the time of the field study but that were not irrigated during the study period of 1950-1979. Shares listed in Table C are allowed to claim and rely

on unclaimed acreage from the "dry-up pool". The total required dry-up associated with the subject 6.25 shares is 53.985 acres, which is greater than the ditch-wide average of 6.74 acres per share to account for the required per-share dry-up for Johnson 0.25 share (6.74 acres/share × 0.25 shares = 1.685 acres) and 2.0 Karre shares (6.74 acres/share × 2.0 shares = 13.48 acres) and the dry-up of the lands irrigated by the Johnson 0.25 share (0.48 acres) and the 2.0 Karre shares (11.38 acres) at the time of the field study. Dry up covenants have been obtained for the following shares:

No. of Shares	Share Name	Farm No.	Acres Dried Up by Covenant	Acres Claimed from Dry-Up Pool	Total Dry-up Credit
0.5	John & Barbara Barrett (Manuel & Dorothy Montoya)	E-75	2.25	1.12	3.37
0.5	David Becker	"floating"	0	3.37	3.37
0.5	Carmen Duran (Carmen Pagel)	E-23	1.03 (0.87)[a]	2.50	3.37
0.25	Mary Jane Johnson (Paul Johnson)	E-104	0.48	1.685	2.165
0.5	Darrin Morse (Laurel & Richard Silver)	W-38	1.15	2.22	3.37
0.2	Ray Smith (Rueben Derr)	E-29	1.18	0.168	1.348
0.8	Steve & Linda Story (Earl & Twyla Wolf)	E-44	4.24	1.152	5.392
2.0	Henry M. Karre	E-102b	11.38	13.48	24.86
1.0	Henry M. Karre	E-102a	1.695[b]	5.045	6.74
			23.405	31.108	53.985

[a] Credit only given for 0.87 acres historically irrigated by this share; remainder claimed from "dry-up pool"
[b] One of two (2.0) shares used on farm, 50% of acreage claimed as dry-up

The Becker one-half (0.5) share was identified as a "floating share" as described in case no. 1996CW658 and may claim 3.37 acres of dry-up from the "dry-up pool" based on the ditchwide average historical irrigated acreage of 6.74 acres per share. In addition, the acreage historically irrigated by the subject shares was below the irrigated-acreage-per-share historical average of 6.74. As such, the Applicant may claim 30.74 acres of required dry-up from the "dry-up pool". Carmen Duran's one-half (0.5) share was historically used to irrigate 0.87 acres as described in case no. 1996CW658, which is less than the claimed dry-up, therefore dry-up credit will only be given for the 0.87 acres historically irrigated by this share. Because the acreage historically irrigated by the Duran (Pagel) one-half share is below the irrigated-acreage-per-share historical average of 6.74, the applicant can claim the required additional acreage from the "dry-up pool".

The Barrett (Montoya) one-half (0.5) share historically irrigated 2.25 acres as described in Table A of case no. 1996CW658. The applicant may claim 1.12 acres from the dry-up pool to bring the number of irrigated acres per share up to 6.74 acres (3.37 acres for 0.5 share). Prior to June 21, 2022, the applicant had one dry-up covenant that covered only 1.544 of the 2.25 acres historically irrigated. On June 21, 2022 the applicant provided a second dry-up covenant that covered 0.706 acres historically irrigated by the Barrett one-half share that were not included in the 2009 dry-up

covenant. The two dry-up covenants cover the entire 2.25 acres historically irrigated by the Barrett one-half share

The historical return flows shall be maintained in accordance with the return flow factors identified in case no. 1996CW658. The return flows associated with the delivery of Fossil Creek Reservoir water that is attributable to the 6.25 GIC shares shall also be maintained in accordance with the surface and subsurface factors decreed in case nos. 1996CW658. Pursuant to paragraph 6.7.6 of case no. 1996CW658, the subsurface component of the return flow obligation will be calculated based on the 5-year running average annual farm headgate deliveries of GIC direct flow water and Fossil Creek Reservoir water. The total annual deliveries for the last five years and the 5-year average that will be used for each year of operation are shown in the attached Table 4. For the purposes of this SWSP, you have estimated the 5-year average for the second year of operation based on the average of actual 2020-2023 deliveries and the projected 2024 yield for the 6.25 shares, as more completely described below. The actual subsurface return flow obligations for the second year of operation will be based on the average of actual deliveries for the period of 2021-2024.

As specified in case no. 1996CW658, all deliveries of GIC water incur a return flow obligation to the stream system made up of a surface and subsurface component. The surface component of the return flow obligation of GIC direct flow water will be calculated by multiplying deliveries by 0.237 (23.7%). The surface component of the return flow obligation associated with the Applicant's use of Fossil Creek Reservoir water will be calculated by multiplying those deliveries by 0.201 (20.1%). As noted above, the subsurface component of the return flow obligation will be calculated by multiplying the 5-year average annual delivery of GIC water by the monthly subsurface return flow factors given in Appendix A-2 of the decree entered in case no. 1996CW658 (see Column A of Table 4). As shown in Table 4, the estimated subsurface return flow obligations for GIC direct flow deliveries and Fossil Creek reservoir deliveries total 20.49 acre-feet and 0.76 acre-feet, respectively, for the first year of this plan period and 24.68 acre-feet and 1.08 acre-feet, respectively, for the second year of this plan period. The quantity of GIC water remaining after the Applicant has satisfied its return flow obligations is equivalent to the historical consumptive use attributable to the shares.

For the purposes of this SWSP, you have used a projected yield of 20.31 acre-feet of GIC direct flow water per share and 1.19 acre-feet of Fossil Creek Reservoir deliveries per share. These amounts are consistent with projected deliveries per share for Year One as described in paragraph 28 of the decree entered in case no. 2003CW348. Projected deliveries for Year One were calculated in accordance with paragraph 20.3.3 of the decree entered in case no. 2003CW99, and are based on 2002-2006 recorded deliveries. The use of the Year One projected deliveries is acceptable for this plan period and appears reasonable based on current conditions. As shown in the attached Table 5, total credit for the Applicant's 6.25 GIC shares is projected to be 102.80 acre-feet for the irrigation season (not including subsurface return flow obligations, which are incorporated as part of the augmentation requirement in Table 5). Should actual GIC deliveries be less than projected deliveries, the Applicant is obligated to obtain additional or alternate replacement supplies to replace all depletions at the Greeley Pit.

Based on the actual annual deliveries reported for 2015-2023, the 10-year farm headgate delivery will not exceed 186.43 acre-feet per share, or 1165.19 acre-feet for all 6.25 shares, so long

as deliveries do not exceed the annual limitation of 25.26 acre-feet per share, or 157.87 acre-feet for all 6.25 shares, decreed in case no. 1996CW658.

Based on information provided on behalf of the Greeley Irrigation Company, there are a total of 251.97 shares and 1,103.87 acres remaining available for irrigation under the ditch system, resulting in an average of 4.28 acres irrigated per share. Paragraph 6.7.10 of the Poudre Prairie Decree found that expanded use would not occur so long as use of GIC water did not exceed seven (7) acres per share and no new irrigated or irrigable lands may be served by or added to the GIC system outside the historically irrigated lands. As such, no additional terms and conditions are required to assure that this SWSP does not result in an expansion of use of the Applicant's shares should the Applicant reach their annual volumetric limit and cease diverting water. This position applies only to this SWSP and has no bearing on any position the State and Division Engineers may take in any future water court case involving the change of these shares.

The Applicant's GIC shares will be delivered to the Cache la Poudre River at the 23rd Avenue and Fourth Street Return Station (WDID 0302318). Those replacements will be made directly adjacent to the Greeley Pit. Due to the close proximity of the return station to the Greeley Pit, no transit losses will be assessed for the delivery of the GIC shares. The replacement deliveries will be made above the Ogilvy Ditch, which is typically the first calling water right below the Greeley Pit point of depletion during the period of April to October.

City of Loveland Lease

Replacement water for the period of November 2024 through March 2025 will be provided using a total of 30.7 acre-feet of water leased from the City of Loveland. A copy of the lease agreement, dated February 6, 2024, showing the monthly replacement schedule is attached. It is anticipated that a new lease will be obtained for 31.7 acre-feet of water for the period of December 2025 through March 2026. **This SWSP will only be extended for the period of April 1, 2025 through March 31, 2026 if a copy of an executed lease from the City of Loveland or another acceptable source is provided to this office on or before March 31, 2025.**

The replacement water will be delivered to the Big Thompson River at the outfall of the Loveland Wastewater Treatment Plant (WDID 0402300), located in the NE¼ of the SW¼ of Section 19, Township 5 North, Range 68 West of the 6th P.M., to the confluence of the Big Thompson River with the South Platte River and down the South Platte River to its confluence with the Cache la Poudre River, where it can then be exchanged up to the Greeley Pit. The Applicant's delivery schedule incorporates a transit loss of 8.75% based on the assumed non-irrigation season (November-March) transit loss rate of 0.25% per mile for a distance of 35 miles from the Loveland Wastewater Treatment Plant outfall to the confluence of the South Platte River and the Cache la Poudre River. If a different transit loss is determined by the division engineer or water commissioner, the Applicant must modify their accounting and replacements as necessary to be consistent with the determined transit loss. During the period of November through March when this source is proposed to be used for replacements, it is anticipated that the call on the river will be downstream of the Cache la Poudre/South Platte River confluence. It is the Applicant's responsibility to track the daily call and make arrangements as necessary to ensure the required replacement water is bypassed or otherwise delivered to the confluence of the Cache la Poudre and South Platte Rivers. The District 3 Water commissioner has confirmed there is no call in the winter for the stretch of the Cache la Poudre

between the Greeley Pit and the confluence with the South Platte River. Therefore, as long as a diversion structure is not sweeping the South Platte River, the City of Loveland lease is able to provide replacement water on behalf of the Greeley Pit.

Additional Sources

Supplemental leases will be obtained in the event that the above-described sources are insufficient to replace all depletions from the Greeley Pit. Such supplemental leases may be obtained from any authorized augmentation source that is capable of making replacements at the most upstream calling right impacted by the Greeley Pit depletions.

Lease of Excess Credits

The Applicant has requested permission to lease out any of its excess replacement credit to other gravel pit SWSPs approved pursuant to section 37-90-137(11), C.R.S., to the extent such excess replacement credit exists. The Applicant must provide written notice to the Division Engineer and Water Commissioner at least 30 days in advance of the desired commencement of use of the excess replacement credits, which must include the specific plan in which the credits will be used, the provision in the plan that allows an unnamed source to be added for credit, the annual and monthly amount of excess replacement credit available, the location at which the water will be delivered to the stream, and a copy of a lease agreement between the Applicant and the purchaser of the excess replacement credits if the additional plan is not owned by the Applicant. **The Applicant cannot claim credit for the use of the excess replacement credits in any other plan until they have received written approval from the Division Engineer or Water Commissioner.** Any use of any such excess replacement credits must continue to be directly related to the mining of sand and gravel.

Long Term Augmentation

The final reclamation plan for the mining site is to create four unlined lakes with a total surface area of 95 acres. These lakes will expose groundwater to evaporation and as such will create a long-term augmentation obligation. 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 no. 4, you have provided a notarized statement dated April 1, 2020 that dedicates all 6.25 shares of the Applicant's GIC water as replacement water solely for this SWSP for as long as there are depletions at this gravel pit site or until such time as another replacement source is obtained. A copy of the statement is attached to this letter.

The 6.25 GIC shares owned by Hiner **are not sufficient** by themselves to provide long term augmentation water for the current 71.8 acres of exposed groundwater, nor for the final reclamation plan of 95 acres of exposed groundwater. The Applicant submitted a Technical Revision to amend the final reclamation plan for the mining site to backfill a sufficient area so that the expected yield from

the 6.25 shares will be equal to the evaporative depletions from the remaining exposed groundwater surface area. The DRMS used in the information contained in the technical revision to increase the financial surety to $2,284,600.00 to cover the backfilling of sufficient area. Because the proposed final reclamation plan for the mine site will produce a permanent water surface exposing groundwater to evaporation, a plan for augmentation will need to be obtained to replace the ongoing evaporation losses from the exposed groundwater surface areas. The Applicant should be aware that because the 6.25 GIC shares cannot provide replacement water during the non-irrigation season, additional sources or mechanisms of providing replacement water will be required.

SWSP Conditions of Approval

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

1. This plan shall be valid for the period of April 1, 2024 through March 31, 2025 (or March 31, 2026, if extended) unless otherwise revoked or superseded by decree. **This SWSP will only be extended for the period of April 1, 2025 through March 31, 2026 if copies of executed leases for replacement water described herein are provided to this office on or before March 31, 2025.** If a permanent plan for augmentation is not obtained by the plan's expiration date, a renewal request must be submitted to this office with the statutory fee of $257 prior to the expiration date but **no later than** February 1, 2025 (February 1, 2026, if extended). If a renewal request is received after the expiration date of this plan, it may be considered a request for a new SWSP in which case the $1,593 filing fee will apply.
2. The Applicant must replace all out-of-priority depletions resulting from operation under this SWSP, including those ongoing and lagged depletions that will occur to the stream after the expiration date of this SWSP. The Applicant must renew and maintain a valid SWSP until either ongoing depletions have been eliminated by the backfilling or lining of all groundwater surface areas exposed after December 31, 1980 and all lagged depletions resulting from operation under this SWSP have been fully replaced in time, location, and amount, or until such time as replacement of all ongoing and lagged depletions are included in a water court decreed plan for augmentation.
3. Well permit no. 74638-F has been obtained for the current use and exposed pond surface area of the gravel pit in accordance with sections 37-90-137(2) and (11), C.R.S.
4. The total surface area of the groundwater exposed at the Greeley Pit after December 31, 1980 must not exceed 31.6 acres, which results in a maximum annual evaporative loss of 92.64 acre-feet (87.19 acre-feet assuming ice cover during the months of December and January).
5. The annual amount of water used at the Greeley Pit for dust control shall not exceed 1.00 acre-feet.
6. Total consumption at the Greeley Pit must not exceed these aforementioned amounts unless an amendment is made to this plan.
7. Approval of this plan is for the purposes as stated herein. Any additional uses of the water will be allowed only if a new SWSP is approved for those additional uses.

8. The Applicant shall replace the net evaporative depletions from the exposed groundwater surface area that may occur during the assumed ice-covered period (December and January) for any time that the exposed groundwater in the pit is not completely covered by ice.

9. The replacement water that is the subject of this plan cannot be sold or leased to any other entity, unless prior written approval is granted by the water commissioner and/or the division engineer. 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.

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

11. 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. The Applicant is required to coordinate the delivery location of replacement water with the water commissioner to ensure out-of-priority depletions are adequately replaced to prevent injury to other water rights.

12. 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.

13. The water attributable to the 6.25 shares of the GIC must continue to be diverted in priority at the ditch and then measured back to the Cache la Poudre River in the vicinity of the Greeley Pit. Adequate measuring devices acceptable to the water commissioner must be installed.

14. All pumping for dust control purposes shall be measured in a manner acceptable to the division engineer.

15. The Applicant shall provide daily accounting (including, but not limited to diversions, depletions, replacement sources, and river calls) on a monthly basis. The accounting must be uploaded to the CDSS Online Reporting Tool within 30 days of the end of the month for which the accounting applies (https://dwr.state.co.us/Tools/reporting). Instructions for using the tool are available on the Division of Water Resources website on the "Services" → "Data & Information" page under the heading of Online Data Submittal. Accounting and reporting

procedures are subject to approval and modification by the division engineer. Accounting forms need to identify the WDID number for each structure operating under this SWSP. Additional information regarding accounting requirements can be found in the attached Augmentation Plan Accounting Administration Protocol for Division One. **NOTE:** Monthly accounting, even during the winter non-irrigation season, is required.

In addition, it is the applicant's responsibility to 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 Loveland.

16. The Applicant shall perform an inspection of the 23.405 acres of required dry-up not claimed from the dry-up pool, submit a Dry-Up Report - Verified Statement of that inspection, and provide a zipped GIS shapefile of the dried-up land as follows:

    - The Applicant's inspection of dry-up must be submitted on the Dry-Up Report - Verified Statement form at the beginning of the irrigation season indicating planned dry-up and then again in the fall after the irrigation season confirming the planned dry-up was accomplished. A pdf map may be attached to that report. The Dry-Up Report -Verified Statement can be downloaded from the Division of Water Resources' website at: https://drive.google.com/drive/folders/1TF0alNt6f5fla0Xz_n1_iAGCg4xusRN2.
    - (Water Administration Documents / South Platte River Basin Forms). The Dry-Up Report - Verified Statement must be signed by an individual with personal knowledge of the dry-up for the entire irrigation season for each parcel of land associated with the change of water right in this SWSP.
    - GIS shapefiles in a file format *.zip outlining the dry-up shall also be submitted at the same time as the Dry-Up Report. The GIS files must include any accompanying attribute data and the datum must be NAD83 and the UTM projection must be Zone 13N.
    - Submittals shall be made **by May 31, 2024** (and May 31, 2025 if extended)(or by a later date approved by the division engineer) for planned dry-up and by **October 31, 2024 (and October 31, 2025 if extended)** for dry-up confirmation. Submittals shall be made through the CDSS Online Reporting Tool (https://dwr.state.co.us/Tools/reporting). Instructions for using the tool are available under Services / Data and Information in the Online Data Submittal Section. Two new Reporting Submittal Tool elements will be created for this SWSP: (1) Dry-up shapefile and (2) Dry-up Report - Verified Statement. For additional assistance with Online Reporting Submittals, contact Dawn Ewing in the Division 1 office at dnr_div1accounting@state.co.us.

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

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

19. 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 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. Granting of this plan does not imply approval by this office of any such court application(s).

20. The written statement dedicating 6.25 GIC shares solely to the Greeley Pit as a replacement water source will be accepted for the dedication of the shares for the purposes of this SWSP. If the State Engineer determines that a different affidavit or dedication process is necessary to assure proper dedication of the shares, additional information may be required prior to future SWSP approvals.

21. Approval of this SWSP does not relieve the Applicant of their obligation to actively pursue the acquisition of additional shares of GIC water, backfill a portion of the exposed groundwater surface, or develop an alternate plan for achieving compliance with the DRMS's April 30, 2010 letter.

22. Dewatering is not expected to occur at this site during the SWSP approval period. However, in the event that dewatering will occur at the site during the SWSP approval period, note that as long as the pit is continuously dewatered, the water returned to the stream system should be adequate to offset the depletions. Once dewatering at this site ceases, the delayed depletions must be addressed, including depletions resulting from the gradual refilling of the pit. At least three years prior to completion of dewatering, a plan must be submitted that specifies how the post pumping dewatering depletions (including refilling of the pit) will be replaced in time, place and amount. Well permit no. 74638-F does not include dewatering as a use, therefore the applicant must obtain a new well permit prior to any dewatering.

23. 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 use of water at the pit, and all exposure of groundwater beyond the 40.2 acres exposed prior to January 1, 1981, must cease immediately.

24. 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.

25. The decision of the state engineer shall have no precedential or evidentiary force, shall not create any presumptions, shift the burden of proof, or serve as a defense in any pending water court case or any other legal action that may be initiated concerning this plan. This decision shall not bind the state engineer to act in a similar manner in any other applications involving other plans, or in any proposed renewal of this plan, and shall not imply concurrence with any findings of fact or conclusions of law contained herein, or with the engineering methodologies used by the Applicant.

If you have any questions concerning this approval, please contact Javier Vargas-Johnson in Denver at 303-866-3581 or Michael Hein in Greeley at 970-352-8712.

Sincerely,

for Jeff Deatherage, P.E.
Chief of Water Supply

Attachments: Figure 1 (Vicinity Map)
Figure 2 (Pre/Post 1981 Exposed Area)
Figure 2 (Exposed Area Map)
Tables 1 – 5
City of Loveland Lease
April 30, 2010 letter from DRMS
Water Right Dedication Statement for 6.25 GIC shares
Augmentation Plan Accounting Protocol
Division One Administration Protocol: *"Use of Replacement Sources Not Specifically Identified in an SWSP or Augmentation Plan"*

Cc: Michael Hein, Assistant Division Engineer, Michael.Hein@state.co.us
1809 56th Avenue, Greeley, Colorado 80634; 970-352-8712

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

Jean Lever, Water Commissioner, Water District 4, Jean.Lever@state.co.us

Alec Hernandez, Water Commissioner, Water District 2, Alec.Hernandez@state.co.us

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

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

Division of Reclamation, Mining and Safety, Peter.Hays@state.co.us

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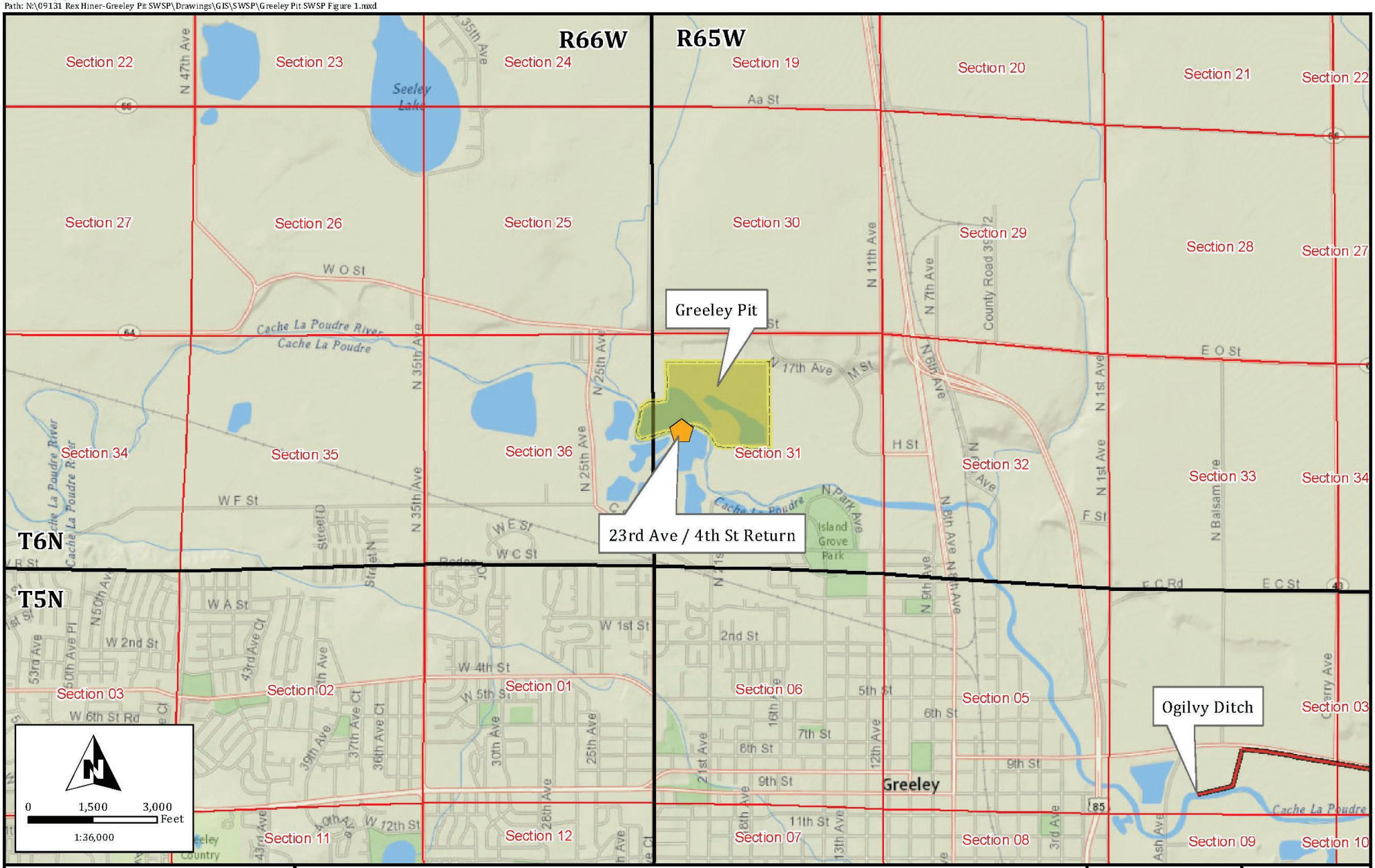

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GREELEY PIT (M-1977-151) SWSP

Vicinity Map

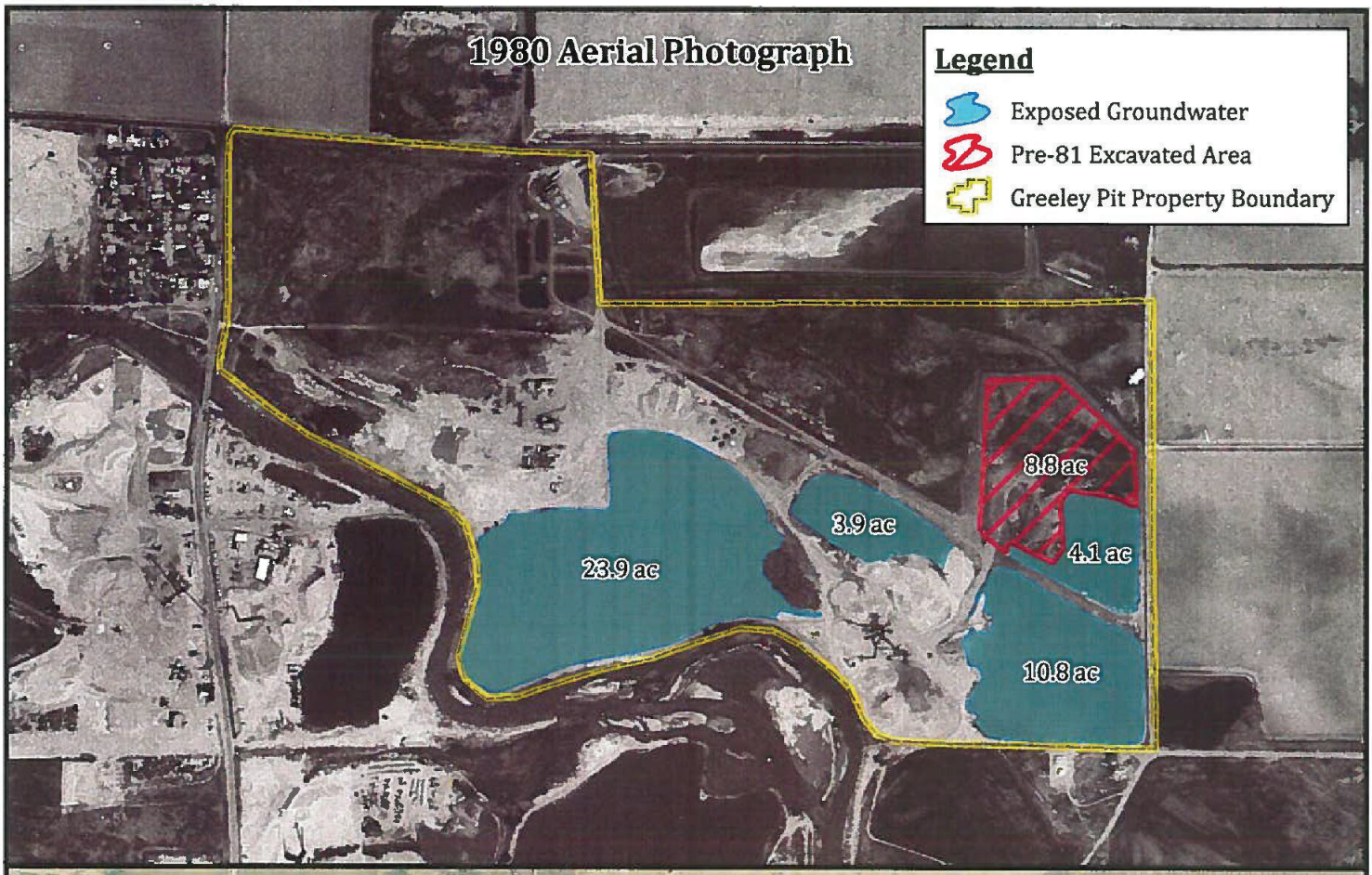
Date: 7 Feb 2024

Job #: 09-131

Drawn By: JMD

Figure: 1

Of: 2



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GREELEY PIT SWSP
M-1977-151
Pre/Post 1981 Exposed Area

Date: 18 May 2010
Job #: 09-131
Drawn By: JMD

Figure: 2
Of: 2

Printed: May 18, 2010 by JMD
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GREELEY PIT (M-1977-151) SWSP

Exposed Area Map

Date: 7 Feb 2024

Job #: 09-131

Drawn By: JMD

Figure: 2

Of: 2

Table No. 1
R.M. Hiner Construction Co., Inc.
Greeley Pit (M-1977-151)

Applegate Group, Inc.

Gross Annual Evaporation =	45	inches per NOAA Technical Report NWS 33
Historical Consumptive Use Credit =	70%	of monthly precipitation
Freezing Point of Water =	32	°F
Current Net Acreage Exposed =	31.6	acres

Date Revised: 2/6/2024
AG Job #: 09-131

Evaporative Consumptive Use (aka Evap CU)
From Pond Surface

Month	Net Exposed Area [ac] (A)	Percent of Annual Evaporation (B)	Gross Monthly Evaporation [in] (C)	Monthly Precip [in] (D)	Monthly CU Credit [in] (E)	Monthly Avg Temp [°F] (F)	Net Evap [in] (G)	Evap CU [ac-ft] (H)
Apr-24	31.6	9.0%	4.05	1.79	1.25	49.4	2.80	7.37
May-24	31.6	12.0%	5.40	2.45	1.72	58.6	3.69	9.70
Jun-24	31.6	14.5%	6.53	1.90	1.33	68.1	5.20	13.68
Jul-24	31.6	15.0%	6.75	1.48	1.04	73.8	5.71	15.05
Aug-24	31.6	13.5%	6.08	1.15	0.81	71.7	5.27	13.88
Sep-24	31.6	10.0%	4.50	1.11	0.78	63.0	3.72	9.80
Oct-24	31.6	7.0%	3.15	1.03	0.72	50.9	2.43	6.40
Nov-24	31.6	4.0%	1.80	0.78	0.55	37.5	1.25	3.30
Dec-24	31.6	3.0%	1.35	0.41	0.29	29.4	ICE	0.00
Jan-25	31.6	3.0%	1.35	0.48	0.34	28.6	ICE	0.00
Feb-25	31.6	3.5%	1.58	0.37	0.26	33.5	1.32	3.47
Mar-25	31.6	5.5%	2.48	1.07	0.75	41.1	1.73	4.55
Year 1 Total	-	**100%**	**45.00**	**14.02**	**9.81**	-	**33.11**	**87.19**
Apr-25	31.6	9.0%	4.05	1.79	1.25	49.4	2.80	7.37
May-25	31.6	12.0%	5.40	2.45	1.72	58.6	3.69	9.70
Jun-25	31.6	14.5%	6.53	1.90	1.33	68.1	5.20	13.68
Jul-25	31.6	15.0%	6.75	1.48	1.04	73.8	5.71	15.05
Aug-25	31.6	13.5%	6.08	1.15	0.81	71.7	5.27	13.88
Sep-25	31.6	10.0%	4.50	1.11	0.78	63.0	3.72	9.80
Oct-25	31.6	7.0%	3.15	1.03	0.72	50.9	2.43	6.40
Nov-25	31.6	4.0%	1.80	0.78	0.55	37.5	1.25	3.30
Dec-25	31.6	3.0%	1.35	0.41	0.29	29.4	ICE	0.00
Jan-26	31.6	3.0%	1.35	0.48	0.34	28.6	ICE	0.00
Feb-26	31.6	3.5%	1.58	0.37	0.26	33.5	1.32	3.47
Mar-26	31.6	5.5%	2.48	1.07	0.75	41.1	1.73	4.55
Year 2 Total	-	**100%**	**45.00**	**14.02**	**9.81**	-	**33.11**	**87.19**

Notes:
(A) Net exposed area requiring augmentation. Increases above the current value to account for additional exposure anticipated over the year
(B) Taken from *General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits Submitted to the State Engineer* for elevations below 6500 ft MSL
(C) Gross monthly evaporation = (Gross Annual Evaporation) * (B)
(D) Monthly precipitation from GREELEY UNC, COLORADO (053553) weather station. Period of record is 1967 to 2005
(E) Monthly consumptive use credit = (Historical Consumptive Use Credit) * (D)
(F) Monthly average temperature from GREELEY UNC, COLORADO (053553) weather station. Period of record is 1967 to 2005
(G) Net evaporation = (C) - (E) if the monthly average temperature is greater than freezing. Otherwise, the pond is assumed to be frozen
(H) Evap CU = (A) * (G)/12

Table No. 2
R.M. Hiner Construction Co., Inc.
Greeley Pit (M-1977-151)

Applegate Group, Inc.

Moisture Content of Product =	4%	by weight
Water Used for Dust Control =	1.0	acre-foot per year
Sand & Gravel Specific Weight =	125	lb/ft^3 (http://www.reade.com/Particle_Briefings/spec_gra2.html)
Sand & Gravel Porosity =	45%	(estimated by operator)

Date Revised: 2/6/2024
AG Job #: 09-131

Operational Consumptive Use (aka Operation CU) From Mining

Month	Monthly Production [tons] (A)	Water Retained in Product [ac-ft] (B)	Intermittent Fill Volume [ac-ft] (C)	Water Used for Dust Control [ac-ft] (D)	Operation CU [ac-ft] (E)
Apr-24	0	0.00	0.00	0.10	0.10
May-24	0	0.00	0.00	0.15	0.15
Jun-24	0	0.00	0.00	0.20	0.20
Jul-24	0	0.00	0.00	0.25	0.25
Aug-24	0	0.00	0.00	0.20	0.20
Sep-24	0	0.00	0.00	0.10	0.10
Oct-24	0	0.00	0.00	0.00	0.00
Nov-24	0	0.00	0.00	0.00	0.00
Dec-24	0	0.00	0.00	0.00	0.00
Jan-25	0	0.00	0.00	0.00	0.00
Feb-25	0	0.00	0.00	0.00	0.00
Mar-25	0	0.00	0.00	0.00	0.00
Year 1 Total	**0**	**0.00**	**0.00**	**1.00**	**1.00**
Apr-25	0	0.00	0.00	0.10	0.10
May-25	0	0.00	0.00	0.15	0.15
Jun-25	0	0.00	0.00	0.20	0.20
Jul-25	0	0.00	0.00	0.25	0.25
Aug-25	0	0.00	0.00	0.20	0.20
Sep-25	0	0.00	0.00	0.10	0.10
Oct-25	0	0.00	0.00	0.00	0.00
Nov-25	0	0.00	0.00	0.00	0.00
Dec-25	0	0.00	0.00	0.00	0.00
Jan-26	0	0.00	0.00	0.00	0.00
Feb-26	0	0.00	0.00	0.00	0.00
Mar-26	0	0.00	0.00	0.00	0.00
Year 2 Total	**0**	**0.00**	**0.00**	**1.00**	**1.00**

Notes:
(A) Estimated monthly production volumes provided by operator
(B) Water Retained in Product = [(Moisture Content of Product) * (A) * 2000] / (62.4 * 43560)
(C) Intermittent Fill Volume = (Volume of Mined Material) x (1 - Porosity) - (B). Mine material volume estimated using specific weight of material.
(D) Water Used for Dust Control is estimated to be 1 acre-foot per year and is distributed according to monthly production volumes
(E) Operation CU = (B) + (C) + (D)

Table No. 3
R.M. Hiner Construction Co., Inc.
Greeley Pit (M-1977-151)

Lagging Distance (X) =	1,120	feet
Aquifer Transmissivity (T) =	120,000	gallons per day per foot
Specific Yield =	0.2	
Aquifer Width (W) =	Infinite	

Date Revised: 2/6/2024
AG Job #: 09-131

Lagged Depletions From Mining

Month	Evaporation CU [ac-ft] (A)	Operation CU [ac-ft] (B)	Total CU [ac-ft] (C)	Lagged Depletions [ac-ft] (D)
Apr-24	7.37	0.10	7.47	5.76
May-24	9.70	0.15	9.85	7.75
Jun-24	13.68	0.20	13.88	10.06
Jul-24	15.05	0.25	15.30	12.26
Aug-24	13.88	0.20	14.08	12.49
Sep-24	9.80	0.10	9.90	10.58
Oct-24	6.40	0.00	6.40	8.45
Nov-24	3.30	0.00	3.30	5.87
Dec-24	0.00	0.00	0.00	3.52
Jan-25	0.00	0.00	0.00	2.24
Feb-25	3.47	0.00	3.47	2.99
Mar-25	4.55	0.00	4.55	4.38
Year 1 Total	**87.19**	**1.00**	**88.19**	**86.35**
Apr-25	7.37	0.10	7.47	5.78
May-25	9.70	0.15	9.85	7.76
Jun-25	13.68	0.20	13.88	10.07
Jul-25	15.05	0.25	15.30	12.27
Aug-25	13.88	0.20	14.08	12.50
Sep-25	9.80	0.10	9.90	10.59
Oct-25	6.40	0.00	6.40	8.46
Nov-25	3.30	0.00	3.30	5.87
Dec-25	0.00	0.00	0.00	3.53
Jan-26	0.00	0.00	0.00	2.25
Feb-26	3.47	0.00	3.47	3.00
Mar-26	4.55	0.00	4.55	4.38
Year 2 Total	**87.19**	**1.00**	**88.19**	**86.46**

Notes:
(A) Evaporation CU from Table 1
(B) Operation CU from Table 2
(C) Total CU = (A) + (B)
(D) Lagged depletions from total CU. Accounts for evaporation and operational uses prior to April 2011 in the amount of 76.60 ac-ft/yr

Table No. 4
R.M. Hiner Construction Co., Inc.
Greeley Pit (M-1977-151)

Water Year	Total Annual Delivery [ac-ft]		Remarks
	GIC Direct Flow	Fossil Creek Reservoir	
2019	77.95	0.00	Actual deliveries for SWSP
2020	135.26	6.76	Actual deliveries for SWSP
2021	70.89	9.70	Actual deliveries for SWSP
2022	98.45	5.78	Actual deliveries for SWSP
2023	68.62	0.00	Actual deliveries for SWSP
2024	126.94	7.44	Average delivery for three shares
Year 1 Average	90.23	4.45	For estimating return flow obligations in Year 1
Year 2 Average	100.03	5.94	For estimating return flow obligations in Year 2

Date Revised: 2/6/2024
AG Job #: 08-127

Estimated GIC Subsurface Return Flow Obligations

Month	GIC Direct Flow		Fossil Creek Reservoir	
	GIC Direct Subsurface Return Flow Factor (A)	GIC Direct Subsurface RF Obligation [ac-ft] (B)	Fossil Creek Subsurface Return Flow Factor (C)	Fossil Creek Subsurface RF Obligation [ac-ft] (D)
Apr-24	1.5%	1.35	1.4%	0.06
May-24	1.8%	1.62	1.3%	0.06
Jun-24	2.1%	1.89	1.2%	0.05
Jul-24	2.3%	2.08	1.5%	0.07
Aug-24	2.4%	2.17	2.4%	0.11
Sep-24	2.4%	2.17	2.5%	0.11
Oct-24	2.3%	2.08	2.1%	0.09
Nov-24	2.1%	1.89	2.0%	0.09
Dec-24	2.0%	1.80	1.8%	0.08
Jan-25	1.8%	1.62	1.7%	0.08
Feb-25	1.7%	1.53	1.6%	0.07
Mar-25	1.6%	1.44	1.5%	0.07
Year 1 Total	**24.0%**	**21.66**	**21.0%**	**0.93**
Apr-25	1.5%	1.50	1.4%	0.08
May-25	1.8%	1.80	1.3%	0.08
Jun-25	2.1%	2.10	1.2%	0.07
Jul-25	2.3%	2.30	1.5%	0.09
Aug-25	2.4%	2.40	2.4%	0.14
Sep-25	2.4%	2.40	2.5%	0.15
Oct-25	2.3%	2.30	2.1%	0.12
Nov-25	2.1%	2.10	2.0%	0.12
Dec-25	2.0%	2.00	1.8%	0.11
Jan-26	1.8%	1.80	1.7%	0.10
Feb-26	1.7%	1.70	1.6%	0.09
Mar-26	1.6%	1.60	1.5%	0.09
Year 2 Total	**24.0%**	**24.01**	**21.0%**	**1.25**

Notes:
(A) Monthly subsurface return flow factors per Poudre Prairie Decree
(B) Equals Column (A) multiplied by the average total annual delivery of GIC direct flow water. Annual delivery estimated from WC records
(C) Monthly subsurface return flow factors per Poudre Prairie Decree
(D) Equals Column (C) multiplied by the average total annual delivery of Fossil Creek Reservoir water. Annual delivery estimated from WC records

Table No. 5
R.M. Hiner Construction Co., Inc.
Greeley Pit (M-1977-151)

GIC Direct Surface RF Factor =	23.7%	per Poudre Prairie Decree	
Fossil Creek Surface RF Factor =	20.1%	per Poudre Prairie Decree	
Number of GIC Shares in SWSP =	6.25		
River Transit Loss =	0.25%	per mile	
Loveland Lease Transit Distance =	35.0	miles	
Loveland Lease Transit Loss =	8.75%		
Aurora Lease Transit Distance =	66.0	miles	
Aurora Lease Transit Loss =	16.50%		

Applegate Group, Inc.

Date Revised: 2/6/2024
AG Job #: 09-131

Water Balance

Month	Augmentation Requirement [ac-ft] (A)	GIC Direct Flow: Projected GIC Direct Deliveries [ac-ft / share] (B)	GIC Direct Flow: Estimated GIC Direct Credit [ac-ft / share] (C)	Fossil Creek Reservoir: Projected Fossil Creek Deliveries [ac-ft / share] (D)	Fossil Creek Reservoir: Estimated Fossil Creek Credit [ac-ft / share] (E)	Estimated Total GIC Credit for all shares [ac-ft] (F)	City of Loveland Lease Amount [ac-ft] (G)	City of Loveland Lease Credit [ac-ft] (H)	City of Aurora Lease Amount [ac-ft] (I)	City of Aurora Lease Credit [ac-ft] (J)	Net Affect to River [ac-ft] (K)
Apr-24	7.18	1.69	1.29	0.03	0.02	8.21		0.00		0.00	1.03
May-24	9.43	3.38	2.58	0.00	0.00	16.12		0.00		0.00	6.69
Jun-24	12.01	3.29	2.51	0.06	0.05	15.99		0.00		0.00	3.98
Jul-24	14.40	3.33	2.54	0.31	0.25	17.43		0.00		0.00	3.03
Aug-24	14.76	3.08	2.35	0.61	0.49	17.73		0.00		0.00	2.97
Sep-24	12.86	3.09	2.36	0.18	0.14	15.63		0.00		0.00	2.78
Oct-24	10.62	2.45	1.87	0.00	0.00	11.68		0.00		0.00	1.06
Nov-24	7.85	0.00	0.00	0.00	0.00	0.00	8.7	7.94		0.00	0.08
Dec-24	5.40	0.00	0.00	0.00	0.00	0.00	6.0	5.48		0.00	0.07
Jan-25	3.94	0.00	0.00	0.00	0.00	0.00	4.4	4.02		0.00	0.08
Feb-25	4.60	0.00	0.00	0.00	0.00	0.00	5.1	4.65		0.00	0.06
Mar-25	5.89	0.00	0.00	0.00	0.00	0.00	6.5	5.93		0.00	0.04
Year 1 Total	**108.94**	**20.31**	**15.50**	**1.19**	**0.95**	**102.80**	**30.7**	**28.0**	**0.0**	**0.00**	**21.87**
Apr-25	7.36	1.69	1.29	0.03	0.02	8.21		0.00		0.00	0.85
May-25	9.64	3.38	2.58	0.00	0.00	16.12		0.00		0.00	6.48
Jun-25	12.24	3.29	2.51	0.06	0.05	15.99		0.00		0.00	3.75
Jul-25	14.66	3.33	2.54	0.31	0.25	17.43		0.00		0.00	2.77
Aug-25	15.04	3.08	2.35	0.61	0.49	17.73		0.00		0.00	2.69
Sep-25	13.14	3.09	2.36	0.18	0.14	15.63		0.00		0.00	2.50
Oct-25	10.89	2.45	1.87	0.00	0.00	11.68		0.00		0.00	0.80
Nov-25	8.09	0.00	0.00	0.00	0.00	0.00	8.9	8.12		0.00	0.03
Dec-25	5.64	0.00	0.00	0.00	0.00	0.00	6.2	5.66		0.00	0.02
Jan-26	4.15	0.00	0.00	0.00	0.00	0.00	4.6	4.20		0.00	0.05
Feb-26	4.80	0.00	0.00	0.00	0.00	0.00	5.3	4.84		0.00	0.04
Mar-26	6.07	0.00	0.00	0.00	0.00	0.00	6.7	6.11		0.00	0.04
Year 2 Total	**111.71**	**20.31**	**15.50**	**1.19**	**0.95**	**102.80**	**31.7**	**28.9**	**0.0**	**0.00**	**20.01**

Notes:
(A) Augmentation requirement equal to lagged depletions from Table 3 plus return flow obligations from Table 4
(B) GIC projected deliveries for Year One of Projection - Decree Case No. 03CW348
(C) Estimated GIC direct flow consumptive use credit per share. Calculated by removing surface return flow obligations from deliveries
(D) Fossil Creek [rpkected deliveries for Year One of Projection, Decree Case No. 03CW348
(E) Estimated Fossil Creek consumptive use credit per share. Calculated by removing surface return flow obligations from deliveries
(F) Total GIC credit for all shares = [(C) + (E)] * (Number of GIC Shares in SWSP)
(G) Loveland lease during the period November through March. Due to location, transit losses are assesed
(H) Loveland Lease Credit = (G) * (1 - Loveland Lease Transit Loss)
(I) Aurora lease during the period November through March. Due to location, transit losses are assesed
(J) Aurora Lease Credit = (I) * (1 - Aurora Lease Transit Loss)
(K) Net Affect to River = (F) + (H) + (J) - (A)

Loveland Water and Power

WATER LEASE

The City of Loveland, Colorado hereby agrees to lease to R.M. Hiner Construction Company, Inc. ("Renter") the following water for November 2024 through March, ending March 31, 2025.

Description: An amount of fully reusable water not to exceed 30.7 acre-feet (AF), in monthly amounts as detailed below, to act as a temporary augmentation source to replace groundwater depletions associated with the gravel pit mining operations at the Greeley Pit (M-1977-151, WDID 0303034), located at 2220 'O' Street near the north side of Greeley, Colorado, off the Cache la Poudre River (see Figure 1).

In exchange for use of the water as set forth herein, Renter shall pay to the City the City's short term raw water augmentation or replacement lease rate per acre-foot. For November and December 2024, the lease rate is $550 per acre-foot. For January, February, and March 2025, Renter shall pay the 2025 lease rate as established by the Loveland City Council, typically in October 2024. Once the 2025 lease rate is established, the City shall invoice Renter for the full amount due for the full lease. No water shall be delivered until the invoice is fully paid by Renter.

Monthly Augmentation Credit/Release Schedule:

All values in ac-ft

Month	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Total
Volume	8.7	6.0	4.4	5.1	6.5	30.7

This lease may be executed by electronic signature in accordance with C.R.S 24-71.3-101 *et seq*. In the event the City has an urgent need for water, as determined in the sole discretion of the City, or if the City desires to sell or transfer the shares to a third party, the City may unilaterally terminate this Water Lease without cause. The City will endeavor to give Lessee thirty (30) days' notice of such termination, but shall not be required to do so. The Lessee shall not rent, sublet, or otherwise convey to any person or entity the right to use the leased water. The City grants no interest in the leased water to the Lessee other than as explicitly set forth in this one page annual lease agreement. Lessee shall make no claims to any rights, title, or interest in the leased water other than as explicitly set forth in this Water Lease. Delivery of water by the City under this Water Lease shall be on an "as is" basis only, and the City neither expressly nor impliedly warrants or guarantees the quality of the water or the quantity of water that will be yielded from the shares leased to Lessee.

Signed by the City and effective this 6 day of February 2024.

This lease may be executed by electronic signature in accordance with C.R.S 24-71.3-101 *et seq.*

Renter: R.M. Hiner Construction Co., Inc.
2220 'O' Street
Greeley, CO 80631
[redacted]
719/688-3467

By: Sharon A. Hiner

Title: Co/Owner-Secretary/Treasurer
January 31, 2024

City of Loveland, Colorado
Department of Water & Power
200 N Wilson Ave.
Loveland, CO 80537
(970) 962-2620

By: Ryan Van Pelt
Ryan Van Pelt, Engineer II
Loveland Water & Power

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY
Department of Natural Resources

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

COLORADO DIVISION OF RECLAMATION MINING & SAFETY

Bill Ritter, Jr.
Governor

James B. Martin
Executive Director

Loretta E. Piñeda
Director

April 30, 2010

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

RE: Mining Operations with Exposed Ground water

To Whom It May Concern:

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

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

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

The Division has identified four approaches for operators:

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

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

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

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

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

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

cc:

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

Dedication of Water Rights to the

Greeley Pit Substitute Water Supply Plan

I, Sharon A Winn, as the owner of 6.25 shares of the Greeley Irrigation Company evidenced by Certificate Nos. 2835, 3044, 3352, 3356, 3358, 3364, 3365, and 3413 hereby affirm that said shares will be dedicated solely to the Greeley Pit Substitute Water Supply Plan for as long as there are depletions at this gravel pit, until such time as another replacement source is obtained, or until the associated depletions are reduced requiring less water to be dedicated. The three shares will not be sold, leased, or traded to others during the term of this dedication. This dedication supersedes the previous dedication dated February 12, 2013.

Signature: Sharon A. Winn

Date: April 1- 2020

STATE OF COLORADO)

)

COUNTY OF Weld)

The foregoing instrument was acknowledged before me this 1ST day of April, 2020.

My commission expires: February 19, 2021

Witness my hand and official seal.

KIMBERLY J. STEGMAN
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19974003135
MY COMMISSION EXPIRES FEBRUARY 19, 2021

Kimberly J Stegman

Notary Public

COLORADO
Division of Water Resources
Department of Natural Resources

Augmentation Plan Accounting Protocol
June 2022

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

Contents

1. Background and definitions

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

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

2. Methods to submit accounting

a. Accounting and Reporting Uploader (preferred)

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

b. Email

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

3. Timing of accounting submittal

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

Table 1. Accounting Submittal Emails and Phone Number by Division

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

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

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

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

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

a. Overall organization

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

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

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

b. Contact/Plan Information Tab

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

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

c. Input Tab(s)

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

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

i. Estimated water use or evaporation:

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

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

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

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

ii. Well diversion data using flow meters:

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

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

iii. Well diversion data using Electricity Consumption

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

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

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

iv. Surface diversion data

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

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

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

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

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

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

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

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

d. Depletion & Obligation tab

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

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

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

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

e. Replacement tab

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

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

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

iii. Transit loss percent per mile (%)

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

f. Summary Tab

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

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

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

g. DWR tab for Diversion Record Data Import

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

h. DWR Meters tab for Meter Reading Data Import

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

i. Version/Notes tab

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

5. Requirements and recommendations for all tabs

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

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

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

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

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

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

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

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

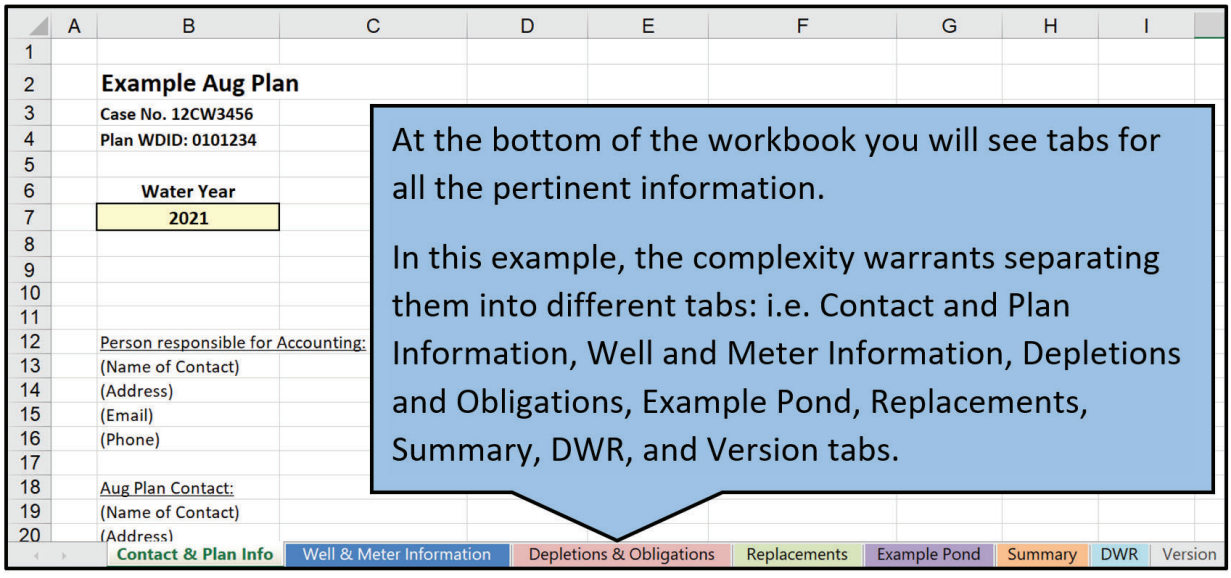
h. When there are multiple stream reaches involved, organize accounting from upstream to downstream.

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

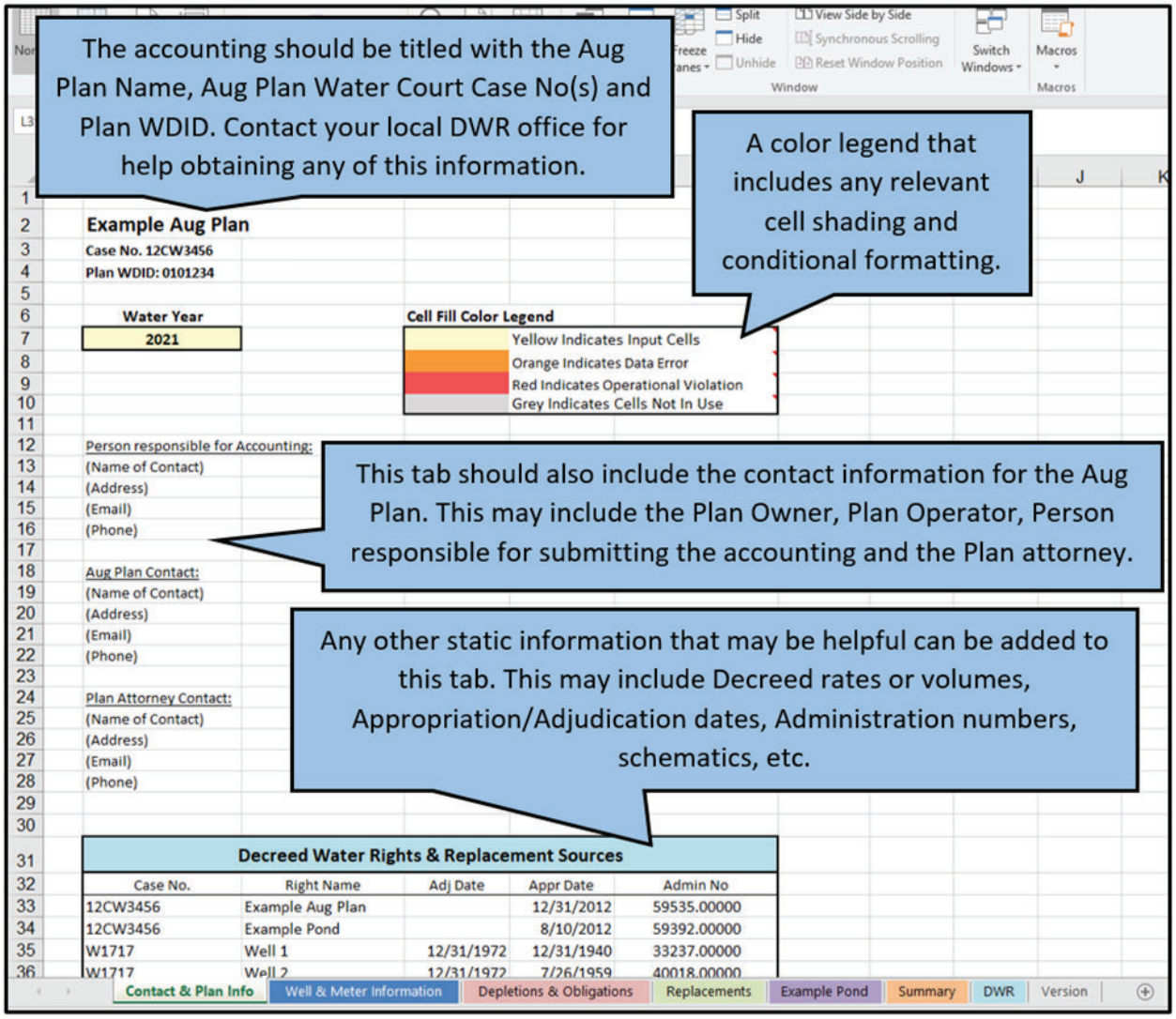
6. Example, Screenshots, and Spreadsheet Templates

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

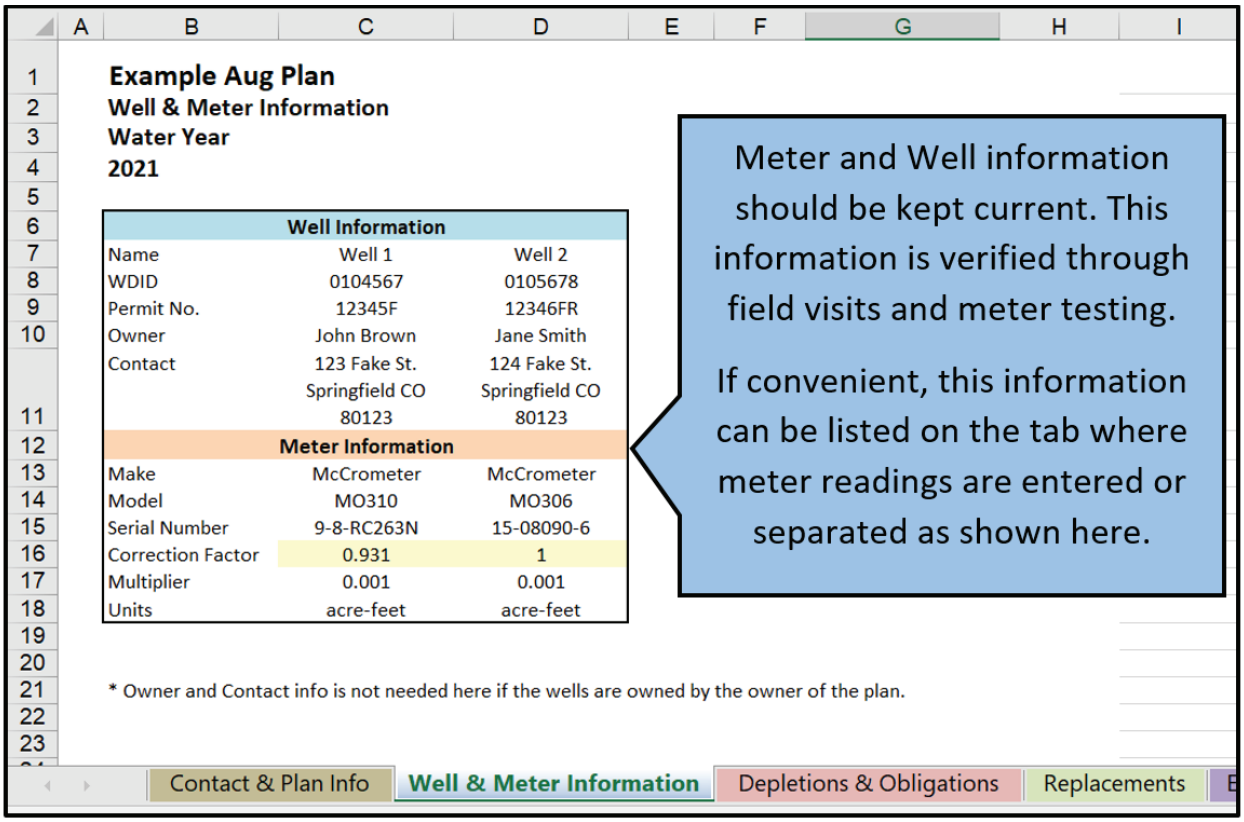
a. (List of relevant tabs)



b. (Contact & Plan Information)



c. (Well & Meter Information)



Example Aug Plan
Well & Meter Information
Water Year
2021

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

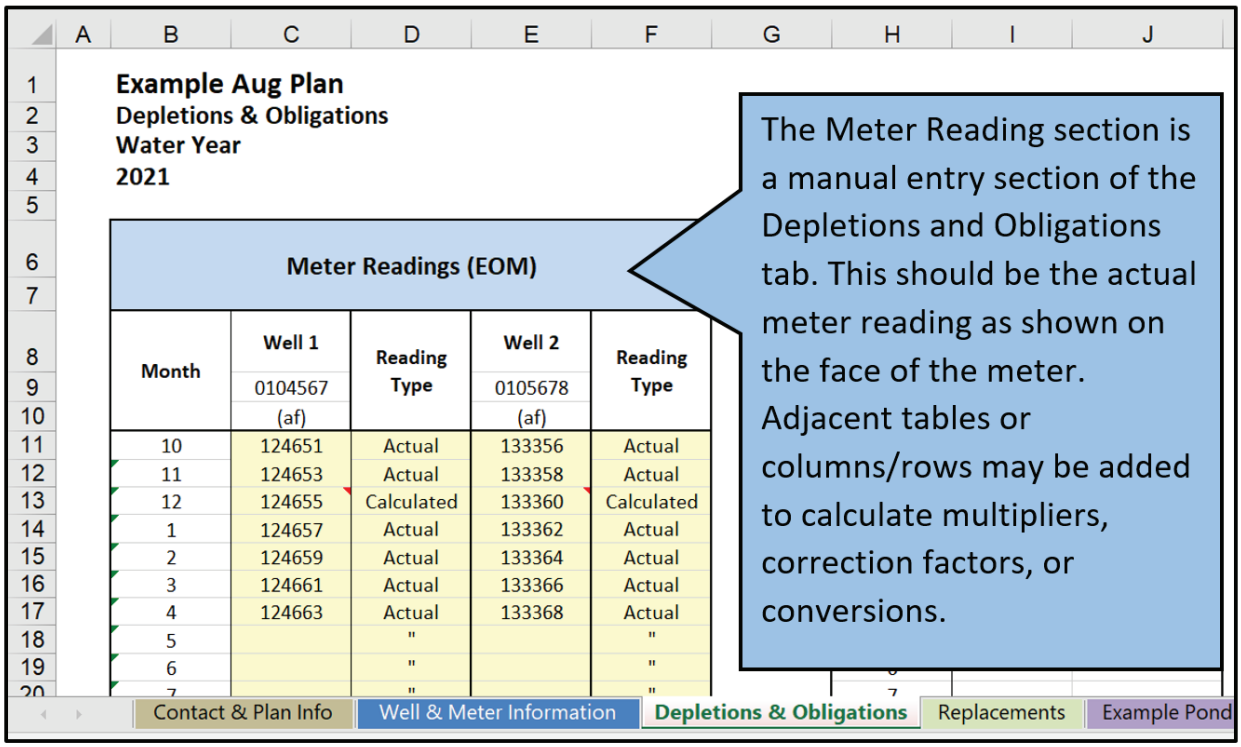
Meter and Well information should be kept current. This information is verified through field visits and meter testing.

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

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

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

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



Example Aug Plan
Depletions & Obligations
Water Year
2021

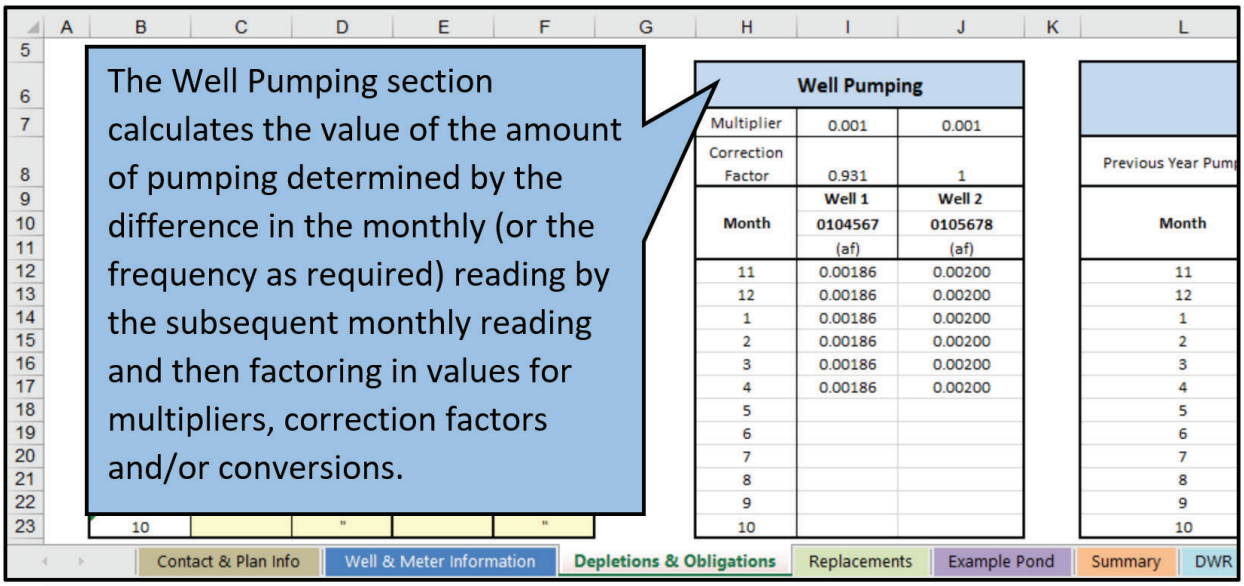
Meter Readings (EOM)

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

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

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

e. (Depletions & Obligations)



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

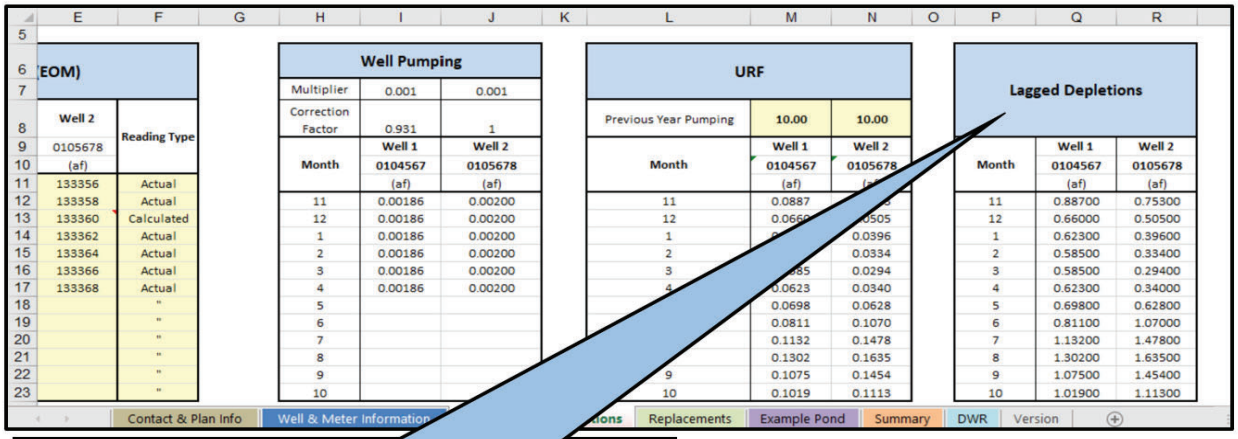
Well Pumping

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

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

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

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



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

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

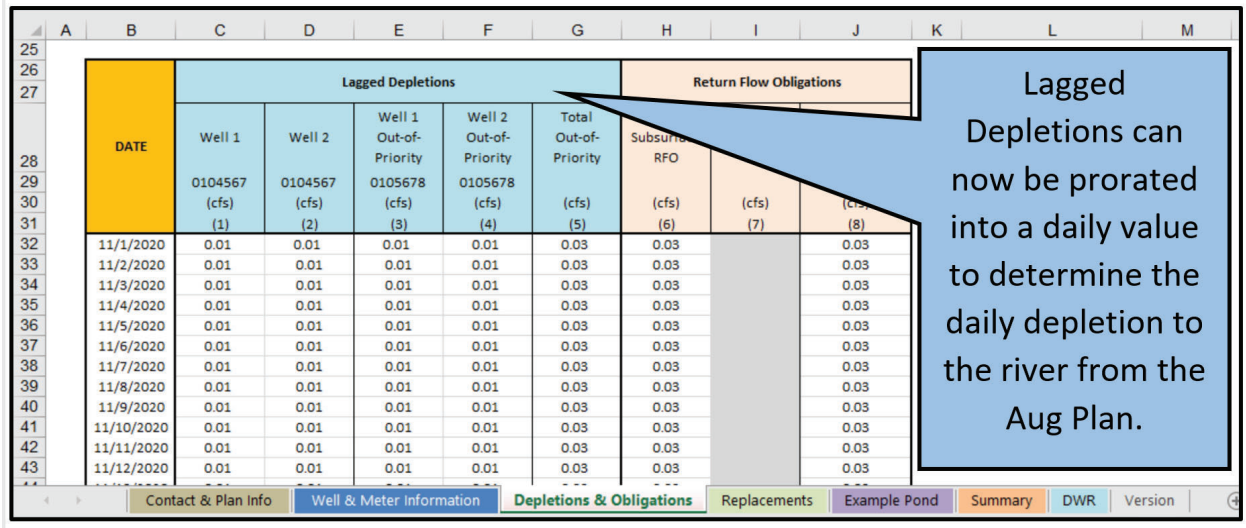
URF		
Previous Year Pumping	10.00	10.00
Month	Well 1 0104567 (af)	Well 2 0105678 (af)
11	0.0887	
12	0.0669	0505
1		0.0396
2		0.0334
3	585	0.0294
4	0.0623	0.0340
5	0.0698	0.0628
6	0.0811	0.1070
7	0.1132	0.1478
8	0.1302	0.1635
9	0.1075	0.1454
10	0.1019	0.1113

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

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

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

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

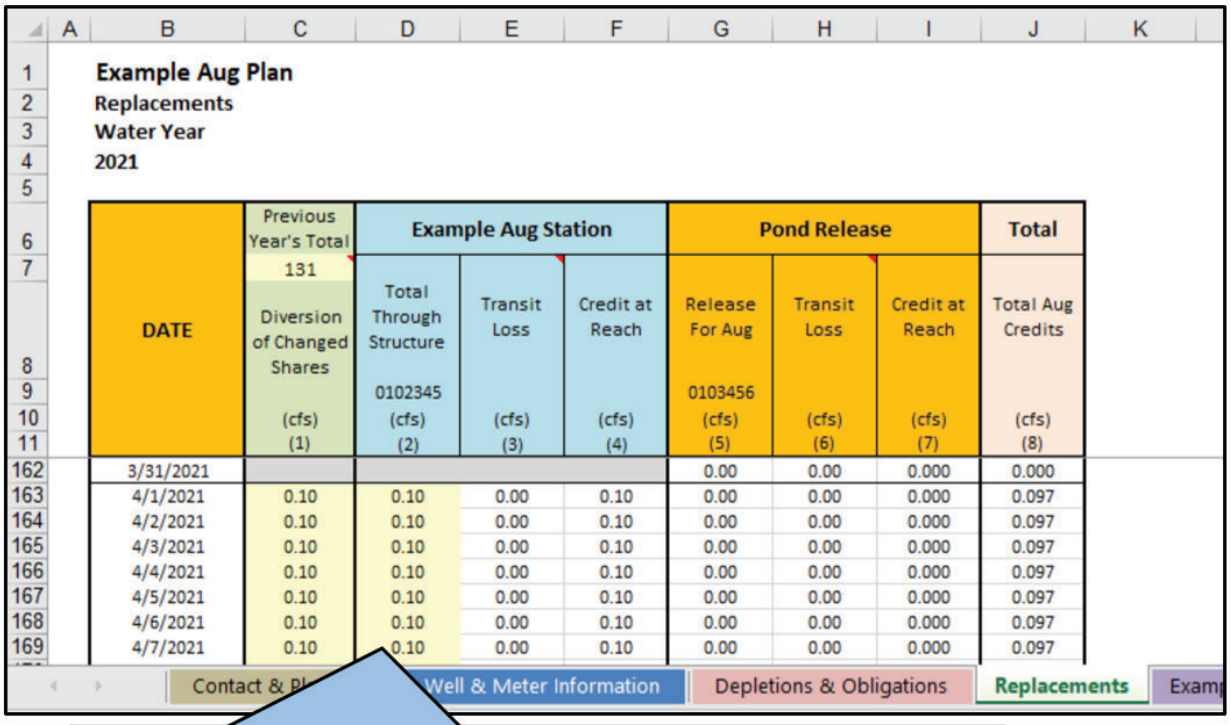


	Lagged Depletions					Return Flow Obligations		
DATE	Well 1 0104567 (cfs) (1)	Well 2 0104567 (cfs) (2)	Well 1 Out-of-Priority 0105678 (cfs) (3)	Well 2 Out-of-Priority 0105678 (cfs) (4)	Total Out-of-Priority (cfs) (5)	Subsum... RFO (cfs) (6)	(cfs) (7)	(cfs) (8)
11/1/2020	0.01	0.01	0.01	0.01	0.03	0.03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

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

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

h. (Replacements)



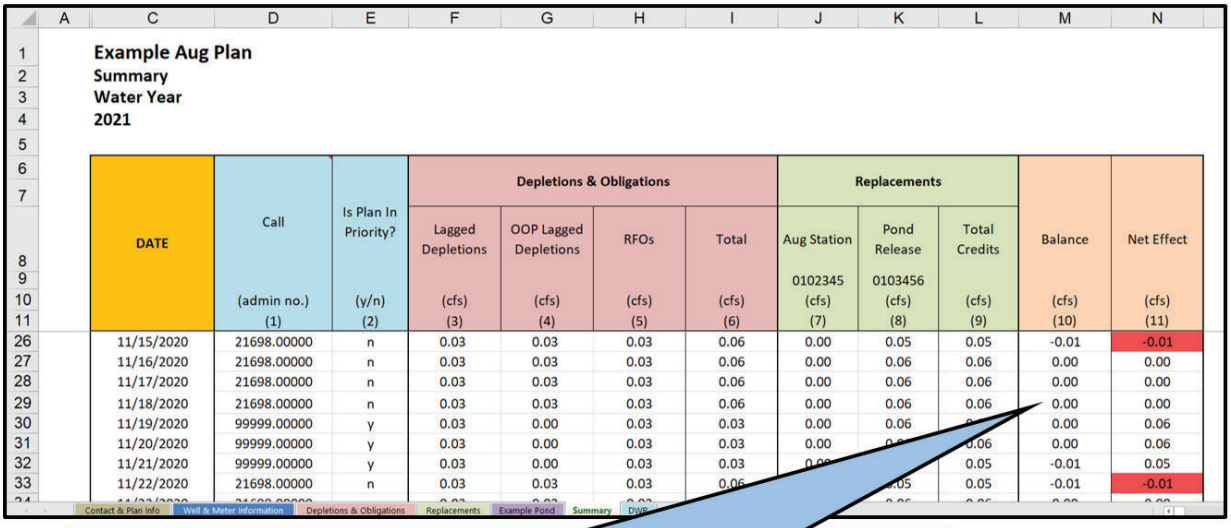
Example Aug Plan
Replacements
Water Year
2021

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

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

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

i. (Summary) - daily



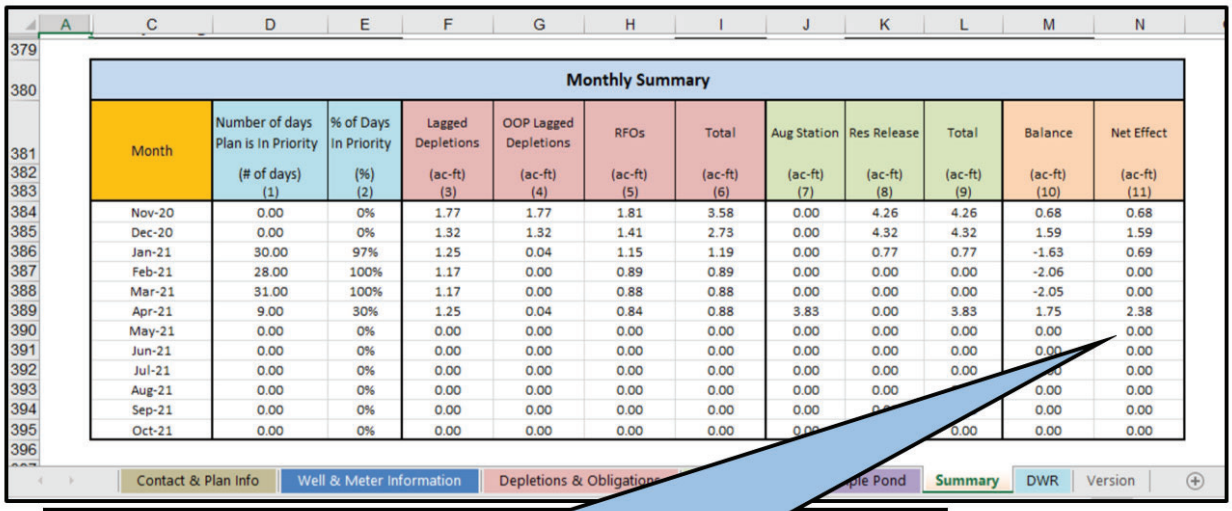
Example Aug Plan
Summary
Water Year
2021

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

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

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

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



Monthly Summary

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

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

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

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

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

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

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