

May 1, 2024

Amber Pacheco, Deputy General Manager Rio Grande Water Conservation District 8805 Independence Way Alamosa, CO 81101

RE: 2024 ANNUAL REPLACEMENT PLAN APPROVAL: SPECIAL

IMPROVEMENT SUBDISTRICT NO. 5 OF THE RIO GRANDE

WATER CONSERVATION DISTRICT

Dear Ms. Pacheco:

Thank you for your April 14, 2024 submission of the Special Improvement District No. 5's proposed Annual Replacement Plan (ARP) for the 2024 Plan Year (**May 1, 2024 through April 30, 2025**).

My staff and I have reviewed the proposed ARP and its appendices, and it is hereby approved. A copy of this approval will be available on the DWR website at:

https://dwr.colorado.gov/division-offices/division-3-office

All information and data related to this approved ARP will be available on our website.

Enclosed, please find my approval of the 2024 ARP.

Very Sincerely,

Jason T. Ullmann, P.E.

State Engineer

Director of Division of Water Resources

Esen 1. Ullmann

cc: Division 3



Review, Findings, and Approval of Subdistrict No. 5's 2024 Annual Replacement Plan

Background

Special Improvement District No. 5 ("Subdistrict"), a political subdistrict of the Rio Grande Water Conservation District ("RGWCD"), formed through Saguache County District Court in Case 2017CV30015, timely submitted its proposed Annual Replacement Plan ("ARP") pursuant to its Plan of Water Management ("PWM") approved by the State Engineer and noticed through Division No. 3 Water Court in Case No. 2020CW3002 on March 13, 2020.

The 2024 Plan Year ARP and its appendices were available for download through a link on the RGWCD website. The ARP, its appendices, and resolutions were provided to the State and Division Engineers on April 15, 2024. Copies of the ARP were made available for viewing at the State and Division Engineers' offices. The ARP, its appendices, resolutions, the Subdistrict's Response Functions, and this letter will be posted on DWR's website. My staff and I have conducted this review of the ARP and comments thereon in accordance with the operational timelines specified in the Court approved Rules Governing the Withdrawal of Groundwater in Water Division No. 3 (the Rio Grande Basin) and Establishing Criteria for the Beginning and End of the Irrigation Season in Water Division No. 3 for all Irrigation Water Rights ("Rules"), Case 2015CW3024.

DWR Review

As set forth in the Rules, I must determine whether the ARP presents "sufficient evidence" and engineering analysis to predict where and when Stream Depletions will occur and how the Subdistrict will replace or Remedy Injurious Stream Depletions to avoid injury to senior surface water rights." (Rules 11.3). Also, "the ARP will include: a database of Subdistrict and Contract Wells that will be covered by the ARP; a projection of the groundwater withdrawals from Subdistrict and Contract Wells during the current Water Administration Year; the amount of Rio Grande Canal deliveries which will be included as an offset to gross Subdistrict and Contract Well groundwater withdrawals; a calculation of the projected stream depletions resulting from net groundwater withdrawals from Subdistrict and Contract Wells; a forecast of the flows for Division No. 3 streams; detailed information regarding the methods that will be utilized to replace or remedy injurious stream depletions during the ARP Year, including any contractual agreements used for replacement or remedy of injurious stream depletions that will be in place; any information regarding the fallowing of Subdistrict Lands; information to document progress towards achieving and maintaining a Sustainable Water Supply; and, documentation that sufficient funds are or will be available to carry out the operation of the ARP." (Subdistrict PWM, Section 6.1.2). Finally, I must review the ARP pursuant to the statutory mandates, constitutional requirements, rules and regulations adopted in Division No. 3, and any letters, comments, or other objections

submitted by water users regarding the adequacy of the ARP. There were no letters, comments, or other objections submitted regarding the 2024 ARP.

With the foregoing in mind, I turn to a review of the ARP. It would be unwieldy to include in my review every detail of the thorough ARP, so for the purpose of this letter, I incorporate it and its supplements by reference.

11.1.1 Database of All Wells to be Covered by the ARP

Structure Identification Number (WDID) (Section 1 of 11.1.1 of the ARP)

A comprehensive list of wells included in the ARP is necessary in order to allow DWR to verify which wells are authorized to operate in accordance with the ARP. To that end, the Subdistrict submitted the most current tabulation of the structure identification number (WDID) of each well included in the Subdistrict (see Appendix A of the ARP). The Subdistrict also supplied a spreadsheet to DWR of the list of Subdistrict Wells as a supplement to the 2024 ARP. Appendix A lists 240 wells. In 2024 the Subdistrict added five wells through Participation Contracts: WDIDs 2606010, 2606026, 2606027 as sprinkler irrigation; and WDIDs 2605386 and 2606018 as flood irrigation. Additionally, the Subdistrict added WDID 2606025 which is the Subdistrict's augmentation well described in SWSP 8308. The Subdistrict is going forward with their plans to drill a second augmentation well under SWSP 8308. The WDID of the proposed well is 2606028, but it has not been drilled yet. If the well is completed and used during the 2024 ARP Year, all depletions from this well must be covered by the Subdistrict. For this reason, WDID 2606028 will be added to the ARP Well List for 2024.

The contract wells accepted by the Subdistrict in 2024 are listed in Appendix B. Contract wells are reviewed for the terms of the contracts, associated permits and decrees for each well, and historical meter records. Any wells that are used for any beneficial uses not authorized by permit and/or decree for those structures cannot be covered by the 2024 ARP and the owners will be notified by separate correspondence.

Wells that have submitted an SWSP and/or started the process of changing an existing permitted/decreed use to a Non-Exempt use described in the participation contract can be conditionally accepted. These wells cannot be operated until the SWSP and/or decree is finalized and approved. Should an SWSP become invalid during the ARP Year or the change of use in a court case be denied, the well can no longer be covered by the ARP and the owners will be notified.

All wells accepted for this ARP approval have permitted and/or decreed limits, and they will only be accepted for groundwater withdrawals up to those respective limits. If historical records indicate a pattern of exceedance of these limits in the past, owners of these wells may be notified by separate correspondence that their wells are being conditionally accepted, and that exceedance of the legal limits will not be covered under this ARP. The Subdistrict will be copied on all separate correspondence sent for these purposes.

Other Well Identification Information (Section 2 of 11.1.1 of the ARP)

The requirement to provide the database of wells the Subdistrict has accepted as part of this ARP was satisfied under 11.1.1.1.

Subdistrict Wells with Plans for Augmentation (Section 3 of 11.1.1 of the ARP)

The ARP Well List does not include any wells that are either fully or partially augmented by an approved plan for augmentation which is administered separately of the Subdistrict's PWM. Therefore, all wells on the ARP list will be treated as Subdistrict Wells and the Subdistrict will remedy injurious stream depletions and post-plan injurious stream depletions attributable to the well's total groundwater withdrawals as part of this ARP as long as it is legal. "The Subdistrict and this Plan of Water Management or ARP cannot be used as a source of water for new or expanded consumptive use of groundwater which is not within the terms and conditions of a valid permit or decree which existed as of December 18, 2017, or for new or expanded plans for augmentation or other replacement plans without the approval of both the Court and the Subdistrict's Board of Managers." (PWM at 2.4.6)

I have reviewed Appendix A and Appendix B of the ARP and consulted with staff and find it to be an accurate inventory of Subdistrict Wells that meets the requirements of Rule 11.1.1.

Total Projected Annual Diversion for All Subdistrict Wells (Section 4 of 11.1.1 of the ARP)

For Subdistrict ARP Wells listed in this ARP, total metered groundwater withdrawals per DWR records as of April 10, 2024, for the 2023 Water Administration Year were 30,688 acre-feet.

The Subdistrict developed Groundwater Allocation Rules in 2021 that govern the setting of enforcement of a maximum groundwater withdrawal amount for Subdistrict and Contract Wells which were supplied as a supplement to the ARP. The Board of Managers (BOM) set an allocation based on the anticipated need for groundwater withdrawal restrictions during the upcoming irrigation season. The allocation is set as a percentage reduction of a Farm Unit's historical groundwater withdrawals and is the same percentage for all Farm Units.

The Subdistrict set the total allocation per the Groundwater Allocation Rules as 90% of the average of the highest 5 years of pumping from the period of 2011 through 2020. This is a reduction of 10% of historical pumping. Using the allocation under the rules and considering the 2024 snowpack to be nearly identical to the 2023 snowpack, the Subdistrict projected the ARP Well groundwater withdrawals in 2024 to be 33,750 acre-feet. The actual pumping allowed may be higher than the projected amount because the Allocation Rules allow Subdistrict members to request a variance from the typical calculation that will result in a higher allocation.

Subdistrict Well Metered Pumping (acre-feet) from Table 1.1 of the ARP

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
45,156	44,653	38,740	40,028	35,406	38,432	37,942	44,102	32,845	42,407
13,130	11,033	30,7 10	10,020	33, 100	30, 132	37,712	11,102	32,013	12, 107

2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
24,965	24,505	30,688							

The majority of metered groundwater withdrawals in the Plan Year will be used for flood irrigation, 59 percent. Approximately 39 percent will be applied to irrigation through center pivot sprinklers and 2 percent of groundwater withdrawals will be used for other uses.

Expected Methods of Irrigation, the Combined Projected Number of Acres Irrigated and the Total Projected Acreage by Each Irrigation Method (Section 5 of 11.1.1 of the ARP)

Subdistrict ARP wells are projected to irrigate approximately 11,971 acres during the Plan Year, including 7,852 acres irrigated by center pivot sprinklers and 4,119 acres irrigated by flood application. The Subdistrict made this estimate based on review of the breakdown of acres in the RGWCD's annual Irrigated Ag Census and information submitted with Participation or Inclusion Contracts.

Non-Irrigation Subdistrict Wells - Calculation of All Projected Withdrawals and Projected Net Groundwater Consumptive Use (Section 6 of 11.1.1 of the ARP)

Included in the Subdistrict Well List are a number of wells with beneficial uses other than irrigation. The Subdistrict utilized information provided by DWR to calculate the consumptive use rates used in the RGDSS Model to calculate stream impacts and returns. Beneficial uses include municipal, domestic, commercial, industrial, and aquaculture. A spreadsheet was prepared by the Subdistrict to calculate the composite Consumptive Use Ratio that is a necessary input in the Response Functions. A spreadsheet of the calculation prepared for use in the 2024 ARP was submitted as supplement to this ARP.

Other Data Necessary to Support the Projected Stream Depletions (Section 7 of 11.1.1 of the ARP)

No other data was provided.

Other Information Required by the State and Division Engineers and Reasonably Necessary to Evaluate the Proposed ARP (Section 8 of 11.1.1 of the ARP)

The supplemental information needed to evaluate the 2024 ARP and provided to the State Engineer included:

- 1. An electronic copy of the Response Functions used to prepare the tables included in this ARP.
- 2. The list of Subdistrict Wells included in the 2024 ARP in spreadsheet format matching the list presented in Appendix A
- 3. A spreadsheet showing the Subdistrict's breakdown of "Other" wells used to calculate the composite Consumptive Use Ratio in the Response Function.
- 4. A Resolution from RGWCD approving the Subdistrict 2024 ARP.
- 5. A Resolution from RGWCD to allow the Subdistrict to allocate Closed Basin Project water in the 2024 ARP.
- 6. The Subdistrict explanation of streamflow forecast used in the Response Functions.
- 7. An MOU between the Subdistrict and the Saguache Subdistrict (Subdistrict No. 5) regarding the remedying of the Saguache Subdistrict depletions owed to San Luis Creek.
- 8. A Well Injury Payment (or Forbearance) Yield Analysis. This is a description of the Subdistrict's approach to estimate the probable yield of replacement sources for the various forbearance contracts with ditches under forbearance agreements. A copy of the document used in the analysis was provided as supplement to the ARP.
- 9. The Operational Requests to the Division Engineer for the 2024 ARP
 - The Subdistrict requests to aggregate depletions between Stream Reaches as part of the anticipated operation in 2024.
 - The Subdistrict requests to aggregate depletions with other Subdistricts during the 2024 ARP year.

11.1.2 Projected Stream Depletions from the Wells Covered by the ARP based on the Applicable Response Function or Approved Alternative Method

Section 2 of the ARP presents the data utilized to project stream depletions to Saguache Creek, San Luis Creek, and the Rio Grande as a result of the Plan Year's groundwater withdrawals from Subdistrict ARP Wells. The Response Function outputs identify total projected stream depletions for the Plan Year, a breakdown of the monthly stream depletions for Saguache Creek, San Luis Creek, and one reach on the Rio Grande and a projection of the Post-Plan Stream Depletions calculated as a result of the predicted Plan Year groundwater withdrawals from Subdistrict ARP Wells. The Subdistrict used the current 6P98 Response Functions to calculate projected stream depletions for this ARP.

The United States Department of Agriculture's Natural Resources Conservation Service ("NRCS") streamflow statistics are calculated over a 30-year period and updated each decade, in agreement with World Meteorological Organization (WMO) standards. This 30-year reference period was chosen to characterize the current hydro climatology at each station. The current medians and averages have been updated to include data for the water years 1991-2020. The current year streamflow projection is compared to the 30-year reference period to determine the percent of "normal" streamflow. The NRCS forecasts were reported as percent of the median in this report.

2024 Stream Flow - Saguache Creek (Section 1 of 11.1.2 of the ARP)

The annual streamflow forecasts included in Appendix D of the ARP includes the NRCS April 1, 2024 forecasts. The NRCS April - September flow for Saguache Creek near Saguache is 41,000 acre-feet (50% exceedance). Based upon a review of additional data, including current Snotel data, other NRCS forecasts in the San Luis Valley, prior year's stream flows comparison and area field inspections, DWR believes the 41,000 acre-feet forecast on Saguache Creek to be an anomaly and should be adjusted down.

The Subdistrict's provided a memorandum describing their own analysis and agrees that 41,000 is too high. They have used a forecast of 35,000 acre-feet which is the 70% exceedance level projected by the NRCS. DWR forecast estimates drop below the 35,000 used by the Subdistrict but accepts their number as it is more conservative towards the Response Function output. The April - September flow for Saguache Creek is 35,000 acrefeet for use in the Response Functions for 2024.

The Subdistrict showed the Division Engineer's April 5, 2024 Rio Grande Compact Ten Day Report for the Rio Grande and for the Conejos River basin, April through September streamflow forecasts in their Table 1.2. Ten Day Report indicated the April - September flow for the Rio Grande of <u>445,000 acre-feet</u> and additional non-irrigation season flow of ±85,000 acre-feet to create an annual projection of ±530,000 acre-feet.

Stream Flow - Saguache Creek, Rio Grande

		,		
Saguache Creek Stream Flow	Apr-Sep	% of	Additional	Annual
Analysis	(acre-feet)	median	(acre-feet)	(acre-feet)
NRCS 'April 1st' Forecast (50% exceedance)	(1)	(2)	(3)	
Saguache Creek near Saguache	41,000	146%		
NRCS 'April 1st' Forecast (70% exceedance)				
Saguache Creek near Saguache	35,000	125%		
DWR Apr-Sep Forecast, April 5, 2024	445,000	93%	85,000	530,000
Rio Grande near Del Norte				

- (1) projected exceedance streamflow at the gaging station per NRCS projection
- (2) NRCS 30-yr Average Flow: Saguache-28,000; Rio Grande 480,000 (recently adjusted from Saguache-32,000; Rio Grande 515,000)
- (3) January through March and October through December per the Division Engineer Ten Day report 3/31/2023.

Projected Plan Year Stream Depletions (Section 2 of 11.1.2 of the ARP)

The ARP next indicates recharge credit as an offset to pumping. The Rio Grande Canal that brings surface water into the Subdistrict has a recharge decree, as detailed in the ARP.

The recharge credit is based upon hydrologic conditions for the 2024 ARP Plan Year using historical diversion records and the terms of the recharge decrees. The process of calculating recharge credit from the recharge decrees was developed for use in the Subdistrict No. 1 ARPs and is followed for the Saguache Subdistrict ARP.

The recharge credits were reduced based on the pro-rata shares of the ditch within the Subdistrict boundary. Further, the projected recharge credits were reduced by the projected consumption attributable to the surface water directly used through sprinkler irrigation (83%) and flood irrigation (60%), which is also outlined in Table 2.2 of the ARP. Historical calculations for years 2011-2023 are included as Appendix F.

Table 2.2
Calculated Recharge Decree Credits for Saguache Subdistrict
During Current Irrigation Year

(Units in acre-feet)

	Rio Grande Canal
Total Consumable	104,414
% Within Saguache Subdistrict	3.58%
Total Consumable Within Saguache Subdistrict	3,738
Surface Water Through Sprinklers @83%	-1,224
Surface Water Used for Flood @60%	- 876
Totals	1,637

Note: Credits were calculated based on a projected annual streamflow of 530,000 acre-feet.

Projected recharge decree credits for the Subdistrict for 2024 are calculated as <u>1,637 acrefeet</u>.

The Subdistrict predicted stream depletions caused by Subdistrict ARP Wells utilizing the Response Functions developed for the Saguache Creek Response Area under the RGDSS Groundwater Model Phase 6P98.

The Response Function spreadsheet was built to be used for the whole Response Area. Two instruction sheets were prepared by DWR for additional inputs to the Response Functions when there is a need to use it for individual or group of wells. The instruction sheet, "How to Use the Application Workbook for a Subset (individual/group) of Wells" (9/23/2015), describes how to adjust the spreadsheet inputs to stream reaches that have been modeled with point source returns to streams. The instruction sheet, "How to Adjust the Application Workbook for use with a Subset of Wells" (10/15/2015), describes how to use the "Ratio Method" for Response Areas where it is necessary to apply this method.

The first step in using the current 6P98 Response Function is to input data for the whole Response Area, i.e., historical groundwater withdrawals for sprinkler irrigation, flood irrigation, "other" pumping with corresponding "other" consumptive use ratios for the years 2011 through 2023 and predicted values for 2024.

The Response Function spreadsheet was used for the set of wells represented by the Subdistrict ARP Wells. The Saguache Response Area requires adjustments for the stream ratios, as listed below.

• Saguache: Reach 1 Calculations Ratio, and Reach 3 Calculations Ratio,

Using the whole Response Area results, adjustments are made on appropriate pages of the Response Function spreadsheet. Adjustments for the Ratio Method must be made for Reach 1: Saguache Creek and Reach 3: San Luis Creek below Arthur Young and Kerber Creek.

Once these preliminary steps are completed, the next step in calculating stream depletions using the Response Functions is updating Table 2.1 to derive the annual net groundwater consumptive use. The consumptive use ratios for sprinkler and flood irrigation used in the Model are standard factors of 83% and 60%, respectively. The consumptive use ratio for "other" wells is specific to the uses of those wells and can vary widely. The "Other Consumptive Use Ratio" for the whole Response Area is a composite derived from the individual well withdrawals and consumptive uses.

The Subdistrict provided a spreadsheet of "Other" wells included in the Subdistrict ARP Well list as a supplement to the ARP. The spreadsheet shows the individual well groundwater withdrawals and consumptive use factors to explain how the composite ratios were determined for the subset wells represented in Table 2.1 of the ARP.

Historical ARP Well groundwater withdrawal values were entered in Table 2.1 for years 2011 through 2023. No adjustments were made by DWR for groundwater withdrawals of the subset wells for any years prior to 2011. Projected ARP Well groundwater withdrawal values were used for 2024. The projected Net Groundwater Consumptive Use for the Plan Year is 21,751 acre-feet.

Following determination of the Net Groundwater Consumptive Use, the data was incorporated in the Response Functions Table 2.2 to calculate stream depletions for the Plan Year and projected into the future.

The Response Functions calculated stream depletions to Saguache Creek, the Rio Grande, and San Luis Creek, during the Plan Year, due to both past ARP Well groundwater withdrawals and the projected Plan Year ARP Well groundwater withdrawals. The total depletions are 1,200.8 acre-feet. The Response Functions calculated total stream depletions to Saguache Creek of 682.9 acre-feet, to the Rio Grande 270.8 acre-feet, and to San Luis Creek 247.0 acre-feet. The locations of the stream depletions and monthly quantities are also tabulated in Table 2.4.

Post-Plan Stream Depletions are estimated to accrue to impacted streams for approximately 19 years. Based on predictions from the Response Functions, Table 2.5 of the ARP shows there would be a total of <u>5,714 acre-feet</u> of Post-Plan Stream Depletions. This amounts to <u>2,753 acre-feet</u> to Saguache Creek, <u>2,004 acre-feet</u> to the Rio Grande, and <u>957 acre-feet</u> to San Luis Creek.

11.1.3 Description of How Injurious Stream Depletions from Groundwater Withdrawals by Wells Included in the ARP will be Replaced

or Remedied

Amounts and Sources of Replacement Water for 2024 Plan Year (Section 1 of 11.1.3 of the ARP)

The Subdistrict has assembled a portfolio of water supplies for the replacement of Injurious Stream Depletions and remedies other than water. The ARP identifies the water rights, their availability and their amounts for San Luis Creek and the Rio Grande in Table 3.1 of the ARP.

The adequacy of replacement sources for the ARP Year are dependent upon contracted amounts the Subdistrict has acquired as well as the availability of the source to pay depletions in place and time. For purposes of review of adequacy of replacement sources, there are three categories defined.

<u>In Storage</u>: Reservoir water in storage under the control of the Subdistrict. This water is available for release at the direction of the Subdistrict.

<u>In Season</u>: Ditch water that will become available to the Subdistrict when in priority during the irrigation season in the amount of depletion owed to streams daily by the Subdistrict. For some sources, water not used to pay daily depletions may be stored for Subdistrict use later.

On Call: Remedies, such as forbearance, that are available in the amount of depletion owed to streams daily by the Subdistrict, limited to when the forbearance ditch is the calling water right. I note that forbearance depends on climate and actual days when a ditch is the calling water right and the exact yield per year is indeterminate. It is also noted that the amount of forbearance water usable by the Subdistrict is limited by their depletions owed daily to streams. In addition, several Subdistricts are seeking forbearance agreements with the same ditches. This further complicates the availability of a firm supply under these agreements.

This replacement water or remedy will be available to replace Injurious Stream Depletions as directed by the Division Engineer. A summary of the portfolio items is shown in the Replacement Sources tables on the following pages. I will approve up to the full amount itemized in the Replacement Sources tables and stated in the following sections for use in the 2024 ARP.

Subdistrict No. 5 Replacement Sources Saguache Creek (acre-feet)

	Water Right Name	Submitted in ARP	Approved in SWSP's	Remaining 5/1/2024 & Approved for 2024 ARP
SWSP	In Storage			0
	None			
	In Season	Submitted in ARP	Approved in SWSP's	DWR Expected Yield
SWSP	In Season			
9367	Malone Sullivan No. 1	152.0		Up to 152.0
9367	Heimberger Ditch No.1	34.7		Up to 34.7
9367	Malone Ditch	82.1		Up to 82.1
8308	North Star Lease- WDID 2605057, WDID 2605685, WDID 2605690 - Model Layer 2	±457.1		Up to 457.1
8308	North Star Lease- WDID 2605057, WDID 2605685, WDID 2605690 - Model Layer 1	±167.8		Up to 167.8
	Total In Season	893.7		Up to 893.7
	On Call	Limit	Expected Yield	DWR Expected Yield
WDID	Forbearance			
	Saguache Creek			
2600510	Campbell Ditch 4 (Priority 49 50 62 68) - (5 yr. 2029)	No limit		
2600511	Campbell Ditch 5 (Priority 47 49 66 68) - (5 yr. 2029)	No limit		
2600512	Campbell Ditch 6 (Priority 50) - (5 yr. 2029)	No limit		
2601174	Carol Jean Ditch (Priority 96) - (5 yr. 2026)	No limit		
2600559	Hearn Ditch - Jungert (Priority 44) - (5 yr. 2026)	No limit		
2600594	Marshall Arter Ditch (Priority 92 112) - (5 yr. 2026)	No limit		
2600616	Nehls Co Ditch (Priority 55, partial) - (5 yr. 2029)	No limit		
2600654	Roberts Co Ditch (Priority 32) - (5 yr. 2029)	No limit		
	Total On Call- Forbearance		0	0

Subdistrict No. 5 Replacement Sources

Rio Grande (acre-feet)

	THO Grande (dere reet)						
SWSP	Water Right Name	Submitted	Approved in	Remaining			
		in	SWSP's	5/1/2024 &			
		ARP		Approved for			
		5/1/2024		2024 ARP			
	In Storage						
6094	Kanawah/ Cochran Pioneer	23.5		23.5			

On Call	Limit	Expected Yield	DWR Expected Yield
CBP Allocation (as of April 2024)	4,100		
Total On Call- Irrigation & Non-Irrigation		271	Up to 271
Season			

Subdistrict No. 5 Replacement Sources

San Luis Creek (acre-feet)

Water Right Name		Water Pight Name	Submitted	Approved in	Pomaining
In Storage		water right hanne	in		5/1/2024 &
In Storage			ARP		
None		In Storage			
None					Ţ.
None		In Season			0
WDID Forbearance					
Kerber Creek 2500747 1920 Ditch - 1 yr. 2024 No limit No limit Dragos - (1 yr. 2024)		On Call	Limit		-
2500747 1920 Ditch - 1 yr. 2024 No limit	WDID	Forbearance			
2500541 Clayton Ditch D (1 cfs of 3.4 cfs) 29.4% - Dragos - (1 yr. 2024) 2500541 Clayton Ditch D (1.7 cfs of 3.4 cfs) 50.0% - Wagner - (5 yr. 2027) 2500541 Clayton Ditch D (0.7 cfs of 3.4 cfs) 20.6% - Hutchinson - (5 yr. 2027) 2500542 Clayton Ditch E - Wagner - (5 yr. 2027) - Cottonwood Creek 2500693 Clayton Ditch FG - Wagner - (5 yr. 2027) No limit 2500545 Clayton Old Channel Ditch - (5 yr. 2027) No limit 2500546 Cody Ditch - (5 yr. 2027) No limit 2500551 Daniels Fish Arroya Ditch - (5 yr. 2029) No limit 2500552 Daniels Fish Ditch No. 4 - (5 yr. 2029) No limit Goodwin Hamby - Dragos (3 yr. 2027) No limit 2500583 Hall Ditch 1 - 1 yr. 2025 No limit 2500680 Wells Kerber Ditch - (5 yr. 2029) No limit 2500682 Wells North Ditch - (5 yr. 2029) No limit 2500683 White Ditch - (5 yr. 2027) No limit 2500683 White Ditch - (5 yr. 2027) No limit 2500677 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500614 Kennedy Ditch - Blumenhein - (amendment					
Dragos - (1 yr. 2024) 2500541 Clayton Ditch D (1.7 cfs of 3.4 cfs) 50.0% - No limit Wagner - (5 yr. 2027) 2500541 Clayton Ditch D (0.7 cfs of 3.4 cfs) 20.6% - Hutchinson - (5 yr. 2027) 2500542 Clayton Ditch E - Wagner - (5 yr. 2027) No limit 2500543 Clayton Ditch FG - Wagner - (5 yr. 2027) No limit 2500544 Cody Ditch - (5 yr. 2027) No limit 2500545 Clayton Old Channel Ditch - (5 yr. 2027) No limit 2500546 Cody Ditch - (5 yr. 2027) No limit 2500551 Daniels Fish Arroya Ditch - (5 yr. 2029) No limit 2500552 Daniels Fish Ditch No. 4 - (5 yr. 2029) No limit 2500553 Hall Ditch 1 - 1 yr. 2025 No limit 2500680 Wells Kerber Ditch - (5 yr. 2029) No limit 2500681 Wells North Ditch - (5 yr. 2029) No limit 2500682 Wells North Ditch - (5 yr. 2029) No limit 2500683 White Ditch - (5 yr. 2027) No limit 2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500674 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment No limit	2500747		No limit		
2500541 Clayton Ditch D (1.7 cfs of 3.4 cfs) 50.0% - Wagner - (5 yr. 2027) No limit	2500541		No limit		
Wagner - (5 yr. 2027)					
Clayton Ditch D (0.7 cfs of 3.4 cfs) 20.6% - Hutchinson - (5 yr. 2027)	2500541		No limit		
Hutchinson - (5 yr. 2027) 2500542 Clayton Ditch E - Wagner - (5 yr. 2027) - No limit Cottonwood Creek 2500693 Clayton Ditch FG - Wagner - (5 yr. 2027) No limit No limit No limit 2500545 Clayton Old Channel Ditch - (5 yr. 2027) No limit					
2500542 Clayton Ditch E - Wagner - (5 yr. 2027) - No limit 2500693 Clayton Ditch FG - Wagner - (5 yr. 2027) No limit 2500545 Clayton Old Channel Ditch - (5 yr. 2027) No limit 2500546 Cody Ditch - (5 yr. 2027) No limit 2500551 Daniels Fish Arroya Ditch - (5 yr. 2029) No limit 2500552 Daniels Fish Ditch No. 4 - (5 yr. 2029) No limit Goodwin Hamby - Dragos (3 yr. 2027) No limit 2500583 Hall Ditch 1 - 1 yr. 2025 No limit 2500680 Wells Kerber Ditch - (5 yr. 2029) No limit 2500682 Wells North Ditch - (5 yr. 2029) No limit 2500683 White Ditch - (5 yr. 2027) No limit 2500713 Dittrich Steel Ditch - (1 yr. 2025) No limit 2500576 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500641 San Luis CO Ditch - Blumenhein - (amendment)	2500541		No limit		
Cottonwood Creek 2500693 Clayton Ditch FG - Wagner - (5 yr. 2027) No limit 2500545 Clayton Old Channel Ditch - (5 yr. 2027) No limit 2500546 Cody Ditch - (5 yr. 2027) No limit 2500551 Daniels Fish Arroya Ditch - (5 yr. 2029) No limit 2500552 Daniels Fish Ditch No. 4 - (5 yr. 2029) No limit No li	2-22-12				
2500693 Clayton Ditch FG - Wagner - (5 yr. 2027) No limit 2500545 Clayton Old Channel Ditch - (5 yr. 2027) No limit 2500546 Cody Ditch - (5 yr. 2027) No limit 2500551 Daniels Fish Arroya Ditch - (5 yr. 2029) No limit 2500552 Daniels Fish Ditch No. 4 - (5 yr. 2029) No limit Goodwin Hamby - Dragos (3 yr. 2027) No limit 2500583 Hall Ditch 1 - 1 yr. 2025 No limit 2500680 Wells Kerber Ditch - (5 yr. 2029) No limit 2500682 Wells North Ditch - (5 yr. 2029) No limit 2500683 White Ditch - (5 yr. 2027) No limit San Luis Creek San Luis Creek 2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500614 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment) No limit	2500542		No limit		
2500545 Clayton Old Channel Ditch - (5 yr. 2027) No limit 2500546 Cody Ditch - (5 yr. 2027) No limit 2500551 Daniels Fish Arroya Ditch - (5 yr. 2029) No limit 2500552 Daniels Fish Ditch No. 4 - (5 yr. 2029) No limit 2500583 Hall Ditch 1 - 1 yr. 2025 No limit 2500680 Wells Kerber Ditch - (5 yr. 2029) No limit 2500682 Wells North Ditch - (5 yr. 2029) No limit 2500683 White Ditch - (5 yr. 2027) No limit 2500713 Dittrich Steel Ditch - (1 yr. 2025) No limit 2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500641 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment No limit	2500403		NI - 1226		
2500546 Cody Ditch - (5 yr. 2027) No limit 2500551 Daniels Fish Arroya Ditch - (5 yr. 2029) No limit 2500552 Daniels Fish Ditch No. 4 - (5 yr. 2029) No limit 2500583 Hall Ditch 1 - 1 yr. 2025 No limit 2500680 Wells Kerber Ditch - (5 yr. 2029) No limit 2500682 Wells North Ditch - (5 yr. 2029) No limit 2500683 White Ditch - (5 yr. 2027) No limit San Luis Creek San Luis Creek 2500713 Dittrich Steel Ditch - (1 yr. 2025) No limit 2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500614 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment) No limit		5			
2500551 Daniels Fish Arroya Ditch - (5 yr. 2029) No limit 2500552 Daniels Fish Ditch No. 4 - (5 yr. 2029) No limit Goodwin Hamby - Dragos (3 yr. 2027) No limit 2500583 Hall Ditch 1 - 1 yr. 2025 No limit 2500680 Wells Kerber Ditch - (5 yr. 2029) No limit 2500682 Wells North Ditch - (5 yr. 2029) No limit 2500683 White Ditch - (5 yr. 2027) No limit San Luis Creek No limit 25005713 Dittrich Steel Ditch - (1 yr. 2025) No limit 2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500614 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment) No limit		, , ,			
2500552 Daniels Fish Ditch No. 4 - (5 yr. 2029) No limit Goodwin Hamby - Dragos (3 yr. 2027) No limit 2500583 Hall Ditch 1 - 1 yr. 2025 No limit 2500680 Wells Kerber Ditch - (5 yr. 2029) No limit 2500682 Wells North Ditch - (5 yr. 2029) No limit 2500683 White Ditch - (5 yr. 2027) No limit San Luis Creek No limit 2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500614 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment) No limit					
Goodwin Hamby - Dragos (3 yr. 2027) No limit 2500583 Hall Ditch 1 - 1 yr. 2025 No limit 2500680 Wells Kerber Ditch - (5 yr. 2029) No limit 2500682 Wells North Ditch - (5 yr. 2029) No limit 2500683 White Ditch - (5 yr. 2027) San Luis Creek 2500713 Dittrich Steel Ditch - (1 yr. 2025) No limit 2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500641 Kennedy Ditch 2 - 1 yr. 2025 No limit San Luis Co Ditch - Blumenhein - (amendment) No limit		- ` ` - '			
2500583 Hall Ditch 1 - 1 yr. 2025 No limit 2500680 Wells Kerber Ditch - (5 yr. 2029) No limit 2500682 Wells North Ditch - (5 yr. 2029) No limit 2500683 White Ditch - (5 yr. 2027) No limit San Luis Creek No limit 2500713 Dittrich Steel Ditch - (1 yr. 2025) No limit 2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500644 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment) No limit	2300332				
2500680 Wells Kerber Ditch - (5 yr. 2029) No limit 2500682 Wells North Ditch - (5 yr. 2029) No limit 2500683 White Ditch - (5 yr. 2027) No limit San Luis Creek No limit 2500713 Dittrich Steel Ditch - (1 yr. 2025) No limit 2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500614 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment) No limit	2500502				
2500682 Wells North Ditch - (5 yr. 2029) No limit 2500683 White Ditch - (5 yr. 2027) No limit San Luis Creek 2500713 Dittrich Steel Ditch - (1 yr. 2025) No limit 2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500614 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment) No limit		·			
2500683 White Ditch - (5 yr. 2027) No limit San Luis Creek San Luis Creek 2500713 Dittrich Steel Ditch - (1 yr. 2025) No limit 2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500614 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment) No limit					
San Luis Creek 2500713 Dittrich Steel Ditch - (1 yr. 2025) No limit 2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500614 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment No limit					
2500713 Dittrich Steel Ditch - (1 yr. 2025) No limit 2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500614 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment) No limit	2300003	, ,	NO tillit		
2500577 Greer Ditch No. 1 - (5 yr. 2029) No limit 2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500614 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment) No limit	2500713		No limit		
2500578 Greer Ditch No. 2 - (5 yr. 2029) No limit 2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500614 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment) No limit					
2500579 Greer Ditch No. 3 - (5 yr. 2029) No limit 2500614 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment No limit					
2500614 Kennedy Ditch 2 - 1 yr. 2025 No limit 2500641 San Luis Co Ditch - Blumenhein - (amendment No limit					
2500641 San Luis Co Ditch - Blumenhein - (amendment No limit					
1 /5()()6/1					
	2500641	`			

2500641	San Luis Co Ditch - Mitchell (5 yr. 2029)	No limit		
2500641	San Luis Co Ditch - Frees - (5 yr. 2026)	No limit		
2500646	Schilling Ditch (3 yr. 2027)	No limit		
2500647	Schultz Dittrich Ditch - (10.3 + 0.2 cfs) - (3 yr. 2027)	No limit		
2500929	Schultz Dittrich Ditch No. 2 - Blumenhein - (3 yr. 2027)	No limit		
2500695	Schultz Dittrich No. 14 Ditch - Freel (1 yr. 2025)	No limit		
2500695	Schultz Dittrich No. 14 Ditch - Ridgely (1 yr. 2025)	No limit		
2500657	Squires Ditch 1 - (5 yr. 2026)	No limit		
2500661	Steel Ditch No. 2 - Freel - (1 yr. 2025)	No limit		
2500668	Tobler Ditch - (1 yr. 2025)	No limit		
2500669	Tobler Rominger Ditch - (1 yr. 2025)	No limit		
	Kelly Creek			
2500692	Clayton Ditch ABC - Hutchinson - (5 yr. 2027)	No limit		
2500692	Clayton Ditch ABC - Dragos - (3 yr. 2027)	No limit		
2500822	Clayton Ditch ABC ALT - Dragos - 3 yr. 2027)	No limit		
	Total On Call- Forbearance		>78	Up to 78*

Note: * DWR Analysis

The Subdistrict indicates it is in the process of purchasing additional surface water rights on Saguache Creek, and upon acquiring them and getting SWSP or court approval to use the water as a replacement source will request to add them as an after acquired source.

After Acquired Sources of Remedy (Section 2 of 11.1.3 of the ARP)

DWR recognizes the Subdistrict will continue to work to acquire additional sources of remedy and may, with approval from the Division Engineer, use those sources to remedy injury under this ARP.

Operation of the 2024 Annual Replacement Plan (Section 3 of 11.1.3 of the ARP)

The Subdistrict's portfolio of replacement sources does not include any reservoir water.

The ARP provides documentation that the Subdistrict has implemented "Well Injury Payment" agreements (also known as forbearance agreements) with a number of ditches located on Kelly Creek, Kerber Creek, San Luis Creek, and Saguache Creek for the Plan Year. At times when Kelly Creek, Kerber Creek, and San Luis Creek, are connected, the calling right can be on Kelly Creek or Kerber Creek. The majority of the well injury payment agreements allow the Subdistrict to exercise these agreements in its sole discretion.

The Subdistrict purchased land served by the Malone Sullivan Ditch No. 1, Heimberger Ditch No. 1, and Malone Ditch. A portion, up to 100% of the historical consumptive use of these

water rights approved under SWSP 9367 will be available at the ditch headgates to replace injurious stream depletions through storage, recharge, or direct use, including by exchange.

The Subdistrict leased three irrigation wells from North Star Farm and fallowed the historically groundwater irrigated acres. SWSP 8308 allows the historical consumptive use to be diverted at an alternate point and delivered to Saguache Creek to pay Subdistrict depletions. Two augmentation wells were anticipated under SWSP 8308, WDID 2606025 has been drilled and is in use. WDID 2606028 has not been drilled, but if the well is completed and used during the 2024 ARP Year, all depletions from this well must be covered by the Subdistrict. For this reason, WDID 2606028 will be added to the ARP Well List for 2024.

The Subdistrict's allocation of Closed Basin Project water allows this source to be used to replace year-round depletions to the Rio Grande, both during and outside the irrigation season.

The ARP provides documentation that the Subdistrict has renewed Well Injury Payment (WIP) Agreements (aka forbearance agreements) for the 2024 Plan Year with several ditches located on Saguache Creek. The Subdistrict provided no expected yield from forbearance on Saguache Creek in the Operations section of the ARP.

The ARP provides documentation that the Subdistrict has implemented WIP agreements with a number of ditches located on Kelly Creek, Kerber Creek, San Luis Creek, and Crestone Creek for the Plan Year. At times when Kelly Creek, Kerber Creek, and San Luis Creek, are connected, the calling right can be on Kelly Creek or Kerber Creek. The majority of the well injury payment agreements allow the Subdistrict to exercise these agreements in its sole discretion. This is the only replacement source the Subdistrict has on San Luis Creek.

The Response Functions did not predict stream depletions to streams other than Saguache Creek, San Luis Creek, and the Rio Grande in amounts above the minimum threshold to reliably predict impacts. Therefore, no replacements to any stream other than Saguache Creek, San Luis Creek, and Rio Grande will be made.

The Rules require remedies sufficient to also remedy total Post-Plan Stream Depletions caused by current and past years' ARP Wells groundwater withdrawals that deplete the streams after the term of this ARP. Section 4.1.5 of the Subdistrict's PWM includes the provision, "the Subdistrict may continue to assess fees until all Post-Plan Injurious Stream Depletions caused by past groundwater withdrawals from Subdistrict Wells have been remedied." This allows the Subdistrict to provide a financial guarantee to assure that all Post-Plan Injurious Stream Depletions will be replaced or otherwise remedied if the Subdistrict were to fail or otherwise not be allowed to continue groundwater withdrawals.

If the Subdistrict were to fail, the individual well owners in the Subdistrict would have to obtain plans for augmentation or take other measures to comply with the Rules. Presumably, those plans would be required to replace Post-Plan Injurious Stream Depletions into the future. In the interim, the Subdistrict or the Rio Grande Water Conservation District will remedy Post-Plan Injurious Stream Depletions by supplying water or through agreements

pursuant to which injury to water rights is remedied by means other than providing water to replace stream depletions.

Anticipated Funding for Plan Year (Section 4 of 11.1.3 of the ARP)

The Subdistrict submitted sufficient financial information to document the purchase and leases of replacement water for the 2024 Plan Year.

11.1.4 Contractual Arrangements among Water Users, Water User Associations, Water Conservancy Districts, Subdistricts, and/or the Rio Grande Water Conservation District

Subdistrict No. 4 Memorandum of Understanding (Section 1 of 11.1.4 of the ARP)

The Subdistrict included an MOU with the ARP that provides for the San Luis Creek Subdistrict (Subdistrict No. 4) to remedy depletions to San Luis Creek on behalf of the Saguache Subdistrict for the 2024 ARP Year. The Subdistrict will reimburse Subdistrict No. 4 through financial means for the cost of making those replacements. A copy of the MOU was included as a supplement to the ARP.

Well Injury Payment Agreements (Section 2 of 11.1.4 of the ARP)

Pursuant to section 37-92-501(4)(b)(I)(B), C.R.S., the Subdistrict has reached agreement with a multitude of ditches whereby they accept that, subject to the specific provisions of the well injury payment agreement, injury to their water rights resulting from the use of groundwater by ARP Wells may be remedied by means other than providing water to replace stream depletions, when they are the calling right on the San Luis Creek system. The majority of these contracts with individual ditches were made for one-year terms and with both San Luis Creek Subdistrict and Saguache Subdistrict. The Subdistrict has reached similar agreements with several ditches on the Saguache Creek system.

The Subdistrict reviewed stream flows on San Luis, Kelly, and Kerber Creeks for the current and past years and made an historical call analysis on these creeks to determine the highest calling priorities for various ditches under different conditions. The Subdistrict determined the highest priority likely to occur that can be the calling right on the San Luis Creek system and secured Well Injury Payments with the owners of all priorities up to that (1 through 35). This would ensure all depletions on the San Luis Creek system could be remedied through forbearance. A description of the estimated yield analysis of the various forbearance contracts on San Luis Creek was provided by the Subdistrict as a supplement to the ARP.

It is noted that the majority of these agreements allow the Subdistrict to remedy injurious stream depletions under the agreement or by providing water at the Subdistrict's sole discretion. Two of the agreements do not allow this flexibility, the Clayton Ditch ABC and

the Clayton Ditch D agreements with Jeffrey & Lucinda Dragos, so are "mandatory" forbearance agreements.

The Subdistrict did not provide a description of the estimated yield analysis of forbearance agreements on Saguache Creek and indicated the yield would be 0 acre-feet.

Closed Basin Project Production (Section 3 of 11.1.4 of the ARP)

According to the information provided in the ARP, the projected production of the Closed Basin Project delivered to the Rio Grande is 8,500 acre-feet during calendar year 2024. However, according to the Division Engineer's Ten Day Report sent April 22, 2024, the Closed Basin Project production has since been reduced to 7,500 acre-feet. The allocation of the Closed Basin Project production in accordance with agreements is 60% to the Rio Grande and 40% to the Conejos River basin over the long-term, with provision for adjustments in the allocation during individual years. The 2024 allocation of the Closed Basin Project production will be 61% to the Rio Grande and 39% to the Conejos River.

Per a letter from the Rio Grande Water Users Association dated March 14, 2024, the Board of Directors passed a motion to specifically allocate 4,100 acre-feet (1,800 in 2024 and 2,300 acre-feet in 2025) of the Rio Grande's share of the usable yield of the Closed Basin Project to replace the stream depletions under the Subdistricts. Similarly, the Board of Directors of the San Luis Valley Water Conservancy District agreed to the allocation as stated in their letter to the Rio Grande Water Conservation District on April 10, 2024. The resolution from RGWCD allowing the Subdistrict to use Closed Basin Project water in the 2024 ARP was provided as supplemental information. Closed Basin Project water was approved as a replacement source by the Division No. 3 Water Court in the April 2013 Decree (Page 41, Paragraphs 5 - 6).

A copy of each letter reporting the approval was provided in Appendix H of the ARP. The resolution from RGWCD allowing the Subdistrict to use Closed Basin Project water in the 2024 ARP was provided as supplemental information.

North Star Farms Lease (Section 4 of 11.1.4 of the ARP)

Subdistrict No. 5 has entered an agreement with the owners of North Star Farms to lease three sprinkler irrigated quarter sections. During the 2024 irrigation season, the historically irrigated acres will be fallowed, and no irrigation will take place on those acres. The historical consumptive use credits from those acres will be used under the changed water rights, pending renewal of SWSP 8308. Within the historical consumptive use limits set forth in the SWSP, Subdistrict No. 5 will apply the historical consumptive use credits to remedy injurious depletions from Subdistrict Wells to senior surface water rights either directly by pumping the water through a pipeline and releasing it into the stream, or by exchanging the water upstream, or by diverting to storage or recharge, withdrawn from an alternate point of diversion, or with delivering water directly to the injured ditch, with permission of the owners.

Hazard Ranch Purchase (Section 5 of 11.1.4 of the ARP)

Subdistrict No. 5 has purchased 1.2 c.f.s. of Priority No. 1 in the Malone Sullivan Ditch No. 1, 1.0 c.f.s. of Priority No. 2 in the Heimberger Ditch No.1, and 1.075 c.f.s. of Priority No. 4 in the Malone Ditch. The historically irrigated acres will be fallowed, and no irrigation will take place on those acres. The historical consumptive use credits from those acres will be used under the changed water rights, under SWSP 9367. When in priority and within the historical consumptive use limits set forth in the SWSP, Subdistrict No. 5 will apply the historical consumptive use credits to remedy injurious depletions from Subdistrict Wells to senior surface water rights either directly by leaving the water in the stream, or by exchanging the water upstream, or by diverting to storage or recharge.

11.1.5 Documentation of Progress towards Achieving and Maintaining a Sustainable Water Supply

Water Levels, Pressure Levels, and/or Groundwater Withdrawals (Section 1 of 11.1.5 the ARP)

Rule 8.1.7 of the Groundwater Rules includes provisions for meeting the requirements for achieving and maintaining a Sustainable Water Supply in the confined aquifer. Per the State Engineer's approval letter for the PWM, dated March 13, 2020, the Saguache Creek Response Area five-year running average groundwater withdrawals were below the 1978-2000 average groundwater withdrawals for the Saguache Creek Response Area of 50,151 acre-feet.

The current five-year running average groundwater withdrawals for ARP Wells for the period 2018-2023 is 31,082 acre-feet using DWR's groundwater meter records. The previous five-year running average for ARP wells was 33,765 acre-feet, a decrease of $\pm 2,683$ acre-feet. The relatively high year of 44,102 acre-feet that occurred in 2018 was dropped out of the calculation for 2023.

For comparison, the longer term average 2011-2023 (13 years) of metered pumping for ARP wells is ±37,067 acre-feet. As additional years are added to the period of metered pumping in Division 3, this average can be compared to the 1978-2000 (23 years) estimated groundwater withdrawals reported in the State Engineer's annual memorandum, "Five year Average Groundwater Withdrawals in Confined Aquifer Response Areas", published July 1, 2023.

The Subdistrict anticipates 2024 groundwater withdrawals of ±33,750 acre-feet in 2024 due to similar pumping in similar stream flow forecast years. This would produce an average (2020-2024) of 31,263 acre-feet, within the sustainability metric.

Based on the trends of both the Saguache Response Area and the Subdistrict's five-year average, the Subdistrict will remain in compliance with the Sustainable Water Supply Requirement of the Rules.

Included in Appendix J is the State Engineer's memo dated July 1, 2023, regarding the Composite Water Head for Confined Aquifer Response Areas in Division 3: July 2023 Requirement of Division 3 Groundwater Rules Section 8.1.4. The Composite Water Head for Saguache Response Area for 2023 was 3.51 feet, the highest level measured and still higher than the base year of 2015.

Listing of Irrigated Acres Proposed to be Temporarily or Permanently Fallowed and Associated Water Rights (Section 2 of 11.1.5 the ARP)

The Subdistrict is not currently pursuing fallowing of any irrigated lands within the boundaries of the Subdistrict.

Listing of Water Rights Proposed to be Temporarily or Permanently Retired and Historical Operations of Each Water Right (Section 3 of 11.1.5 the ARP)

No listing of retired water rights was submitted with this ARP.

Other Proposed Actions to be Taken as Applicable (Section 4 of 11.1.5 the ARP)

The Subdistrict enacted Rules and Regulations Governing Groundwater Allocations for Subdistrict Wells on July 21, 2021 (discussed in Section 4 of 11.1.1 of this letter)

Findings

Based on the information provided in the ARP and discussed above, I make the following findings:

- 1. The projected groundwater withdrawals are based upon the inventoried Subdistrict Wells, their historical pumping, and projected stream flows. The inventory of wells is consistent with the information in DWR's databases. The historical pumping associated with the Wells is based on diversion records on file with the DWR. The method implemented by the Subdistrict to project groundwater withdrawals for the ARP Wells for 2024 is consistent with historical pumping information and streamflow forecast from the Division Engineer's projection and the NRCS Forecast.
- 2. DWR updated more current streamflow inputs to the Response Function, producing a calculation of depletions that is considered conservative such that the depletions are covered and no injury will occur.
- 3. Projected stream depletions are calculated based on Response Functions generated from RGDSS Groundwater Model runs. The Response Functions are based on the RGDSS Model version 6P98, which was approved by the PRT. DWR used the 6P98 Response Functions in determining stream depletions. The ARP Year depletion schedule and other Response Function output tables are included as an Exhibit to this letter.
- 4. The comparison of CBP projected deliveries with all Subdistricts operating under 2024

ARPs indicates the CBP production, at least on an annual basis, is adequate to cover the non-irrigation season depletions for all the Subdistricts and the irrigation season depletions of the Saguache Subdistrict on the Rio Grande.

5. The ARP identifies the sources, availability, and amounts of replacement water and remedies that the Subdistrict will use to remedy Injurious Stream Depletions during the coming year and demonstrates the sufficiency of such water to remedy such Injurious Stream Depletions.

Saguache Creek

The Subdistrict depletions for Saguache Creek for this ARP are ±502 acre-feet during the irrigation season and ±181 acre-feet during the non-irrigation season for a total of ±683 acre-feet.

- Irrigation Season: The Subdistrict expects to generate ±894 acre-feet of replacement water from the dry-up of lands described in SWSP 9367 and SWSP 8308. The portfolio of water from in season sources in the 2024 ARP Year indicates sufficient firm water to cover Injurious Stream Depletions.
- Non-Irrigation Season: The Subdistrict is not obligated to pay depletions on Saguache Creek during the non-irrigation season at this time.

San Luis Creek

The Subdistrict depletions for San Luis Creek for this ARP are ±78 acre-feet during the irrigation season and ±169 acre-feet during the non-irrigation season for a total of ±247 acre-feet.

<u>Irrigation Season</u>: The Subdistrict indicates they expect to yield a total of ±78 acrefeet from well injury payment agreements. My staff reviewed the historical calls on San Luis Creek for the ditches expected to generate forbearance amounts during the irrigation season as summarized below. The potential ±78 acre-feet needed from well injury payments that will be administered through Subdistrict No. 4 indicates sufficient water to cover Injurious Stream Depletions for the Plan Year for both Subdistrict No. 4 and Subdistrict No. 5.

DWR Analysis of Forbearance Yield

DWR staff prepared an analysis using the projected stream flow numbers. The focus of the analysis was to determine which ditches would be the calling priorities on all streams where the Subdistrict owes depletions. The Subdistrict secured numerous forbearance contracts for priorities senior and junior to the projected call(s). Based on current snowpack and stream flow's estimated peak, the call on San Luis Creek will most likely be the Priority No. 35 or more senior water right on the river system in the 2024 irrigation season. Even if the stream flows are underestimated, the Subdistrict has contracts with all owners of water rights senior to Priority No. 50 that can divert water, which would

reinforce the analysis of forbearance being a valid option. This is further enforced by the locations of certain priorities and the ability to physically deliver water to the individual headgates. From the first day of the 2024 irrigation season to the end of April 2024, the call on San Luis Creek will most likely be the Priority No. 35 or more senior water right on the river system also allowing for forbearance coverage for the end of the ARP year.

 Non-Irrigation Season: The Subdistrict is not obligated to pay depletions on San Luis Creek during the non-irrigation season at this time.

Rio Grande

The Subdistrict depletions for the Rio Grande for this ARP are ±162 acre-feet during the irrigation season and ±109 acre-feet during the non-irrigation season for a total of ±271 acre-feet.

- o <u>Irrigation & Non-Irrigation Seasons</u>: The Subdistrict has ±271 acre-feet of Closed Basin Project water allocated to pay irrigation and non-irrigation season depletions.
- 6. Section 4.1.5 of the Subdistrict's PWM includes the provision, "the Subdistrict may continue to assess fees until all Post-Plan Injurious Stream Depletions caused by past groundwater withdrawals from Subdistrict Wells have been remedied." This allows the Subdistrict to provide a financial guarantee to assure that all Post-Plan Injurious Stream Depletions will be replaced or otherwise remedied if the Subdistrict were to fail or otherwise not be allowed to continue groundwater withdrawals.
- 7. Upon approval of the Subdistrict's PWM, it was concluded the Subdistrict is already operating within the 5-year 1978-2000 average as amended by the CAS stipulation. The Subdistrict is in compliance with this metric.

The Subdistrict has presented sufficient evidence and engineering analysis to predict where and when Injurious Stream Depletions will occur and how they will replace those Injurious Stream Depletions to avoid injury to senior surface water rights under the following Terms and Conditions.

This ARP is hereby approved pursuant to the following Terms and Conditions:

- 1. This ARP shall be valid for the period of May 1, 2024, through April 30, 2025, unless otherwise revoked, modified, or superseded by me, a decree, or order of the court.
- 2. The Subdistrict must replace or remedy the Injurious Stream Depletions resulting from Subdistrict ARP Well groundwater withdrawals.
- 3. Contract wells will be covered to the extent of their permitted/decreed uses.

- 4. Deliveries (including transit losses) of stored water made available for the replacement of Injurious Stream Depletions shall be determined by the Division Engineer pursuant to this ARP and associated decrees, policies and statutes. An MOU describing any exchange must be submitted and signed by all parties prior to operating the exchange.
- 5. If the limit is reached for any particular well injury payment agreement, then the Subdistrict will need to remedy Injurious Stream Depletions to that particular ditch or canal with another remedy.
- 6. The Division Engineer shall determine on an ongoing basis whether he can administer the operations under each well injury payment agreement. If the Division Engineer cannot, then that operation shall cease. General Forbearance Protocols for the San Luis Valley River Systems for 2024 were prepared by the Division Engineer. A copy of the protocols is included with this letter.
- 7. The Subdistrict shall provide daily replacement water accounting (including, but not limited to diversions, depletions, replacement sources, and river calls) on a monthly basis. The accounting must be emailed to the Division Engineer (Craig.Cotten@state.co.us), the Water Commissioners (thomas.torrez@state.co.us, robert.mondragon@state.co.us, sam.riggenbach@state.co.us), the Subdistrict Coordinator (deborah.sarason@state.co.us), and Water Accounting Operations Specialist (michelle.lanzoni@state.co.us) within 10 days after the end of the month for which the accounting applies. Accounting and reporting procedures are subject to approval and modification by the Division Engineer.
- 8. The Subdistrict must adhere to the terms and conditions of any SWSP(s) incorporated as part of the ARP. The use and inclusion of any new replacement water within the ARP is subject to SWSP approval or approved by the Water Division No. 3 Water Court for a change of water right. Prior to the use of any new replacement water, the State Engineer will evaluate for use as an amendment under this ARP.
- 9. Regarding the Subdistrict's request to aggregate depletions owed between stream reaches on the Rio Grande, at this time, the Subdistrict owes to only a single reach on any river system. Therefore, there is no possibility of aggregating stream depletions.
- 10. Regarding the Subdistrict's request to aggregate depletions with other subdistricts, the Subdistrict may make requests for these types of changes formally to the Division Engineer, providing details of the request and documentation supporting the need to make a change to the approved ARP depletion schedule. The Division Engineer will consider such a request when it is made, under the protocol of DWR and in light of the conditions on the particular stream at the time and, if deemed appropriate, approve the request. The Subdistrict will not adopt any change until after approval by the Division Engineer.

- 11. In the event the CBP deliveries during the non-irrigation season months are not enough to remedy the total of the RGWCD Subdistricts non-irrigation season depletions, it is acceptable for the CBP deliveries during the irrigation season months be used to remedy the additional amount of non-irrigation season depletions. However, CBP deliveries may only be credited against non-irrigation season depletions that occur during the same calendar year and during the same ARP Year. In general, January through April CBP deliveries may be used to remedy January through March of the ARP Year depletions and May through December CBP deliveries may be used to remedy November and December ARP Year depletions. With the reduction in the Closed Basin Projects delivery to the Rio Grande down from 8,500 to 7,500 acre-feet as shown in the Division Engineer's Ten-Day Report dated April 22nd, 2024, continuous monthly accounting to track the availability and timing of any deliveries, is required. Should the CBP deliveries fall short as happened in the 2022 ARP Year, it will be necessary for the Subdistrict to provide enough replacement water to remedy the shortage for the non-irrigation season depletions.
- 12. The Subdistrict relies heavily upon forbearance agreements to meet some of the requirements for mitigation of injurious stream depletions on San Luis Creek. The Subdistrict is strongly encouraged to actively pursue permanent replacement sources to cover depletions in the event that the forbearance agreements are not sufficient. If the forbearance agreements do not yield the amounts needed to cover depletions as expected during the 2024 ARP Year, the Subdistrict will invoke its "After Acquired Sources of Remedy" clause in the ARP and will acquire sufficient additional sources to satisfy the depletion schedule approved under this ARP. If the Subdistrict is unable to acquire sufficient additional sources, the Subdistrict will not be able to continue operation under this ARP.
- 13. All deliveries of replacement water shall be measured in a manner acceptable to the Division Engineer. The Subdistrict shall install and maintain measuring devices as required by the Division Engineer for operation of this approved ARP.
- 14. The Subdistrict must submit a Preliminary Water Report and Final Review of its ARP pursuant to Rule 12.
- 15. The Subdistrict must replace or remedy all Injurious Stream Depletions caused by non-augmented pumping associated with Subdistrict ARP Wells.
- 16. The Subdistrict must comply with the Rules, the Subdistrict PWM, and this ARP.

Approval of this ARP does not authorize any change, increase, or expanded use of any water right or permit. Any change, increase, or expansion of a water right or permit will need to comply with existing decrees and or permits, the Confined Aquifer New Use Rules, the Measurement Rules, the Rio Grande Basin Groundwater Use Rules, and may require approval of the Water Court.

The approval of this ARP is made with the understanding that if the ARP proves insufficient to remedy Injurious Stream Depletions, the State Engineer has the authority to invoke the retained jurisdiction of the Division No. 3 Water Court.

I want to thank you for your cooperation and compliance with this approved ARP and for your continued cooperation and compliance in the future. Your efforts are greatly appreciated. If you have any questions do not hesitate to contact any of my staff in Denver or Alamosa.

Sincerely,

Jason T. Ullmann, P.E.

State Engineer

Director of the Division of Water Resources

Exhibits:

A: Subdistrict No. 5 2024 ARP Response Function Table 2.6

B: General Forbearance Protocols for the San Luis Valley River Systems for 2024

Craig Cotten, Division Engineer ec: Chad Wallace, Assistant Attorney General David W. Robbins, Hill & Robbins Peter Ampe, Hill & Robbins Clinton Phillips, Davis Engineering Service, Inc.

DWR electronic notification lists

Division 3 Water Court