COLORADO
Division of Water Resources
Department of Natural Resources

May 1, 2021

Cleave Simpson, General Manager
Rio Grande Water Conservation District
8805 Independence Way
Alamosa, CO 81101

RE: 2021 ANNUAL REPLACEMENT PLAN APPROVAL: SPECIAL IMPROVEMENT SUBDISTRICT NO. 6 OF THE RIO GRANDE WATER CONSERVATION DISTRICT

Dear Mr. Simpson:

Thank you for your April 15, 2021 submission of the Special Improvement District No. 6's proposed Annual Replacement Plan (ARP) for the 2021 Plan Year (**May 1, 2021 through April 30, 2022**).

My staff and I have reviewed the proposed ARP and its appendices. A copy of this approval will be posted on the DWR website by next week at:

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

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

Enclosed, please find my approval of the 2021 ARP.

Kevin Rein, P.E.
State Engineer
Director of Division of Water Resources

cc: Division 3

Review, Findings, and Approval of Subdistrict No. 6's 2021 Annual Replacement Plan

Background

Special Improvement District No. 6 ("Subdistrict"), a political subdistrict of the Rio Grande Water Conservation District ("RGWCD"), formed through Conejos County District Court in Case 2018CV30014, 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. 2019CW3011 on September 25, 2019.

The 2021 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, 2021. 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 are posted on DWR's website. There were no letters, comments, or other objections submitted regarding the 2021 ARP. My staff and I have conducted this review of the ARP and comments thereon in accordance with the operational timelines specified in the 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. The Rules were approved as promulgated and were deemed effective as of March 15, 2019 by the Division No. 3 Water Court.

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; a calculation of the projected stream depletions resulting from 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.

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 2021 ARP. Appendix A lists 529 wells, which includes 11 wells included by contract for 2021, one well, WDID 2012535, by request 4/27/2021 prior to approval of the ARP. A copy of the letter of request is included as an Exhibit to this letter. Regarding WDID 2012535, pursuant to the 12CW0017 stipulation of January 24, 2013 this well is limited to the maximum acres that have been irrigated by Jan 1, 2020 (60ac). Therefore, the contract will only be approved for 60 acres of irrigation. One well, WDID 2011664, was not allowed on the 2020 ARP because it was assigned to the Rio Grande Alluvium Response Area. However, the Subdistrict has clarified details about the location of the well and determined it is appropriate to include it in the Alamosa La Jara Response Area, so it has been added back to the well list.

The contract wells accepted by the Subdistrict in 2021 are listed in Appendix B. Contract wells were reviewed for the terms of the contracts, associated permits and decrees for each well, and historical meter records. Any wells that are not used within the permitted and/or decreed beneficial uses authorized for those structures cannot be covered by the 2021 ARP and the owners will be notified by separate correspondence. Wells that have submitted an SWSP and started the process of changing an existing permitted/decreed use to a Non-Exempt use described in the participation contract can be conditionally accepted. Should the SWSP be denied during the ARP Year, the well can no longer be covered by the ARP and the owners will be notified.

Should any wells accepted as contract wells for this ARP approval have permitted and/or decreed limits that historical records indicate have been exceeded, they will only be accepted for groundwater withdrawals up to their respective limits. Owners of these wells will be notified of this conditional acceptance by separate correspondence. 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 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 includes some wells that are either fully or partially augmented by an approved plan for augmentation which is administered separately of the Subdistrict's PWM. These plans for augmentation associate surface rights with these Subdistrict Wells and other non-Subdistrict wells to remedy some portion or all of each well's injurious stream depletions. These wells are included in the Subdistrict's ARP Well List, and if any portion of their legally decreed groundwater withdrawals is not remedied by an individual plan for augmentation, it is subject to Subdistrict fees and the Subdistrict will remedy injurious stream depletions and post-plan injurious stream depletions attributable to the non-augmented portion of a well's total groundwater withdrawals as part of this ARP. "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 was in effect as of October 4, 2018, 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)

San Luis Valley Water Conservancy District Augmentation Certificate No. 773

The ARP lists one well as a Subdistrict Well that is fully augmented for the existing uses through SLVWCD. This well, WDID 2014260, Permit 77196-F was permitted and drilled under SLVWCD's augmentation plans as an expansion of use of Subdistrict Well WDID 2014260, Permit 45498-F. The Subdistrict retains this well on the well list as a non-benefitted well.

I have reviewed Appendix A and Appendix C of the ARP and consulted with staff and, after adjusting the list for wells DWR determined cannot be covered by the 2021 ARP, find it to be an accurate inventory of Subdistrict Wells that meets the requirements of Rule 11.1.1.

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

When the Subdistrict added WDID 2012535 to the well list in late April, they also supplied an updated Response Function spreadsheet. The figures referenced in the rest of this letter reflect the updated calculations. For Subdistrict ARP Wells listed in this ARP, DWR total metered groundwater withdrawals as of April 1, 2021 for the 2020 Water Administration Year were 105,483 acre-feet. Comparing to 2020 and considering 2021 is the second consecutive year of forecasted below-average flows, the Subdistrict ARP Well groundwater withdrawals in 2021 are projected to be 110,500 acre-feet.

Subdistrict Well Metered Pumping (acre-feet)
Entered in Table 2.1 of the ARP

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
117,631	112,896	110,753	93,516	86,329	82,754	75,105	115,048	69,915	105,483

The majority of metered groundwater withdrawals in the Plan Year will be used for irrigation through center pivot sprinklers, 70 percent. Approximately 15 percent of groundwater withdrawals will be applied to flood irrigation and 15 percent to 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 60,000 acres during the Plan Year, including 47,200 acres irrigated by center pivot sprinklers and 12,800 acres irrigated by flood application. The Subdistrict made this projection 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 ARP 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 fish. 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 2021 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 2021 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 2021 ARP in spreadsheet format matching the list presented in Appendix A
3. Spreadsheet showing the Subdistrict's breakdown of "Other" wells used to calculate the composite Consumptive Use Ratio in the Response Function.
4. Resolution from RGWCD approving the Subdistrict 2021 ARP.
5. Resolution from RGWCD to allow the Subdistrict to allocate Closed Basin Project water in the 2021 ARP.
6. A 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 spreadsheet used in the analysis was provided as supplement to the ARP.

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 the Conejos River, Alamosa River, and 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 the Alamosa, two reaches on the Conejos, and three reaches on the Rio Grande rivers 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 April through September streamflow forecasts included in the ARP are made by the United States Department of Agriculture's Natural Resources Conservation Service ("NRCS"). The annual streamflow forecasts included in the ARP for the Rio Grande and Conejos River basins are those included in the April 8, 2021 Division Engineer's Rio Grande Compact Ten Day Report (Appendix D of the ARP).

2021 Stream Flow Forecast - Conejos River (Section 1 of 11.1.2 of the ARP)

There was no difference between the NRCS and the Division Engineer's forecasts as shown in the following table. The April - September flow for the Conejos is 207,500 acre-feet for use in the Response Functions for 2021.

Stream Flow Forecasts- Conejos River, Rio Grande, Alamosa River

Conejos Stream Flow Forecast Analysis	Apr-Sep Forecast (acre-feet)	% of avg	Estimated Additional (acre-feet)	Jan - Dec Forecast (acre-feet)
	(1)	(2)	(3)	
NRCS, 4/1/2021				
Conejos River near Mogote	153,000	79%		
Los Pinos River near Ortiz	48,000	66%		
San Antonio River at Ortiz	6,500	42%		
TOTAL	207,500			
Division Engineer, Ten Day, 4/8/2021				
Conejos River near Mogote	153,000	79%		
Los Pinos River near Ortiz	48,000	66%		
San Antonio River at Ortiz	6,500	42%		
TOTAL	207,500		22,500	230,000
Rio Grande Stream Flow Analysis				

NRCS, 4/1/2021	365,000	71%		
Division Engineer, Ten Day, 4/8/2021	365,000	71%	70,000	435,000
Alamosa Stream Flow Analysis				
NRCS, 4/1/2021	51,000	75%		

(1) projected 50% exceedance streamflow at the gaging station
(2) NRCS 30-yr Average Flow: Conejos-194,000, Los Pinos-73,000, San Antonio-15,600, Rio Grande-515,000, Alamosa-68,000
(3) January through March and October through December

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

Subdistrict staff predicted stream depletions caused by Subdistrict ARP Wells utilizing the Response Functions developed for the Alamosa La Jara 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 2020 and predicted values for 2021.

The Subdistrict has elected to use the Response Function spreadsheet for the subset of wells represented by the Subdistrict ARP Wells. The Alamosa La Jara Response Area requires adjustments for both point source return flows and the stream ratios, as listed below.

- Alamosa La Jara Response Area - Reach 3 (Rio Grande from Del Norte to Excelsior Ditch) from the City of Monte Vista.
- Alamosa La Jara Response Area - Reach 5 (Rio Grande from Chicago to State Line) from the City of Alamosa.
- Alamosa La Jara: Reach 1 Calculations Ratio, and Reach 6 Calculations Ratio,

Using the whole Response Area results, adjustments are made on appropriate pages of the Response Function spreadsheet. The Subdistrict ARP Wells do include the Town of Monte Vista and the Town of Alamosa wells associated with the point source return flow. Adjustments for the Ratio Method must be made for Reach 1: Conejos above Seledonia/Garcia and Reach 6: Alamosa River.

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 2020. No adjustments were made by the Subdistrict for groundwater withdrawals of the subset wells for any years prior to 2011. Projected ARP Well groundwater withdrawal values were used for 2021. The Subdistrict has no Recharge that Offsets Groundwater for calculation of the Net Groundwater Consumptive Use. The projected Net Groundwater Consumptive Use for the Plan Year is 84,158 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 the Conejos River, Rio Grande, and Alamosa River 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 8,469.7 acre-feet, which includes negative depletions of 509.1 acre-feet on Stream Reach 3 of the Rio Grande. The Response Functions calculated total stream depletions to the Conejos River are 4518.7 acre-feet, to the Alamosa River 523.8 acre-feet, and to the Rio Grande 3427.2 acre-feet. The locations of the stream depletions and monthly quantities are also tabulated in Table 2.3.

Post-Plan Stream Depletions are estimated to accrue to impacted streams for approximately 15 years. Based on predictions from the Response Functions, Table 2.4 of the ARP shows there would be a total of 26,797 acre-feet of Post-Plan Stream Depletions. This amounts to 4,222 acre-feet to the Conejos, 20,290 acre-feet to the Rio Grande, and 2,285 acre-feet to the Alamosa.

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 2021 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 in Table 3.1 of the ARP. Applications for renewal for SWSPs 6074 (Taos Valley No. 3) submitted 3/29/2021, and 6182 (SLVWCD transmountain water- initiated by RGWCD) and 6209 (Terrace Reservoir excess augmentation) submitted 4/5/2021 by the Subdistrict for replacement sources for the use of water for the purpose of replacing depletions as part of the are awaiting approval. All three could receive approval by early to mid-May 2021. A new SWSP for Subdistrict use of Tabor Ditch water was submitted 4/8/2021, with approval possible by mid to late May. Replacement sources for Terrace Reservoir irrigation water in storage (6213 renewal) and BLM Excess Aug (6163 renewal) are listed in the table, but applications have not been submitted yet. Upon approval, these sources can be added for use under the 2021 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 below, with examples described for each.

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

In Season: 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. DWR considers these potential competing agreements when evaluating forbearance as a replacement source.

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 2021 ARP.

Subdistrict No. 6 Replacement Sources
Conejos River (acre-feet)

	Water Right Name	Submitted in ARP	Approved in SWSP's	Remaining 5/1/2021 & Approved for 2021 ARP
SWSP	**In Storage**			
6182	SLVWCD 84CW16	110.7	110.7	110.7
6182	SLVWCD 94CW62	110.7	110.7	110.7
6182	SLVWCD 14CW3011	103.8	103.8	103.8
6163	BLM Excess Augmentation Credits 02CW38A Stored in 2020	242.2	242.2	242.2
	Richfield Canal (SWSP & CU Analysis pending) Assume 25% lost for release	150.0	0	0
	Total In Storage	**717.4**		**567.4**
	In Season	**Limit**	**Expected Yield**	**Approved for 2021 ARP**
SWSP	**In Season**			
6163	**BLM Augmentation Water 2002CW38A** **SWSP request to store was not submitted. Water must be used during irrigation season**	900	250	280
6074	**Taos Valley No 3 (Contract 3,000 af)** **Renewal request submitted 3/29/2021**	3,000	3,000	0
	Total In Season	**3,900**	3,250	**280**
	On Call	**Limit**	**Expected Yield**	**Approved for 2021 ARP**
WDID	**Forbearance**			
	Conejos River			
2200501	Alamo Ditch	No limit		
2200502	An Con Ditch	No limit		
2200504	Antonito	No limit		
2200509	Ball Bros 1	No limit		
2200510	Ball Bros 2	No limit		
2200518	Branch	No limit		
2200519	Brazos Del Norte	No limit		
2200524	Canon Irrigating Ditch	No limit		
2200531	Cordova Ditch	No limit		
2200534	Del Puerticito	No limit		
2200535	East Bend Ditch - BLM	No limit		
2200539	El Serrito aka Cerrito	No limit		
2200541	Ephraim Canal	No limit		
2200548	Gabriel Martinez Ditch	No limit		
2200553	Guadalupe Main	No limit		
2200554	Heads Mill- Alpha Hay	No limit		
2200554	Heads Mill- Quinlan	No limit		
2200561	JF Chacon Ditch 2	No limit		
2200562	JF Chacon Ditch No 3	No limit		
2200576	La Del Rio Ditch	No limit		
2200584	Los Ojos 1- BLM	No limit		

2200585	Los Ojos 2- BLM	No limit		
2200587	Los Sauces Ditch	No limit		
2200595	Manassa Ditch (Eastfield)	No limit		
2200593	Manassa No 3	No limit		
2200596	Manassa Westfield	No limit		
2200605	Mill Ditch	No limit		
2200591	Mogote Ditch	No limit		
2200609	Northeastern Ditch	No limit		
2200611	Overflow Ditch	No limit		
2200616	Richfield Canal	No limit		
2200619	Romero Ditch	No limit		
2200620	Sabine School Section Ditch	No limit		
2200621	Salazar Ditch	No limit		
2200624	San Juan San Rafael Ditch	No limit		
2200627	Sanford Canal	No limit		
2200631	Servietta Ditch	No limit		
2200651	Williams Stuart Co Irrigation D	No limit		
	Rio San Antonio			
2200664	Broyles Overflow No. 4 Ditch	No limit		
2200537	Eight Mile Ditch	No limit		
2200543	Florida Ditch	No limit		
2200549	Galvis Ditch	No limit		
2200570	Jaramillo Overflow No 2 Ditch	No limit		
2200589	Lovato Irrigation Ditch	No limit		
2200590	Maes Ditch	No limit		
2200597	Martinez Ditch	No limit		
2200615	Punche Ditch	No limit		
2200617	Riedel Ditch	No limit		
2200618	Rincones Ditch	No limit		
2200632	Sinecero Ditch	No limit		
2200633	Sisneros Ditch	No limit		
2200635	Star Ditch	No limit		
2200640	Teodoro No 1 Ditch	No limit		
	Rio Los Pinos			
2200580	Llano Ditch	No limit		
2200586	Los Pinos Ditch	No limit		
	Total On Call- Forbearance		**2,200**	**Up to 2,400**
	CBP Allocation (as of April 2021)	2,600	1,525	
	Total On-Call Non-Irrigation Season		**1,525**	**Up to 1,525**

Note: * DWR Analysis

Subdistrict No. 6 Replacement Sources
Alamosa River (acre-feet)

	Water Right Name	**Submitted in ARP**	**Approved in SWSP's**	**Remaining 5/1/2021 & Approved for 2021 ARP**
SWSP	**In Storage**			
6209	Terrace Irrigation Co 82CW97 excess aug credit **Renewal Request submitted as of 4/5/2021**	21.15 + 23.85	21.15 add'l pending	45
6213	Terrace Irrigation Co water in storage – **SWSP request not submitted as of 4/28/2021**	45	0	0
	Total In Storage	**90.0**		**45**
	On Call	**Limit**	**Expected Yield**	**Approved for 2021 ARP**
WDID	**Forbearance**			
2100503	Alamosa Creek Canal (Terrace Irrig) **	No limit		
2100505	Alamosa Spring Creek Ditch	No limit		
2100506	Arroya Ditch	No limit		
2100510	Capulin Ditch	No limit		
2100513	Cottonwood Ditch	No limit		
2100514	Cristobal Rivera Ditch	No limit		
2100520	El Viejo D	No limit		
2100522	Empire Canal	No limit		
2100525	Flintham	No limit		
2100529	Gallegos Ditch 3	No limit		
2100526	Gabino Gallegos Ditch	No limit		
2100532	Garcia No 2 Ditch	No limit		
2100539	Head Overflow No 5 Ditch	No limit		
2100558	Lowland Ditch	No limit		
2100575	Lowland Overflow North Branch	No limit		
2100561	Miller Ditch	No limit		
2100564	Morganville	No limit		
2100571	North Alamosa Ditch	No limit		
2100572	Ortiz Ditch	No limit		
2100581	Ramona Ditch	No limit		
2100591	San Jose Ditch No 1	No limit		
2100593	Scandinavian Canal	No limit		
2100601	Terrace Irrigation Company **	No limit		
2100600	TK Walsh Ditch	No limit		
2100602	Union Ditch	No limit		
	Total On Call- Forbearance		**500**	**Up to 545***

***Note: All ditch rights of Terrace Irrigation Company are allowed to participate in a forbearance, however, Priority 110 for storage in Terrace Reservoir is excluded from participation.*
*Note: * DWR Analysis*

Subdistrict No. 6 Replacement Sources
Rio Grande (acre-feet)

	Water Right Name	**Submitted in ARP**	**Approved in SWSP's**	**Remaining 5/1/2021 & Approved for 2021 ARP**
SWSP	**In Storage**			
13CW3002	SMRC-MV (215 shares leased @ 0.8912 af)	140.1		140.1
13CW3002	SMRC-MV (335 shares leased @ 0.873 af)	215.0		215.0
6182	Williams Creek Squaw Pass Transbasin Diversion (W-1869-7)	426.3	426.3	426.3
6094	City of Creede 94CW31 & 07CW60- excess augmentation credits	250.0		250.0
	CPW Tabor Ditch No 2 & Tabor Ditch No 2 Enlargement CA6981 **New Request submitted as of 4/8/2021**	125.0 + 227.0	Pending	0
	BLM – Treasure Pass (Division 7, free river)	195.0		195.0
6182	SLVWCD 84CW16 & 94CW62 **Renewal Request submitted as of 4/5/2021**	158.0	Pending	158.0
6182	SLVWCD 14CW3011 **Renewal Request submitted as of 4/5/2021**	89.1	Pending	89.1
	Total In Storage	**1,825.5**		**1,473.5**
SWSP	**In Season**			
	In Season - None			
	On Call	**Limit**	**Expected Yield**	**Approved for 2021 ARP**
WDID	**Forbearance**			
2000566	Centennial	No limit		
2000623	Commonwealth-Empire	500		
2000627	Excelsior Ditch	No limit		
2000753	Monte Vista Canal	300		
2000812	Rio Grande Canal	1,150		
2000662	Rio Grande Canal- Hermanthal Ditch			
2001094	Rio Grande Canal- Scotch Ditch			
2001007	Rio Grande Canal- Bedel D			
2000624	Rio Grande Canal- Enterprise D			
2001094	Scotch Ditch (carried in Rio Grande Canal)	No limit		
2000624	Enterprise D (carried in Rio Grande Canal)	No limit		
2000816	Rio Grande Lariat Ditch	500		
2000811	Rio Grande Piedra Valley Ditch	No limit		
2000817	Rio Grande San Luis Ditch	No limit		
2000631	Farmers Union Canal	No limit		
	Total On Call- Forbearance		**1,000**	**Up to 2,374***
	CBP Allocation (as of April 2021)	3,800	1,770	
	Total On Call- Non-Irrigation Season		**1,770**	**Up to 1,770**

Note: * DWR Analysis

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 2021 Annual Replacement Plan (Section 3 of 11.1.3 of the ARP)

The ARP states that the Subdistrict's replacement water will be released from Platoro Reservoir, located in the Upper Conejos, Terrace Reservoir, located on the Alamosa River, and Rio Grande, Santa Maria, Continental, and Beaver Park Reservoirs, located in the Upper Rio Grande, at the direction of the Division 3 Engineer, to offset injurious stream depletions on the respective rivers during the Plan Year. This applies to the "In-Storage" water identified in the Replacement Sources tables on the previous pages. All partial Plan Year injurious stream depletions will be replaced in the time, location and amount that they occur, beginning May 1, 2021. The reaches, amounts and time that stream depletions are projected to occur are shown in Table 2.3 in the ARP. These releases of water from storage will be performed under the provisions contained in section 37-87-103, C.R.S.

The ARP notes that Sections 37-80-120, 37-83-104, and 37-83-106, C.R.S., allow for exchanges to occur between reservoirs without a decree and if recognized by the Division Engineer. Appropriate accounting between the Division Engineer's Office and Subdistrict No. 6 will occur on a regular and routine basis if these exchanges do occur. Any reservoir exchanges done in the Plan Year will be documented and reported in the 2021 Annual Report. The Division Engineer's Office will be notified in advance of any reservoir exchanges.

The Subdistrict leased shares of Santa Maria owned by members on the Monte Vista Canal in 2020 and 2021. The Subdistrict is allowed to release this water from Santa Maria Reservoir to remedy injurious depletions.

The ARP provided an agreement with San Luis Valley Irrigation Well Owners, Inc. to lease up to 2,000 acre-feet for Subdistrict No. 3, up to 3,000 acre-feet for Subdistrict No. 6 and up to 3,000 acre-feet for Trinchera Subdistrict of water and/or consumptive use credits from the water rights that are subject to the 2015CW3030 case. SLVIWO and Trinchera Subdistrict submitted separate SWSP requests for the use of this water. The SWSP request would allow the Subdistricts to pay depletions by allowing water to flow through the Lobatos Gage and pay the Rio Grande Compact. Water delivered to the Compact would be credited as a depletion bank which could be used throughout the Compact (Calendar) Year to pay back depletions owed to the two reaches on the Conejos River designated by the Response Functions. In conjunction with the Division Engineer, the Compact curtailment percentage would be adjusted to reflect the actual amount of water delivered to the Compact depletion bank under this scenario to make the timing work throughout the irrigation season. Water under these SWSPs could also be stored in reservoirs under certain conditions. Subdistrict No. 6 expects to yield 3,000 acre-feet from this agreement.

In 2020, the Subdistrict entered into an agreement with Terrace Irrigation Company to lease excess augmentation plan credits generated in 2020 and stored in Terrace Reservoir. These credits may be released to remedy injurious depletions on the Alamosa River. An additional lease was made with Terrace Irrigation Company for irrigation water currently stored in Terrace Reservoir as an additional source of remedy on the Alamosa River. A new SWSP request has not yet been submitted.

In 2020, the Subdistrict made an agreement with the Bureau of Land Management to lease up to 900 acre-feet of Excess Credits as defined in the 2002CW38A decree for use in the ARP. SWSP 6163 allowed storage of the Subdistrict's Excess Credits in Platoro Reservoir as shown in the table of replacement sources and this water can be released as needed. A new SWSP request has not yet been submitted. This replacement water must be used during the irrigation season

The ARP provides documentation that the Subdistrict has implemented Forbearance Agreements with a number of ditches located on the Conejos River, the San Antonio River, the Los Pinos, the Alamosa River, and the Rio Grande for the Plan Year. At times when the Conejos, the San Antonio and the Los Pinos are connected, the calling right can be on the San Antonio or the Los Pinos. The majority of the forbearance agreements allow the Subdistrict to exercise these agreements in its sole discretion.

The ARP provides an agreement with the Centennial Ditch in the Appendix. The resolution suggests an alternative for circumstances when replacement water needs to be carried below the Excelsior Ditch, but when the Rio Grande can be dry below the headgate. Instead, replacement water will be carried around that dry reach through the Centennial Ditch. The water will be measured and delivered directly to the Rio Grande at the point the Centennial Ditch can return water directly to the Rio Grande. That point is above any water right that may be injured while in priority. The Centennial Ditch must be adequate to efficiently deliver water around the dry stretch of river to the satisfaction of the Division Engineer prior to this being considered a viable option. The Centennial Ditch Company's water rights are senior enough to accomplish this carriage in any foreseeable situation (Priority Nos. 32 and 173).

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

Much of the negative depletion amounts that the Response Function output generated on Stream Reach 3 of the Rio Grande reflect the point-source return flow attributed to the City of Alamosa in the RGDSS Model. This negative depletion represented affects the Rio Grande depletions when all three reaches are live to the State line. Should the Rio Grande stream reaches become disconnected hydraulically during the ARP Year, the Division Engineer shall determine if aggregation of these negative depletion amounts for purposes of determining depletions owed on Stream Reaches 1 and 2 of the Rio Grande is appropriate during those periods.

The ARP indicates that at times when there is no requirement to deliver water to the Lobatos Gage to meet the requirements of the Rio Grande Compact, no water will be delivered to the lower reach of the Rio Grande for replacement of Injurious Stream Depletions to the Rio Grande Compact from the Subdistrict. The ARP indicates that the Closed Basin Project may continue to deliver salvaged water to the stream as directed by the CBP Operating Committee or other laws or policies.

In the alternative, the DWR agrees that the Subdistrict may replace these Injurious Stream Depletions after the irrigation season or when Compact deliveries are being made. The only instances where the Subdistrict is not required to replace these Stream Depletions are when there is an excess of 150,000 acre-feet of credit for Colorado or Elephant Butte Reservoir has spilled. In these instances, water passing the Lobatos Gage will not result in Compact credit to Colorado. In all other circumstances, the replacement of Injurious Stream Depletions to the Rio Grande Compact will result in credit being given to Colorado, either for the current year or for future years.

The ARP mentions the Subdistrict plans to make potential requests for aggregation of depletions between Stream Reaches as part of the anticipated operation in 2021. The ARP also mentions the Subdistrict may request to aggregate depletions with other Subdistricts during the 2021 ARP year. Further, the Subdistrict describes the situation in which the preliminary annual review of the ARP year, reported March 1, 2022, determines one Subdistrict has underpaid depletions and another Subdistrict has overpaid depletions during the prior months of the ARP Year. The Subdistrict proposes they may make a request to the Division Engineer to aggregate the depletions from prior ARP months between Subdistricts to remedy a Subdistrict's underpayment.

The Subdistrict anticipates a scenario when the depletions owed for all RGWCD Subdistricts combined in any one or more months during the non-irrigation season are greater than the production of the Closed Basin Project production in those months. Should this occur, the Subdistrict may request the Division Engineer allow a portion of the CBP production that is generated during the irrigation season be used to offset the Subdistrict's non-irrigation season depletions.

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.

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 2021 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

San Luis Valley Irrigation Well Owner's, Inc. (SLVIWO) - Case No. 2015CW3030 (Section 1 of 11.1.4 of the ARP)

On December 30, 2015, the SLVIWO filed an Application for Recharge Project and Rights of Substitution and Exchange. The SLVIWO is the owner of the water right and corresponding structures associated with the Taos Valley Canal No. 3. The original decree for the water rights decreed to the Taos Valley Canal No. 3 is the Decree of the Court entered in the Matter of the Adjudication of the Priority of Water Rights in the Conejos and San Antonio Rivers (Water District No. 88), District Court, Conejos County, Colorado (October 3, 1890). In 1975, SLVIWO filed an application for a plan for augmentation including exchange and to change the place and type of use of the Taos Valley No. 3 water right in Case No. W-3394 to include augmentation of any depletions caused by well users of the SLVIWO. The Taos Valley No. 3 water right was changed in Case No. W-3394. Of the 245 c.f.s. decreed to the Taos Valley Canal No. 3, 230 c.f.s. ("Middlemist Water") has been left undiverted by SLVIWO and accounted for as an offset to well depletions pursuant to that decree. The remaining 15 c.f.s. ("Zinn Water") was changed in Case No. W-3394 subject to a reservation by Pete E. and Mercedes Middlemist to divert and use up to that amount for irrigation pursuant to certain terms and conditions contained in that decree. The Zinn Water has continued to be used for irrigation up to and including the 2018 irrigation season.

In Case No. 2015CW3030, SLVIWO seeks to utilize the Middlemist Water and the Zinn Water for augmentation by leaving the water in the San Antonio River as decreed in Case No. W-3394, by diverting water at the Taos Valley Canal No. 3 and continuing to store water in Cove Lake Reservoir for subsequent release to the San Antonio River, by recharging the

confined and unconfined aquifers via a groundwater recharge project, by delivering water to satisfy compact obligations, by substituting water delivered to satisfy the compact in exchange for depletions and water diverted at other structures during different times within a year and to divert and store the water in several reservoirs, either directly or via exchange, for later release to the San Antonio River, Conejos River and the Rio Grande for augmentation purposes. On January 25, 2019, SLVIWO filed an Unopposed Motion to Bifurcate Case No. 15CW3030. In that Motion, SLVIWO sought to bifurcate the claimed exchange to the Martinez Ditch and the Recharge Project from the other claims in the application.

SWSP 6074 is pending approval for the Subdistrict's use in the 2021 ARP of the Taos Valley No 3 water that is the subject of the SLVIWO's court case.

Colorado Parks & Wildlife Tabor Ditch No 2 Held in Rio Grande Reservoir (Section 2 of 11.1.4 of the ARP)

Colorado Parks & Wildlife agreed to exchange Tabor Ditch No 2 water currently stored in Rio Grande Reservoir, through Fish & Wildlife Service, into a Subdistrict pool in Rio Grande Reservoir to be used for the remedy of Subdistrict injurious depletions. The Subdistrict submitted an SWSP 4/8/2021 for use of this water in the 2021 ARP.

Bureau of Land Management Treasure Pass Ditch Transmountain Water Rights Held in Beaver Reservoir (Section 3 of 11.1.4 of the ARP)

For the 2021 Plan Year, BLM agreed to exchange Treasure Pass Diversion Ditch transmountain water, currently stored in Beaver Reservoir to the Subdistrict's pool in Beaver Reservoir to be used for the remedy of injurious depletions caused by ARP Wells.

Forbearance Agreements (Section 4 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 forbearance 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 Conejos River system, Alamosa River, or Rio Grande. The majority of these contracts with individual ditches were made for three-year terms.

The projected acre-feet of forbearance was based on an analysis of the number of days each ditch was the calling right in years of similar hydrologic conditions as those predicted in 2021. The years used for the analysis for the Rio Grande were 2013, 2015 and 2020. The analysis for the Alamosa included 2015, 2016, 2018, 2019 and 2020. The average number of days each ditch was estimated to be the calling right was then multiplied by the average daily acre-feet of injurious stream depletions during the Plan Year, excluding months outside the irrigation season. The expected yields listed in Table 3.1 are intended to be a conservative estimate of their potential yield to show the Subdistrict's ability to remedy

injurious stream depletions. The estimate for the Rio Grande Canal did not include days that "Special Water" priorities were the calling rights even though all or a portion of those rights are included in forbearance agreements with the Subdistrict for the Plan Year and may be utilized at the discretion of the Subdistrict.

To project the Conejos forbearance potential, the Subdistrict used call records from 2020. The justification for this comparison between 2020 and 2021 is the soil moisture conditions, streamflow conditions, and long-range temperature outlook are projected to be very similar. The Subdistrict has confidence this is a reasonable way to project the amount of forbearance the Subdistrict anticipates they could conservatively expect to use for the 2021 Plan Year. Documentation for the estimated yield analysis of the various forbearance contracts 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. Four of the agreements do not allow this flexibility, the Alamo, Ball Bros 1 & 2, Los Sauces, and William Stewart, so are "mandatory" forbearance agreements.

The Subdistrict made an agreement with the Guadalupe and Brazos Del Norte Ditches to store in Platoro Reservoir the amount of depletion owed daily when the Ditches are the calling priority. The stored water is to be released later by the Conejos Water Conservancy District at the discretion of the Ditches. Exercise of this agreement is at the sole discretion of the Subdistrict. As stated in the agreement, any releases of this water will be in compliance with the legal and physical restrictions on such releases.

Closed Basin Project Production (Section 6 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 2021. 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 2021 allocation of the Closed Basin Project production will be 60% to the Rio Grande and 40% to the Conejos River.

Per a letter from the Rio Grande Water Users Association dated March 17, 2021, the Board of Directors passed a motion to specifically allocate 3,800 acre-feet of the Rio Grande's share of the usable yield of the Closed Basin Project to replace the stream depletions under Subdistricts No. 1, No. 2, No. 3, No. 5 and No. 6 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 March 18, 2021. 1,729 acre-feet of water was made available to Subdistrict No. 6 under this ARP to remedy the injurious stream depletions on the Rio Grande.

The Conejos Water Conservancy District Board notified RGWCD by letter dated April 12, 2021 to specifically allocate 2,600 acre-feet of the Conejos River's share of the usable yield of the Closed Basin Project to replace the injurious stream depletions for the 2021 ARP. The

allocation will be divided between Subdistrict No. 3 (1,050 acre-feet) & Subdistrict 6 (1,550 acre-feet).

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 2021 ARP was provided as supplemental information. Please include items in this section in future ARPs for contracts concerning Rio Grande Water Conservation District's Excess City of Creede Augmentation Credits Stored and BLM Augmentation Water under the existing terms and conditions of 2002CW38A.

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 September 25, 2019, the Alamosa La Jara Response Area five-year running average groundwater withdrawals were below the 1978-2000 average groundwater withdrawals for the Alamosa La Jara Response Area.

Subdistrict metered groundwater withdrawals account for approximately 99 percent of the total metered groundwater withdrawals annually over the period 2011-2020 in the Alamosa La Jara Response Area. The current five-year running average groundwater withdrawals for ARP Wells for the period 2016-2020 is 89,661 acre-feet. The previous five-year running average for ARP wells was 85,830 acre-feet. The Subdistrict anticipates the five-year running average groundwater withdrawals for ARP wells will increase in 2021 by 4,000 acre-feet, with the groundwater withdrawal projection.

Based on the trends of both the Alamosa La Jara 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 K is the State Engineer's memo dated July 1, 2020, regarding the Composite Water Head for Confined Aquifer Response Area in Division 3: July 2020 Requirement of Division 3 Groundwater Rules Section 8.1.4. The Composite Water Head for 2020 was 3.15 feet, recovering to the 2018 level and the highest level since 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)

No listing of other proposed actions was submitted with this ARP

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 2021 is consistent with historical pumping information and streamflow forecast from the Division Engineer's projection and the NRCS Forecast.

2. Overall, the Subdistrict inputs to the Response Functions produced a calculation of depletions that DWR considers 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. The Subdistrict used the 6P98 Response Functions in determining stream depletions. The ARP Year depletion schedule is included as an Exhibit to this letter.

4. The comparison of CBP projected deliveries with all Subdistricts operating under 2021 ARPs indicates the CBP production, at least on an annual basis, is adequate to cover the Non-Irrigation season depletions for all the Subdistricts.

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:

Conejos River

The Subdistrict depletions for the Conejos River system for this ARP are 2,997 acre-feet during the irrigation season and 1,522 acre-feet during the non-irrigation season for a total of 4,519 acre-feet.

- Irrigation Season: The Subdistrict has 567 acre-feet in storage in Platoro Reservoir, expects to yield 250 acre-feet from BLM excess augmentation water "in season", and indicates a yield total of 2,200 acre-feet from forbearance agreements during the irrigation season and in April 2022, totaling 3,017 acre-feet. DWR estimates there will be no yield from the Taos Valley No 3 contract in 2021.

  The submitted portfolio of water from storage and adjusted in-season yield in the 2021 ARP Year indicates there would be a deficit of 2,179 acre-feet of firm water to cover Injurious Stream Depletions in the unlikely event that no forbearance is available. My staff reviewed the historical calls on the Conejos for the ditches expected to generate estimated forbearance during the ARP Year as summarized below. The portfolio of water from storage and potentially 2,400 acre-feet from DWR forbearance analysis totals 3,217 acre-feet and indicates sufficient water to cover Injurious Stream Depletions for the Plan Year.

  - DWR staff prepared an analysis using the current stream flow numbers and forecast flows for the irrigation season, which is projected to end on November 1st, 2021. The focus of the analysis was to determine which ditches might be the calling priorities throughout this period. A similar analysis was completed for the irrigation month of April 2022, using average conditions because a reliable 2022 winter forecast is not yet available. The Subdistrict has secured forbearance contracts with numerous ditches ranging from the No. 1 priorities through very junior water rights.

  - These agreements for ditches that are likely to be the calling rights on the Conejos for the 2021 irrigation season and April of 2022 could possibly account for 2,400 acre feet, or 80%, of the 2,997 acre-feet owed based on a forbearance analysis from the 2020 ARP.

- Non-Irrigation Season: The Subdistrict has 1,522 acre-feet of Closed Basin Project water available to pay non-irrigation season depletions.

Alamosa River

The Subdistrict depletions on the Alamosa are 517 acre-feet during the irrigation season and 7 acre-feet during the non-irrigation season for a total of 524 acre-feet.

- Irrigation Season: The Subdistrict has 45 acre-feet in storage in Terrace Reservoir and indicates a yield of 500 acre-feet from forbearance agreements during the 2021 irrigation season and in April 2022, totaling 545 acre-feet.

  The submitted portfolio of water from storage in the 2021 ARP Year indicates there would be a deficit of 472 acre-feet of firm water to cover Injurious Stream Depletions in the unlikely event that no forbearance is available. My staff reviewed the historical calls on the Alamosa for the ditches expected to generate estimated forbearance during the ARP Year as summarized below. The portfolio of water from storage and potentially 500 acre-feet from DWR forbearance analysis totals 545 acre-feet and indicates sufficient water to cover Injurious Stream Depletions for the Plan Year.

- DWR staff prepared an analysis using the current stream flow numbers and forecasted flows for the irrigation season, which presumptively ends on November 1st, 2021. The focus of the analysis was to determine which ditches might be the calling priorities throughout this period. A similar analysis was completed for the irrigation month of April 2022, using average conditions because a reliable 2022 winter forecast is not yet available. The Subdistrict has secured forbearance contracts with numerous ditches ranging from the No. 1 priorities through very junior rights on the Alamosa River.

- These agreements for ditches that are likely to be the calling rights on the Rio Grande for the 2021 irrigation season and April of 2022 could possibly account for 500 acre feet of the depletions owed.

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

Rio Grande

The Subdistrict depletions on the Rio Grande are 1,657 acre-feet during the irrigation season and 1,771 acre-feet during the non-irrigation season for a total of 3,427 acre-feet.

- Irrigation Season: The Subdistrict has 1,474 acre-feet in storage in Beaver, Rio Grande, Continental and Santa Maria Reservoirs and indicates a yield of 1,000 acre-feet from forbearance agreements during the 2021 irrigation season and in April 2022, totaling 2,474 acre-feet.

The submitted portfolio of water from storage in the 2021 ARP Year indicates there would be a deficit of 183 acre-feet of firm water to cover Injurious Stream Depletions in the unlikely event that no forbearance is available. My staff reviewed the historical calls on the Rio Grande for the ditches expected to generate estimated forbearance during the ARP Year as summarized below. The portfolio of water from storage and potentially 900 acre-feet from DWR forbearance analysis totals 2,374 acre-feet and indicates sufficient water to cover Injurious Stream Depletions for the Plan Year.

- DWR staff prepared an analysis using the current stream flow numbers and forecasted flows for the irrigation season, which presumptively ends on November 1st, 2021. The focus of the analysis was to determine which ditches might be the calling priorities throughout this period. A similar analysis was completed for the irrigation month of April 2022, using average conditions because a reliable 2022 winter forecast is not yet available. The Subdistrict has secured forbearance contracts with numerous ditches ranging from very senior priorities through very junior rights on the Rio Grande.

- These agreements for ditches that are likely to be the calling rights on the Rio Grande for the 2021 irrigation season could possibly account for 900 acre feet of the depletions owed. This percentage is based on the fact that some of the

Rio Grande priorities are quite large and occupy the call for significant number of days.

- Non-irrigation Season: The Subdistrict has 1,770 acre-feet of Closed Basin Project water allocated to pay non-irrigation season depletions, 1 acre-foot short.

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. In all future years the five year running average of metered total withdrawals must not exceed the average annual withdrawals for the period of 1978 through 2000. 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, 2021 through April 30, 2022**, 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.

5. If the limit is reached for any particular forbearance agreement, then the Subdistrict will need to begin replacement of Injurious Stream Depletions to that particular ditch or canal. Storage under the forbearance agreement with the Guadalupe and Brazos Del Norte Ditches is only allowed upon prior approval of the Division Engineer.

6. The Division Engineer shall determine on an ongoing basis whether he can administer the operations under each forbearance agreement. If the Division Engineer cannot, then that operation shall cease. General Forbearance Protocols for the San Luis Valley

River Systems for 2021 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 (sam.riggenbach@state.co.us), rachel.rilling@state.co.us, tom.stewart@state.co.us, aaron.holman@state.co.us, travis.robinson@state.co.us and the Subdistrict Coordinator (deborah.sarason@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 the 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. The Subdistrict is relying heavily upon forbearance agreements to meet the requirements for mitigation of injurious stream depletions. The Subdistrict is strongly encouraged to actively pursue permanent replacement sources to cover depletions in the event that the forbearance agreements are not sufficient. In the unlikely event that the various SWSPs submitted in March and April 2021 are not approved or if the forbearance agreements do not yield the amounts needed to cover depletions as expected during the 2021 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.

10. 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.

11. The Subdistrict must submit an Annual Review of its ARP pursuant to Rule 12.

12. The Subdistrict must replace or remedy all Injurious Stream Depletions caused by non-augmented pumping associated with Subdistrict ARP Wells.

13. 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,

Kevin G. Rein, P.E.
State Engineer
Director of the Division of Water Resources

Exhibits:

A: Request to Revise 2021 ARP Projections
B: Subdistrict No. 6 Contract Well List – Notes regarding Coverage under the Subdistrict No. 1 2021 ARP
B: Subdistrict No. 6 2021 ARP Response Function Table 2.6
C: General Forbearance Protocols for the San Luis Valley River Systems for 2021

ec: Craig Cotten, Division Engineer
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

Exhibit A

Rio Grande Water Conservation District
Special Improvement District No. 6
8805 Independence Way • Alamosa, Colorado 81101
Phone: (719) 589-6301 • Fax: (719) 992-2026
Protecting & Conserving San Luis Valley Water

April 27th, 2021

Mr. Kevin Rein
State Engineer
1313 Sherman Street, Room 818
Denver, CO 80203

RE: Request to Revise the Projection of Stream Impacts to the Rio Grande, Conejos and Alamosa Rivers for Subdistrict No. 6 for the 2021 ARP Submitted but not yet Approved by the State Engineer's Office.

Dear Mr. Rein,

Subdistrict No. 6 submitted a 2021 Annual Replacement Plan ("ARP") on April 15th of this year to the State Engineer which, among other things, used the approved response function for the Alamosa/La Jara Response Area to predict the time, location and magnitude of depletions to the Rio Grande, Alamosa and Conejos rivers as caused by the groundwater withdrawals attributed to Subdistrict No. 6 wells listed in the ARP. That ARP is currently being reviewed by the State Engineer's Office and staff at DWR. In the last couple of days, the Subdistrict staff was made aware of a Subdistrict Member who had petitioned an in-active well into the Subdistrict during the formation period which they believed was their active irrigation well. Working with DWR staff and a representative for the owner, we determined which well was the correct active well and prepared a contract to allow that well to be included in the Subdistrict's 2021 ARP. The Subdistrict No. 6 Board of Managers met this morning, April 26th, and agreed to accept the contract to include the correct irrigations well and allow the inclusion of this well in the Subdistrict's 2021 ARP if it did not in any way affect the Subdistrict's ARP being approved by the State Engineer. The Subdistrict Board believes the well can be covered wholly in regards to both the replacement of any injurious depletions caused from this well's groundwater withdrawals and also any sustainability requirements under the current 2021 Plan as it was submitted to the State on April 15th. A new Response Function was prepared to include this well's withdrawals from 2011-2021 in the calculation of the depletions projected for the 2021 Plan Year.

The well being added to the 2021 ARP is WDID 2012535, Permit No. 5426-F, Case No. W-2537

Well No. 1. The metered withdrawals for this well in 2020 were 161 acre-feet. The estimated withdrawals for 2021 are projected to be similar to 2020 and 161 acre-feet was used to project the injurious depletions for this well for the 2021 ARP. A new Response Function workbook was prepared on April 26th with all groundwater withdrawals for Subdistrict Wells and all Contract Wells, including this newly accepted contract which was approved on April 26th. The number of depletions increased slightly, approximately 15 acre-feet, over the entire 2021 Plan Year on the Rio Grande, Conejos and Alamosa Rivers combined. The Subdistrict replacement sources available to remedy this increase in depletions were detailed in the 2021 ARP which was submitted to the State on April 15th. Those replacement sources are thought to be sufficient to cover these additional depletions in time, place and amount without the need for any additional sources to be included in the 2021 Plan.

The Board of Managers for Subdistrict No. 6 is respectfully requesting the State Engineer allow the revised Response Function workbook be accepted as a replacement for the calculation of projected depletions which were calculated in the original Response Function workbook which was submitted with the 2021 ARP on April 15th.

Thank you for your consideration of this request.

Sincerely,

Amber Pacheco

Amber Pacheco
Acting Deputy General Manager, Rio Grande Water Conservation District

Cc: Peter Ampe
Mike Sullivan
Craig Cotten
BOM's of Subdistrict No. 6
RGWCD Board of Directors

Exhibit B

2021 Subdistrict No. 6 ARP

Contract Well Review Exhibit

WDID	STRUCTURE NAME	APPROVED FOR ARP COVERAGE	DWR COMMENT
2009672	W0804 WELL NO 03	Y,C	PENDING RESULTS OF SWSP APPROVAL
2010109	W1045 WELL NO 07	Y,C	PENDING RESULTS OF SWSP APPROVAL
2010287	W1182 WELL NO 03	Y,C	PENDING RESULTS OF SWSP APPROVAL
2012431	W2448 WELL NO 03	Y,C	PENDING RESULTS OF SWSP APPROVAL
PENDING		Y,C	PENDING RESULTS OF SWSP APPROVAL
2011355	W1799 Well No 01	Y	
2009240	W525 Well No 02	Y	
2009493	W695 Well No 02	Y	
2013137	W3106 Well No 02	Y	
2013138	W3106 Well No 03	Y	
2012535	W2537 Well No 01	Y, C	ACERAGE LIMIT

* Y - APPROVED FOR ARP

** Y, C - APPROVED WITH CONDITIONS

*** N - NOT APPROVED FOR ARP

Exhibit C

Table 2.6

Alamosa/La Jara Response Area Monthly Net Stream Depletions for 2021 Plan Year

(units of ac-ft)

	Alamosa/La Jara Response Area Total												
	2021								2022				
Stream Reach	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Conejos above Seledonia/Garcia	14.3	17.6	16.5	13.9	11.5	11.7	11.2	11.4	8.6	7.5	8.5	8.9	141.6
Conejos below Seledonia/Garcia	250.8	383.8	518.8	561.8	515.6	449.7	357.1	326.8	295.6	244.8	247.8	217.5	4,370.0
Rio Grande Del Norte-Excelsior	90.3	97.0	103.1	113.5	130.8	141.3	129.1	135.1	144.7	131.9	143.7	123.1	1,483.6
Rio Grande Excelsior-Chicago	182.0	181.9	197.0	204.9	204.9	213.1	206.2	209.9	218.8	202.9	219.4	205.5	2,446.6
Rio Grande Chicago-State Line	18.2	-59.6	-138.8	-180.7	-104.2	-61.6	-31.7	16.7	7.9	2.0	30.3	-9.2	-510.5
Alamosa River	149.7	106.8	50.4	27.2	25.7	24.9	3.2	0.9	0.8	0.7	0.9	132.2	523.3
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	705.3	727.3	747.2	740.5	784.2	779.1	675.3	700.9	676.3	589.9	650.6	677.9	**8,454.6**

Notes for columns:

(1) Stream reach

(2)-(13) Monthly Net Stream Depletions in acre-feet

(14) Total Plan Year Net Stream Depletions in acre-feet

Exhibit D

Updated 4/30/2021

General Forbearance Protocols

For San Luis Valley River Systems

Subdistricts No. 1, No. 2 (Rio Grande Alluvium), No. 3 (Conejos), No. 4 (San Luis Creek), No. 6 (Alamosa La Jara) and Trinchera Subdistrict will be operating under ARPs and will replace depletions to their affected streams on May 1st, the beginning of the 2021 ARP year. Subdistrict No. 5 (Saguache) will also be subject to these protocols when an ARP is approved. Along with the replacement of stream depletions, the State and Division Engineer may allow the owners of the calling ditch to 'forbear', or choose to not take the water that otherwise would have been allocated to that ditch in exchange for receiving payment in some other form. This forbearance is authorized under Colorado Revised Statute 37-92-501 (4)(b)(1)(B) which states that the State Engineer shall "Recognize contractual arrangements among water users, water user associations, water conservancy districts, ground water management subdistricts, and the Rio Grande Water Conservation District, pursuant to which... injury to senior surface water rights resulting from the use of underground water is remedied by means other than providing water to replace stream depletions."

In order to assist the Subdistricts, water users, and Water Commissioners in determining whether a forbearance contract will be allowed, the following are general guidelines regarding those forbearance contracts for the 2021 ARP year:

- A water right must be the calling water right in order to forbear. In other words, the ditch must be legally and physically entitled and able to receive and divert the replacement water that would have been placed into the river or stream reach if that ditch owner would have decided to take the water available instead of forbearing.

- The owner of a ditch that cannot physically divert all of the water under its priorities due to an inadequate ditch size or other physical restrictions cannot forbear for the amount that the ditch in not able to divert. However, this ditch may be able to forbear in the amount that it is physically and legally able to divert.

- The owner of a ditch that physically is not able to divert the replacement water entitled to it at certain times of the year (for instance during low flow periods), due to an inadequate diversion dam or headgate, or other reasons, cannot forbear during that time of year unless and until the ditch or associated structures are repaired and physically able to take water.

- If it is certain that the owner(s) of a ditch would have declined to take water in their ditch on a given day that they were in priority to take water, for instance, if that owner cannot take their full priority due to a break in the ditch bank, or if the owner has not called for that water right in the ditch, etc., the ditch owner cannot forbear for that water right on that day.

- Forbearance will be allowed on water rights that are not large enough to cover the entire daily replacement amount. A ditch may be forbearing only a portion of the total daily replacement amount due to the size of the water right. In such cases, there may be several water rights in

various ditches that are forbearing at the same time in order to meet the entire replacement obligation of the Subdistrict.

- A ditch may operate under a partial forbearance contract with the understanding that the ditch company, Subdistrict or other appropriate party will manage the partial flow and partial forbearance at the heading and down ditch to the satisfaction of all water rights owner in that ditch that are in priority on that day. The manager of the ditch with partial forbearance must inform the Water Commissioner, prior to any operations, the manner and the capability in order to be in compliance, otherwise forbearance will not be allowed.

- Ditches with a forbearance contract must have accurate, reliable and operational measurement devices on the ditch.

- On a day when water could be placed into the river system for replacement of injurious depletions, and a section(s) of the stream is dry such that this replacement water would not have made it to the calling priority ditch, forbearance by that ditch(es) will not be allowed. During times of dry stretch(es) on the river system, each live stretch will be treated as its own calling system. Only the stretch(es) that includes an RGDSS modelled stream reach will have the ditch(es) eligible for forbearance. If water delivery could not make it physically to any structure in a particular RGDSS reach, then no forbearance is allowed and a water delivery will be required. The determination of the physical properties controlling these situations shall be at the sole discretion of the Water Commissioner and/or Division Engineer.

- A forbearance that results in a section of the river drying up, cannot be used to create a futile call. The river must be administered to replicate what conditions would have taken place had a continuous deliverance of water occurred.