

No. 141, Original

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In the  
SUPREME COURT OF THE UNITED STATES

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STATE OF TEXAS,

Plaintiff,

v.

STATE OF NEW MEXICO and  
STATE OF COLORADO,

Defendants.

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**OFFICE OF THE SPECIAL MASTER**

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**SECOND DECLARATION OF MARGARET BARROLL, Ph.D.**

**IN SUPPORT OF JOINT MOTION OF THE STATE OF TEXAS,  
STATE OF NEW MEXICO, AND STATE OF COLORADO FOR ENTRY  
OF CONSENT DECREE SUPPORTING THE RIO GRANDE COMPACT**

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February 3, 2023

I, Dr. Margaret (Peggy) Barroll, pursuant to 28 U.S. C. § 1746, hereby declare as follows:

1) I am over 18 years of age and have personal knowledge of the facts stated herein. I am competent to testify to the matters herein. If called to testify, I can and will testify in accordance with the following.

2) My experience, work history, and qualifications are set out in my November 14, 2022 declaration, at Dkt. 720 (“November Declaration”). I have been asked to respond to allegations and opinions expressed by the United States and its declarants Dr. Allie Blair, Dr. Philip King, and Ms. Michelle Estrada-Lopez, in support of the United States Memorandum in Opposition to Compacting States’ Joint Motion to Enter Consent Decree, Dkt. 754.

**General Operations under the Consent Decree Will Be Substantially the Same as Under the 2008 Operating Agreement.**

3) Under the Consent Decree, day-to-day operations of the Rio Grande Project (“Project”) will remain unchanged. As before, the New Mexico and Texas water districts (“Districts”) will order water against their respective Project Allocations. The “efficient hour-by-hour operation of the Project to deliver water to EBID and EPCWID based on the ground, real-time conditions” (Blair Decl. ¶ 14) will continue.

4) The allocations of each District will continue to be calculated by Reclamation, and “through a continuous process in which initial and interim allocations are updated and refined as *new information* becomes available (such as storage, releases, diversions, and allocation charges), and finalized at the end of the year with final Project data.” (King Decl. ¶ 19; emphasis added.)<sup>1</sup> The Consent Decree will add only one additional type of “new information;” that is, whether Compact Apportionment Transfers (explained below) are necessitated by departures from the Index, and if so, the amount by which Project Allocation should be adjusted in order to implement the Transfer.

5) Dr. Blair declares that “The Proposed decree ... is based on an artificial index contrived to facilitate post facto bookkeeping of water delivered to Texas and not the efficient hour-by-hour operation of the Project to deliver water to EBID and EPCWID based on the ground, real-time conditions.” (Blair Decl. ¶ 14) This is incorrect. The Effective El Paso Index (“EEPI”) methodology provides a monitoring / measuring protocol that does not replace the “efficient hour-by-hour operation of the Project.” Instead, the EEPI methodology is an end-of-year calculation

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<sup>1</sup> I will refer to the initial annual allocation and subsequent modifications throughout the season as “Project Allocation,” whether as currently done under the 2008 Operating Agreement or as modified as contemplated by the Consent Decree.

that will function separately from Project operations. When applied, the EEPI methodology will also indicate whether occasional adjustment to allocation is required the following year to improve Compact compliance. The changes stipulated by the Consent Decree to Carryover Allocation and El Paso Valley Project Accounting (explained below) do not impact the hour-by-hour operations.

6) Dr. Blair states that the Consent Decree “transfers the authority for making allocations from Reclamation and the Districts to the Rio Grande Compact Commission.” (Blair Decl. ¶ 15) This is also incorrect. Reclamation will continue to make allocations. Based on the RGCC Engineer Advisors’ evaluations on New Mexico’s compliance with the Index, Compact Allocation Transfers may be requested if they necessary to assure that Compact apportionment as described in the Consent Decree is achieved.

7) As stated above, the day-to-day operations of the Project will not be changed by the Consent Decree. At present, (as described in Trial Exhibit NM-EX-100, Barroll 2019 Expert Report, Section 2.2) the Project operators - by which I mean Reclamation in consultation with the Districts - receive ongoing water orders from the Districts. Each District order quantifies the flow rates required at delivery points. The Project operators then determine the release rate from Caballo Dam that will fulfill those orders, as well as the scheduled delivery to Mexico. Water is released from Caballo at the determined release rate, and adjusted as necessary for variation in conditions, as Drs. King and Blair have described. If conveyance losses are higher than expected, then releases from Caballo are increased until deliveries meet the orders. Under the Consent Decree, this process will not change.

8) The effect of such conveyance losses is already incorporated in current Project Allocation. Any deviation in Project performance compared to the D2 Period results in changes to the New Mexico District’s Project Allocation. If higher-than-D2 Period conveyance losses mean that greater releases are needed to meet orders, then the New Mexico District’s allocation is reduced, so that the total water allocated does not exceed what can be delivered. Again, the Consent Decree does not change that process.

9) The Consent Decree will not impact day-to-day operation of the Districts. Currently the Districts’ allocations are determined by Reclamation (and the Rio Grande Project Allocation Committee) each year, and updated throughout the year as described by Dr. King. The Districts use this information to set allotments and manage the orders from and deliveries to their farmers. From the perspective of the Districts, this process will not change at all.

10) It must be pointed out that the 2008 Operating Agreement acknowledges that it is subject to the Compact. *See, e.g.*, ¶¶ 1.3 (Compact-authorized storage), 1.6 (Project water defined by the terms of the Compact). Most importantly, the 2008 Operating Agreement specifically states: “Nothing herein is entered to alter, amend, repeal, modify, or be in conflict with the provisions of

the Rio Grande Compact.” 2008 Operating Agreement ¶ 6.12. The modifications to Project operations contemplated by the Consent Decree are intended to reduce any conflict between the 2008 Operating Agreement and the Compact, and the Consent Decree itself will provides a quantitative measure of success.

**Changes to Project Allocation Methodology and Project Accounting Will be Minimal, and Are Summarized As Follows and As More Fully Developed Below**

11) A minor change to the formula used in Allocation determinations is required. Under the 2008 Operating Agreement, allocation to the Districts is determined through the D2 Equation (a single regression equation derived from the D2 Period (1951-1978) flow and diversion data). Under the Consent Decree, allocation is to be determined through the Modified D2 Equation; which is a multiple regression equation derived from the same data as the D2 Equation. One equation is no more difficult to use than the other; they are simply formulae inserted into an Excel file. Texas’s allocations as calculated using the Modified D2 Equation will be, on average, about the same as those calculated using the original D2 formula, but the variation in annual values will more closely track the variation of the Index Obligation.

12) The States have agreed to simplify and move the charge point for delivery to the Texas District in the El Paso Valley from the current multiple locations in the El Paso Valley to the existing El Paso Gage. This move will simplify accounting, eliminate from Project accounting credits associated with operations down in the El Paso Valley, and make the main delivery point for the El Paso District the same as the main Index delivery point. This change will simplify the accounting of the Texas District’s water use in the El Paso Valley, and make it more consistent with Index Accounting under the Consent Decree. This adjustment will have a modest effect on the Diversion Ratio that is used in the Allocation Procedure, but the change is beneficial in that it will tend to make the Diversion Ratio a better measure of wet water.

13) The States have agreed to modify Carryover Accounting so that water associated with a Carryover Account is reduced for evaporation while in reservoir storage, and adjusted for conveyance losses when delivered. This change makes sense physically and accords with current Reclamation and Compact accounting practice as to other tranches of water stored in reservoirs. This change also partially mitigates the negative effect that Carryover can have on Project Allocation and on Index departures.

- a. Allowing Carryover Accounts to remain unchanged for years without any consideration of evaporation is physically unreasonable in the arid climate of the Project, and incorporating evaporation in the allocation process will remedy that issue. Reclamation already recognizes this principle and adjusts for the evaporation losses in its Compact accounting (*see, e.g.*, Rules and Regulations for the Administration of the Rio Grande Compact, § 5, “Evaporation Losses,” JT-0409

at JT-0409-0091) and in its treatment of San Juan-Chama Project water stored in Elephant Butte Dam.

- b. Adjusting Carryover Accounting to account for conveyance losses avoids the inequities caused when a District accumulates Carryover in a year of high efficiency, then orders from its Carryover Account in a year of low efficiency (without conveyance adjustment); currently this situation requires that the other State bear the conveyance losses. Adjusting Carryover for conveyance losses will ensure the State receiving the benefits of the Carryover will bear any cost of increased conveyance loss. Conveyance losses are already applied in determining San Juan-Chama Project water, which is a factor that goes into Project Allocation.

14) If the Decree requires a Compact Apportionment Transfer in accordance with Consent Decree II.C.3.b, II.D.2.a, II.D.2.b, and II.D.3.a., an additional adjustment to District allocations will be necessary. Under normal conditions, this change will entail a relatively small adjustment to District allocation.

#### **Discussion of Compact Apportionment Transfer (“Transfer”)**

15) The United States has greatly overcomplicated the concept of Compact Apportionment Transfers (“Transfers”)<sup>2</sup> and the purported burdens they will impose. These Transfers are defined as the transfer of water apportioned under the Compact from one State to the other, as required by the Decree and implemented by Reclamation, through the adjustment of Project Allocation. These Transfers are intended to redistribute apportioned water when the Accrued Index Departure exceeds triggers as set forth in the Consent Decree. Such exceedance would indicate substantial deviation from the 57:43 Compact apportionment between New Mexico and Texas. The Transfers are intended to mitigate or remedy that deviation and return the Compact apportionment to the proper condition.

16) Reclamation will make Transfers when called for by the Consent Decree, similar to the way it currently transfers Project allocation amounts pursuant to terms of the 2008 Operating Agreement. The Consent Decree describes Compact Allocation Transfers as follows: “With the agreement of Texas, New Mexico shall have the option to transfer part of the water apportioned to New Mexico from the irrigation district in New Mexico to the irrigation district in Texas” (Decree II.D.2.a) and “Part of the water apportioned to Texas shall be transferred to New Mexico to reduce the accrued Positive Departures.” (Decree II.D.3.a) The specifics of effecting a

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<sup>2</sup> To clarify, the Consent Decree uses the term “allocation transfer” to describe the circumstances under which water would be transferred from EBID to EPCWID or vice versa when a trigger is met. Consent Decree at § 2(B). Perhaps a more appropriate term for “Allocation Transfers” would be Compact Apportionment Transfers, which are defined as the transferal of water apportioned under the Compact from one State to the other State by means of an adjustment to Project Allocations.

Transfer will be specified in an appropriate companion technical document, as discussed by Mr. John Longworth in his declaration.

- **Transfers must be accomplished through Project Allocation**

17) Compact Apportionment Transfers must be implemented through adjustments of Project Allocation because, in order for a Compact Apportionment Transfer to be physically effective and useful to the State receiving the Transfer, the apportioned water must be available to it when actually needed, as opposed to, for instance, a year end “true up.” Project Allocation is the process by which water is made available to each State’s District based on available supply of Project water, for delivery in accordance with water user orders. As Dr. King has explained, the allocation process is effected through a “continuous process in which initial and interim allocations are updated and refined as new information becomes available.” King. Decl. ¶ 19. When a Compact Apportionment Transfer increases the Project Allocation of the State receiving the Transfer, that water becomes available for diversion and use when needed by the water users of that State. Other methods of “getting water to” that State would likely be ineffective, delivering water when it is not wanted or needed.

- **Transfers will have minimal impact on Project operations**

18) Ms. Estrada-Lopez declares that “the Proposed Decree would divest Reclamation of its authority and discretion to control and operate the Project.” Estrada-Lopez Decl. ¶ 10. Ms. Estrada-Lopez is also concerned that “Proposed Decree would undermine the contracts with the Districts and divest Reclamation of its discretion to allocate Project water.” Ms. Estrada-Lopez’s conclusions are incorrect. The modifications stipulated by the Consent Decree require adjustment to some Project Allocation and Project Accounting processes, but these processes have been modified numerous times since the Project’s inception (see Trial Exhibit NM-EX-100, Barroll 2019 Expert Report). Significant changes have been made even since the 2008 Operating Agreement was adopted, through modifications to the Project Operations Manual. Adoption of the Consent Decree will simply cause Project operators to include consideration of the Rio Grande Compact in addition to the interests of the Districts, as they are already required to do.

19) Ms. Estrada-Lopez correctly points out that reductions in the New Mexico District’s supply caused by a Transfer may lead to “additional [irrigation] groundwater pumping that could affect Project efficiency and potentially add to the accrued Negative Departure and cause additional future allocation balance transfers.” Estrada-Lopez Decl. ¶ 20. A similar issue has impacted New Mexico for the past 15 years, as reductions in the New Mexico District’s Project supply related to the 2008 Operating Agreement have led to increased pumping and depressed

groundwater levels, and further decreases in the New Mexico District's allocations. New Mexico plans to address these issues through an initial reduction in LRG groundwater depletions through fallowing of irrigated acres (a more permanent version of New Mexico's current Pilot Project), and through additional groundwater management. *See*, for example, Hamman 1<sup>st</sup> Decl., ¶ 14, at Dkt. 720. Dr. King expresses concerns that New Mexico groundwater management may not occur, and that would mean that "EBID, and only EBID, will mitigate for all groundwater pumping effects on Project water supply." This is not New Mexico's intent, as has been demonstrated by the Pilot Program that has been reducing depletions (albeit not permanently) for the past few years. New Mexico has every incentive to promote the success and viability of the New Mexico District and other LRG water users. To the extent any stakeholder is dissatisfied with water administration, there are venues available in which to achieve resolution. *See* Hamman 2d Decl., ¶ 17.

20) Ms. Estrada-Lopez also points out that "The finalization of the accounting for the Rio Grande Compact typically occurs in the April following the calendar year for which the accounting is being conducted. By April, the Districts have typically developed plans for the season's water orders and historically have already been ordering water for 6-8 weeks." Estrada-Lopez Decl. ¶ 21. It is true that the possibility of Transfer may impact irrigation water distribution planning. However, in recent years, the earliest Project releases have started in mid-March, and in low-supply years such as 2013, 2014 and 2021, when Transfers could possibly change Project Allocation by a significant fraction, releases have begun much later, in late May. As Dr. King declared: "Project allocations are calculated by the Districts and Reclamation through a continuous process in which initial and interim allocations are updated and refined as new information becomes available." King Decl. ¶ 19. When the Consent Decree is in force, this "continuous process" will include the determination by the RGCC of any Project Allocation adjustments necessary to ensure that each State has access to its Compact-apportioned water.<sup>3</sup>

- **Discretion in the determination of Transfers provides flexibility**

21) Ms. Estrada-Lopez states that "The Proposed Decree is also silent as to what would occur if EBID does not have sufficient allocation to satisfy the imposed transfer from EBID to EPCWID..." Estrada-Lopez Decl. ¶ 20. Dr. King expresses the same concern, saying that: "In particularly bad circumstances, the transfer process could even result in a negative allocation to EBID." King Decl. ¶ 28.

The extreme situations postulated by Ms. Estrada-Lopez and Dr. King are unlikely given the fact that 57,000 AF is the lowest the New Mexico District's allocation has been over the past 20

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<sup>3</sup> While Compact Apportionment Transfers are to be finalized at the spring RGCC meeting, in March or April, it is likely that the EA's will be able to make projections of the need for, and potential size of, such Transfers at an earlier time.

extremely low supply years, while Transfers described in the Consent Decree are likely to range from 12,000 AF (Decree II.C.b.) to on the order of 30,000 AF (calculated assuming an Accrued Negative Departure of 106,000 AF, Transferring 30,000 AF/yr each year for three years to achieve an Accrued Negative Departure of 16,000 AF.) However, under extreme low-supply conditions, where the New Mexico District's allocation is too low to allow Transfers, the Consent Decree provides the RGCC some discretion in scheduling these Transfers, and the ordinary conduct of the RGCC provides opportunity to consult with Reclamation to resolve the issue.

22) The Consent Decree language about Transfer quantities is sufficiently non-restrictive to accommodate the discretion of the RGCC, and consultation with Reclamation, in deciding Transfer amounts in particular years.

These Transfers occur in four provisions of the Consent Decree, two of which are optional:

- a. Three-year exceedance of the Accrued Negative Departure Limit (Decree II.C.b) and
- b. First three years after exceedance of Accrued Negative Departure Trigger (Decree II.D.2.a)

And two of which are required:

- c. Second three years after exceedance of Accrued Negative Departure Trigger (Decree II.D.2.b)
- d. Two-year exceedance of the Accrued Positive Departure Trigger (Decree II.D.3.a)

Since the first two of these provisions are optional, there is clearly room for consultation with Reclamation and the Districts on the amounts to be Transferred in any given year based on water supply conditions. The second two provisions require Transfers over the course of three years, but do not specify the amounts beyond indicating that the goal to reduce accrued departures to within a specified value: "Part of the water apportioned to Texas shall be transferred to New Mexico to reduce the accrued Positive Departures to less than 16,000 acre-feet by the end of three calendar years following the exceedance of the Positive Departure Trigger" (Decree II.D.3.a), and "Part of the water apportioned to New Mexico shall be transferred to Texas to reduce the accrued Negative Departures to less than 16,000 acre-feet by the end of three additional calendar years." (Decree II.D.2.b)

Therefore, even the "required" Transfers allow for discretion in scheduling Transfer amounts to provide the opportunity to take water supply conditions into account.

23) Whether any Transfer is necessary to assure Compact compliance will be determined by the RGCC at its annual meeting, informed by the analysis of their Engineer Advisors ("EAs"). Reclamation is already an active participant in the RGCC meetings and the separate EA meetings. Reclamation provides to the EAs much of the data they require for Compact calculations, and provides annual information about its water operations on the Rio Grande, including the operations of the Rio Grande Project. Under the Consent Decree, Reclamation



involvement may also include consultation with the RGCC on Transfers implemented through adjustments of Project Allocation. Such consultation would allow consideration of whether and to what extent a relatively large Transfer would be disruptive to District operations.

24) The process associated with the Accrued Negative Departure Trigger provides New Mexico three years to address problems by its own means, that may or may not include some element of Compact Allocation Transfer. New Mexico's means are likely to include long-term depletion reduction to achieve the D2 baseline level, and further water use reductions if the average water supply is below that of the D2 baseline period. *See* Hamman 11-14-22 1<sup>st</sup> Decl. ¶ 14, at Dkt. 720. After those three years have expired, if the Accrued Negative Departure still exceeds 16,000 AF, then Compact Allocation Transfers will occur to enforce Texas's receipt of its 43% apportionment as described in the Consent Decree.

### **Delivery of the Index Obligation by the Project Is Similar to Current Project Deliveries to Texas**

25) Ms. Estrada-Lopes states that "The Proposed Decree is also silent as to what would occur if the amount of water available for release from Project storage is not sufficient to meet the Index Obligation due to excessive losses between Caballo Dam and the El Paso gage." Estrada-Lopez Decl. ¶ 20. However, this outcome is again unlikely given the Consent Decree and standard Project operations under the 2008 Operating Agreement.

26) Under the 2008 Operating Agreement, the Project Allocation process adjusts the New Mexico District's allocation to ensure that the water allocated to Texas and the water owed to Mexico can both be delivered. Under the Consent Decree, the allocation to the Texas District, will be determined using the Modified D2 Equation. Therefore, standard Project operations should be able to deliver the Index Obligation and the water required by the Mexican Treaty.

27) In fact, the United States' Memorandum points out: "On its face, the Index is structurally similar to the 2008 Operating Agreement: the Operating Agreement allocates to EPCWID an amount of water based upon a regression analysis of Project releases and diversions during the D2 Period, and the Index Obligation represents a required delivery to the El Paso Gage based upon a regression analysis of Project releases and flows at the El Paso Gage during the D2 Period." U.S. Memorandum at 58.

This is correct. In fact, the Index is congruent with the current Project operations. Project Allocation will be largely consistent with the Index as long as Project Allocation is adjusted to include the effects of previous year's release; this can be accomplished by use of the Modified D2 Equation in Project Allocation. Provided Reclamation uses the Modified D2 Equation (as defined in Consent Decree, Part I) for Project Allocation, then the Texas District's Project Allocation will

be consistent with, but not necessarily exactly the same, the Index Obligation, for a given release from Caballo<sup>4</sup>.

### **The Project Accounting Modifications Contemplated by the Consent Decree Are Sensible and Beneficial**

28) For Project Accounting to be consistent with the Consent Decree, the charge point for Project delivery to the Texas District in the El Paso Valley will move to the El Paso Gage. This move will eliminate from Project Accounting measurements at several different diversions off the American Canal, as well as two credits associated with Reclamation's use of the American Canal (instead of the Rio Grande) to deliver water to these diversion points. The new charge point will simplify accounting of the Texas District's water use in the El Paso Valley, and make the main delivery point for the El Paso District the same as the main Index delivery point, therefore making Project deliveries more consistent with Index Accounting under the Consent Decree.

29) With the modifications here described, Project Accounting of deliveries will largely track Index Deliveries, although some differences remain as I explained in my November Declaration, ¶ 40.

30) The Diversion Ratio mentioned by the United States (U.S. Memorandum at 58) is calculated as the ratio of the total Project Accounting charges divided by the total Caballo Release, and is used to determine allocation to New Mexico. Implementation of the Consent Decree will only modify that Diversion Ratio to the extent that the Project Accounting charges will be based on a simpler accounting that eliminates the multiple credits required under the 2008 Operating Agreement. Implementation of the Consent Decree will not change the use of the Diversion Ratio to determine the Project Allocation to the New Mexico District, and therefore its allocation will be limited to the extent necessary to deliver the Texas District's allocation – this is the same process currently occurring under the 2008 Operating Agreement.

31) Mr. John Balliew of El Paso Water Utilities Public Service Board ("El Paso Water") expressed concern about my statement that "As a result of moving the El Paso Valley charge point to the El Paso Gage, all Project Accounting charges and credits associated with Texas actions downstream of the El Paso Gage would become superfluous and should be eliminated (e.g. ... the 'Haskell Street Credit' and the 'American Canal Extension Credit.')." Balliew Decl. ¶ 9. To clarify my earlier statement, current Project Allocation and Accounting include the ACE and Haskell Street credits, which are associated with activities in the El Paso Valley. The Consent Decree reflects an agreement that if the Texas District is charged for all the water it receives at the El Paso Gage (just upstream of its actual diversion from the Rio Grande at American Dam), then from my

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<sup>4</sup> Note that if the Texas District decides not to order its full allocation, that will change the Caballo release used in the Index calculations, causing some divergence between the Project Allocation and Index Obligation.

perspective no further accounting of Texas's activities below the El Paso Gage will be necessary. Whatever use the Texas District makes of efficiencies or return flow arising in the El Paso Valley will be of no concern to New Mexico. Further, New Mexico will have no interest in water contracts between the Texas District and/or Reclamation and any other entity, including any contracts rights held by El Paso Water. Nothing in the Consent Decree affects the contract rights of El Paso Water.

32) The ACE Credit and the Haskell Street Effluent issues were contentious issues in this matter; however, moving the El Paso Valley charge point upstream of these operations to the El Paso Gage obviates both issues, and eliminates New Mexico concerns with Texas' operations in the El Paso Valley.

### **Carryover and Carryover Allocation Will Continue Under the Consent Decree**

33) Carryover Allocation is a relatively new feature of Project operations. It was initiated in approximately 2006, and formally included in the 2008 Operating Agreement. Carryover Allocation allows each District to maintain control over allocation it did not use in a previous year, so that water reserved in Elephant Butte Reservoir from previous years can be ordered in subsequent years. Carryover Allocation is a change from how the Project was conceived and implemented, and from how it has operated historically. Carryover Allocation was not part of Project operations at the time the Compact was signed nor during the D2 Period. Prior to 2006, any allocation unused by a District at the end of one year was "returned to the pool" for reallocation between the Districts and Mexico in the following year.

34) The Texas District has made extensive use of Carryover since 2006, allowing Texas water users to continue to use surface water during drought. In 2011 the Texas District had over 220,000 AF of its allocation carried over from 2010, which buffered the impacts of a very dry winter in which scant additional water reached the Elephant Butte Reservoir. This Carryover provided great benefits to Texas farmers in a very dry year, providing close to a full supply of water to Texas farmers and the City of El Paso.

35) However, current Carryover Accounting has had negative impacts on the New Mexico District. I explain this in detail in my 2019 Expert Report, Appx. D, § 2.4 (Trial Exhibit NM-EX-100), and my June 15, 2020 Rebuttal Expert Report, § R6 (Trial Exhibit NM-EX-101). A significant part of these impacts can be attributed to the fact that heretofore 1) Carryover Accounts have not been adjusted for evaporation that occurs to water "carried over" and stored in the Project reservoirs, and 2) Carryover Accounts have included some "paper water." (By "paper water" I mean Project Allocation that is based on Project Accounting credits rather than actual available wet water in the reservoir.) Under the 2008 Operating Agreement, inflows into the reservoir are *first* applied to meet any Carryover obligation. As a result, some inflows to the reservoir have been shunted directly into service of the Texas District's Carryover Account,

instead of becoming available the next year for allocation between the Districts. The result of this operation is to reduce the current-year allocation to the New Mexico District.

36) Carryover Allocation also complicates the implementation of the Consent Decree. The Index in the Consent Decree is based on operations from the D2 Period, during which there was no Carryover Allocation. Any discrepancy in releases and deliveries associated with Carryover Allocation are necessarily going to introduce Index departures. Even when the Texas District's allocation equals the Index Obligation, if the Texas District decides not to take some of that water that amount will, of necessity, not leave the reservoir and pass the El Paso Gage, and therefore not be counted as an Index Delivery. New Mexico's analysis of this scenario indicates that when the Texas District accrues Carryover, the proportion of water going to each State changes, and negative Index departures will result. I explain this more fully in my November Declaration, ¶ 41.

37) The Consent Decree resolves any issues with the operation of the Carryover Allocation in the following manner: 1) accounting for Carryover evaporation and conveyance loss, 2) elimination of negative accrued departures when the Texas District has consistent large Carryover balances (what Dr. Blair describes as "a 'forgiveness' provision linked to carryover" at Blair Decl. ¶ 21) a requirement that consideration be given to the Carryover Allocation that the Texas District has maintained in reservoir storage when determining whether the New Mexico has exceeded the allowed negative Accrued Departure Limit.

### **The Consent Decree Is Sufficiently Explicit**

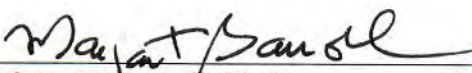
38) Ms. Estrada-Lopez expresses concern about the "vagueness" of some provisions in the Consent Decree, particularly the requirement that the Project be operated in a manner to maintain "consistency" with the Index. The Consent Decree and its Appendix 1 already include specific language on adjustment of Project operations for increased consistency with the Index, as described in this Declaration.

39) As more fully explained in the John Longworth declaration, the States will develop guidelines as needed to technically administer the Consent Decree.

40) Continued coordination between Reclamation and the RGCC will be necessary to resolve any future issues as they come to light. Ongoing cooperation and coordination between Reclamation and the RGCC already occurs: Reclamation staff attend Compact meetings of both the Engineer Advisors and the RGCC. Reclamation provides the RGCC an annual report of the operation of all its facilities on the Rio Grande, including the Rio Grande Project. Future coordination related to implementation of the Consent Decree will occur in conjunction with these meetings.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 2<sup>nd</sup> day of February, 2023, at Santa Fe, New Mexico.

  
Margaret Barroll, Ph.D.