

EXHIBIT 3



No. 141, Original

IN THE
SUPREME COURT OF THE UNITED STATES

STATE OF TEXAS,

Plaintiff

v.

STATE OF NEW MEXICO and
STATE OF COLORADO,

Defendants

SECOND DECLARATION OF ESTEVAN R. LOPEZ, P.E., IN SUPPORT OF

Comes now Estevan R. Lopez, P.E., pursuant to 28 U.S.C. § 1746, and states as follows:

1. I am over 18 years of age and have personal knowledge of the facts stated herein.

2. I am the same Estevan Lopez who authored the following reports in this case: an Expert Report dated October 31, 2019 (NM-EX 107),¹ a Rebuttal Expert Report dated June 15, 2020 (NM-EX 108), a Supplemental Rebuttal Expert Report dated July 15, 2020 (NM-EX 109), and a Supplemental Rebuttal Expert Report (2nd Ed.) dated September 15, 2020 (NM-EX 110). I also submitted a declaration in support of New Mexico’s motions for partial summary judgment on November 5, 2020 (NM-EX 003). My credentials and background are discussed in my first declaration filed in this case on November 5, 2020. NM-EX 003 at ¶¶ 3-10.

¹ All exhibits designated “NM-EX __” in this Declaration are contained within the State of New Mexico’s Exhibit Compendium filed with New Mexico’s Partial Summary Judgment Motions on November 5, 2020 and in the State of New Mexico’s Supplemental Exhibit Compendium dated December 22, 2020 filed with New Mexico’s responses to Texas and United States motions for partial summary judgment. Exhibits used by the United States and Texas in their motions for partial summary judgment are cited as in those briefs.

3. I have been asked by Counsel for New Mexico to provide this declaration based on my knowledge, experience, and research relating to the Rio Grande Compact (the “Compact”), the Rio Grande Compact Commission (“RGCC”), the relationship between the Compact and the Rio Grande Project (“Project”), and their operations specifically in reference to the motions for partial summary judgment filed by the United States and Texas on November 5, 2020. Most of my statements are summaries of detailed information in my expert reports.

The Rio Grande Compact, the Rio Grande Compact Commission, and Apportionment

4. ~~Texas in particular makes several incorrect and incomplete statements and assumptions about articles in the Compact that are not factually supported. For example, Texas states that the references to Project Storage in the Compact’s definitions Articles I(k)-(q) are “the only direct references to the Rio Grande Reclamation Project in the Compact” and “are intended to ensure that deliveries into the Reservoir and Texas’s apportionment are protected from upstream post-1938 depletions.” In fact, Article I(k) of the Compact defines “Project Storage” as “the combined capacity of Elephant Butte reservoir and all other reservoirs actually available for the storage of water below Elephant Butte and above the first diversion to lands of the Rio Grande project, but not more than a total of 2,638,860 acre-feet.” There are direct references to “Project Storage” not only in the definitions of Compact Article I(l)-(q), but also in Articles VI, VII and VIII. Further, Articles VI, VII and VIII have numerous additional indirect references to “Project Storage” by virtue of the use of defined terms from Articles I(l)-(q) whose definitions reference “Project Storage” directly. These numerous direct and indirect references to Project Storage in various parts of the Compact simply underscore the fact the Project and the Compact are inextricably intertwined. The Project relies on the Compact to secure its water supply and the Compact relies on the Project to distribute the water. Finally, the definitions referenced by~~

~~Texas (Articles I(k)-(q)) do not support its assertion that they “are intended to ensure that deliveries ... are protected from upstream post-1938 depletions.” NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 15-25.~~

5. ~~Contrary to Texas’ assertion that Article I(e) of the Compact specifies the “scope of the apportionment”, Article I(e) only specifies the *geographic* scope within which the Compact is operative. An example of why this specificity is important is that the scope of the Compact does not extend to apportionment of groundwater. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 10-12; NM-EX 237, Lopez 30(b)(6) Dep. (September 18, 2020) at 49:19-21.~~

6. ~~Article II of the Compact specifies Compact gaging requirements at specified locations including below reservoirs constructed after 1929 “for the securing of records required for the carrying out the Compact”, and *not* “[d]ue to concern about post-1938 depletions” as asserted by Texas. There is no reference to any such concern in the Compact nor in the historical record. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 18-19.~~

7. ~~Article III of the Compact adopted two delivery schedules for Colorado: one for the Conejos River and one for the Rio Grande exclusive of the Conejos River. Article IV adopted a delivery schedule for New Mexico’s deliveries at San Marcial. This Article IV schedule and the San Marcial delivery point were changed by a resolution of the Rio Grande Compact Commission in 1948. There is no schedule similar to those in Articles III and IV for deliveries to Texas at the state line, although quite clearly the Compact drafters could have done so if that was their intent. Rather, deliveries to Texas and its apportionment are effectuated through the operation of the Rio Grande Project as a single unit that makes Project Supply available equally (i.e., on an acre foot per annum/acre basis) to all authorized Project lands,~~

~~whether in New Mexico or in Texas. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 19-22 and 26-27.~~

8. ~~The schedules in Articles III and IV of the Compact were derived from streamflow data that was available in 1938. This assured that existing uses as of 1938 in Colorado, in New Mexico above Elephant Butte Reservoir and in the Rio Grande Project area below Elephant Butte were all protected while allowing Compact operation in variable hydrology. Further, both Colorado and New Mexico were allowed to develop additional water resources after 1938 subject to certain constraints that are specified in Articles VI, VII and VIII. Notably, those constraints do not preclude additional depletions but do constrain operations of post-1929 upstream reservoirs depending on the conditions at Elephant Butte Reservoir. To the extent that those Articles protect Project Supply during relatively dry periods, those protections benefit New Mexico below Elephant Butte, Texas and Mexico. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 22-23 and 24-26.~~

9. ~~Unlike the temporary 1929 Rio Grande Compact, the 1938 Compact did not freeze or preserve the status quo of water uses on the Rio Grande even though the 1929 Compact provided a ready example of how that could be accomplished if that had been the intent of the drafters. Rather, the 1938 Compact contains provisions (e.g., Articles III, IV, VI, VII and VIII) that constrain post-Compact operations particularly during times when supply is limited but allows a broader array of operations in times of abundance so long as delivery schedules are complied with. NM-EX 344, 1929 Temporary Compact; NM-EX 330, Compact.~~

10. ~~While the Compact contains numerous provisions articulating post-1937 constraints applicable to Colorado and post-1929 constraints to New Mexico above Elephant Butte that help assure deliveries to Elephant Butte, there are no such constraints articulated for~~

~~the operation of the Project below Elephant Butte. Clearly, if the Compact negotiators intended to so constrain the operation of the Project, they knew how to do so. Yet they chose not to. Instead, for the Compact section below Elephant Butte the drafters relied on the operation of the Project as a single unit with equal water rights to authorized Project acreage to effectuate the apportionment and assure that New Mexico below Elephant Butte and Texas would be treated equitably. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 33-43; NM-EX 108 Lopez Rebuttal Rep. at 4-9 and Appx. 1 (Letter from Frank Clayton to Sawnie Smith dated October 4, 1938).~~

11. ~~Contrary to Texas's assertion that "Colorado and New Mexico benefit and are protected from upstream depletions that exceed the depletions that occurred in 1938, but Texas has no such protections", Colorado gets no benefit from the post-1937 constraints on its uses and New Mexico above Elephant Butte gets benefits from the constraints on Colorado but gets no benefits from the post-1929 constraints on its own uses. Rather, the Project is the primary beneficiary of the post-1937 constraints on Colorado and the post-1929 constraints on New Mexico above Elephant Butte. This benefit to the Project then flows to New Mexico below Elephant Butte, Texas and Mexico. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 19-27 and 32.~~

12. ~~Article IV of the Compact (as modified by the 1948 Rio Grande Compact Commission resolution) defines New Mexico's delivery obligations to Elephant Butte Reservoir. Such deliveries are for the Project as a whole and benefit New Mexico, Texas and Mexico. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 8, 20-22 and 26-27.~~

13. ~~Texas' assertion that "[t]here are two types of debits: 'Annual Debits' and 'Accrued Debits,' and two types of credits: 'Annual Credits' and 'Accrued Credits'" is incorrect.~~

~~Actually, Annual Debits and Accrued Debits are the same type of debits and Annual Credits and Accrued Credits are the same type of credits. The difference between Annual and Accrued debits is simply the timeframe during which those debits are accounted. Similarly, the difference between Annual and Accrued credits is simply the timeframe during which those credits are accounted. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 16-17.~~

14. ~~Article VII of the Compact precludes Colorado and New Mexico from storing water in post-1929 reservoirs upstream of Elephant Butte whenever Usable Water in Project Storage is less than 400,000 acre-feet unless Colorado or New Mexico has relinquished Accrued Credits. In which case, the state that has so relinquished has a right to store a like amount of water in the upstream post-1929 reservoirs. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 23.~~

15. ~~Under Article VII of the Compact, Texas has sole authority to accept relinquishment of Accrued Credits. However, neither Colorado nor New Mexico is obligated to offer such relinquishment. In other words, Texas cannot compel such relinquishment. This division of responsibilities under the Compact (i.e., "...Colorado or New Mexico, or both, may relinquish accrued credits at any time, and Texas may accept such relinquished water...") makes sense for at least three very practical reasons. First, Texas's sole apportionment under the Compact is entirely below Elephant Butte (43% of Project Supply), whereas New Mexico has apportionments under the Compact both above and below Elephant Butte. Second, Texas is the only Compact party that cannot accrue Credits under the Compact that it could relinquish. And third, Texas has no post-1929 reservoirs upstream of Elephant Butte within which it could store water equal to the amount relinquished. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 23.~~

16. ~~Under Article VIII of the Compact, the Rio Grande Compact “[C]ommissioner for Texas may demand of Colorado and New Mexico, and the [C]ommissioner for New Mexico may demand of Colorado, the release of water from storage reservoirs constructed after 1929 to the amount of accrued debit of Colorado and New Mexico, respectively.” To the extent that New Mexico wishes to exercise such a demand upon Colorado, it may do so independently from any similar Texas demand upon New Mexico. Such a demand by New Mexico is intended to increase Usable Water in Project Storage, reflecting New Mexico’s apportionment interest below Elephant Butte. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 24-27.~~

17. ~~Contrary to Texas’s assertion that “authority [to protect the volume of water that is ‘delivered’ in Elephant Butte Reservoir] is vested solely in the Texas Rio Grande Commissioner”, neither the Compact, Project ownership, nor historic practice vests such authority in the Texas Commissioner. NM-EX 330, Compact.~~

18. ~~Similarly, Texas’s contention that “it was Texas, in Articles VII and VIII, that was granted the Compact right to ensure that depletions upstream of Elephant Butte Reservoir were protected from post-1938 depletions in Colorado or New Mexico” is also incorrect. First, post-1929 reservoir operations above Elephant Butte are constrained in certain circumstances (see ¶¶ 9, 14 and 16 above) by the Compact, which can indirectly constrain post-1938 depletions but does not preclude them. Second, to the extent that post-1938 depletions are constrained by Articles VII and VIII, it is the Compact itself that sets those constraints. All three Compact states have roles in managing those constraints as specified in Articles VII and VIII. Finally, to the extent that contention is meant to imply that Texas alone has an interest in assuring adequate Usable Water for Project uses, Texas has done very little to assure adequate Usable Water; whereas New Mexico over the last two decades has invested tens of millions of dollars to assure~~

~~its Compact compliance and build Credits and has relinquished a total of 380,000 acre-feet for use by the Project. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 23-26; NM-EX 009, Schmidt-Petersen 2nd Declaration at ¶¶ 14, 15 and 16.~~

19. ~~Article VIII of the Compact describes a “normal release of 790,000 acre-feet ... from Project Storage in [a] year.” This amount was negotiated among the Compact states and reflects the amount of water then thought to be needed for Project irrigation purposes in a given year, including an unspecified allowance for flushing salts. In this negotiation, Texas was negotiating for its interests below Elephant Butte Reservoir, whereas New Mexico was negotiating to balance its interests above and below Elephant Butte Reservoir. Since 1938, the release has been less than 790,000 acre-feet/year in all but 13 years and several of the years with releases greater than 790,000 acre-feet were spill years. NM-EX 330, Compact; NM-EX 112, Expert Report of Dr. Jennifer Stevens (October 28, 2019) at 65-70; NM-EX 122, 2nd Ed. Original Expert Report of Gregory K. Sullivan, P.E. and Heidi M. Welsh (July 15, 2020), at 41 and 180.~~

20. ~~Texas states that it “did not anticipate that Project return flows, which were anticipated to comprise a significant portion of the 790,000 acre feet (sic) of Texas’s entitlement, would be intercepted by New Mexico groundwater pumping.” There are several implications in this statement that are incorrect. First, the 790,000 acre-feet/year release of Usable Water from Project Storage agreed to by the states and described in Article VIII of the Compact is not a Texas entitlement. Instead, it is a negotiated “normal release from Project Storage”; that is, a release from Caballo reservoir, that the Compact negotiators believed would be sufficient to meet Project irrigation needs including deliveries to Mexico under the 1906 Treaty. Second, Project return flows do not comprise any portion of the 790,000 acre-feet/year normal release. Project return flows occur entirely below the Rio Grande below the Caballo Reservoir gage where~~

~~releases from Project Storage are measured. Third, the Compact does not require the Actual Release in a given year to be 790,000 acre-feet/year. Whatever volume the Actual Release volume is (whether less than, equal to or greater than 790,000 acre-feet/year), that released water is simply the primary component of Project Supply² which benefits Mexico, New Mexico below Elephant Butte and Texas: part of which comprises the Texas Compact apportionment or entitlement. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 8, 17, 18 and 26-27.~~

21. ~~To the extent that either Texas or New Mexico or both demand the release of Accrued Debits stored in reservoirs constructed after 1929 pursuant to Article VIII of the Compact (§ 16 above), such releases are intended to increase the Usable Water in Project Storage early in the year in anticipation of the irrigation season “to the end that a normal release of 790,000 acre-feet may be made from Project Storage in that year” (emphasis added). However, there is no guarantee that such a release will actually result in sufficient Usable Water in Project Storage to allow a normal release of 790,000 acre-feet. In fact, such a release from post-1929 upstream reservoirs is limited to the amount of the Accrued Debits so stored, if any. In other words, this provision of the Compact cannot protect Project Storage to allow for ‘a normal release’ [of 790,000 acre-feet] from the Project” in all circumstances. The provisions in Articles VI and VII also protect inflows to Elephant Butte Reservoir and Project Storage, but still there is no guarantee that 790,000 acre-feet of Usable Water will be available for a normal release. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 22-25.~~

22. ~~Groundwater use at the time of the Compact negotiation was minimal as compared to current use. Nevertheless, there was already a nascent understanding of groundwater interactions with surface flow. Although that interaction was not yet well~~

² ~~Project water supply is comprised of releases of Usable Water, inflow below Elephant Butte and return/drain flows. NM-EX 107, Lopez Rep. at 6 and 42.~~

~~understood, investigation of groundwater use and interaction with surface flows by the Rio Grande Joint Investigation published in February 1938 (“RGJI”) was largely limited to areas above Elephant Butte and focused primarily on the San Luis Valley in Colorado and the Middle Valley in New Mexico. The RGJI observes that “extensive development of ground water for irrigation would add no new water to the Upper Rio Grande Basin and that recharge of the ground water basins would necessarily involve a draft on surface supplies which are now utilized otherwise.” TX_MSJ_000090, RGJI at 56. In spite of this understanding the Compact negotiators chose not to address groundwater at all. NM-EX 112, Stevens Rep. at 65-70; TX_MSJ_000096, 000090, RGJI at 55-62.~~

23. ~~The Rio Grande Compact does not apportion nor even make any mention of groundwater. Nevertheless, for the two upstream sections of the Compact, the inflow-outflow schedules in Compact Articles III and IV require the administration of groundwater use in order to meet delivery obligations. TX_MSJ_005776, S.E. Reynolds, *The Rio Grande Compact* (April 29, 1968) cited by Dr. Miltenberger at TX_MSJ_001617. For the lowest Compact section between Elephant Butte reservoir and Ft. Quitman, Texas, however, the different apportionment mechanism (i.e., the operation of the Project as a single unit that makes available an equal amount of water for each authorized Project acre) does not necessitate the same actions if the groundwater use is associated with conjunctive use of groundwater for Project irrigation purposes. NM-EX 237, Lopez 30(b)(6) Dep. at 34 :2-5. This is an important consideration given that one of the purposes of the Compact is to protect the continued viability of the Project. NM-EX 237, Lopez 30(b)(6) Dep. at 33 :6-11; NM-EX 005, Stevens Decl. at ¶ 10. In fact, water users in both states have made extensive use of their respective groundwater resources with full knowledge and even encouragement from Reclamation since the early 1950s. NM-EX 107,~~

~~Lopez Rep. at 10-12, 26-27 and 41-42; NM-EX 100, Expert Report of Margaret Barroll, Ph.D. (October 31, 2019) at 19-25.~~

24. ~~Neither Article IV nor any other part of the Compact requires that New Mexico deliver a certain amount of water to the New Mexico-Texas state line, nor does the Compact refer to any 1938 condition that must be maintained in the Compact section below Elephant Butte.³ Rather, apportionment of Project water supply between New Mexico below Elephant Butte and Texas can be inferred by reading the Compact together with the contemporaneous Downstream Contracts.⁴ With regard to the Project and its operation, the Compact makes no distinction as to Project lands in New Mexico and Project lands in Texas. Rather, it simply describes operation of the Project and how that operation relates to other geographic sections of the Compact. As described by the Compact negotiators,⁵ it is apparent that the Project was intended to be operated as a single unit. Meanwhile, the two 1937 Downstream Contracts between the United States and the individual Districts have virtually identical provisions except for assigning Project cost recovery responsibility to the individual Districts in proportion to their authorized Project acreage. The 1938 Downstream contract between the two Districts specifies the Project acreage in each District and also specifies that in times of shortage the available water~~

³ ~~This is in stark contrast to the Pecos River Compact, which at Article III(a) states explicitly “New Mexico shall not deplete by man’s activities the flow of the Pecos River at the New Mexico-Texas state line below an amount which will give to Texas a quantity of water equivalent to that available to Texas under the 1947 condition.” Further, Article II(e) defines the term “deplete by man’s activities” and Article II(g) defines the term “1947 condition” in significant detail. Thus, the Pecos River Compact demonstrates how both a state line delivery requirement and a specific condition are specified in an interstate stream Compact. Pecos River Compact, NMSA 1978 § 72-15-19.~~

⁴ ~~In my Expert Report dated October 31, 2019 (NM-EX 107) I identified three specific contracts as the “Downstream Contracts”. Those are: 1) the contract between the United States and Elephant Butte Irrigation District (“EBID”) dated Nov. 9, 1937 (NM-EX 320); 2) the contract between the United States and El Paso County Water Improvement District No. 1 (“EPCWD”) dated Nov. 10, 1937 (NM-EX 321); and 3) the contract between Elephant Butte Irrigation District of New Mexico and El Paso County Water Improvement District No. 1 of Texas dated Feb. 16, 1938 and approved by the United States on April 11, 1938 (NM-EX 324).~~

⁵ ~~NM-EX 327, J.H. Bliss, “Provisions of the Rio Grande Compact” (State Engineer’s Office, April 2, 1938) at 1; NM-EX 328, Letter from Frank B. Clayton to Sawnie Smith (October 4, 1938).~~

~~will be shared in proportion to the Districts' authorized Project acreage; that is, approximately 57% to EBID farmers and approximately 43% to EPCWID farmers. In fact, this 57/43 split is the basis of Project allocation at all times, not just in shortage. Thus, under the Compact, the apportionment of Project Supply remaining after first providing water to Mexico under the 1906 Treaty⁶ is 57% to New Mexico and 43% to Texas. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 8, 26-27 and 41-43, NM-EX 108, Lopez Rebuttal Rep. at 6-9 and Appx. 1 (Frank Clayton letter to Sawnie Smith (Oct. 4, 1938).~~

25. ~~Texas's contention that "[t]here is no question that these elements associated with the total volume of water to which the Districts are entitled pursuant to the Downstream Contracts, and that these figures mirror the conditions that were contemplated in 1938" is flawed for several reasons. First, as noted in the preceding paragraph, the Compact does not refer to any 1938 condition for the section below Elephant Butte. Second, the Downstream Contracts similarly do not refer to any 1938 condition. Third, the Downstream Contracts do not refer to or define any "total volume of water to which the Districts are entitled." Instead, as described in the preceding paragraph, the 57/43 apportionment to New Mexico and Texas, respectively, is understood by reading the Compact together with the Downstream Contracts. That 57/43 apportionment does not refer to a volume of water but rather to how the available water will be shared, regardless of the volume. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 8, 26-27 and 41-43, NM-EX 108, Lopez Rebuttal Rep. at 6-9.~~

26. ~~New Mexico's overall apportionment under the Rio Grande Compact is comprised of:~~

⁶ NM-EX 307, Convention for the Equitable Distribution of the Waters of the Rio Grande, U.S. - Mex., May 21, 1906 ("1906 Treaty").

- a. ~~apportionment above Elephant Butte: Colorado's required deliveries under Compact Article III plus inflows between the Colorado-New Mexico state line and Elephant Butte Reservoir less New Mexico's delivery obligation to Elephant Butte under Article IV based on the flow at Otowi gage; and~~
- b. ~~apportionment below Elephant Butte: 57% of the Project Supply that remains after first having provided for Mexico's allocation under the 1906 Treaty.~~

~~NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 8, 19-22 and 26-27.~~

27. ~~Pursuant to the Downstream Contracts, Project Supply may be used for irrigation purposes on authorized Project lands. NM-EX 320, Contract between the United States and EBID; NM-EX 321, Contract between the United States and EPCWID. However, both the purpose of use and the place of use are subject to modification through execution of Miscellaneous Purposes contracts under the Sale of Water for Miscellaneous Purposes Act of 1920, 41 Stat. 451; 43 USC 521.~~

28. ~~Texas's assertion that "[t]he [Downstream] contracts only deal with the available Project supply and cannot address depletions in New Mexico that reduce the volume of that supply" is correct. However, it is important to note that those contracts similarly cannot address depletions in Texas or Mexico that reduce the volume of the Project supply either. NM-EX 320, Contract between the United States and EBID; NM-EX 321, Contract between the United States and EPCWID.~~

29. ~~While the Downstream Contract between EBID and EPCWID was signed in February 1938 and approved by the United States in April 1938, Texas is incorrect in its characterization of this contract as the "repayment contract." In fact, this contract does not address repayment of Project costs at all. Repayment is addressed in the two contracts between~~

~~the United States and the Districts entered in November 1937. Compare NM-EX 320, Contract between the United States and EBID and NM-EX 321, Contract between the United States and EPCWID with NM-EX 324, 1938 Downstream Contract.~~

30. ~~In my 30(b)(6) deposition I agreed with the questioner that the 1937 EBID/United States contract is the sole means for New Mexico to get its apportionment. However, later in the same deposition I clarify that there are certain pre-Compact rights (e.g., Bonita Lateral rights) that are protected under the Compact and are not part of the EBID contract. I also note that while the apportionment is based on the 1937 EBID/United States contract, it is nevertheless an apportionment to New Mexico (i.e., not to EBID) which would continue even if EBID ceased to exist. NM-EX 237, Lopez 30(b)(6) Dep. at 23 and 83-85.~~

31. ~~The Rio Grande Compact and the Rio Grande Project are inextricably intertwined. During their annual review of Compact operations, the Engineer Advisers to the Rio Grande Compact Commission receive a report of Project accounting from Reclamation. Given that up until 2006 Project operation had been the mechanism for effectuating the Compact apportionment below the Elephant Butte Reservoir, that Project accounting amounted to Compact accounting for New Mexico (EBID) and Texas (EPCWID). Since the changes to Project accounting that began in 2006 and continue under the 2008 Operating Agreement are contrary to the Compact apportionment, Project accounting since 2006 simply provides a record of the deviation from the apportionment. NM-EX 107, Lopez Rep. at 24, 30, 32 and 44-48.~~

32. ~~It is true that “the Compact accounting data includes ‘deliveries by New Mexico to Texas at Elephant Butte.’” However, that statement is incomplete because that same Compact accounting data (i.e., Article IV deliveries to Elephant Butte Reservoir) also includes deliveries~~

~~by New Mexico to southern New Mexico below Elephant Butte and to Mexico. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at Appx. 5 at 15-16 and 29.~~

33. ~~Contrary to Texas's assertion that "the Compact protects the Project and its operations under the conditions that existed in 1938, and relies on the Project, as it operated in 1938, as the means to provide Compact apportionments", the Compact does not require maintenance of any 1938 conditions for the Project. In fact, very little about the Project has remained static since 1938. Major changes to the Project include but are not limited to: completion of the Rectification and Canalization projects, proliferation of groundwater wells in both states and in Mexico, Project acreage buildout then reduction in irrigated acreage, changes in on-farm irrigation efficiencies, changes in crop mix, urbanization of Project area, growth of municipal water demands with significant amounts of that demand being supplied by the Project, significant Project accounting changes, infrastructure changes (e.g., construction of the American Canal and its Extension), designation of wastewater treatment plant treated effluent as non-Project water, transfer of ownership and operation of Project infrastructure from Reclamation to the Districts, and significantly modified Project operations under the 2008 Operating Agreement. NM-EX 107, Lopez Rep. at 12-13, 33, 35, 43-48 and 62-65; NM-EX 100, Barroll Rep. at 53-60 and Appendix C.~~

34. ~~Texas mistakenly asserts that the Compact Article IV requires adjustment to the scheduled amounts based on depletion of tributary runoff between Otowi Bridge and San Marcial during July, August and September by works constructed after 1937. While the original Article IV did contain a provision that required such adjustment, Texas fails to note that that particular provision was eliminated in 1948 when the Rio Grande Compact Commission changed the delivery schedule and the San Marcial delivery point to Elephant Butte Reservoir and by~~

~~unanimously adopted resolution of the RGCC. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at Appx. 3 at 17-18.~~

35. ~~Contrary to Texas's assertion, New Mexico is not required to limit groundwater pumping for Project irrigation conjunctive use below Elephant Butte Reservoir as long as the 57/43 apportionment of Project Supply to New Mexico and Texas, respectively, is maintained. In fact, if there were any such Compact obligation, it would apply equally to Texas. Yet as noted in ¶ 33 above, numerous changes within the Project have altered depletion conditions within the Project, and Texas has benefited from most if not all of those, often to New Mexico's detriment. While Texas claims that "the parties, including New Mexico, understood the 1938 Condition as the foundation for Compact formation", Texas itself has never demonstrated an inclination to preserve a "1938 Condition" for the Project if doing otherwise would benefit it. The United States has similarly participated in post-1938 activities that have changed Project conditions and impacted Project depletions. Examples include but are not limited to:~~

- ~~a. Texas water users have made extensive use of groundwater for both Project and non-Project uses (with United States knowledge);~~
- ~~b. Texas and EPCWID have availed themselves of the benefits of the United States' Rectification and Canalization projects;~~
- ~~c. Texas farmers have improved irrigation efficiencies and changed their crop mix to higher water use crops;~~
- ~~d. EPCWID has transferred the purpose of use of a significant portion of its Project Supply from irrigation to municipal supply through Miscellaneous Purposes contracts with Reclamation but without properly accounting for return flows;~~

- e. ~~EPCWID, working with Reclamation but without review by other Compact parties, has negotiated the American Canal Extension credit for its benefit and to the detriment of EBID;~~
- f. ~~Similarly, EPCWID, working with Reclamation but without review by other Compact parties, has deemed treated wastewater effluent as “non-Project” water — retaining its use but without being charged under its Project allocation;~~
- g. ~~EPCWID has opted to forego use of available drain flows, instead calling for additional water out of Project Storage;~~
- h. ~~EPCWID has sold Project water to Hudspeth County Conservation and Reclamation District No. 1⁷; and~~
- i. ~~EPCWID, working with EBID, Reclamation and Texas but without the other Compact parties, negotiated the 2008 Operating Agreement which effectively changed Project operation and allocation contrary to the Compact to New Mexico’s detriment.~~

~~NM-EX 100, Barroll Rep. at 20,22,31-52, Appx. C and Appx. D; NM-EX 107, Lopez Rep. at 26, 43-66.~~

36. ~~Texas states that “depletions existing in 1938 describe the relationship between Reservoir releases and the volume of water that Texas anticipated would reach the Texas state line.” As described in ¶¶ 33 and 35 above, there is no 1938 condition for the Compact section below Elephant Butte. And, as explained in ¶ 24, there is no required delivery to the Texas state line. Importantly, Article II of the Compact specifies the gages necessary for Compact~~

⁷ NM-EX 248, Chavez Dep. (July 22, 2020) at 69:5.

~~operations and also requires that “[s]imilar gaging stations shall be maintained and operated ... at such other points as may be necessary for securing of records required for the carrying out the of the [C]ompact.” The lowest required gage is “on the Rio Grande below Caballo [R]eservoir,” approximately 100 miles north of the Texas state line. Further, to the best of my knowledge, Texas has never requested that the Rio Grande Compact Commission consider requiring additional Compact gages at the state line or any other locations downstream of the below Caballo Reservoir gage. NM-EX 330, Compact.~~

37. ~~The total Project water supply available for diversions by EBID, EPCWID and Mexico are comprised of releases of Usable Water, inflow below Elephant Butte Reservoir and return/drain flows throughout the length of the Project in New Mexico and Texas. Historically, this supply has included treated wastewater inflow as either a return/drain flow or an inflow below Elephant Butte. NM-EX 107, Lopez Rep. at 6, 41-43 and 63; NM-EX 100, Barroll Rep. at 30.~~

38. ~~The United States assertion that “[t]he effect of the 2008 Operating Agreement is that EBID voluntarily cedes some of its surface water allocation to EPCWID to compensate for surface water depletion caused by groundwater pumping in New Mexico, including by water users outside of EBID” is problematic for a number of reasons. First, the parties to the Operating Agreement did not quantify or conduct any comprehensive technical analysis of the depletions due to groundwater pumping within New Mexico or of other factors that might be affecting Project deliveries. Second, conjunctive use of groundwater for Project irrigation has been allowed throughout the Project since the Compact was signed. Third, while EBID is the Project beneficiary under its 1937 Downstream Contract with the United States, the water is apportioned to the State of New Mexico. It is not permissible for EBID to negotiate away any part on New~~

~~Mexico's apportionment.~~ Finally, the citation to my 30(b)(6) deposition does not support the United States' assertion. Instead, the language cited states: "[since 2008 with a new] operating agreement where, in essence, all – all of the project inefficiencies are assessed, in essence, to EBID, I think that is inconsistent with the – with the Compact." ~~NM-EX 107, Lopez Rep. at 44; NM-EX 108 Lopez Rebuttal Rep. at 13-17; NM-EX 237, Lopez 30(b)(6) Dep. (September 18, 2020) Tr. at 67:4-7.~~

39. ~~Prior to the Texas and United States complaints in this Original Action, neither Texas nor the United States had ever formally requested that New Mexico do anything to curtail groundwater pumping in New Mexico below Elephant Butte. NM-EX 002, John D. Antonio Decl. at ¶¶ 18-19. While they now claim that this lawsuit should serve as appropriate notice, this lawsuit was in direct response to New Mexico's complaint in New Mexico Federal District Court. NM-EX 212, Gordon Dep. (Vol. II) (July 15, 2020) 109:2-13; NM-EX 224, Schmidt-Petersen Dep. (Vol. I) (June 29, 2020) 40:19-41:12. In that 2011 lawsuit, New Mexico sued Reclamation claiming that under the terms of the 2008 Operating Agreement Texas has been receiving more water than it is entitled to under the Compact, and that Reclamation injured New Mexico through its unilateral 2011 release of New Mexico's Compact Credit water.⁸ To date, neither Texas nor the United States has demonstrated through expert reports or witness testimony that Texas is not getting enough water or that New Mexico's groundwater pumping is preventing Texas from getting its apportionment. NM-EX 107, Lopez Rep. at 33-34 and 66-67.~~

40. ~~Texas's statement that "[t]he Project, in turn, is the means by which the water apportioned to Texas by the Compact is stored in Elephant Butte Reservoir and subsequently delivered to Texas, subject to deliveries to EBID pursuant to its contract with the United States,~~

⁸ ~~NM-EX 520, Complaint for Declaratory and Injunctive Relief, *New Mexico v. United States*, No. 1:11-cv-00691 (D.N.M. Aug. 8, 2011).~~

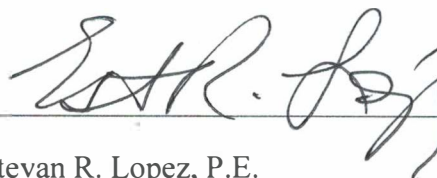
~~and to Mexico pursuant to the 1906 Treaty” is wrong. As described in ¶¶ 12, 14 and 17 above, the Compact protects deliveries into Elephant Butte Reservoir for use by the Project. The Project in turn releases Usable Water which together with inflows below Elephant Butte Reservoir and return/drain flows comprise the available Project Supply. Mexico gets its entitlement pursuant to the 1906 Treaty and the remaining Project Supply is shared by EBID (New Mexico) and EPCWID (Texas) in proportion to the authorized project acreage in each District or 57/43, respectively, (¶ 24 above). That historic division (consistent with the Downstream Contracts) is the basis of the Compact’s apportionment of the water below Elephant Butte Reservoir to New Mexico and Texas. NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 8, 22-27 and 41-43.~~

41. ~~Texas’s citation to the 1968 article by New Mexico State Engineer Steve Reynolds is incomplete and misleading. Texas states: “New Mexico State Engineer Reynolds opined that the delivery schedules upon which the Compact relied “makes the control of ground water appropriations in the upstream states essential” as otherwise the states could not adhere to their “compact commitments.” In fact, what Reynolds wrote was: “The Rio Grande Compact makes no specific reference to ground water. However, the inflow-outflow mechanism for determining delivery obligations makes the control of groundwater appropriations in the upstream states essential for the protection of existing surface water rights in those states and the preservation of their ability to meet the compact commitments.” Reynolds goes on to explain that he is specifically talking about the Middle Rio Grande area above Elephant Butte to “protect the existing water rights in New Mexico and to preserve the state’s ability to meet its compact obligations.” Reynolds was talking about New Mexico’s Article IV delivery obligation, with its specific inflow-outflow schedules, hence the need to control groundwater depletions makes sense. As described in ¶ 24 above, the Compact section below Elephant Butte Reservoir is~~

~~different. There is no inflow-outflow schedule for deliveries to the New Mexico-Texas state line, there is no 1938 condition and there is no prohibition of groundwater use. Instead, the Compact relies on the operation of the Project as a single unit pursuant to the Downstream Contracts as the basis for apportioning the water below Elephant Butte between New Mexico and Texas after having fulfilled the obligation to Mexico under the 1906 Treaty. TX_MSJ 005776; S.E. Reynolds, *The Rio Grande Compact* (April 29, 1968) at 20-21; NM-EX 330, Compact; NM-EX 107, Lopez Rep. at 8, 26-27 and 41-43.~~

I declare under penalty of perjury that the foregoing is true and correct.

Executed on December 21, 2020



Estevan R. Lopez, P.E.