#### In the

## SUPREME COURT OF THE UNITED STATES

## STATE OF TEXAS,

Plaintiff,

v.

# STATE OF NEW MEXICO and STATE OF COLORADO,

Defendants.

### OFFICE OF THE SPECIAL MASTER

DECLARATION OF WILLIAM R. HUTCHISON, PH.D., P.E., P.G., IN SUPPORT OF THE JOINT STATES REPLY IN SUPPORT OF THE MOTION OF THE STATE OF TEXAS, STATE OF NEW MEXICO, AND STATE OF COLORADO TO ENTER CONSENT DECREE SUPPORTING THE RIO GRANDE COMPACT

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## I, William R. Hutchison, declare as follows:

## **Background and Experience**

- 1. My name is William R. Hutchison, Ph.D., P.E., P.G., I was born on November 4, 1958 in Nueces County, Texas. The following matters are within my personal knowledge and, if called as a witness, I can competently testify thereto.
- 2. I am an independent consultant with professional experience as a groundwater hydrologist since 1983. I have been retained by the State of Texas (Texas) to provide consulting services on hydrologic issues presented in *Texas v. New Mexico*, and Colorado, Original Action 141. My professional resume was attached as Exhibit 1 to my November 14, 2022 Declaration in Support of Joint Motion of the State of Texas, State of New Mexico, and State of Colorado to Enter Consent Decree Supporting the Rio Grande Compact.
- 3. My street address is 16717 Captain Hook Road, Jamaica Beach, Texas 77554. The United States Postal Service does not provide home mail service to my address. My mailing address is 9305 Jamaica Beach, Jamaica Beach, Texas 77554.
- 4. My education includes a Bachelor of Science degree in Soil and Water Science from the University of California, Davis, a Master of Science degree in Hydrology from the University of Arizona, and a Ph.D. in Environmental Science and Engineering from the University of Texas at El Paso.
- I am licensed in the State of Texas as follows: Professional Engineer
   (Geological and Civil) No. 96287, Engineering Firm No. 14526, and Professional
   Geoscientist (Geology) No. 286.
- 6. From August 1983 to October 2001, I was employed by various consulting firms or worked as an independent consultant in California and Arizona.
- 7. From October 2001 to June 2009, I was employed by El Paso Water Utilities in El Paso, Texas.

- 8. From June 2009 to August 2011, I was the Director of the Groundwater Resources Division of the Texas Water Development Board in Austin, Texas.
- 9. From August 2011 to July 2012, I was employed by LBG-Guyton Associates in Austin, Texas.
- 10. Since July 2012, I have been an independent consultant based in Austin, Texas (July 2012 to July 2015), Aberdeen, North Carolina (July 2015 to January 2016), and Jamaica Beach, Texas (January 2016 to present).
- 11. I have completed (or I am actively working on) over 60 consulting assignments for over 30 different clients in Texas.
  - 12. In the last four years, I have testified as an expert witness in one case.
- 13. My direct experience in the El Paso, Texas area began in 2001 as an employee of El Paso Water Utilities.
- 14. In 2006, I completed my doctoral dissertation, titled Groundwater

  Management in El Paso, Texas, which included details of modeling and management of
  the Mesilla Basin in New Mexico and Texas.
- 15. I have reviewed the United States Memorandum in Opposition to Compacting States' Joint Motion to Enter Consent Decree, as well as the following declarations written in support of the United States' Memorandum: Ian M. Ferguson, Ph.D., P.E., Michelle Estrada-Lopez, J. Philip King, P.E., Ph.D., and Allie (Al) Blair, P.E., Ph.D.

#### **Overview of United States' Declarations**

16. Dr. Ferguson limits his declaration to summarizing hydrologic conditions and water use in the Rincon and Mesilla Valleys in the 1930s as compared to those during the period 1951 to 1978 (D2 period), and implications of those impacts with respect to the States' proposed Consent Decree. He provides no specific opinion supporting the United States' opposition to the consent decree.

- 17. The declarations of Ms. Estrada-Lopez, Dr. King and Dr. Blair focus on Project allocations and operation of the Rio Grande Project. The proposed Consent Decree involves apportionment of water between New Mexico and Texas, which is the primary objective of the Rio Grande Compact.
- 18. This declaration covers the following themes associated with these declarations: 1) Apportionment vs. Allocation; 2) "Downstream Contracts," 2008

  Operating Agreement, and 57/43 Apportionment; 3) Current Project Operations

  Compared with the Requirements of the Consent Decree; 4) Modified D2 Equation;

  5) Streamflow Depletions from New Mexico Groundwater Pumping; and 6) Predictions and Characterization of Future Flows at El Paso Gage.
- 19. The declarations of Ms. Estrada-Lopez, Dr. King and Dr. Blair contain many statements which I believe to be incorrect or irrelevant to the determination of whether the Special Master should enter the Consent Decree. I have tried to limit my statements in this declaration to issues that are relevant to the entry of the Consent Decree. To the extent my declaration is silent in relation to a particular statement from these witnesses does not indicate I agree with or concede their point.

### **Apportionment vs. Allocation**

- 20. The Rio Grande Project (Project) allocates Project water between Elephant Butte Irrigation District ("EBID") and EPCWID (collectively, the "Districts"). The Compact apportions Rio Grande water released from Elephant Butte between New Mexico and Texas. El Paso County Water Improvement District No. 1 ("EPCWID") is the first recipient of Texas's apportionment, but it is not the only recipient of Texas water under the Compact.
- 21. The declarations of Estrada-Lopez, King and Blair ("U.S. Witness Declarations") do *not* suggest that the proposed Consent Decree in general or the Effective El Paso Index ("EEPI") specifically will fail to equitably apportion water between New Mexico and Texas below Elephant Butte Reservoir.

- 22. Instead, the U.S. Witness Declarations incorrectly assert that the EEPI will *replace* the Project allocation procedures and operational decisions made by the United States and the Districts. A few examples:
  - Estrada-Lopez declaration, at ¶ 10 ( asserting incorrectly that the Consent Decree "would divest Reclamation of its authority and discretion to control and operate the Project.")
  - Blair declaration at ¶ 14 (claiming that the EEPI "directly and adversely impacts the rights and obligations of EPCWID" water supply." Also, that the EEPI is an "artificial index" that will replace "efficient hour-by-hour operation of the Project to deliver water to EBID and EPCWID.")
- 23. Both Ms. Estrada-Lopez and Dr. Blair's statements in their declarations erroneously conflate Project allocations, which are made during the irrigation season, and the EEPI accounting, which is, for the most part, a backward-looking accounting conducted at the end of the irrigation season, to determine whether or not New Mexico has complied with its obligations under the Consent Decree.

# "Downstream" Contracts, the Operating Agreement, and 57/43 Apportionment

- 24. The U.S. Witness Declarations all agree that the Project is operated under the 2008 Operating Agreement (2008 OA).
- 25. The 2008 OA distributes water based on the D2 baseline, which was developed based on Project operations between 1951-1978.
- 26. Project operations between 1951-1978 distributed, on average, Project water based on the proportional acreages in each irrigation district, 57% to EBID and 43% to EPCWID.
- 27. The EEPI also uses the D2 period as the baseline for evaluating deliveries of Texas's apportionment under the Consent Decree.

28. As described in my November 14, 2022 declaration, the EEPI functions to ensure compliance with the 57/43 apportionment goal.

# **Current Project Operations Compared with the Requirements of the Consent Decree**

- 29. The current operation of the Project is based on the 2008 OA which sought to achieve D2-level deliveries to Texas. Based on my analysis of the data, this goal has not been fully met. The proposed Consent Decree does not modify Reclamation's and the Districts' responsibility to operate the Project. It simply provides an end-of-year accounting to transparently assess compliance with the apportionments.
- 30. At ¶ 25 of her declaration, Ms. Estrada-Lopez stated that Reclamation and the Districts "have the discretion and flexibility to make necessary modification to those programmatic operations to address unexpected changes." "Flexibility" in Project operations is maintained under the Consent Decree, although in my opinion the Consent Decree provides a better quantitative target to meet the underlying goals of both the 2008 OA and the proposed Consent Decree (D2 deliveries to Texas and a 57/43 split of apportioned water).

### **Modified D2 Equation**

- 31. Ms. Estrada-Lopez's declaration (¶ 24) incorrectly characterizes the Modified D2 Equation as a "Project operating procedure;" instead, it serves to improve implementation of the EEPI.
- 32. Contrary to her statements at ¶24.b., the States have provided the basis for the Modified D2 Equation. In ¶¶ 102-110 of my November 14, 2022 declaration, I provided the analysis and methodology to modify the D2 equation. Moreover, I provided the Excel spreadsheet associated with my November 14, 2022 declaration (*EEPI Declaration Spreadsheet 1022.11.02.xlsx*), which documents the current D2 equation and the modified D2 equation.

- 33. As noted in ¶ 103 of my November 14, 2022 declaration: "If the allocation procedure remains unchanged from historic practice (i.e., based on a one-year regression) and the EEPI Obligation is based on a two-year regression, it is likely that some annual EEPI departures will be unnecessarily created by the allocation process unless the allocation regression is also updated to a two-year regression."
- 34. Dr. Blair noted in his ¶ 17 that implementation of the modified D2 equation would also require the Project to eliminate the Multi-Year Drought Correction Factor (MYDCF). Without expressing an opinion on what the Consent Decree might *require*, my understanding is that the United States and Districts can accept or reject the Modified D2 equation, they can keep or eliminate the MYDCF. These are operational decisions that remain within the scope of responsibility of the United States and Districts as part of project operations. It is clear, however, that accepting the modified D2 equation, as documented in my November 14, 2022 declaration, would better align apportionment and allocation procedures and avoid unnecessary complications related to Index Departures.
- 35. Despite claims to the contrary, the United States and the Districts maintain flexibility in operations under the proposed Consent Decree. Specific to the discussion above, if those responsible for Project operations develop a superior method to better align apportionment and allocation than the Modified D2 Equation, they have the flexibility to implement that superior method under the proposed Consent Decree.

## Streamflow Depletions from New Mexico Groundwater Pumping

- 36. There are various estimates of streamflow depletions caused by New Mexico groundwater pumping offered in the United States' Witness Declarations.
- 37. Dr. King correctly noted in ¶ 18 that since 2003 there have been increased depletions of project water from pumping of hydrologically-connected groundwater in New Mexico. Dr. King also states that EBID has been "offsetting" depletions, which is

not the same thing as "has offset" depletions (which was implied on page 1 of the EBID brief.)

- 38. New Mexico water administration is called for under the Consent Decree when the Index Methodology shows Negative Departures from the index have been "triggered." See, Consent Decree paragraph 2.B.
- 39. The United States' Witness Declarations provide no data or information and express no opinions that suggest that the data from the EEPI would fail to measure compliance with the goals of the proposed Consent Decree.

## Predictions and Characterization of Future Flows at El Paso Gage

- 40. As noted in my November 14, 2022 declaration (¶ 36): "Due to its geographic location, as well as related geologic and hydrologic feature, the El Paso gage is the ideal location to measure New Mexico's compliance with the EEPI Obligation."
- 41. In his ¶ 20, Dr. Blair stated that, under the proposed Consent Decree, allocations to EPCWID will increase in wet years (when supply is already greater than demand), and allocations will decrease in dry years (when demand is greater than supply, when "EPCWID really needs the water"). He provides no documentation for these opinions. Moreover, Dr. Blair is focused on "allocations" rather than actual physical flow at the El Paso gage, so his statements in this regard miss the mark. Finally, these conclusions are contrary to the modeling and analyses I've conducted during my investigations on the effect of the EEPI on Texas apportionments.
- 42. I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 3rd day of February, 2023, at Lamaica Beach, Texas.

William R. Hutchison, Ph.D., P.E., P.G