

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 GREGORY SULLIVAN, P.E.

**IN SUPPORT OF THE STATE OF NEW MEXICO'S MOTION TO STRIKE
TEXAS'S LATE-FILED EXPERT OPINIONS OR FOR ALTERNATIVE RELIEF**

I, Gregory K. Sullivan, P.E., 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 information stated herein.
2. A description of my professional qualifications and prior work in this litigation can be found in my Declaration dated December 21, 2020, filed as exhibit NM-EX 012 with the State of New Mexico's Response to the State of Texas's Motion for Partial Summary Judgment and the State of New Mexico's Response to the United States' Motion for Partial Summary Judgment.
3. I was asked by legal counsel for New Mexico to summarize, at a high level, differences and similarities between the versions of the New Mexico Integrated Lower Rio Grande Model ("Integrated Model") disclosed in this case.
4. On October 31, 2019, New Mexico disclosed the model files and supporting documentation for the Integrated Model, which simulates groundwater and surface water processes, and operations in and near the Rio Grande Project area in New Mexico, Texas, and Mexico. The Integrated Model disclosed on October 31, 2019 was designated as version 106.
5. On December 30, 2019, Texas and the United States disclosed expert reports that, among other things, criticized the Integrated Model. On May 5 and May 6, 2020, Texas and the United States disclosed additional expert reports criticizing the Integrated Model.
6. Following disclosure of version 106 of the Integrated model, New Mexico adjusted certain simulation processes, recalibrated the Integrated Model, updated the results for the scenarios simulated with the prior version of the model, and simulated additional scenarios,

Second Declaration of Gregory K. Sullivan, P.E. ISO Motion to Strike

in part in response to the plaintiffs' criticisms. This updated version of the Integrated Model, designated as version 111, was disclosed to the other parties on July 15, 2020. While version 111 of the Integrated Model contains improvements and is superior to version 106, the changes from versions 106 to 111 are not so significant as to invalidate prior analyses by the plaintiffs' experts of the Integrated Model, or the understanding of the Integrated Model the plaintiffs' experts gleaned from their review of version 106. Versions 106 and 111 of the Integrated Model have the same general design, inputs, and functionality, the results produced by the two versions are similar. The documentation submitted with version 111 of the Integrated Model clearly identified the changes to version 106. The differences between version 111 and version 106 of the Integrated Model, including differences in model output, did not cause me to alter any of my previously disclosed opinions.

7. After New Mexico disclosed version 111 of the Integrated Model, I discovered that one of the rules (equations), in the Integrated Model was producing inconsistent results in some alternative model scenarios. New Mexico's experts subsequently revised this rule and made several other minor changes, and disclosed a corrected version of the Integrated Model, designated as version 116, on September 15, 2020. The documentation submitted with version 116 clearly identified the changes to version 111. The differences between version 116 and version 111 of the Integrated Model, including differences in model output, did not cause me to alter any of my previously disclosed opinions. Although the changes in version 116 required New Mexico to re-run the model scenarios to generate updated model results, the output from version 116 of the Integrated Model is similar to the output from version 111.
8. Version 116 of the Integrated Model is the most up-to-date version of the Integrated Model and produces the most accurate results. However, version 116 of the Integrated Model is not vastly different from versions 111 and 106. The various versions of the model have the same general design, inputs, and functionality, and generate similar outputs. None of the changes from versions 111 to 116, or from versions 106 to 116, are substantial enough to substantively invalidate analyses by the plaintiffs' experts of the Integrated Model that were performed using previously disclosed versions of the model.

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

Executed on April 6, 2021.



Gregory K. Sullivan, P.E.