

EXHIBIT D

DECLARATION OF MICHAEL R. THORNHILL

Pursuant to 28 U.S.C. § 1746, I, Michael R. Thornhill, declare as follows:

1. My name is Michael R. Thornhill. I am over the age of 21, am competent to make this affidavit and have personal knowledge of the statements contained herein and that they are both true and correct. The opinions expressed herein are based on my education, knowledge, and experience. My opinions herein are expressed to a reasonable degree of scientific certainty and probability. I submit this Declaration in support of Plaintiff's Motion for Summary Judgment.

2. I am a licensed professional geoscientist (geology) in the State of Texas. Since March of 2025 I have been CEO of Legacy Groundwater, LLC, into which my previous company and entire staff were integrated. Prior to the formation of Legacy Groundwater, I was the President of Thornhill Group, Inc. (TGI), a professional hydrogeology and water resources specialty firm that I established and headed for 27 years. Through TGI and Legacy Groundwater, I continue to specialize in conducting studies and investigations involving groundwater resource assessment and rights evaluations. I have been a practicing hydrogeologist in the water resource consulting business in Texas for more than 36 years.

3. I have a Bachelor of Science degree in Geology and a Master of Science degree in Geology from Oklahoma State University. My graduate work focused on specializing in hydrogeology. I am registered with the Texas Board of Professional Geoscientists (TBPG), license No. 858, and am certified by the American Institute of Professional Geologists (AIPG), CPG No. 9545.

4. Through my consulting practice, I have represented numerous private, commercial, and governmental entities, providing various planning, design, analysis, and valuation services for a wide range of groundwater projects. I have conducted and supervised investigations for

developing large groundwater supplies ranging from less than five (5) million gallons per day (MGD) to more than 100 MGD, provided groundwater resource assessments for litigation, assisted numerous project engineers in well and wellfield design, and have directed projects involving well evaluation and rehabilitation. In addition, I have conducted or directed well-siting and wellfield construction and installation projects for more than 80 public water supply wells, including wells supplying brackish water to desalination plants. My clients include municipalities, law firms, mines and quarries, municipal utility districts, engineering firms, developers, industries, bottled water companies, groundwater conservation districts, water marketers, and private landowners.

5. I have extensive experience with water-related projects and issues in the Carrizo-Wilcox Aquifer, and particularly the Simsboro Aquifer, within the Brazos Valley Groundwater Conservation District (BVGCD or the District), and within Groundwater Management Area 12 (GMA 12) and other groundwater conservation districts within GMA 12. These consulting assignments include the following:

- a. From 1989 through 1997 and while being employed as a consulting hydrogeologist for R.W. Harden & Associates, Inc. (RWH&A), I conducted and participated in well design, well completion, aquifer testing, monitoring, and modeling in order to permit, implement, and assess depressurization of the Simsboro Aquifer at the Aluminum Company of America (ALCOA) Sandow Mine in Milam County. Similarly, while at RWH&A and during the 1990 to 1997 timeframe, I designed and supervised field investigations, well completion, and monitoring programs for the Walnut Creek Mining Company (WCMC) Calvert Mine in Robertson County, Texas. I also conducted groundwater flow modeling and prepared subsequent reports, including reports summarizing hydrogeologic conditions and probable hydrologic impacts

related to mining operations and groundwater pumping as required for Railroad Commission of Texas (RRC) permit submittals.

- b. From 1999 until the present, TGI (and Legacy Groundwater) has represented GateHouse Water, LLC. (and predecessor owners including Water Texas, Sustainable Water Resources (SWR), and the Forestar Group, Inc.) in conducting hydrogeologic studies and acquiring permits from the Lost Pines Groundwater Conservation District (LPGCD) to produce up to 45,000 acre-feet per year from the Simsboro Aquifer from 10 wells to be completed within Lee County, Texas. Later, Forestar agreed to a lesser amount of pumping (28,500 acre-feet per year) and GateHouse recently agreed to a permit amount of 18,500 acre-feet per year. TGI assisted project engineers in designing the 10 wells and obtaining approval to construct the first three (3) wells from the Texas Commission on Environmental Quality (TCEQ). TGI provided comprehensive field services including inspecting the completion to date of three (3) large-capacity wells with permitted pumping rates of up to 3,500 gallon per minute (GPM). TGI conducted aquifer (i.e., pumping) tests on the three (3) wells with testing rates ranging from 2,500 to 5,000 gpm. Additionally, TGI performed analytical and numerical modeling for the project, and represented GateHouse in desired future conditions (DFC) matters before GMA 12.
- c. From approximately 2000 until the present, TGI and Legacy Groundwater have represented the WCMC and its mining operations located in Robertson County. Our firm, under my direct supervision and leadership, has conducted hydrogeologic studies, groundwater modeling, well design and well-field placement studies, and drilling and well completion inspection to assist WCMC in acquiring RRC permits to

depressurize the Simsboro Aquifer to allow for maintaining safe and efficient mining operations. Subsequently, TGI has prepared all sections of RRC permit applications pertaining to the geologic setting, groundwater conditions, and probable hydrologic impacts related to the mining operations including groundwater pumping. Of course, future permitting will be conducted and submitted via Legacy Groundwater.

- d. From 2003 to 2023, TGI represented End Op, LP (more recently owned by Recharge Water, LP) in conducting hydrogeologic studies and permit hearings before the LPGCD and in subsequent hearings before the State Office of Administrative Hearings (SOAH) to acquire permits from the LPGCD to produce up to 46,000 acre-feet per year from the Simsboro Aquifer from wells to be completed in Bastrop and Lee counties, Texas. Additionally, I provided expert witness services and testimony (on behalf of Recharge Water) in another permit hearing before SOAH in which Recharge Water had party status. TGI assisted project engineers in the design and inspected the completion of an initial large-capacity pilot production well which was tested at an average pumping rate of 1,926 GPM during a 23-day aquifer test designed and conducted by TGI. Additionally, TGI performed analytical and numerical groundwater modeling, and represented End Op in DFC matters before GMA 12.
- e. TGI completed in 2005 a study and report entitled *Evaluation of Aquifers within Fayette County Groundwater Conservation District Boundaries*, prepared for the Fayette County Groundwater Conservation District (FCGCD) which is within GMA 12, and the study included the Carrizo Aquifer (part of the Carrizo-Wilcox Aquifer) and several overlying aquifers.

- f. From 2006 through 2023, TGI represented Dr. Clifford Skiles in permitting matters before the BVGCD, including studies and testimony to assist in securing permits to pump more than 20,000 acre-feet per year from the Simsboro Aquifer additional to previous permits Dr. Skiles had obtained for existing Simsboro Aquifer irrigation wells.
- g. Since 2021, TGI (and as Legacy Groundwater) has represented UW Brazos Valley Farm, LLC in the acquisition of groundwater through both purchases and leases of groundwater rights in Robertson County, Texas. TGI assisted UW Brazos Valley Farms, LLC in obtaining drilling and production permits totaling 49,999 acre-feet per year from the Brazos Valley Farms properties. Additionally, TGI assisted UW Brazos Valley Farm, LLC in securing a transport permit to move 49,999 acre-feet per year of groundwater out of the BVGCD. TGI (and Legacy Groundwater) also assisted numerous private landowners in successfully obtaining drilling and production permits to produce their groundwater. With the Upwell permits, TGI conducted all hydrogeologic studies and assisted with permit application submittals that were successfully granted by BVGCD to produce a combined (rounded to the nearest one thousand) 182,000 acre-feet per year of groundwater from the Simsboro Aquifer within Robertson County. Legacy Groundwater continues to provide hydrogeologic and expert services to Upwell and other permit holders within the BVGCD. Through this work and other previous work within BVGCD, I am knowledgeable and familiar with the amounts of groundwater production subject to such leases and purchases as well as the market for groundwater in areas including Austin, Round Rock, Georgetown, Taylor, Hutto, and other locations.

- h. I am also knowledgeable and familiar with the economics of drilling public water system (PWS) and large-capacity irrigation and industrial wells into the Simsboro Aquifer within Robertson and Brazos counties, and I am familiar with the amount of groundwater production needed from a well and well fields to make drilling and equipping the well(s) economically practicable.
 - i. I am also knowledgeable and familiar with the value of groundwater rights in Robertson and Brazos Counties as well as other areas within GMA 12.
 - j. Through all of my experience dealing with the Brazos Valley region over the past 34 years, I have extensive knowledge of the BVGCD area, particularly with regard to hydrogeologic and aquifer conditions within the District and GMA 12, aquifer productivity and well hydraulics, the amount of groundwater in aquifer storage, aquifer responses to well pumping, groundwater movement and drainage, groundwater budgets and balances, water quality, well design, pumping conditions, costs, and economics of pumping groundwater and producing groundwater supplies. I am also well-versed with the BVGCD Rules and Management Plan, desired future conditions (DFCs), value of groundwater, and groundwater conditions with respect to property rights and fair share for groundwater owners.
6. I am knowledgeable and familiar with the BVGCD Rules, both before and after September 14, 2023, and particularly the Rules relating to spacing of wells and production limitations of wells, which can also be expressed as a property requirement associated with a well allocation. Specifically, I am knowledgeable and familiar with BVGCD Rules 6.1 and 7.1 as they existed prior to September 14, 2023 (Old Rule 6.1 and Rule 7.1). Under Old Rule 6.1(b)(1), a new well could be spaced no closer to the property line (of the tract assigned to the well) than one-half (1/2) foot per

GPM of average annual pumping rate, while Old Rule 6.1(b)(2) required that no existing permitted or registered wells completed in the same aquifer could be within a circle around the new well as defined by one (1) foot per GPM of average annual pumping rate. By definition, exceptions allowed in the Rules, and allowing for common sense, Old Rule 6.1(b)(2) indicates that the circle defined by one (1) foot per GPM would extend off the property assigned to the well. Under New Rule 6.1(b)(1), a new well can be placed no closer to the property line than a spacing defined by one (1) foot per GPM of annual average pumping rate. The requirement of New Rule 6.1(b)(2), which became effective on September 14, 2023, is that all new wells drilled in the District and completed into the Simsboro Aquifer must be surrounded by two (2) feet of land per one GPM of average annual production rate or capacity.

Under Rule 7.1, a new well’s groundwater production:

. . . [I]s limited by the number of contiguous acres that are legally assigned to the well site. The contiguous acreage assigned to the well bears a reasonable reflection of the cone of depression impact near the pumped well, as based on the best available science and the required production based acreage. The assigned contiguous acreage will be a circle based on the amount of groundwater production determined by the following formula:

$$\left(\frac{\text{Average Annual Production Rate in Gallons/Minute} \times \text{District Spacing Requirement Between Wells}}{\text{District Spacing Requirement Between Wells}} \right)^2 \times \pi = \text{Total number of contiguous acres required to be assigned to the well site}$$

43,560

Per Rule 7.1(c), the “District Spacing Requirement Between Wells” variable in the above formula is the plug-in number from Rule 6.1(b)—one (1) foot of land under Old Rule 6.1(b) and two (2) feet of land under New Rule 6.1(b). Again, the original intent of Rule 6.1(b) was to establish spacing between wells that are not on the same property; however, the BVGCD’s current interpretation is that the radius defined by Rule 6.1(b) cannot extend past the property boundary of the tract of land assigned to the new well.

7. Implementing Old Rule 7.1(c) and using the “District Spacing Requirement Between Wells” under Old Rule 6.1, a landowner had to own or control enough contiguous property to allow for a circle of land around the wellbore with a radius of one (1) foot per GPM of average annual pumping rate. Thus, if a landowner had an allocation equivalent to an annual average production rate of 3,000 GPM well, under Old Rule 6.1(b), the landowner had to own or control at least enough land around the wellbore for a circle with a radius of 3,000 feet—or an area of 649 acres. As such, a circular section of land (640 acres) could effectively support a well that can produce an average of right at 3,000 GPM. Applying Rule 7.1(c) under New Rule 6.1, requiring two (2) feet per gallon per minute, the result of the Rule 7.1 formula is that the landowner now must own or control four (4) times as much property to support the same production amount: it now requires 2,596 acres to support a well producing 3,000 GPM. Put differently, a landowner can now produce 25 percent as much groundwater under New Rule 6.1 than under Old Rule 6.1 from the same amount of property.

8. In my experience and for the depths necessary in the most productive areas of the Simsboro Aquifer, the minimum well size to be economically viable will accommodate a pump that could pump at least 700 GPM (although a preferred well capacity would be at least 1,000 GPM). Under Old Rule 6.1, a landowner with circular property of at least 35 acres could produce 700 GPM. Under New Rule 6.1, as applied through the formula in Rule 7.1, a landowner now must have 141 acres to support a 700 GPM well. This effectively means that the landowner’s groundwater rights have been reduced by 75 percent.

9. Individuals or companies that are putting groundwater projects together to meet the needs of Austin, Round Rock, Georgetown, Taylor, Hutto or other cities or industries (such as the Samsung microchip factory near the City of Taylor in Williamson County) must be able to lease or purchase groundwater rights sufficient to meet needs while still having economically viable wells. In

my experience, project developers likely have little to no interest in leasing or purchasing groundwater rights in tracts less than 35 acres under the Old Rules, or less than 140 acres under the New Rules. Because municipal and industrial uses are the highest and best uses for groundwater in this geographic area, the New Rules effectively remove tracts of less than 140 acres from that specific market. Even considerably larger tracts may be eliminated from consideration if the contiguous acreage assigned to a well is on a property with non-regular shape. In terms of economics, project developers prefer wells that can produce 1,500 GPM or more, which the Simsboro Aquifer will support across most of Robertson County and a large part of northern Brazos County.

10. Further, the New Rules deprive landowners of a fair opportunity to produce a fair share of the groundwater beneath their land. This is true because the New Rules restrict an owner of groundwater in the Simsboro aquifer to 25% of the water he could have produced under the Old Rule. At the same time, groundwater owners who have pre-September 14, 2023 permits can produce at least at the “old” rates, which means they can produce several times as much water assuming equivalent or nearly equivalent property sizes. The New Rules constrain new permit holders from being able to receive the same amount of water as old permit holders (again with equivalent property sizes), even though the Simsboro aquifer itself is generally homogeneous across the District.

11. The Simsboro Aquifer is under artesian or confined conditions across most of Robertson and Brazos counties. Therefore, pumping water from a well in the Simsboro Aquifer lowers the pressure in the well casing and creates a low-pressure area that extends outward from the well bore in the shape of an inverted cone. This “cone of depression” continues to extend outward as the well is pumped over time. The magnitude of drawdown is directly proportional to the pumping rate. If neighboring owners are not allowed to pump groundwater at the same rate, then the unequal cones of depression result in drainage (*i.e.*, induced flow) from one tract to the next.

12. Attachment 1 illustrates how a cone of depression behaves if there is no competing production from a well within its area of impact. Because there is no production to affect the cone of depression, it will propagate onto and past other properties in a fairly short period of time, depending on distance. Attachment 2 illustrates the effect of countervailing pumping at the same rate as between wells. Here, the cones of depression intersect at a point between the two wells and basically exclude one another from propagating further onto each of the respective properties.

13. If Plaintiff could produce the amount of water available under the Old Rules, it would be able to deflect (exclude) competing cones of depression from other wells more effectively than it can under the present situation under the New Rules. The New Rules prevent Plaintiff from excluding the cones of depression from other competing production. This means that water is being drawn away from Plaintiff's property due to its inability to prevent drainage. In my professional opinion, Plaintiff's property is being subjected to drainage because of the fact that Plaintiff cannot produce groundwater at the same rates as groundwater owners who have pre-September 14, 2023 permits.

I declare under penalty of perjury that this declaration is true and correct to the best of my knowledge.

Date: April 10, 2026

/s/ Michael R. Thornhill
Michael R. Thornhill